

Hospital Smallpox Vaccination Monitoring System User Manual

May 2003



Table of Contents

WELCOME TO HSVMS!	2
I. GETTING STARTED USING HSVMS	5
I. Overview.....	6
A. Enrollment in HSVMS.....	6
B. Accessing HSVMS	8
C. HSVMS Basic Usage Summary	8
II. USING HSVMS	13
II. Overview.....	14
A. HSVMS Enrollment and Access.....	14
B. Entering a New Healthcare Worker	18
C. Following up on a previously entered worker and monitoring adverse events.....	21
D. Accessing and Changing HSVMS Enrollment Information	25
E. Viewing and Printing HSVMS Reports	26
F. Downloading HSVMS Data	26
G. Searching the HSVMS Database.....	27
H. Printing and Downloading HSVMS Forms	27
III. GLOSSARY	28
IV. TECHNICAL SUPPORT AND INTERNET RESOURCES	31
IV. Technical Support and CDC Internet Resources	32
IVa. Digital Certificate/Secure Data Network Technical Support	32
IVb. Links	35

Welcome to HSVMS!

About the Hospital Smallpox Vaccination Monitoring System

The Hospital Smallpox Vaccination Monitoring System (HSVMS) is a voluntary component of the CDC Smallpox Vaccination Program developed to assist hospitals and other vaccine monitoring sites with real-time monitoring and tracking of healthcare workers who receive smallpox vaccine. HSVMS complements other CDC applications such as the Vaccination Administration Support/Pre-event Vaccination System (PVS) and Active Surveillance.

HSVMS is a web-based application that will work with Internet Explorer 5.x or Netscape 6.x (or higher versions), is quick to set up, easy to use, and will assist healthcare workers in tracking and monitoring vaccination progress, adverse events, lost work days, and other data.

If you would like a demonstration of the HSVMS application (which simulates the actual appearance, forms, and procedures of the actual software), please visit

<http://www2.cdc.gov/ncidod/hip/ae/start.asp>.

The User ID to access the demo is **HIP** and the password is **123**.

Recommendations

The Advisory Committee on Immunization Practices (ACIP) and the Healthcare Infection Control Practices Advisory Committee (HICPAC) recommend that healthcare workers who receive smallpox vaccine should be seen daily upon reporting to work for 21-28 days following vaccination. HSVMS can be used to record the daily assessment of the vaccination site, symptoms reported by the vaccinee, vaccine take, determination of fitness for duty, and work days lost. HSVMS enables the hospital or other vaccine monitoring site to easily produce summary reports by day and by vaccinee, as well as overview reports of the facility's vaccination experience.

It is recommended that all hospitals and vaccination monitoring sites inform the health department in their state or jurisdiction that they are utilizing HSVMS to monitor vaccinee experience.

Connection to Active Surveillance

HSVMS will connect to CDC's Active Surveillance application. HSVMS collects key data (e.g., total work days lost, severe adverse events) that can be used to support the CDC Active Surveillance efforts, as recommended by the Institute of Medicine (IOM).

Compliance with the Privacy Act

HSVMS complies with the provisions of the Privacy Act* (as described below). Vaccinees should have received a Privacy Act notification statement at the time they completed their Patient Medical History and Consent Form. A copy of this form may be obtained at

<http://www.bt.cdc.gov/agent/smallpox/vaccination/infopacket.asp>

Contacts for Questions

If you have any technical questions regarding HSVMS, please contact HSVMS Support at 1-800-893-0485 or 404-498-1250, or send an e-mail to

HSVMSsupport@cdc.gov.

For Further Information

HSVMS Fact Sheet:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/hsvms/factsheet.asp>

HSVMS Frequently Asked Questions:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/vaccination-program-qa.asp?type=cat&cat=Smallpox+Program+Implementation&subCat1=HSVMS>

If you have any questions regarding state participation or other smallpox related issues, please contact the health department in your state or jurisdiction.

* The Centers for Disease Control and Prevention is requesting this information under the authority of Section 311 of the Public Health Service Act (42 U.S.C. 243), the NCVIA (42 U.S.C. 300aa-2(a)), and Section 304 of the Homeland Security Act of 2002 (Pub. L. No. 107-296). The information will be used in the analysis and follow-up of significant events associated with smallpox vaccination. Furnishing the requested information is voluntary; however, with more complete information, public health objectives, such as adequate monitoring and follow-up of

potential adverse events, are more readily achievable. Information may be shared with authorized U.S. Department of Health & Human Services' personnel and public health or cooperating medical authorities. State health departments may have access to the collected information for their specific state.

I. Getting Started Using HSVMS

I. Overview

This section is designed to give brief, "quick-start" instructions to accomplish common tasks in the Hospital Smallpox Vaccination Monitoring System (HSVMS) application including how to enroll in the system and utilize its basic functions. For more detailed or specific information regarding HSVMS features and procedures, please consult the second chapter of this document, "Using HSVMS".

Colored text throughout the HSVMS Help file indicates the following:

- **Red** indicates important information and warnings.
- **Green** indicates that clicking on the word(s) will hyperlink to the topic within HSVMS Help.
- **Blue** indicates that clicking the word(s) will hyperlink to URLs outside HSVMS.
- Colors which appear inside graphic images represent what the user may see on their monitors and do not function as described above.

Demo Version

If you would like a demonstration of the HSVMS application (which simulates the actual appearance, forms, and procedures of the actual software), follow this link to

<http://www2.cdc.gov/ncidod/hip/ae/start.asp>

The User ID to access the demo is **HIP** and the password is **123**.

A. Enrollment in HSVMS

The first thing you will need to do is to register and identify your facility with the HSVMS website. This is a simple procedure comprised of two essential steps.

