Maryland’s Immunization Registry

User Manual

Version 12.0.0

Last Modified July 27, 2020

Contents

Introduction

In this chapter:

The following sections are an overview of immunization registries reproduced with the permission of All Kids Count, a nonprofit organization dedicated to the improvement of immunization rates in children.

What Are Immunization Registries?

Immunization registries are confidential, computerized state- or community-based information systems. In the Healthy People 2010 program, the U.S. Department of Health and Human Services set a goal of enrolling 95% of children from birth through age five in a fully functioning immunization registry, noting "Population-based immunization registries will be a cornerstone of the nation's immunization system by 2010."

Registries enable public and private health care providers to consolidate and maintain computerized immunization records on all children within a given geographic area. They enable multiple authorized health care professionals to access the consolidated information on the immunizations that any child has received. They help doctors remind parents when their children are due or overdue for immunizations. They help health care professionals stay abreast of the complex immunization schedule.

Why We Need Immunization Registries:

The U.S. now enjoys the highest immunization rates and lowest disease levels ever, but sustaining them is not easy. One of the greatest challenges is the growing complexity and volume of immunization information:

- Over 11,000 children are born each day, each needing 18-22 shots by age six to protect them from debilitating, life-threatening diseases.
- An increasingly complex childhood immunization schedule makes it difficult for health professionals to keep up, even with the help of books, charts, and training.
- Families are more mobile than ever before. They relocate, change employers, change insurers, and change doctors with increasing frequency.
- Research shows that many parents whose children are not up to date with their immunizations mistakenly believe that they are. Many doctors also overestimate the coverage of their patients.
- Because of increasing concerns about vaccine safety, some parents, in the absence of disease, may not choose to immunize their children. Better data about the immunizations given can help address these concerns.

Immunization registries help to avoid the "peaks and valleys" of disease outbreaks by providing accurate, up-to-date information about the immunizations that children receive.

Maryland Immunization Registry

The Center for Immunization is proud to offer ImmuNet to Maryland Immunization Providers. To date, ImmuNet contains over 1,000,000 patient records and 7,000,000 immunizations. Currently used in 217 offices, ImmuNet is proving helpful in doing more than just tracking children in need of vaccination.

ImmuNet:

- Assists in vaccine management;
- Prints a completed school immunization certificate;
- Consolidates immunization records; and
- Provides offices with the capability to print reminders.

Are you ready to sign up?

Contact our office via phone or email and we will promptly send you an enrollment packet. Once the packet is complete and submitted, you will be contacted about training. During our current enrollment period, trainings can be provided onsite at your office at a time that is convenient to you.

Need a little more information?

If you are a Vaccine for Children (VFC) provider, your Consultant can provide you with some basic information about ImmuNet. If you have access to the Internet, check us out at www.mdimmunet.org

Looking forward to working with you!

Center for Immunization
201 W. Preston Street
Suite 319
Baltimore, MD 21201
email: mdh.izinfo@maryland.gov

VFC program
email: mdh.izinfo@maryland.gov
website: marylandvfc.org

System Requirements

In this chapter:

Internet Access
Hardware Requirements
Software Requirements

Internet Access

Since ImmuNet is a web-based application, you will need reliable internet access, preferably with a dedicated high speed connection, to access ImmuNet System. A modem connection will also work, but is not recommended.

Hardware Requirements

- The following are minimum hardware requirements for accessing ImmuNet:
- Pentium 500 MHz computer.
- 64 MB RAM.
- 500 MB free disk space.
- Screen display set at a minimum of 800 x 600 resolution and 256 colors.
- Mouse and keyboard.

Software Requirements

- Internet Browser software:
- Microsoft® Internet Explorer, version 7.0 or higher.
- Netscape® version 7.x is compatible for use with ImmuNet.
- Windows® 98 and all subsequent Windows® versions.
- Adobe Acrobat Reader® 6.0 or higher.
- **For networked computers, TCP/IP Port 543 of the network firewall must be open for outgoing HTTPS (secure HTTP) connections to access the ImmuNet production application**.

Notes: TCP/IP Port 743 of the network firewall must be open to access the ImmuNet training application.

Accessing **ImmuNet**

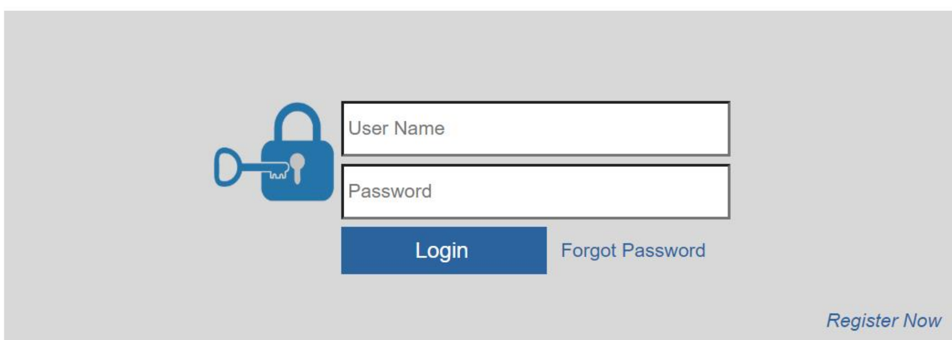
In this chapter:

Opening ImmuNet

To access the ImmuNet Web site, do the following:

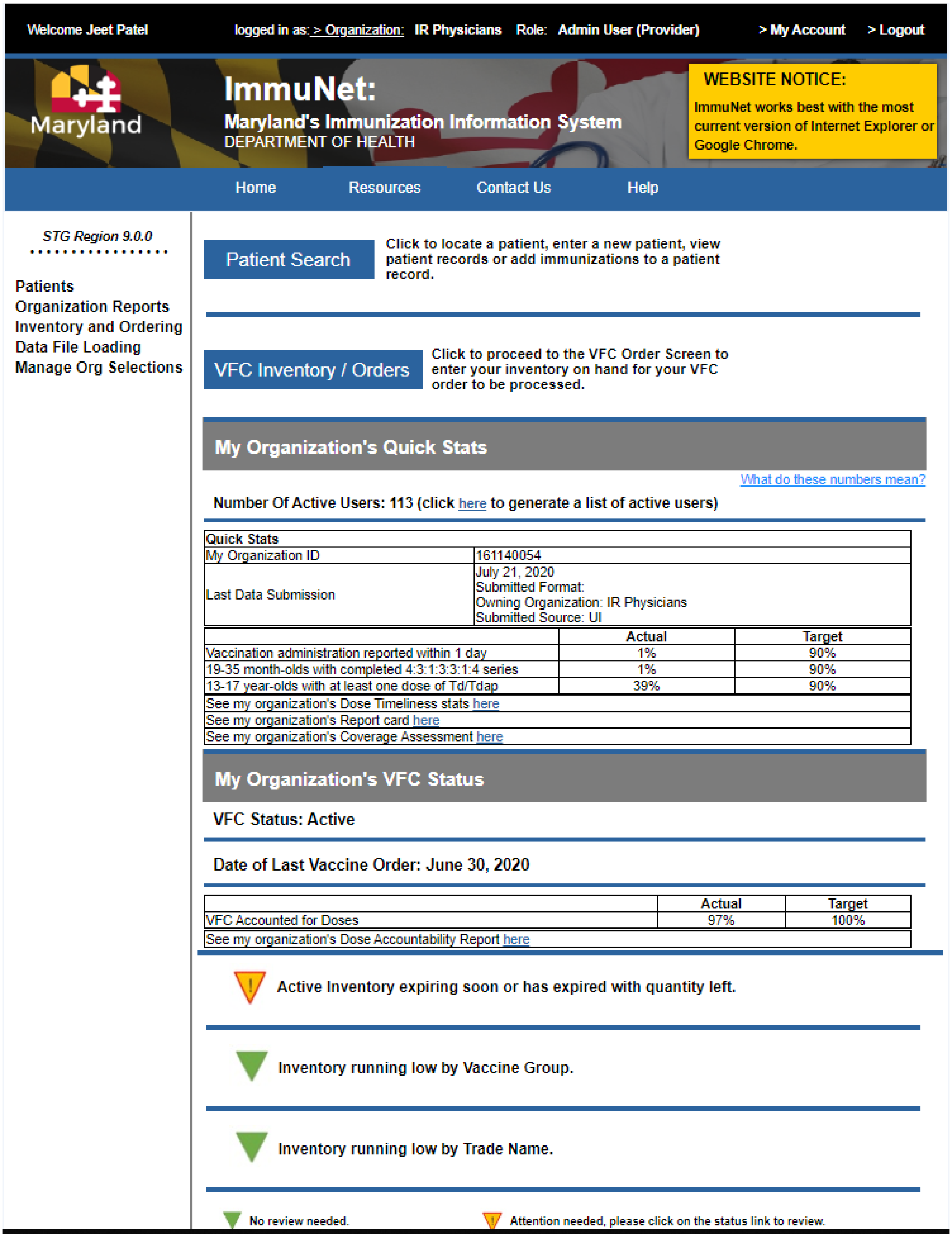
1. Open your Internet browser. To open your browser, locate the browser icon on your computer's desktop (screen with program icons). For example, the browser icon for Google Chrome looks like this the browser icon for Microsoft® Internet Explorer looks like this: Once you have located the icon, double click on it with your left mouse button.

2. Type in the URL for the Maryland ImmuNet Site: https://www.mdimmunet.org/prd-IR/portalInfoManager.do in the address bar at the top of the browser, or you can select File and Open.



- ImmuNet Login Page will display. Enter your User Name and Password and select Login button.
- User accounts set up with access to one organization will be taken to the ImmuNet Home page shown below.
- New users select "Register Now" link.

3. After selecting the Login button, the ImmuNet Home page will display. The links available will vary and are dependent by your access and user role.


Welcome Jeet Patel
logged in as: > Organization: IR Physicians Role: Admin User (Provider)
> My Account
> Logout
Maryland
ImmuNet:
Maryland's Immunization Information System
DEPARTMENT OF HEALTH
WEBSITE NOTICE:
ImmuNet works best with the most current version of Internet Explorer or Google Chrome.
Home
Resources
Contact Us
Help
STG Region 9.0.0
Patients
Organization Reports
Inventory and Ordering
Data File Loading
Manage Org Selections
Patient Search
Click to locate a patient, enter a new patient, view patient records or add immunizations to a patient record.
VFC Inventory / Orders
Click to proceed to the VFC Order Screen to enter your inventory on hand for your VFC order to be processed.
My Organization's Quick Stats
What do these numbers mean?
Number Of Active Users: 113 (click here to generate a list of active users)
Quick Stats
My Organization ID 161140054
Last Data Submission July 21, 2020
Submitted Format:
Owning Organization: IR Physicians
Submitted Source: UI
Actual Target
Vaccination administration reported within 1 day 1% 90%
19-35 month-olds with completed 4:3:1:3:3:1:4 series 1% 90%
13-17 year-olds with at least one dose of Td/Tdap 39% 90%
See my organization's Dose Timeliness stats here
See my organization's Report card here
See my organization's Coverage Assessment here
My Organization's VFC Status
VFC Status: Active
Date of Last Vaccine Order: June 30, 2020
Actual Target
VFC Accounted for Doses 97% 100%
See my organization's Dose Accountability Report here
Active Inventory expiring soon or has expired with quantity left.
Inventory running low by Vaccine Group.
Inventory running low by Trade Name.
No review needed.
Attention needed, please click on the status link to review.

Optimizing ImmuNet

In this chapter:

Optimizing Browser Performance
Running Reports with Adobe Acrobat® Reader
Efficient Screen Navigation

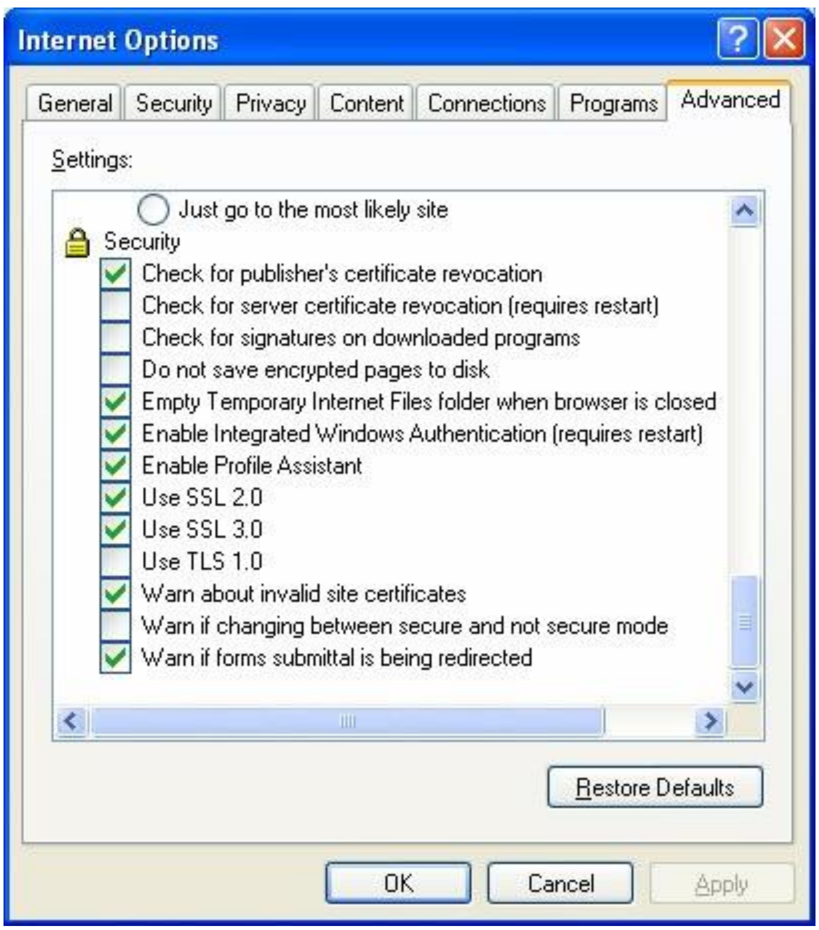
Optimizing Browser Performance

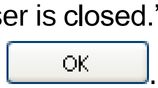
Unless instructed to do otherwise, your browser will automatically save a copy of each new web page you visit to your computer's hard drive. Over time, these saved files can slow down your browser's performance. To avoid this problem, you may set your browser to automatically delete the temporary Internet files each time the browser is closed.

Deleting Temporary Internet Files (Internet Explorer 6.0)

To automatically delete all temporary Internet files each time Internet Explorer is closed, follow these steps:

1. Click on Tools on your browser's menu bar.
2. Choose Internet Options.
3. Click on the Advanced tab.



4. Scroll down the list until you see the Security heading.
5. Put a check mark next to the command, "Empty Temporary Internet Files folder when browser is closed."
6. Press 

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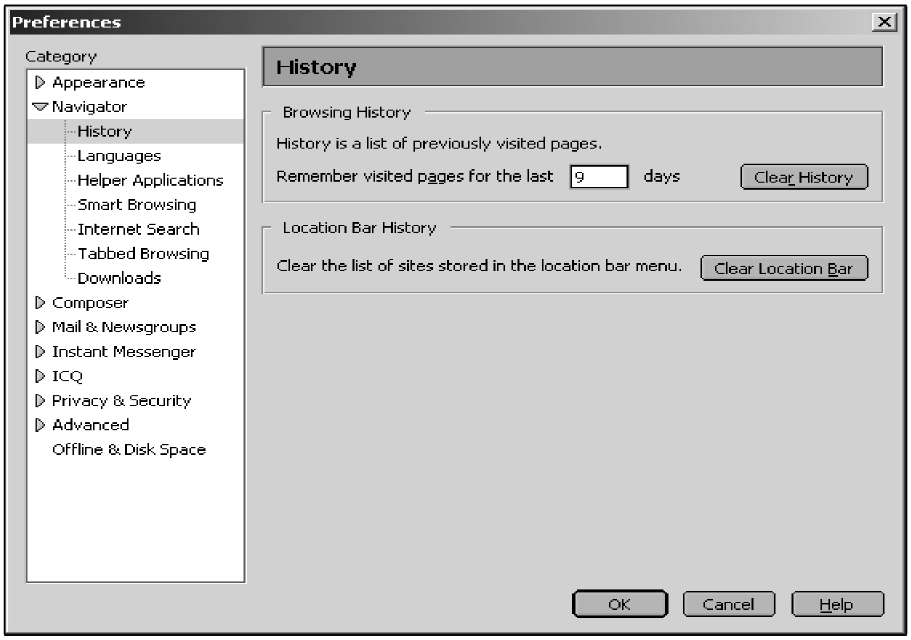
Clearing History Files (Netscape® 6.0)

1. Click Edit and choose Preferences.
2. Under the Navigator category, choose History (if no options are visible in this category, click the arrow to expand the list).



3. Press Clear History and/or Clear Location Bar to remove all previously visited Web pages from the lists.
4. To limit how long pages remain in the History list, click the field next to “Pages in history expire after:” and type in a number of days.
5. Press OK.

Operating in Full-Screen Mode (Internet Explorer)

To view most elements of ImmuNet with a minimal amount of scrolling, set your browser to full screen mode by pressing F11 on your keyboard. This mode gives you minimal browser commands and maximum viewing area for ImmuNet screens. To return to normal screen mode, press F11 again.

Running Reports with Adobe Acrobat Reader®

ImmuNet uses at a minimum Adobe Acrobat Reader® 6.0 to display reports in portable document file (PDF) format. This format allows you to print reports exactly as they appear online.

Running Acrobat Reader® Files

The first time a report is displayed using Acrobat Reader®, a window may appear asking whether you want to run the file or save the file to disk. Choose “Run the file” and “Do not display this message again.”

If you try to print a report in Acrobat® and find that some of the text is illegible, choose File, Preferences, and General on the Acrobat® menu bar. In the General Preferences dialog box, make sure the “Smooth Text and Images” box is checked.

Problems Running Reports in Acrobat®

If, while using Adobe Acrobat Reader® 6.0, you get a small icon resembling a Rubik’s cube and the report does not display, Acrobat Reader® needs to be opened in a separate window. To do this, follow these steps:

1. Press the Start button on the lower left corner of your computer screen.
2. Click on Programs.
3. Click on Adobe Acrobat® 6.0.
4. On the Acrobat Reader® menu bar, click on File.
5. Choose Preferences.
6. Choose General.
7. Under Options, uncheck Web Browser Integration.
8. Press OK.

Try to run your report again. If you continue to have problems, contact the ImmuNet Help Desk at (410) 767-6606.

File Transfer Protocol Server Access

When running reports and data downloads, ImmuNet queries a File Transfer Protocol (FTP) server to read the file. If your network has blocked FTP access for any reason or if FTP wasn’t installed with your browser, you will be unable to run reports or download data. Contact your information technology (IT) staff if you suspect your FTP access is blocked.

Efficient Screen Navigation

Microsoft® Windows® often allows users several ways to accomplish certain tasks. Because ImmuNet runs under Windows®, it also allows users to use these methods to enter data. Learning the shortcuts in this section will help you increase your efficiency when entering data in ImmuNet, particularly by reducing the number of times you will need to switch from keyboard to mouse. These shortcuts will work in almost all Microsoft® software, not just Internet Explorer.

Keyboard Shortcuts in ImmuNet

Shortcuts below that are marked with an asterisk (*) behave differently in Netscape® than they do in Internet Explorer. Read the explanation for the shortcut in question for more information.

Deleting data: When a field or a portion of a field is highlighted, typing something deletes the highlighted information and replaces it with the characters you typed. If you hit the Delete or Backspace key, the highlighted information is deleted. To place the cursor in a specific position within highlighted text, position the cursor where you want it and click the left mouse button once.

Tab*: The Tab key advances the cursor to the next field. Internet Explorer moves through the fields in the order specified by the web page. When the cursor reaches the last field, it advances back to the first field on the screen when Tab is pressed.

*In Netscape®, the Tab key moves the cursor from left to right, top to bottom, regardless of the tab order specified by the web page.

Shift+Tab*: Holding down the Shift key and pressing the Tab key will bring the cursor back to the previous field. In Internet Explorer, the cursor will go back to the previous field defined by the web page.

*In Netscape®, the cursor will go to the previous field as defined by the order described above.

Enter*: In most cases, the Enter key will complete entry of information on the current screen. Most screens have a default button that is activated when the Enter key is pressed — this button could be called Save, Submit, OK, etc.

*Netscape® does not recognize the Enter key.

←(Left Arrow): The left arrow key moves the cursor one character to the left.

→ (Right Arrow): The right arrow key moves the cursor one character to the right.

Ctrl+←: Holding down the Ctrl key and pressing the left arrow key moves the cursor one word to the left.

Ctrl+→: Holding down the Ctrl key and pressing the right arrow key moves the cursor one word to the right.

Ctrl+A: Holding down the Ctrl key and pressing the A key will select all the text in the current field.

Ctrl+C: Holding down the Ctrl key and pressing the C key will copy all highlighted text in the current field to the clipboard without changing the highlighted field.

Ctrl+V: Holding down the Ctrl key and pressing the V key will insert ("paste") the contents of the clipboard at the current cursor position.

Ctrl+X: Holding down the Ctrl key and pressing the X key will cut all highlighted text from the current field and place it on the clipboard.

Delete: The Delete key deletes the character to the right of the cursor. If the field is highlighted, all highlighted text is deleted.

Backspace: The Backspace key deletes the character to the left of the cursor. If the field is highlighted, all highlighted text is deleted.

Home: The Home key positions the cursor to the left of the first character in the field.

End: The End key positions the cursor to the right of the last character in the field.

Shift: Using the Shift key in conjunction with any key affecting cursor position will highlight all characters in the field between the starting cursor position and the ending cursor position. For example, if the cursor is at the end of a field and Shift+Home is typed, the cursor is repositioned to the left of the beginning of the field and the entire field is highlighted.

Ctrl: Using the Ctrl key in conjunction with any key affecting cursor position will move the cursor all the way to either end of the field, or the next space in the indicated direction. Using the Ctrl and Shift keys simultaneously not only moves the cursor, but also highlights all text in the field between the starting cursor position and the ending cursor position.

Space: When the cursor is at a check box, the Space bar toggles the check mark on and off.

Mouse Shortcuts in ImmuNet

Unless otherwise specified, mouse clicks refer to the left mouse button. Internet Explorer automatically positions the cursor in the field specified by the Web page; Netscape® does not. To position the cursor, click the mouse in the desired field.

Clicking in a field: Clicking in a field will place the cursor in that position.

Double clicking in a field: When a field contains one character string with no spaces, you may highlight the entire field by double clicking anywhere in the field. If the field contains words separated by spaces, double clicking highlights only the word at which the cursor is pointing.

Triple clicking in a field: When a field contains words separated by spaces, the entire field may be highlighted by triple clicking anywhere in the field.

Dragging the mouse: To highlight a field, hold down the left mouse button within a field and drag the mouse across the field.

Right clicking in a field: When you right click in a field, ImmuNet displays a pop-up menu with various options. If any items are grayed out, there is either no text currently selected or no text is currently on the clipboard. The pop-up menu, or toolbar options are as follows:

Undo: Selecting the Undo option reverses your last action. Undo may be repeated several times.

Cut: Selecting the Cut option deletes all highlighted text in the current field and places it on the clipboard.

Copy: Selecting the Copy option duplicates all highlighted text in the current field on to the clipboard without changing the highlighted field.

Paste: Selecting the Paste option inserts the contents of the clipboard into the current field.

Delete: Selecting the Delete option removes the highlighted text without placing it on the clipboard.

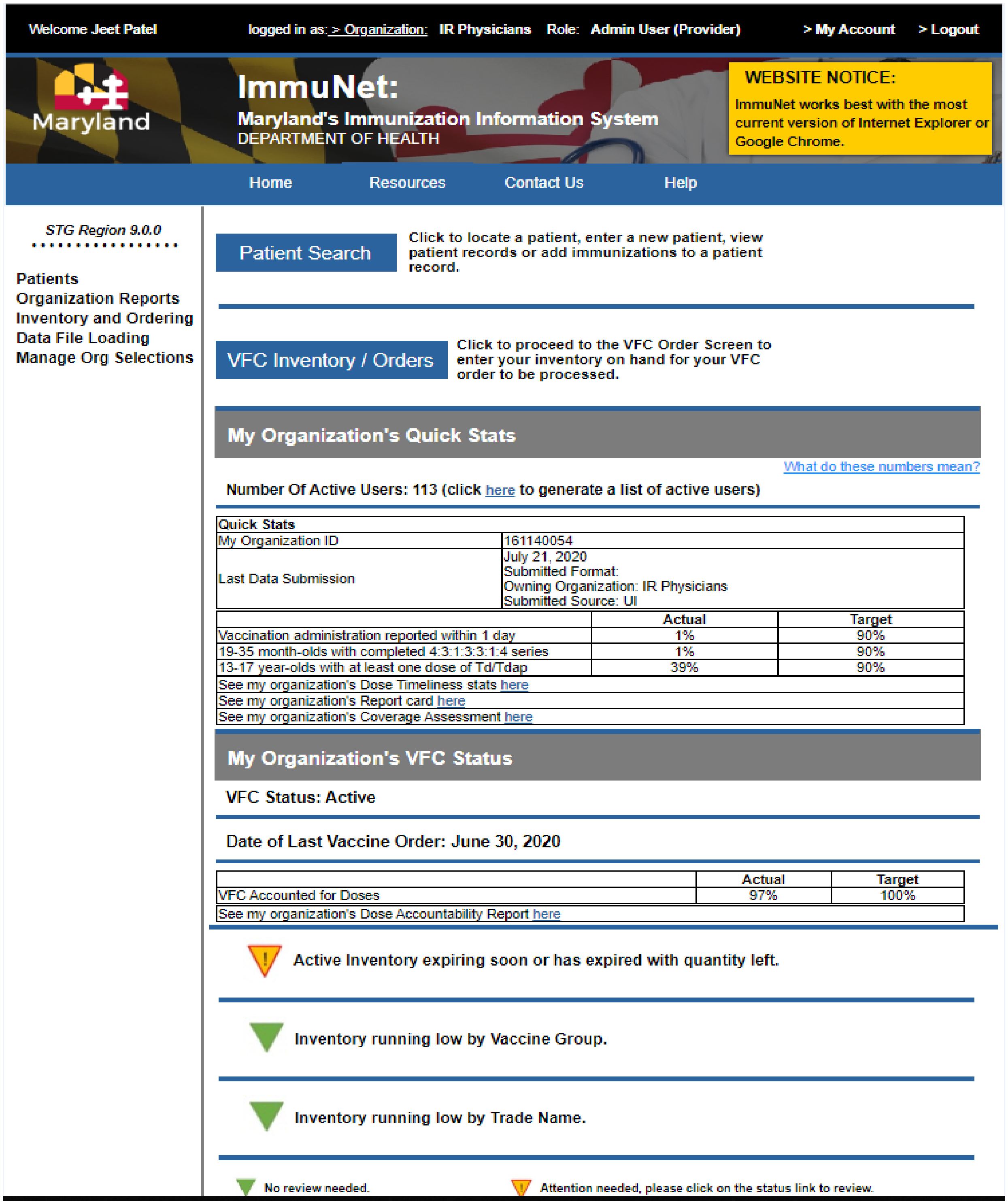
Select All: Selecting the Select All option highlights all text in the current field.

Home Page

In this chapter:

Menu Bar
Menu Panel
Announcements
Release Notes
Inventory Alerts

The home page of ImmuNet is divided into several sections.



Menu Bar

At the top of the screen the first row of information contains:

Welcome:	Your Name will appear next to Welcome
Organization:	The name of the organization you are logged in under.
Role:	The user role assigned to you within ImmuNet for your organization.

If any of this information is incorrect, contact your organization's ImmuNet administrative user. The Administrative User should refer to Managing Users and Organizations for instructions on revising organization and user information.

My Account:	Once in ImmuNet, you may access the Manage Access/Account Screen to switch organizations, manage users, or manage your own account depending you're your specific role that was assigned to you. To do this, select "My Account". For more information on the functions available on the Manage Access/Account Screen, refer to the Managing Users and Organizations and Managing My Account chapters of this manual.
Logout:	To Exit from ImmuNet application select the Logout link. You may also logout this way from any screen within ImmuNet.
WEBSITE NOTICE:	Helpful information will display in WEBSITE NOTICE box. To view Announcements select Click to View More… A list of dates and announcement links will display. Recent announcements that have not been view will have a "New" highlighted in yellow. Once you have viewed the announcement and return to home page, the new icon will disappear. In addition, Release Notes are found under the Announcements sections. This section contains information regarding new releases of ImmuNet and features included in the release.

These following menu options appear under the ImmuNet logo on every screen within ImmuNet. The options available are the following:

Home: Clicking this menu option will return you to the ImmuNet home page from anywhere in the application.

Resources: Clicking this menu option will provide user links to resources helpful to ImmuNet.

Contact Us: Clicking this menu option will supply contact information ImmuNet.

Help: Clicking this menu option will bring up page specific on-line help information.

Patient Search: Users can do a quick patient search by clicking the Patient Search button.

VFC Inventory/Order: Users can proceed to VFC order screen by clicking the VFC Inventory/Order button.

My Org Inventory Status: Users can view inventory status by clicking on inventory links.

Menu Panel

The menu panel is appears on the left of all screens within ImmuNet.

Menu Selections

These links, which include functions under Patients, Organization Reports, Inventory and Ordering, Data File Loading and others, are used to navigate the ImmuNet application. To perform a particular function in ImmuNet, click on the appropriate link under the Menu Panel. Your role will determine your access to these functions.

Managing Users and Organizations

In this chapter:

User Roles
Adding Users
Adding Multiple Users
Maintaining Users
Editing Organizations

The Manage Access function allows Administrative Users to add and update information on both users and their organization(s), which the administrative user has access.

Standard Users are able to update only their own user information using the Manage My Account function. See Managing My Account of this manual for more information on this function.

User Roles

ImmuNet is set up to accommodate a variety of user types. Each user will have access to certain features in the application based on the role that is assigned. The roles or levels of access for ImmuNet are hierarchical as follows:

1. **Administrative User:** This is the main contact for ImmuNet within the health care organization. The administrative user is responsible for the maintenance of all organization specific information, including users and clinicians. The administrative user is authorized to set up and maintain the ImmuNet Inventory Module for their organization. They also can access all the functions of the Standard User role described below.

2. **Standard User:** This is the primary user of ImmuNet. The standard user adds, edits, and finds patients, manages immunizations information, and generates both patient specific and organizational level reports. Examples of organizational level reports in ImmuNet include: reminder/recall reports, Comprehensive Clinic Assessment Software Application (CoCASA) extracts, Ad Hoc reports and immunization benchmark reports.

3. **Pharmacist User:** This role may be assigned to a pharmacist authorized to administer immunizations. This role provides access to similar functionality as a Standard User in ImmuNet.

4. **School User:** This role has read only access to view students in ImmuNet. For more information on School Users, refer to School Access.

5. **Reports Only User**: This role has read only access to view patient immunization histories and includes the capability to run reports. The Reports Only role is appropriate for individuals within an organization that do not need full access to ImmuNet.

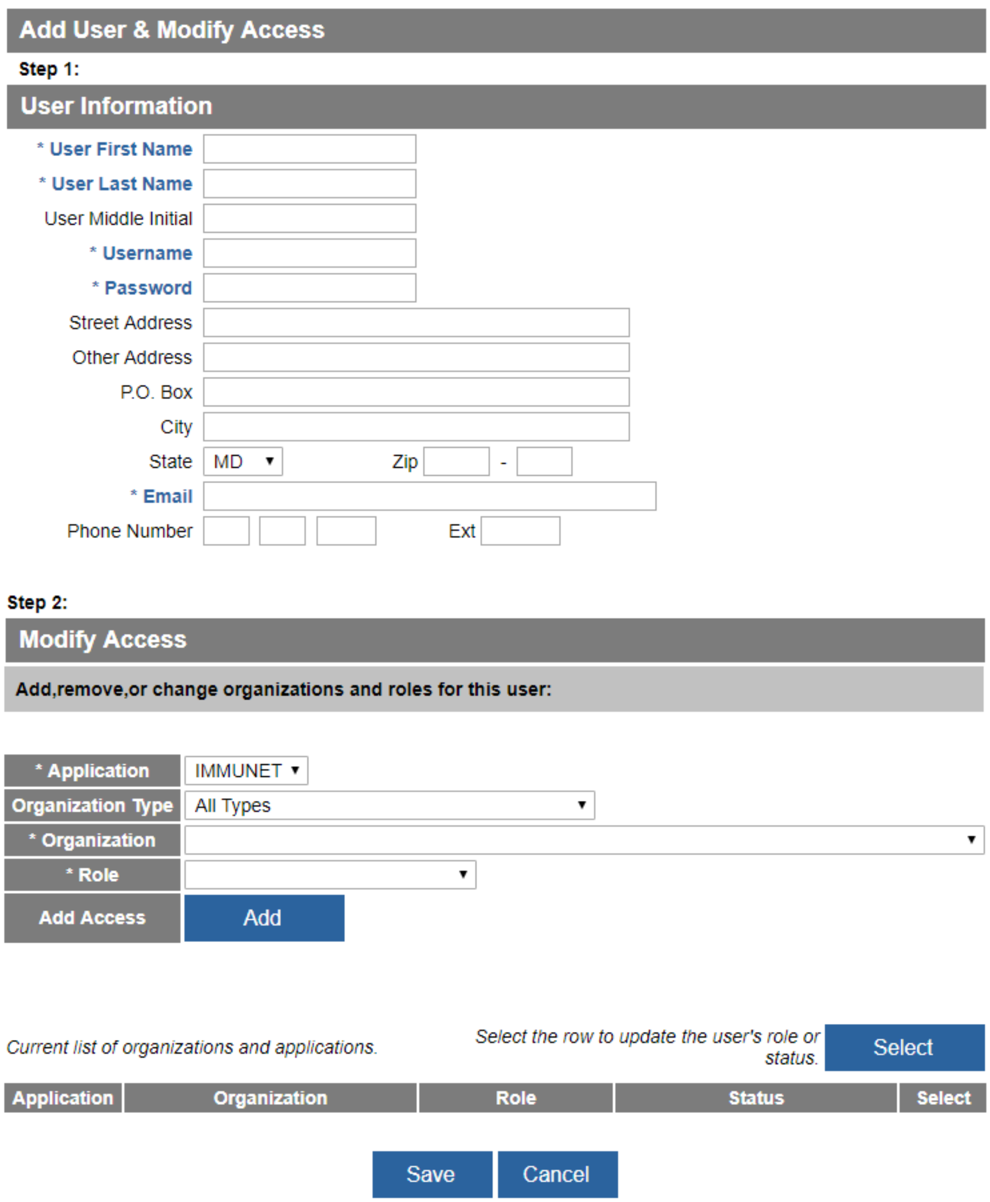
Note: Required fields have asterisks and display in blue text. For example, when entering information on the Add User screen, the user's first and last name are required: thus they have an asterisk and are shown in blue. Input fields not shown in blue are optional, although we strongly recommend that email address be included in every ImmuNet user account.

Adding Users

The Administrative User can add both Administrative and Standard Users to their organization.

To add a user to ImmuNet, follow these steps:

1. Access the Manage Access/Account page by clicking the **My Account** link at the top of the ImmuNet Home Page.
2. Under Manage Access, Click on **Add User** under the Manage Access section of the menu panel.
3. There are two steps to adding a new user. The information in *Blue are required fields



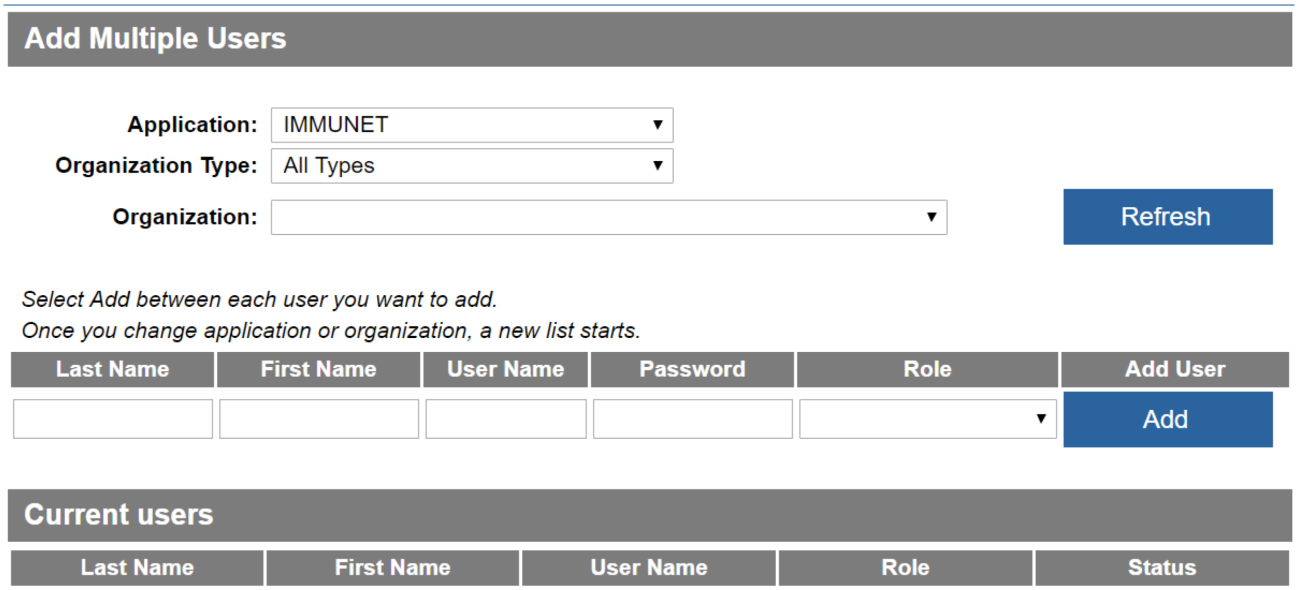
4. You must enter the user's First Name, Last Name, user name, password and Email.
5. Enter additional information if desired, such as the Street Address and work Telephone Number.
6. Step 2 User can select a specific Organization Type or just select the Organization name and Role from the dropdowns.
7. Select Add
8. The information will display under the list. The user must select save to continue.

Note: If you give a user access to more than one organization, he or she will need to select a specific organization to access upon logging in.

Adding Multiple Users

Administrative users also have the option of adding multiple standard users at once for their organization. This is the quickest way to set-up standard user accounts. To add multiple standard users, follow these steps:

1. Access the Manage Access/Account page by clicking the **My Account link** at the top of the ImmuNet Home Page.
2. Under Manage Access, Click on **Add Multiple Users** under the Manage Access section of the menu panel.



3. At the Add Multiple Users screen, select ImmuNet from Application drop down list and then select your organization's name from the Organization drop down list. If you do not see your organization's name in this field, please contact the ImmuNet Help Desk for assistance.
4. Next enter the last name, first name, user name, password and role for the user.
5. Press Add
6. Follow Steps 3 and 4 for each additional user;
7. When finished saving the last user, click on the ImmuNet link under the Application section of the menu panel to return to the ImmuNet home page.

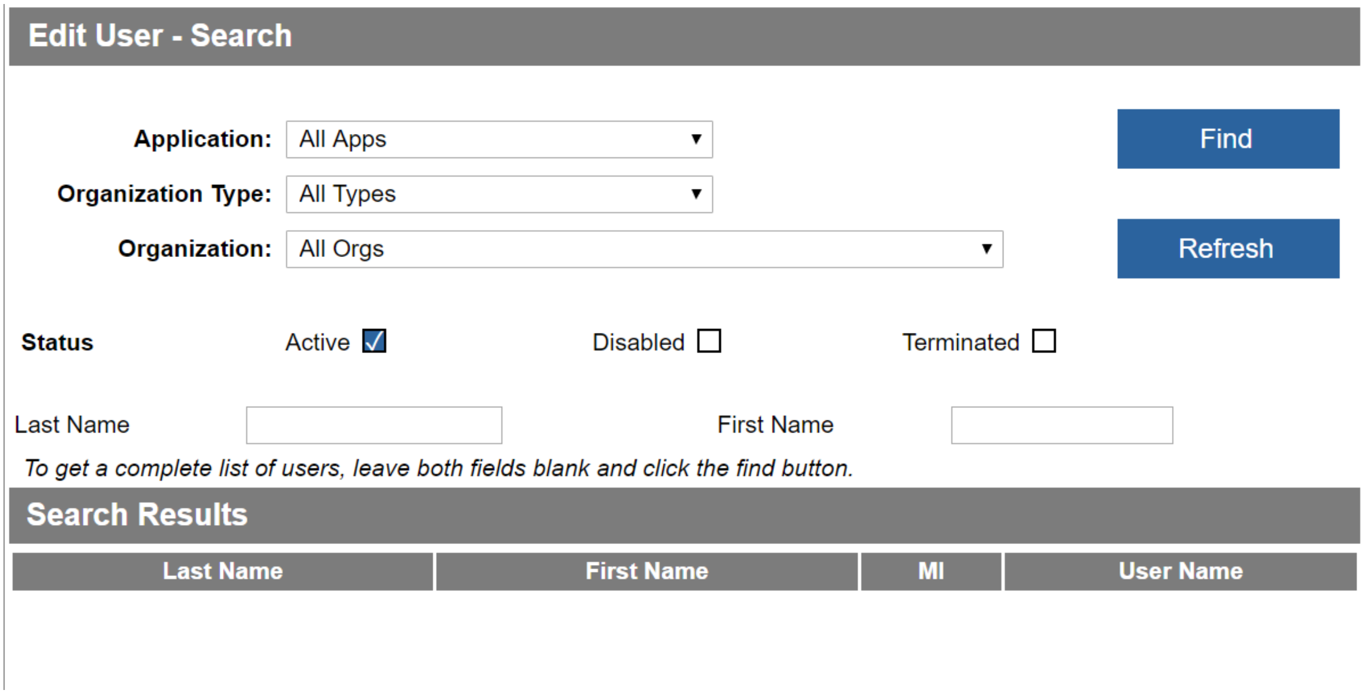
Maintaining Users

ImmuNet allows administrative users to edit user accounts for their organization(s). Administrative users must find the individual's user account in ImmuNet prior to editing their account information.

Finding Users

To find a user account within your organization, follow these steps:

1. Access the Manage Access/Account page by clicking the **My Account** link at the top of the ImmuNet Home page.
2. Click on **Edit User** under the **Manage Access** section of the menu panel.



3. At the **Edit User –Search** screen, select the user's organization from the Organization drop down list. If you are associated to only one organization, ImmuNet will default to your organization's name. If you are associated to multiple organizations, select the appropriate organization before moving on to Step 5.

