Electronic Vaccine Intelligence Network

Handbook on eVIN Application for Vaccine and Cold Chain Handlers
Handbook on eVIN Application for Vaccine and Cold Chain Handlers India, 2016
As India progresses into a digital era, encouraging the use of technology for governance, the introduction of Electronic Vaccine Intelligence Network (eVIN) for vaccine logistics management comes at an opportune time. The eVIN being set-up across the country by the Ministry of Health and Family Welfare (MoHFW) and the United Nations Development Programme (UNDP) is transforming the traditional methods of vaccine storage and record-keeping. By digitizing vaccine inventories and storage temperatures and making it available on an online platform, the innovation is strengthening the evidence-base for decision-making. The combination of a user-friendly mobile and web-based application, state-of-the-art temperature loggers, standardized processes and regular supportive supervision from the vaccine and cold chain managers deployed in the districts is contributing to efficient vaccine logistics.

With the aim of ensuring equity through easy and timely availability of quality vaccines to all children, eVIN is a powerful contribution to strengthening health systems. The merits of eVIN are growing beyond the technology; the initiative will build capacities and empower the vaccine store manager in the cold chain network in vaccine delivery, management and procurement.

Capacity building of vaccine cold chain handlers and vaccine store managers through intensive training programs forms an integral component of eVIN. These handbooks are intended to assist learning and encourage efficient use of the eVIN technology. A complete guide on how to use the mobile and web versions of the eVIN application, monitor vaccine storage temperatures on the temperature logger, standard operating procedures and guidelines on processes, these handbooks are intended for the convenience of eVIN users, committed to improved immunization coverage in the country.

I envision an effective use of these handbooks by the target readers in understanding and implementing eVIN improved vaccine cold chain systems.

(Vandana Gurnani)
FOREWORD

It gives me great pleasure to present the comprehensive handbook for the users of Electronic Vaccine Intelligence Network (eVIN).

The Universal Immunization Program (UIP) of the Government of India (GoI) is one of the largest of its kind in the world. The availability of quality vaccines counts as one of the key factors for the success of this program. The e-VIN is an integral component of the UIP that is run by the Ministry of Health and Family Welfare (MoHFW). It is a technological intervention in digital format so that the Government’s current and future interventions of effective vaccine and supply chain management can be strengthened. By providing real-time information on vaccine storage temperatures and vaccine stocks and flows, e-VIN will be a significant tool to inform policy making and programming decisions at the State and National level in UIP. In addition to introducing technology in the sphere of vaccine management, e-VIN also empowers the vaccine store managers across the country by building their capacities, bringing about a transparency in the system and building accountability at higher levels of vaccine supply chain management.

The comprehensive set of handbooks on e-VIN aims to guide the vaccine store managers on the use of the e-VIN software application. These will support the vaccine store managers as guide books on how to use the e-VIN app and aid learning. I am positive that the handbooks will be of immense help to all the users of mobile and web-based e-VIN application in the districts and states till the last cold chain points.

(Dr. Pradeep Haldar)
The partnership between the Government of India (GoI) and United Nations Development Programme (UNDP) for implementation of the Electronic Vaccine Intelligence Network (eVIN) is a significant step towards strengthening health systems in the country. It is a stepping stone for revolutionizing and upgrading the vaccine logistics management to support the Universal Immunization Programme of the government. Led by the Ministry of Health and Family Welfare (MoHFW), eVIN engages a remarkable system of product, processes and people that optimizes decision making and augments improved HR performance leading to an efficient and effective Universal Immunization Program (UIP) in India.

Whilst eVIN system is powered by a state of the art technology and software, it has a very simple and easy to understand front-end smartphone interface that is very user-friendly to use. Our Vaccine Cold Chain Handlers (VCCH) are finding it simple to work with and enter vaccine stock data through the mobile phone which is critical for the uptake of eVIN at the end-user level i.e. cold chain point.

This composite set of handbooks on eVIN application is a useful resource for the health-workers and I am confident that it will prove to be a helpful companion to our UIP staff in the States and Districts.
MESSAGE

I congratulate the Ministry of Health and Family Welfare for this series of handbooks that demonstrate how cold chain handlers and vaccine store managers, at the frontlines of India’s universal health coverage efforts, can effectively use eVIN, a technological innovation designed to improved immunization in the country.

India’s Universal Immunization Programme aims to secure the future of the world’s largest birth cohort. Much of the success of this effort will depend on an effective supply chain system that ensures an efficient and robust mechanism for vaccine flow, right from the manufacturer, to every last family, woman and child on the ground. Vaccines must be available in adequate supply, and be safe for all.

Under the leadership of the Ministry of Health and Family Welfare and implemented by the United Nations Development Programme and supported by partners, eVIN is a technological innovation that aims to address the challenges of infrastructure and human resources in achieving universal immunization in the country.

We hope that these comprehensive and easy-to-understand tools, guide easy adoption and implementation of eVIN in the country. In doing so, we hope to empower frontline health workers that are critical to achieving India’s ambitions.

We look forward to supporting the Government of India in the up-scaling of eVIN to strengthen the country’s health systems.

Jaco Cilliers
UNDP Country Director
**Cold chain handler:** Any regular or contractual staff performing the responsibility of vaccine and cold chain management at any level of vaccine stores and cold chain network is known as a vaccine cold chain handler. This is not a designated but an assigned position by the facility in-charge. Any staff working as pharmacist, store keeper, paramedical staff, health supervisor or auxiliary nurse midwife (ANM) looking after the vaccine and cold chain management of a particular health facility is referred to as the vaccine cold chain handler for that facility.

**Minimum stock level:** Also known as the reorder level, the least quantity that should be available in stock or the level which, when reached, initiates a re-order. This is usually expressed as the numbers of weeks/months of supply. It is an amount of stock which is used during the time period between placing and receiving the order plus the buffer stock. The minimum stock level is the level below which the stock should never drop without having placed an order.