1. Enroll your facility and users with HSVMS.

You must first register your facility and users with the system at the HSVMS Enrollment site located at the URL www.bt.cdc.gov/agent/smallpox/vaccination/HSVMS. You will be asked to enter some facility and user information into a secure web screen including a facility password that you will create. Choose a facility password that you will be likely to remember easily as each authorized user at your facility will need it every time he or she wants to access HSVMS. You will be able to register up to 5 users with HSVMS.

2. Obtain a digital certificate if you do not already have one or request access to HSVMS if you do.

Second, you will need to apply for and install a **digital certificate** (if you do not already have one) from the CDC Secure Data Network's certificate application page at <https://ca.cdc.gov>. The password to access the digital certificate application is **!cdc_sdn_apply!** (including the exclamation points). This certificate must be installed on the computer (or computers) from which users intend to access HSVMS services.

Before you apply For a digital certificate, We recommend that you alert your network or IT support personnel that you are planning to obtain a digital certificate for your computer.

Please review the **Digital Certificate Technical Support** section of this document for system requirements and preliminary procedures.

If you already have a digital certificate, you will need to request access to HSVMS through the CDC's Secure Data Network at <https://sdn.cdc.gov>.

1. After issuing your challenge phrase, select "Request Additional Activities" on the left side of the screen.
2. Click on "Smallpox Vaccination Program" in the program list and then click on the "List Activities" button below the list.
3. From the lower list ("Available Activities"), click on and highlight "Hospital Smallpox Vaccination Monitoring System (HSVMS)"
4. Click on the "Add" button to the right of the list.
5. Click on the "Request Activities" button at the bottom of the page.

Exit from the website. You should receive an email notification soon stating that your request for an additional program/activity has been approved. After following the instructions in the email, you should be able to access HSVMS **via the SDN website**. You will be prompted for your challenge phrase and unique facility password.

Without a digital certificate you will not be able to use the HSVMS system even if you have registered with it. If you are registered with HSVMS and already have a digital certificate you will still be unable to use the system until you have also requested access!

For more detailed, step-by-step instructions regarding the procedure to obtain

your digital certificate or to add access to HSVMS to your existing digital certificate consult the SDN Online Help Document available at <https://ca.cdc.gov/sdncode/sdnapp/doc/EndUserIE.htm>.

For more information on how to enroll, please visit: <http://www.bt.cdc.gov/agent/smallpox/vaccination/hsvms/index.asp>

If you have any questions about HSVMS enrollment, please call: 1-800-893-0485 or 404-498-1250 or email us at HSVMSenroll@cdc.gov.

If you have any questions about SDN enrollment, please email cdcSDN@cdc.gov or call 1-800-532-9929 or 770-216-1276

B. Accessing HSVMS

After your facility and appropriate users are enrolled in HSVMS and either a digital certificate has been installed on the necessary computers or access to HSVMS has been added to an existing digital certificate, you are ready to log on to HSVMS via the Secure Data Network webpage.

1. Access the CDC Secure Data Network page at <https://sdn.cdc.gov>. You will be asked to select which digital certificate you will be using to access the site. Click on "OK".
2. Enter the **challenge phrase** you created during the digital certificate application.
3. Click on "Hospital Smallpox Vaccination Monitoring System" from the list of activities shown.
4. You will then be asked for your **Facility ID and Facility Password**. Your Facility ID is the number HSVMS assigned your facility during the enrollment process and your facility password is the password you created also at that time.
5. You will then be at the HSVMS main menu page.

C. HSVMS Basic Usage Summary

Once you have successfully accessed the HSVMS main menu, you can select from several options:

1. Enter information about a new healthcare worker.
2. Enter or examine follow-up information about a previously entered healthcare worker.
3. Access the enrollment form to change or modify information about your facility or registered users.
4. View and print reports.
5. Download your data.
6. Search the database by selected variables.
7. Download or print HSVMS forms.

Please note that if you are working in HSVMS and have a period of inactivity, you will be "timed out" of the application and you will be asked to login again. Follow the directions on the screen to continue working in HSVMS. You may be asked to re-enter your challenge phrase.

1. Enter Information about a new healthcare worker

The initial data entry process is simple. From the HSVMS main menu, click on "Enter New Healthcare Worker". A healthcare worker is entered into the system by recording basic information including vaccination number (PVN or state equivalent number), date of vaccination, occupation, and work location within the hospital. These data fields need to be entered once for each worker.

REMEMBER: Each time data is entered into the application, click on "Save Data" when you are finished!

Specific instructions

2. Enter or examine follow-up information about a previously entered healthcare worker

Select this option to update a vaccinee's record to include data collected at each daily assessment (e.g., condition of the vaccination site, integrity of the dressing covering the vaccination site, symptoms reported by the worker, and lost work days). Click on the worker's vaccination number to display the "Adverse Event Monitoring Form" where you can enter new information. This procedure should be completed every time you follow-up on a worker. If follow-up information is collected by phone and without a physical examination of the vaccination site, please be sure to check "by phone" as the information

collection method. The only questions which are required for a telephone follow-up concern work days lost and symptoms reported by the vaccinee.

Through the "Adverse Events Monitoring" section, HSVMS can also facilitate the collection of information regarding lost work days and vaccine take. At each follow-up, information should be entered for each day worked from the last follow-up assessment. For example, if you see a worker today, you should enter information on the days worked from the last follow-up assessment until today. The system will highlight the current follow-up day to help guide you with this data entry. Work days lost refers to days in which the employee is unable to return to work or had to leave work early due to illness. This does not include planned days off for which the employee is absent for reasons unrelated to the vaccine. This information can be updated and revised as needed.

Through this function, HSVMS also can facilitate the collection of information needed for other smallpox-related activities such as work days lost and vaccine take.

Data concerning vaccinee work days lost can be obtained through the data entered into the "Adverse Events Monitoring" section.