4. Select the Status of the end user you are searching for in ImmuNet. The Status field will always default to Active. This means ImmuNet will only search and find active users for your organization. If you are searching for Disabled and Terminated user accounts, select the appropriate box before moving on to Step 6.

5. Enter the last and first name of the user for whom you are searching, or leave both fields blank to bring up a complete list of users associated to your organization.

6. Press Find Button

7. All names matching the search criteria will be listed under the Search Results portion of the screen. To display the Edit User screen for a specific user, click the user's last name.

Note: If a user has not accessed ImmuNet for 90 days or more, ImmuNet will automatically inactivate that user. To search for a user who has been inactivated, be sure to check the "Disabled" box on the search screen; this will bring up both disabled and inactivated users. You may then change the user's status to active on the Modify Access tab.

Editing Users

The Edit User function allows you to change any previously entered information about a user, including their status (active, disabled or terminated). To edit user information, follow these steps:

1. After completing Steps 1-8 outlined above in Finding Users, click on the user's last name to access their Edit User and Modify Access screen.

2. Press Save when you are finished updating the user's information.

Editing Organizations

Administrative Users may also edit their organization information by following these steps:

1. Access the Manage Access/Account page by clicking the **My Account** link at the top of the ImmuNet Home page.
2. Click on **Edit Organization** under the **Manage Access** section of the menu panel.
3. Select the organization you wish to edit by clicking on the underlined organization name. The organization with an asterisk before the name indicates the parent organization and will only display if the administrative user has access to it.
4. Enter the updated Organization information from the Edit Organization screen. The Org ID, Org Classification, Type, and Medicaid ID can only be updated by contacting the ImmuNet Helpdesk.
5. Press Save. The message "Organization Updated" will display at the top of the screen. For additional information regarding Editing Organizational Information, please contact the ImmuNet Help Desk.

Managing My Account

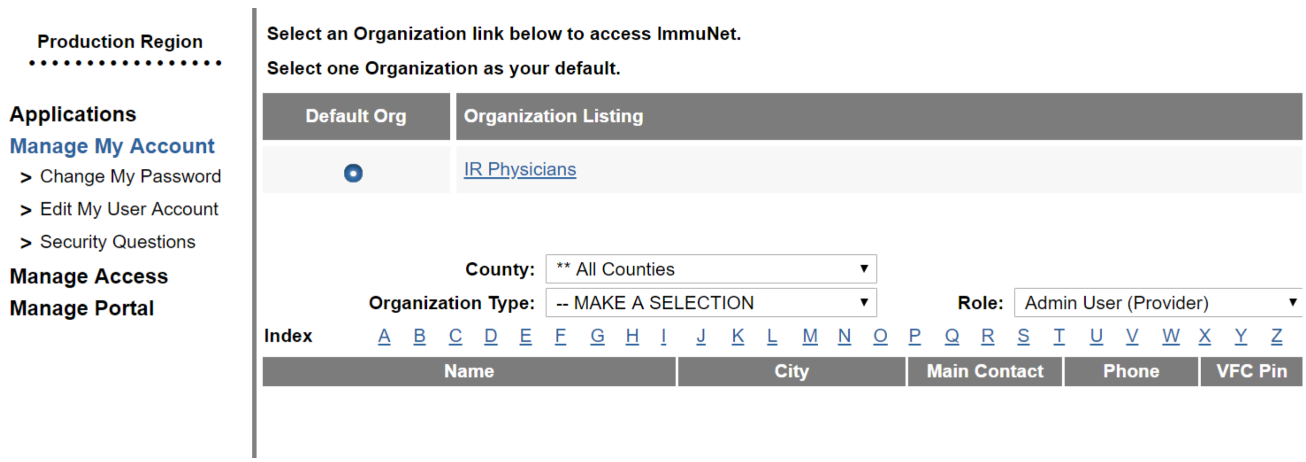
In this chapter:

Editing User Information

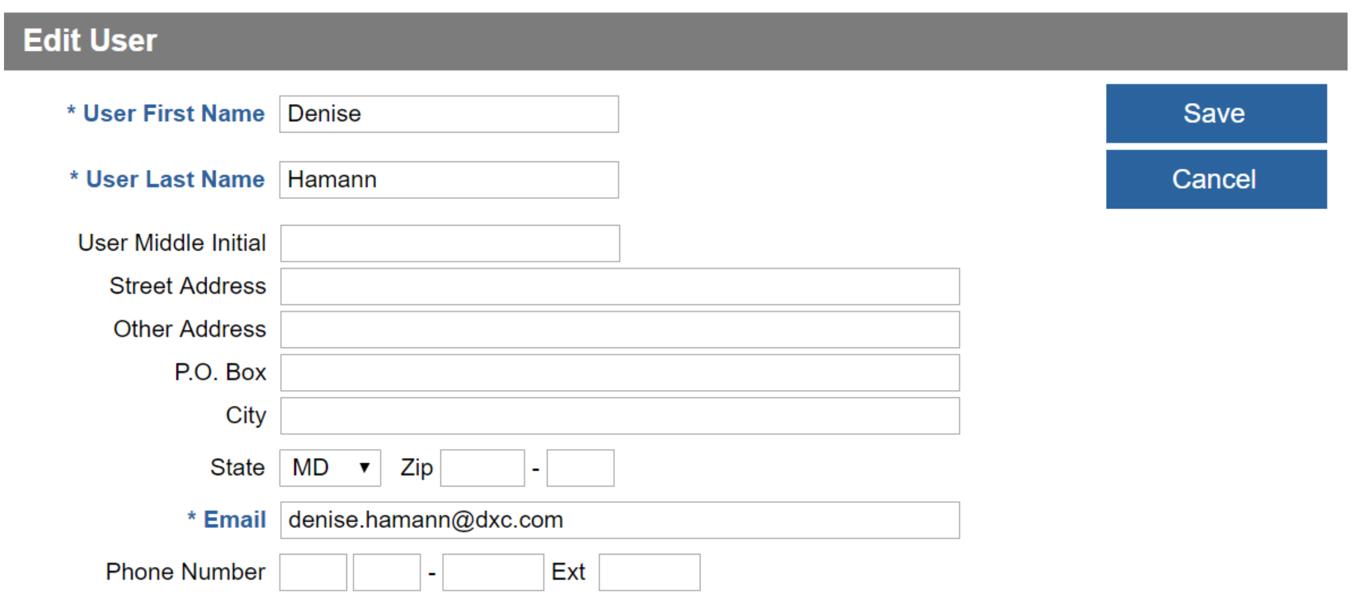
Editing My User Account

ImmuNet allows all users to manage their own user account information. To verify or edit your user account information, select My Account link from the home page.

1. Under the **Manage My Account** section of the menu panel, click on **Edit My User Account**. This will invoke the Edit User screen as shown on the next page.



2. Edit your first or last name in the appropriate fields. You may also enter or edit any additional fields as necessary. Be sure to provide a valid email address or business phone number.



3. Press **Save**. If changes were made, the message "User Updated" appears on the screen.

Note: The first and last name fields on the Edit User screen are required fields, which is why they show in blue. If you are an Administrative User, the Email, Street Address, and Phone Number fields are also required. You may edit these fields, but do not remove the information from them.

Maintenance

In this chapter:

Managing Schools
Managing Physicians
Managing Clinicians

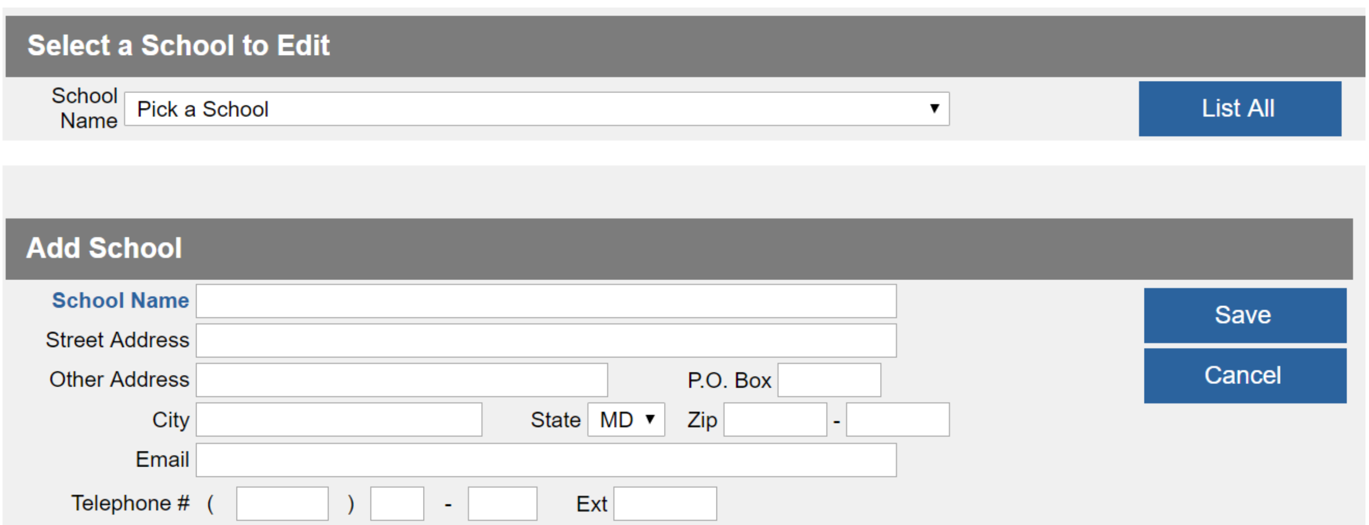
The Manage Org Selections section on the menu panel allows ImmuNet Administrative Users to add and update information on schools, physicians, and clinicians.

Managing Schools

ImmuNet Administrative Users may enter new and update existing schools and daycare centers using the Manage Schools function. Schools entered using this function will be available for selection from a drop down list on the Patient Demographic screen. Reports may then be generated by school.

Adding Schools

1. On the ImmuNet Home page, click on **"Manage Schools"** under the "Maintenance section" of the menu panel.
2. On the Manage Schools screen, press Add School.

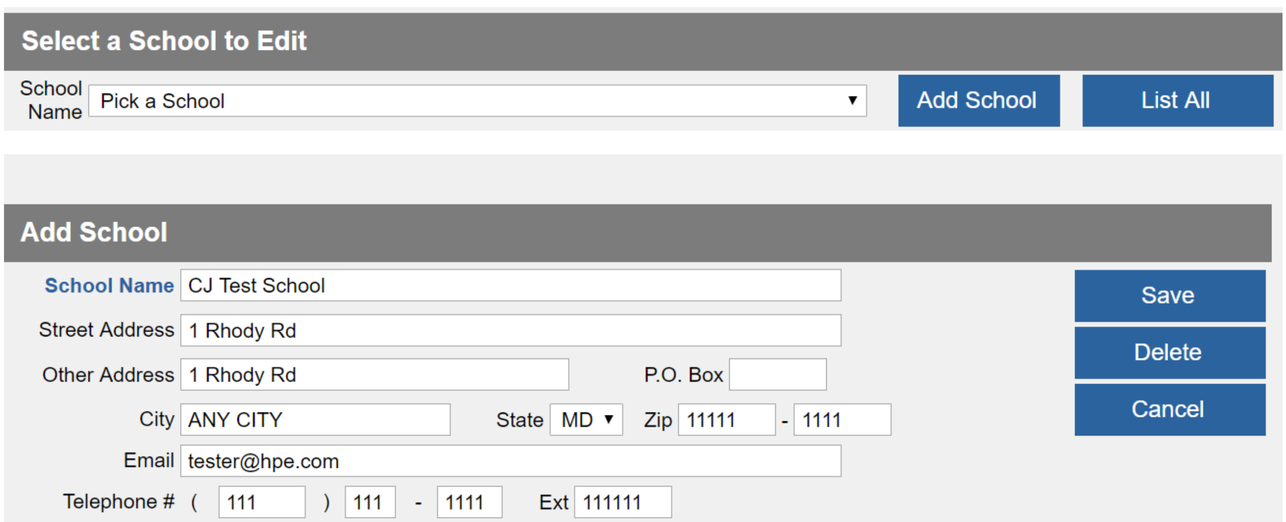


3. Below the **Add School** box, fill in the name of the school in the appropriate text field. Enter any additional information you wish to supply for the school in the appropriate fields.
4. Press Save.
5. Once your school information is successfully saved, "School Added" will appear in the upper right corner of the Edit School box.
6. Press List All to return to the Manage Schools screen.

Note: Required fields are shown in blue text. For example, when entering information on the Add School screen, the School name is required; thus they are shown in blue type. Input fields not shown in blue are optional.

Editing School Information

1. On the ImmuNet Home page, click on **Manage Schools** under the Manage Org Sections of the menu panel.
2. On the Manage Schools screen, choose the school whose information you would like to edit from the **"Select a School to Edit"** drop down list at the top of the screen. Or, click on the school's name in the School Listing at the bottom of the screen.



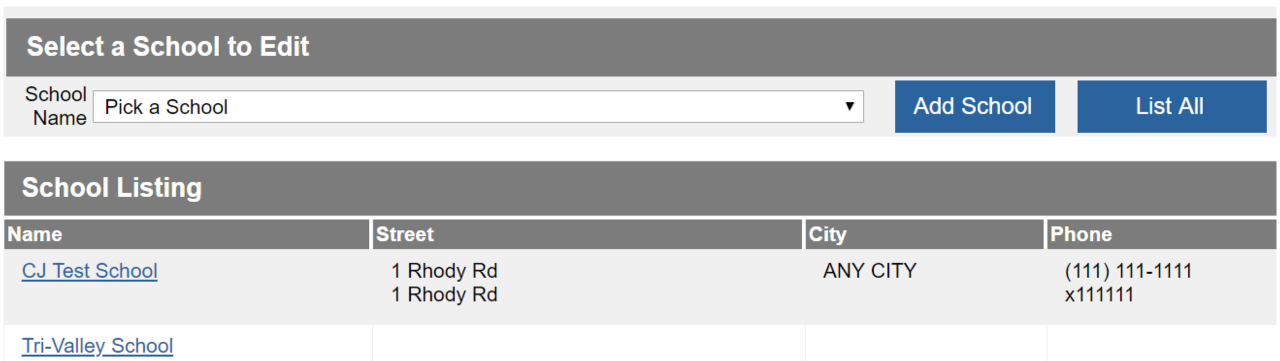
3. Add or change information in the Add School box.
4. Press Save.
5. Once your changes are successfully saved, "School Updated" will appear in the upper right corner of the box.
6. Press cancel to return to the Manage Schools screen.

Deleting Schools

1. On the ImmuNet Home page, click on **Manage Schools** under the Maintenance section of the menu panel.
2. On the Manage Schools screen, choose the school whose information you would like to delete from the Select a School to Edit drop down list at the top of the screen.
3. In the Edit School box, press Delete.
4. A box will open asking if you want to delete this school. Press OK.
5. ImmuNet will return to the Manage Schools screen and the message "School deleted" will appear at the upper right corner of the screen.

Listing All Schools

A list of all schools entered into an organization's database may be viewed by choosing List All on the Manage Schools screen.

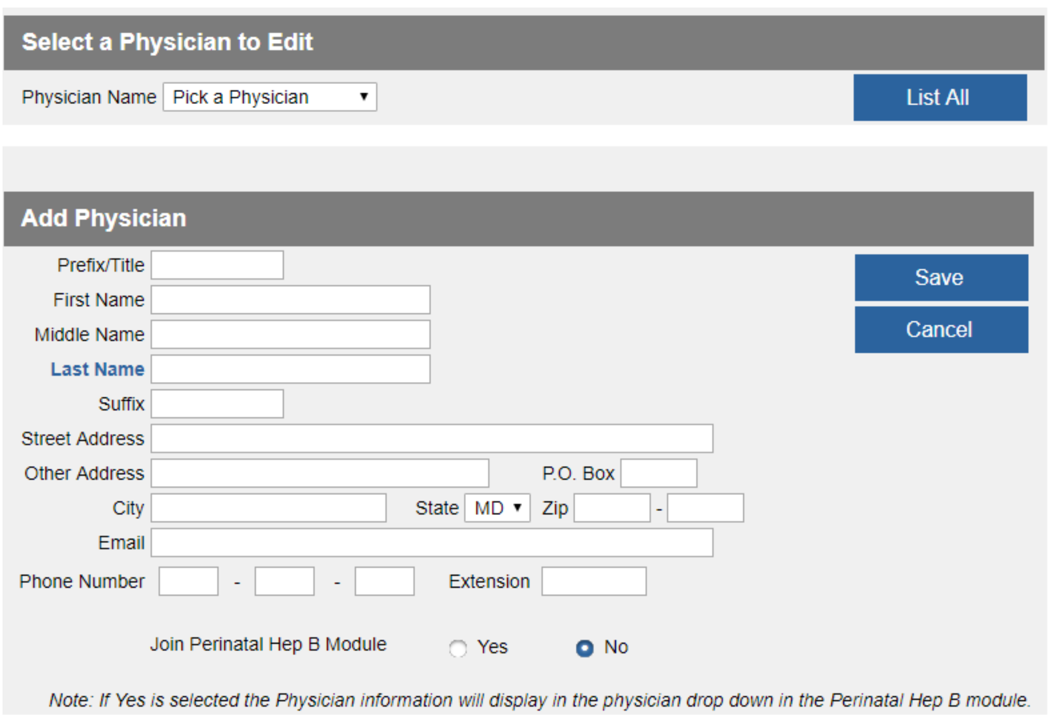


Managing Physicians

Physicians are considered Primary Care Providers (PCP) in ImmuNet. Administrative users can utilize the Add Physician/Edit Physician screens to enter new and update existing Primary Care Providers. Health care organizations or clinic names may also be entered in the Add Physician screen. Physicians or health care organizations entered on this screen will be available for selection from the Provider (PCP) drop down list on the Patient Demographic screen. Reports may then be generated from this data.

Adding Physicians

1. On the ImmuNet Home page, click on **Manage Physicians** under the Manage Org Section of the menu panel.
2. On the Manage Physicians screen, press Add Physician.
3. At the Add Physician box, fill in the required field, Last Name, plus any additional information you wish to supply about the physician. The Prefix/Title field, for example, could be filled with "Dr." or the Suffix field would then be "M.D." To add a clinic name, type the site name in the Last Name field and the location in the First Name field.

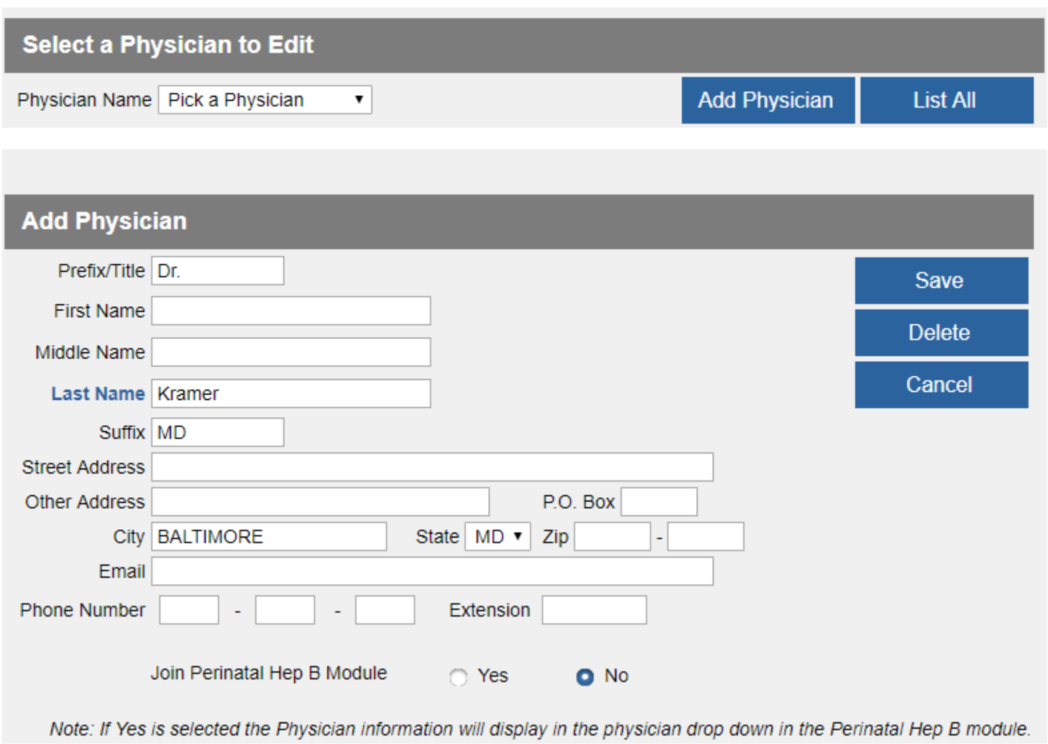


4. Press Save.
5. Once the physician is successfully saved, "Physician Added" will appear in the upper right corner of the Edit Physician box.
6. Press List All button to return to the Manage Physicians screen.

Note: When entering a physician on the Add Physician screen, keep in mind that this is a primary care provider, associated to the patient, not to a vaccination. Provider-PCP may be used for filtering when running a Reminder/Recall report.

Editing Physician Information

1. On the ImmuNet Home page, click on **Manage Physicians** under the Manage Org Sections of the menu panel.
2. On the Manage Physicians screen, choose the physician whose information you would like to edit from the Physician Name drop down list at the top of the screen. Or, click on the physician's name in the Physician Listing at the bottom of the screen.



3. Add or change information in the Edit Physician box.
4. Press Save.
5. Once your changes are successfully saved, "Physician Updated" will appear in the upper right corner of the Edit Physician box.
6. Press Cancel or the List All to return to the Manage Physicians screen.

Note: When adding Physicians and Clinicians into ImmuNet, this does not create an ImmuNet User Account for them. Please refer to Managing Users and Organizations, for instructions on adding users into ImmuNet.

Deleting Physicians

1. On the ImmuNet Home page, click on **Manage Physicians** under the Manage Org Selections of the menu panel.
2. On the Manage Physicians screen, choose the physician whose information you would like to delete from the Physician Name drop down list at the top of the screen. Or, click on the physician's name in the Physician Listing at the bottom of the screen.
3. In the Edit Physician box, press Delete.
4. A box will open asking if you want to delete this physician. Press OK.
5. Once your changes are successfully saved, "Physician Deleted" will appear in the upper right corner of the Manage Physicians screen.

Listing All Physicians

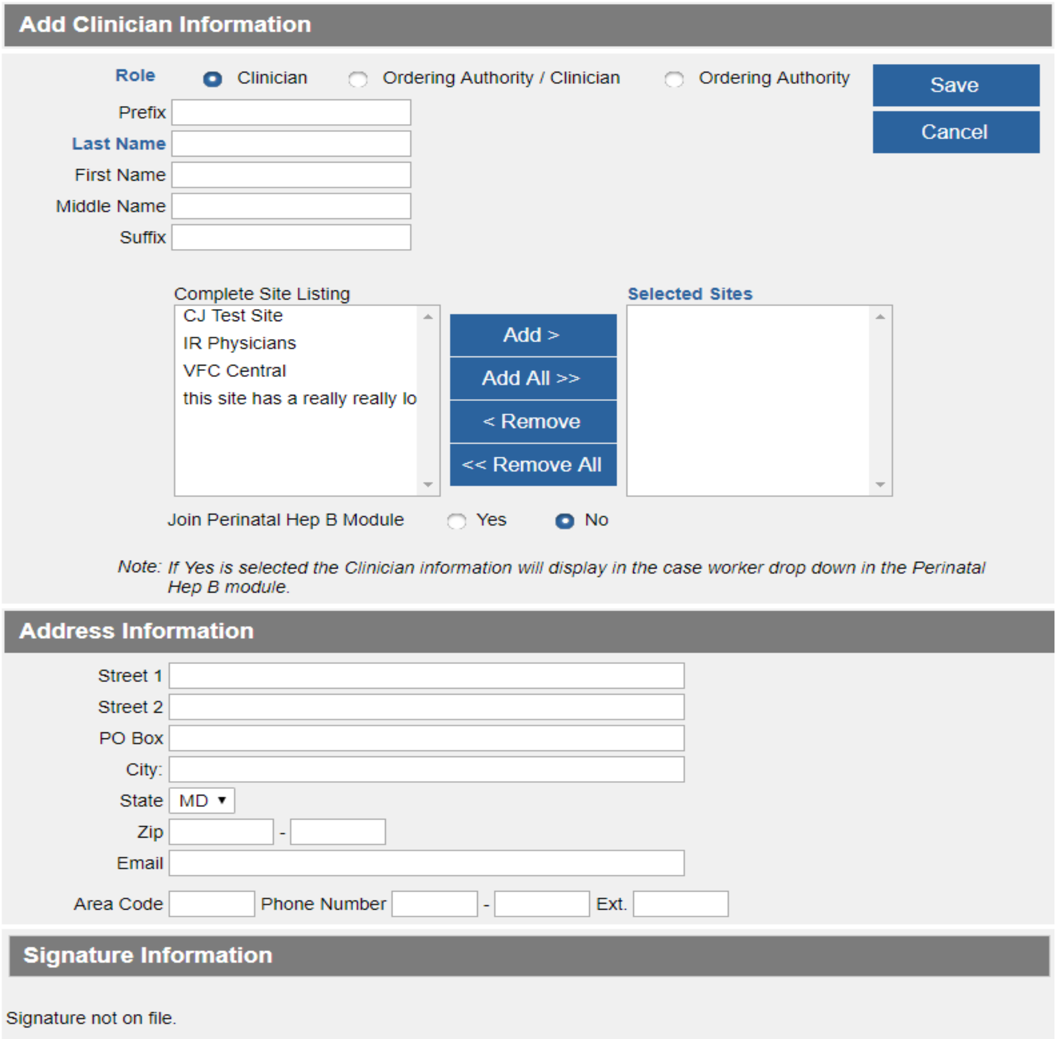
A list of all physicians entered into an organization's database may be viewed by pressing List All on the Select a Physician to Edit screen.

Managing Clinicians

Clinicians are the individuals within the organization who administer vaccines to patients. Ordering Authorities are the individuals that approve the administration of vaccines. A clinician may be associated with one or more clinic sites. Examples of clinicians are physicians, physician assistants, and nurses. ImmuNet Administrative Users will use the Manage Clinicians function to enter new, and update existing clinicians within the organization. Clinicians added to ImmuNet through this function will be available from drop down lists used for recording immunizations.

Adding Clinicians

1. On the ImmuNet Home page, click on **Manage Clinicians** under the Manage Org Section of the menu panel.
2. Press Add Clinician.



3. At the Add Clinician Information screen, choose a role for the clinician. Definitions of these roles are as follows:

   Clinician: The Clinician is the person who administers the vaccination.

   Ordering Authority: The Ordering Authority is the individual that authorizes the administration of a vaccine.

   Ordering Authority/Clinician: Check this option if the person both authorizes and administers vaccines, such as a pediatrician.
4. Fill in the required field, Last Name, and any other fields you wish to complete. The Prefix field, for example, might be filled with “Dr.” and the Suffix field would then be “M.D.”

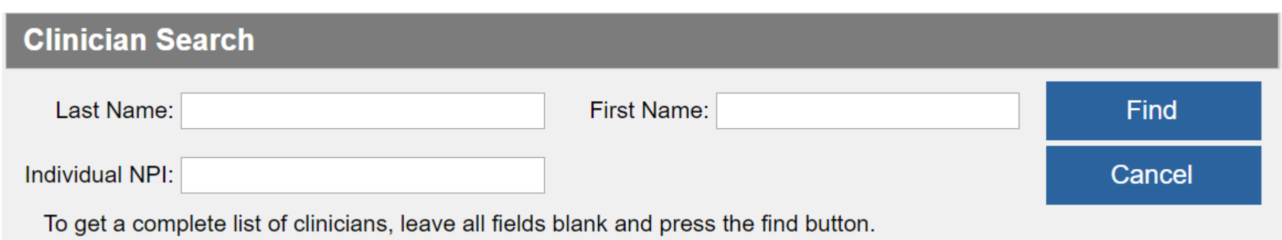
5. In the Complete Site Listing field at the bottom of the screen, highlight a site with which the clinician will be associated and press Add. Do this for each site at which the clinician may practice. If the clinician is associated with all the sites in the Complete Site Listing, press Add All.
6. Press Save.
7. After the clinician is successfully saved, the message “Record Updated” will appear at the top of the screen.
8. Press Cancel to return to the Manage Clinicians screen.

Notes: Required fields are shown in blue text. For example, when entering information on the Managing Clinicians screen, the clinician last name is required; thus they are shown in blue text. Input fields not shown in blue are optional.

Editing Clinician Information

1. On the ImmuNet Home page, click on “Manage Clinicians” under the Manage Org Section of the menu panel.
2. Press Find Clinician or click on the appropriate clinician name on the table at the bottom of the Manage Clinicians screen. If you choose this latter option, skip to

   Step 4.
3. At the Clinician Search screen, enter the last and first names of the clinician and press Find to bring up his or her information. Then click on his or her last name in the Search Results table. Or, leave both fields blank and press Find to bring up a list of clinicians within the organization. You may then click on the last name of the clinician within the Search Results table to bring up his or her information.



4. Make the desired changes or updates to the clinician’s information.
5. Press Save.
6. Once the clinician’s information is successfully updated, the message “Updated clinician: “<last name>, <first name>” will appear at the bottom of the screen.
7. To return to the Manage Clinicians screen, press Cancel.

Deleting Clinicians

1. On the ImmuNet Home page, click on “Manage Clinicians” under the Manage Org Sections of the menu panel.
2. On the Manage Clinicians screen press Fin Clinician or click the appropriate clinician name in the table at the bottom of the Manage Clinicians screen. If you choose the latter option, skip to step 5.
3. At the Clinician Search screen, enter the first and last name of the clinician and press Find to bring up his or her information. Then click on his or her last name in the Search Results table. Or, leave both fields blank and press Find to bring up a list of clinicians within the organization. You may then click on the last name of the clinician within the Search Results table to bring up his or her information.
4. At the Edit Clinician Information screen, press Delete.
5. A box will open asking if you want to delete this clinician. Press OK.
6. ImmuNet will return you to the Manage Clinicians screen.

Listing All Clinicians

1. On the ImmuNet Home page, click on “Manage Clinicians” under the Manage Org Sections of the menu panel.
2. On the Manage Clinicians screen, press Clinician List.
3. The Clinician Listing screen will open, showing all available clinicians, their organization association(s), and their role(s).
4. Press Close to return to the Manage Clinicians screen.

Managing Inventory

In this chapter:

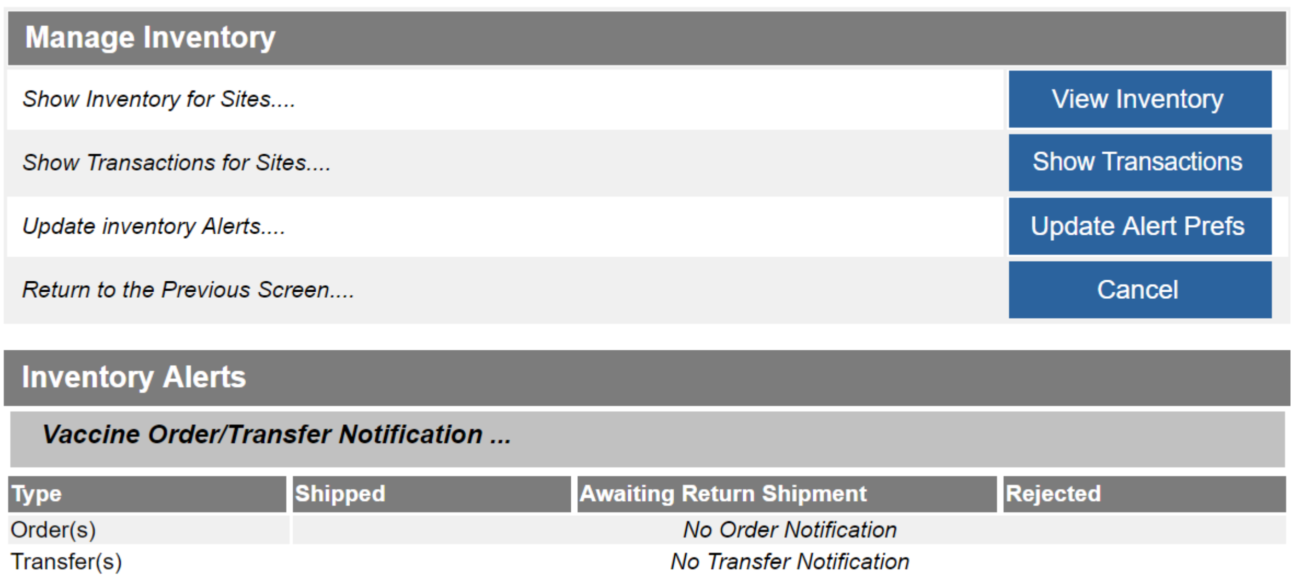
Adding New Inventory
Viewing Inventory
Updating Inventory
Inventory Alerts
Viewing Inventory Transactions
Doses Administered Report
Transaction Summary Report

The Inventory Module in ImmuNet is designed to be a complete tracking system for a provider's vaccine inventory. Administrative Users of ImmuNet have the ability to set up the inventory module for their organization and regularly view, add, or update any vaccine in an organization's inventory.

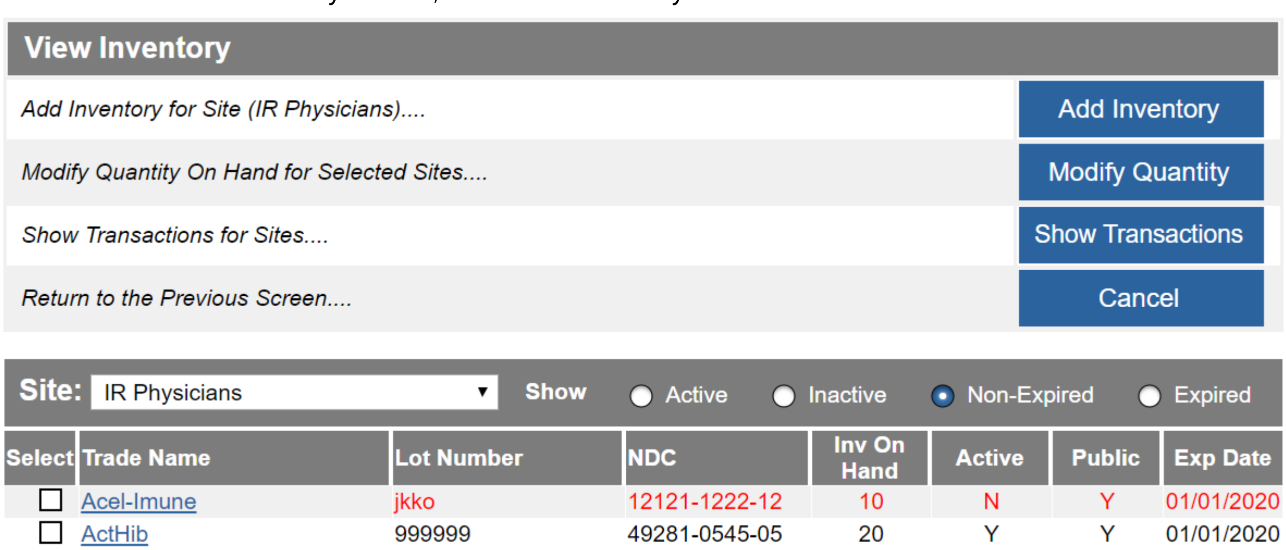
Adding New Inventory

Use the Add Vaccine function only if you are adding a vaccine with a *new* lot number. If you are adding vaccine to a lot number that already exists in your inventory, refer to *Updating Inventory*.

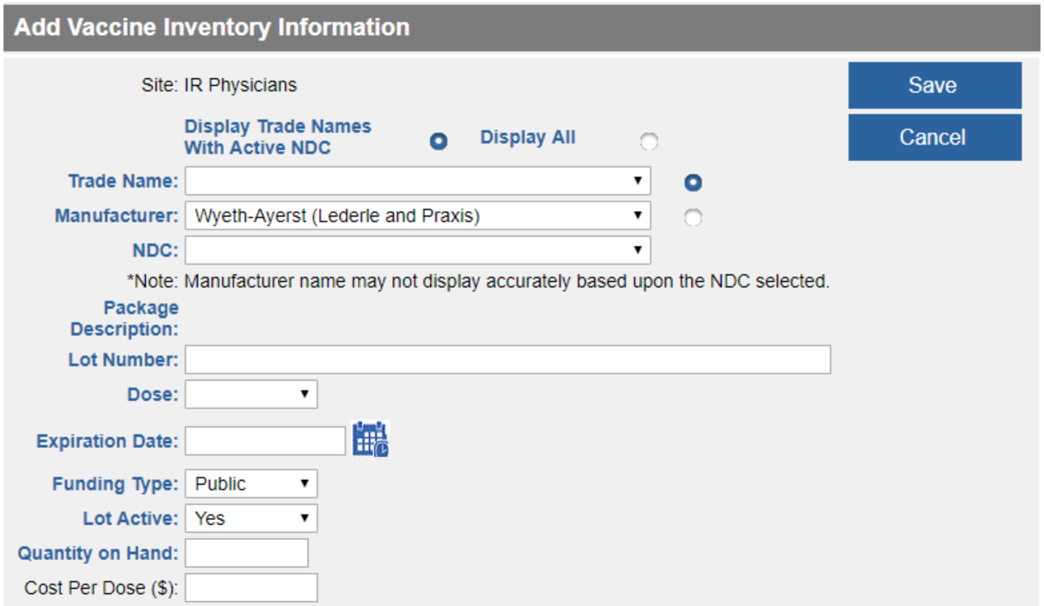
1. Click on **Manage Inventory** under the Inventory and Ordering section of the menu panel.
2. At the Inventory Alerts screen, press View Inventory button.



3. From the View Inventory section, Press Add Inventory.



4. At the Add Vaccine Inventory Information screen, do the following:



- Choose the vaccine's trade name from the drop-down list provided. Once you have selected a Trade Name, the Manufacturer field will be populated.
- Enter the lot number of the vaccine in the Lot Number text box.
- Choose the dose from the Dose Size drop down list; choose .2, .25, .5, .65,1 ml, or 2 ml.
- Enter the vaccine lot's expiration date. Fill in the field using the MM/DD/YYYY format or use the pop-up calendar by clicking the calendar icon to the right of the field. Then choose a month and year from the drop-down lists at the top and choose a day by clicking on the appropriate calendar day. If no day is specified on the vaccine, enter the last day of the month.
- Choose from the drop-down list the funding type (public or private) used for the purchase of the vaccine.
- Choose Yes from the Lot Active drop down list. When adding new inventory, the lot may only be entered as active. This controls whether the lot shows up on the drop-down list on the add immunization screen.
- Enter the number of vaccine doses received in the Quantity on Hand text box.
- Enter the cost per dose of the vaccine, if desired, in the Cost Per Dose Field.

5. Press Save.
6. If the new vaccine was saved successfully, the message "Inventory was inserted successfully" will appear at the bottom of the screen.
7. To add additional vaccines, press Add New and repeat Steps 4-6.
8. To return to the Show Inventory screen, press Cancel.

Viewing Inventory

To view your organization's vaccine inventory in ImmuNet, follow these steps:

1. Click on **Manage Inventory** under the Inventory and Ordering section of the menu panel.
2. Press View Inventory.

3. The inventory table shown by default will include vaccines within your organization's ImmuNet Inventory Module. This list will include non-expired active and inactive vaccines. The following is a description of all options available:

   - **Active**: Select the 'Active' option to view only those vaccine lots that have valid (non-expired) doses remaining in the inventory module.
   - **Inactive**: Select the 'Inactive' option to view only those vaccine lots that have been set to inactive by a user or automatically inactivated due to no doses remaining.
   - **Non-Expired**: Select the 'Non-Expired' option to view any active or inactive inventory that has not yet expired.
   - **Expired**: Select the 'Expired' option to view any inventory that has expired.

Notes: The red text in the View Inventory screen indicates that a vaccine is inactive. A vaccine may be inactive for a number of reasons: the inventory for that vaccine's lot number may be used up, the vaccines in that lot may be expired, or the vaccines in that lot may have been recalled and set to inactive by a user.

Vaccines on the View Inventory screen that are highlighted in pink will expire within 30 days.

The following is an explanation of the columns in the inventory table:

Site: IR Physicians ▾ **Show** ○ Active ○ Inactive ◉ Non-Expired ○ Expired

Select	Trade Name	Lot Number	NDC	Inv On Hand	Active	Public	Exp Date
☐	Acel-Imune	jkko	12121-1222-12	10	N	Y	01/01/2020
☐	ActHib	999999	49281-0545-05	20	Y	Y	01/01/2020
☐	ActHib	1987	34343-3434-23	50	Y	Y	01/01/2020
☐	Adacel	BR549	49281-0400-10	460	Y	Y	01/01/2020
☐	Bexsero	bexlot		144	Y	N	03/14/2020
☐	Bexsero	324567io	46028-0114-02	14	Y	Y	03/21/2020
☐	BioThrax	65432	64678-0211-01	20	Y	Y	08/17/2019
☐	BioThrax	07070707		10	Y	N	12/31/2019
☐	BioThrax	06060606		9	Y	Y	12/31/2019
☐	Boostrix	LoTx	58160-0842-11	99	Y	Y	02/14/2022

Select: A mark in this checkbox allows you to modify the quantity of the selected vaccine.

Trade Name: This column lists the vaccine's trade name.

Lot Number: This column lists the lot number of the vaccine.

NDC: National Drug Code

Doses On Hand: This column lists the number of doses remaining in the organization's inventory.

Active: A "Y" in this column indicates the inventory is active (available for use). An "N" indicates the vaccine is inactive (unavailable for use because the vaccine lot does not have any doses remaining in inventory, the vaccine lot has expired or the vaccine lot was set to inactive by a user). Inactive vaccines are shown in red text.