**Maximum stock level:** The minimum stock plus the amount of stock used between orders i.e. the working stock. The maximum level is set to prevent instances of excess stock which results in loss of vaccines to expiry before use.

**Lead time:** Time between indenting of vaccine and receipt of vaccine. The lead time varies, depending upon the speed of deliveries, availability and reliability of transport, and other factors like weather.

For instance, if the monthly requirement of DPT at a PHC is 280 doses, the buffer stock will be 25% of 280 i.e. 70 doses. If the lead time is one week, then the minimum stock will be buffer stock plus requirement for lead time (70 doses) i.e. 70+70=140 doses.

**Hot alarm:** An alarm raised when there is an instance of breach of vaccine storage temperature as it goes above 8 degrees centigrade for ice-lined refrigerator and -15 degrees centigrade for deep freezer.

**Cold alarm:** An alarm raised when there is an instance of breach of vaccine storage temperature as it goes below 2 degrees centigrade for ILR and -25 degrees centigrade for deep freezer.
**Net utilisation**: Difference between the total closed vials issued for the routine immunization (RI) session and the total closed vials received after the completion of RI session; always measured in doses.

**Inventory**: Total stock of a specific material available at the vaccine store or cold chain point.

**Receiving store**: Store to which the vaccines are issued.

**Issuing store**: Store that issues the vaccines.
# LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>App(s)</td>
<td>Application(s)</td>
</tr>
<tr>
<td>ANM</td>
<td>Auxiliary Nurse and Midwife</td>
</tr>
<tr>
<td>BCG</td>
<td>Bacillus Calmette Guerin</td>
</tr>
<tr>
<td>bOPV</td>
<td>bivalent Oral Polio Vaccine</td>
</tr>
<tr>
<td>BSNL</td>
<td>Bharat Sanchar Nigam Limited</td>
</tr>
<tr>
<td>CCE</td>
<td>Cold Chain Equipment</td>
</tr>
<tr>
<td>CCH</td>
<td>Cold Chain Handler</td>
</tr>
<tr>
<td>CCP</td>
<td>Cold Chain Point</td>
</tr>
<tr>
<td>CCT</td>
<td>Cold Chain Technician</td>
</tr>
<tr>
<td>CHC</td>
<td>Community Health Centre</td>
</tr>
<tr>
<td>DIO</td>
<td>District Immunization Officer</td>
</tr>
<tr>
<td>DPT</td>
<td>Diphtheria, Pertussis, Tetanus</td>
</tr>
<tr>
<td>DVS</td>
<td>District Vaccine Store</td>
</tr>
<tr>
<td>DVSM</td>
<td>District Vaccine Store Manager</td>
</tr>
<tr>
<td>eVIN</td>
<td>Electronic Vaccine Intelligence Network</td>
</tr>
<tr>
<td>FEFO</td>
<td>First Expiry First Out</td>
</tr>
<tr>
<td>GMSD</td>
<td>Government Medical Store Depot</td>
</tr>
<tr>
<td>GoI</td>
<td>Government of India</td>
</tr>
<tr>
<td>HSS</td>
<td>Health System Strengthening</td>
</tr>
<tr>
<td>ID</td>
<td>Identity Document</td>
</tr>
<tr>
<td>ILR</td>
<td>Ice Lined Refrigerator</td>
</tr>
<tr>
<td>IPV</td>
<td>Inactivated Polio Vaccine</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>JE</td>
<td>Japanese Encephalitis</td>
</tr>
<tr>
<td>Max</td>
<td>Maximum</td>
</tr>
<tr>
<td>Min</td>
<td>Minimum</td>
</tr>
<tr>
<td>MIS</td>
<td>Management Information System</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>MoHFW</td>
<td>Ministry of Health and Family Welfare</td>
</tr>
<tr>
<td>OTP</td>
<td>One Time Password</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary Health Centre</td>
</tr>
<tr>
<td>PO</td>
<td>Project Officer</td>
</tr>
<tr>
<td>RI</td>
<td>Routine Immunization</td>
</tr>
<tr>
<td>RVS</td>
<td>Regional Vaccine Store</td>
</tr>
<tr>
<td>RVSM</td>
<td>Regional Vaccine Store Manager</td>
</tr>
<tr>
<td>SCCO</td>
<td>State Cold Chain Officer</td>
</tr>
<tr>
<td>SEPIO</td>
<td>State Expanded Programme Immunization Officer</td>
</tr>
<tr>
<td>SIO</td>
<td>State Immunization Officer</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedures</td>
</tr>
<tr>
<td>SVS</td>
<td>State Vaccine Store</td>
</tr>
<tr>
<td>SVSM</td>
<td>State Vaccine Store Manager</td>
</tr>
<tr>
<td>TT</td>
<td>Tetanus Toxoid</td>
</tr>
<tr>
<td>TL</td>
<td>Temperature Logger</td>
</tr>
<tr>
<td>UIP</td>
<td>Universal Immunization Programme</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>VCCM</td>
<td>Vaccine and Cold Chain Manager</td>
</tr>
<tr>
<td>WIC</td>
<td>Walk in Cooler</td>
</tr>
<tr>
<td>WIF</td>
<td>Walk in Freezer</td>
</tr>
</tbody>
</table>
INTRODUCTION

Over 26,000 vaccine store managers across the country are committed to the immunization programme in their regions. To enhance the immunization coverage and ensure equity, sustained availability and accessibility to quality vaccines is a prerequisite.

The absence of comprehensive and instant information on vaccine logistics often limits effective management of vaccines. For streamlining the immunization supply chain, it is essential to empower the vaccine store managers and cold chain handlers with a management information system, which equips them with the ability to view and assess data on vaccine stocks and storage temperatures.