Information about take should be entered into HSVMS between days 6 and 8 post-vaccination. "Take" refers to the formation, by days 6-8 post-vaccination, of a **papule**, **vesicle**, **ulcer**, or crusted lesion surrounded by an area of induration (MMWR, Volume 52, January 2003, Smallpox Vaccination and Adverse Reactions). "Take" is also called "major reaction" and will usually result in a **scar**. Anything else is considered an equivocal reaction or no reaction, and should be entered as "no take".

REMEMBER: Each time data are entered into the application, click on "Save Data" when you are finished!

Specific instructions

3. Access your enrollment form to change or modify your enrollment information and add or delete users

With this function, you can view the enrollment data you have provided to HSVMS to correct, modify, or change it including the addition or subtraction of users registered to use the system. Please refer to the enrollment instructions for information about how to revise this form.

REMEMBER: Each time data are entered into the application, click on

“Save Data” when you are finished!

Specific instructions

4. View and Print Reports

By using the report viewing function, you will be able to print reports generated by basic analysis tools that will turn your raw data into aggregate information. Report capabilities include:

- Summary of site care for all vaccinated healthcare workers
- Summary of physical findings for all vaccinated healthcare workers
- Summary of symptoms for all vaccinated healthcare workers
- Line listing of vaccine "takes" to identify fully immunized healthcare workers

To print a report, simply click on the report you wish to print, select "File" from the far left of the Windows toolbar and then select "Print."

More reports and graphs will be available in the future.

Specific instructions

5. Download your data

Data can be downloaded in four different file formats: Microsoft Access, Microsoft Excel, comma delimited, and SAS (Version 8). You will need to have the appropriate software installed onto your computer in order to view each type of file format.

Select the box corresponding to the database type and file format you wish to download and click on "submit" at the bottom of the page.

After your request has been processed, right click on "download file", select "Save Target As" from the menu, and save the file to your local hard drive.

You may also download the data dictionary as a .pdf formatted document. You will need the Adobe Acrobat reader to view this type of file. Visit <http://www.adobe.com/products/acrobat/readstep2.html> to download Adobe Acrobat if it is not already installed on your computer.

Specific instructions

6. Search the database using selected variables

HSVMS allows you to search the database using a variety of possible variables which you may specify to retrieve the information you need.

[Specific instructions](#)

7. Print or download forms

From the main menu you may download or print a demographic form and an adverse events monitoring form for use in collecting HSVMS data.

[Specific instructions](#)

II. Using HSVMS

II. Overview

This section will cover detailed, step-by-step instructions for accessing and using HSVMS features and functions.

Colored text throughout the HSVMS Help file indicates the following:

- **Red** indicates important information and warnings.
- **Green** indicates that clicking on the word(s) will hyperlink to the topic within HSVMS Help.
- **Blue** indicates that clicking the word(s) will hyperlink to URLs outside HSVMS.
- Colors which appear inside graphic images represent what the user may see on their monitors and do not function as described above.

If you have any technical questions regarding HSVMS, please contact HSVMS Support at 1-800-893-0485 or 404-498-1250, or send an e-mail to HSVMSsupport@cdc.gov.

A. HSVMS Enrollment and Access

Enrollment in HSVMS is a two-step process. First, you will be asked to enter some facility and user information into a secure web screen, including a facility password. Second, you will be asked to apply for a digital certificate from the CDC Secure Data Network (SDN) from the computer that you will use to access HSVMS. Up to five users per facility may apply for a digital certificate. Once digital certificates are granted and installed on the computers, the users will be able to access HSVMS from CDC's SDN. They will point their web browsers to <https://sdn.cdc.gov>, enter their challenge phrase (created during digital certificate application), and enter their facility password to gain access to the HSVMS main menu.

Step 1: Enter Facility and User Information into HSVMS Enrollment Screen

1. All fields are required, except fax number. Definitions of fields are shown below (Table 1).
2. Choose a facility password that you will be likely to remember, as each authorized user will need it every time he/she wants to access HSVMS.
3. Once all information is entered, print the screen. Much of this information will have to be entered again into the Personal Information screen when a user

applies for a digital certificate (see Step II below).

4. Click on "Submit Form" button to save the record and move to Step II of enrollment.

Table 1: Field Definitions

Facility Name	Enter full name of facility
Facility Address	Enter mailing address of facility
Facility City	Enter city where facility is located
Facility State	Enter state where facility is located
Facility Zip Code	Enter zip code of facility
Phone Number	Enter 10-digit phone number for facility
Fax Number	Enter 10-digit facsimile number for facility (optional)
Facility ID	<ul style="list-style-type: none"> • For non-Veterans Administration (VA) facilities, enter the facility's CMS Provider Number (HCFA Provider Number). This number should be available from your facility's Business or Accounting office. • For VA facilities, enter the VA station code. • For facilities that have neither a CMS Provider Number or a VA station code, choose "Other" and a unique facility ID will be assigned.
Facility Password	Enter a password that is at least 6 characters; it can be any combination of letters or numbers
Confirm Password	Re-enter the Facility Password
If you are from a health department, are you requesting read-only rights to data from facilities in your jurisdiction?	<ul style="list-style-type: none"> • Some health departments are using HSVMS to monitor vaccines, others to view (but not modify) data from vaccinees in their jurisdiction whose follow-up is conducted by local facilities, and others need both functions. • For read-only rights, you would be granted "State access". That means you would have read-only access to data on vaccinees entered by facilities in your jurisdiction. • For monitoring vaccinees, you would be granted "facility access"

	<p>and would be able to enter and analyze information on the vaccinees you are following-up after vaccination</p> <ul style="list-style-type: none"> • For both, you would need to enroll twice: once for "facility access" and once for "State access". This would provide you with 2 different facility IDs for the different functions.
User 1 – 5: Last Name	Enter last name for up to 5 users
User 1 – 5: First Name	Enter first name for up to 5 users
User 1 – 5: Email Address	Enter email address for up to 5 users

Step II: Apply for Digital Certificate from the CDC Secure Data Network (SDN) or Add the HSVMS Program/Activity to an Existing Digital Certificate from SDN

Before You Apply For A Digital Certificate, We recommend that you alert your network or IT support personnel that you are planning to obtain a digital certificate for your computer. Please review the information provided in the digital certificate Technical Support chapter of this document before proceeding.

