Instructions for Generating a "Doses Administered Report" in MCIR

Adding Shots Given in Your Clinic so the Doses are Counted Correctly:

If you work with more than one clinic, be sure to sign in under the correct **Site Name**. MCIR will automatically put doses entered under that **Site Name** on that site's **VFC Doses Admin Report**. If doses are entered under the wrong **Site Name**, it will look like your site did not use the vaccine, and the other site did! When you get to the **MCIR - Add Immunization** screen, verify that the correct clinic appears in the **dark blue title bar at the very top of the screen**.

If you are entering a date for a shot that was not given in your clinic (for example, off a copy of a parent's shot record), select **Type: Historical**. It will not be placed on the **VFC Doses Admin Report**. If you do not do this, your report will show that you used more vaccine doses than you really did.

Recording VFC Eligibility When Adding Immunization Encounters:

VFC eligibility (shown as **Elig.** on the **MCIR – Add Immunization** screen) must be used for each dose entered, or the immunization encounter will not be recorded on the **VFC Doses Admin Report**. Select the appropriate vaccine eligibility. The vaccine eligibility you select will be recorded on both the **VFC Doses Admin Report** and on the **Provider Profile Data Report**.

Children eligible for VFC include:

1. Medicaid eligible (Medicaid VFC)
2. uninsured (no health insurance)
3. American Indian/Alaska Native
4. underinsured (Insurance does not cover cost of vaccines)

Select **Private Pay/Insurance** if you are entering a shot you gave to a child with insurance that covers immunizations or a patient is paying for private purchase vaccine.

If you are entering a date for a shot that was not given in your clinic and have selected **Historical**, MCIR will automatically put "Other Provider Data" in the **Elig.*** box.

Providers who participate in the High Risk Hepatitis B Program (LHDs, state-funded Teen Health Centers, STD clinics, and Family Planning clinics) should use **MI-VRP** eligibility for recording doses to those who are insured, and qualify for high risk hepatitis B. These doses will then populate the "VFC Doses Administered Report". However, if the client is less than 19 years of age and qualifies for VFC, they should be served with VFC vaccine and eligibility documented as Medicaid, uninsured, American Indian/Alaskan Native, or underinsured based on their situation.

Michigan Adult Vaccine Replacement Program (MI-VRP) participants (LHDs, FQHCs and MHCs) who provide adult vaccines should select **MI-VRP** in the eligibility box instead of uninsured or underinsured. These doses will then populate and be accounted for on the VFC "Doses Administered Report". Providers who are still using MI-VRP vaccine for Medicaid clients should choose **MI-VRP**. Providers using private stock and billing Medicaid should select **Medicaid-non-VFC**. Private providers and RHCs do not qualify for MI-VRP and **should not** use MI-VRP eligibility. MI-VRP adult doses will not populate the VFC "Annual Provider Profile" as they are not included in the VFC-Basic component of the VFC Program.

Vaccine Purchase/Funding Breakdown

MI-VFC: Medicaid VFC, uninsured, American Indian/Alaska Native, underinsured, MI-VRP

Other Public Funds: Other public purchase types

Private Funds: Private Insurance, Medicaid-non VFC, and MI-CHILD

317 Special Funds: Used for special initiatives that are pre-approved by MDCH

All: Summary of **All** vaccine eligibility types combined into one report

How to Generate the VFC "Doses Administered Report" in MCIR:

1. Go to the **Reports** tab and click on the **Vaccine** link.
2. Choose **VFC Doses Admin Report**.
3. Enter a **beginning date**.
4. Enter an **ending date**.
5. Choose vaccine purchase type: **MI-VFC**.
6. Name the report in the **Description** field with the **current month, day and year**
7. Click **Submit**.

After you click **Submit**, you will return to the **Home** page. On the **Home** page, click on **RETRIEVE RESULTS** from the **Reports** menu. Look for the current report that you just generated and click on the **REPORT** link to retrieve the report. The report will generate a PDF document for you to print and submit to your local health department.

Things to Remember with the "Doses Administered Report":

- Enter all immunization encounters for the month before running a report.
- Always enter vaccine eligibility when adding an immunization encounter.
- Select **Historical** when recording immunizations you did not give.
- Select **Private Pay/Insurance** when recording immunizations administered with non-VFC (private stock) vaccines.
- Keep a copy of the monthly report and give a copy to your local health department.

To view list of individuals who received the doses reported in the "Doses Administered Report":

1. Go to the **Vaccine Management/VIM** tab.
2. Click on **VACCINES ADMINISTERED/VACS ADMIN** link.
3. Choose a **vaccine** that you wish to view **from** the **drop-down list**.
4. Enter a **beginning date**.
5. Enter an **ending date**.
6. Choose an **eligibility type**.
7. Click on **GET RECORDS**.