The Electronic Vaccine Intelligence Network (eVIN), introduced by the Ministry of Health and Family Welfare and implemented by the United Nations Development Programme, enables real-time visibility of vaccine inventories by digitizing details of stock and storage temperature. In doing so, eVIN provides an integrated solution to address constraints of infrastructure, monitoring and human resources, often resulting in inadequate vaccine stocks and related challenges.

By leveraging a unique combination of:

- Technology - through mobile and web software applications and SIM-enabled temperature loggers;
- Human resource - through vaccine and cold chain managers for support and supervision;
- Governance - through standard operating procedures (SOPs) and systemizing processes for record-keeping and vaccine management;

eVIN aims to build capacities and provide a robust decision-making tool for cold chain managers.
INTRODUCTION

With eVIN, cold chain and vaccine managers can:

- View the real-time availability of vaccine stocks
- Forecast and estimate monthly and weekly requirements
- Ensure appropriate storage temperatures and check if the vaccines are safe
- Get immediate alerts in case of temperature breach
- Get an overview of vaccine replenishment times, supply and consumption patterns
- Reallocate vaccine inventories
- Plan for emergencies and special programmes
LEARNING OBJECTIVES

- To understand the use of eVIN mobile application for cold chain handlers.
- To understand all the features, components and functions of the eVIN mobile application for cold chain handlers.
- To understand the stock availability at the cold chain point and classification of the stock as 'less than minimum stock', 'more than maximum stock' or 'stock out'.
- To understand various types of transactions to be made on eVIN mobile application including the entry for issue, receipt and net utilization of vaccines for routine immunization, campaign and as open vials.
- To understand how to make transactions for vaccine discards along with the proper reason codes.
- To understand the SOPs of eVIN.
- To understand the features of eVIN temperature logger for remote temperature monitoring.
- To learn about the escalation mechanism in case of breach of vaccine storage temperature.
- To learn about basic troubleshooting in the eVIN application.
- To be able to independently perform transactions and use the eVIN mobile application.
1.0 GETTING STARTED

The chapter provides instructions on how to unlock the phone and download, install and access the eVIN mobile application.
1.1 UNLOCKING YOUR PHONE

Press the button on the side of the phone (as indicated above) to switch the phone on.
Unlock your phone by swiping the screen upwards

The phone is now unlocked and the home screen is visible
1.2 INSTALLING eVIN

1. **Home Screen**
   - Unlock your phone to reach the home screen
   - On the home screen, you will see several default applications (apps)

2. **Internet**
   - Swipe down your notification bar from the top of the screen
   - The **data** option will be visible in the widget panel on the top of the notification bar
   - If the data plan is on, this option will be highlighted
• Click on the **data** widget to switch on the mobile internet
• Click on the name of the service provider for your region, for example BSNL, Airtel, Idea or Vodafone

• The **data** icon will now change to blue in colour
• Swipe the notification bar from the bottom of the screen
• You can see the 3G, H+ sign in the top status bar of the screen beside the network signal
1.2 INSTALLING eVIN

3. **Home Screen Menu**
   - Swipe across the screen to view the complete list of apps
   - Select the *Play Store* icon to download eVIN

4. **Play Store**
   - Type *eVIN INDIA* in the search field available at the top of the screen in Play Store
5. Search
   • Upon typing the first few letters of eVIN India, a drop down menu will appear with options
   • Select eVIN INDIA to proceed to the eVIN download page

6. Installation
   • Click Install to download and install eVIN on your phone
1.2 INSTALLING eVIN

7. Confirmation
   - Click Accept to allow eVIN to access location, SMS and enable use of camera/pictures, etc.

8. Open
   - Once eVIN is installed, click Open or
   - Click on the eVIN icon from your phone menu on the home screen
Note – After installation, eVIN will be available in the list of applications on the phone when you navigate to the home screen. Click on the eVIN icon 📱 and drag the icon to the home screen to enable easy access.
1.3 LOGIN

1. Login Screen
   - After installing the app, click on the eVIN icon to access the eVIN Login page.
   - Enter the login details - user name and password provided to you.
   - Click Login to view information about the store.

2. Change Language
   - To change the language, click on the language dropdown provided at the top.
   - Once you click on language box system, you will be prompted to select one language from the multiple languages.
3. **Forgot Password**
   - In case you forget your eVIN password, click **Forgot Password** given below the login button

- Enter eVIN user ID in the box provided
- Click **Send OTP** button
- OTP confirmation box will appear
- You will receive a one time password (OTP) on your registered mobile number
- Enter OTP in the confirmation box
- Click **Reset Password** button to reset password or
- Click **Cancel** to return to the login page
- You will receive another **SMS** on your registered mobile number which will contain your new password
- Use the new password for eVIN login
2.0 PROFILE

The chapter provides information on how to view the store details and outlines the process for getting assistance on eVIN app.
2.1 STORE DETAILS

1. Main Menu

- After login, you will be directed to the store home page screen
- Select **Profile** to view profile information
- Profile information is classified under store details
- The name of the store will be displayed at the top of the screen

**Note** – (+) indicates further drop down options

2. Store Detail Screen

- Select **Store details** to view:
  - Store Name
  - Location
  - Users assigned to store
  - Contact details of users
A. For Help

- Click on the dial button provided below Need Help to contact the VCCM in case of any eVIN related help or support; the name of the VCCM will be displayed below the dial button.
- Once you click on the dial button, the mobile number of the VCCM to be dialled will be displayed on the screen.
- Touch the selected SIM number to make a call.
- To contact the VCCM via email, click on the mail button provided just next to the dial button.
- Once you click on the mail button, your mail box will open and the email address of the VCCM will be displayed.
- Write the email and send it to the VCCM.
- In case you want to share any feedback related to the eVIN app, you may click on the Feedback icon below the dial and mail buttons.
- On doing so, the feedback window will appear; you can enter your feedback on the features of the application.
- Click Send to submit the feedback.
3.0 INVENTORY MANAGEMENT

The chapter provides information on how to view stock and how to perform transactions for issue, receipts, net utilization and vaccine discards. It also guides the user for generating reports with inventory details and access transaction history.
3.1 VIEW STOCK

1. **Main Menu**
   - Go to the home screen of the store
   - The name of the store will be displayed on the top of the screen
   - Click **Inventory** to view the drop down options

   Note: (+) indicates further drop down options

2. **Operation**
   - Select **View Stock** to view information on the material inventory
3. **MaterialTags**
   - As you click to view stocks, **Material Tags** will appear on the screen.
   - The top of the screen displays the number of material types in the store.
   - The number displayed beside the tag name indicates the number of material types under each tag.
   - For example, **RI vaccines (13)** indicates that there are 13 materials under the RI category.