*Please review the **Digital Certificate Technical Support** section of this document for system requirements and preliminary procedures. Consult the **SDN Online help** document at <https://ca.cdc.gov/sdncode/sdnapp/doc/EndUserIE.htm> for further information regarding system requirements and compatibility.*

When You Are Ready To Apply For The Digital Certificate:

- Point your web browser, to <https://ca.cdc.gov>.
- Enter the following password for CDC’s Digital ID Services: **!cdc_sdn_apply!** (including the exclamation points).
- Follow the instructions in the SDN User Enrollment Guide.

The personal information requested in SDN enrollment indicated below with an asterisk (*) will be matched with the information entered in the HSVMS enrollment screen and will be used for verification of your facility and users.

- *User first name [enter into "First Name" box]
- *User last name [enter into "Last Name" box]
- *User email address [enter into "Email Address" box]

- *Facility name [enter into "Employer" box]
- *Facility ID [enter into "Program or Division" box] ****Required; cannot enroll in HSVMS without this information****
- Select appropriate Employer Type and Job Type from drop down lists
- Facility phone number [enter into "Phone" box]
- *Facility address [enter into "Work address" box]
- *Facility city, state, and zip code

If you already have a digital certificate, you will need to request access to HSVMS activities through the CDC's Secure Data Network at <https://sdn.cdc.gov>.

1. After issuing your challenge phrase, select "Request Additional Activities" on the left side of the screen.
2. Click on "Smallpox Vaccination Program" in the program list and then click on the "List Activities" button below the list.
3. From the lower list ("Available Activities"), click on and highlight "Hospital Smallpox Vaccination Monitoring System (HSVMS)"
4. Click on the "Add" button to the right of the list.
5. Click on the "Request Activities" button at the bottom of the page.

Exit from the website. You should receive an email notification soon stating that your request for an additional program/activity has been approved. After following the instructions in the email, you should be able to access HSVMS **via the SDN website**. You will be prompted for your challenge phrase and unique facility password.

Step III: Accessing the website

After your facility and appropriate users are enrolled in HSVMS and either a digital certificate has been installed on the necessary computers or access to HSVMS has been added to an existing digital certificate, you are ready to log on to HSVMS.

1. Access the CDC Secure Data Network page at <https://sdn.cdc.gov>. You will be asked to select which digital certificate you will be using to access the site. Click on "OK".
2. Enter the **challenge phrase** you created during the digital certificate application.
3. Click on "Hospital Smallpox Vaccination Monitoring System" from the list of activities shown.
4. You will then be asked for your **Facility ID and Facility Password**. Your Facility ID is the number HSVMS assigned your facility during the enrollment

process and your facility password is the password you created also at that time.

5. You will then be at the HSVMS main menu page.

Please note that if you are working in HSVMS and have a period of inactivity, you will be "timed out" of the application and you will be asked to login again. Follow the directions on the screen to continue working in HSVMS. You may be asked to enter your challenge phrase.

If you have any questions about HSVMS Enrollment, please call: 1-800-893-0485 or 404-498-1250 or email us at HSVMSenroll@cdc.gov

If you have any questions about digital certificates or SDN enrollment , please email cdcsdn@cdc.gov or call 1-800-532-9929 or 770-216-1276..

B. Enter a New Healthcare Worker

IMPORTANT! - After answering all required questions, click the "Save Data" button at the bottom of the page. Failure to click the "Save Data" button after answering the questions will result in loss of all information entered on this page.

To enter a new healthcare worker, click the words "Enter New Healthcare Worker" on the Main Menu page.

Vaccinated Personnel Demographic Information

Answering all questions is required unless otherwise noted.

Question #1: Hospital/Healthcare Facility Information

These fields are automatically populated with your facility information. Verify that the information for the hospital or healthcare facility is current.

Question #2: Vaccination Number

Enter the healthcare worker's **Patient Vaccination Number (PVN)** or State Equivalent Number that was assigned when the worker received his/her vaccination. Enter the number again in the following space to confirm this number. Click the button to the left to indicate whether the number you entered was a "PVN" or "State Equivalent".

Do NOT enter personal identifiers such as the social security number

in this field.

Question #3: Gender

Click the button to the left of the appropriate gender.

Question #4: Race and Ethnicity (optional)

Answering these questions is optional. Select both the race and the ethnicity, as appropriate, from the drop down lists provided.

Question #5: Year of Birth

Enter the Year of Birth by typing the four-digit year in the box.

Question #6: Prior Smallpox Vaccination

Answer "Had the healthcare worker received smallpox (vaccinia) vaccine before this vaccination campaign" by clicking the button to the left of either "Yes", "No", or "Unknown". This question is in reference to vaccination received before this campaign, e.g. childhood vaccination.

The next part pertains to the current smallpox vaccination campaign. Some workers will be revaccinated as part of this campaign if the first vaccination does not "take". Answer "Is this a re-vaccination as part of the current smallpox vaccination campaign" by clicking the button to the left of either "Yes" or "No".

Question #7: Healthcare Worker's Job Category

Indicate the healthcare worker's general job category by selecting from the drop-down list. Please select the job category that best describes the primary role and responsibilities of the healthcare worker. If the worker's job category is not listed, click the box next to "Other" and enter the job category in the box provided. Only one job category may be entered for each vaccinee.

Question #8: Clinician Specialty (for Physicians Only)

Answer this question only if the answer to Question #7 is "Attending Physician" or "Intern/Resident/Fellow". Select the clinical specialty from the drop-down list. If the specialty does not appear in the list, click the box next to the appropriate "Other" category and enter the specialty in the box provided. Only one specialtt may be selected for each vaccinee.