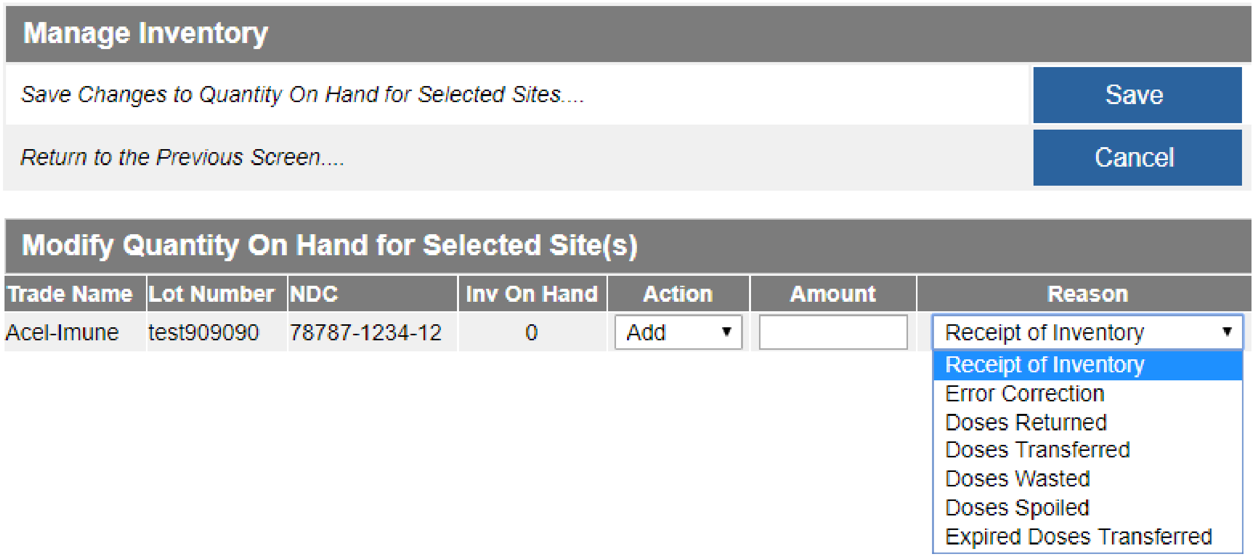
Public: A "Y" in this column indicates the vaccine was supplied by the State Vaccine Program. An "N" indicates that the vaccine is private stock purchased by the organization.

Exp Date: This column gives the vaccine's expiration date. Vaccines that will expire in 30 days or less are highlighted in pink.

Updating Inventory

To change information on existing vaccines, follow these steps:

1. Click on **Manage Inventory** under the Inventory and Order section of the menu panel.
2. Press View Inventory.
3. The inventory table shown by default will include active vaccines within the organization.



4. Select the vaccine lot you wish to update by clicking on the vaccine's trade name, which is underlined and in blue.
5. On the next screen, make desired changes to any of the fields. Any changes made to a vaccine after a dose has been administered will be updated in the patient's record.
6. To modify the quantity of doses on hand, follow steps 1-4 above or check the box under the Select column for the appropriate lot. Then select the Modify Quantity button located in the upper right-hand corner of the screen. Once on the Modify Quantity screen, enter the following information:
   - Under Action, choose whether you would like to add to or subtract from the inventory on hand.
   - Under Amount, enter the quantity of inventory to be added or subtracted.
   - Choose a reason for changing the quantity of the vaccine lot by selecting from the Reason drop down list.

Table 1: Reasons for adding or subtracting inventory

Receipt of inventory*:*	Use this reason when you are adding new inventory to a particular lot.
Error correction*:*	Use this reason when adding to or subtracting from inventory doses that were incorrectly entered or when getting extra or fewer doses from a vial.
Doses returned*:*	Use this reason when adding inventory to a particular lot because vaccines were returned from another site associated with your organization.
Doses transferred*:*	Use this reason when subtracting inventory that has been transferred to another site associated with your organization.

Doses spoiled:	Use this reason when doses should be subtracted as a result of spoilage prior to expiration.
Doses wasted:	Use this reason when doses should be subtracted as a result of broken vials, faulty injections, improper refrigeration, or public doses returned to the Department of Health.

7. Press Save.
8. Once your updates are saved in ImmuNet, the message "Inventory was updated successfully" will appear at the bottom of the screen.
9. Press Cancel to return to the Show Inventory screen.

Modifying Quantities of Multiple Vaccines

To change inventory quantities of multiple vaccine lots, follow these steps:

1. Follow Steps 1-3 under Updating Inventory.
2. Check the box under the Select column next to the vaccine lots whose quantities you want to modify.
3. Press Modify Quantity.
4. On the Modify Doses on Hand screen, enter the following information:
   - Under Action, choose whether you would like to add to or subtract from the inventory on hand.
   - Under Amount, enter the quantity of inventory to be added or subtracted.
   - Choose an explanation for changing the quantity of the vaccine lot by selecting from the Reason drop down list. Refer to the list above for a description of the reasons for adding or subtracting inventory.
   - Press Save.

Inventory Alerts

Inventory alerts inform users of the status of their organization's vaccine inventory. These lists are displayed on the ImmuNet homepage. Alerts for vaccine that are going to expire, and vaccines that are running low are initially generated by a system default setting. These alerts can be customized.

Inventory alerts can also be viewed on the Inventory Alerts screen. Select Manage Inventory, located under the Inventory and Ordering on the menu panel. The first table under Inventory Alerts entitled, Vaccine Order/Transfer Notification, is not active in the ImmuNet application. The next table entitled, Active Inventory That is Going to Expire or Expired Lots with a Quantity, displays a list of vaccines in the ImmuNet Inventory Module that will expire within a set amount of days (30 days is the default), as well as vaccines that have expired but still have quantity in inventory.

The last two tables at the bottom of the screen display inventory that is running low by either vaccine group and trade name (the default low level alerts is 5 doses).

Updating Inventory Alert Preferences

To update Inventory Alert Preferences for expiration and low inventory alerts, follow these steps:

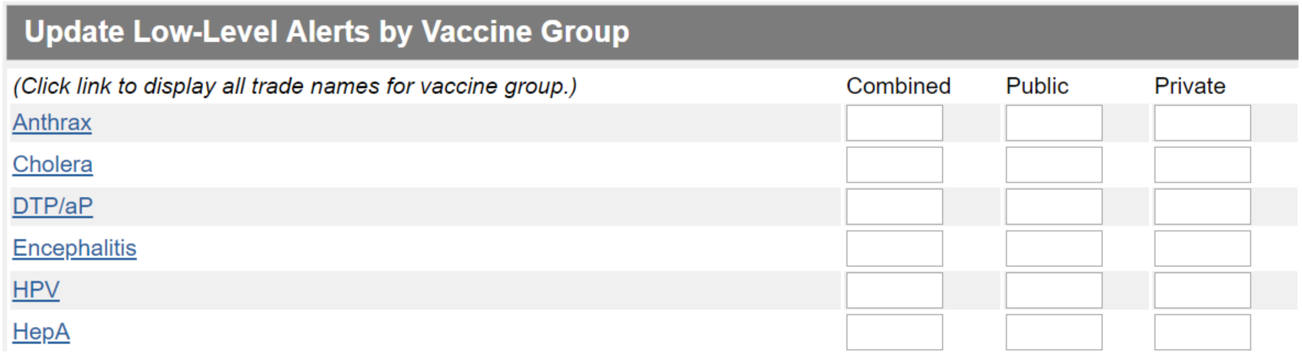
1. Click on **Manage Inventory** under the Inventory and Ordering section of the menu panel.
2. Press Update Alert Prefs button.
3. In the Inventory Expiration Alerts section, the system default is 30 days. To customize this alert enter the number of days prior to the expiration of any vaccine lot that you would like to be notified.
4. For all low-level alerts the system default is 5 doses. To update these alerts enter the number of doses that are preferred for low-level alerts for all vaccine groups and/or trade names. Select the appropriate radio button for Vaccine Group or Trade Name in the Update Low-Level Alert Defaults section and enter the number of doses.

5. Press Save. If the new preferences were saved successfully, the message "Updated Alert Preferences" will appear at the top of the screen.

To customize low-level alerts for each individual vaccine group or trade name follow these steps:

Vaccine Group:

1. Under Update Low-Level Alerts by Vaccine Group, enter the number of doses that will indicate the inventory is running low for each vaccine group listed. You may enter a specific number of doses for private and public vaccines separately or you can enter one combined number for doses of both private and public inventory. *(Public vaccines are received from the State Vaccine Program and private vaccines are purchased by your organization).*
2. Press Save.



Trade Name:

1. Under Update Low-Level Alerts by Vaccine Group, click on the underlined vaccine group to display the trade names.
2. Enter the number of doses that will indicate the inventory is running low for the trade names listed. You may enter a specific number of doses for private and public stock separately or you can enter one combined number for doses of both private and public inventory.
3. Press Save.

Notes: To restore all inventory alerts to ImmuNet system defaults, press ***Reset to Default***. Press OK To return to the Manage Inventory screen, press ***Cancel.***

Printing Inventory

To print out a list of inventory, follow these steps:

1. Click on **Manage Inventory** under the Inventory and Ordering section of the menu panel.
2. Press View Inventory.
3. Click anywhere on the page.
4. Do one of the following:
   - Choose File, then Print, from your browser's menu bar. In the Print dialog box, press OK.
   - Or press the printer icon on your browser's toolbar.
5. If your printout is cut off, try setting your printer to landscape. To do this:
   - Choose File, then Print, from your browser's menu bar.
   - In the Print dialog box, press Properties.
   - In the Properties box, find the section where you may specify orientation. Choose landscape.
   - Press OK.
   - Press OK in the Print dialog box.

Viewing Inventory Transactions

The **Show Transactions** screen is used to display vaccine lot track records for all quantity-changing events that occur within a provider organization's inventory. Read below to learn about running an inventory transaction report.

1. Click on **Manage Inventory** under the Inventory and Ordering section of the menu panel.
2. Press ***Show Transactions***.
3. At the Vaccine Transactions screen, do the following:

- Enter the "From" and "To" dates for when the immunizations were entered in ImmuNet.
- Or, enter the "From" and "To" dates for when the immunizations were given to the patient(s).
- Choose a specific username or All User Names from the User Name drop down list.
- Choose a specific transaction type or All Transaction Types. These transactions relate to the Reason drop down list on the Edit Vaccine Inventory Information screen.
- Select the inventory site whose transactions you wish to view or choose All Sites with Inventory.
- Choose the trade name, lot number, public/private, and site from the Trade Name/Lot Number drop down list or choose All Lot Numbers from the list.
- Enter the quantity of records you wish to view in the Display Last <#> Records field.

4. Press ***VIEW***.
5. The Vaccine Transactions screen will then display.

Table 2: Transaction types

Receipt of Inventory (REC):	This type indicates vaccines were added as new inventory.
Immunization Given (Immunize):	This type indicates vaccines were subtracted from inventory because of immunizations given.
Immunization Deleted (Delete):	This type indicates vaccines were added to inventory because they were deleted from a patient's record.
Doses Transferred (TRA):	This type indicates vaccines were subtracted due to transfer to another site associated with your organization.
Doses Wasted (WAS):	This type indicates vaccines were subtracted from inventory because they were wasted through faulty injections, broken vials, improper refrigeration, or public doses returned to the Maryland Department of Health.
Doses Returned (RET):	This type indicates vaccines were added to inventory after being returned from another site associated with your organization.
Error Correction (ERR):	This type indicates vaccines were added or subtracted to correct a previous error or after getting extra or fewer doses from a vial.

Doses Reconstituted (RECON):	This type indicates that a number of doses were subtracted from an un-reconstituted lot to form a new reconstituted lot.
Lot Deleted (LOTDELETE)	Number of doses that were subtracted from a lot when a vaccine lot was deleted

Table 3: Vaccine transactions

The top chart on the Vaccine Transactions screen gives the following information:

Site Name:	Vaccines in the table are first sorted alphabetically by your organization name.
Trans Date:	Vaccines are next sorted numerically by transaction date; the most recent transactions are shown first.
Lot/Trade Name:	The lot number and trade name of the vaccine are listed in this column.
Type:	Refer to Table 2 in this chapter for an explanation of the transaction codes shown in this column.
Qty:	The number in this column indicates the quantity added to or subtracted from inventory due to the listed transaction type.
Patient Name:	The patient name column indicates the patient associated with the transaction, if applicable.
DOB:	The date of birth of the patient is indicated in this column, if applicable.

Table 4: Transaction Totals

The chart at the bottom of the Vaccine Transactions screen gives a breakdown of transactions by transaction type.

Trans Code:	This column displays the abbreviated code that identifies the transaction type.
Trans Description:	This column displays the full transaction type.
Trans Count:	This column represents the number of times a particular transaction type was performed within the dates you specified. For example, if your organization received two lots of vaccines within the one-week period for time you specified, the Trans Count would show “2” in the Receipt of Inventory row.
Trans Value:	This column shows the quantity of doses added or subtracted by transaction type. For example, if you received a combined 103 doses in the two vaccine lots you added to inventory, “103” would show in the Trans Values column on the Receipt of Inventory row.

Printing Inventory Transactions

To print out a list of vaccine transactions, follow these steps:

1. Follow Steps 1 - 4 under *Viewing Inventory Transactions.*
2. Click anywhere on the page.
3. Do one of the following:
   - Choose File, then Print, from your browser's menu bar. In the Print dialog box, press OK.
   - Or, press the printer icon on your browser's toolbar.
4. If your printout is cut off, try setting your printer to landscape. To do this:
   - Choose File, then Print, from your browser's menu bar.
   - In the Print dialog box, press Properties.
   - In the Properties box, find the section where you may specify orientation. Choose landscape.
   - Press OK.
   - Press OK in the Print dialog box.

Doses Administered Report

The Doses Administered Report will give you information on how many doses of each vaccine have been given, by age, within a specified date range. For ImmuNet, this report includes immunization records from both ImmuNet Inventory and Other Inventory. To generate a Doses Administered report for your organization, follow these steps:

1. Click on the **Doses Administered** menu item under the Organization Reports section of the menu panel.
2. At the Doses Administered screen, in the “From” field under Report Date Range, choose a starting date for your report using the MM/DD/YYYY format.
3. In the “To” field under Report Date Range, choose an ending date for your report using the MM/DD/YYYY format.
4. Press ***Generate Report***.
5. Press ***Refresh*** after a few moments to check the status of your report.
6. Click on the name of your report once it is underlined and displays in blue text.
7. The report displays in Adobe Acrobat Reader®.
8. To print the report, press the printer icon on the Adobe® toolbar.
9. Press OK in the Print dialog box.
10. To return to the Doses Administered screen, press the Back button on your browser.

Transaction Summary Report

The Transaction Summary Report will give you information on how many doses of each vaccine have been given within a specified date range. The report also gives information on how many doses were expired, transferred, received, restocked, wasted, or given in error. To generate a transaction summary report for your organization, follow these steps:

1. Click on **Transaction Summary** under the Organization Reports section of the menu panel.
2. At the Transaction Summary Report Criteria screen, choose a site from the drop down list or choose All Sites Combined
3. In the “From” field under Report Date Range, choose a starting date for your report using the MM/DD/YYYY format.
4. In the “To” field under Report Date Range, choose an ending date for your report using the MM/DD/YYYY format.
5. Press ***Generate Report***.
6. The report displays in Adobe Acrobat Reader®
7. To print the report, press the printer icon on the Adobe® toolbar.
8. Press OK in the Print Dialog box.
9. To return to the Transaction Summary screen, press the BACK button on your browser.

Managing Patients

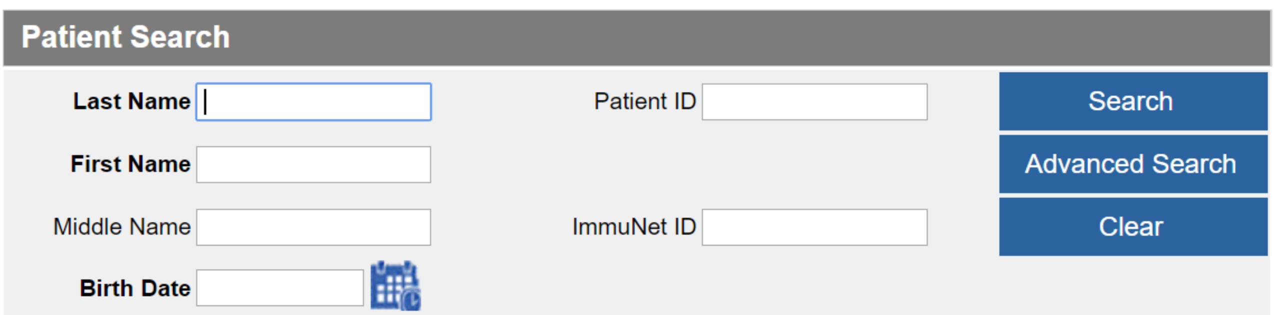
In this chapter:

Because ImmuNet receives immunization information from multiple provider sources, including birth record downloads, you should always attempt to find a patient in ImmuNet before entering them as a new patient. However, ImmuNet will attempt to de-duplicate (compare entered information against information saved to the system for duplicate patients) patient records prior to saving the information on the Enter New Patient screen.

Finding Patients

As mentioned above, it is extremely important that you always search for a patient in ImmuNet before entering them as new. This will prevent duplicate patient records from being entered into the system. There are many different combinations of search criteria that can be used to locate patients in ImmuNet. Remember, when searching for patients in ImmuNet, you are searching on a statewide level and not just within your organization. With this in mind, when searching for an existing patient in ImmuNet, more information is not always better. By entering too much information about a patient (mother's maiden name, phone number, birth date, etc.) you will increase your data entry time and decrease the odds of finding the patient due to typing and interpretation errors. To review recommended search criteria examples, please review the section "Examples of ImmuNet Search Criteria" later in this chapter.

1. Click on **Patient Search** under the Patients menu group on the menu panel.

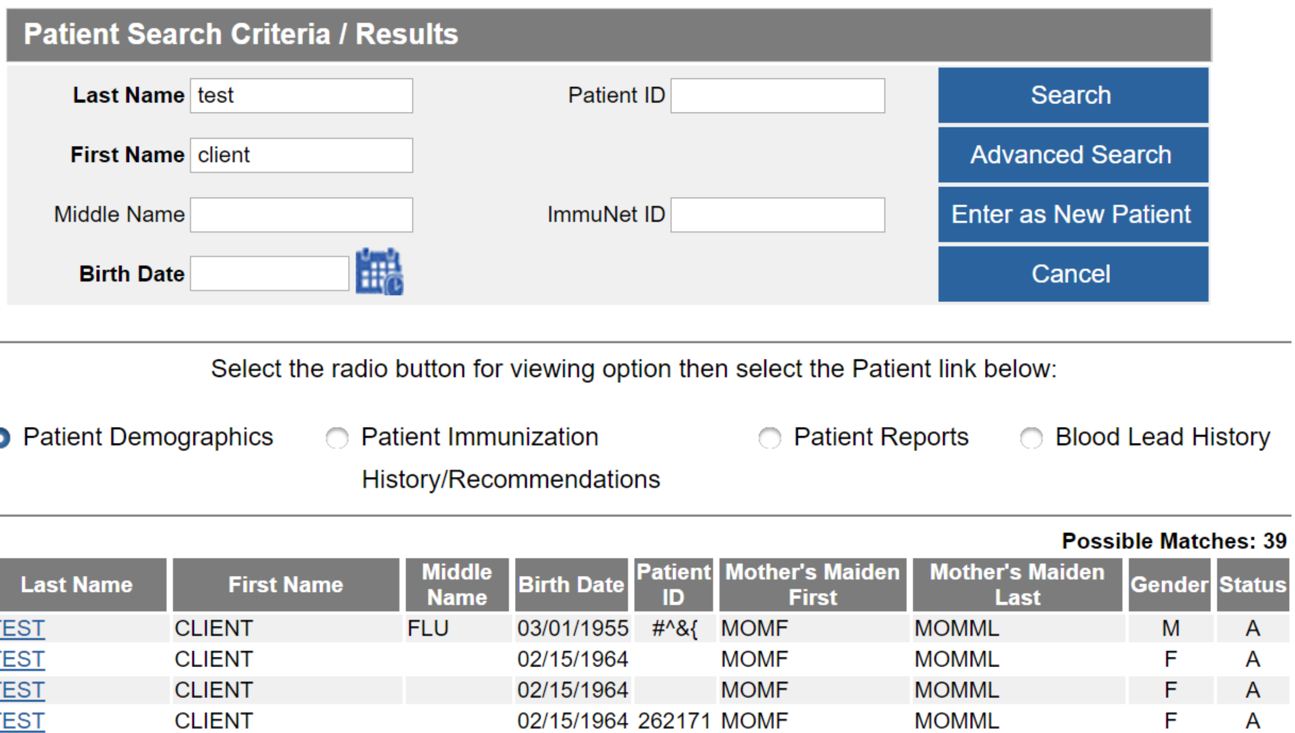


2. In the Patient Search Criteria box, you have several options for finding your patient.
   - Last Name: Entering the first three letters of the patient's last name, along with the first two letters of the first name, will initiate a search of all patients matching those letters. Entering fewer than three letters in the last name field will result in an exact name search; for example, entering the letters "Li" will produce only last names of "Li." If the patient's name is common, typing in the full name will narrow the search.
   - First Name: Entering the first two letters of the patient's first name, along with the first three letters of the last name, will initiate a search of all patients matching those letters. If the patient's name is common, typing in the full name will narrow the search.
   - Middle Name: There is no minimum character entry for the middle name field. The middle name is only functional when used in conjunction with Patient's last or first name.
   - Birth Date: A valid Date between 01/01/1880 and current date in MM/DD/YYYY must be entered.
   - Patient ID: A valid Patient ID assigned by a specific provider organization.

- ImmuNet ID: A valid ImmuNet ID assigned by ImmuNet.

Entering Names
On all first and last names entered into ImmuNet for patient searches, ImmuNet disregards spaces, apostrophes, and hyphens entered.

3. Press Search.
4. If multiple records are found matching the criteria you entered, a table listing up to 75 matches with detailed information on each patient will be shown below the Find Patient Information box. To choose a patient from this list, click on the patient's last name, underlined in blue.



Last Name	First Name	Middle Name	Birth Date	Patient ID	Mother's Maiden First	Mother's Maiden Last	Gender	Status
TEST	CLIENT	FLU	03/01/1955	#^&{	MOMF	MOMML	M	A
TEST	CLIENT		02/15/1964		MOMF	MOMML	F	A
TEST	CLIENT		02/15/1964		MOMF	MOMML	F	A
TEST	CLIENT		02/15/1964	262171	MOMF	MOMML	F	A

5. If multiple records are found matching the criteria you entered, and there are over 75 matches, ImmuNet will give a warning that there are too many patients matching your search criteria. Please refine your search criteria to limit your patient list.

6. To view the patient possible matches, you can select to review "Patient Demographics', "Patient Immunization History/Recommendations", Patient reports, or Blood Lead History and select the Patient's Last Name link.

7. If no patients match your search, review the search criteria information you entered for accuracy. If you suspect the patient has not been entered into ImmuNet, Select Enter as New Patient button.

Finding Patients with no First Name

To search for a patient with no first name, you may:

- Search using only the last name with no other fields filled. Enter the full last name to return patients whose last name matches what is entered and who do not have a first name.

- Search using the last name and enter "No First Name" in the first name field. You may narrow the search of patients with no first name by entering other criteria, such as middle name, gender or birth date, etc.

Examples of ImmuNet Search Criteria

It is recommended that users utilize the "3-2" search when attempting to find patients in ImmuNet. The 3-2 search includes the first three letters of the patient's last name, followed by the first two letters of the patient's first name. However, the following alternative search options can help refine or narrow search results:

Patient Last Name and Date of Birth (DOB)
Patient First Name and DOB
Patient DOB and Gender
Patient ID
Patient DOB

It is recommended that additional criteria are used when searching for patients with common names. This will help narrow the list of possible matches in ImmuNet.

Use of Drop Down Lists in ImmuNet

When entering information on new patients or editing patient information, you will use drop down lists for many fields. ImmuNet uses drop down lists — fields that contain a list of options from which you may choose — rather than free text fields for certain input data. The advantages of drop down lists over free text fields include:

- Ease of use. Drop down lists allow users to quickly fill in a data field without typing in the information.
- Health Level 7 (HL7) compliance. HL7 is a method of categorizing data so that it is uniform across all health reporting systems. This standardization allows providers using different systems to transfer data easily. With predefined drop down lists ImmuNet stays in HL7 compliance.
- Uniformity of entered data. By choosing information from a drop down list, users do not risk entering conflicting information that could decrease the accuracy of ImmuNet reports. For example, one user using a free text field might enter a county name using an abbreviation, while another user might spell out the entire name.
- Confidentiality. By using standard drop down lists, ImmuNet avoids confidentiality issues associated with the typing of free text that could be construed as medical record information.

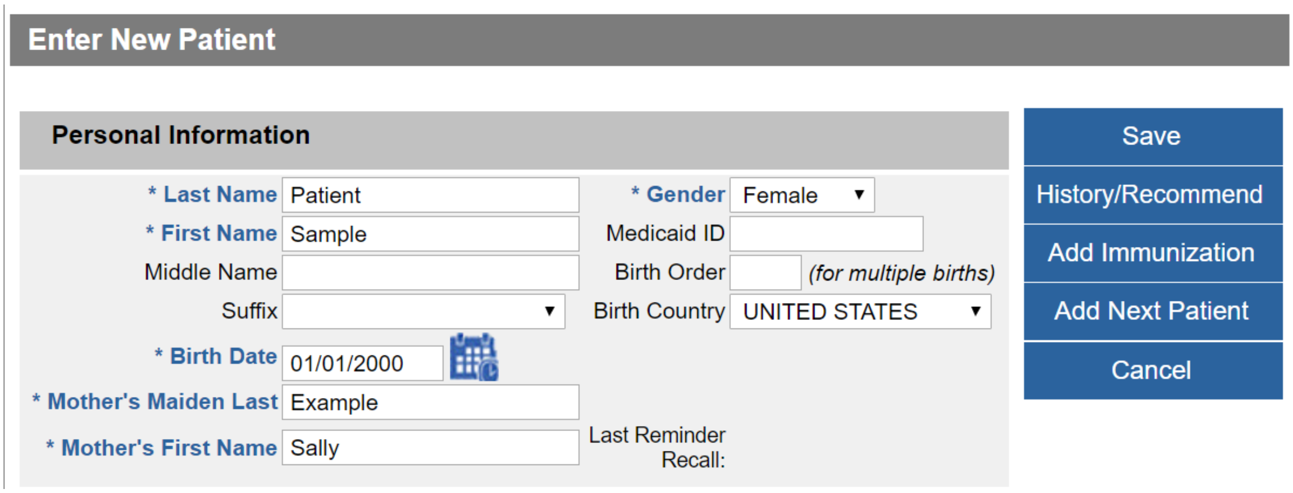
Editing/Entering Patient Information

The demographic screen allows you to update or change specific, non-immunization information relating to any patient in ImmuNet. The Enter New Patient screen, accessed by clicking this option on the menu panel, allows you to input information for a new patient into ImmuNet. The demographic and Enter New Patient screens are divided into the following sections: Personal Information, Patient Information, Address Information, Responsible Persons, Patient Comments, and Patient Notes.

Note: Organizations participating in a pandemic exercise or event will utilize the CRA Event Information module located directly beneath the Patient Information section of the demographic screen.

Personal Information Section

The Personal Information Section at the top of the Demographic/Enter New Patient screens contains patient-specific information used primarily to identify patients when conducting patient searches. All fields shown in blue font are required. Refer to Appendix 2 of this manual for information on allowable entry characters and names for these fields.



1. **Last Name:** This is a required field.
2. **First name:** This is a required field.
3. **Middle name:** This is an optional field.
4. **Suffix:** This is an optional field.
5. **Birth Date:** This is a required field. Fill in the field using the MM/DD/YYYY format, or use the pop-up calendar by clicking the calendar icon to the right of the field. Then choose a month and year from the drop down lists at the top and choose a day by clicking on the appropriate calendar day.

   Children entered by the Maryland Vital Records program do not have editable birth dates. The parent/guardian must contact the Maryland Vital Records program in the event an incorrect birth date is in dispute. Contact the ImmuNet Help Desk to obtain the Vital Records phone number.
6. **Mother's Maiden Last Name:** This is a required field. ImmuNet will allow you to save the record without this field completed; however, it will request you gather this information for future deduplication of patients.
7. **Mother's First Name:** This is a required field. ImmuNet will allow you to save the record without this field completed; however, it will request you gather this information for future deduplication of patients.

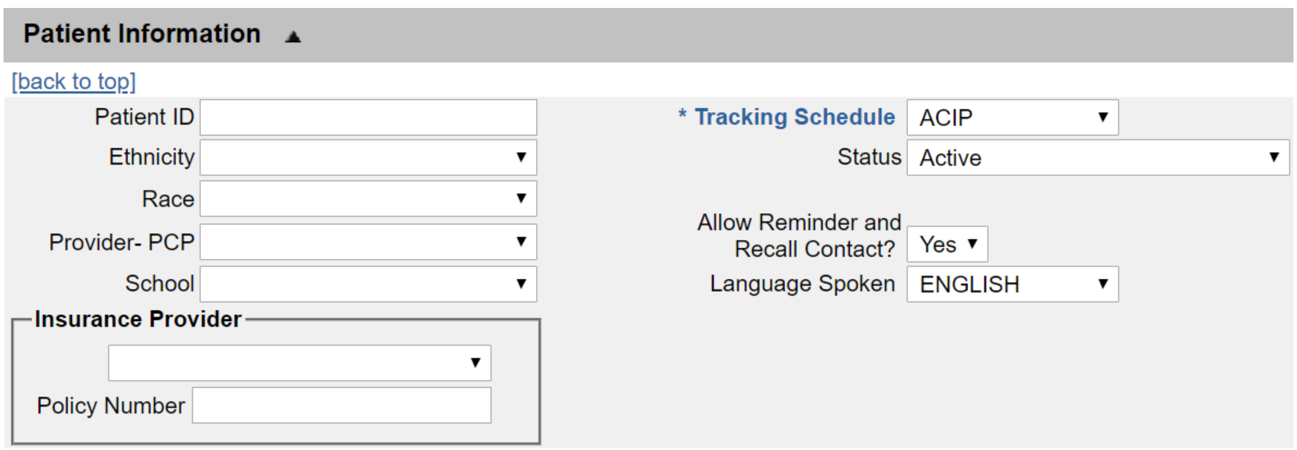
Note: It is critical that the information in the Mother's Maiden Name fields is accurate. If you do not have the correct information, leave these fields blank. Please do NOT use a fake name, foster mother or type "unknown" in the fields.

8. **Gender:** This is a required field. Select the appropriate option from the drop down list to choose male or female.
9. **Medicaid ID:** This is an optional field. Medicaid ID of the patient.
10. **Birth Order:** This is an optional field that identifies the birth order of the patient. This field should only be used for multiple births (e.g. twins, triplets).
11. **Birth Country:** This field defaults to "United States." Use the drop down list to select a different country of birth, if applicable.

Patient Information Section

The Patient Information Section gives additional information about the patient.

Click on the Patient Information Section.



1. **Patient ID:** Type in your organization's patient ID for the patient. A patient may have numerous patient IDs associated with him or her; each ID is organization dependent.
2. **Ethnicity:** Choose the patient's ethnic background from the drop down list provided.
3. **Race:** Choose the patient's race from the drop down list provided.
4. **Provider-(PCP):** Fill in the patient's primary care physician (PCP) or health care organization from the drop down list, if provided. This information is used only for reporting and must be set up by the organization's ImmuNet administrative user. For instructions on how to set up the Provider (PCP) field, refer to "Managing Physicians" in Chapter 8.
5. **School:** Fill in the patient's school from the drop down list, if provided. This information is used only for reporting and must be set up by the organization's ImmuNet administrative user. For instructions on how to set up the School field, refer to "Managing Schools" in Chapter 8.
6. **Tracking Schedule:** This required field defaults to the Advisory Committee on Immunization Practices (ACIP) schedule.

7. **Status:** Choose Active from the drop down list if you want this patient to be associated with your organization, meaning he or she is receiving services from you. When you specify a patient as Inactive, you make him or her inactive for your organization only.

   This information affects recall and reminder notices and Comprehensive Clinic Assessment Software Application (CoCASA) reporting. Choosing Permanently Inactive — Deceased will inactivate the patient for all organizations using ImmuNet. Choose this option only if you know the patient to be deceased.

Note: Once a status of Permanently Inactive – Deceased has been entered in the Status field, the field can no longer be edited by the organization. To change a status of Permanently Inactive – Deceased, contact the ImmuNet Help Desk.

8. **Allow Reminder and Recall Contact?:** Choosing Yes from the drop down list, you are allowing reminder/recall notices to be sent to this patient when you run the reminder/recall report. If the patient's parent chooses not to have reminder/recall notices sent, choose No from the drop down list to exclude the patient from the report.
9. **Language Spoken:** Choose the primary language spoken by the Patient.
10. **Insurance Provider:** Choosing an insurance provider from the drop down list selects an Insurance Provider.
11. **Policy Number:** Fill in the policy number of the Insurance Provider.

Generation of reminder and recall notices

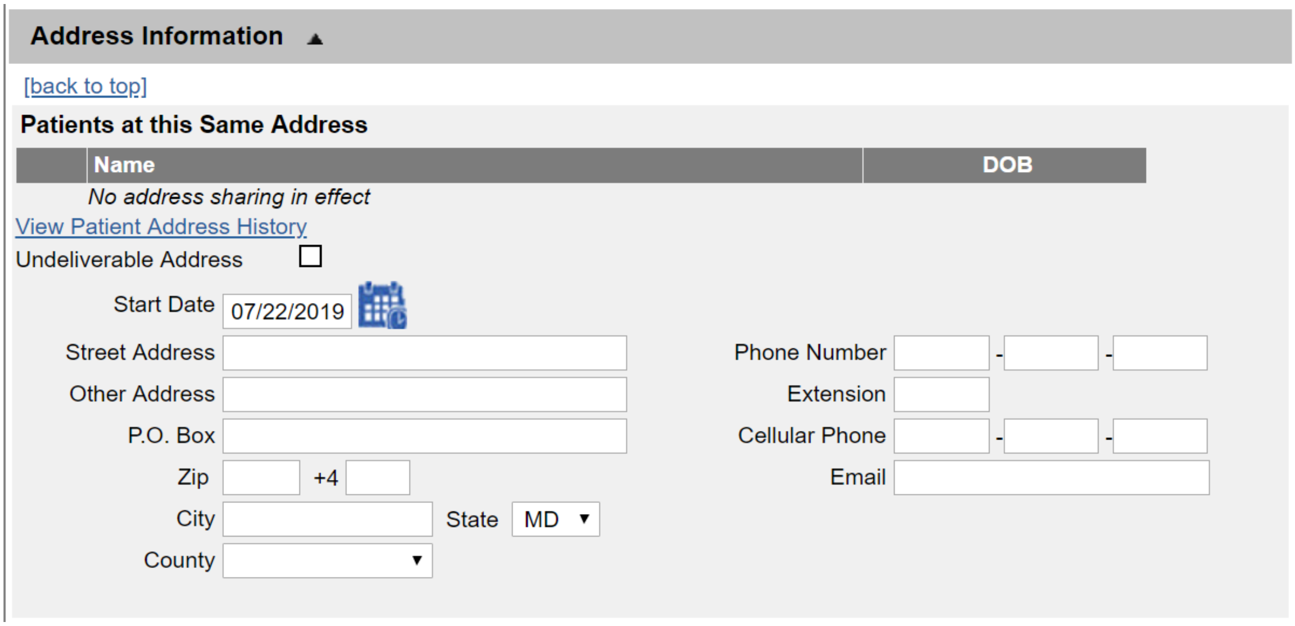
When running the reminder/recall report, letters are generated for every patient, given that the following conditions are met:

- The patient's status is not set to "Inactive" or "Permanently Inactive-Deceased on the Patient Information tab.
- The "Allow Reminder and Recall Contact? Indicator on the Patient Information tab is set to "Yes."
- The patient has sufficient name and address information listed in the Address Information Section.

Address Information Section

The Address Information Section allows you to identify the current address of the patient. In the future, it will also allow you to identify other siblings in the same household.

Click on the **Address Information** Section.



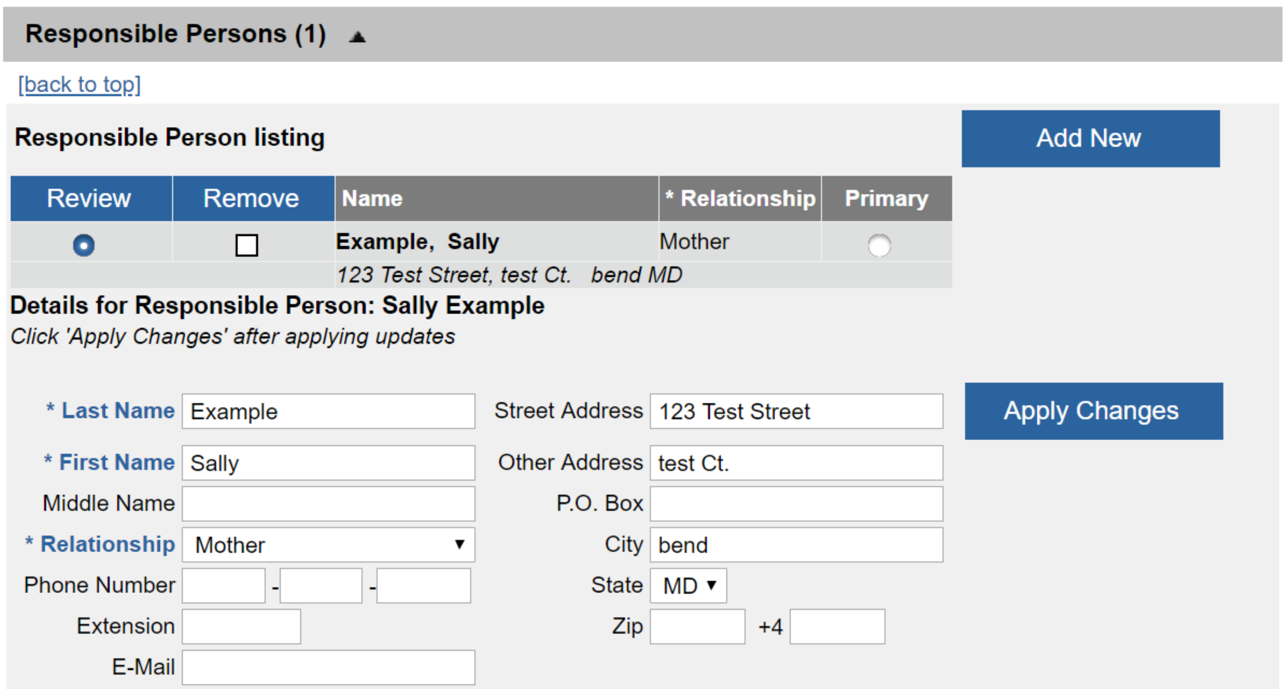
1. **Undeliverable Address:** Mark this checkbox if information was sent to the patient and the information was returned as not deliverable.
2. **Start Date:** Fill in the start date of the address using the MM/DD/YYYY format, or use the pop-up calendar by clicking the calendar icon to the right of the field. Then choose a month and year from the drop down lists at the top and choose a day by clicking on the appropriate calendar day. Press OK to enter the Start Date. This is the Start Date of the Patient's New Address
3. **Street Address:** Street Address of the Patient.
4. **Other Address:** Additional address information, if any, for example, a suite number or apartment number could be entered here.
5. **Zip:** Zip code of the patient.
6. **+4:** Extended Zip code numbers of the Patient, if available.
7. **City:** City (or town) of the patients address.
8. **State:** State of the patient's address.
9. **County:** County where the patient resides.
10. **Phone Number:** Phone Number of the Patient.
11. **Extension:** Phone extension if applicable.
12. **Cellular Phone:** Cellular Phone of Patient
13. **Email:** Email address of Patient

14. Clicking the view Patient Address History link will present a window with the patient's address History.
15. Clicking the Find command button will take you to a search screen to search and add patients that are at the same address of this patient. This feature will be available once the Household function is added to ImmuNet.

Responsible Persons Section

The Responsible Persons Section allows you to identify patient emergency contact information. The only required fields under this section are the Last Name, First Name and Relationship fields.

Click on the **Responsible Persons** Section.



1. To edit an existing responsible person, do the following:
   - Click on the Review radio button next to the name of the person you wish to edit.
   - Press Review
   - Change or add information for the fields listed.
   - Press Apply Changes.
   - Press Save.

2. To enter a new responsible person, do the following:
   - Click the Add New command button.

- Enter Information into the following fields:
- **Last Name:** Enter the last name of the responsible person into this field. This is a required field.
- **First Name:** Enter the first name of the responsible person into this field. This is a required field.
- **Middle Name:** Enter the responsible person's middle name in this field.
- **Relationship:** Choose the relationship of the responsible person to the patient from the drop down list provided. This is a required field.
- **Phone Number:** Enter the responsible person's telephone number, including the area code, in this field.
- **Extension:** Enter the responsible person's extension to the above telephone number, if any, into this field.
- **Email:** Enter the responsible person's Email address into this field.
- **Street Address:** Enter the responsible person's street address into this field.
- **Other Address:** Enter the responsible person's additional address information, if any, into this field. For example, a suite number or apartment number could be entered here.
- **P.O. Box:** Enter the responsible person's post office box, or mailing address, if different than the street address, into this field.
- **City:** Enter the responsible person's city (or town) into this field.
- State: Choose the responsible person's state from the drop down list provided.
- **ZIP:** Enter the responsible person's ZIP code in this field.
- **+4:** Enter the responsible person's +4 code in this field, if it is known.

3. To enter a new responsible person and save the information you entered in the Responsible Person Listing or view the next responsible person's record click the Save command button.
4. To clear existing information and enter a new responsible person, press Add New button

Deleting an existing record

1. Select the Remove check box next to the record you wish to delete on the Responsible Person Listing table.
2. Press Remove.
3. Press the Save button

Patient Comments Section

The Patient Comments Section allows you to enter immunization-related comments, such as, contraindication information for a patient. The patient comments list is derived from a pre-selected CDC-standardized list and is displayed in drop down list form.

Although the "Start Date" is not a required field, a start date must be entered with a contraindication comment in order to properly interact with the immunization schedule for the specified vaccine group. If a start is not entered the vaccine group that is contraindicated will still be recommended.

The patient comments are visible at the top of the Immunization History, Edit Immunization, Pre-

Select Immunization, and Record Immunization screens. Also, when using the Print button on the immunization history page, the comments are displayed on separate lines in the Comments box.

Click on the **Patient Comments** Section.