**Note** – Tags are created to define broad categories under which materials can be classified.
For example:
- MaterialTag – RI Vaccines
- MaterialType – BCG (dose)
3.1 VIEW STOCK

4. **Select Material Category**
   - To view material details, select the appropriate tag.
   - For example, to view details of vaccines for campaign, select Campaign.
   - Similarly, you can view material details for open vials and RI vaccines.

Stock Levels in the following colours denote:
- `< Minimum Stock`
- `> Maximum Stock`
- `Zero Stock Level`

**Note** –
- Categories with more than ten materials will be displayed on the screen, in sets of ten on each page.
- Click on the icon provided to move to the next set of materials.
- Click **Refresh** to see the latest stock level.
5. **Material Information**
   - Select a material from the list
   - Enter material name in the search field to find a particular item
   - For example, BCG (dose)

- Upon selecting a particular material, the following details will be displayed:
  - Quantity
  - Minimum Stock
  - Maximum Stock
  - Last updated date and time
6. **Navigation**

- Click the **Back** option at any point during the operation to go back to the last screen viewed or
- Click on the **Home** button under options to go back to the store home page screen.
3.2 ENTER ISSUES / NET UTILIZATION

1. **Main Menu**
   - Go to the store home page screen
   - Under inventory, click **Net utilization**

   **Note** – Net utilization is a transaction where materials which have been consumed are to be entered after each session. The material inventory reduces as a result of this transaction.

2. **Select Material Tag**
   - Select the appropriate material tag
   - For example, to enter issues for a vaccine used in campaign, select campaign
   - Similarly, you can select open vial or RI vaccines to enter issues for vaccines used as open vials or for RI sessions
3.2 ENTER ISSUES/NET UTILIZATION

3. **Operation**
   - Select the category RI Vaccines and then the material you want to enter net utilization for.
   - For example, under category RI vaccines, you may enter BCG (dose).

4. **Material List**
   - Select the material you would like to update.
   - For example, BCG (dose).

<table>
<thead>
<tr>
<th>Stock levels in the following colours denote:</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; Minimum Stock</td>
</tr>
<tr>
<td>&gt; Maximum Stock</td>
</tr>
<tr>
<td>Zero Stock Level</td>
</tr>
</tbody>
</table>
5. **Data Entry**
   - Enter the net utilization of vaccine in the box provided*
   - Mention the actual date of issue
   - Select the status of VVM
   - Click **Save** to capture issue details
   - Select **Cancel** to quit the transaction

*Note – This figure is same as the net utilization entered in the ‘Vaccine Distribution Register for Immunization Session’

6. **Date Entry**
   - Enter the date on which the vaccines have been issued to field; it should be the actual date of vaccines consumed in field
   - For example, if the RI Session took place on Friday, 11th March and entry is done on Saturday, 12th March, the actual date of entry should be 11th March
   - Click on the **date of actual transaction** field
   - A calendar displaying today’s date will appear on the screen
   - You can adjust the date by using the + / - buttons
   - Select the date and click **OK**
3.2 ENTER ISSUES/NET UTILIZATION

7. **Entry Review**
   - The material list will now highlight the material quantity that has been updated in red below the material name.
   - Click **Send** to confirm the transaction.
   - Or
   - Click **Clear all** to re-enter the value.
   
   **Note** – Once issues for multiple materials have been entered, the transaction can be confirmed for all materials together using the send button.

8. **Update**
   - Review material and the quantity entered and click **Send Now** to confirm the issue of material.
   - Click **Cancel** to cancel the transaction or to re-enter values.
9. **System Generated Confirmation**
   - Once the confirmation is sent, a message will appear on the screen stating *Inventory successfully updated*
   - Click **OK** to go back to the store home page screen

10. **Stock Review**
    - View the updated stock levels of the material
    - For example, the stock level of BCG has changed to 4540 doses after issue of 100 doses
    - Click **Refresh** in case you cannot view updated stock levels
3.2 ENTER ISSUES/NET UTILIZATION

11. **Notification**
   - If you do not click **Send** to confirm the transaction, the stock will not be updated.
   - By clicking **Back**, you can go back to the store home page screen.
   - A notification will appear on the store home page screen.

12. **System Generated Confirmation**
   - By clicking on the notification tab, you can view unsent issues.
   - Select one of the options below to complete the transaction:
     - **Unsent Message** to confirm issue of material
     - Click on the **blue icon** next to unsent message.
13. **Option - A**
   - Verify the transaction and confirm material name and quantity
   - Click **Send Now** to complete the transaction
   or
   - Click **Cancel** to quit transaction

14. **Option - B**
   - Upon clicking the blue icon, a message will appear seeking confirmation
   - Click **Yes** to complete the transaction
   or
   - Click **No** to quit the transaction
3.2 ENTER ISSUES/NET UTILIZATION

15. **System Generated Confirmation**

- Once the confirmation is sent, a message will appear on the screen stating **Inventory successfully updated**
- Click OK to go back to store home page screen
3.3 ENTER ISSUES/NET UTILIZATION OPEN VIAL

1. Main Menu
   - Go to the store home page screen
   - Under inventory, click on Enter Issues/Net Utilization

   Note – Issue is a transaction where materials are given out from a facility. Material inventory reduces as a result of this transaction.