Question #9: Healthcare Worker's Work Location

Indicate the healthcare worker's primary work location by selecting the most appropriate answer from the drop-down list. If "Specialty ward" is selected, enter the location in the box provided. If the worker's work location is "Other", click the box to the left, and enter the location in the space provided. Only one work location may be entered for each vaccinee.

For example: If a worker is an x-ray technician but works primarily in the Emergency Department, then select Emergency Department, not Radiology

Current Smallpox Vaccination Information

Question #10: Date of Current Vaccination

Enter the date when the worker received the current vaccination being assessed by using the drop-down lists.

Question #11: Vaccination Clinic Information

Record the clinic where the vaccination was administered in the boxes labeled "Vaccination Clinic Name", "City", and "State". The fields for "Address", "Zip Code", and "Telephone" are optional. After a clinic has been entered once, it will appear in the "Quick Fill" list. Selecting options in the "Quick Fill" list will automatically fill the name and address fields with the correct information.

Question #12: Part of the Body Where Vaccination Administered

Identify and record the part of the body where the worker received his/her current vaccination. Click the button to the left of "Left Deltoid" or "Right Deltoid". If the vaccination was received at another site click the button to the left of "Other" and enter the general body area where vaccinated.

Question #13: User Optional Field

This field is optional for the user to enter information that fits their hospital needs.

Do NOT enter personal identifiers such as name or the social security number of the vaccinated worker in this field.

After all required questions have been answered.

Submit the data by clicking on the "Save data" button ONCE. If any required questions were overlooked or incorrectly entered you will be prompted to

complete/correct these questions. After you have made the corrections, click on the "Save data" button once more. You can then use the Adverse Events Monitoring form to track this vaccinee.

IMPORTANT! - After answering all required questions, click the "Save Data" button at the bottom of the page. Failure to click the "Save Data" button after answering the questions will result in loss of all information entered on this page.

If you have any problems with or questions about this form, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

C. Follow up on a previously entered worker and monitoring adverse events

To enter follow-up data for previously entered workers click "[Follow-up previously entered worker](#)" on the Main Menu. This section of the application will allow you to add, edit or review records for a Healthcare Worker based on their Vaccination Number.

1. First, sort the list of worker's by clicking on either "Vaccination Number" or "Vaccination Date".
2. Locate the worker's PVN or State Equivalent number.
3. To enter or edit the Adverse Events Monitoring Form, click the worker's Vaccination Number.
4. To "Edit demographic data" click the word "Form" on the same line as the worker's Vaccination Number.
5. To view "Event history", click the words "All data" on the same line as the worker's Vaccination Number.

Adverse Event Monitoring

Clicking on the worker's vaccination number will link you to the Adverse Events Monitoring Form for that particular vaccinee. From this form you can track work days lost, symptoms reported, and other information related to adverse events.

IMPORTANT! - After answering all required questions, click the "Save Data" button at the bottom of the page. Failure to click the "Save Data" button after answering the questions will result in loss of all information entered on this page.

Before moving to Question #1

1. Verify that the personal vaccination number (PVN) or State Equivalent ID and year of birth for the person you are entering is correct. Below the PVN and year of birth you will see the "vaccination date" for this person and below this a vaccination "take date" if a "take" has occurred.
2. Verify that the date provided is, in fact, the correct date for the information you are entering. By default, the application enters the current date. If you are entering a record for a prior date, indicate the appropriate date by using the drop-down lists provided.

Answering all questions is required unless otherwise noted.

Question #1 - Work days

Complete since last follow-up. The column corresponding to the current date will be highlighted as a reference.

"At Work" - Worker is performing regularly assigned functions at the usual work location.

"At work with restrictions" - Worker is performing modified functions and/or assigned to a different work location for ANY part of the work day, even if part of the day was worked without restrictions.

"Out due to illness" - Worker is absent from work due to any illness, at any time during the day, even if part of the day is worked.

"Planned day off" - Worker is absent from work for reasons other than illness.

Question #2 - Information obtained

Indicate how the information was obtained by clicking the button to the left of the appropriate response. If "Other" is chosen, type the method (e.g., e-mail, fax) in the space provided.

If information is obtained by phone or "other", only information on reported symptoms is required, All other fields are optional.

Question #3 - Record any SYMPTOMS reported by vaccinee today or on the days since the last contact

Click to the left of "No" if no symptom(s) were reported. Record any symptoms reported by vaccinee since last contact. If this is the first follow-up then report symptoms since vaccination. If symptom(s) were reported, check the boxes for the symptoms based on the severity of each reported symptom. **MILD symptoms**

do not interfere with daily activities; **MODERATE symptoms** interfere/limit routine activities; **SEVERE symptoms** are those that prevent worker from performing routine duties. If "Other" is chosen, type the symptom and severity in the space provided.

Question #4 - Record the worker's TEMPERATURE, if available

Record the worker's TEMPERATURE by making a selection from the drop-down list. This information is optional.

Question #5 - Is the healthcare worker wearing long sleeves today to cover the vaccine site?

Answer by clicking to the left of "Yes" or "No".

Question #6 - Is the vaccination site dressed with gauze covered by a semi-permeable membrane?

Answer by clicking to the left of "Yes" or "No".

If yes, select the type of dressing used.

If no, you have the option to describe the dressing.

Question #7 - What is the condition that best describes the site dressing?

Indicate the condition that best describes the site dressing by clicking the button to the left of the most accurate response.

Question #8 - Was vaccination site uncovered to do this exam?

Answer by clicking to the left of "Yes" or "No".

Question #9 - Record any physical findings at the vaccination site

Record any physical findings at the vaccination site by checking all that apply. If "Other" is checked, specify in the space provided.

Record any physical findings beyond the vaccination site

In addition, record the findings beyond the vaccination site by checking the boxes next to any findings noted. If "Rash", "Oral Lesion", or "Other" is selected, enter a description of the findings.