The number of total doses administered will appear on the screen for the vaccine you selected. To display the list of individuals who received this vaccine, just click on the number under the specific age group and those individuals will be displayed.

To add doses for persons who have OPTED OUT of MCIR*:*

Account for the doses administered

1. Go to the **VACCINE MANAGEMENT/VIM** tab.
2. Click on **VACCINES ADMINISTERED/VACS ADMIN** link.
3. Click on the **Add Non-Reported Administrations** link.
4. **Enter** the following information on the screen:
    a. **Date** the **vaccine** was **administered**,
    b. **Date of birth**,
    c. **Vaccine eligibility**,
    d. **Reason** for non-reporting.
5. Click **ADD RECORDS** and the vaccine doses will be added to your *Doses Administered Report*.

Account for the inventory deduction (for offices using the MCIR VIM)

6. Go to the **VACCINE MANAGEMENT/VIM** tab.
7. Click on the **Manage Inventory** link.
8. Select the **Inventory** (VFC/Public or Private). Click **Get Inventory**.
9. Click on the **Vaccine /Lot** that was administered.
10. Click **Add New Transaction**.
11. Enter **Date** the vaccine was administered, number of **Doses**, and choose Action: **MCIR Opted-Out**.
12. Click **SUBMIT** and the vaccine doses will be added to your *Ending Inventory Report*.

Instructions for Generating a "Provider Profile Data Report" in MCIR

How to generate a Provider Profile Data Report in MCIR:

1. Go to **Reports** tab and click on the **Vaccine/Vac** link.
2. Choose "**Provider Profile Data"**.
3. Select the **Reporting Period** based on how long you have entered vaccine eligibility into the MCIR.
4. Rename the report in the **Description Field.** Example (Profile 2008)
5. Click **SUUBMIT**.
6. You will be sent back to the **Home** page.
7. In the **Reports** section of the **Home** page click on **Retrieve Results**.
8. When the report is ready, click on the **Report** link to view and print report.

Using the MCIR Provider "Profile Data Report" to Complete the "Provider Profile":

1. Complete the following instructions and print and submit a copy, or copy the results to the provider profile table on the "Provider Profile" form found in Section II - Page 11, page 4 of 4 of the *VFC Provider Enrollment Form*.

    a. Reporting period selected in the "Provider Profile Data Report":

    For **1 month**, multiply all numbers listed on the MCIR "Provider Profile Data Report" by 12. Copy the results to the profile table.
    For **3 months**, multiply all numbers listed on the MCIR "Provider Profile Data Report" by 4. Copy the results to the profile table.
    For **6 months**, multiply all numbers listed on the MCIR "Provider Profile Data Report" by 2. Copy the results to the profile table.
    For **12 months**, copy the numbers to the profile table.

2. Contact the local health department for further instructions on submitting this report.

MCIR Vaccine Inventory Module (VIM)

Centralized Vaccine Ordering and Distribution (COD) is the new vaccine management system that is currently being implemented by the Michigan Department of Community Health (MDCH). MCIR has a key role in this new process. All VFC providers are required to enter vaccine lot and manufacturer information for shots given, as well as vaccine eligibility. This information will be used to automatically deduct doses from the new MCIR Vaccine Inventory Module (VIM). Providers will use the MCIR VIM to regularly count, report on, and order new VFC inventory. Training on the VIM is provided by the regional MCIR offices.

MCIR References

Tip sheets and webcasts describing how to use current functions of the MCIR are available online at www.MCIR.org.

For references specifically to the VIM, visit www.MCIR.org/SuperVIM.html - materials include:

Tip sheets

- Manage Inventory
- Adding & Editing Immunizations
- Balance Inventory

Computer requirement for viewing and printing tip sheets: Adobe Reader. This is available as a free download at http://www.adobe.com/products/acrobat/readstep2.html

Webcasts

- User Registration Training
- Site Administrator Training
- Balance Inventory Training

Computer requirements for viewing webcasts:

- *Windows MediaPlayer (free download at http://www.microsoft.com/windows/windowsmedia/download/AllDownloads.aspx?displang=en&qstechnology=)*
- *Broadband internet connection with streaming video & audio enabled*
- *Speakers or headphones to listen*

How to add inventory to VIM

Once a VFC Provider in on the MCIR VIM, inventory should be added based on the following:

Inventory from LHD or MDCH Depot

Each vaccine must be manually entered in the VIM completing all the required fields. This will need to continue as long as depots remain open.

Inventory from Merck

Frozen vaccines from Merck must be manually entered in the VIM completing all the required fields.