2. Operation
   - Select the appropriate material tag for the material category you want to issue
   - For example, to issue open vials, select Open Vials
3.3 ENTER ISSUES/NET UTILIZATION
OPEN VIAL

3. **Material List**
   - Select the material you would like to update
   - For example, open DPT (vial)

4. **Data Entry**
   - Enter the quantity of materials (vials) that you would like to issue in the box provided
5. **Date Entry**
   - Enter the date on which the vaccines have been issued to field; it should be the actual date of vaccines consumed in field.
   - For example, if the RI session took place on Friday, 11th March and entry is done on Saturday, 12th March, the actual date of entry should be 11th March.
   - Click on the **date of actual transaction** field.
   - A calendar displaying today’s date will appear on the screen.
   - You can adjust the date by using the + / - buttons.
   - Select the date and click **OK**.

6. **Entry Review**
   - The material list will now highlight the material quantity that has been updated in red below the material name.
   - Click **Send** to confirm the transaction or.
   - Click **Clear all** to re-enter the value.

---

**Note** – Once issues for multiple materials have been entered, the transaction can be confirmed for all materials together using the send button.
3.3 ENTER ISSUES/NET UTILIZATION
OPEN VIAL

7. Update
   • Review material and the quantity entered and click Send Now to confirm the issue of material
   • Click Cancel to cancel the transaction or to re-enter values

8. System Generated Confirmation
   • Once the confirmation is sent, a message will appear on the screen stating Inventory successfully updated
   • Click OK to go back to the store home page screen
9. **Stock Review**
   - View the updated stock levels of the material
   - For example, the stock level of open DPT has changed to 5 vials after issue of 2 vials
   - Click **Refresh** in case you cannot view updated stock levels

10. **Notification**
    - If you do not click **Send** to confirm the transaction, the stock will not be updated
    - By clicking **Back**, you can go back to the store home page screen
    - A notification will appear on the store home page screen
3.3 ENTER ISSUES/NET UTILIZATION
OPEN VIAL

11. **System Generated Confirmation**
   - Click on the Notification tab to view unsent issues.
   - Select one of the options below to complete the transaction:
     - **Unsent Message** to confirm issue of material
     - Click on the Blue Icon next to unsent message

12. **Option - A**
   - Verify the transaction and confirm the material name and quantity
   - Click **Send Now** to complete the transaction
   - or
   - Click **Cancel** to quit the transaction
13. **Option - B**
   - Upon clicking the blue icon, a message will appear seeking confirmation
   - Click **Yes** to complete the transaction or
   - Click **No** to quit the transaction

14. **System Generated Confirmation**
   - Once the confirmation is sent, a message will appear on the screen stating *Inventory successfully updated*
   - Click **OK** to go back to store home page screen
3.4 ENTER RECEIPTS
OPEN VIAL

1. Main Menu
   - This category or entry is only for open vials
   - Go to the store home page screen
   - Under inventory, click Enter Receipts

Note – Receipts is a transaction where materials (open vials) are recorded at a facility at the end of the session day. The material inventory increases as a result of this transaction.

2. Operation
   - Select Open Vials under the material tag
3. **Material List**
   - Select the material you would like to update
   - For example, open DPT (dose)

4. **Data Entry**
   - Enter the quantity of materials (open vials) in the box provided
   - Please select the reason for the receipt from the dropdown box
   - For example, VVM usable
   - Click **Save** to capture new receipt details
   - Click **Cancel** to quit transaction
5. Entry Review
   - Material list will now highlight the material quantity that has been updated in red below the material name
   - Click Send to confirm the transaction or
   - Click Clear all to re-enter the value

Note – You can enter receipts of various materials (open vials) and confirm the transaction together for all receipts.

6. Update
   - Review material and the quantity entered and click Send Now to confirm the receipt of material
   - Click Cancel to cancel the transaction or to re-enter values
7. **System Generated Confirmation**
   - A message will be displayed on the screen stating **Inventory successfully updated**
   - Click **OK** to go back to the store home page screen

8. **Stock Review**
   - View the updated stock levels of the material
   - For example, stock level of open DPT (vial) has changed to 7 vials after receipt of 2 vials
   - Click **Refresh** in case you cannot view the updated stock levels
3.4 ENTER RECEIPTS
OPEN VIAL

9. Notification
- If you do not click Send to confirm the transaction, the stock will not be updated
- Click Back to go back to the store home page screen
- A notification will appear on the store home page screen

10. System Generated Confirmation
- Click on the notification tab to view unsent receipts
- Select one of the options below to complete the transaction:
  - Unsent Message to confirm issue of material
  - Click on the blue icon next to unsent message
11. **Option - A**
- Verify the transaction and confirm material name and quantity
- Click **Send Now** to complete the transaction
- or
- Click **Cancel** to quit the transaction

12. **Option - B**
- Upon clicking the blue icon, a message will appear seeking confirmation
- Click **Yes** to complete the transaction
- or
- Click **No** to quit the transaction
3.4 ENTER RECEIPTS
OPEN VIAL

13. **System Generated Confirmation**

- Once the confirmation is sent, a message will appear on the screen stating **Inventory successfully updated**
- Click **OK** to go back to the store home page screen
3.5 ENTER STOCK COUNT

1. **Main Menu**
   - Go to the store home page screen
   - Under inventory, click **Enter stock count**

2. **Select Material Category**
   - Select appropriate material category to enter stock count
   - For example, select campaign to enter stock details for campaign vaccines

   **Note** – Stock Count is a transaction where stock levels are entered in eVIN after a physical stock count (actual stock levels available) at the facility.