1. Enter the following information:
   - Choose the appropriate comment/contraindication from the Patient Comment drop down list.
   - Enter the date to which the comment refers in the Start Date field. Fill in the field using the MM/DD/YYYY format, or use the pop-up calendar by clicking the calendar icon to the right of the field. Then choose a month and year from the drop down lists at the top and choose a day by clicking on the appropriate calendar day.
   - Enter the date to which the comment Ends in the End Date field. Fill in the field using the MM/DD/YYYY format, or use the pop-up calendar by clicking the calendar icon to the right of the field. Then choose a month and year from the drop down lists at the top and choose a day by clicking on the appropriate calendar day.
2. To enter the comment into the Patient Comments Listing, Press Add Comment
3. Press the Save button

Restart Comments

If a physician decides to repeat a vaccine series and the appropriate comment and Start Date are entered in ImmuNet, then all vaccinations prior to that date are not evaluated as part of the series. Any doses recorded on or after the Start Date will be evaluated as if they were the first doses received for that vaccine group.

Immunity Comments

Immunity comments are linked to vaccine group recommendations. If a patient has an immunity comment and a Start Date is specified, a recommendation for that vaccine group will not display on the patient's record.

Patient Refusal of Vaccine Comments

ImmuNet users should enter refusal comments with appropriate start dates to document vaccine refusal. This information will help other providers understand why a vaccine group might be overdue for a particular patient in ImmuNet.

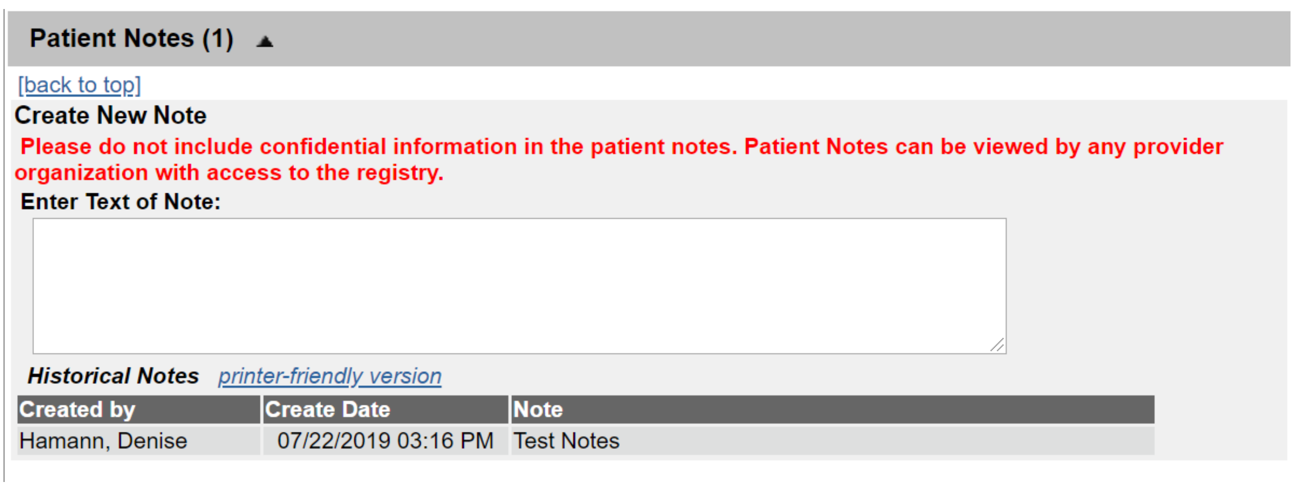
Deleting an existing comment

1. Select the Remove check box next to the comment you wish to delete on the Patient Comment Listing table.
2. Press Remove.
3. Press the Save button

Patient Notes Section

The Patient Notes Section allows you to enter notes for a patient.

Click on the **Patient Notes** Section.



1. Enter Text of Note: Enter text up to 4,000 characters in the text box.
2. Press the Save button.

Saving Patient Information

There are several ways to save information on the Demographic/Enter New Patient screens:

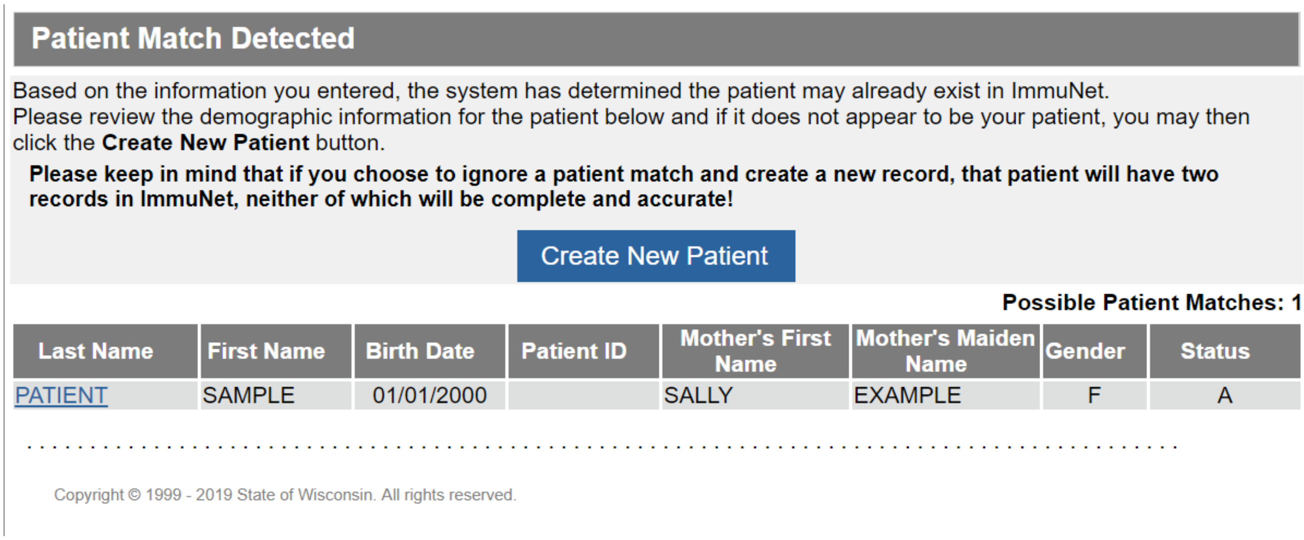
Save: When pressed, the **Save** command button at the top of the screen will save all information fields within the Personal Information Section, Patient Information Section, Address Information Section, Responsible Persons Section, Patient Comments Section and the Patients Notes Section to the ImmuNet database. Once the patient data is saved, the

	message, “Patient record successfully saved” will appear at the top of the Personal Information Header.
History/Recommend:	As with the SAVE command button, the **History/Recommend** command button will save all information fields. Once the information is saved, the patients Immunization History screen will display.
Add Immunization:	When the Add **Immunization** command button is pressed, all information fields will be saved and the Pre-Select immunization screen will display. This button allows you to bypass the history screen for a patient and go directly to adding immunizations.
Patient Reports:	As with the Save command button, the **Reports** command button will save all information fields. Once the information is saved, the Reports Available for Patient screen will display, so that a report may be generated for the patient. Refer to the Reports and Forms chapter of this manual for more information on reports.
Cancel:	When pressed, the **Cancel** command button clears all entered information and **does not save it to ImmuNet**. The Find Patient or Enter New Patient screen is displayed.

Deduplication of Patient Records

After you enter a new patient and press one of the command buttons that will save the data, ImmuNet initiates a process that ensures that the patient information you entered does not duplicate a patient that already exists in ImmuNet.

If, after attempting to save a new patient, you receive a message box titled “Patient Match Detected,” ImmuNet has determined that the patient you are attempting to save already exists in the database. A table below the message box will contain one or more names of potential matches within ImmuNet. Click on each last name to display his or her information. ImmuNet will identify matching patients even if the patient has had a name change; therefore, if you do receive a list of potential matches, click on the link(s) to determine whether one of the links matches your patient’s record.



If after reviewing all the names given in the table you do not find a match for your patient, press the Create New Patient button. A confirmation box will appear; press OK. Be aware that if you do override the listed matches and end up creating a duplicate record for a patient, it will be difficult to manage the patient's immunization and personal information and the registry will lose its accuracy and efficiency. If you identify possible duplicate patient records, you should call the ImmuNet Help Desk immediately.

Countermeasure and Response Administration Module (CRA)

Note: In the event of a public health emergency, ImmuNet may be used to track the administration of vaccine. In some instances specific groups may be identified as being at higher risk than the general population and targeted as priority groups to receive the vaccination first.

CRA Event Information Section

If your organization is selected for an event, the CRA Event Information section will be displayed below the Patient Information section of the Demographic screen. The CRA Event Information section is used to collect Public Health data during a pandemic response event or preparedness exercise (such as the response event to a Pandemic Influenza outbreak.) During an ongoing event the CRA Event Information section will be displayed on the Edit/Enter New Client screen. Based on candidate screening, select the appropriate priority group category for each patient.

CRA Event Information (1) ▲

[back to top]

Event Description		Begin Date	End Date
BAT ATTACK		07/01/2019	07/31/2019

Priority Group:

Pick a Priority G ▾

Age Group: Age will be calculated at the time of Vaccination and included in aggregate reporting.

1. Effective Events are displayed.
    - The Age Group is not required and will be calculated at the time of vaccination.
    - The Priority Group Value (Code) is displayed in the drop down list. When selected, a full description of the selected priority group will be listed to the right of the priority group drop down list.

Managing Immunizations

In this chapter:

ImmuNet allows you to view and manage historical immunization information and add new immunizations for a patient. It also recommends immunizations based on the ACIP tracking schedule.

Immunization information for a specific patient may be accessed one of two ways:

1. Choose Manage Patient under the Patients section of the menu panel. This will bring up the Find Patient screen. For information on finding patients, refer to Chapter 10, Managing Patients. Once a patient is retrieved, select the ***History Recommend*** button to display the patient's Immunization History screen.

OR

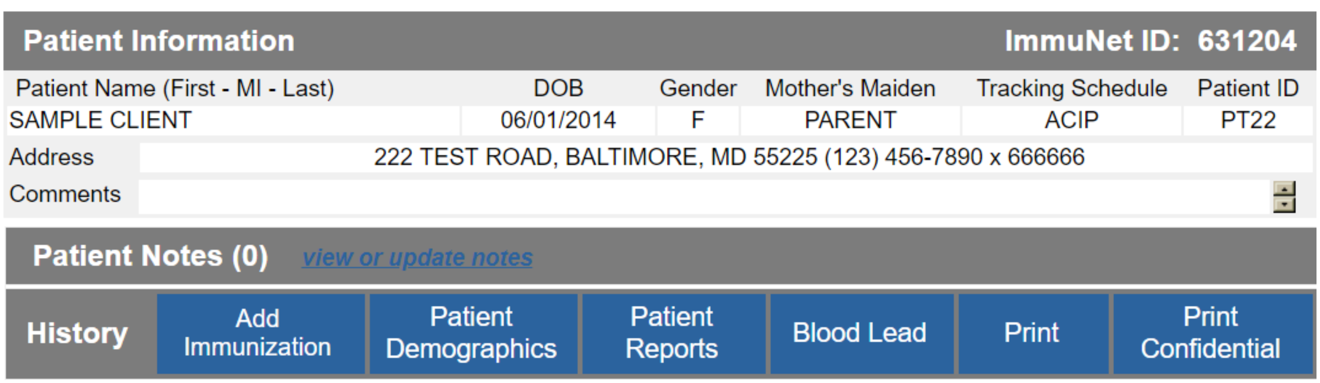
2. Choose Manage Immunizations under the Immunizations section of the menu panel. This will bring up the Find Patient screen. For information on finding patients, refer to Chapter 10, Managing Patients. Once a patient is retrieved, you will be immediately brought to the patient's Immunization History screen.

Viewing Patient Immunization Information

The Immunization History screen holds a large amount of information on each patient in ImmuNet. The screen has three sections: Patient Information, Immunization History, and Vaccines Recommended by Selected Tracking Schedule.

Patient Information

The Patient Information section at the top of the Immunization History screen displays information on the patient, such as name, DOB, Tracking Schedule, Address, Patient ID, and a scrollable list of Comments. Use this information to verify that the patient indicated is the patient for whom you were searching. To edit this information, press Patient Demographics and refer to the *Editing/Entering Patient Information* section for Managing Patients.



Immunization History

This table lists all the immunizations the patient has received to date that have been entered into ImmuNet. Immunizations are listed alphabetically by vaccine group and ordered by “Date Administered.”

Vaccine Group	Date Administered	Series	Trade Name [Vaccine]	Dose	Owned?	Reaction	Hist?	Edit
Anthrax	04/10/2019	1 of 5	BioThrax®	Full				
DTP/aP	08/08/2015	1 of 5	DTP®	Full	No			
	12/19/2015	2 of 5	Kinrix®	Full	No			
	06/06/2016	3 of 5			No		Yes	
	07/07/2017	4 of 5		Full				
MeningB	04/01/2019	NOT VALID	Trumenba®				Yes	
Polio	12/19/2015	1 of 3	Kinrix®	Full	No			
Current Age: 5 years, 1 month, 22 days								

Vaccine Group: This is the vaccine group name.

Date Administered: This date is the actual day the patient was given the vaccine. To view the tracking schedule information for the selected immunization, or an explanation of why an immunization is not valid or appropriate, click on this date.

Series: This column denotes the sequence number within the immunization series. A vaccine may show as invalid because the patient was not old enough to receive it or not enough time has elapsed between doses. ”Partial Dose” will display if the shot is flagged as a partial dosage.

Trade Name*:* This is the manufacturer’s trade name of the vaccine.

Dose: This column indicates whether full, half or multiple doses were administered to the patient.

Owned?: If the value in the owned column is blank, the immunization data are owned by your organization. This would be a result of either manual data entry of this information or having sent it via data exchange. This is only an indication of the organization submitting the data; it has nothing to do with the organization that administered the shot to the child.

If the value in the owned column is “no,” the immunization data are not owned by your organization. This indicates that your organization did not enter the shot information into ImmuNet. Click on “no” to find out who owns the shot information.

Reaction:	If this column indicates "Yes" and appears in red, this means a reaction to a vaccine was recorded. To view the patient's reaction, click on the "Yes" link in the Reaction column or click on the notepad icon in the "Edit" column.
Hist?:	If this column indicates "Yes," this record is historical, meaning the immunization was administered by a provider at another organization, not the organization that owns the data. If this column is blank, this indicates the immunization was administered by the organization that owns the data (i.e. entered the data into ImmuNet).
Edit:	When you click on the notepad icon in this column, you will be able to edit some fields for the recorded immunization using the Edit Immunization screen, as long as the immunization is owned by your organization or is historical.

Note: Owned vs. Not Owned Immunizations

A single provider does not own any of the patients within ImmuNet, but an organization does own the immunization data it enters into ImmuNet. If the "Owned" column on the immunization History table shows a "No" for one or more vaccines, this indicates that another organization entered the vaccine information and is attesting to the validity of the information.

Any provider may edit a historical immunization, but "new" or non-historical shots may only be edited by the organization that administered the vaccine and entered the data in ImmuNet.

Validation of Combination vaccines

ImmuNet validates each vaccine group component separately when recording combination vaccines. For example, if Comvax, which is a combination of Hib and Hep B was administered, and only one component is valid, that component will be treated as if it were a single vaccine and validated. The other component will be displayed as "Not Valid". The component that is not valid will not be counted in series.

Between the History section and the Recommended Tracking Schedule section, the patient's exact age is shown in a solid blue field. The age also displays on the printable version of this page.

Vaccines Recommended by Selected Tracking Schedule

This table lists all vaccines recommended by the ACIP tracking schedule associated with the patient. Immunizations are listed alphabetically.

Vaccines Recommended by Selected Tracking Schedule						Add Selected
Patient is due or past due for indicated vaccines in list-Recommended Date.						
Select	**Vaccine Group**	**Recommended Vaccine**	**Earliest Date**	**Recommended Date**	**Overdue Date**	**Latest Date**
☑	Anthrax		05/08/2019	05/08/2019	06/10/2019	
☑	DTP/aP		06/01/2018	06/01/2018	06/01/2020	05/31/2021
☑	HepA		06/01/2015	06/01/2015	06/01/2016	
☑	HepB		06/01/2014	06/01/2014	06/29/2014	
☐	Influenza		12/01/2014	08/01/2019	06/01/2015	
☐	MeningB		06/01/2030	06/01/2030	06/01/2033	
☐	Meningo		06/01/2025	06/01/2025	06/01/2027	05/31/2036
☑	MMR		06/01/2015	06/01/2015	10/01/2015	
☑	Polio		01/16/2016	01/16/2016	03/19/2016	
☑	Varicella		06/01/2015	06/01/2015	11/01/2015	05/31/2027

Select: Vaccines that are equal to or past their recommended date are automatically selected in the Vaccines Recommended section. You may also manually check other vaccines for inclusion in the Vaccines Recommended section. When the Add Selected button is pressed the check marked selections will display on the next screen.

Vaccine Group: This column lists the vaccine group name. To view the tracking schedule information for the selected immunization, or an explanation of why an immunization is not valid or appropriate, click on the vaccine group name.

Recommended Vac: This column gives the recommended vaccine name.

Earliest Date: This date is the earliest date that the patient may receive the vaccine.

Recommended Date: This date is the recommended date that the patient should receive the vaccine.

Overdue Date: This date is the date at which the patient is past due for the immunization. This will also trigger the use of an accelerated schedule for future immunizations.

Latest Date: This date is the latest date at which the patient may receive the vaccine.

Immunization Color Coding

The dates found in the Vaccines Recommended by Selected Tracking Schedule table can be shaded with color for emphasis. For a detailed listing of color definitions click on the online Help link on the Immunization History screen in ImmuNet. Some of the more common colors applied to the dates within the columns are defined as follows:

Yellow: A date shaded yellow indicates that today's date is equal to or past the earliest date and before the recommended date for an immunization that has not yet been received.

Green: A date shaded green indicates that today's date is equal to or past the recommended date and before the overdue date for an immunization that has not yet been received.

Blue: A date shaded blue indicates that today's date is equal to or past the overdue date and before the latest date (if a maximum age exists) for an immunization that has not yet been received.

Pink: A row shaded pink indicates the patient has completed the immunization series, has completed the series early, or has exceeded the maximum age for the vaccine.

Other Features on the Immunization History Screen

The Immunization History screen contains links to other ImmuNet functions. These links are:

Patient Demographics: Pressing this button will return you to the Demographic screen for the patient.

Patient Reports: Pressing this button will bring you to the Reports Available for This Patient screen. You may generate Patient-specific reports. Refer to Forms and Reports, Chapter 12, of this manual for more information.

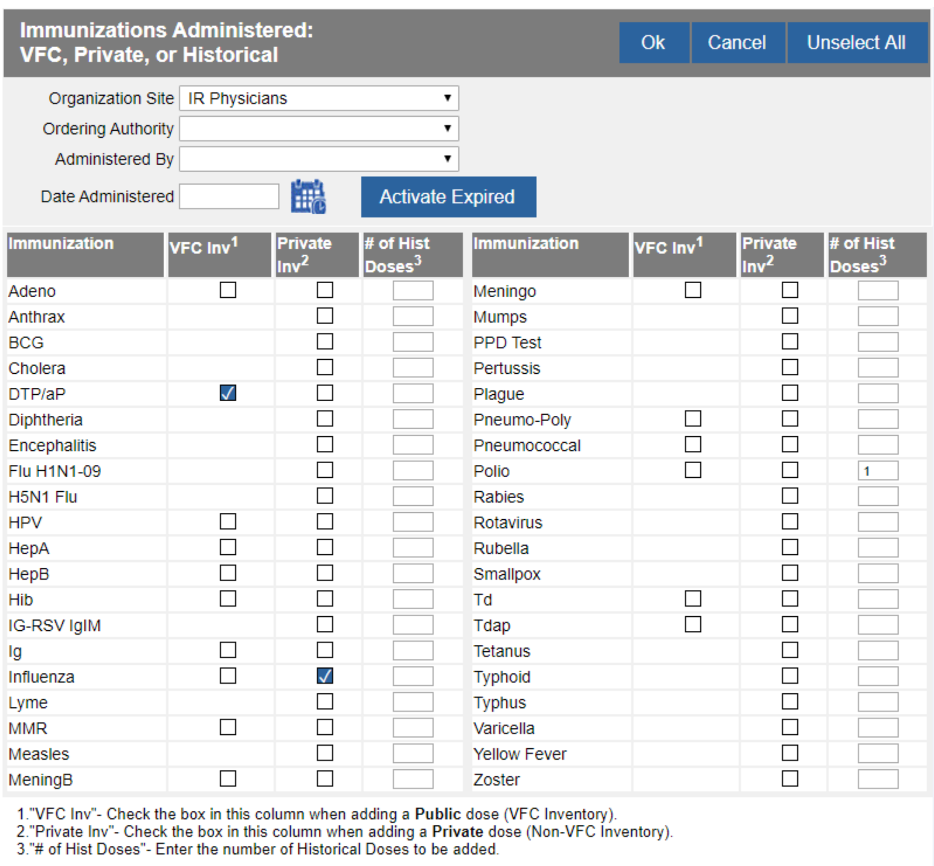
Print: Pressing this button will display the patient's immunization information without the top or side ImmuNet menus. To print this screen, click on the printer icon on your browser's tool bar or click File, Print and press OK. Press your browser's Back button to return to the patient screen.

Print Confidential: Pressing this button will display the patient's immunization information without top or side ImmuNet menus and without confidential patient information. To print this window, click on the printer icon on your browser or click File, Print, and press OK. Press your browser's Back button to return to the patient screen.

Entering Immunizations

To add new and/or historical immunizations, follow these steps:

1. To enter the pre-selected immunizations from the Vaccines Recommended Tracking Schedule, Press Add Selected within the tracking schedule.
2. To enter immunizations other than those pre-selected, press Add Immunization to display a list of immunizations on the VFC (ImmuNet), Private (Other) or Historical inventory screen.
3. You may choose a default Organization Site, Ordering Authority, and Administered By value for new immunizations by choosing from the drop-down lists in the New Immunizations section. You will be able to edit these fields for each immunization on the Record Immunizations screen. These fields are set up and managed by the Administrative user of ImmuNet for your organization. Refer to "Managing Clinicians" in Chapter 8 of the ImmuNet User Manual.
4. Choose a date for the Date Administered field using the MM/DD/YYYY format or use the pop-up calendar by clicking the calendar icon to the right of the field. If using the calendar icon, choose a month and year from the drop-down lists provided and choose a day by clicking on the appropriate calendar day. If you leave this field blank, ImmuNet will default the date administered to the current day.
5. Select the check boxes in either the **VFC Inv[1]** or **Private Inv[2]** column for the vaccines that were given by your organization.



Immunizations Administered: VFC, Private, or Historical

Ok | Cancel | Unselect All

Organization Site: IR Physicians
Ordering Authority:
Administered By:
Date Administered:
Activate Expired

Immunization	VFC Inv[1]	Private Inv[2]	# of Hist Doses[3]	Immunization	VFC Inv[1]	Private Inv[2]	# of Hist Doses[3]
Adeno	☐	☐		Meningo	☐	☐	
Anthrax		☐		Mumps		☐	
BCG		☐		PPD Test		☐	
Cholera		☐		Pertussis		☐	
DTP/aP	☑	☐		Plague		☐	
Diphtheria		☐		Pneumo-Poly	☐	☐	
Encephalitis		☐		Pneumococcal	☐	☐	
Flu H1N1-09		☐		Polio	☐	☐	1
H5N1 Flu		☐		Rabies		☐	
HPV	☐	☐		Rotavirus		☐	
HepA	☐	☐		Rubella		☐	
HepB	☐	☐		Smallpox		☐	
Hib	☐	☐		Td	☐	☐	
IG-RSV IgIM		☐		Tdap	☐	☐	
Ig	☐	☐		Tetanus		☐	
Influenza	☐	☑		Typhoid		☐	
Lyme		☐		Typhus		☐	
MMR	☐	☐		Varicella		☐	
Measles		☐		Yellow Fever		☐	
MeningB	☐	☐		Zoster		☐	

1."VFC Inv"- Check the box in this column when adding a **Public** dose (VFC Inventory).
2."Private Inv"- Check the box in this column when adding a **Private** dose (Non-VFC Inventory).
3."# of Hist Doses"- Enter the number of Historical Doses to be added.

- **VFC Inv**[1] means the provider is using the ImmuNet Inventory module and the inventory will be automatically decremented accordingly (VFC).
- **Private Inv**[2] means the shot is coming from the provider's inventory, which is being maintained outside of ImmuNet (Private).
  - You will only use one type of inventory or the other, depending on how your organization decides to manage its' inventory.
  - For combination vaccines, such as HepB-Hib, select only one vaccine component – only HepB or Hib. On the next screen when you select the trade name ImmuNet will recognize the combination vaccine and record all components.

- The column called **# of Hist Doses**[3] allows the user to enter the number of historical immunizations being entered from another provider's records.
  - Select historical immunizations by typing the number of immunizations administered for each vaccine into the text box in the **# of Hist Doses**[3] column. For example, if a patient received two historical DTaP vaccines, enter "2" in the **# of Hist Doses**[3] box.

6. Footnotes 1, 2 & 3 are displayed at the bottom of the Add Immunization screen to give directions for entering VFC, Private and Historical immunizations.

7. To advance to the Immunization Details screen, press OK.

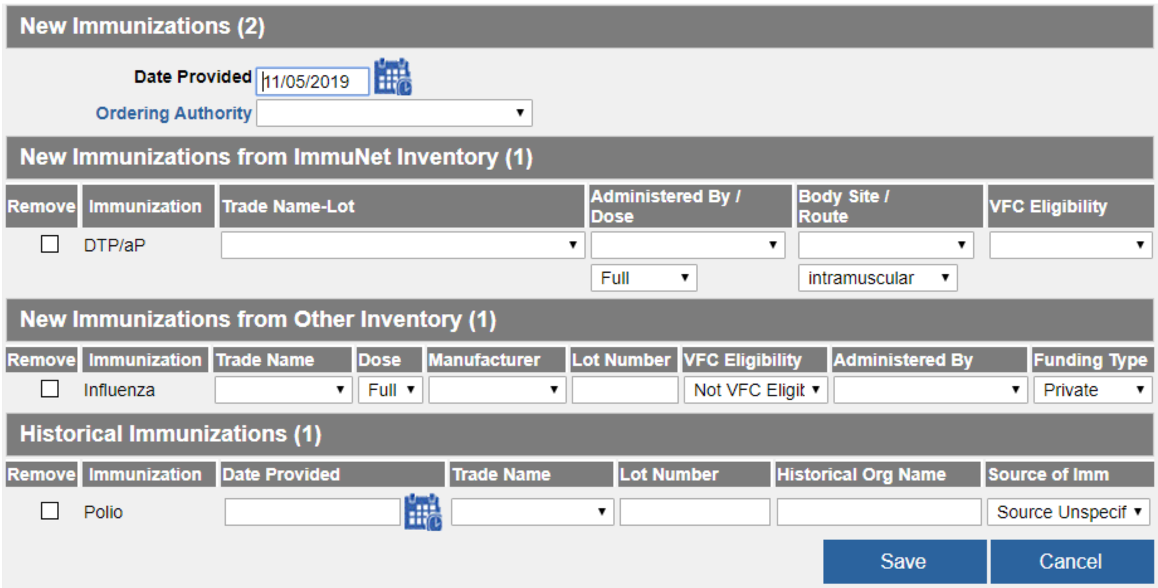
Note: When you go to the Immunization Details screen to enter the "Trade Name – Lot" from ImmuNet inventory, the vaccines displayed in the drop down list will reflect the inventory of the current date, rather than the date the immunizations may have actually occurred. To adjust the vaccine listing to reflect the inventory of a past date, follow these steps:

1. On the VFC (ImmuNet), Private (Other) or Historical inventory screen, enter the Date Administered.
2. Press the Activate Expired button to the right of the Date Administered fields.

   For additional instruction on this feature, contact the ImmuNet Help Desk.

Immunization Detail Entry Screen

1. After selecting OK from the VFC (ImmuNet), Private (Other) or Historical Inventory screen, the Immunization Detail Entry Screen will display:



2. New Immunizations - Verify or enter the Date Provided, VFC Eligibility and Ordering Authority for the new immunization(s) listed in the New Immunizations table.

3. Place a check in the Remove check box only if this immunization should not be entered into the ImmuNet database. For example, if ImmuNet informs you that the immunization is a duplicate, you should remove or modify the entry.

4. Choose a Trade Name-Lot and Funding Type from the drop-down list for the first listed vaccine.

    - If using the VFC (ImmuNet) Inventory module, choosing the “Trade Name – Lot” populates the Trade Name and Lot Number, and whether the vaccine funding was private or public.
    - If using Private (Other) Inventory, providers must record Trade Name, Lot Number, and the Funding Type (Public or Private) separately. Private will be the Funding Type default.
    - Providers are not required to enter lot numbers for historical immunization records.

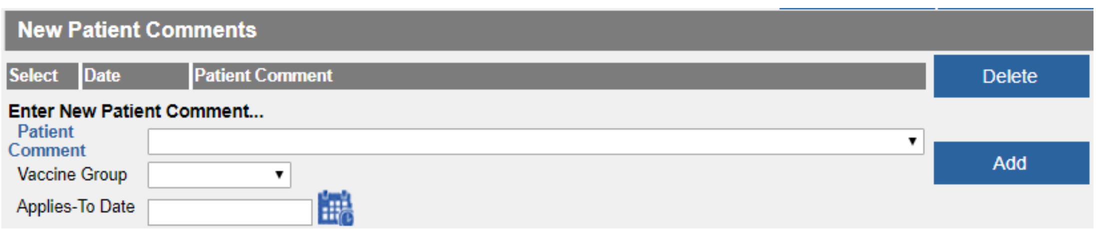
5. Enter additional drop-down list information for the following fields for each vaccine:

    - Dose: This field should be filled with the dosage given to the patient. Use the drop-down list to select full, half, or multiple doses
    - Administered By: This field should be filled with the name of the clinician that administered the immunization.
    - Body Site: This field should be filled with the area of the body where the

immunization was given.

- Route: This field should be filled with the method of administration; for example, intramuscular, oral, etc. This field will display default data.
- VFC Eligibility: This field should be filled with the vaccine eligibility for this patient's immunization. (Defaults to Not VFC Eligible for Private inventory.)
- Under Historical Immunizations, enter a "Date Provided" and "Source of Immunization" for each immunization listed.

6. Under Patient Comments, select a comment or refusal from the drop-down list, if applicable. Enter an applies-to date for each comment, then press Add to enter a new comment. You may also click the radio button next to an existing comment and press Delete to remove it.



7. When immunization details are complete, press OK.
8. ImmuNet will take you back to the Immunization History screen and display the newly entered vaccines with dates and validation, in addition to updated vaccine recommendations.

Note: At the bottom of the Immunization Details Entry screen, default VIS dates will be displayed for each new immunization entered. To change the default VIS date, follow the instructions under the "Editing Owned Immunizations from Inventory" section of this chapter.

Duplicate Immunizations

ImmuNet does not allow duplicate immunizations to be entered for a patient. If you attempt to enter an immunization for a patient given within two days before or after an existing immunization with the same trade name, you will receive the message, "Possible duplicate immunizations exist. Modify or delete your entries." ImmuNet will then allow you to change or delete the entry(s) in question.

If you receive a duplicate immunization override warning, follow these steps:

1. In the duplicate immunization override warning dialog box, review all immunizations to determine whether there are any duplicates. If the immunization(s) you entered need to be removed or edited, press "Make Edits". At the Record Immunization screen, make changes or remove immunizations as needed. Press OK.

2. If an Immunization(s) listed in the warning dialog box is not a duplicate, select the checkbox(es) next to the immunization(s) to enter it as a separate vaccine event and press Save Selected.

Note: The following scenarios explain how ImmuNet overrides duplicate immunization records:

- If there is a historical immunization on file and the same immunization is entered from ImmuNet inventory, no warning message will appear; instead it processes the new immunization and removes the historical immunization.
- If there is a historical immunization on file and a matching immunization is entered from Other Inventory, a warning message will appear. The user then has the choice to cancel the new immunization or save it anyway (adding a duplicate immunization).
  The user would need to explicitly delete the historical immunization to remove the duplicate records.

Applying a Prerequisite Override to a Patient's Immunization

A prerequisite override is a command within a tracking schedule that allows users to override a prerequisite vaccine once a patient reaches a certain age. A prerequisite override is not automatically applied to an individual patient's immunization record. To apply a prerequisite override to an immunization, follow these steps:

1. Enter the immunization as described in the Entering Immunizations section of this chapter. You may notice that, as in the case of Td, the immunization will appear on the immunization history as one of a series, when in fact it is a booster immunization. The next two steps will correct this.
2. Follow Steps 1-3 in the Editing Owned Immunization from Inventory section of this chapter.
3. In the field marked Disregard Primary Series, choose yes. Note: this field will only appear

open if the conditions (the chosen tracking schedule has an override on the vaccine and the age of the patient is greater than or equal to the override age) meet those of the prerequisite override.

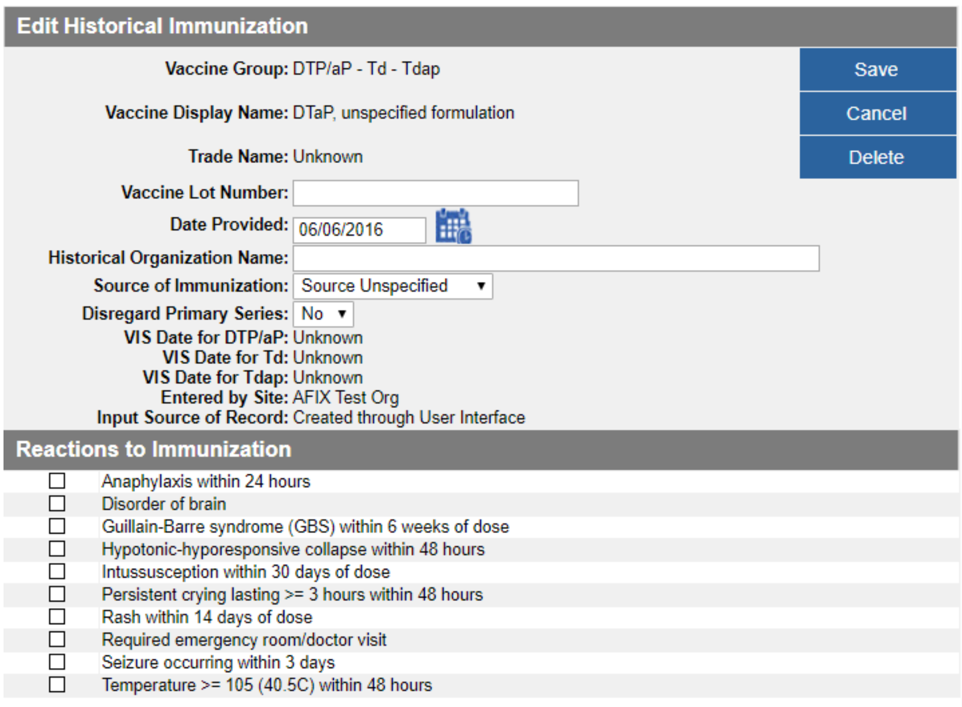
4. Press **Save**.

Editing Immunizations

Editing Historical Immunizations

To edit a historical immunization, use the following steps:

1. On the Immunization History table, select the historical vaccine record you wish to edit by clicking on the vaccine's notepad icon in the "Edit" column.



2. In the Edit Historical Immunization screen, you may edit information for the Vaccine Lot Number, Date provided, Provider Organization Name and Source of Immunization Fields.

3. To record a reaction to a vaccine, check the box to the left of the reaction in the Reactions to Immunization section.

4. Press Save.

Deleting Historical Immunizations

To delete a historical immunization, follow these steps:

1. On the Immunization History table, select the historical vaccine record you wish

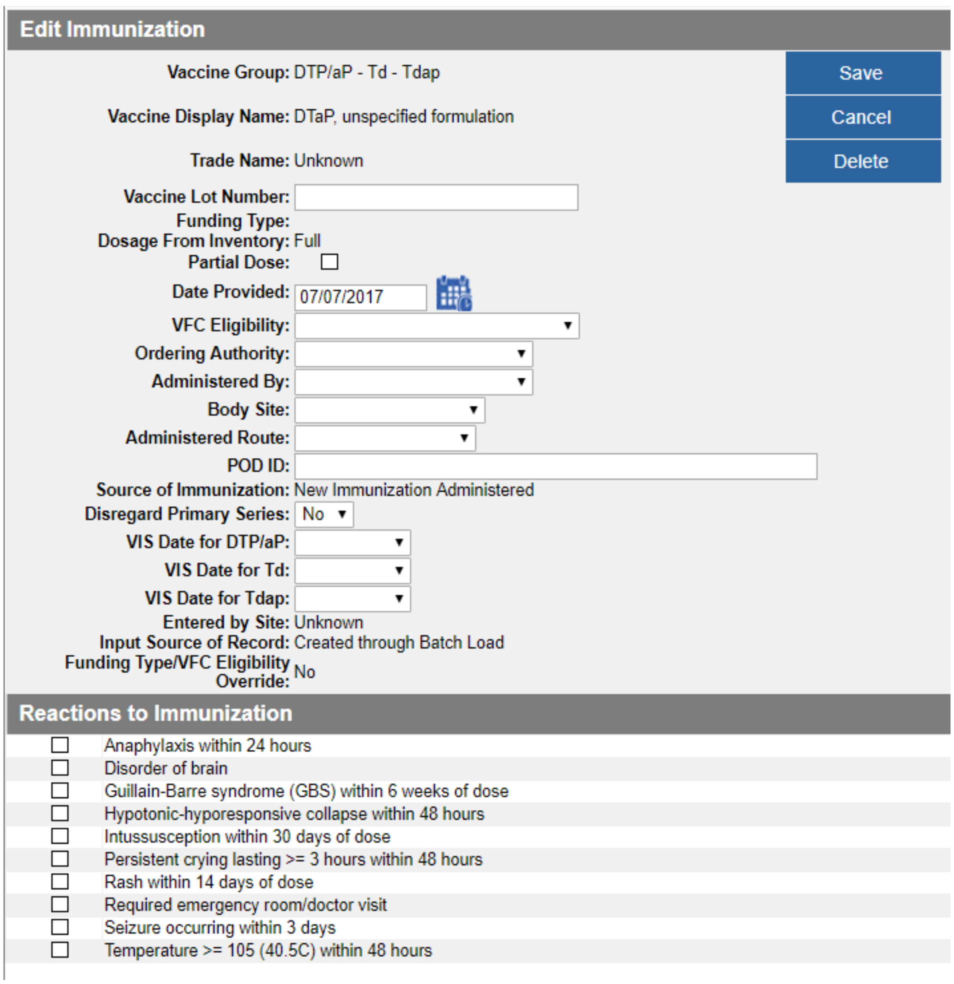
to delete by clicking on the vaccine's notepad icon in the "Edit" column.

2. At the Edit Historical Immunization screen, press Delete.
3. Press OK in the confirmation box.

Editing Owned Immunizations from Inventory

An immunization that is not historical is one that was given out of an organization's inventory. You will not be able to edit non-historical immunizations that are owned by another organization. To edit an immunization record that is an owned immunization, administered by your organization, follow these steps:

1. On the Immunization History table, select the vaccine record you wish to edit by clicking on the vaccine's notepad icon in the "Edit" column.



2. To indicate a partial dosage, check the Partial Dose checkbox. For example, check this box if a partial dosage was administered because the needle broke or was removed too soon.
3. Update information in the Date Provided, VFC Eligibility, Ordering Authority, Administered By, Body Site and/or Administered Route fields on the Edit Immunization screen.

4. To indicate a Vaccine Information Statement (VIS) date other than the most current (default) date, choose an alternate date from the drop down list.
5. To record a reaction to the immunization, check the box next to the applicable reaction.
6. Press Save.

Deleting Owned Immunizations from Inventory

Note that you will not be able to delete non-historical immunizations that are owned by another organization.

1. On the Immunization History table, select the vaccine you wish to delete by clicking on the vaccine’s notebook icon in the “Edit” column.
2. At the Edit Immunization screen, press Delete.
3. Press OK in the delete confirmation box.

Countermeasure and Response Administration (CRA)

In the event of a public health emergency, ImmuNet may be used to track the administration of vaccine. In some cases, specific patient groups may be identified as being at higher risk than the general population and targeted to receive the vaccination first. These groups are called priority groups.

The CRA Event Information section is used to collect Public Health data during a pandemic event or preparedness exercise (such as the response event to a Pandemic Influenza outbreak.) If your organization is selected for an event, then the CRA Event Information section will be displayed on the Record Immunizations screen. Based on candidate screening, select the appropriate priority group category for each patient.