Inventory from McKesson

Vaccines received from McKesson via UPS or FedEx will be automatically uploaded into the **VIM Inventory** of the VFC Provider PIN # that placed the order.* The inventory must be checked by the provider office to verify that all vaccines were delivered and that data is in their VFC/Public MCIR inventory.

*GSK Rotarix orders are the one exception to the automatic upload into MCIR. At this time, because of the difference in the lot # coming from McKesson (from the box) and the lot # used by providers (from the vial), Rotarix orders must be manually entered into the VIM.

Inventory from satellite office

A satellite office that is giving up doses to another office must create a **Transferred Out** transaction, # of doses out, and then in the **comments** field, document PIN # of office that is to receive vaccine.

The satellite office that receives the vaccine will create a transaction that is **Transferred In** with all required information and in **comment** field, document PIN # of satellite office that transferred out these doses.

Private Stock Inventory

Each vaccine must be manually entered in the VIM, completing all the required fields.

Vaccine that has been issued a shorter expiration date per manufacturer due to a temperature excursion

Vaccine that has been exposed to an excursion, must be called into the manufacturer. If okay to use but the manufacturer issued a shorter expiration date, then the vaccine must be entered as a transaction of **Transferred Out**, with documentation in **comment** field, (e.g. exposed to temps out of range, new expiration date xx/xx/xxxx). The vaccine with new shorter expiration date must be added to inventory as **Transferred In**, with correct data entered in required fields.

Offices using the MCIR VIM will also generate the following reports:

1. **"Physical Inventory Report": used to perform a refrigerator count**
2. ***2.*** **"Ending Inventory Report"*: used after completing the inventory balance in MCIR**

Instructions for Generating a "Physical Inventory Report" in MCIR

1. Go to **Reports** tab and click on the **Inventory/Inv** link.
2. Choose "**Physical Inventory Report"*.***
3. Select the **Inventory** (VFC/Public or Private) for which you wish to generate the report.
4. Rename the report in the **Description Field**, for example "VFC 9-5-2008"
5. Click **SUBMIT**
6. You will be sent back to the **Home** page.
7. In the **Reports** section of the **Home** page; click on **Retrieve Results**.
8. When the report is ready, click on the **Report** link to view and print the report.

Instructions for Generating an "Ending Inventory Report" in MCIR

1. Go to **Reports** tab and click on the **Inventory/Inv** link.
2. Choose ***Ending Inventory Report.***
3. Select the **Inventory** (VFC/Public or Private) for which you wish to generate the report.
4. Select the **Ending Inventory Date** for which you wish to generate the report.
5. Rename the report in the **Description Field**, for example "Profile 2008"
6. Click **SUBMIT**
7. You will be sent back to the **Home** page.
8. In the **Vaccine Management** section of the **Home** page, click on **Retrieve Results**.
9. When the report is ready, click on the **Reports** link to view and print the report.

Contact Numbers for MCIR Regional Offices

REGION 1 City of Detroit; Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne Counties

1-888-217-3900

REGION 2 Allegan, Berrien, Branch, Calhoun, Cass, Hillsdale, Ionia, Jackson, Kalamazoo, Kent, Lenawee, Muskegon, Ottawa, St. Joseph, and Van Buren Counties

1-888-217-3901

REGION 3 Barry, Clinton, Eaton, Gratiot, Ingham, and Montcalm Counties

1-888-217-3902

REGION 4 Bay, Genesee, Huron, Lapeer, Midland, Saginaw, Sanilac, Shiawassee, and Tuscola Counties

1-888-217-3903

REGION 5 Alcona, Alpena, Antrim, Arenac, Benzie, Charlevoix, Cheboygan, Clare, Crawford, Emmet, Gladwin, Grand Traverse, Iosco, Isabella, Kalkaska, Lake, Leelanau, Manistee, Mason, Mecosta, Missaukee, Montmorency, Newaygo, Oceana, Ogemaw, Oscoda, Osceola, Otsego, Presque Isle, Roscommon, and Wexford Counties

1-888-217-3904

REGION 6 Alger, Baraga, Chippewa, Delta, Dickinson, Gogebic, Houghton, Iron, Keweenaw, Luce, Mackinac, Marquette, Menominee, Ontonagon, and Schoolcraft Counties

1-888-217-3905

CPT and MCIR Vaccine Codes

(Revised August 5, 2009)