3. **Operation**
   - Select the category of material for which you want to revise the stock levels
3.5 ENTER STOCK COUNT

4. **Material List**
   - Select the material you would like to update
   - For example, BCG (dose)
   
   Stock levels in the following colours denote:
   - Minimum Stock
   - Maximum Stock
   - Zero Stock Level

5. **Data Entry**
   - Enter the actual stock level of the material in the box provided
   - Select the status of VVM
   - Click **Save**
   - or
   - Select **Cancel** to quit the transaction

Note – Ensure that you actually enter the new stock level and not the difference/adjustment
6. **Entry Review**
   - The material list will now highlight the material quantity that has been updated in red below the material name.
   - Click **Send** to confirm the transaction or
   - Click **Clear all** to re-enter the value.

   **Note** – You can enter the revised stock levels of various materials and confirm the transaction together for all the entries.

7. **Update**
   - Review material and the quantity entered and click **Send Now** to confirm the revised stock levels of material.
   - Click **Cancel** to cancel the transaction or to re-enter values.
3.5 ENTER STOCK COUNT

8. **System Generated Confirmation**
   - Once the confirmation is sent, a message will appear on the screen stating *Inventory successfully updated*.
   - Click **OK** to go back to the store home page screen.

9. **Stock Review**
   - View the updated stock levels of the material.
   - For example, the stock level of BCG (dose) has changed to 4640 doses after stock levels were revised from 4440 doses to 4640 doses.
   - Click **Refresh** in case you cannot view updated stock levels.
10. Notification
   • If you do not click **Send** to confirm the transaction, the stock will not be updated
   • Click **Back** to go back to the store home page screen
   • A notification will appear on the store home page screen

11. System Generated Confirmation
   • Click on the Notification tab to view unsent physical stock
   • Select one of the options below to complete the transaction:
     ▸ **Unsent Message** to confirm issue of material
     ▸ Click on the blue **icon** next to unsent message
3.5 ENTER STOCK COUNT

12. Option - A
- Verify the transaction and confirm material name and quantity
- Click Send Now to complete the transaction
  or
- Click Cancel to quit the transaction

13. Option - B
- Upon clicking the blue icon a message will appear seeking confirmation
- Click Yes to complete the transaction
  or
- Click No to quit the transaction
14. **System Generated Confirmation**

- Once the confirmation is sent, a message will appear on the screen stating *Inventory successfully updated*
- Click OK to go back to the store homepage screen
3.6 ENTER DISCARDS

1. **Main Menu**
   - Go to the store home page screen
   - Under Inventory, click **Enter discards**

   **Note** – Discards is a transaction to record materials that are not usable due to various reasons such as expiry, VVM not usable, vaccine frozen or damaged etc. Material inventory decreases as a result of this transaction.

2. **Operation**
   - Select the category of material you would like to update
   - For example, RI vaccines
3. **Choose Material Category**
   - Select appropriate material category to enter stock count
   - For example, select campaign to enter stock details for campaign vaccines

4. **Material List**
   - Select the material you would like to update or discard
   - For example, BCG (dose)

Stock levels in the following colours denote:
- `< Minimum Stock`
- `> Maximum Stock`
- `Zero Stock Level`
5. **Data Entry**
   - Enter the quantity of materials that you want to discard in the box provided.
   - Select the *reason* for the discard from the dropdown box.
   - For example, damaged, expired, frozen or VVM unusable.
     - Click *Save* to capture the new discard details.
     - Select *Cancel* to quit transaction.

6. **Entry Review**
   - The material list will now highlight the material quantity that has been updated in red below the material name.
   - Click *Send* to confirm the transaction.
   - Click *Clear all* to re-enter the value.

**Note** — You can enter the number of discards for various materials and confirm the transaction together for all entries.
7. **Update**
   - Review material and the quantity entered and click **Send Now** to confirm the discards.
   - Click **Cancel** to cancel the transaction or to re-enter values.

8. **System Generated Confirmation**
   - Once the confirmation is sent, a message will appear on the screen stating **Inventory successfully updated**.
   - Click **OK** to go back to the store home page screen.
3.6 ENTER DISCARDS

9. **Stock Review**
   - View the updated stock levels of the material
   - For example, the stock level of BCG has changed to 4600 after discard of 40 units or doses
   - Click **Refresh** in case you cannot view updated stock levels

10. **Notification**
    - If you do not click **Send** to confirm the transaction, the stock will not be updated
    - Click **Back** to go back to the store home page screen
    - A notification will appear on the store home page screen
11. **System Generated Confirmation**
   - Click on the notification tab to view unsent discards
   - Select one of the options below to complete the transaction:
     - **Unsent Message** to confirm issue of material
     - Click on the blue icon next to unsent message

12. **Option - A**
   - Verify the operation and confirm material name and quantity
   - Click **Send Now** to complete the transaction
     - or
   - Click **Cancel** to quit the transaction
3.6 ENTER DISCARDS

13. **Option - B**
- Upon clicking the blue icon, a message will appear seeking confirmation.
- Click Yes to complete the transaction.
- Click No to quit the transaction.

14. **System Generated Confirmation**
- Once the confirmation is sent, a message will appear on the screen stating *Inventory successfully updated*.
- Click OK to go back to store home page screen.
### 3.7 EXPORT INVENTORY

1. **Main Menu**
   - This category or action can be used for sending the stock position or report to someone on his/her email address.
   - Select **Export Inventory** under the inventory menu.

   **Note** – Export Inventory option exports the current inventory across the store in a CSV format (which can be opened in Microsoft Excel) to the user’s registered email address.

2. **Export**
   - Please enter a correct and active email address.
   - The email address can be edited later.
   - **Click Export** to confirm the transaction and obtain inventory information.
3. **System Generated Confirmation**

- Once you click *Export*, you will receive a message confirming the transaction in case it has been successfully performed.
- Click *OK* to go back to the store home page screen.
3.8 TRANSACTION HISTORY

1. **Main Menu**
   - Select **Transaction History** under the **Inventory** menu

   **Note** – Transaction history will record all transactions that have been made using a particular device.
   Fifty latest transactions can be viewed here, in sets of ten on each page.