Question #10 - Has the scab fallen off?

Answer by clicking the button to the left of the appropriate answer. If "Yes" is selected, enter the date the scab fell off by selecting from the drop-down lists.

Question #11 - Was a vaccine "take" (major reaction) noted?

Answer this question only between the 6th - 8th day (inclusive) from vaccination.

Answer by clicking the button next to the most appropriate choice.

If "Yes" is selected, enter the date of the "take" by selecting from the drop-down list.

Question #12 - Was the dressing changed during today's examination?

Answer by clicking to the left of "Yes" or "No".

Question #13 - Please indicate what medication(s), if any, were prescribed today?

Indicate what medication(s), if any, were prescribed today by checking all that apply. If "Other" is checked, type the medication in the space provided.

Question #14 - Today's outcome

Record today's outcome by checking the appropriate boxes. If referred for medical evaluation specify in the space provided.

Question #15 - Examiner code

If applicable, enter a site care manager code in the space provided. This field is optional and is provided for those facilities who wish to use it. There is no requirement to what the code consists of and it may contain up to 50 characters.

Do not enter names in this field!

Question #16 - User Optional Fields

This question is optional. Users may collect whatever information they deem useful.

Do not enter personal identifiers, names, or otherwise sensitive information in these fields!

After all required questions have been answered.

Submit the data by clicking on the "Submit" button **ONCE**. If any required questions were overlooked or incorrectly entered you will be prompted to complete/correct these questions. After you have made the corrections, click on the "Submit data" button once more.

IMPORTANT! - After answering all required questions, click the "Save Data" button at the bottom of the page. Failure to click the "Save Data" button after answering the questions will result in loss of all information entered on this page.

Editing Demographic Information

Simply click on the word "**Form**" on the same line as the patient's vaccination number and you will be able to edit, change, or modify demographic information in the same manner as when you **entered a new healthcare worker**.

IMPORTANT! - When you are finished, click the "Save Data" button at the bottom of the page. Failure to click the "Save Data" button after answering the questions will result in loss of all information entered on this page.

Adverse Event Summary Data

To view Event History Click on the words "All Data" on the same line as the selected Vaccination Number. Data for each vaccinee may be viewed on this page including visit days and the number of days since vaccination

You may also edit the Adverse Events Monitoring Data for each day from this page by clicking on the day number that you wish to edit.

If you have any problems with or questions about these pages or functions, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

D. Access and Change HSVMS Enrollment Information

To access or change your HSVMS enrollment information, including addition or deletion of authorized users, select "Enrollment form" from the main menu. The enrollment form containing the information which you entered to register your facilities and users will appear. Follow the enrollment form guidelines provided in chapter II-A: **HSVMS Enrollment and Access** to modify this information.

You must click on "submit form" when you are done entering revised information or your changes will not be saved!

If you have any problems with or questions about this form, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

E. View and Print HSVMS Reports

By selecting the report viewing function from the main menu you will be able to print reports generated by basic analysis tools that will turn your raw data into aggregate information. Report capabilities include:

- Summary of site care for all vaccinated healthcare workers
- Summary of physical findings for all vaccinated healthcare workers
- Summary of symptoms for all vaccinated healthcare workers
- Line listing of vaccine "takes" to identify fully immunized healthcare workers

Click on the desired type of report to generate and view it.

To print a report, simply click on the report you wish to print, allow it to load, select "File" from the far left of the Windows toolbar, and then select "Print" in the pull-down menu.

Further report types as well as tables and charts for graphic data representation will be implemented in the future.

If you have any problems with or questions about this feature, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

F. Download HSVMS Data

Data can be downloaded in four different formats: Microsoft Access, Microsoft Excel, comma delimited, and SAS (Version 8). You will need to have the appropriate software installed onto your computer in order to view the corresponding files.

Check the box corresponding to the database type and file format you wish to download and click on "submit" at the bottom of the page.

Your request will process and you will then need to right click on "download file", select "Save Target As" from the menu, and save the file to your local hard drive.

You may also download the data dictionary as a .pdf formatted document. You will need the Adobe Acrobat reader to view this type of file. Visit <http://www.adobe.com/products/acrobat/readstep2.html> to download Adobe Acrobat if it is not already installed on your computer.

If you have any problems with or questions about this feature, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

G. Searching the HSVMS Database

Data entered into HSVMS can be searched based on the criteria you provide to its full-featured search engine.

To search for data, click on "Search Form" from the main menu.

The search form allows for 14 different variables ranging from date to the current day's outcome. You will be able to select as many criteria as you wish in order to sufficiently narrow your search.

Logical operators are employed by the search engine so be sure to select "and" or "or" to exclude or include words or phrases where appropriate.

Click on "Submit" to execute your search.

If you have any problems with or questions about this form, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

H. Print and Download HSVMS Forms

From the main menu you may download or print a demographic form and an adverse events monitoring form to manually record HSVMS data. These documents are paper versions of the forms used to record data in the HSVMS system and can be used to input the collected data into HSVMS at a later time.

To view these files, click on their links. You will be prompted to select between viewing the file from or saving it. At this point you can choose to save the file on to your computer's hard drive if you wish.

These documents are Adobe Acrobat-generated .pdf files and as such you will need the latest version of Adobe Acrobat to view these files.

Visit <http://www.adobe.com/products/acrobat/readstep2.html> to download Adobe Acrobat if it is not already installed on your computer.

If you have any problems with or questions about this form, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

III. Glossary

At Work

Worker is performing regularly assigned functions at the usual work location.

At work with restrictions

Worker is performing modified functions and/or assigned to a different work location for ANY part of the work day, even if part of the day was worked without restrictions.

MILD symptoms

MILD symptoms do not interfere with daily activities

MODERATE symptoms

MODERATE symptoms interfere/limit routine activities

Out due to illness

Worker is absent from work due to any illness, at any time during the day, even if part of the day is worked.