Vaccine Name	CPT Codes	MCIR Vaccine Codes
Anthrax	90581	24
Botulinum antitoxin	90287	27
Cholera	90725	26
CMVIG	90291	29
Diphtheria antitoxin	90296	12
DTaP (Tripedia, Infanrix)	90700	20
DTaP (Daptacel)	Not Assigned	106
DTaP-Hep B-IPV	90723	110
DTaP-Hib	90721	50
DTaP-Hib-IPV	90698	120
DTP-Hib	90720	22
DT (pediatric)	90702	28
HBIG	90371	30
Hep A (adult)	90632	52
Hep A (pediatric 2-dose)	90633	83
Hep A (pediatric 3-dose)	90634	84
Hep A-Hep B (adult)	90636	104
Hep B (adolescent or pediatric)	90744	08
Hep B (adolescent 2-dose)	90743	43
Hep B (adult)	90746	43
Hep B (dialysis)	90740	44
Hib-ActHIB/OmniHIB (PRP-T)	90648	48
Hib-HibTITER (HbOC)	90645	47
Hib-PedvaxHIB (PRP-OMP)	90647	49
Hib-ProHIBIT (PRP-D)	90646	46
Hib-Hep B	90748	51
HPV4	90650	118
IG (IM use)	90281	86

Vaccine Name	CPT Codes	MCIR Vaccine Codes
Influenza (preservative-free) – split (ages 6-35 months)	90655	15
Influenza (preservative-free) – split (ages 36 months and older)	90656	15
Influenza – split (ages 6-35 months)	90657	15
Influenza – split (ages 3 years and older)	90658	15
Influenza – whole (ages 13 years and older)	90659	16
Influenza – intranasal (ages 5 years and older)	90660	111
IPV	90713	10
Japanese Encephalitis	90735	39
Lyme Vaccine	90665	66
Measles	90705	05
Measles-Rubella	90708	04
Meningococcal Conjugate	90734	114
Meningococcal Polysaccharide	90733	32
MMR	90707	03
MMRV	90710	94
Mumps	90704	07
Novel Influenza – H1N1-09, nasal	90663	125
Novel Influenza – H1N1-09, preservative-free	90663	126
Novel Influenza – H1N1-09 (shot)	90663	127
Novel Influenza – H1N1-09, all formulations	90663	128
OPV	90712	02
Pertussis	Not assigned	11
Plague	90727	23
Pneumococcal Conjugate	90669	100
Pneumococcal Polysaccharide	90732	33
Rabies Intradermal	90676	40
Rabies Intramuscular	90675	18
RIG	90375	34
Rotavirus (3-dose) RV5	90680	116

Vaccine Name	CPT Codes	MCIR Vaccine Codes
Rotavirus (2-dose) RV1	90681	119
Rubella	90706	06
Rubella-Mumps	Not assigned	38
Tetanus Toxoid	90703	35
Td	90714	113
Tdap	90715	115
TIG	90389	13
Typhoid - oral	90690	25
Typhoid - parenteral	90692	41
Typhoid - Vi capsular	90691	101
Varicella	90716	21
VZIG	90396	36
Yellow Fever	90717	37
Zoster (shingles)	90736	121

What Other Immunization Resources Are There?

1. For questions related to specific vaccines, call the vaccine manufacturers directly:

   a. sanofi pasteur 800-822-2463
   b. GlaxoSmithKline 888-825-5249
   c. Merck 800-609-4618
   d. Wyeth 800-999-9384
   e. MedImmune 877-633-4411
   f. Novartis 800-244-7668

2. For general vaccine, immunization and VFC questions, contact:

   a. Your Local Health Department
   b. Division of Immunization, Michigan Department of Community Health, 517-335-8159.

3. For questions about the Michigan Care Improvement Registry (MCIR), contact your regional MCIR office or your local health department. A list of regional contacts for the MCIR is provided in this section on page 6.

4. Participating in an AFIX (Assessment, Feedback, Incentive & eXchange of information) visit provides physician offices with information about the immunization status of their pediatric patients, including vaccination coverage levels and barriers to immunizing patients. Successful immunization strategies are identified and identified, and solutions are discussed during an AFIX visit. Many offices are receiving an AFIX visit at the time of the VFC site visit. If providers would like additional or more detailed AFIX information, contact the MDCH Division of Immunization AFIX staff at 517-335-9011.

5. To keep up to date with immunization issues in general, the following resources can be obtained by contacting the MDCH Division of Immunization at 517-335-8159.

   a. *Michigan Immunization Update*, a periodic newsletter published by the MDCH Division of Immunization.
   b. Regional fall immunization conferences sponsored by the MDCH Division of Immunization.
   c. CDC satellite and webcast courses on immunization.
   d. Office/Clinic Staff Immunization Updates (pediatric, adolescent, adult, influenza, Ob/Gyn, vaccine administration, vaccine management, VFC overview) are free in-services on the latest vaccine information/recommendations. Education contact hours are available for nurses and physicians.
   e. ABCs of Hepatitis is a free in-service that provides an overview of hepatitis “A – E” diseases. Education contact hours are available for nurses.