Forms and Reports

In this chapter:

Forms

1. The following updated ImmuNet Forms can be found https://phpa.health.maryland.gov/OIDEOR/IMMUN/Pages/forms.aspx
    - Vaccine Records Request Form
    - Opt-Out Form
    - Rescind Opt-Out Form
    - ImmuNet Enrollment Form
    - Release of Opted-Out Records Form

2. The following information is available under Resources \ For Health Care Providers Link:

FAQ: *This provides some of the most frequently asked questions and answers that Healthcare Professionals have inquired upon for ImmuNet.*

ImmuNet Quick Reference Guide: *Several one to two page guides focusing on the most common features used by the average ImmuNet user. New users should print some of these guides and refer to them when using the system.*

Reporting to ImmuNet: *This will provide information on why reporting to ImmuNet is important as well as how to report immunization data to ImmuNet.*

Provider Site Enrollment Form: *This form should be filled out by any organization who is interested in enrolling with the ImmuNet registry.*

Request Immunization Record: *Providers who do not have access to ImmuNet can request a patient's immunization record by completing this form.*

Medical Information Release Form: *This is the form providers must fill out when requesting immunization information on opt-out patients (parent or guardian signature required).*

Vaccine Administration Report - MDH Form 4500 - Blank: *A blank version of the official Maryland form for a patient's immunization history.*

Vaccine Information Sheets: *A link to the VIS sheets on the Vaccine Action Coalition website.*

MU or MIPS ACI: *This link will take you to a site which will guide you in the Public Health Reporting process to meet the requirements for Meaningful Use or MIPS Advancing Care Information (ACI).*

Vaccines for Children (VFC) Program: *This link will take you to a site for the Maryland Vaccine for Children Program where enrollment, training, contact information and current program information can be obtained.*

Vaccine Adverse Event Reporting System: *A link directly to the VAERS website.*

B-Free Homepage: *A link directly to the B-Free Application.*

3. The following information is available under Resources \ For School Users:

FAQ: *This provides some of the most frequently asked questions and answers that School Users have inquired upon for ImmuNet.*

ImmuNet Quick Reference Guide: *Several one to two page guides focusing on the most common features used by the average ImmuNet user. New users should print some of these guides and refer to them when using the system.*

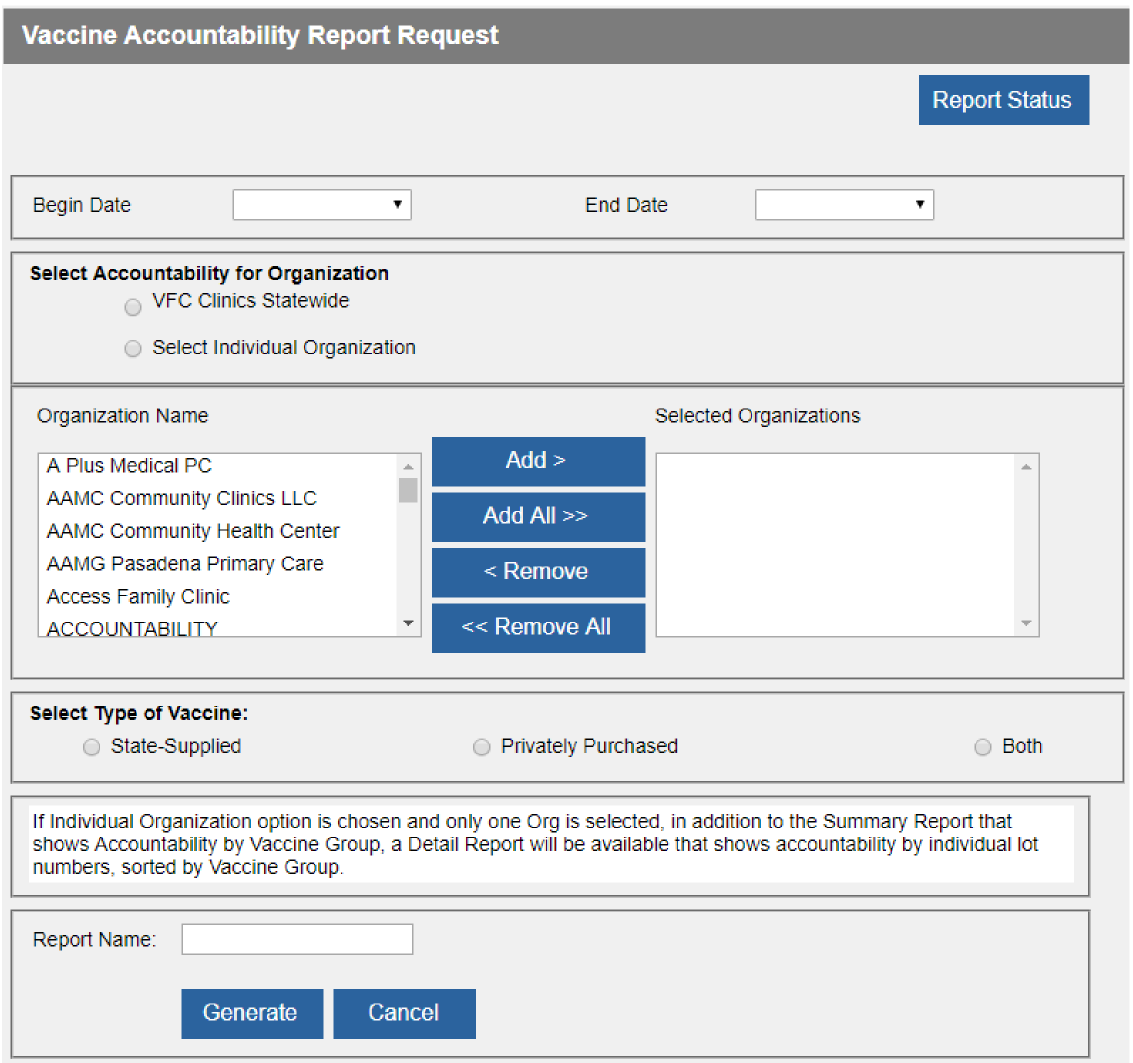
Provider Site Enrollment Form: *This form should be filled out by any organization who is interested in enrolling with the ImmuNet registry.*

Reports

Vaccine Accountability Report

The Vaccine Accountability Report provides information about inventory transactions entered into ImmuNet for selected quarterly and monthly time periods. The report is available to designated user roles only. If you feel as though you need access to the Accountability Report, please contact the ImmuNet Help Desk. The Vaccine Accountability Report can be generated for a single organization, multiple organizations, or All VFC organizations (available to state-level user roles only). When the Vaccine Accountability Report is generated for a single organization, both a Summary report and a Detail report will be created. When the Vaccine Accountability Report is generated for multiple organizations or All VFC organizations, only a Summary report will be created. To generate a Vaccine Accountability Report:

Click **Accountability Report Request** under the Organization Reports section of the menu panel.



Select the beginning quarter/year from the Begin Date drop down list. (The options provided appear as “Quarter [#], [YYYY]”, for instance “Quarter 4, 2019”. ImmuNet translates the selected quarter to the **FIRST** date of that quarter, which is October 1, 2019.) Monthly selections are also available for the Begin Date drop down list. (The options provided appear as “Month [#]. [YYYY]”, for instance “Month 1, 2020”.)
Select the ending quarter/year from the End Date drop down list. (The options provided appear as “Quarter [#], [YYYY]”, for instance “Quarter 4, 2019”. ImmuNet translates the selected quarter to the **LAST** date of that quarter, which is December 31, 2019.) Monthly selections are also available for the End Date drop down list. (The options provided appear as “Month [#]. [YYYY]”, for instance “Month 1, 2020”.)

Note: It is acceptable to select the same quarter (or month) option in the Begin Date and End Date drop down lists. For instance, if Quarter 4, 2019 is selected for both the Begin Date and End Date, the report period will be October 1 - December 31, 2019.

Quarter breakdown:

Quarter 1: January 1 – March 31
Quarter 2: April 1 – June 30
Quarter 3: July 1 – September 30
Quarter 4: October 1 – December 31

Monthly breakdown

Month 1: January
Month 2: February
Month 3: March
Month 4: April
Month 5: May
Month 6: June
Month 7: July
Month 8: August
Month 9: September
Month 10: October
Month 11: November
Month 12: December

1. Select the organization options available to you (not all options are available to all user roles).
    a. The “Select Individual Organization” option may be selected in order to run a Vaccine Accountability Report for one or more selected organizations.
        i. Most user roles will see their assigned organization(s) displayed in the Organization Name list box and may select one or more organizations for the report.
        ii. If you are assigned to one organization and are not a state-level user, your organization will automatically be selected for you.
        iii. State-level users have all organizations with a VFC status of Active or Suspended displayed in the Organization Name list box and may select one or more organizations for the report.

b. For state-level user roles only, the “VFC Clinics Statewide” option may be selected in order to run a Vaccine Accountability Report for all clinics that have a VFC Status of Active or Suspended.

2. Choose the type of vaccine you would like to include in your Vaccine Accountability Report. Options include “State-Supplied”, “Privately Purchased”, or “Both.”
3. Enter the report name in the Report Name text box. Entering a report name is optional. If no report name is entered, ImmuNet will automatically assign a report name as shown below:
    a. One organization Detail report: “[Organization Name] _ Detail (XLS)”
    b. One organization Summary report: “[Organization Name] (XLS)”
    c. Multiple Organization Summary report: “Multiple_Orgs (XLS)”
    d. VFC Clinics Statewide Summary report: “Statewide (XLS)”
4. Click the **Generate** button.
5. The report request drops into a processing queue. In order to update the Status, click on the refresh button. When status indicates “100%” you can click on the underlined hyperlink(s) to view the report. (Note: Only the 3 most recent reports will be displayed on the Status screen at any given time.)

Accountability Report Status Refresh Cancel

Report Name	VFC PIN	Vaccine Type	Begin Date	End Date	Status	Summary Report	Detail Report
Multiple Orgs	12000	State-Supplied	Quarter 1, 2020	Quarter 1, 2020	100%	Multiple Orgs (XLS)	
ACCOUNTABILITY	12000	Privately Purchased	Quarter 1, 2020	Quarter 1, 2020	100%	ACCOUNTABILITY (XLS)	ACCOUNTABILITY_Detail (XLS)
Statewide	12000	Both	Quarter 1, 2020	Quarter 1, 2020	100%	Statewide (XLS)	

6. The reports are in the ‘.xls’ spreadsheet format, so you may be prompted to open or save the file. Choose from the options presented: Open, Save, or Cancel. The file will open in the program on your computer that is set to open ‘.xls’ files, such as Microsoft Excel.
7. To print the report, click on the printer icon on the Microsoft Excel toolbar or other program that has opened the file.
8. Click the **Print** button in the Print dialog box.

Vaccine Accountability – Detail Report

1. *The Detail Report contains accountability data grouped by Vaccine Group and Lot Number.*

Vaccine Accountability Report - IR Physicians

Org Code: IRPH VFC PIN: 12000

Report timeframe: Quarter 4, 2019 Report date: 02/27/2020 Vaccine Funding Source: Both

This report only reflects data <u>reported</u> to ImmuNet during the report timeframe and does not include influenza vaccine.

Detailed Accountability Data by Vaccine Group and Lot Number

Vaccine Group	Lot Number	+ Starting Inventory	+ Doses Received	- Doses Reported	- Doses Expired	- Doses Spoiled	- Doses Wasted	- Doses Transferred Out	+ Ending Inventory	Accounted for Doses	Accounted for %
DTP/aP	ACAMlot	192	400	-330	-10	-1	-5	0	180	526	88.85%
DTP/aP	Duplicate	88	100	-132	-2	-1	-1	-3	35	174	92.55%
DTP/aP	jes12345	93	100	-122	-5	-3	-1	0	3	134	69.43%
DTP/aP	JES3	140	112	-180	-4	-4	-1	-10	28	250	99.21%
DTP/aP	**ALL**	**654**	**824**	**-944**	**-67**	**-13**	**-13**	**-23**	**274**	**1334**	**90.32%**
HepB	50505	16	40	-45	0	0	0	0	10	55	98.21%
HepB	123	32	50	-205	0	-8	-16	0	20	49	59.76%
HepB	12345	27	120	-125	-2	0	0	-10	2	139	94.56%
HepB	1245	55	20	-30	0	-10	-3	0	30	73	97.33%
HepB	1245	25	80	-45	-10	0	-14	0	28	97	92.38%
HepB	1245	72	30	0	0	0	-7	-10	13	30	29.41%
HepB	**ALL**	**227**	**340**	**-450**	**-12**	**-18**	**-40**	**-20**	**103**	**443**	**78.13%**
ALL	**ALL**	**881**	**1164**	**-1394**	**-79**	**-31**	**-53**	**-43**	**377**	**1777**	**90.07%**

Vaccine Accountability – Summary Report

- *The Summary Report contains accountability data grouped by Vaccine Group, with all lot numbers combined.*

Vaccine Accountability Report - IR Physicians

Org Code: IRPH VFC PIN: 12000

Report timeframe: Quarter 4, 2019 Report date: 02/27/2020 Vaccine Funding Source: Both

This report only reflects data reported to ImmuNet during the report timeframe and does not include influenza vaccine.

Accountability Data By Vaccine Group

VFC PIN	Organization Name	County	Vaccine Group	+ Starting Inventory	+ Doses Received	- Doses Reported	- Doses Expired	- Doses Spoiled	- Doses Wasted	- Doses Transferred Out	+ Ending Inventory	Accounted for Doses	Accounted for %
12000	IR Physicians	Garrett	Adeno	19	400	-390	-10	-1	-4	0	10	415	99.05%
12000	IR Physicians	Garrett	DTP/aP	21	200	-187	0	-10	-12	0	5	214	96.83%
12000	IR Physicians	Garrett	DTP/aP-Polio	88	100	-132	-2	-1	-1	0	35	171	90.96%
12000	IR Physicians	Garrett	HepB	65	100	-120	0	0	-17	0	10	147	89.09%
12000	IR Physicians	Garrett	HepB-Hib	93	100	-180	-5	-3	-1	0	3	192	99.48%
12000	IR Physicians	Garrett	Hib	140	112	-180	-25	-4	-3	-10	28	250	99.21%
12000	**IR Physicians**	**Garrett**	**ALL**	**426**	**1012**	**-1189**	**-42**	**-19**	**-38**	**-10**	**91**	**1389**	**96.59%**
Total		_	**ALL**	**426**	**1012**	**-1189**	**-42**	**-19**	**-38**	**-10**	**91**	**1389**	**96.59%**

Understanding Vaccine Accountability Report

Columns and Calculations:

+ Starting Inventory	+ Doses Received	- Doses Reported	- Doses Expired	- Doses Spoiled	- Doses Wasted	- Doses Transferred Out	+ Ending Inventory	Accounted for Doses	Accounted for %
1	2	3	4	5	6	7	8	9	10

1 – Inventory units on-hand at begin date of report (active, non-expired), the first-time report is run. Thereafter ending inventory from the prior Month or Quarter's report run.

2 – Doses Received, and '+' Error correction.

3 – Doses Administered less Doses Deleted (accounted for doses only with valid eligibility codes).

4 – Expired doses from inventory transactions.

5 – Spoiled doses from inventory transactions.

6 – Wasted does from inventory transactions.

7 – Transferred Out and LOTDELETE transactions.

8 – Inventory units on-hand at end date of report (active, non-expired) from system (keep in mind that ending inventory will include unaccounted for doses deducted from inventory).

9 – Accounted for Doses = |(3+4+5+6+7)|+8.

10 – Accounted for Doses / Total vaccine units |(3+4+5+6+7)|+8/ 1+2.

11 – Unaccounted for Doses include doses administered via inventory modification but without a valid eligibility code for the organization.

Detailed List of Inventory Transactions

The code is what is displayed in the Show Transactions report in ImmuNet.

	CODE	-/+	DESCRIPTION	SOURCE OF TRANSACTION	SOURCE TYPE
A	REC	+	Receipt of Inventory	Edit Inventory reason pick list	manual
B	REC	+	Receipt of Inventory	Add inventory is saved, Order/transfer Received	automated
C	RET	+	Doses Returned	Rejected transfer that is restocked in inventory	automated
D	RET	+	Doses Returned	Edit Inventory reason pick list	manual
E	TRA	-	transfers out of inventory	Orders from or transfers from inventory	automated
F	TRA	-	Doses Transferred	Edit Inventory reason pick list	manual
G	Immunize	-	Immunizations Given	Imm is added to patient's record	automated
H	Delete	+	Immunizations Deleted	Imm is deleted from patient record	automated
I	ERR	+ or -	Error Correction	Edit Inventory reason pick list	manual
J	WAS	-	Wasted immunizations reported by Provider	Edit Inventory reason pick list	manual
K	SPO	-	Spoilage reported by Provider	Edit Inventory reason pick list	manual
L	LOTDELETE	-	Lots Deleted	Edit Inventory Delete button	manual
M	*Expired Doses in Inventory (No code)*		Expired	Counts auto-generated when reports run	automated

Inventory Transactions within Vaccine Accountability Report columns

+ Starting Inventory	+ Doses Received	- Doses Reported	- Doses Expired	- Doses Spoiled	- Doses Wasted	- Doses Transferred Out	+ Ending Inventory	Accounted for Doses	Accounted for %
1	2	3	4	5	6	7	8	9	10
ending inventory from prior report run	A, B, C, D and I when positive	G* (H*)	M	K	J and I when negative	E, F, L	active, non-expired QOH per system		

Note that some transaction types are treated differently based on whether they are accompanied by a valid vaccine eligibility code:

G* = count if the immunization administered contains a vaccine eligibility code
H* = Delete transaction of an immunization administered that contains a vaccine eligibility code, which lowers the count of Doses Reported

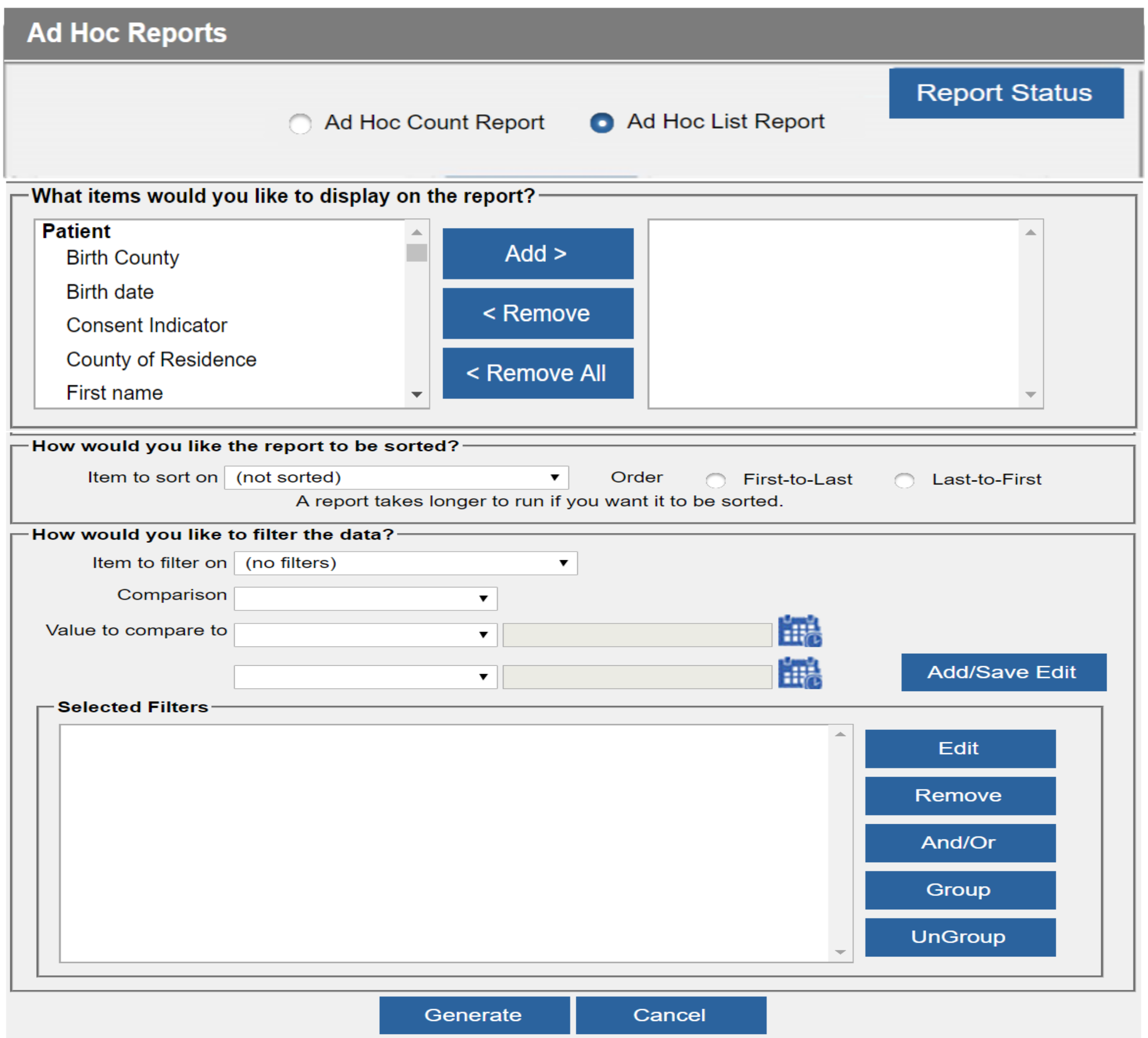
Unaccounted for transactions: G**, H**

G** = unaccounted for if the immunization administered does not contain a vaccine eligibility code
H** = Delete transaction of an immunization administered that does not contain a vaccine eligibility code

Ad Hoc Reports

The Ad Hoc Reports function in ImmuNet allows the user to create customized reports. Filters within the Ad Hoc Reporting function help to narrow a search by date, site, vaccine group, ethnicity, and other factors. City and county public health departments may include in their reports patients associated with their departments or those living within the same city or county.

The Ad Hoc reporting function produces two types of reports; one type produces lists with information about selected patients, the other type produces counts, either of patients or of immunizations.

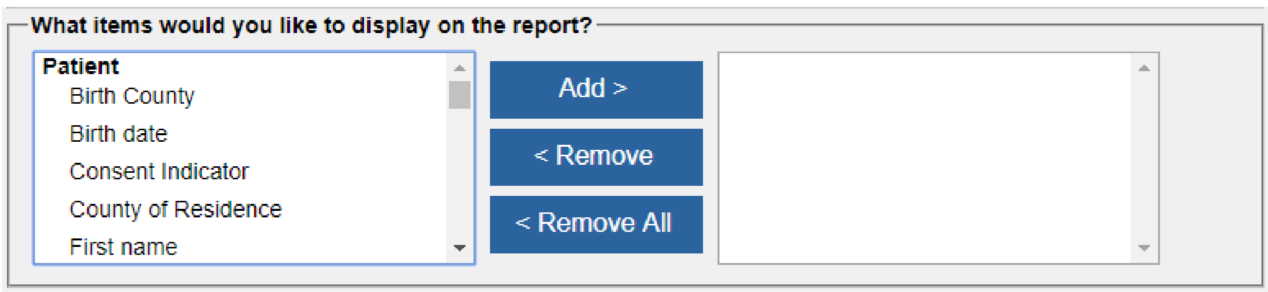


Note: Patients whose information is added or changed on the day the report is run may not appear in the results until the following day.

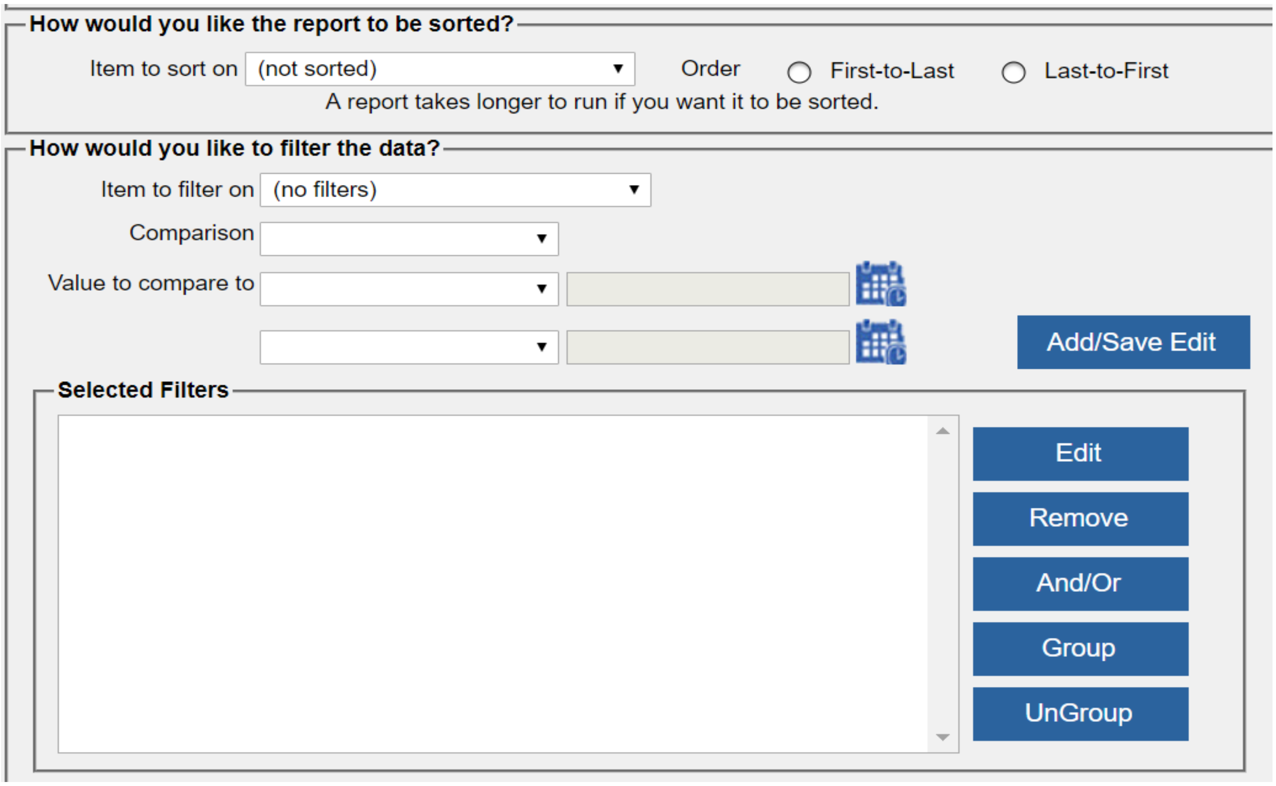
Ad Hoc List Reports

To produce a list of information about selected patients, follow these steps:

1. Click on the **Ad Hoc List Report** radio button on the **Ad Hoc Reports** page.
2. Select the items that you would like to display on the report by double-clicking on the desired items from the left column (for example, Patient Last Name) or by highlighting the item and pressing **ADD**. This will copy the item to the right column and add it to your report.

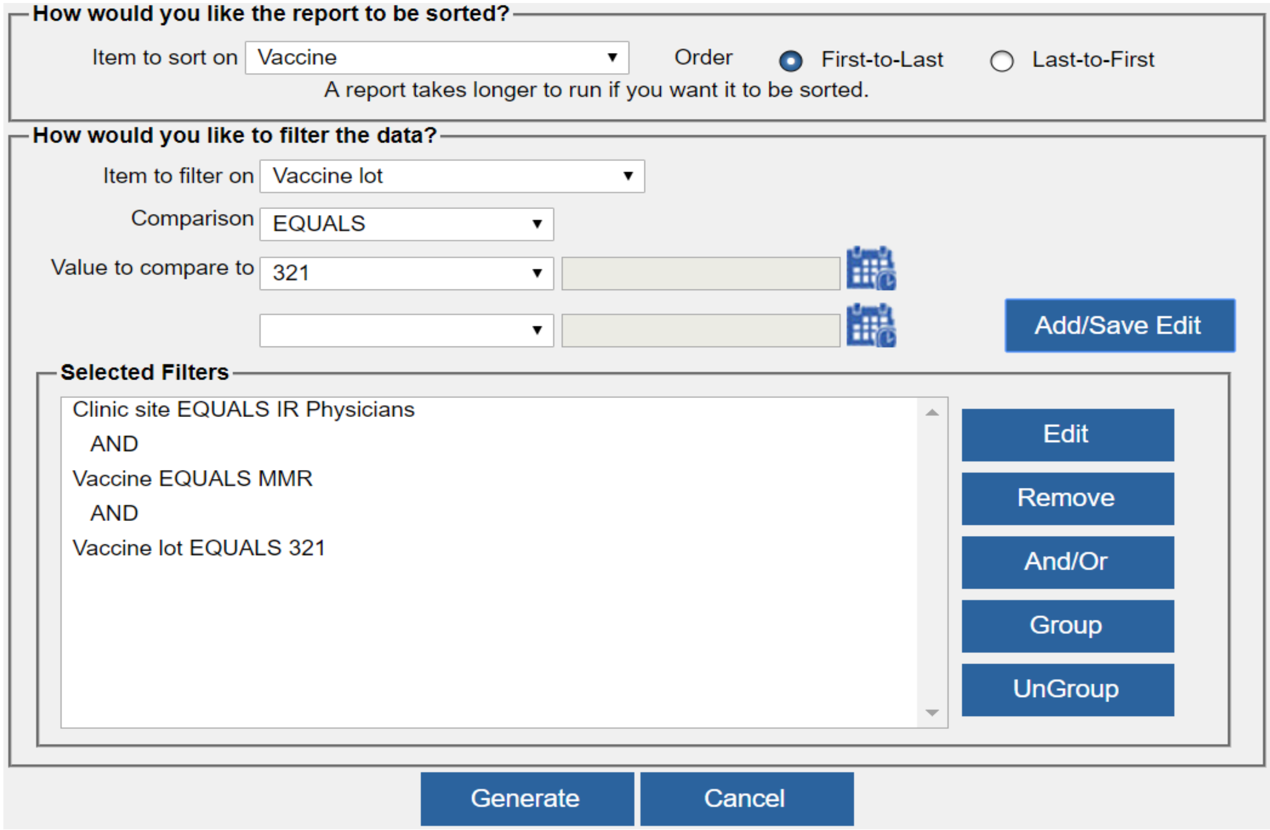


Select the single item by which you would like to have the report sorted and click on the sort order (first-to-last or last-to-first). Note: Sorting the report will increase the time it takes to process it.



3. Under “Item to filter on,” select an item that you would like to add as a filter using the drop- d o w n list provided. For example, “Birth Date Range” could be an item used as a filter.

   Filters in ImmuNet are used to narrow information down so that it answers a user’s query. An example of a filter item would be Birth Date Range (Item to filter on) BETWEEN (Comparison) 01/01/2004 (Value to compare to) AND 12/31/2004 (And).
4. Under Comparison,” select a word from the drop-down list that best describes the type of comparison you wish to make. For example, “Between” is one comparison operator.
5. Under “Value to compare to,” either choose a value from the drop down list in the left field or enter a beginning date in the right field.
6. Under “and,” select another value from the drop-down list in the left field or enter the ending date in the right field, if applicable.
7. Press ***Add/Save***. Repeat Steps 4-8 for each item you wish to filter.



8. When finished adding filter items, you may do the following:
   - Group them together by highlighting two filter statements and pressing ***Group.***
   - Change "AND" to "OR" by highlighting "AND" and clicking on the ***And/Or*** button. "OR" can also be switched to "AND" by following the same process.

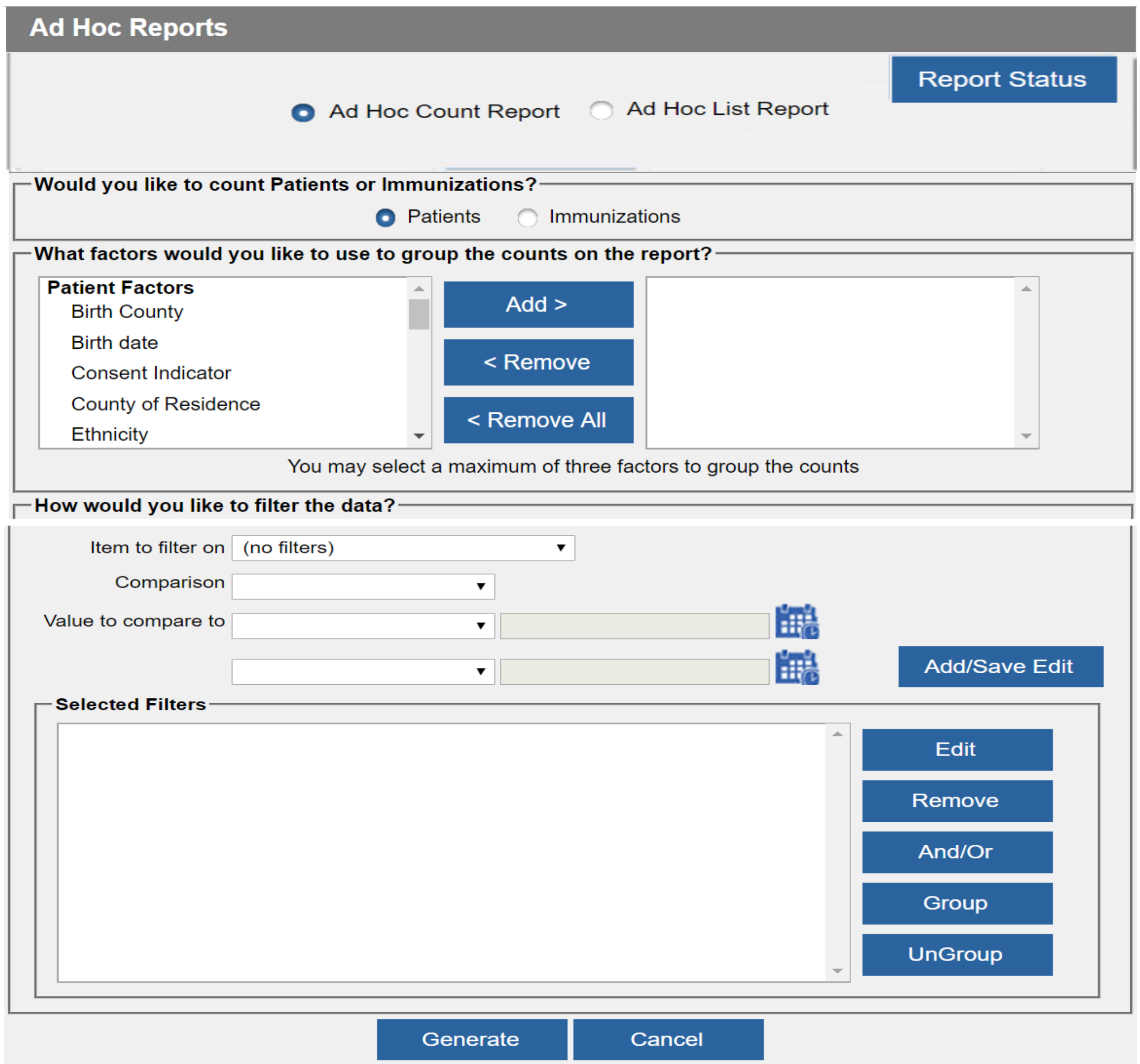
- Highlight a grouped statement and press ***Ungroup*** to ungroup it.
- Highlight a statement and press ***Remove*** to remove it from the selected filters.
- Highlight a statement and press ***Edit*** to make changes to a statement. Make the necessary changes to the statement in the filtering section of the screen and press ***Add/Save***

10. Press ***Generate***. The Ad Hoc Report Status page will display; see the Ad Hoc Report Status section of this chapter for more information.

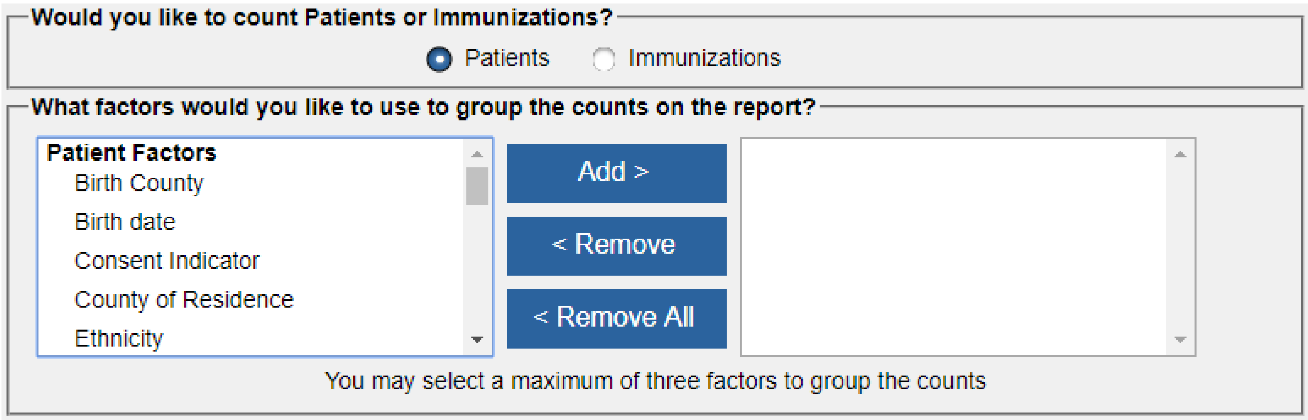
Ad Hoc Count Report

To produce a count of selected patients or immunizations, follow these steps:

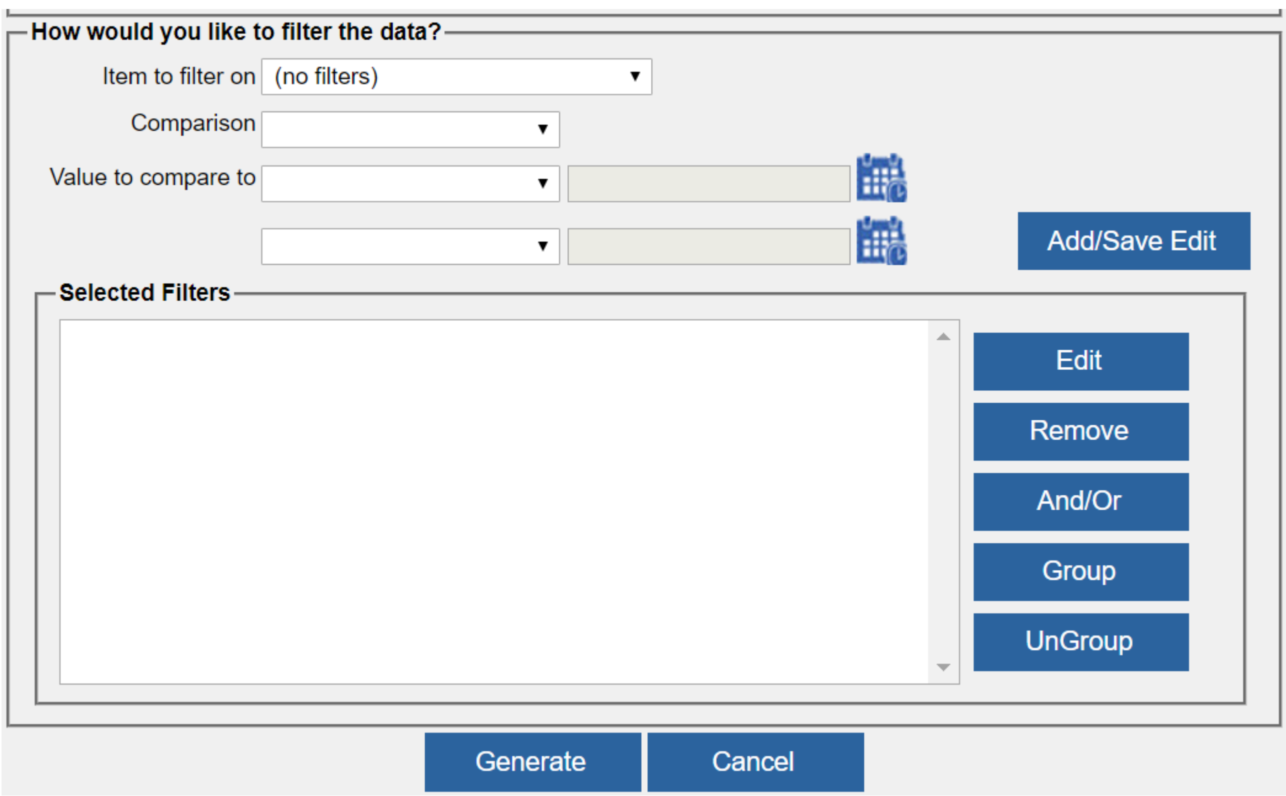
1. Click **Ad Hoc Count Report** radio button on the **Ad Hoc Reports** page.



2. Select whether Patients or Immunizations will be counted by clicking the appropriate radio button at the top of the screen.



3. Select the factors you would like to use to group the counts on the report by double-clicking on the desired item from the left column (for example, Vaccine Group) or by highlighting the item and pressing ***Add***. This will copy the item to the right column so that it can be used in your report.

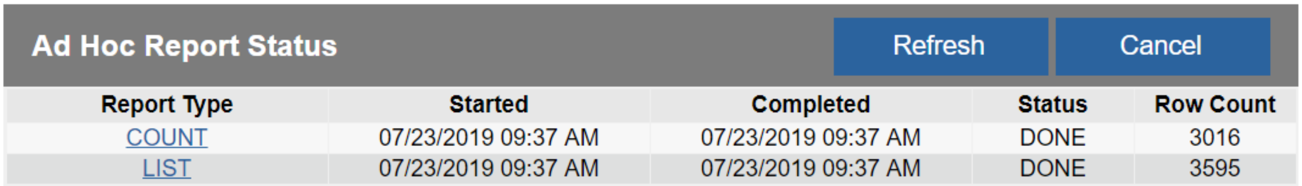


4. Under “Item to filter on” select an item that you would like to add as a filter using the drop down list provided. For example, “Birth Date Range” could be an item used as a filter.

5. Under “Comparison,” select a word from the drop down list that best describes the type of comparison you wish to make. For example, “Between” is one comparison operator.
6. Under “Value to compare to,” either choose a value from the drop down list in the left field or enter a beginning date in the right field.
7. Under “and,” select another value from the drop down list in the left field or enter the ending date in the right field, if applicable.
8. Press ***Add/Save***. Repeat Steps 4-8 for each item you wish to filter.
9. When finished adding filter items, you may do the following:
   - Group them together by highlighting two filter statements and pressing ***Group.***
   - Change “AND” to “OR” by highlighting “AND” and clicking on the ***And/Or*** button. “OR” can also be switched to “AND” by following the same process.
   - Highlight a grouped statement and press ***Ungroup*** to ungroup it.
   - Highlight a statement and press ***Remove*** to remove it from the selected filters.
   - Highlight a statement and press ***Edit*** to make changes to a statement. Make the necessary changes to the statement in the filtering section of the screen and press ***Add/Save***
10. Press Generate. The Ad Hoc Report Status page will display; see the Ad Hoc Report Status section of this chapter for more information.

Ad Hoc Report Status

1. The Ad Hoc Report Status screen will display after you press ***Generate*** on the Ad Hoc Count or Ad Hoc List Report screens, or you may access the status screen by clicking **Report Status Button** on the Ad Hoc Reports page.



2. Press ***Refresh*** occasionally to check the status of the report. Once the underlined report type appears in blue, click it. The report will display directly on this screen.

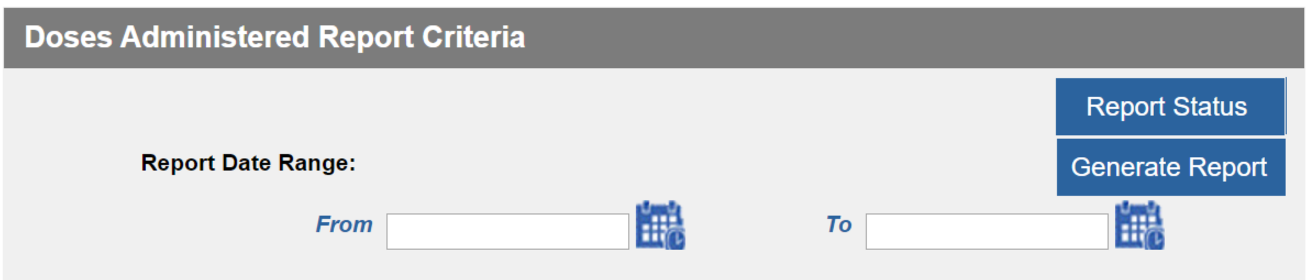
3. If you wish to export the data as a text file, spreadsheet or PDF, select the appropriate link. Exporting an ad hoc report in a PDF file will allow you to print the report as a whole, rather than one page at a time.