Papule

A small, solid, elevated lesion, smaller than 1 cm in diameter with the major portion of a papule projecting above the plane of the skin.

Planned day off

Worker is absent from work for reasons other than illness.

Pustule

A circumscribed, raised lesion that contains a purulent exudate (i.e., pus).

Scar

A scar occurs wherever ulceration has taken place and reflects the pattern of healing in those areas.

SEVERE symptoms

SEVERE symptoms are those that prevent worker from performing routine duties.

"Take" (Major reaction)

The formation, by days 5 - 8 post vaccination, of a papule, vesicle, ulcer, or crusted lesion surrounded by an area of induration (*MMWR, Volume 52, Smallpox Vaccination and Adverse Reactions*). Other reactions (e.g. equivocal) are not considered to be a "take".

Ulcer

A lesion in which there has been destruction of the skin.

Vesicle

A circumscribed, elevated lesion that contains fluid. A vesicle with a diameter greater than 0.5 cm is a bulla.

Vaccination Number

Within the Hospital Smallpox Vaccination Monitoring System (HSVMS) the unique identifier is referred to as the Vaccination Number. This number may represent the Personal Vaccination Number (PVN) as assigned by the Prevent Vaccination System (PVS) at the time of vaccination. Alternatively, the Vaccination Number may represent a state equivalent. Users are encouraged to contact their state health departments to determine which number to use to represent the Vaccination Number.

IV. Technical Support and Internet Resources

IV. Technical Support and CDC Internet Resources

Technical Support

If you have any problems with or questions about the HSVMS software, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSsupport@cdc.gov.

If you have any questions about or problems with enrollment, please call 1-800-893-0485, or 404-498-1250, or e-mail us at HSVMSenroll@cdc.gov.

If you have any questions about digital certificates or Secure Data Network (SDN) enrollment, please call 1-800-532-9929 or 404-498-2110.

IVa. Digital Certificate/Secure Data Network Technical Support

Before Applying For A Digital Certificate

Before you begin the application process, please note: You will be adding a component to your browser which may or may not have an impact on your local computer setup or which can be affected by your local setup or by changes made to your local computer or network after installation. Therefore, it is advisable that you make your technical or network support personnel aware of this BEFORE you proceed with the application. We recommend you forward a copy of this email to your support personnel or present them with a printed copy.

Please report the following to your network or technical support people:

1. You will need to make a secure socket layer (SSL) connection using port 443, and in some instances, access to port 4430. Any network or firewall

configuration that restricts access to port 443 might prevent you from completing the application process. Some programs require 128-bit encryption for records requiring that the privacy of the patient or study participant be protected. The latest versions of Internet Explorer (5.5 and up) and Netscape (6.0 and up) are capable of this level of encryption. For Netscape, version 4.7 and below, you may need to specifically request an installation capable of this level of encryption.

2. It will be necessary for you to install a non-executable item in your browser and therefore, you should be granted "Standard" or "Power" user rights that allow you to make the necessary modifications to the browser. It is vital that these rights be granted BEFORE you begin the application process as minor changes to your system may be attempted at any step and you will need these rights until you have successfully installed the certificate to your browser. If such rights are restricted on your network, it will be necessary for you to work with a systems administrator to complete this process. Please note, such rights should not be necessary for everyday use of the certificate once it is installed, only to install or renew it. You also will need these rights if you wish to export a copy of your certificate to diskette. See below for more information on export/import.
3. If you are using Internet Explorer version 5.0 or above and your browser has not been updated, be aware that Microsoft has made changes to the way their browsers handle certificates that may prevent you from completing the application or installing the certificate once you have been approved. The latest service pack for Internet Explorer may or may not contain this update. Please refer to this link at Microsoft for more information and possible solutions:

<http://support.microsoft.com/default.aspx?scid=kb;en-us;323172>

Note: Microsoft has discontinued support for Windows 95 and has not issued a patch for this operating system. Please notify SDN support if this is the system you are using.

4. You should receive an email, usually within 24 hours of registration, that contains an HTML link to a page that will allow you to retrieve your certificate and contains other important information needed to retrieve your certificate. Some firewall or antivirus programs may interpret this link as a virus. If this is the case in your environment, please inform SDN support (cdcscdn@cdc.gov) immediately so we can send you, in an alternative manner, the information you will need to retrieve your certificate.
5. ANY changes to the browser, operating system, registry, network or domain following installation of the certificate, may affect how the certificate behaves. You should alert your technical support staff that they should inform you, if possible, before they make any such modifications. If your computer is about to be upgraded or replaced, it might be a good idea to wait until this has happened, if possible, before completing the application for the SDN certificate.
6. The browser you normally use to access the Internet should be the DEFAULT browser on your system (that is, the browser that opens when you click a link

in your email). Your technical support staff can assist you with this.

7. Because even under the best of circumstances problems can still occur, you are **STRONGLY** advised to export a backup copy of your certificate to a diskette that can be stored in a secure location, once you have installed your certificate to your computer. You should make your support staff aware of this as well as how to restore the certificate should it become corrupted or overwritten. For the instructions on how to restore the certificate, e-mail cdcsdn@cdc.gov as soon as you have installed your certificate. As stated above, you will need the same rights to export your certificate that you needed to install it. It is advisable you do this export after you have confirmed you are able to access the SDN with your certificate.

IMPORTANT: Your technical or network support staff knows your local system better than anyone at SDN support will know it, and you need to make them aware of ANY changes you are making to your system. It is a good idea to speak to them **BEFORE** contacting SDN support, or to have them on the line or otherwise in the loop when speaking to SDN support, to resolve any conflicts that may occur between your system and the digital certificate. Your technical support staff also is better able to assist you with local issues, such as updating your browser or operating system or installing service packs or patches. If possible, please provide SDN support with the name of a technical or network support person who is responsible for your area, in case issues need to be resolved at your location before you can install or use a digital ID.