6. For immunization update programs targeting physicians, contact the Michigan State University Physician Peer Education Project at 517-353-6674.

What Else Can I Do to Protect My Vaccine?

There are a number of things you can do to assure that your vaccine will remain potent and will protect your patients from vaccine-preventable diseases.

Monitors and Alarms*

Sensaphone
Toll Free: 1-877-373-2700
www.sensaphone.com

Dickson Temperature Recorders
Toll Free: 1-800-757-3747
www.DicksonData.com

Certified Thermometers*

Thermometers must be certified by the National Institute of Standards and Technology (NIST.) Scientific and laboratory supply houses are generally good sources for certified thermometers. Thermometers obtained through appliance suppliers are less likely to be certified. Each certified thermometer should come with an individually numbered traceable certificate stating that it has been tested against NIST standards. This document is different from the manufacturer's warranty. When purchasing thermometers consider the cost of recalibration as well as purchase price; for some less expensive thermometers, periodic replacement may be more cost-effective than recalibration.

"Bottle" thermometers
http://www.ertco.com/exact_temp_thermometers.html
http://www.gfglass.com/truetempe.html

Min/max (digital)
http://www.hbinstrument.com/product_detail.php?p=1110 (Frio-TempThermometers)
https://www.fishersci.com/Coupon?cid=1328&gid=203749&details=Y
http://www.control3.com/4048p.htm
http://www.weberscientific.com/ (follow links to digital alarm thermometers)
http://www.control3.com/4127p.htm

You can find additional information about thermometers at these websites:

Capp/USA: http://www.cappusa.com
Omni Controls, Inc.: http://www.omnicontrols.com/
Partlow West: http://www.partlow.com
Scientific Glass, Inc.: http://www.dcglass.com

*Information provided should not be considered an endorsement of any products available from these companies.

Plug Covers
Any hardware-type store or baby products retailers.

Miscellaneous:
(Some of these materials are available in the *Vaccine Storage & Resources Section* of the *AIM Provider Tool Kit*. If you do not have an *AIM Provider Tool Kit*, contact your local health department.)
Vaccine storage information flyers, posters, and/or charts
Warning signs (Do Not Unplug)
Temperature log charts (found in this manual, Section III – Pages 7-8)

Vaccine Storage & Monitoring Equipment

New Vaccine Storage Equipment Requirements

CDC has clarified the vaccine management requirements for providers participating in the VFC Program.

Two of the key requirements are:

1. The use of certified thermometers by all VFC-enrolled providers in all vaccine storage units, and
2. The elimination of "dorm-style" refrigerators as permanent storage units for VFC vaccine by December 31, 2009, for currently enrolled VFC providers.

These requirements are effective immediately for all new VFC providers. CDC defines "dorm-style" refrigerators as a small combination refrigerator/freezer unit that is outfitted with one external door, an evaporator plate (cooling coil) which is usually located inside an ice-maker compartment (freezer) within the refrigerator, and is void of a temperature alarm device. Its temperature control sensor reacts to the temperature of the evaporator rather than the general air in the storage compartment. When the compressor is on, the evaporator cools to lower the temperature in the refrigerator, in most cases, to below 0°C. The problem with dorm-style refrigerators is that they place vaccine at a high risk of freezing. Ideally, vaccine storage units should be temperature-monitored/alarm-equipped stand-alone refrigerators and stand-alone freezers. These units, unlike the dorm-style units, will have an evaporator that is located behind the surface of the walls, the back of the refrigerator compartment or, in most cases, in the back of the unit.

"Dorm-style" refrigerators are still acceptable as **temporary** storage in limited situations. Dormitory-style refrigerators should only be used to store a clinic's single-day supply of **refrigerated** vaccines and these vaccines should be returned to the main refrigerator storage unit at the end of each clinic day. "Dorm-style" refrigerators used as temporary storage for VFC vaccine must have a dedicated certified thermometer in place, and the temperature must be monitored and recorded twice a day. “Dorm-style” refrigerators should never be used to store frozen vaccines

Certified Thermometers

1) Be sure your thermometer is of an excellent quality, as it provides the “bottom line” temperature measurement for your vaccine storage. The Sensaphone and Dickson’s temperature readings are compared to the thermometer so it is important that the thermometer is accurate and read correctly.

2) Record the thermometer temperature twice a day on the temperature chart. Keep the temperature charts on file in case it is necessary to review temperatures from previous months or years.

Additional Temperature Monitoring Equipment

Dicksons (or other continuous temperature monitoring devices)

1) Dicksons (or other continuous temperature monitoring devices) provide a complete and permanent record of the storage temperatures, so they can provide very valuable information. For instance, a Dickson can tell you the highest temperature a freezer reaches during a defrost cycle. A Dickson can also tell you the variation in temperatures of a refrigerator during a power

outage or equipment failure. The Dickson allows you to see how temperatures change throughout the day in your refrigerator, in between the times that you check the temperature with a thermometer.