4. If you wish to print the report, press ***Print*** under the File menu within the application (text file, spreadsheet or Adobe® Reader). In the print dialog box, adjust the print options as necessary, then press either ***Print*** or ***Ok***, depending on the application.

Note: Ad hoc reports are retained for 72 hours; ImmuNet will retain one count report and one list report for that period of time. If a new report of the same type is generated, the new report will replace the existing report.

Doses Administered

The Doses Administered report will produce doses administered data for the organization, excluding *historical* immunizations entered in the system. In the event the organization has no vaccine usage data, a message informing the user will be displayed on the report.



To produce a Doses Administered report, follow these steps:

1. Enter the report Date Range by typing start/end dates into the *From* and *To* text boxes in the format MM/DD/CCYY. Or, click on the calendar icon to select the date.
2. Click on the **Generate Report** button.
3. The report format produces a single table containing vaccine usage data for the organization excluding historical immunizations.
4. The system will process the report and then display the report in Adobe Acrobat.

Doses Administered Status

1. The Doses Administered Status screen will display after you press ***Generate*** on the Doses Administered screen, or you may access the status screen by clicking the **Report Status Button** on the Doses Administered screen.

Doses Administered Reports Request Status Refresh

Report Name	Status	Target From	Target To
Organization Total: IR Physicians	100%	01/01/2019	02/11/2019
Organization Total: IR Physicians	100%	01/11/2019	02/11/2019
Organization Total: IR Physicians	100%	01/01/2019	02/11/2019

Press ***Refresh*** occasionally to check the status of the report. Once the underlined report type appears in blue, click it. The report will display in Adobe Acrobat.

Doses Administered Report

Vaccination Period 10/01/2019 To 10/31/2019

Report Run on: 11/15/2019

Organization: IR Physicians

Group Name	Trade Name	Funding	<1 yr	1 yr	2 yrs	3-5 yrs	6 yrs	7-10 yrs	11-12 yrs	13-18 yrs	19-24 yrs	25-44 yrs	45-64 yrs	65+ yrs	Total
HepB	Other Inventory		1	0	0	0	0	0	0	1	0	0	0	0	2
Td-DTP/aP-Polio-	Kinrix	PRIVATE	0	0	0	0	0	0	0	2	0	0	0	0	2
MMR	MMR II	PUBLIC	0	0	0	0	0	0	0	1	0	0	0	0	1
HepB	Recombivax Peds	PUBLIC	0	0	0	0	0	0	0	0	1	0	0	0	1
Anthrax	BioThrax	PUBLIC	0	0	0	1	0	0	0	0	0	0	0	0	1
Anthrax	BioThrax	PRIVATE	0	0	0	1	0	0	0	0	0	0	0	0	1
Polio	IPOL		1	0	0	0	38	183	1	1	193	0	0	1	418
Td-DTP/aP	DT	PUBLIC	0	0	0	1	0	0	0	0	0	0	0	0	1
HepB-Hib	Comvax	PRIVATE	0	0	0	0	0	0	0	0	0	0	1	0	1
Adeno	Adeno T7		0	0	0	0	0	0	0	1	0	0	0	0	1
Hib	PedvaxHIB		1	0	0	0	0	0	0	0	0	0	0	0	1
Rotavirus	Rotarix	PRIVATE	0	0	0	0	0	0	0	1	0	0	0	0	1
		Total	3	0	0	3	38	183	1	7	194	0	1	1	431
		Patient Count	1	0	0	1	38	183	1	5	194	0	1	1	425

Dose Level Eligibility Report

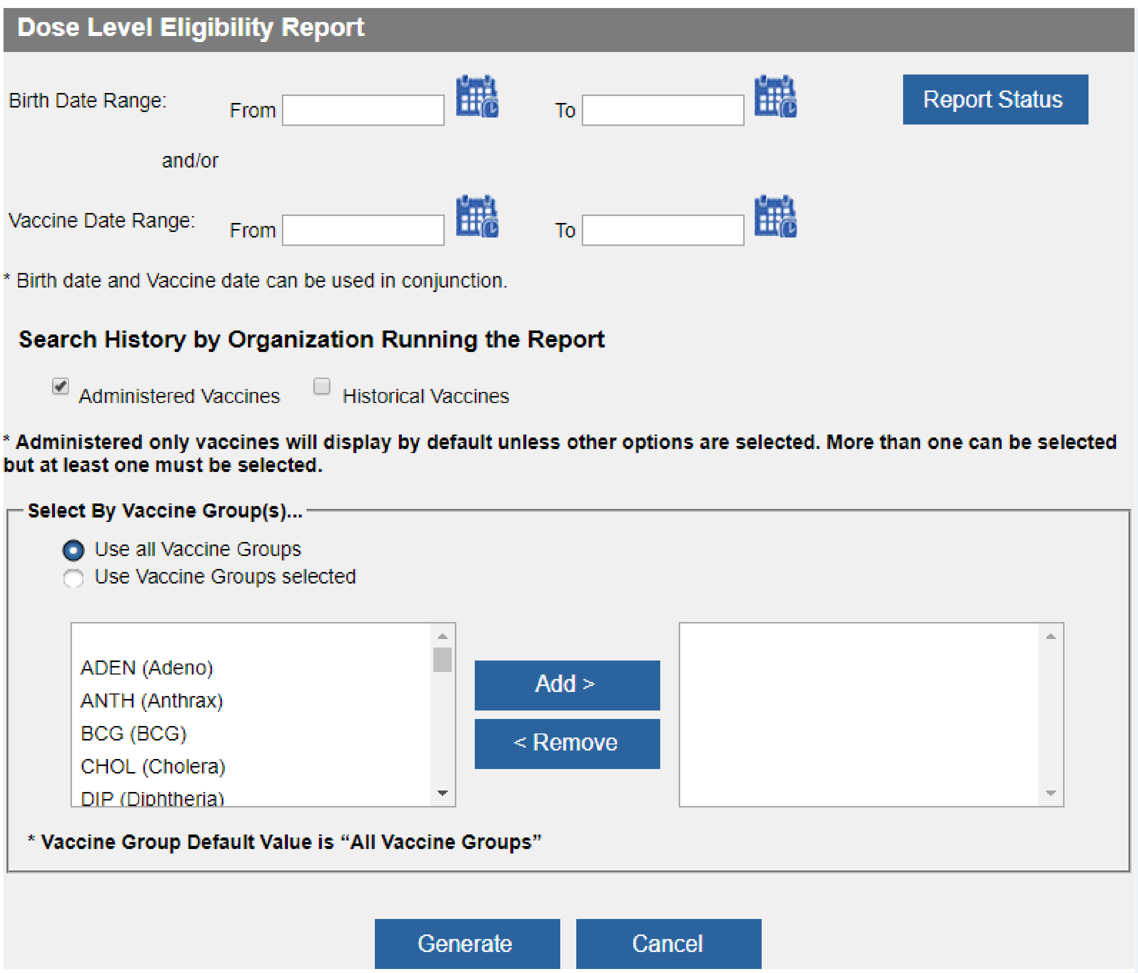
The Dose Level Eligibility Report allows users to select patient and their vaccines from the system based on specific selection criteria. The patient must have received a qualifying vaccine and must be in active status with the organization running the report.

Requirements for immunizations displaying in the report:

- Administered vaccines, owned by the organization running the report (Public and/or Private).
- Historical vaccines entered by the organization running the report.

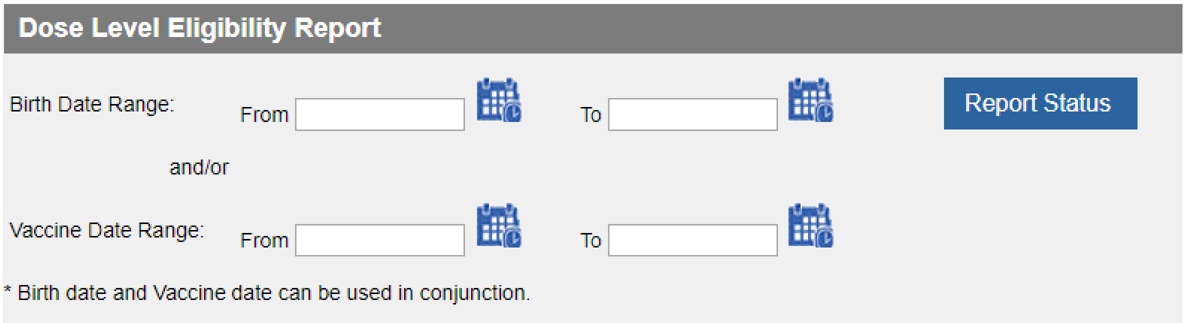
The Dose Level Eligibility Report is used to compile specific patients based on age or vaccine administration dates or both. Only active patients that received new immunizations or who had historical immunizations entered by the organization running the report will be returned.

The report screen to enter selection criteria is located in the Organization Reports menu of the main directory. Select the sub-link "Dose Level Eligibility Report", user will be navigated to the Dose Level Eligibility Report screen.

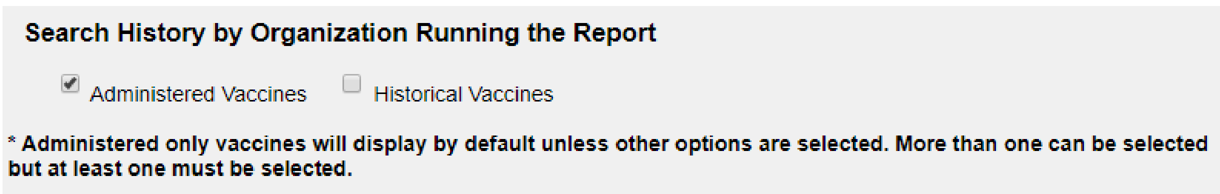


To produce a Doses Level Eligibility Report, follow these steps:

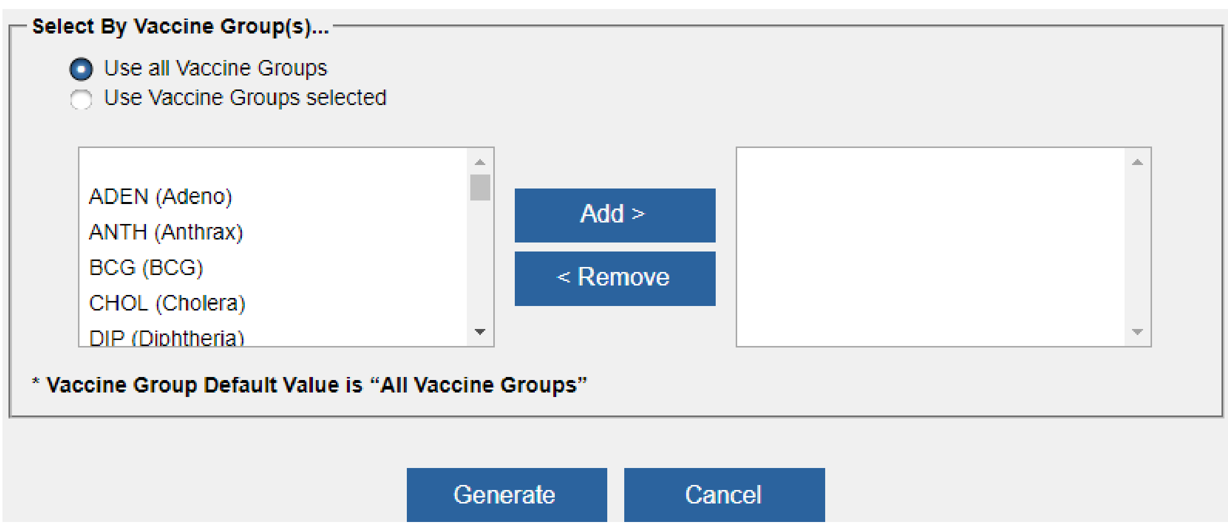
1. Enter a Birth Date Range and/or a Vaccine Date Range by typing start/end dates into the "*From*" and "*To*" text boxes in the format MM/DD/YYYY. Or, click on the calendar icons to select the dates. Both Birth Date Range and Vaccine Date Range can be used in conjunction.



2. Select the checkbox(es) for either “Administered Vaccines” or “Historical Vaccines”. Both can be selected, but a least one vaccine type must be chosen.



3. Select either “Use all Vaccine Groups” or “Use Vaccine Groups selected”. If “Use Vaccine Groups selected” is chosen, then add desired vaccine groups over to the selection box to the right. Multiple vaccines can be selected.



4. Click the **Generate** button.
5. The user is automatically navigated to the Dose Level Eligibility Report Status screen. Select the **Refresh** button until the status of the report displays “done”.

Dose Level Eligibility Report Status Refresh Cancel

Report	Started	Completed	Status	Row Count
Dose Level Eligibility Report	05/12/2020 04:38 PM	05/12/2020 04:38 PM	DONE	244

6. The Dose Level Eligibility Report Status table contains:
   - The **Report** column displays the “Dose Level Eligibility Report” hyperlink, **select the hyperlink to display the report**.
   - The **Started** column displays the date and time the report started generating.
   - The **Completed** columns display the date and time the report finished generating.
   - The **Status** displays the processing status of the report. If the report is not in Done status the report will not be accessible.
   - **Row Count** displays the number of vaccines selected based on the selection criteria.

7. The Dose Level Eligibility Report Results are displayed below the Report Status table.

Dose Level Eligibility Report Status Refresh Cancel

Report	Started	Completed	Status	Row Count
Dose Level Eligibility Report	05/12/2020 04:38 PM	05/12/2020 04:38 PM	DONE	244

Dose Level Eligibility Report Results

What would you like to do with this report?

Export to PDF Export to Excel Print

Report 16150

Dose Level Eligibility Report for IR Physicians
Report Generated on 05/12/2020
Report Generated by Justine Hollowell
Patient Count: 42 Vaccine Count: 244

Filter conditions used for this report:

Birth Date Range: 01/01/2019 to 05/05/2020
Vaccination Date Range: 05/05/2019 to 05/05/2020

244 items found, displaying 1 to 50.

[First] [Prev] **1**, 2, 3, 4, 5 [Next] [Last]

First Name	Last Name	Birthdate	ImmuNet ID	Vaccination Date	Lot Number/TradeName	Vaccine	Dose Eligibility	Historical Vaccine?	Username
FELICIA	CHAMPION	01/02/2019	684107	05/05/2019	/ PedvaxHIB	Hib	Medicaid (including Healthy Kids)	Yes	
MICKEY	ISAAC	01/07/2019	682138	05/06/2019	/ Engerix-B Peds	HepB	Medicaid (including Healthy Kids)	Yes	
CRAIG	FLOYD	01/06/2019	686934	05/06/2019	/ PedvaxHIB	Hib	Medicaid (including Healthy Kids)	Yes	
DALE	MASTERS	01/02/2019	682604	05/06/2019	/ IPOL	Polio	Not VFC Eligible	Yes	

8. The user can choose to export the report to a PDF file. Select the “Export to PDF”

hyperlink. A new screen opens displaying the report that can be saved or printed.

9. The user can choose to export the report to an Excel spreadsheet. Select the “Export to Excel” hyperlink and the Excel file will download. When opened in Excel the report can be saved or printed.
10. The user can choose to print the HTML version of the report. Select the “Print” button and the user is navigated to a printable version of the Dose Level Eligibility Report. To return to the results screen, select the “Return to Results” button.
11. At the top of the HTML version of the report the report name is displayed (e.g. Report 16150). Below the report name the title section of the report is displayed. The title section includes the name of the **organization** that ran the report, the **date** the report was generated, the **name** of the individual who generated the report, the number of **patients** returned and the number of **vaccines** returned.

Report 16150

Dose Level Eligibility Report for IR Physicians
Report Generated on 05/12/2020
Report Generated by Justine Hollowell
Patient Count: 42 Vaccine Count: 244

12. The next section of the report is the filter conditions used for the report. It will display the Birth Date Range and/or the Vaccine Date Range selected to generate the report. If only one of the filters is used in the selection, then only one of the filters will be displayed.

Filter conditions used for this report:

Birth Date Range: 01/01/2019 to 05/05/2020
Vaccination Date Range: 05/05/2019 to 05/05/2020

13. The number of items found in the selection will display above the results table, along with the numbers of which items are being displayed on the current page of the report. In the example below the report returned 244 items and the current page is displaying item 1 to 50.

244 items found, displaying 1 to 50.

14. Also displayed above the results table but right justified on the screen is the pagination for the report. Pagination will only display if the report contains more than one page. The format for the pagination is below. Each page will have a maximum of 50 items displayed. The First and Prev hyperlinks will only be active if the user is on any page other than the first page. The page the user is currently on will display in black and not a blue hyperlink like all the other page numbers. The Next and Last hyperlinks will only be active if the user is on any page other than the last page.

[First] [Prev] 1, 2, 3, 4, 5 [Next] [Last]

15. The report results are displayed in table format with the following column headings:
    - **First Name** – first name of the patient meeting the selection criteria.
    - **Last Name** – last name of the patient meeting the selection criteria.
    - **Birthdate** – date of birth for the patient meeting the selection criteria.
    - **ImmuNet ID** – system id for the patient meeting the selection criteria.

- **Vaccination Date –** date the selected vaccine was administered to the patient.
- **Lot/Tradename –** the lot and tradename for the selected vaccine. **Note:** for private or historical doses, lot will only be populated if it was provided when the vaccine was entered into the system.
- **Vaccine –** vaccine group of the vaccine selected.
- **Dose Eligibility –** the eligibility for the vaccine selected.
- **Historical Vaccine? –** this column will be populated with "Yes" if the vaccine is historical and blank if the vaccine is administered.
- **Username –** the name of the individual who entered the vaccine. Note: This column will only be populated if the user who entered the vaccine was associated with the organization running the report, and if the vaccine was taken from inventory. All other vaccines will display blank for the username.

First Name	Last Name	Birthdate	ImmuNet ID	Vaccination Date	Lot Number/TradeName	Vaccine	Dose Eligibility	Historical Vaccine?	Username
ROD	WOODY	02/12/2018	678526	05/05/2019	/ PedvaxHIB	Hib	Medicaid (including Healthy Kids)	Yes	
IRVING	ASKEW	02/15/2018	685880	05/05/2019	/ PedvaxHIB	Hib	Medicaid (including Healthy Kids)	Yes	
CLYDE	QUEEN	03/18/2018	677639	05/05/2019	/ MMR II	MMR	American Indian/Alaskan Native	Yes	
NATHANIEL	CORTES	01/08/2018	672765	05/05/2019	Lym123 / LYMErix	Lyme	Medicaid (including Healthy Kids)		jhollowell

Provider Report Card

There are two types of Provider Report Cards, the Standard Report Card and the Data Exchange Report Card.

Available Reports

The Available Reports page is used to view both the Standard Report Card and the Data Exchange Report Card

Click the **Provider Report Card** link under the Organization Reports section of the menu panel to navigate to the "Available Reports" screen.

The Standard Provider Report Card is auto generated and will display with a report name of the month followed by the year. The Data Exchange Report Card can be generated with a specific report name such as the “ABC Test Clinic 4/01/2020 – 4/10/2020” example below, or the default report name which consists of the report data range.

Clicking the Report Name will open the report in the UI in the same browser window. Users have the option to view the report using a PDF or CSV file version.

Available Reports

Report Name	Date Generated	Download
April 2020	04/23/2020	April 2020.pdf April 2020.csv
Report 04/01/2020 - 04/10/2020	04/23/2020	Report 04/01/2020 - 04/10/2020.pdf Report 04/01/2020 - 04/10/2020.csv
ABC Test Clinic 4/01/2020 - 4/10/2020	04/23/2020	ABC Test Clinic 4/01/2020 - 4/10/2020.pdf ABC Test Clinic 4/01/2020 - 4/10/2020.csv

Standard Provider Report Card

The Provider Report Card provides a snapshot of how a provider’s data quality and completeness performance is trending on a monthly and annual basis. The report is available to designated user roles only. If you feel you need access to the Provider Report Card for your specific organization, please contact the ImmuNet Help Desk. The Provider Report Card is auto generated for participating organization automatically for the previous months data and is available to be viewed and/or downloaded the first of each month.

Reports will only be available in ImmuNet for 6 months and then they will roll off.

The user will only have access to view the Provider Report Card for the organization the user is logged in under. Parent and Child organizations will have distinct reports based on the data tied to each of their organizations.

The report card includes records edited in the past month, dated in the past two months, and associated with the provider in question.

Click the **Provider Report Card** link under the Organization Reports section of the menu. The user will be navigated to the Available Reports screen. This screen will display the Standard Provider Report Card that has been auto generated. (This screen will also display the Data Exchange Provider Report Card that is generated by the state users and published for the providers to view.)

NOTE: To identify a Standard provider Report Card vs. a Data Exchange Report Card review the details of the “Available Reports” page above.

By clicking the Report Name hyperlink and the user will be navigated to the standard Provider Report Card screen (HTML version).

The Download column contains PDF and CSV versions of the report that can be downloaded to the users pc. The CSV file must first be downloaded and then opened from inside Microsoft Excel. (Choose the tab delimited option in the wizard and the report will format correctly).

Provider Report Card

Report Name: **March 2020**
Reporting Period: **03/01/2020 - 03/31/2020**

Recommendations ▼

Based on the information in this report, ImmuNet recommends this organization focus on improving the following fields:

Report Card	Field	Percentage	Goal
Data Completeness (Patients)	Responsible Person: First Name	50.00%	95.00%
Data Completeness (Patients)	Responsible Person: Relationship	12.50%	95.00%
Data Completeness (Patients)	Responsible Person: Phone	0.00%	95.00%
Data Completeness (Patients)	Responsible Person: City	50.00%	95.00%
Data Completeness (Patients)	Responsible Person: ZIP	50.00%	95.00%
Data Completeness (Patients)	Responsible Person: State	18.75%	95.00%
Data Completeness (Patients)	Responsible Person: Address/P.O. Box	18.75%	95.00%
Data Completeness (Immunizations)	Vaccine Site of Administration	50.00%	80.00%
Data Completeness (Immunizations)	Vaccine Route of Administration	37.50%	80.00%
Data Completeness (Immunizations)	Vaccine Administering Provider Title/Suffix	0.00%	80.00%

Dose Timeliness ▲
Data Completeness (Immunizations) ▲
Data Completeness (Patients) ▲
Invalid Doses ▲
Unexpected Doses ▲
VFC ▲

At the top of the report the Report Name and Reporting Period is displayed. The standard Provider Report Card is broken out into the following sections:

1. **Recommendations section**
    - This section displays 10 Fields from either the Patient or Immunization Data Completeness sections that have the lowest target compliance percentages.
    - The compliance percentage is graded based on the following chart.
    - The offending Fields are displayed in the order of priority level and highest compliance percentage.
    - The Fields in the Recommendation section are the Fields will the lowest data quality that should be focused on for improvement.

Immunization Fields	Priority Level	Target %
Vaccine type	0	100.00%
Vaccination date	0	100.00%
Vaccine Manufacturer	2	50.00%
Trade Name	1	95.00%
Lot Number	1	95.00%
Lot Expiration	4	25.00%
Dose Size	2	50.00%
Body Site	3	80.00%
Administration Route	3	80.00%
Dose Level Eligibility	4	50.00%
Ordering Provider	3	50.00%
Administering Provider	2	80.00%
Administering Provider Title/suff	4	80.00%

Client Fields	Priority Level	Target %
First Name	0	100.00%
Last Name	0	100.00%
Middle Name	2	95.00%
Mother's Maiden Name	4	75.00%
Mother's First Name	4	50.00%
Gender	1	95.00%
Birth Date	0	100.00%
County	2	95.00%
Country of Birth	na	na
Chart number	2	90.00%
Ethnicity	2	90.00%
Race	2	90.00%
Provider - PCP	na	na
Responsible Person: Last	1	95.00%
Responsible Person: First	1	95.00%
Responsible Person: Middle	na	na
Responsible Person: Relationship	1	95.00%
E-Mail	na	na
Address	2	95.00%
City	2	95.00%
State	2	95.00%
Zip	2	95.00%
Phone Number	1	95.00%

2. Dose Timeliness section

- This section of the report indicated the delay between the date an immunization is given and when it was added to ImmuNet.

Dose Timeliness		
Indicates the delay between the date an immunization was given and when it was added to ImmuNet .		
Immunizations given during assessment period: **7**		
Timeframe Received	**Count**	**Percentage**
Within 1 day	1	14.29%
2-7 days	2	28.57%
8-14 days	2	28.57%
15-30 days	1	14.29%
31+ days	1	14.29%

3. Data Completeness (Immunization) section

- This section indicates the data included with each immunization record added during the reporting period.

Data Completeness (Immunizations)		
Indicates the data included with each immunization record added to ImmuNet .		
Immunizations given during assessment period: **6**		
Data Field	**Count**	**Percentage**
Vaccine Product Type Administered	6	100.00%
Vaccine Administration Date	6	100.00%
Vaccine Manufacturer Name	5	83.33%
Vaccine Trade Name	6	100.00%
Vaccine Lot Number	3	50.00%
Vaccine Expiration Date *	2	33.33%
Vaccine Dose Size	6	100.00%
Vaccine Site of Administration	2	33.33%
Vaccine Route of Administration	2	33.33%
Vaccine Ordering Provider Name	5	83.33%
Vaccine Administering Provider Name	4	66.67%
Vaccine Administering Provider Title/Suffix	2	33.33%
VFC Eligibility (dose level)	5	83.33%
* Only immunizations entered using the ImmuNet Inventory Module display this data.		

4. Data Completeness (Patient) section

- This section indicates the current available data on each patient record updated during the reporting period.

Data Completeness (Patients)		
Indicates the data currently available on each patient updated during the assessment period.		
Patients updated during assessment period: **3**		
Data Field	**Count**	**Percentage**
Patient Name: Last	3	100.00%
Patient Name: First	3	100.00%
Patient Name: Middle	1	33.33%
Mother's Maiden Last Name	3	100.00%
Mother's First Name	3	100.00%
Gender	2	66.67%
Birth Date	3	100.00%
County	2	66.67%
Country of Birth	3	100.00%
Chart Number	2	66.67%
Ethnicity	3	100.00%
Race	2	66.67%
Provider-PCP	2	66.67%
Responsible Person: Primary Designated *	1	33.33%
Responsible Person: Last Name	2	66.67%
Responsible Person: First Name	2	66.67%
Responsible Person: Middle Name	1	33.33%
Responsible Person: Relationship	2	66.67%
Responsible Person: Phone	1	33.33%
Responsible Person: E-mail	2	66.67%
Responsible Person: Address/P.O. Box	2	66.67%
Responsible Person: City	1	33.33%
Responsible Person: State	2	66.67%
Responsible Person: ZIP	1	33.33%
* ImmuNet uses the address of the primary responsible person for each patient as the contact address for that patient. If no primary responsible person is designated, ImmuNet selects one using the best information available		

5. Invalid Doses section

- This section indicates immunization doses that were administered outside of the schedule recommendations during the reporting period.
- Only offending vaccine groups will be displayed.
- An immunization invalid for multiple reasons will be counted in each reason column, however the Total column is distinct and the immunization will only be counted once.

Invalid Doses								
Indicates doses administered outside of schedule recommendations during the assessment period. Unless otherwise determined, clients follow the ACIP schedule. A single dose that is invalid for multiple reasons will only count once under the 'total' column.								
Vaccine Group	**Age**	**Proximity**	**Group**	**Size**	**Other**	**Total**	**Count**	**Percentage**
HepB	1	1	0	0	0	1	1	100.00%
MMR	1	0	0	0	0	1	1	100.00%
Td	0	1	0	0	0	1	3	33.33%
Varicella	1	0	0	0	0	1	1	100.00%

6. Unexpected Doses section

- This section indicates counts of specific immunization cases that may be valid but should not occur frequently.

Unexpected Doses

Indicates counts of specific immunization cases that may be valid but should not occur frequently.

Case	Count	Total	Percentage
DTaP Over 7 Years	2	7	28.57%
Over Age MMRV	1	1	100.00%
Pediarix as 4th/5th Dose DTaP	1	1	100.00%
Under Age Kinrix	1	1	100.00%
Under Age Menactra	1	1	100.00%
Under Age Menveo	1	1	100.00%
Under Age Hiberix	1	1	100.00%

7. **VFC section**
   - This section indicates counts of immunizations eligible for VFC (Vaccines for Children) and other programs.
   - Only immunizations given to children younger than 19 years of age will be displayed.

VFC

Indicates counts of immunizations eligible for VFC (Vaccines for Children) and other programs.

Immunizations for patients aged 18 years or younger administered during assessment period: **7**

Eligibility	Count	Percentage
Not VFC Eligible	2	28.57%
Medicaid (including Healthy Kids)	1	14.29%
Uninsured	1	14.29%
American Indian/Alaskan Native	1	14.29%
Underinsured (FQHC STG only)	2	28.57%

Data Exchange Report Card

The Data Exchange Report Card provides a snapshot of a provider's Data Exchange quality metrics. The report is configurable by organization, date, and DX errors, and is generated ad hoc by select state users. A report can be generated for any organization or multiple organizations that are in an Active status and has submitted data over the last two years.

The report must be published to the "Provider Report Card" page for viewing by an organization. If you would like to request a Data Exchange Report Card for your specific organization, please contact the ImmuNet Help Desk. Once published to the "Provider Report Card" page it will only be available in ImmuNet for 6 months before it's automatically deleted. Users will only have access to view the Provider Report Card for the organization the user is logged in under. Parent and Child reports can be generated and viewed by the Parten org only. An individual report can be generated for only the Child org.

Click the **Provider Report Card** link under the Organization Reports section of the menu. The user will be navigated to the Available Reports screen. This screen will display the Data Exchange as well as the Standard Provider Report Card that has been auto generated monthly.

NOTE: To identify a Data Exchange Report Card vs. the Standard Provider Report Card review the details of the "Available Reports" page above.

The Data Exchange Provider Report will consist of the following section:

1. Provider Report Card Header
    - This section includes the Report Name and Reporting Period.
2. Patient Summary
    - Indicates counts of patient data processed via Data Exchange during the reporting period.

Provider Report Card

Report Name: **AK TEST ORG 4/16 - 4/21**
Reporting Period: **04/16/2020 - 04/21/2020**

Patient Summary ▼

Indicates counts of patient data processed via Data Exchange during the reporting period.
Org - A list of the organizations included in the report
Proc - Total count of patients processed by Data Exchange
Acc - Total count of patients whose information was accepted by ImmuNet
New - Total count of accepted patients that are new in ImmuNet
Upd - Total count of accepted patients that were updated in ImmuNet
Del - Total count of accepted patients that were deleted from ImmuNet
Rej - Total count of patients whose information was rejected by Data Exchange
Pend - Total count of patients who were pending in ImmuNet due to being a potential duplicate

Org	Proc	Acc	New	Upd	Del	Rej	Pend
AK Test Org A	16	9	2	7	0	7	0

Immunization Summary ▲
Comment Summary ▲
Error Summary Report ▲
Error Count - Org ▲
Error Count - Date ▲
Error Count - Error Category ▲

3. Immunization Summary
    - Indicates counts of immunization data processed via Data Exchange during the reporting period.

Immunization Summary ▼

Indicates counts of immunization data processed via Data Exchange during the reporting period.
Org - A list of the organizations included in the report
Proc - Total count of immunizations processed by Data Exchange
Acc - Total count of immunizations accepted by ImmuNet
New - Total count of accepted immunizations that are new in ImmuNet
Del - Total count of accepted immunizations that were deleted from ImmuNet
Dup - Total count of immunizations Already in ImmuNet
Rej - Total count of immunizations rejected by Data Exchange
Pend - Total count of immunizations that were pending in ImmuNet due to being a potential duplicate patient

Org	Proc	Acc	New	Upd	Del	Dup	Rej	Pend
AK Test Org A	13	2	2	0	0	5	6	0

4. Comment Summary
    - Indicates counts of patient-level comment data processed via Data Exchange during the reporting period.

Comment Summary								

Indicates counts of patient-level comment data processed via Data Exchange during the reporting period.
Org - A list of the organizations included in the report
Proc - Total count of comments processed by Data Exchange
Acc - Total count of comments accepted by ImmuNet
New - Total count of accepted comments that are new in ImmuNet
Del - Total count of accepted comments that were deleted from ImmuNet
Dup - Total count of comments Already In ImmuNet
Rej - Total count of comments rejected by Data Exchange
Pend - Total count of comments that were pending in ImmuNet due to being a potential duplicate patient

Org	Proc	Acc	New	Upd	Del	Dup	Rej	Pend
AK Test Org A	21	6	6	0	0	9	6	0

5. Error Summary Report
    - Indicates the overall error incidences for all organizations and all errors included in the reporting period.

Error Summary Report

Indicates the overall error incidences for all organizations and all errors included in the reporting period.
Total Number of Errors - The count of all errors
Jobs with Errors - The count of unique jobs with at least one error
Total Jobs - The total number of jobs processed
% Jobs with Errors - The error rate expressed as a percentage of "Jobs with Errors"/"Total Jobs"

Total Number of Errors	Jobs with Errors	Total Org Jobs	% Jobs with Errors
10	7	19	37%

6. Error Count – Org
    - Indicates the error incidences for each individual organization and site for the selected errors included in the reporting period.

Error Count - Org

Indicates the error incidences for each individual organization and site for the selected errors included in the reporting period.
Org - A list of the organizations included in the report
Number of Errors - The total count of errors from that organization
Jobs with Errors - The count of unique jobs from the organization with at least one error
Total Org Jobs - The total number of jobs processed from the organization
% Jobs with Errors - The organization error rate expressed as a percentage of "Jobs with Errors"/"Total Org Jobs"

Org	Number of Errors	Jobs with Errors	Total Org Jobs	% Jobs with Errors
AK Test Org A	10	7	19	36.84%

7. Error Count – Date
    - Indicates the combined daily error incidences for all organizations and errors included in the reporting period.

Error Count - Date

Indicates the combined daily error incidences for all organizations and errors included in the reporting period.
Date - The list of all dates that fall within the report range
Number of Errors - The total count of errors detected on that date
Jobs with Errors - The count of unique jobs on that date with at least one error
Total Jobs - The total number of jobs processed on that date
% Jobs with Errors - The daily error rate expressed as a percentage of "Jobs with Errors"/"Total Jobs"

Date	Number of Errors	Jobs with Errors	Total Org Jobs	% Jobs with Errors
04/16/2020	12	7	13	53.85%
04/17/2020	1	1	5	20%
04/18/2020	0	0	0	-
04/19/2020	0	0	1	100%

8. Error Count – Error Category:
    - Indicates the incidences of each error across all organizations included in the reporting period.

Error Count - Error Category

Indicates the incidences of each error across all organizations included in the reporting period.
Error - The list of all errors which are being reported on
Number of Errors - The total count of occurrences of the specific error
Category Total - The total number of errors which occurred within the error category
% of Errors in Category - The percentage of errors within the category that the specified error accounts for, as calculated by "Number of Errors"/"Category Total"

Error	Number of Errors	Category Total	% of Errors in Category
DATA_TYPE	1	1	100%
Error Code - 080: Information error - Invalid street address (<STREET>). No Address values stored.	0	0	-
Error Code - 090: Informational error - Invalid city (<CITY>). No value stored.	0	0	-
Error Code - 095: Informational error - Invalid state code (<STATE>). No value stored.	0	0	-
Error Code -192: Address Type Invalid	1	1	100%
IMMUNIZATION	4	4	100%
Error Code - 021: Record Rejected. <VALUE> is an invalid <CODE>	0	0	-
Error Code - 026: Record Rejected. You must supply at least ONE immunization identifying code	0	0	-
Error Code - 039: Record rejected. This immunization has a vaccination date after the existing patient's death date in the registry.	0	0	-
Error Code - 040: Record rejected. This immunization has a vaccination date prior to the existing patient's birth date in the registry.	0	0	-
Error Code - 041: Record rejected. This immunization matches another immunization in incoming file.<IMM_DETAILS>	0	0	-
Error Code - 042: Record rejected. This patient has existing immunizations with vaccination date(s) after the patient's death date.	0	0	-
Error Code - 043: Record rejected. This patient has existing immunizations with vaccination date(s) prior to the patient's birth date.	0	0	-
Error Code - 064: <SEGMENT> rejected because of invalid <BAD_SEG>	2	4	50%
Error Code - 084: Informational error - Administering provider field is not formatted correctly.	0	0	-
Error Code - 098: Informational error - Trade Name (<TRADENAME>) not produced by manufacturer (<MANUFACTURER>). Defaulting to unknown manufacturer.	0	0	-
Error Code - 109: Invalid VFC Eligibility Code provided (<FINANCIALCLASS>). Default value stored.	0	0	-
Error Code - 110: Invalid administered amount.	0	0	-
Error Code - 111: Immunization Rejected, Invalid administered code.	0	0	-
Error Code - 129: Invalid vaccine administration date format.	0	0	-
Error Code - 130: Invalid vaccine administration date. Date of birth after administration date.	0	0	-
Error Code - 131: Invalid vaccine administration date. Future date.	2	4	50%
Error Code - 132: Invalid vaccine administration date. Not a valid date.	0	0	-
Error Code - 162: Vaccine Purchased With ignored. The value provided is not used by ImmuNet	0	0	-
Error Code - 163: Vaccine administration date is required.	0	0	-
Error Code - 201: Vaccine Groups or CVX/CPT codes associated with unspecified vaccines do not indicate an acceptable level of detail to identify a lot from which to deduct from inventory. Immunization was added to patient record, but not deducted from inventory.	0	0	-
Error Code - 202: Immunization was added to patient record, but not deducted from the VFC inventory. Historical Immunizations are not deducted from Inventory.	0	0	-

Reminder/Recall

From the Reports menu option, you may generate reminder and recall notices, which include letters, mailing labels, and patient listings.

Note: Generation of reminder and recall notices

Reminder and recall notices can be generated for each patient, provided that the following conditions are met:

- The status is “Active” in the Patient Information Section for your organization.
- The “Allow Reminder and Recall Contact?” indicator in the Patient Information Section is “Yes.”
- The patient has complete address information listed in the Address Information Section.

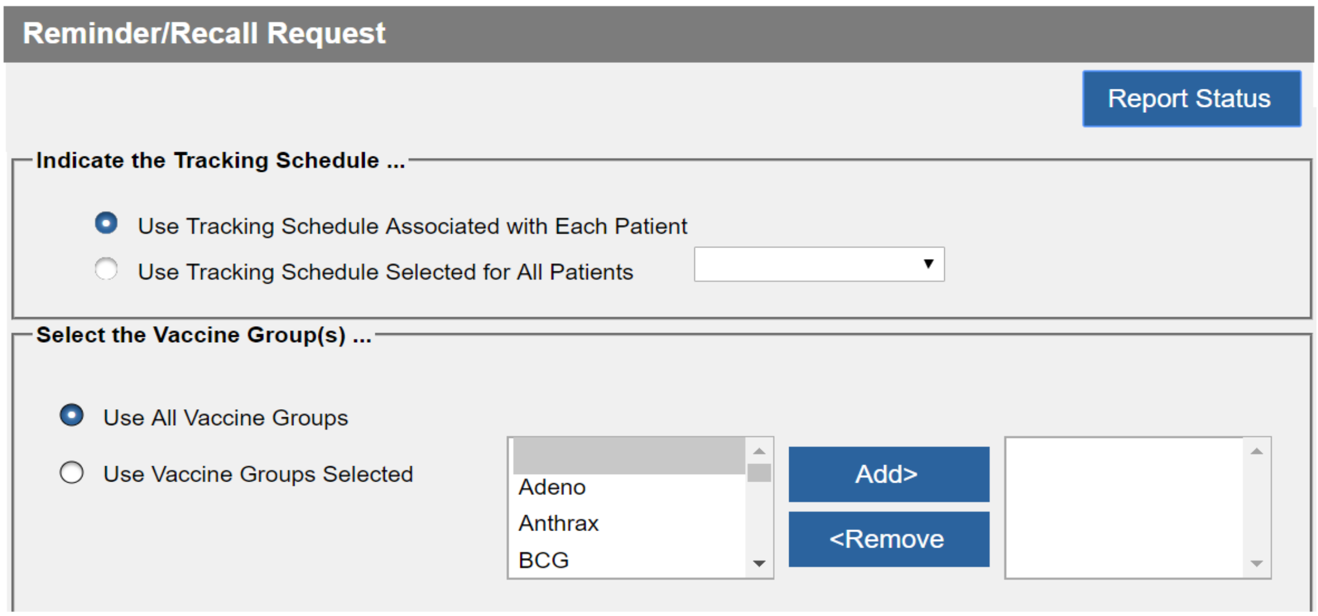
Reminder/Recall Requests

To select and submit reminder/recall criteria for patients, you will need to fill in the criteria on the Reminder Request screen. Follow these steps to generate reminder/recall requests:

1. Click Reminder/Recall under Reports on the menu panel.
2. Patient Population: This section is available only to State and Local County Public Health organizations. Users associated with these organizations can select patients based on their specific organization or that are residing in a specific county by selecting one of the following options:
   - To generate a reminder for all patients associated with your organization select the top radio button.
   - To generate a reminder for all patients within your county, select the second radio button. By default, inactive patients and patients not allowing reminders will be included in this report.
   - You can click on the check the boxes to that appear on the right to exclude inactive patients and/or patients who have requested that reminders not be sent to them.
   - To generate a reminder for both patients associated with your organization or residing in your county, select the third radio button. By default, inactive patients and patients not allowing reminders will be included in this report.

- You can check the boxes that appear on the right to exclude inactive patients and/or patients who have requested that reminders not be sent to them.

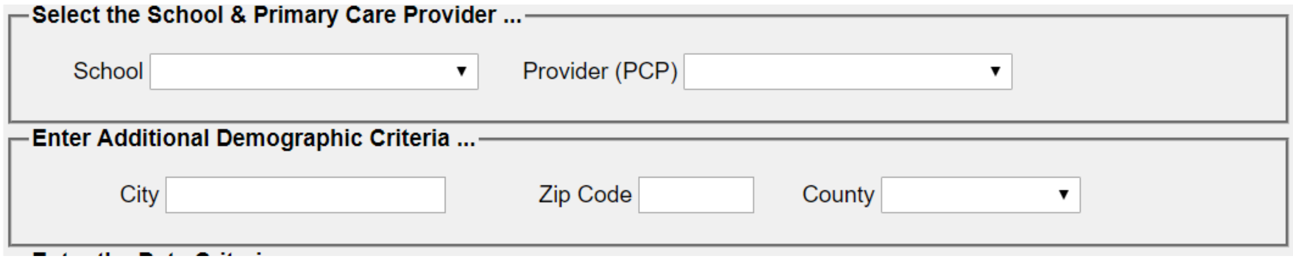
3. Tracking Schedule: ImmuNet only uses the tracking schedule recommended by the Advisory Committee on Immunizations Practices (ACIP). Therefore, selecting to use the tracking schedule associated with each patient or a uniform tracking schedule for all patients will be based on ACIP recommendations.