2. **Listing**
   - View the details of all transactions in a chronological order
   - The transfers made by DVS will also be reflected here
   - Click **Refresh** if transactions are not visible
3.8 TRANSACTION HISTORY

3. **Navigation**
   - Click **Back** to go back to last screen viewed

4. **Details**
   - Transaction history details comprise the following:
     - Latest transaction performed; for example, 4640 BCG (dose) Stock count done by CCH
     - Date on which transaction was done with exact time
     - User name
     - Opening balance before transaction in number
     - Closing stock number
     - Date of actual issue

5. **Logout**
   - Click **Logout** whenever you are not using the app
4.0 REMOTE TEMPERATURE MONITORING

The chapter introduces the features and components of the temperature logger and provides guidelines on its use.
4.1 eVIN TEMPERATURE LOGGER - THE TECHNOLOGY

Temperature logger is a low-cost remote temperature monitoring (RTM) system, with a sensor unit which is placed in refrigerators (ILR) used to store vaccines at health centres.

This sensor unit collects and sends temperature data to eVIN.

Temperature logger measures ILR temperature at three points – top, middle and bottom.

TEMPERATURE MONITORING ▶

- Temperature monitoring is done in order to ensure that the vaccines are stored at recommended temperatures and the cold chain equipment is working properly.

- A break in the cold chain is indicated if the temperature rises above 8°C or falls below 2°C in the ILR; and above −15°C in the deep freezer.
### 4.2 ADDRESSING CHALLENGES IN REMOTE TEMPERATURE MONITORING WITH eVIN

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Features of Temperature Loggers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent power failure</td>
<td>24 hr battery back-up for temperature logger</td>
</tr>
<tr>
<td>Unavailability of internet connection</td>
<td>Dual-SIM based loggers</td>
</tr>
<tr>
<td>Accuracy of temperature monitoring device</td>
<td>Accuracy of +/- 0.5 degree Celsius</td>
</tr>
<tr>
<td>Alarms</td>
<td>A physical alarm beeps on the device, and up to five alerts are sent through SMS and email to the concerned authorities upon sensing temperature breach</td>
</tr>
<tr>
<td>Temperature mapping</td>
<td>Four sensors are utilized for ILRs and Deep Freezers DFs placed in the top, middle and bottom zones</td>
</tr>
<tr>
<td>Data back-up</td>
<td>Storage of temperature data locally in the logger in a SD card with 4 GB capacity as well as on the web</td>
</tr>
</tbody>
</table>
4.3 TEMPERATURE LOGGER-INTRODUCTION

- Antenna
- Front display
- Buzzer Speakers
- Stop Alarm button
- Cycle Display button
- Function button
- Sensor ports - A, B, C, D
- Back panel
- Wall Hanger

**Accessories**

- Power cable
- Sensor cable
- Clips
- Adhesive tape
4.4 CONNECTING THE SENSORS

- Locate sensor cables. Each sensor cable has a coloured plastic strip around it.
- Look at the sensor ports on the logger.
- Match each sensor cable to the sensor port of the same colour.
4.5 SENSOR PLACEMENT IN THE ILR & DF

1. Place the green sensor A in the bottom zone of the refrigerator.
2. Place the yellow sensor B in the middle zone of the refrigerator.
3. Place the red sensor C in the top zone of the refrigerator.
4. The sensors should be carefully clipped to the walls of the refrigerator.
4.6 STOP ALARM

- The audio alarm on the temperature logger is configured to buzz immediately after a temperature breach.
- If the reason for alarm is not resolved, the alarm will buzz every six hours.
- Press the Stop Alarm button to mute the audio alarm.
4.7 CYCLE DISPLAY BUTTON

- The home screen of the logger displays the date, temperature data from sensor B, level of battery charge and network signal strength.

- Press the Cycle Display button to get detailed status information about temperature data of each sensor including alarms, battery charge levels, and network signal strength for each SIM.

- Continued pressing of the Cycle Display button will bring you back to the home screen.
4.8 NOTE

- The cold chain handler should not touch the Function button, it is meant for use only by the Nexleaf technician.
- Be careful while removing baskets and vaccines to avoid disturbing the sensor probes and cables.
5.0 ESCALATION MECHANISM

The chapter provides standard operating procedures on escalation mechanism for instances of breach of vaccine storage temperature.
5.1 ESCALATION MECHANISM

COLD ALARM

Scenario 1
Sensor A or B or C displays a temperature between +2 to -30 degrees centigrade.

Inference
Cold-Chain equipment is non-functional.

Action
Contact Cold-Chain Technician and move vaccines to a safe location.

Scenario 2
If sensor A or B or C displays a temperature below -30 degrees centigrade.

Inference
Temperature logger requires maintenance.

Action
Contact the VCCM.

Below recommended range (+2°C)
for more than 1 hour
**Scenario 1**
If sensor A or B or C displays a temperature between +8 to +50 degrees centigrade.

**Inference**
Cold-Chain equipment is non-functional.

**Action**
Contact Cold-Chain Technician and move vaccines to a safe location.

**Scenario 2**
If sensor A or B or C displays a temperature above +50 degrees centigrade.

**Inference**
Temperature logger requires maintenance.

**Action**
Contact the VCCM.
5.1 ESCALATION MECHANISM

POWER-OUT ALARM

Scenario
If power is out or not available.

Inference
Cold-Chain equipment may require back-up power.

Action
Contact Cold-Chain Technician.

ALL OTHER SMS ALARMS

Scenario
If you receive SMS alert stating ‘missing SD Card’, ‘sensor is disconnected’, or ‘battery is low.’

Inference
Temperature logger requires maintenance.