2) The pen on the Dickson must be at the correct spot on the graph that corresponds to the thermometer temperature. Sometimes pens get shifted one way or the other and do not have the same reading as the thermometer. This is why MDCH requires weekly "calibration" checks of the Dickson. (This calibration or comparison of instruments is an MDCH requirement for local health departments, but it is advisable for anyone using a Dickson or other vaccine monitoring equipment, as it assures that the various devices are working correctly.) It is best to check for calibration after the refrigerator door has been closed for a long time. A thermometer will show increases or decreases in temperature more rapidly than a Dickson, so it may take several attempts to get the Dickson in sync with the thermometer.

3) If your Dickson has a digital read-out, you must still check where the pen is tracking for the instrument and the printed chart to be useful. The line on the graph is what is important as it provides a permanent record to view. If the pen is not in the correct spot in comparison to the temperature of the unit, the information will not be accurate. When documenting calibration, document the temperature according to the pen on the chart. Adjust the pen carefully and as necessary so that it matches the thermometer.

Sensaphones (or other temperature monitoring alarms systems)

1) The Sensaphone (or other temperature monitoring alarm system) limits should be set at 35 – 46 degrees Fahrenheit for the refrigerator and a maximum of 5 degrees Fahrenheit for the freezer where varivax is stored.

2) The Sensaphone will alarm when a problem exists. It does not provide a permanent record of temperatures, as does your temperature chart and/or your Dickson graph, but it is highly valuable in alerting you to temperatures moving outside of the recommended range.

3) The Sensaphone should be calibrated to the certified thermometer. Readings may not always be exactly the same as the thermometer since the thermometer may react more quickly to changes in air temperature than the Sensaphone does (with the submersible probes in use). It is best to check the calibration of the Sensaphone with the thermometer after the unit has been closed for an extended period of time.

Calibration of Vaccine Monitoring Equipment

1) LHD's are required to "calibrate" their certified thermometer, Dickson (or other continuous temperature monitoring device) and Sensaphone (or other alarm system) at least once a week and to document this calibration on the temperature chart or in another location. The purpose of calibrating is to ensure that all temperature monitoring instruments are providing accurate temperature readings. VFC providers who are using Dicksons, sensaphones or other temperature monitoring/alarm devices, are encouraged to calibrate at least once a week.

2) When you calibrate your thermometer, Dickson and Sensaphone, you may occasionally find slight discrepancies in the temperatures. This is normal and has to do with how each instrument functions. If the discrepancy is more than three degrees from the reading on the certified thermometer, make adjustments and document the action.

3) What can cause discrepancies? Here are some examples.
   a. The Sensaphone probe is inserted into a liquid and so it changes temperature more slowly than the air temperature being measured by the thermometer.
   b. The Dickson moves very slowly and so doesn't show short term changes in the temperature, such as when a refrigerator door is opened for a minute or two.

c. The thermometer is near the fan where there is a lot of cold air flow in the refrigerator, while the probe is shielded by boxes of vaccine above it.

Calibrate your monitoring instruments carefully. Use the certified thermometer for the baseline temperature, not the Sensaphone or Dickson. Check the temperature recorded by the Dickson graphing pen on the chart (not the digital read-out) so that the pen will be adjusted to the proper position.

More General Information on Storage and Handling Equipment

Before buying a refrigerator or freezer:

1. Do some research. Look online. Contact other clinics. Obtain expert advice by talking to a sales representative.
2. Look into maintenance and warranty plans offered by the manufacturer or retailer for parts and the compressor.
3. Make sure the unit meets the specifications below.
4. Base your choice on the amount of vaccine your clinic stores each year, both VFC and private purchase.

Volume	Approximate doses/year	Recommended refrigerators/freezers
High	10,000 or more	Purpose-built (lab or pharmacy grade) refrigerator-only or freezer-only unit designed for optimum cooling capacity and stable temperature
Medium	2,000-10,000	In order of preference, with the first being the best: Purpose-built (lab or pharmacy grade) refrigerator-only or freezer-only unit designed for optimum cooling capacity and stable temperature control Household refrigerator-only or freezer-only unit (can be an under-counter model)
Low	2,000 or less	In order of preference, with the first being the best: Smaller, under-counter version of a purpose-built (lab or pharmacy grade) refrigerator-only or freezer-only unit Household refrigerator-only or freezer-only unit Household-style combination refrigerator-freezer with separate exterior doors and separate controls in each compartment

Note: The Michigan Department of Community Health does not endorse or recommend any one brand of refrigerator or freezer.