Netscape Users

If you are a Netscape user and a dialogue box pops up asking you for a "password", it is asking you for the communicator certificate DB password or master password.

The Communicator Certificate DB password is specific to the Netscape browser you are using and should have been set during the initial application process. SDN Support suggests that users enter their challenge phrases here, but it is not required. Someone else, for instance, a previous user, may have set this password if you inherited your computer from another user, or you may have inadvertently set it while accessing another online resource that required security. If your Netscape was installed using a "ghosted" copy, that is, a copy that was partially installed on another computer and copied to yours rather than being installed directly on yours, the password may have been set on the ghost, the database may have been corrupted, or Netscape may not have been installed correctly on the original copy. **DO NOT** continue to try out different passwords because if you fail to enter the correct password after 3 tries, you will be locked out of the certificate storehouse. You will not be prompted that this is happening. Even if you eventually enter the correct password, it will not work.

If you cannot recall the password, or if you suspect you've been locked out, do the following:

Netscape versions less than 6.0:

1. Close Netscape and click the Start button.
2. Select Search or Find.
3. Enter *.db as your search criteria and search the C: drive or wherever your program files are installed.
4. Locate files cert7 (may be cert7.db), key3, signed0, and secmod in your Netscape directory and delete them.

Netscape 6.0 and up:

1. Click Edit, Preferences and click the triangle to the left of Privacy and Security to expand the topic.
2. Highlight Certificates and click Master Passwords.
3. Click the button for Reset Password and when prompted, click Yes or Okay, then enter a new password.

After you do this, you will need to reapply for a digital certificate because the private key and other information for your certificate will have been deleted.

IVb. Links

Internet Resources

These links will provide further information about HSVMS, the CDC's Smallpox Vaccination Program, and other related information

HSVMS Homepage:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/hsvms/>

HSVMS Frequently Asked Questions:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/vaccination-program-qa.asp?type=cat&cat=Smallpox+Program+Implementation&subCat1=HSVMS>

CDC Secure Data Network Online Help Document (includes Digital Certificate information and SDN activity enrollment instructions):

<https://ca.cdc.gov/sdncode/sdnapp/doc/EndUserIE.htm>

CDC Smallpox Information Page:

<http://www.bt.cdc.gov/agent/smallpox/index.asp>

CDC Smallpox Vaccination program:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/infopacket.asp>

CDC Smallpox Vaccination Training Module:

<http://www.bt.cdc.gov/training/smallpoxvaccine/reactions/default.htm>

CDC Smallpox Pocket Guide:

http://www.bt.cdc.gov/training/smallpoxvaccine/reactions/download_pocket_guide.htm

Images of Smallpox Vaccination Reactions:

<http://www.bt.cdc.gov/agent/smallpox/vaccineimages.asp>

October 2002 ACIP Smallpox Vaccination Recommendations:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/acip-recs-oct2002.asp>

Vaccine Adverse Events Reporting System:

<http://www.vaers.org/>

Pre-Event Vaccination System:

<http://www.bt.cdc.gov/agent/smallpox/vaccination/pre-event-info-data.asp>

Index

A

Access.....	7, 9, 10, 15, 38
CDC Secure Data Network.....	9, 15, 38
HSVMS	7, 9, 10, 15, 38
SDN.....	15
website.....	15
Adverse Event Monitoring Form.....	10, 22
Adverse Event Summary Data	22
Adverse Events Monitoring.....	10, 22
Adverse Reactions.....	10, 32
All Data	22

C

CDC Active Surveillance	3
support.....	3
CDC Internet Resources	34
CDC Secure Data Network	7, 9, 15, 38
Access.....	9
CDC Secure Data Network Online Help Document	34
CDC Smallpox Vaccination	34
CDC Smallpox Vaccination Program.....	3
CDC's Active Surveillance application.....	3
CDC's Digital ID Services	15
CDC's SDN.....	15
Certificate.....	7
Changing HSVMS Enrollment Information.....	26

D

demo version	7
Digital Certificate	15, 34
Digital Certificate Through SDN	15
Downloading HSVMS Forms	28

E

Email	15
E-mail.....	3, 15, 19, 27, 34
Enrollment.....	10, 26
Enrollment form	10
Enter New Healthcare Worker	19
Entering	10, 19
Information.....	10
Existing Digital Certificate.....	15

H

Hospital Smallpox Vaccination Monitoring System	3, 7
HSVMS	7, 10, 15, 27, 28, 34, 38
access.....	10, 38

Searching.....	28
HSVMS Access.....	38
HSVMS Basic Usage Summary.....	10
HSVMS Data.....	27
Downloading.....	27
HSVMS Enrollment.....	15
HSVMS Enrollment Screen.....	15
HSVMS Enrollment site.....	7
HSVMS Fact Sheet.....	3
HSVMS Frequently Asked Questions.....	3, 34
HSVMS Help.....	7, 15
HSVMS Help file.....	7, 15
HSVMS Homepage.....	34
HSVMS Support.....	3, 15
HSVMS website.....	7

L

Login.....	10
------------	----

P

Personal Vaccination Number.....	32
Print.....	10
Printing HSVMS Reports.....	27
Printing Reports.....	10
Privacy Act.....	3
PVN.....	10

Q

quick start.....	7
------------------	---

S

Save Data.....	10
SDN.....	7, 15, 34
SDN Online.....	15
SDN Online Help Document.....	7
SDN User Enrollment Guide.....	15
SDN website.....	15
Searching.....	28
Secure Data Network.....	34
Smallpox Vaccination Reactions.....	34

T

Technical Support.....	34
------------------------	----

U

Users Who Already Have.....	15
Digital Certificate Through SDN.....	15

V

Vaccination Administration Support/Pre-event Vaccination System.....	3
--	---