4. Vaccine Groups: in the vaccine groups section of the screen:
   - Indicate whether you wish to include all vaccine groups in the search criteria or if you wish to include only selected groups by clicking the appropriate radio button.
   - If you choose to include only selected vaccine groups, select these groups by double clicking a group or highlighting a chosen group and pressing ADD. Do this for each group desired.
   - By selecting specific vaccine groups, you will limit the search to only those patients who will be due/past-due for the selected immunizations. However, ImmuNet will provide a list of all immunizations for which the selected patients are due/past-due.

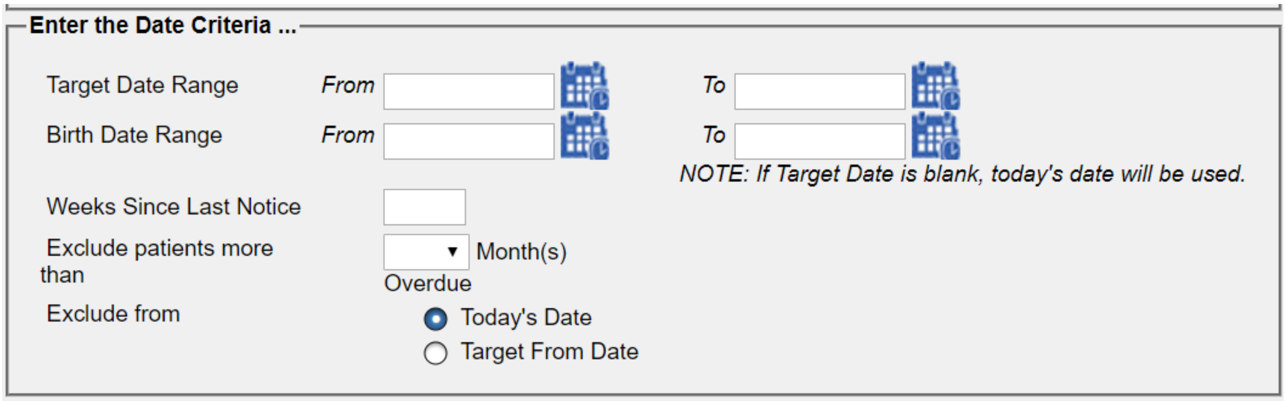
5. School/Primary Care Provider: Choosing a school or primary care provider allows you to narrow your search to only the patients assigned to a particular school or physician/clinic. If you do not wish to specify a school and/or provider, leave these fields blank. These fields can only be utilized if the organization created a list of schools and physicians to populate the drop down boxes on the patient demographic screen and has selected data from these fields in each of the patient's records.
   - To choose a school, select a school name from the drop down list provided. Note that these schools are maintained for each provider through the User Interface, using the 'manage schools' menu item.

- To choose a primary care provider, select a physician or clinic name from the drop down list provided.



6. Additional Demographic Criteria: Entering a city and/or ZIP code will narrow your search to only the patients associated with the entered geographical area. However, by entering a county, you will expand your search to all patients who reside in the selected county. The county option is only available to county public health organizations. If you do not wish to specify a city, ZIP code, or county, leave these fields blank.
   - To enter a city, type the city name within the first field.
   - To enter a ZIP code, enter the five-digit number in the next field.
   - To enter a county, choose from the drop down list in the third field.

7. Date Criteria
   - Target Date Range: When a target date is specified, the report will include those patients that are due/overdue for immunizations within the date range. To choose a target date range, enter the beginning date in the “From” text box and the ending date in the “To” text box in MM/DD/YYYY format, or use the calendar icon to select the desired dates.
   - These dates can range from the past to the future; therefore, you have the capability to run a recall, reminder, or a combination of the two.
   - If either the “From” date or “To” date is unspecified for the Target Date Range, the system will use the date that you run the report for that field.
   - If both the “From” and “To” dates are left blank, the system will find those patients who are due or overdue as of the date that you run the report.
   - Birth Date Range: When a birth date range is specified, the report will return those patients who have a birth date that falls within the range entered. To choose a birth date range, enter the beginning date in the “From” text box and the ending date in the “To” text box in MM/DD/YYYY format, or use the calendar icons to select the desired dates.
   - If the “From” date is unspecified for the Birth Date Range, the report will include the oldest patients in the system.
   - If the “To” date is unspecified for the Birth Date Range, the system will use the date that you run the report for that field.

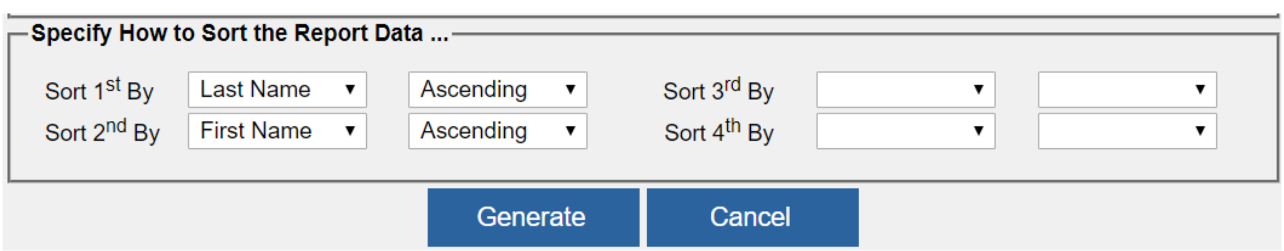


- Weeks Since Last Notice: When a number is entered in this field, the report will include only those patients who have not received a reminder notice within the specified number of weeks prior to the current date.

Note: Patients are shared between organizations; therefore, another organization may have recently generated a notice for the patient.

- Exclude Patients More Than: To exclude patients who are overdue and who may have received several reminders already, provide a number of months from the drop down list provided.
- Exclude from: If excluding patients overdue for a certain number of months, indicate the date from which patients should be excluded; choose either the current date or the Target “From” Date (uses the date from the field at the top of the section) by clicking the appropriate radio button. If no target date information is entered, patients will be excluded from the date the report was run.

8. Sorting Criteria: This section allows you to specify how the data will be sorted. If a sort order is not specified, ImmuNet will sort the report results first by the patient’s last name in ascending order (A to Z), then by the first name in ascending order.

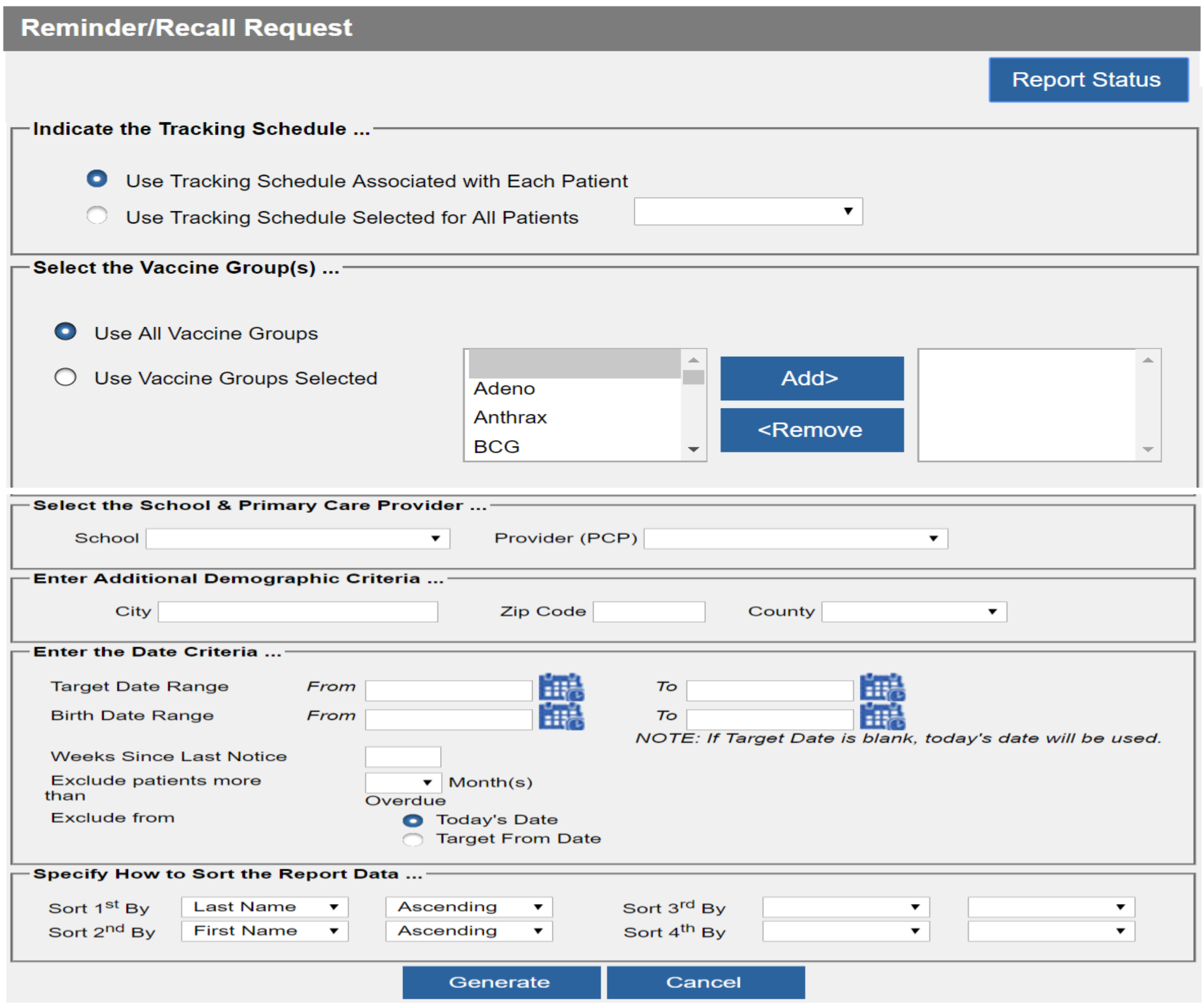


- Sort 1st By: Choose a primary information field by selecting from the drop down list provided.
- Ascending/descending order: Choose how the primary field is sorted; choose either ascending (A to Z) or descending (Z to A) order from the drop down list.
- You may, if desired, complete additional ordering sequences for the second through fourth sorts.

9. Generate the report: Press the ***Generate*** button. Depending upon the number of patients associated with your provider organization, it may take five minutes or more to generate the data for the various reports. While the data is being generated, the Request and Output status page indicates the percentage of completion. Periodically press ***Refresh*** to update the status.

Note: *Waiting for reminder requests*

Once you reach the Reminder Request Status screen, it is not necessary to stay at this screen while your report is being created. You may go anywhere in ImmuNet while the report is generating and may return to the status screen by clicking on the **Report Status** button on the Reminder/Recall Request page. Likewise, you may close out of ImmuNet and return to the status screen by clicking on the **Report Status** button on the Reminder/Recall Request page after logging in again.



Summary Screen

When the report is complete, you may click on the blue underlined date to go to the Reminder

Request Process Summary screen. The Summary screen lists the number of patients involved in the search and the criteria that were used to define the search. From the Summary screen, you may create various reminder output options.

Reminder Request Process Summary		
Step	**Criteria Evaluated at this Step**	**Patients**
1	Patients **associated** with *IR Physicians*.	7554
2	Patients **immunized** by *IR Physicians*.	7249
3	Patients that are **active** within *IR Physicians* and **allow Reminder & Recall Contact**. Additional criteria includes: • Patients **born between 06/01/2014 and 06/30/2014**; • **County** is not specified; • **School** is not specified; • **Provider** is not specified; • **Weeks Since Last Notice** is not specified.	5
4	Patients that have a **Valid Address**. Additional criteria includes: • **City** is not specified • **Zip Code** is not specified.	3
5	Patients that meet the following criteria regarding vaccination status: • Patients that are **Recommended or Overdue** for one or more vaccinations **as of 07/23/2019**; • Use all **vaccine groups**; • Use **tracking schedule** associated with each patient. • **Exclude Overdue Reminders** is not specified.	3
	Total Number of Patients Eligible for Reminder	**3**

Last Notice Date Options

On the bottom of the Reminder Request Process Summary screen, you have the option of resetting the last notice date, which will affect future reminder/recall notices generated using this information. Your options on the last notice date table include:

Last Notice Date Options	
Set last notice date to today for all eligible patients when you select a report output.	☑
*Revert last notice date to previous last notice date for all Patients **eligible for this reminder**.*	Revert Eligible
*Revert last notice date to previous last notice date for **all patients immunized** by IR Physicians.*	Revert All
Return to the previous screen.	Cancel

1. Set the last notice date to today's date. This is the default option and is indicated by a check mark.
2. Set the last notice date to reflect the previous last notice date for all patients eligible for this reminder by pressing ***Revert Eligible***. Use this option if you choose not to have the current report generation reflected in the Last Notice Date option on the Reminder Request screen for the recipients of this reminder.
3. Set the last notice date to reflect the previous last notice date for all patients immunized by your organization by pressing ***Revert All****.* Use this option if you choose not to have the current report generation reflected in the Last Notice Date option on the Reminder Request screen for all patients immunized by your organization.
4. Press ***Cancel*** to return to the Reminder Request Status screen.

Reminder/Recall Output Options

The Reminder Request Output Options table, found on the Reminder Request Process Summary screen, allows you to choose how you would like to use the data from your query.

Reminder Letters

The letter output option allows you to generate a standard form letter for the parent/guardian for each patient returned on your query. The letter allows room at the top for your organization's letterhead. The body of the letter includes the patient's immunization history, recommended immunizations and due dates. There are up to two lines for free text and/or a telephone number. To generate Reminder Letters, follow these steps:

1. Under the Additional Input column or the Letter section of the table, enter:

Output	Description	Additional Input
Reminder Letter	Standard Reminder Letter.	Report Name Free Text Phone #

- A report name in the appropriate field, if desired. If a report name is not indicated, the report will simply be named "Reminder Letter" on the Reminder Report Status screen
- Additional information in the Free Text field, if desired. You may include a maximum of 400 characters in this field. Any information entered in this text box will be presented as the closing for each of the letters generated in your report.
- A telephone number in the appropriate field, if desired. If a telephone number is entered in this text box, then the number will be presented in the closing for each of the letters generated in your report.

2. Click on **Reminder Letter**, which is underlined and in blue text.
3. Your report will be listed on the Reminder Request Status screen; the bottom table shows the name of the request, the date and time it was started, and the status of the request.
   - You have the option of moving to other portions of ImmuNet or using other functions of your computer while you are waiting for your letters to process. To return to check the progress of your request, click on the **Report Status** button on the Reminder/Recall Request page.
   - If you choose to stay at the Reminder Request Status screen while your request is processing, press ***Refresh*** occasionally to check the status.
4. Once the status says ***Ready*** and the report name is underlined and appears in blue, your letters are ready to be viewed. Click on the report name to view or print the letters in Adobe Reader®.
5. To print the letters, press the printer icon on the Adobe® toolbar. Press ***OK*** in the Print dialog box.
6. To print additional output, press the ***BACK*** button on your browser. At the Reminder Request Status screen, click on the underlined reminder request (top table) to return to the Reminder Request Process Summary screen.

Mailing Labels

The labels output option produces 30 labels per page on Avery Mailing Labels #5160. To generate mailing labels, follow these steps:

Mailing Labels	Avery Mailing Labels.	Report Name

1. Click on **Mailing Labels**, which is underlined and in blue text.
2. Your request will be listed on the Reminder Request Status screen; the bottom table shows the name of the request, the date and time it was started, and the status of the request.
   - You have the option of moving to other portions of ImmuNet or using other functions of your computer while you are waiting for your labels to process. To return to check the progress of your request, click on the **Report Status** button on the Reminder/Recall Request page.
   - If you choose to stay at the Reminder Request Status screen while your request is processing, press ***Refresh*** occasionally to check the status.

3. Once the report name is underlined and appears in blue text, your labels are ready. Click on the report name to view or print the labels in Adobe Reader®.
4. To print the labels, press the printer icon on the Adobe® toolbar. Press ***OK*** in the Print dialog box.

5. To print additional output, press the ***Back*** button on your browser. At the Reminder Request Status screen, click on the underlined reminder request (top table) to return to the Reminder Request Process Summary screen.

Patient Query Listings

The Patient Query Listing displays contact information for those patients identified as being due/overdue in the Reminder/Recall output in a report format. This report lists every patient that was returned in the report query process. To generate a Patient Query Listing, complete the following steps:

1. Click on **Patient Query Listing**, which is underlined and in blue text.
2. Your request will be listed on the Reminder Request Status screen; the bottom table shows the name of the request, the date and time it was started, and the status of the request.

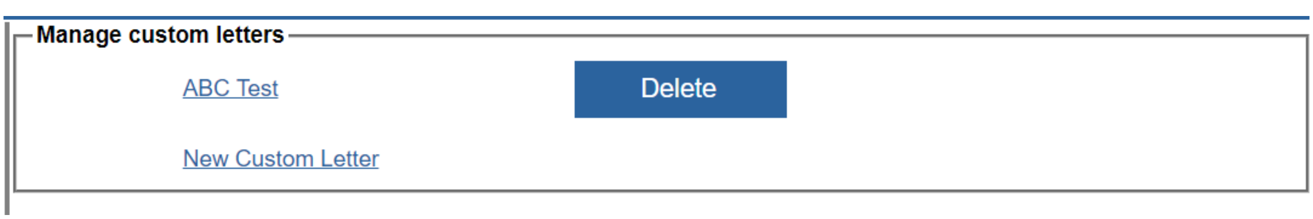
   - You have the option of moving to other portions of ImmuNet or using other functions of your computer while you are waiting for your report to process. To return to check the progress of your request, click on the **Report Status** button on the Reminder/Recall Request page.
   - If you choose to stay at the Reminder Request Status screen while your request is processing, press ***Refresh*** occasionally to check the status.

3. Once the report name is underlined and appears in blue text, your report is ready. Click on the report name to view or print the report in Adobe Reader®.
4. To print the report, press the printer icon on the Adobe® toolbar. Press ***OK*** in the Print dialog box.
5. To print additional output, press the ***Back*** button on your browser. At the Reminder Request Status screen, click on the underlined reminder request (top table) to return to the Reminder Request Process Summary screen.

Creating Custom Letters

In addition to the standard letter, ImmuNet allows users to create and store up to three custom letters to be used for reminder/recall. To create a new custom letter, follow these steps.

1. Click on **Manage Custom Letter** under Reports on the menu panel.

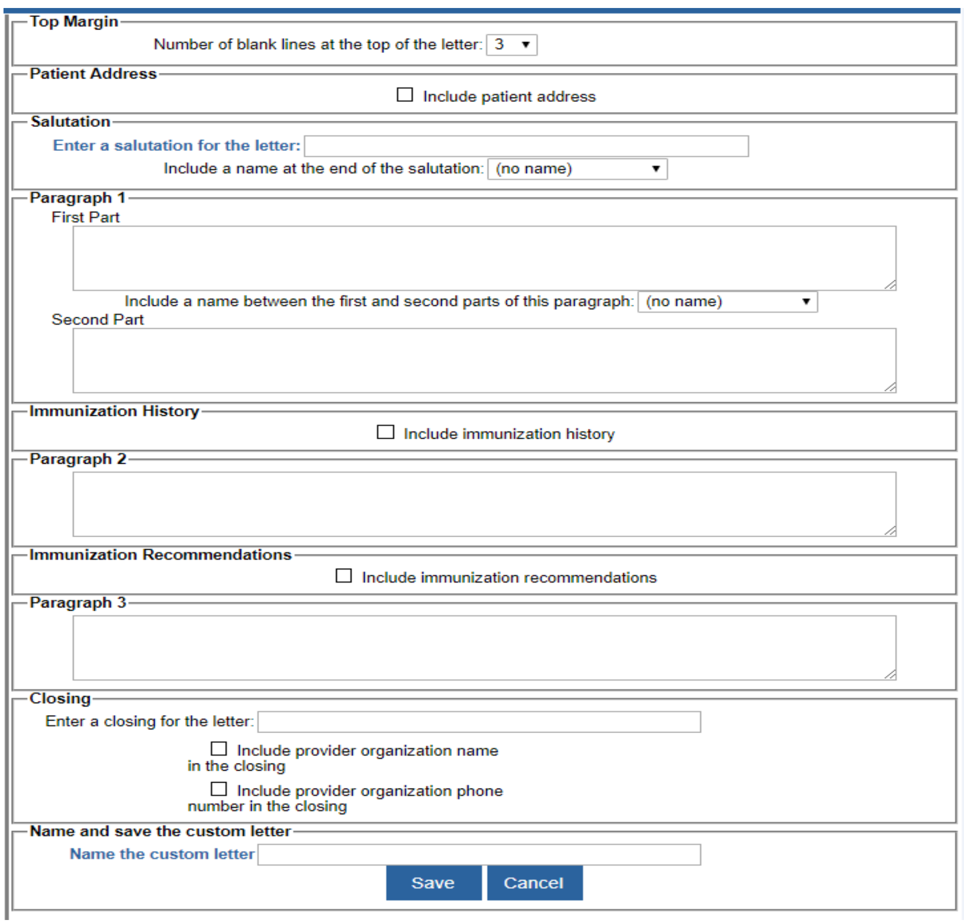


2. Click the underlined New Custom Letter link.
3. At the Create New Custom Letter screen, enter the following:

- **Top Margin**: Choose the number of blank lines you would like at the top of the letter from the drop down list provided. These blank spaces will leave room for your office letterhead to show up on each letter generated from the report.
- **Include Patient Address**: Check the box to include the patient's address at the top of the letter.
- **Salutation**: Enter a greeting, then choose a name option from the drop down list provided.

  a. If **name** is chosen, the name of the patient will show up after the salutation.

  b. If **responsible person** is chosen, the letter will read <salutation> Parent/Guardian of <patient name>.
- **Paragraph 1**: In the field marked "First Part", enter desired text. If you wish to include a name within the paragraph, enter text up to the mention of the name ending with a single space. Next, choose the name you would like to appear within the paragraph from the drop down list (either parent/guardian, patient name, or no name). In the field marked "Second Part", continue to enter the rest of the text. If you do not wish to include a name, you may enter all of the first paragraph text in the field marked "First Part" and select "no name" from the name drop down list.



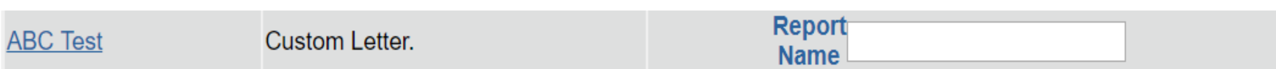
- **Immunization History**: Check the box to include the patient's immunization history in the letter.
- **Paragraph 2**: Enter more text in this field, if desired.

- **Immunization recommendations**: Check this box to include the immunizations recommended for the patient in the letter.
- **Paragraph 3**: Enter text in this field, if desired.
- **Closing**: Enter a closing word or statement in this field. If you wish to include your provider organization's name and/or telephone number after the closing, check the appropriate box(es).
- **Name and Save the Custom Letter**: Enter a name for the letter in the field provided. When the letter is complete, press ***Save***.

Generating Custom Letters

The custom letter output option allows you to generate a customized letter for each patient returned on your query. To create a new custom letter, refer to the "Creating Custom Letters" section of this chapter. To generate a custom letter from the Reminder Request Process Summary screen, follow these steps:

1. Click the link with the name of the custom letter. The letter will begin generating immediately.

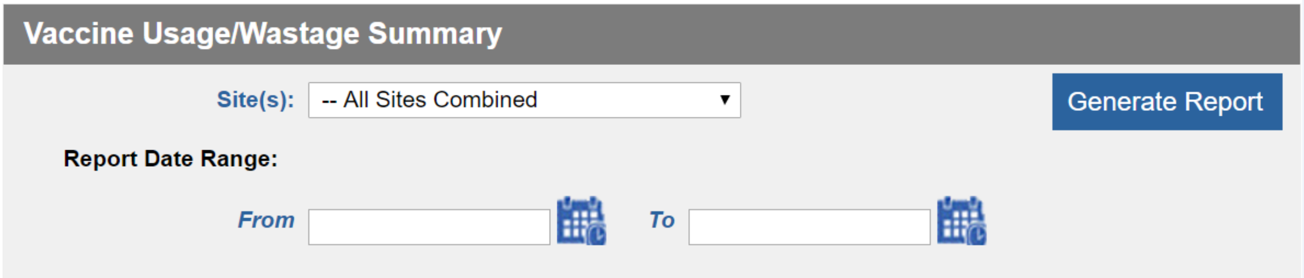


2. Your report will be listed on the Reminder Request Status screen; the bottom table shows the name of the request, the date and time it was started, and the status of the request.
   - You have the option of moving to other portions of ImmuNet or using other functions of your computer while you are waiting for your letters to process. To return to check the progress of your request, click on the **Report Status** button on the Reminder/Recall Request page.
   - If you choose to stay at the Reminder Request Status screen while your request is processing, press occasionally to check the status.

3. Once the report name is underlined and appears in blue, your letters are ready. Click on the report name to view or print the letters in Adobe Reader®.
4. To print the letters, press the printer icon on the Adobe® toolbar. Press ***OK*** in the Print dialog box.
5. To print additional output, press the ***Back*** button on your browser. At the Reminder Request Status screen, click on the underlined reminder request (top table) to return to the Reminder Request Process Summary screen.

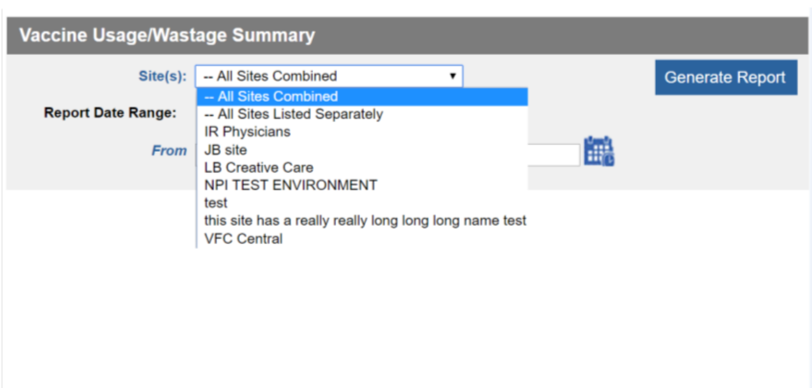
Vaccine Usage/Wastage Summary

The Vaccine Usage/Wastage Summary report will produce vaccine transaction data only for those sites that have entered *non-historical* immunization data into the system. In the event a site is selected that has no transaction data, a message informing the user will be displayed on the report.



To produce a Vaccine Usage/Wastage Summary report, follow these steps:

1. Select the desired site report output from the Site(s) pick list. Listed below are the descriptions for each option:



2. Enter the Report Date Range by typing start/end dates into the *From* and *To* text boxes in the format MM/DD/CCYY. Or, click on the calendar icon to select the date.
3. Click on the **Generate Report** button.
4. The system will process the report and then display the report in Adobe Acrobat.

Vaccine Transaction Summary Detail for All Sites Combined

For Dates Between 10/01/2019 and 10/31/2019

Report run on : 11-15-2019 4:49 AM Page1

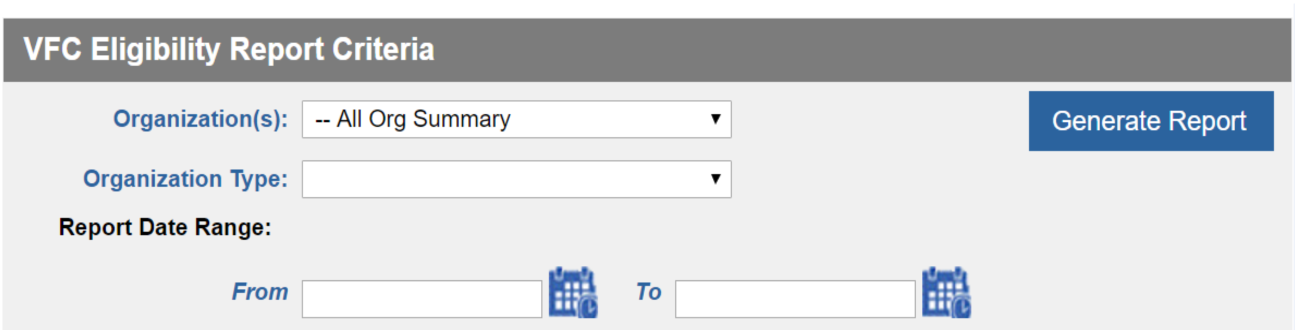
Provider IR Physicians

Group Name	Trade Name	Funding	Imms Given	Transferred	Rejected & Restocked Doses	Doses Received	Wasted	Error	Expired	Reconstitute	Totals
HepB	Engerix-B Peds	PRIVAT	0	0	0	0	0	0	209	0	209
		Totals:	0	0	0	0	0	0	209	0	209

VFC Eligibility Report

The VFC Report details the number of patients that are vaccinated by your organization for each VFC eligibility type for a specified date range. To generate a VFC Report, follow these steps:

1. Click Request **VFC Eligibility Report** under the Reports section of the menu panel.



2. Select the organization name from the drop down list.
3. Enter a From date under the Report Date Range using the MM/DD/YYYY format.
4. Enter a To date under the Report Date Range using the MM/DD/YYYY format.
5. Choose a type of VFC Report to run. You have two choices:
   - The Age Group report displays a summary of doses by VFC eligibility and four specific age ranges: < 1 year of age, 1-6 years of age, 7-18 years of age, and older than 19 years.
   - The Vaccine Group report displays a summary of doses by VFC eligibility and vaccine groups.
6. Press ***Generate Report.***
7. The form displays in Adobe® Reader.
8. To print the report, press the printer icon on the Adobe® toolbar.
9. Press ***OK*** in the Print dialog box.
10. To return to the Vaccines for Children Report Criteria screen, press the ***Back*** button on your browser.

Understanding the VFC Eligibility Report by Vaccine Group

The following section explains the rows and columns within the VFC report. The report only displays vaccines administered by your organization.

The VFC Report by Vaccine Group in IMMUNET is a required monthly report (Doses Administered) for the VFC Program.

Vaccines for Children and Child Health Plus B

For Dates Between 09/01/2009 and 09/30/2009

Report Run on: 11/04/2009

Organization: Kyle's Immunization Clinic

Vaccine	VFC Eligibility Immunization Counts				Total # of VFC Eligible Doses Administered (V02-V05)	Total # of Non-VFC Eligible Doses Administered (V00,V01)	Total # of CHP B Doses Administered (CH00)
	Medicaid/Medicare Managed Care (V02)	Uninsured (V03)	American Indian/Alaskan Native (V04)	Underinsured (V05)			
DTP/aP-HepB-	0	0	0	0	0	2	0
Hib	0	0	1	0	1	1	0
Mumps	0	0	0	0	0	1	0
DTP/aP-Hib-	1	0	0	0	1	0	0
Polio	3	0	1	0	4	2	0
DTP/aP	4	1	1	0	6	2	0
Td-Pertussis	3	0	0	0	3	4	1
HepA-HepB	1	0	1	0	2	0	0
Influenza	2	0	0	1	3	6	0

The columns on the report break down the vaccines administered by VFC eligibility.

Column	Description
Vaccine	Lists the vaccines that were used by your organization during the date range entered for the report.
Medicaid/Medicare	The immunization is associated with a patient whose record indicates "Medicaid/Medicare Managed Care".
Uninsured	The immunization is associated with a patient whose record indicates "Uninsured".

American Indian	The immunization is associated with a patient whose record indicates "American Indian/ Alaskan Native".
Underinsured	The immunization is associated with a patient whose record indicates "Underinsured".
Total # of VFC Eligible	The total count of immunizations provided to VFC Eligible *Doses Administered* patients at your organization.
Total # of Non-VFC Eligible	The total count of immunizations given to Non-VFC Eligible *Doses Administered* patients at your organization.
Total # of CHP B Doses	The total number of immunizations administered to *Administered* patients participating in Child Health Plus program.
VFC Eligibility Unknown	The immunization is associated with a patient whose patient record indicates "VFC Eligibility Unknown".
Not VFC Eligible	The immunization is associated with a patient whose record indicates "Not VFC Eligible".
Child Health Plus B	The immunization is associated with a patient whose record indicates "Child Health Plus B".

Sub column	**Description**
Total by VFC Eligibility	The total cells in the bottom row of the report represent the total count of immunizations for the given VFC eligibility.

Understanding the VFC Eligibility Report by Age Group

The following section explains the rows and columns within the VFC report. The report only displays vaccines administered by your organization.

Vaccines for Children by Provider

For Dates Between 09/01/2009 and 09/30/2009

Report run on: 11/04/2009 11:28 AM

Page 1

Kyle's Immunization Clinic -

	VFC Eligibility Unknown		Not VFC Eligible		Medicaid/ Medicare Managed Care		Uninsured		American Indian/ Alaskan Native		Underinsured		Child Health Plus B			
(years)	Imms	Distinct Patients	Imms	Distinct Patients	Imms	Distinct Patients	Imms	Distinct Patients	Imms	Distinct Patients	Imms	Distinct Patients	Imms	Distinct Patients	Sum of Immunizations	Sum of Patients
<1	0	0	0	0	6	2	1	1	6	1	0	0	0	0	13	4
Annualized	0	0	0	0	73	24	12	12	73	12	0	0	0	0	158	48
1-6	5	1	16	6	14	4	0	0	0	0	0	0	5	2	40	13
Annualized	61	12	195	73	170	49	0	0	0	0	0	0	61	24	487	158
7-18	5	3	11	5	13	3	0	0	0	0	1	1	7	2	37	14
Annualized	61	37	134	61	158	37	0	0	0	0	12	12	85	24	450	171
19+	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Annualized	24	24	0	0	0	0	0	0	0	0	0	0	0	0	24	24
Total	12	5	27	11	33	9	1	1	6	1	1	0	12	4		
Grand Total:															92	31

The rows on the report break down the immunizations and patients by age in years. A patient who receives a vaccination when he or she is six years and 11 months old will be included in the 1-6 age group.

Row	Description
< 1	This row includes doses given to patients who were under one year of age at the time the dose was administered.
1-6	This row includes doses given to patients who were from one to six years of age at the time the dose was administered.
7-18	This row includes doses given to patients who were from seven to 18 years of age at the time the dose was administered.
19+	This row includes doses given to patients who were 19 years of age or older at the time the dose was administered.
Annualized	ImmuNet computes annualized estimates by using actual immunization and patient counts in each age group, applying a multiplier to estimate a yearly amount. For example, if a report was run for 01/01/2006 to 01/31/2006, the number in the annualized row will be roughly 12 times the actual counts.

The columns on the report break down the immunizations and patients by VFC eligibility.

Column	Description
VFC Eligibility Unknown	The immunization is associated with a patient whose patient record indicates "VFC Eligibility Unknown".
Not VFC Eligible	The immunization is associated with a patient whose record indicates "Not VFC Eligible".
Medicaid/Medicare	The immunization is associated with a patient whose record indicates "Medicaid/Medicare Managed Care".
Uninsured	The immunization is associated with a patient whose record indicates "Uninsured".
American Indian	The immunization is associated with a patient whose record indicates "American Indian/ Alaskan Native".
Underinsured	The immunization is associated with a patient whose record indicates "Underinsured".
Child Health Plus B	The immunization is associated with a patient whose record indicates "Child Health Plus B".

Sub columns	Description
Imms	This sub-column counts the number of immunizations given to patients within each VFC eligibility category for the specified date range.
Distinct Patients	This sub-column counts the number of distinct patients associated with the immunizations given within each VFC eligibility category for the specified date range. *(e.x.*A single patient who received three doses would contribute +3 to the Imms column but only +1 to the Distinct Patients column.)

Totals include counts by VFC eligibility, age group, and grand total.

Total Field	Description
Total by VFC Eligibility	The total cells in the bottom row of the report represent the total count of immunizations or distinct patients for the given VFC eligibility, regardless of the age at which the dose was administered.
Sum of Immunizations	The second-to-last column of the report shows a count of the number of immunizations given in each age category, regardless of VFC eligibility.

Patient Reports

For all patients in ImmuNet, you may generate the following reports from the Patient Reports Screen:

- Vaccine Administration Record
- Maryland 896 School Certificate
- Immunization History Report
- Immunizations Needed

Vaccine Administration Record

The Vaccine Administration Record displays demographics, contact information, and immunization history for the selected patient. The responsible person's and clinician's signatures can also be collected on this form. To generate the report, follow these steps:

1. From a patient's Manage Patient screen or Manage Immunizations screen, press Reports.
2. At the Patient Reports screen, choose your org name under the "Additional Information" column for the Vaccine Administration report.

Reports Available for this Patient | Cancel

Report	Description	Additional Information
Vaccine Administration Report, MDH Form 4500	Official Maryland form displaying a patient's immunization history.	Site [ ] Language ENGLISH
Maryland 896 School Certificate	Official Maryland form for recording student immunization information required for school admission.	None
Immunization History Report	Displays demographics, registry data, contact information, as well as detailed immunization history.	None
Immunizations Needed	Displays demographics, contact information, immunization history, as well as immunizations needed.	None

3. Click on Vaccine Administration, which is underlined and in blue text.
4. Once the report is generated, it will be displayed using Adobe Acrobat Reader®. Refer to the Optimizing ImmuNet chapter in this manual for more information on Acrobat Reader®.

Vaccine Administration Record

Patient Name: SAMPLE CLIENT
Date of Birth: 06/01/2014
Parent/Guardian Signature: ____________________
(Optional)

Provider/Clinic Name & Address:
IR Physicians
123 Main St, #2
BALTIMORE WI, 54321

VACCINE* (Please Circle Appropriate Vaccine)	Date Administered	Vaccine Manufacturer	Vaccine Lot Number	Name and Title of Vaccine Administrator	Date Vaccine Information Statements Given	Publication Date of Vaccine Information Statements
DTaP 1 or DT 1	08/08/2015	PMC			08/08/2015	05/17/07
DTaP 2 or DT 2	12/19/2015	SKB			12/19/2015	05/17/07
DTaP 3 or DT 3	06/06/2016				06/06/2016	05/17/07
DTaP 4 or DT 4	07/07/2017	UNK			07/07/2017	05/17/07
DTaP 5 or DT 5						05/17/07

5. To print the report, press the printer icon on the Adobe® toolbar. Press OK in the Print dialog box.

Maryland 896 School Certificate

The Maryland 896 Certificate form is used for recording student immunization information required for school admission. To generate the report, follow these steps:

1. From a patient's Manage Patient screen or Manage Immunizations screen, press Patient Reports.

Reports Available for this Patient Cancel

Report	Description	Additional Information
Vaccine Administration Report, MDH Form 4500	Official Maryland form displaying a patient's immunization history.	Site: Language: ENGLISH
Maryland 896 School Certificate	Official Maryland form for recording student immunization information required for school admission.	None
Immunization History Report	Displays demographics, registry data, contact information, as well as detailed immunization history.	None
Immunizations Needed	Displays demographics, contact information, immunization history, as well as immunizations needed.	None

2. Click on Maryland 896 School Certificate, which is underlined and in blue text.
3. Once the report is generated, it will be displayed using Adobe Acrobat Reader®. Refer to the Optimizing ImmuNet chapter in this manual for more information on Acrobat Reader®.

MARYLAND DEPARTMENT OF HEALTH IMMUNIZATION CERTIFICATE

CHILD'S NAME: **CLIENT** (LAST) **SAMPLE** (FIRST) (MI)

SEX: MALE ☐ FEMALE ■ BIRTHDATE **06/01/2014**

COUNTY ______ SCHOOL ______ GRADE ______

PARENT OR GUARDIAN NAME **WEDNESDAY DAY** PHONE NO. **(123) 456-7890**

ADDRESS **100 STREET** CITY **NYC** ZIP **10000**

RECORD OF IMMUNIZATIONS (See Notes on Other Side)

Vaccines Type

Dose #	DTP-DTaP-DT Mo/Day/Yr	Polio Mo/Day/Yr	Hib Mo/Day/Yr	Hep B Mo/Day/Yr	PCV Mo/Day/Yr	Rotavirus Mo/Day/Yr	MCV Mo/Day/Yr	HPV Mo/Day/Yr	Dose #	Hep A Mo/Day/Yr	MMR Mo/Day/Yr	Varicella Mo/Day/Yr	History of Varicella Disease Mo/Yr
1	**08/08/2015**	**12/19/2015**		**10/02/2018**					1				
2	**12/19/2015**								2				
3	**06/06/2016**												
4	**07/07/2017**												
5	**10/22/2019**												

Td Mo/Day/Yr	Tdap Mo/Day/Yr	MenB Mo/Day/Yr	Other Mo/Day/Yr

4. To print the report, press the printer icon on the Adobe® toolbar. Press OK in the Print dialog box.

Immunization History Report

The Immunization History Report displays demographics, contact information, and a detailed summary of the patient's immunization history. This report will typically be used as an official school record. This report should be provided to parents and guardians, as requested. To generate the report, follow these steps:

1. From a patient's Manage Patient screen or Manage Immunizations screen, press Reports.
2. At the Patient Reports Patient screen, click on Immunization History Report, which is underlined and in blue text.
3. Once the report is generated, it will be displayed using Adobe Acrobat Reader®. Refer to the Optimizing ImmuNet chapter in this manual for more information on Acrobat Reader®.

23 July 2019

Maryland ImmuNet

IR Physicians

Immunization History Report

Patient ID: **PT22**　　Tracking Schedule: **ACIP**
Patient Name: **SAMPLE CLIENT**　　Mother's Maiden Name: **PAM PARENT**
Birth Date: **06/01/2014**　　Gender: **Female**
Address: **222 TEST ROAD**
City: **BALTIMORE**　　State: **MD**　　ZIP: **55225**　　Phone: **(123) 456-7890 x666666**
Age: **5 years, 1 month, 22 days**

Immun	Date Admin	Series	Trade Name	Dose	Mfg Code	Lot #	Bod Rt.	Bod St.	Provider of Information	React
Anthrax	04/10/2019	1 of 5	BioThrax	Full					IR Physicians	
DTP/aP	08/08/2015	1 of 5	DTP	Full					AFIX Test Org	
DTP/aP	12/19/2015	2 of 5	Kinrix	Full					AFIX Test Org	
DTP/aP	06/06/2016	3 of 5		Full					AFIX Test Org	
DTP/aP	07/07/2017	4 of 5		Full					IR Physicians	
MeningB	04/01/2019	Not Valid	Trumenba	Full					IR Physicians	
Polio	12/19/2015	1 of 3	Kinrix	Full					AFIX Test Org	

Reaction Descriptions:
No Records Found.