Other considerations when estimating vaccine storage space:

1. Only 30 percent of the space in a typical combination refrigerator-freezer is acceptable for vaccine storage.

2. Vaccines should never be stored:
    a. On refrigerator shelves directly beneath air vents (generally this mean the top shelf)
    b. In refrigerator vegetable bins or deli crispers
    c. Within two to three inches of refrigerator wall surfaces
    d. Outside of their original manufacturer packaging

3. Optimal refrigerator/freezer features:
    a. Ability to maintain uniform temperatures, preferably with a preset temperature of 40^{o}F (4^{o}C) in a refrigerator and a preset temperature of 0^{o}F (-18^{o}C) in a freezer.
    b. Enough usable space to hold the year's largest inventory, such as the back-to-school rush or flu season
    c. Automatic defrost cycle
    d. Temperature gauge certified, calibrated, and traceable by the National Institute of Standards and Technology (NIST)

4. Highly desirable, but not required, refrigerator/freezer features (the GOLD standard):
    a. Negative-pressure doors that close automatically
    b. Built-in thermometers
    c. Security locks
    d. Wire racks (as opposed to glass)
    e. Visible temperature displays

5. Unacceptable refrigerator/freezer features:
    a. Visible cooling plates or open coils on the back wall of the unit
    b. Dormitory-style, bar-style, or restaurant-grad refrigerator/freezers. (They are unable to maintain the temperatures needed for storing vaccines.)
    c. A manual defrost freezer combined with a cyclic defrost refrigerator compartment and a visible cooking plate in the back of the refrigerator

6. Advantages of a purpose-built refrigerator or freezer:
    a. Maintains temperatures well, temperatures can be pre-set at the factory
    b. Good temperature recovery when the unit has been opened to get vaccines
    c. Nearly all the internal space in the unit can be used to store vaccines (Usable space is much more limited in household refrigerators.)
    d. Allows defrosting without rises in temperature
    e. Provides an internal thermometer with a display on the outside of the unit
    f. Offer the option of alarm and safety features to alert you to or prevent temperature fluctuations in the cabinet
    g. Includes key locks so doors can't be opened by unauthorized staff

7. Costs and where to find refrigerators/freezers:
    a. Purpose-built lab- or pharmacy-grade refrigerator-only and freezer-only units are sold by specialty distributors. Cost: $900 to $10,000
    b. Under counter purpose-built (lab- or pharmacy-grade) refrigerator-only or freezer-only units are sold by specialty distributors. Cost $900 and up
    c. Household refrigerator-only and freezer-only units are available through major appliance retailers. Cost $400 to $4,000

d. Combination household refrigerator-freezers with separate doors and controls are available through major appliance retailers. Cost $800 and up

Why refrigerator/freezer specifications are changing:

For years it has been acceptable to use any household refrigerator to store vaccines—but this is changing. The main reason is that both the quantity and cost of vaccines have increased significantly in recent years.

Not only are there new vaccines and expanded immunization recommendations, but also more vaccines are coming from the manufacturer in pre-filled syringes that take up more space than vials. As a result, providers need more space to store vaccines than they used to. In a typical combination refrigerator-freezer, only 30 percent of the space is acceptable for vaccine storage. For example, vaccines cannot be stored in drawers, on doors, closer than three to four inches from walls, or on the top shelf, which is too cold for vaccines. So these units no longer meet the need of many clinics.

Increased vaccine usage has also meant an increase in the amount of vaccine lost due to improper storage. Now, more than ever, we need to be certain that refrigerators and freezers meet all the specifications needed to protect the potency of valuable vaccine.

You can find additional information about commercial refrigerators currently used within some local health department clinics at the following websites:

http://www.sanyobiomedical.com/products_preservation.php*
www.helmerinc.com*
http://www.powersscientific.com/prod_refr-constant.htm*

*Information provided should not be considered an endorsement of any products available from these companies.

For more information on vaccine storage see CDC's Vaccine Storage and Handling Toolkit at http://www2a.cdc.gov/vaccines/ed/shtoolkit.

Temperature Conversion Chart

Celsius……Fahrenheit

Celsius	Fahrenheit
25	77.0
24	75.2
23	73.4
22	71.6
21	69.8
20	68.0
19	66.2
18	64.4
17	62.6
16	60.8
15	59.0
14	57.2
13	55.4
12	53.6
11	51.8
10	50.0
9	48.2
8	**46.4**
7	**44.6**
6	**42.8**
5	**41.0**
4	**39.2**
3	**37.4**
2	**35.6**

Celsius	Fahrenheit
0	32.0
-1	30.2
-2	28.4
-3	26.6
-4	24.8
-5	23.0
-6	21.2
-7	19.4
-8	17.6
-9	15.8
-10	14.0
-11	12.2
-12	10.4
-13	8.69
-14	6.8
-15	**5.0**
-16	**3.2**
-17	**1.4**
-18	**- 0.4**
-19	**- 2.2**
-20	**- 4.0**
-21	**- 5.8**
-22	**- 7.6**
-23	**- 9.4**

The equation for converting Fahrenheit to Celsius is:
((Deg. F) - 32) x 5/9 = Deg. C)

Vaccine Administration Record for Children and Teens

Patient Name: _____

Date of Birth:_____

MCIR ID#

Clinic Name/Address

Vaccine	Date Vaccine[1] & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given[2]	Route[3]	Signature of Vaccine Administrator	Client VFC Status[4]
Diphtheria, Tetanus, Pertussis Types are: DTaP DT DTaP-IPV DTaP-IPV-Hib DTaP-Hib DTaP-IPV-HepB Tdap Td									
Haemophilus influenzae type b Types are: Hib Hib-HepB DTaP-Hib DTaP-IPV-Hib									
Hepatitis B Types are: HepB Hib-HepB DTaP-IPV-HepB									
Hepatitis A Type is: HepA									
Polio Types are: IPV DTap-IPV DTaP-IPV-HepB DTaP-IPV-Hib									
Measles, Mumps, Rubella Types are : MMR MMRV									
Varicella Types are: Var MMRV									
Pneumococcal conjugate Type is: PCV7									
Rotavirus Type are: RV1 RV5									
Influenza Types are: TIV (Injectable) LAIV (Intranasal) (More space on the reverse side.)									
Meningococcal Types are: MCV4 MPSV4									
Human Papillomavirus Type is: HPV4									

[1] Place an asterisk (*) next to the date the vaccine was given to indicate vaccines administered elsewhere.?

[2] Site Code: LA=LT ARM, RA=RT ARM, LL=LT LEG, RL=RT LEG **[3] Route Code: IM= intramuscular, SC=subcutaneous, IN=intranasal, PO=oral**

[4] Client Status: M=Medicaid, U=Uninsured, D=Underinsured, P=Private Insurance, A=American Indian or Alaskan Native, V=MIVRP, L=Other Public Purchase

Patient Name: _____Date of Birth:_____MCIR ID#_____

Vaccine	Date Vaccine[1] & Vaccine Information Statement Given	Type of Vaccine	Date on Vaccine Information Statement (VIS)	Vaccine Manf.	Vaccine Lot Number	Site Given[2]	Route[3]	Signature of Vaccine Administrator	Client VFC Status[4]
Influenza Types are: TIV LAIV									
Other									
Other									
Other									
Other									

[1] **Place an asterisk (*) next to the date the vaccine was given to indicate vaccines administered elsewhere.**
[2] **Site Code: LA=LT ARM, RA=RT ARM, LL=LT LEG, RL=RT LEG** [3] **Route Code: IM= intramuscular, SC=subcutaneous, IN=intranasal, PO=oral**
[4] **Client Status: M=Medicaid, U=Uninsured, D=Underinsured, P=Private Insurance, A=American Indian or Alaskan Native, V=MIVRP, L=Other Public Purchase**

Note:

Patients/parents should be informed about the risks and benefits associated with immunizations including those associated with the vaccine-preventable disease. Federal and state guidelines do not require a parent/patient signature to administer vaccines. However, health care providers have the option to obtain a signature. Check with your agency for specific requirements.

I have been given a copy and have read, or have had explained to me, the information contained on the appropriate Vaccine Information Statement (VIS) about the disease(s) and the vaccine(s) which are to be administered today. I have had a chance to ask questions that were answered to my satisfaction. I understand the benefits and risks of the specific vaccine(s) and I ask that the vaccine(s) I have requested be given to me, or to the person named, for whom I am authorized to make this request.

1. SIGNATURE	**DATE**	**Insurance Status**	**7. SIGNATURE**	**DATE**	**Insurance Status**
2. SIGNATURE	**DATE**	**Insurance Status**	**8. SIGNATURE**	**DATE**	**Insurance Status**
3. SIGNATURE	**DATE**	**Insurance Status**	**9. SIGNATURE**	**DATE**	**Insurance Status**
4. SIGNATURE	**DATE**	**Insurance Status**	**10. SIGNATURE**	**DATE**	**Insurance Status**
5. SIGNATURE	**DATE**	**Insurance Status**	**11. SIGNATURE**	**DATE**	**Insurance Status**
6. SIGNATURE	**DATE**	**Insurance Status**	**12. SIGNATURE**	**DATE**	**Insurance Status**

Michigan Department of Community Health
MDCH
Jennifer M. Granholm, Governor
Janet Olszewski, Director