Patient Comments:　　**Start Date:**　　**End Date:**
No Records Found.

4. To print the report, press the printer icon on the Adobe® toolbar. Press OK in the Print dialog box.
5. To return to the Patient Reports screen, you may close the Acrobat Reader® by clicking the X in the upper right corner of the Immunization History Report window.

Immunizations Needed Report

The Immunizations Needed report displays demographics, contact information, immunization history, and immunizations recommended by date according to the tracking schedule assigned to the patient. This report can be provided to parents and guardians for their records and helps to identify upcoming immunizations for their children. In addition, it provides a place for the next appointment date and organization phone number. To generate the report, follow these steps:

1. From a patient's Manage Patient screen or Manage Immunizations screen, press Re[prts.
2. At the Patient Reports screen, click on Immunizations Needed, which is underlined and in blue text.
3. Once the report is generated, it will be displayed using Adobe Acrobat Reader®. Refer to the Optimizing ImmuNet chapter in this manual for more information on Acrobat Reader®.

Maryland ImmuNet
IR Physicians
Immunization Record

Patient ID: PT22 **Tracking Schedule:** ACIP
Patient Name(L,F M): CLIENT, SAMPLE
Mother's Maiden Name(L,F): PARENT, PAM
Birth Date: 06/01/2014 **Gender:** FEMALE **Race:** American Indian or Alaska Native
Age: 5 years, 1 month, 22 days **Ethnicity:**
Address: 222 TEST ROAD
City: BALTIMORE **State :** MD **Zip:** 55225 **Phone:** (123) 456-7890 x666666

Relationship: Care-Giver **Name (L,F M):** SMITH, SALLY
Address: 123 STREET
City: JAL **State:** NM **Zip:** 87417 **Phone:**

Relationship: Other **Name (L,F M):** DAY, GOOD
Address: 123 STREET
City: JAL **State:** NM **Zip:** 87417 **Phone:**

Relationship: OTHER/Miscellane **Name (L,F M):** DAY, GOOD
Address: 123 STREET
City: JAL **State:** NM **Zip:** 87417 **Phone:**

Insurance Providers: No Insurance Providers Found

Patient Comments	From Date
No Comments Found	

Immunization History **Tracking Schedule:** ACIP

Immunization	Date Admin	Series	Trade Name	Dose	Reaction
Anthrax	04/10/2019	1 of 5	BioThrax	Full	
DTP/aP	08/08/2015	1 of 5	DTP	Full	
DTP/aP	12/19/2015	2 of 5	Kinrix	Full	
DTP/aP	06/06/2016	3 of 5		Full	
DTP/aP	07/07/2017	4 of 5		Full	
MeningB	04/01/2019	Not Valid	Trumenba	Full	
Polio	12/19/2015	1 of 3	Kinrix	Full	

Vaccines Recommended by Selected Tracking Schedule

Vaccine	Date Needed
HepB	06/01/2014
HepA	06/01/2015
MMR	06/01/2015
Varicella	06/01/2015
Polio	01/16/2016

Vaccines Recommended by Selected Tracking Schedule

Vaccine	Date Needed
DTP/aP	06/01/2018
Anthrax	05/08/2019
Influenza	08/01/2019
Meningo	06/01/2025
MeningB	06/01/2030

Appointment:____/_____/________ ***Provider Phone Number: (608) 222-3333 x4444***
CLIENT, SAMPLE
06/01/2014

4. To print the report, press the printer icon on the Adobe® toolbar. Press OK in the Print dialog box.
5. To return to the Patient Reports screen, you may close the Acrobat Reader® by clicking the Back Button in the upper right corner of the Immunizations Needed Report window.

Data Exchange

In this chapter:

Data Exchange through ImmuNet
HMO Data Exchange

Data Exchange through ImmuNet

The data exchange feature of ImmuNet gives you the capability to exchange immunization data files. Only ImmuNet users with the role of "MCO Data Exchange," or ""Admin User" will be able to perform data exchange. HMO/MCO users will need to follow the steps in the "HMO Data Exchange" section of this chapter.

Provider Organization Data Exchange

Prior to establishing data exchange, the ImmuNet staff must be contacted to arrange for testing either a Health Level 7 (HL7) or a Flat File that your organization will be sending. ImmuNet prefers to work with the vendor or technical contact to test the file format first. Once that testing is complete, ImmuNet will run a test with each provider organization to ensure the provider organization itself is set up correctly in ImmuNet and is able to upload data into the system.

Creating a test file for Data Exchange

1. Contact ImmuNet Help Desk (410-767-6606) to receive the most up to date version of the file specifications for both HL7 and Flat File.
2. Send ImmuNet staff a hypothetical sample file of at least 5-10 patient records. Include in this file a range of sample of immunizations per "patient". ImmuNet will check the file and run it in test mode.
    - All combination vaccines and single vaccines should ultimately be tested.
    - Provide at least 3 records where all patient information that you are allowing your clients to provide is entered (e.g., mother's maiden name responsible person, patient status, etc).
    - If you are only collecting the required fields, please let ImmuNet staff know that as well.
    - Review code tables carefully, paying careful attention to spelling and to codes that are only valid during specific time periods.
3. Send screen shots of your data entry screen so a comparison can be made between how the data is being entered into your system and how it looks in the test data file.
4. Once the file format has been tested and found to be correct, request that your provider organization contact the ImmuNet Help Desk (410-767-6606) to set up data exchange. The Help Desk will walk the data exchange representative from your office through the steps for data upload and explain the response files that are created.

Setting up your organization for Data Exchange

In order to set up your organization for Data Exchange you must call the ImmuNet Help Desk (410-767-6606) and provide them with the following information:

- The name of your provider organization.
- The name of your vendor (EMR, Billing, Third Party)
- File format type: Indicate Health Level 7 (HL7), Flat File, or Custom Flat File.

Note: Files have a size limit of 150 MB combined of the patient, immunization and comment files that can be uploaded via the user interface. If files are larger than 150 MB, they will need to be split into smaller files for loading.

Uploading a file for Data Exchange

The ImmuNet Help Desk (410-767-6606) will assist you with your first data exchange. This file will be sent into ImmuNet in **test** mode. They will walk you through the data exchange process and explain the response file to you. Once your first file has been accepted in ImmuNet, it will be reviewed by your organization and the ImmuNet Help Desk. If both parties agree that the Data Exchange was successful, then your organization will continue sending data into the ImmuNet Application.

To perform a data exchange, follow these steps:

1. Click on Load Data File under Data File Loading on the menu panel. Depending upon the type of file format and direction of data you will be using, one or more of the following fields will display:
    - *Job Name*: Fill in a name for the data exchange, if desired. If left blank, ImmuNet will use the current date for a job name.
    - *HL7 File Name*: This field is required for users who are exchanging data using the HL7 file format. Press Browse to select the HL7 file you wish to upload.
    - *Patient File Name*: This field is required if you have chosen "bidirectional" or "provider organization to ImmuNet" as a data direction, and your file format is Flat File, or your file format is a Custom Flat File. Press Browse; to select the appropriate Patient File Name.
    - *Immunization File Name*: This field is required if you have chosen "bidirectional" or "provider organization to ImmuNet" as a data direction, and your file format is Flat File, or your file format is a Custom Flat File. Press Browse to select the appropriate Immunization File Name.
    - *Comment File Name*: This optional field will appear if you exchange data via Flat File format and have chosen "bidirectional" or "provider Organization to ImmuNet" as a data direction, or if you exchange data via Custom Flat File format. Press Browse to select the appropriate Immunization File Name.
2. Press the Upload or Request Download button on your screen, whichever is displayed.

Note: Do not close the browser, click on any other buttons, or navigate away from this page during the upload of the file.

3. The Exchange Data Result screen will display. This screen will list the files that were uploaded using "bidirectional" or "provider organization to ImmuNet" data directions and will confirm or provide the job name to the user.
4. Press Check Status.
5. The Exchange Data Status screen will display. This screen will contain the job name, user name, exchange data date, process start and end date, and status of the current job.
6. Press **Refresh** periodically to check the status of the job, it will not automatically update.
7. When a job is completed, the job name will appear underlined and in blue. Under the status column, one of three messages may appear.
   - ***Complete*****:** This message indicates the job has completed processing.
   - ***Error:*** This message indicates the job could not be processed because of formatting errors.
   - ***Exception*****:** This message indicates that the job could not be processed because of an internal system error.
8. Click on the blue underlined job name.
9. If the job completed successfully, the Job Detail screen will display. This screen contains the following three sections:
   - Download Files for: <Job Name>: This section contains all output files available for you to download, including the Response Files and any "ImmuNet to provider organization" download files. Click on the blue, underlined download name to download the file.
   - Download Log for: <Job Name>: This section contains information regarding activity of the download file(s), including file name, user name, date, and time of the download(s).
   - Summary Information for: <Job Name>: This section contains a summary of all the information pertinent to the exchanged data file received and processed.
10. If the job did not complete successfully, the Job Error screen will display. This screen will contain an explanation of why the exchange data could not be processed, contains the original uploaded file(s), and lists information regarding the activity of the downloaded file(s).

Data Collected via Data Exchange

Submit as much data as possible of the listed elements for completeness. At a minimum, fields in blue must be submitted for ImmuNet to process the file.

Patient Information
Record Identifier:
Patient Status:
First Name:
Middle Name:
Last Name:
Name Suffix:
Birth Date MMDDYYYY:
Death Date MMDDYYYY:
Mothers First Name:
Mothers Maiden Last Name:
Sex (Gender):
Race:
Ethnicity:
Contact Allowed:
Consent to Share:
Patient ID:
Responsible Party First Name:
Responsible Party Middle Name:
Responsible Party Last Name:
Responsible Party Relationship:
Street Address:
PO Box Route Line:
Other Address Line:
City:
State:
Zip:
County:
Phone:
Sending Organization (this is your ImmuNet organization ID): This field is REQUIRED if an organization other than the organization that owns the record(s) is transmitting the data.

Immunization Information
Record Identifier:
Vaccine Group*: Either Vaccine group or CPT Code is required
CPT Code*: Either Vaccine Group or CPT Code is required
CVX Code*: Either Vaccine Group or CPT Code is required - - HL7 FILE ONLY
Trade Name:
Vaccination Date MMDDYYYY:
Administration Route Code:
Body Site Code:
Reaction Code:
Manufacturer Code:
Immunization Information Source: *NOTE*: if this field is left blank, the immunization will be listed as historic or not owned by sending organization. To indicate that an immunization was administered by your provider office and to ensure that immunization is properly associated with your office, fill this field with “00”.
Lot Number:
Provider Name:
Administered By Name:
Site Name:
Sending Organization: (this is your ImmuNet organization ID): This field is REQUIRED if an organization other than the organization that owns the record(s) is transmitting the data
Financial Status (VFC Eligibility):
Vaccine Purchased With (Funding Type):
Comment Information
Record Identifier:
Comment Code:
Applies to Date MMDDYYYY:

HMO Data Exchange

All HMO/MCOs will need to complete the same testing of their data file format as outlined above for provider organizations and EMRs. Prior to performing an HMO data exchange, your HMO will need to contact the ImmuNet Help Desk and arrange for your organization to be set up to perform data exchange.

You will need to provide the following information regarding the exchange:

- *File format*: Indicate HL7 or Flat File.
- *Type of transmission*: Indicate whether the exchange will be a test or an actual production transfer.

To perform an HMO Data Exchange, follow these steps:

1. Click on Submit HMO Data or Submit HMO Query under the Data Exchange menu option. Depending upon the selection made and the type of file format you are set up to use, one or more of the following fields will display:
   - Job Name: Fill in a name for the data exchange, if desired. If left blank, ImmuNet will use the current date for a job name.
   - For Flat File Submissions:
     - Patient File Name: This field is required if your file format is Flat File. Press Browse to select the appropriate Patient File Name.
     - Immunization File Name: This optional field will appear if you exchange data via Flat File format. HMO/MCOs are not required to send immunization data.
     - Comment File Name: This is an optional file which will appear if you exchange data via Flat File format.
   - For HL7 File Submissions
     - File Name. This field is required for users who are exchanging data using the HL7 file format. Press Browse to select the HL7 file you wish to upload.
   - For HMO Query Files
     - This field is required for users who are running an HMO query. Press Browse to select the appropriate query file. For the format of the HMO query, please see the HMO Query Specification.

Note: A query may not be successfully run until the HMO/MCO has submitted patient data into ImmuNet. Only patients that are shown to be affiliated to an HMO/MCO will be returned to the HMO via a data query.

2. Press Upload.
3. The Exchange Data Result screen will display. This screen will list the files that were uploaded and will confirm or provide the job name to the user.
4. Press the Check Status button.
5. The Exchange Data Status screen will display. This screen will contain the job name, user name, exchange data date, process start and end date, and status of the current job.
6. Press **Refresh** periodically to check the status of the job.
7. When a job is completed, the job name will appear underlined and in blue. Under the status column, one of three messages may appear:

   - **Complete:** This message indicates the job has completed processing.
   - **Error:** This message indicates the job could not be processed because of formatting errors.
   - **Exception:** This message indicates that the job could not be processed because of an internal system error.

8. Click on the underlined job name.
9. If the job completed successfully, the Job Detail screen will display. For jobs created from the Submit HMO Data menu option, these sections will display:

   - Download Files for: <Job Name>: This section contains all output files available for you to download, including the Response Files and any "ImmuNet to provider organization" download files. Click on the blue, underlined download name to download the file.
   - Download Log for: <Job Name>: This section contains information regarding activity of the download file(s), including file name, user name, and date and time of the download(s).
   - Summary Information for: <Job Name>: This section contains all information pertinent to the exchanged data file received and processed.

For jobs created using the Submit HMO Query menu option, the following sections display:

- Download Files for: <Job Name>: Contains the Demographic File, Immunization File, and Exception File, all available for download by clicking on the underlined file name.
- Download Log for: <Job Name>: Contains information regarding activity of the download files.

10. If the job did not complete successfully, the Job Error screen will display. This screen contains an explanation of why the exchange data could not be processed contains the original uploaded file(s), and lists information regarding the activity of the downloaded file(s).

HMO Query Format
Record Type
Record Identifier
First Name
Middle Name
Last Name
Birth Date

HMO Query Result File Formats

Demographic
Chart Number
First Name
Middle Name
Last Name
Birth Date

Immunization
Chart Number
CPT
Vaccine Group
Administered Date
Filler

Exception
Chart Number
Record Type
Error Message

School Access

In this chapter:

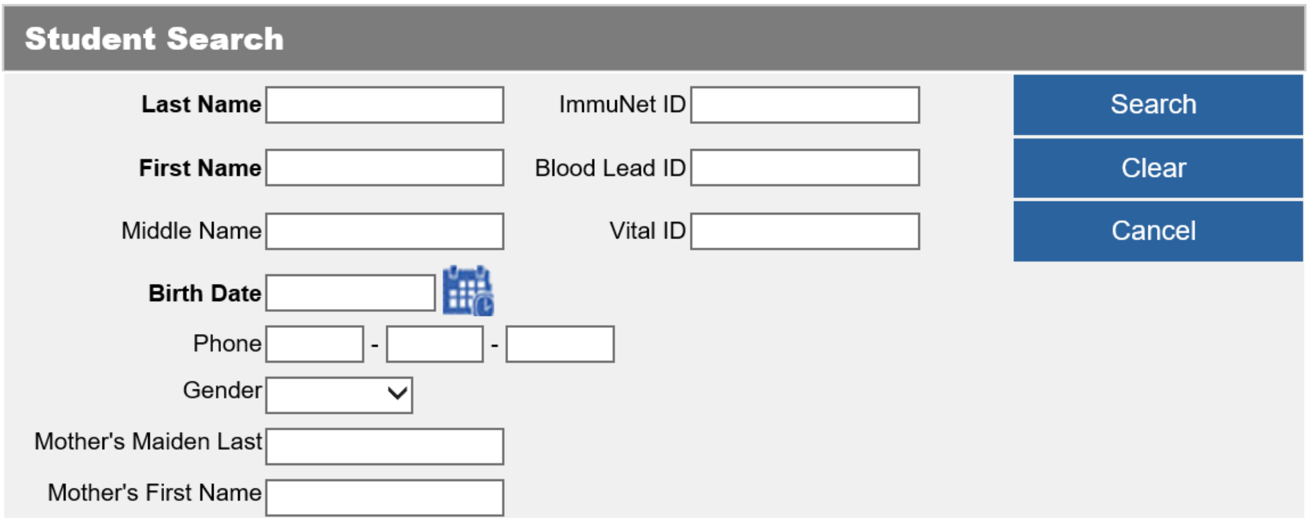
Find Student Screen
Blank Student Report (MDH 896)

Find Student Screen

The Find Student screen is used to search and locate any school student existing in the ImmuNet application using predetermined sets of search criteria.

There are two main sections used in the Find Student screen.

- Enter Search Criteria for a Student
- Search Results



Search Criteria

Listed below are the main items used to search for a student in ImmuNet.

- Student Name
- Mother's Name
- Birth Date
- Gender
- Phone Number
- The ImmuNet ID is an ID assigned by ImmuNet and only displays for power users.

Student Name Search

In order to locate a student in ImmuNet using his or her name, a certain portion of each of the student's Last Name and First Name must be entered into the respective information fields as described below.

Last Name - At a minimum, the first three characters of the student's last name must be entered.

A search can be executed using less than three characters for the Last Name. In this case, the system will search the database for a student whose Last Name exactly matches the search.

First Name - At a minimum, the first two characters of the student's first name must be entered.

Middle Name - There is no minimum character entry for the middle name field. The middle name is only functional when used in conjunction with the student's last or first name or both. If the patient does not have a middle initial recorded in ImmuNet, using it in your search will not produce a match.

Note: For quicker, more precise searches, entire Last Names and First Names should be used whenever available. The middle name will not function if used with any criteria other than first and last name.

Mother's Name Search

In order to locate a student in ImmuNet using his or her Mother's Maiden Name, a certain portion of each of the Mother's Maiden Last Name and Mother's First Name must be entered into the respective information fields as described below. The Mother's Name Search can be used independently or in conjunction with the Student Name Search.

Mother's Maiden Last - At a minimum, the first three characters of the Mother's Maiden Last name must be entered.

Mother's First Name - At a minimum, the first two characters of the Mother's First Name must be entered.

Birth Date Search

In order to locate a student in ImmuNet using his or her Birth Date, the criteria must be entered as described below.

Birth Date - Can be a valid date between 01/01/1880 and the current date and it must be entered in the following format MM/DD/YYYY.

The search will return all students whose corresponding birth dates exactly match the dates entered. The Birth Date Search can be used independently, but is recommended that it only be used in conjunction with at least one other set of search criteria, such as Last Name. Typically there may be hundreds of students born on that particular day which will cause ImmuNet to hit the threshold limit.

Gender Search

The Gender Search can only be used in helping to locate a student in ImmuNet when used in conjunction with one or more other set(s) of search criteria.

Gender - Select one of the three options, Male, Female, or Unknown.

Phone Number Search

In order to locate a student in ImmuNet using his or her Phone Number, the criteria must be entered as described below.

Phone Number - A valid seven-digit Phone Number must be entered.

The search will only return students whose corresponding Phone Number exactly matches the Phone Number entered. An Area Code can be entered in the first information field after Phone as an additional means to narrow the search, but is never required. The Phone Number Search can be used independently or in conjunction with other search criteria.

Once you have entered all your criteria for the search, click on the button to execute the search. Results are described below.

Search Results

Exact Student Match - An Exact Student Match means ImmuNet returned only one student. When this occurs, the Student Immunization History screen is displayed containing all of the relevant information regarding the student. An Exact Student Match will usually occur when the search criteria entered contains information inherently specific to a particular student.

List of Possible Matches

A List of Possible Matches means the search returned more than one and less than or equal to 75 possible student matches. All possible student matches returned are then displayed in a table. The student result table is sorted alphabetically by Last Name. Middle name, birth date and gender are also included in the table for each student. Using the information displayed for each of the students in the table, the student can be selected by clicking on the Last Name. The Student Immunization History screen is then displayed containing all relevant information regarding the student selected.

Threshold Limit

When executing a search in the database, ImmuNet may find multiple possible matches from the search criteria entered. If the number of students exceeds 75 available matches, then no students will be listed for further selection. Instead, the following message will display:

"XX sstudents were found. Please refine your search criteria to limit your student list."
(Where XX is the total number of students found in the search.)

This threshold limit occurs to restrict the extremely long lists of possible students.

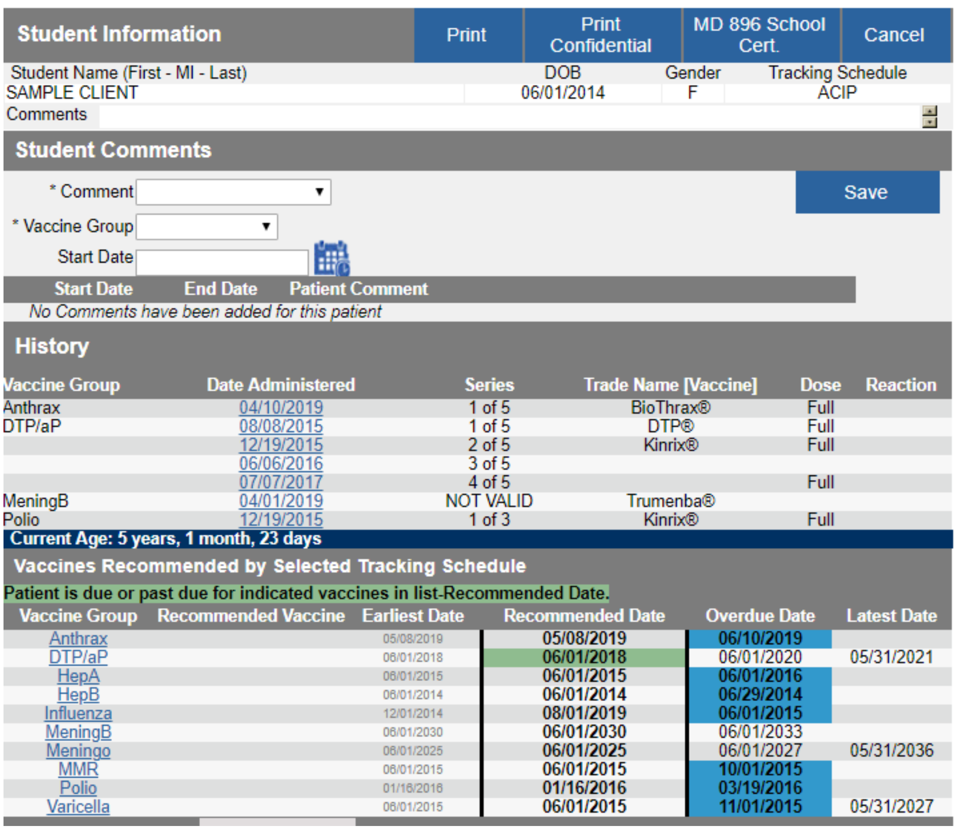
In the event a threshold limit is encountered while executing a student search, the scope of the search must be narrowed. Revisit the search criterion that was previously used, and add additional information available for the student. Be sure to observe the search criteria restrictions listed above in the Student Search Criteria section.

Student Immunization History Screen

The **Student Immunization History** screen displays a student's immunization history and provides immunization recommendations based on the ACIP schedule.

There are three main sections used in the **Student Immunization History** screen.

- Student Information
- Student Immunization History
- Recommended Vaccinations



Student Information | Print | Print Confidential | MD 896 School Cert. | Cancel

Student Name (First - MI - Last)	DOB	Gender	Tracking Schedule
SAMPLE CLIENT	06/01/2014	F	ACIP

Comments

Student Comments

* Comment | Save

* Vaccine Group

Start Date

Start Date	End Date	Patient Comment
No Comments have been added for this patient		

History

Vaccine Group	Date Administered	Series	Trade Name [Vaccine]	Dose	Reaction
Anthrax	04/10/2019	1 of 5	BioThrax®	Full	
DTP/aP	08/08/2015	1 of 5	DTP®	Full	
	12/19/2015	2 of 5	Kinrix®	Full	
	06/06/2016	3 of 5			
	07/07/2017	4 of 5		Full	
MeningB	04/01/2019	NOT VALID	Trumenba®		
Polio	12/19/2015	1 of 3	Kinrix®	Full	

Current Age: 5 years, 1 month, 23 days

Vaccines Recommended by Selected Tracking Schedule

Patient is due or past due for indicated vaccines in list-Recommended Date.

Vaccine Group	Recommended Vaccine	Earliest Date	Recommended Date	Overdue Date	Latest Date
Anthrax		05/08/2019	05/08/2019	06/10/2019	
DTP/aP		06/01/2018	06/01/2018	06/01/2020	05/31/2021
HepA		06/01/2015	06/01/2015	06/01/2016	
HepB		06/01/2014	06/01/2014	06/29/2014	
Influenza		12/01/2014	08/01/2019	06/01/2015	
MeningB		06/01/2030	06/01/2030	06/01/2033	
Meningo		06/01/2025	06/01/2025	06/01/2027	05/31/2036
MMR		06/01/2015	06/01/2015	10/01/2015	
Polio		01/16/2016	01/16/2016	03/19/2016	
Varicella		06/01/2015	06/01/2015	11/01/2015	05/31/2027

Student Information

The **Student Immunization History** screen displays a student information header at the top of the page. This header includes student name, selected tracking schedule, as well as other student-distinct information.

The information contained in the header (ex., name , date of birth and gender) can be used to confirm that you have located the correct student, especially if you have made an exact match and were directed to the **Student Immunization History** screen following a student search.

Recommended Vaccinations

The recommended vaccinations and corresponding dates for the selected student reside in a table titled 'Vaccines Recommended By Selected Tracking Schedule'. The vaccine group list appearing in this table represents all vaccinations included in the tracking schedule assigned to this student. The table columns are defined as follows:

Vaccine Group:	This column gives the vaccine group name.
Earliest Date:	This column displays dates which note the earliest date the student could receive the corresponding immunization.
Recommended Date:	This column displays dates which note the date that the student is recommended to receive the corresponding immunization.
Overdue Date:	This column displays dates which note the date that the student is past due for the corresponding immunization.

The dates found in the **Vaccines Recommended by Selected Tracking Schedule** table can be shaded with color for emphasis. The colors applied to the dates within the columns are defined as follows:

Yellow will only be applied to those dates in the **Earliest Date** column. Yellow shading indicates that today's date is equal to or past the earliest date, and is before the recommended date. Therefore, the student could receive the immunization now.

Green will only be applied to those dates in the **Recommended Date** column. Green shading indicates that today's date is equal to or past the recommended date, and is before the overdue date. Therefore the immunization is recommended to be administered now.

Blue will only be applied to those dates in the **Overdue Date** column. Blue shading indicates that today's date is equal to or past the overdue date and before the latest date. Therefore the patient is overdue for the immunization and should receive it as soon as possible.

Maximum Age Exceeded Reflects whether a student has exceeded the maximum age to receive a specific vaccine. For instance, if a student has already reached the age of 5 and hasn't completed the Pneumococcal series, then the recommendation for Pneumococcal at the bottom of the student immunization history will show "Maximum Age Exceeded".

Maximum Doses Met or Exceeded for Vaccine Group Indicates the maximum number of doses that can be administered for the specified vaccine series.

Complete Indicates that an immunization series has been completed according to the ACIP

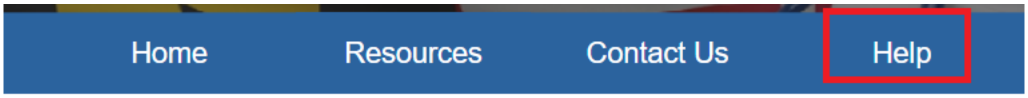
Appendix 1

In the Appendix:

Online Help
ImmuNet Help Desk

Online Help

The ImmuNet online help function provides you with both screen-specific help and a general help index. You may access online help from any screen in ImmuNet by pressing the Help link on the menu bar.



Screen-Specific Help

To access screen-specific help, follow these steps:

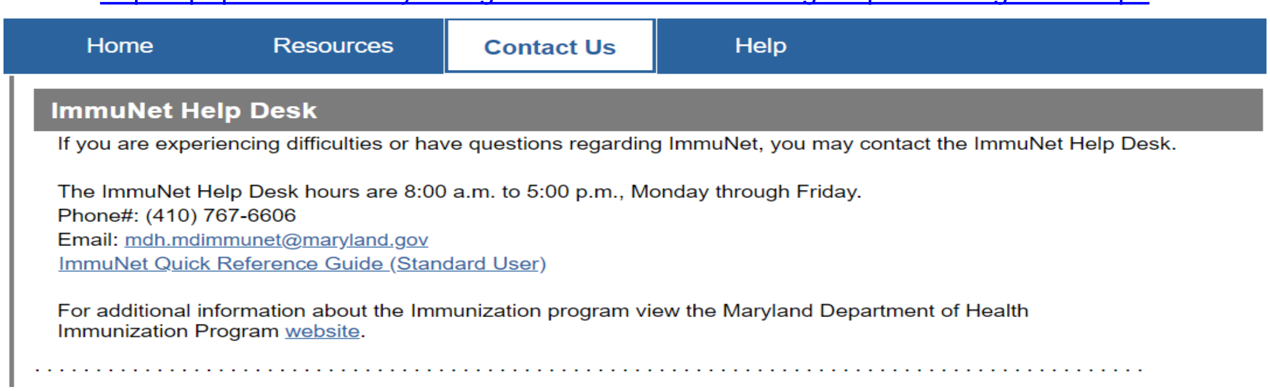
1. When on any screen where you would like help, press the Help link on the menu bar located at the top-right of the screen.
2. A box with screen-specific help information will display. This help box may have any or all of the following features:
    - **Purpose:** This section describes what the screen is meant to do or what kind of information needs to be entered.
    - **Information provided:** This section describes in detail the input and output fields that are found on the screen.
    - **Functionality:** This section provides information about specific buttons on the screen and describes their function.
    - **Results:** This section describes the outcome of a search, report, download, or other information entered into the database.
    - **User tips:** This section has advice or further information on how to use this screen.
3. To view these features, you may either click the links under the Purpose section or scroll down the page.
4. To close the help box, press the X button in the top right corner of the box.

ImmuNet Help Desk

If you are experiencing difficulties or have questions regarding ImmuNet, you may contact the ImmuNet Help Desk. All calls are logged and tracked through to completion; calls are put in a pending status until a remedy to the user's problems is found.

- ImmuNet Quick Reference Guides and link it to the page with all the guides:

  https://phpa.health.maryland.gov/OIDEOR/IMMUN/Pages/quick_ref_guides.aspx



Appendix 2

In the Appendix:

Validation of Patient Entry Data

ImmuNet validates the information you enter on the patient screen when you attempt to save the entries. If you have entered data that ImmuNet considers invalid, a message will appear asking you to re-enter data in the field(s). Validation varies depending on the field. Refer to the chart below for information on validation of data in various fields.

Field Name	Web Page/Section	Characters Allowed
First Name	Enter New Patient/Personal Information, Manage Patient/ Personal Information	Allow only alpha characters, dashes, and apostrophes. Do not save an entry that matches a disallowed name.
Middle Name	Enter New Patient/Personal Information, Manage Patient/ Personal Information	Allow only alpha characters, dashes, apostrophes, and periods.
Last Name	Enter New Patient/Personal Information, Manage Patient/ Personal Information	Allow only alpha characters, dashes, apostrophes, and periods. Do not save an entry that matches a disallowed name.
Mother's First Name	Enter New Patient/Personal Information, Manage Patient/ Personal Information	Allow only alpha characters, dashes, and apostrophes.
Mother's Maiden Last Name	Enter New Patient/Personal Information, Manage Patient/ Personal Information	Allow only alpha characters, dashes, and apostrophes.
Responsible Party First Name	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow only alpha characters, dashes, and apostrophes.
Responsible Party Middle Name	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow only alpha characters, dashes, apostrophes, and periods.
Responsible Party Last Name	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow only alpha characters, dashes, and apostrophes.
Street Address	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow alpha or numeric characters, backslashes, number symbols, dashes, periods, and apostrophes. Do not save quotes. Do not save an entry that matches a disallowed address.
Other Address	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow alpha or numeric characters, backslashes, number symbols, dashes, periods, and apostrophes. Do not save quotes. Do not save an entry that matches a disallowed address.
PO Box	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow alpha or numeric characters, backslashes, number symbols, dashes, and periods. Do not save an entry that matches a disallowed address. Do not save quotes.
E-mail Address	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Must contain "@" symbol and period. Do not save quotes.
Phone Number	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow only numeric characters and dashes. Do not save quotes.
City	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow only alpha characters, dashes, and apostrophes. Do not save quotes.
Zip	Enter New Patient/Responsible Person(s), Manage Patient/ Responsible Person(s)	Allow only numeric characters. Do not save quotes.

Disallowed Address Entries

Disallowed Address Entries	
DO NOT USE	NO CURRENT
UNKNOWN	MOVED
GENERAL DELIVERY	UPDATE
DECEASED	MAIL RETURNED
ADDRESS	COMMENT
FAMILY PLANNING	FAMILY PLANNING SERVICES
PLANN PARENTHOO	PLANNED PARENTHOOD

Disallowed First Name Entries

The following chart lists first name entries that will not be validated in ImmuNet.

Disallowed First Names			
AF BABY	ILLEGIBLE SIGNATURE	LWG	TSWV
BABY	INFANT	MR	TXWM
BABY B	INFANT BO	MRS	UFA
BABY BOY	INFANT BOY	MS	UNK
BABYB	INFANT FE	NEWBORN	UNKN
BABYBOY	INFANT FEM	NFN	UNKNOEN
BB-<parent name>	INFANT G	NO FIRST NAME	UNKNOWN
BABY G	INFANT GI	'NO FIRST NAME'	UNKOWN
BABY GIRL	INFANT GIR	NOFIRSTNAME	UNNAMED
BABYGIRL	INFANT GIRL	'NOFIRSTNAME'	UNREADABLE
BG-<parent name>	INFANT GRL	NO FIRSTNAME	WLCFS
BOY I	INFANT M	'NO FIRSTNAME'	XWM
BOY II	INFANT MA	NTXHW	XXX
CHILD	INFANT MAL	PVN	
CSS	INFANTBOY	SIGNATURE	
FEMALE	INFANTGIR	SLKDFSLKD	
FIRE DEPT	INFANTGIRL	SRM	
GIRL	INFANTMAL	THWJ	
GIRL I	INFANTMALE	TOMORROW'S CHILDREN	
GIRL II	LCFS	TRAUMA	
HBS	LSS	TSWJ	
HRH	LSS BABY	TSWM	

Disallowed Last Name Entries

The following chart lists last name entries that will not be validated in ImmuNet.

Disallowed Last Names			
A BABY	DCS	LT JR	WLCFS
A F BABY	DFS	M BABY	ZBABY
AF	DSS	M BABY BOY	UFA
AF BABY	E BABY	NLN	TRAUMA
AF BABY BO	F BABY	O BABY	
AF BABY GI	FEMALE	P BABY	
AFBABY	FF	PCS	
B C S	FIRE DEPT	R BABY	
B S C	FWV	S B A	
BABY	G BABY	S BABY	
BABY BOY	GARCIA INF	S C I	
BABYBOY	GIRL	SB	
BABY GIRL	GSST	SC	
BABYGIRL	H BABY BOY	SIGNATURE	
BCS	INFANT	SMRT	
BCSW	INFANT BOY	SRB	
BRT	INFANT FEM	SRFC	
BSC	INFANT GIRL	SRP	
C A C	INFANTBOY	SS	
C S	INFANTGIRL	T A O	
C S S	INFANTMALE	UN	
CAC	L S S	UNK	
CBS	LCFD	UNKN	
CCS	LCFS	UNKNOWN	
CFCFS	LCSF	UNKNOEN	
CS	LNAME	UNKOWN	
CSS	LS	UNNAMED	
CSS BABY	LSDKFSLDK	UNREADABLE	
CSSW	LSS	V BABY	
D S S	LSSFC	VLK	

Glossary

ACIP

Advisory Committee on Immunization Practices. Along with the Centers for Disease Control and Prevention (CDC), provides written recommendations on the administration of vaccines to adults and children in the United States. These recommendations include a schedule of dosage, contraindication, and periodicity information for each vaccine. This "harmonized schedule" is the default schedule within ImmuNet.

Blood Lead Test Result

A lab result showing the concentration of lead in the patient's blood. Typically, the result is measured in micrograms per deciliter.

Bookmark

A browser tool used for accessing Web sites quickly. After setting a bookmark at a Web page, you may return to that page simply by clicking on its bookmark, rather than entering the entire Web address. Also known as a favorite.

Browser

A software program you use to access the Internet. The two most common browsers are Netscape® and Internet Explorer.

CoCASA

Comprehensive Clinic Assessment Software Application. A tool developed by the Centers for Disease Control and Prevention (CDC) used for assessing immunization levels of patients for an immunization provider.

CDC

Centers for Disease Control and Prevention. The CDC is the lead federal agency for protecting the health and safety of people, providing information to enhance health decisions.

Clinician

A person who provides a health care service and for the purposes here would administer an immunization; for example, a nurse.

Consent

Written permission obtained from a patient 19 years of age or older to permit future modification and edit of demographic and immunization information housed in the registry.

Custom Flat File Template

A customized layout, specifying fields and field lengths, for performing data exchange.

Data exchange

A feature that allows you to automatically exchange immunization batch files with ImmuNet.

Deduplication

An automatic process that displays potential patient matches to help ensure that patient records are not duplicated in ImmuNet.

Desktop

The default screen on your computer that displays when no programs are open. The desktop contains shortcut icons that allow the user to open the represented programs and files from the desktop screen.

Favorite

See Bookmark.

Grace period

The default period of time prior to and following an immunization. This time period is used to validate a patient's immunization history; it does not affect immunization recommendations.

Historical Doses

Doses which the patient received, but it is unclear which organization in the registry, if any, actually administered the dose. (See also ImmuNet Inventory Doses and Other Owned Doses.)

HL7

Health Level 7. A method of categorizing data so that it is uniform across all health reporting systems. Allows for easier data transfer among different systems.

Home page

The first screen in ImmuNet which displays for users who have access to a single organization. This page contains announcements, release notes, resources, and the menu.

Hyperlink

A word or groups of words that are underlined and appear in a colored font, usually blue, in ImmuNet. When you click on the underlined text, the Web site, page, or document that is described will be displayed. Also known as a link.

ImmuNet

Maryland's Immunization Registry. A population-based Web application containing consolidated demographic and immunization history information.

Immunization registry

Confidential, computerized information system containing patient demographics and immunization histories. Registries enable public and private health care providers to maintain consolidated immunization records.

Logout

Button on ImmuNet's menu bar that allows you to exit ImmuNet. You may logout from any screen in ImmuNet.

Lot number

A unique identifying number given to each vaccine by the manufacturer.

Manage Access/Account Screen

The first screen in ImmuNet which displays for users who have access to multiple organizations. The user chooses one of the organizations to access.

Menu bar

ImmuNet's menu bar is dark blue and appears at the top of every screen within the registry.

Menu panel

The ImmuNet menu panel is a medium blue color and appears to the left of every screen within the registry. The menu panel lists all of the ImmuNet functions available to the user.

ImmuNet Inventory Doses

Doses that are recorded in ImmuNet through the user interface which subtract from an inventory lot whose quantity is recorded and maintained in ImmuNet. (See also Historical Doses and Other Owned Doses.)

Ordering authority

A person with the capability of ordering an immunization for a patient; a person with ordering authority is generally the patient's pediatrician or primary care provider or, within public health organizations, the medical director.

Other Owned Doses

Doses that the organization knows it has administered, but not from any vaccine lots maintained in the ImmuNet inventory module. (See also Historical Doses and ImmuNet Inventory Doses.)

Patient

Anyone who has an immunization recorded in ImmuNet by a provider organization.

Patient Note

Some general, non-medical information regarding the patient that is displayed to any user viewing the patient's record.

PDF

Portable document file. A file format that allows you to view and print a document online in its original format with Adobe.

PFI

Permanent Facility Identifier, assigned by Department of Health, in order to uniquely identify hospitals and other entities delivering health care.

Radio button

An input circle that, when clicked, fills with a black dot to indicate a selection.

Recall Notice

A card or letter that informs a responsible person or patient of immunizations that are overdue.

Reconstitution

The process of mixing a dry, powder form of a vaccine with a diluent to produce doses that may be administered to the patient. This term applies to Smallpox vaccine.

Release

A new version of an application, which usually includes enhancements and software fixes. Each release of an application is indicated with a number; for example, ImmuNet release version 6.0.

Reminder Notice

A card or letter that informs a responsible person or patient of immunizations that are due in the future.

Responsible person

A parent, relative, or guardian who is associated with the patient and may act as a contact. A patient may also act as the responsible person for himself or herself.

Sequence

Identifies which dose is being referred to within a vaccine series. For example, a number "2" sequence indicates the second dose of the series.

Series

The compilation of doses for one vaccine that provides immunity for a certain disease or diseases. For example, the recommended series for the DTP/aP vaccine contains five doses.

Shortcut

An icon located on your computer's desktop which, when double-clicked, will open the program displayed by the icon.

Toolbar

Located near the top of your computer screen, the toolbar on your Internet browser contains several buttons, such as Back Forward, Stop, Refresh, and Home.

Tracking schedule

A schedule of recommended vaccines, their dosage and periodicity information. The tracking schedule is used to validate a patient's immunization history and makes recommendations for future vaccinations based on that history.

Undeliverable Address

An indicator that the address currently on file for the patient is incorrect.

User roles

ImmuNet users are categorized into hierarchical roles that determine their level of access to the functions of ImmuNet.

Users

Individuals who access ImmuNet in some way, whether it be for printing reports, entering immunization information, tracking inventory, or entering organization-specific maintenance information.

Vaccine group

A category that describes one type of vaccination. For example, the vaccine trade names Engerix-B, Comvax, and Recombivax all fall under the Hepatitis B vaccine group.

Vaccine trade name

A unique, identifying name for a vaccine series given by the manufacturer. For example, Engerix-B is the trade name for a Hepatitis B vaccine manufactured by GlaxoSmithKline.