Action
Contact the VCCM.
Only if you receive an SMS alert on extreme temperature (less than -30°C or more than +50°C)

**Check the following immediately:**

- Sensors are securely connected to the logger.
- Sensors placed inside the refrigerators are secured on the fridge wall with the clips and have not fallen outside.

**Note** – In case of the above mentioned issues, please make sure the sensors are correctly adjusted. Fix the sensors and check the temperature on the logger after 20 minutes.

- Observe the sensors closely to detect any potential damage by the baskets or any sharp materials.

**Note** – If damage to the sensor is observed or the problem with the logger is not detected/known, please contact the VCCM.
6.0 FREQUENTLY ASKED QUESTIONS

The chapter provides answers to queries and problems that may arise while using the eVIN app and mobile handset.
6.1 FREQUENTLY ASKED QUESTIONS

Q1. Where should the entries be made for the open vials used for campaign?

Ans. For issuing open vials for campaign:

- Under Inventory click on Enter Issues/Net Utilization.
- Select Open Vials.
- Select the appropriate material i.e. “bOPV open campaign” from the material list.
- Perform transaction for issue.

For receiving open vials for campaign

- Under Inventory, click on Enter Receipts.
- Select Open Vials
- Select the appropriate material i.e. “bOPV open campaign” from the material list.
- Perform transaction for receipt.

Q2. After the completion of campaign, the cold chain handler wants to transfer the campaign material to RI material. How should this transaction be performed in eVIN?

Ans. 1. Make an entry for stock count in campaign to change the closing stock of vaccine to 0

2. Make an entry for stock count in RI vaccines and update closing stock adding the campaign stock to the RI vaccine inventory.

Q3. If a cold chain handler was unable to perform transactions for two consecutive RI session days on 19th September and 23rd September, how will s/he record the two missed entries on 24th September?

Ans. Two separate transactions will be made for this entry. First, enter the net utilization for 19th September and select the actual date of transaction as 19th September.
Second, enter the net utilization for 23rd September and select the actual date of transaction as 23rd September.

Q4. **Where should the mobile phone be kept if the eVIN user is taking a leave from work?**

**Ans.** If there is a link person or back-up at health facility who is trained on using the eVIN app and make transactions, then the mobile phone could be handed over to her/him.

In absence of a link person, the eVIN user should keep the mobile phone and perform the transactions from home.

Q5. **What should be done in case the physical stock of vaccines has been received but the stock has not been updated in eVIN?**

**Ans.** Contact the VCCM and district vaccine store keeper of your district.

Q6. **Can we send and update information entered if there is no internet connection on the mobile phone?**

**Ans.** You can save the entries and send the data later when GPRS or internet is available.

- After making an entry for the transaction, instead of clicking Save, click on Back at the top left of the screen. You will see a Notification tab above Inventory tab on the main page. This indicates that your transactions have been saved.

- Click on the notification tab to view unsent issues.

- Select one of the options below to complete the operation:

  A. Unsent message to confirm issue of material

     - Verify the transaction and confirm material name and quantity.

     - Click Send Now to complete the transaction, or click Cancel to quit.
6.1 FREQUENTLY ASKED QUESTIONS

B. Click the blue icon next to Unsent Message
   • Upon clicking the blue icon, a message will appear seeking confirmation.
   • Click Yes to complete the transaction, or click No to quit.

   After clicking Save, click Send and Send Now. If GPRS is not available, you will see a notification tab above the Inventory tab on the main page which indicates that your transactions have been saved.

   Once the network/internet is available, click on the notification tab to view unsent issues. Select one of the options to complete the operation:

   A. Unsent message to confirm issue of material
      • Verify the transaction and confirm material name and quantity.
      • Click Send Now to complete the operation or click Cancel to quit the operation.

   B. Click on the blue icon next to unsent message
      • A message will appear seeking confirmation.
      • Click Yes to complete the transaction or click No to quit.

   Q 7. **What should be done if the vaccines transferred by the District Vaccine Store are less in number than the quantity reflected in the stock?**

      Ans. Perform a transaction for stock count to update the closing stock. Inform the district vaccine store manager and vaccine and cold chain manager of your district.

   Q 8. **Will the eVIN data be deleted if the mobile phone is updated?**

      Ans. You need to install the application again after updating the mobile phone. Your eVIN data will be retained once you login with your user ID and password.
Q 9. Why is reason code 'VVM usable' available for BCG diluents, Measles diluents and JE diluents?

Ans. It is not mandatory to add this reason code for diluents.

Q 10. Why are the campaign and RI vaccine available under 'Enter receipts'?

Ans. This facility has been provided to keep room for any future upgrades of the application.

Q 11. Are the temperatures of stem thermometer and eVIN temperature logger always same?

Ans. No, both the equipments have different accuracy and their placement is not the same. Hence, the temperature reading will be different.

Q 12. What should be done in the case where the user forgets or loses the user ID and password for the eVIN app?

Ans. Contact the VCCM of the district.

Q 13. What should be done in the case where eVIN app is not visible despite installation on the mobile phone?

Ans. Contact the VCCM of the district.

Q 14. What is the process for making entries for discard of open vials?

Ans. Only those open vials are to be reported which have been discarded during storage at the cold chain points. Discards of open vials at immunization session sites should not be reported as discarded in the eVIN app.

Q 15. What should be done in case stock updates are not visible under 'View Stock' despite performing transactions for inventory update?

Ans. Contact the VCCM of your district.

Q 16. What should be done in case the eVIN application gets deleted from the mobile phone?

Ans. Contact the VCCM of the district.
6.1 FREQUENTLY ASKED QUESTIONS

Q17. What should be done in case the user receives a message saying 'Invalid user ID and password'?

Ans. Contact the VCCM of the district.

Q18. What should be done in case a transaction performed by the user is not visible on the mobile app?

Ans. Click on the Refresh icon on the bottom left of the screen, or log out and login again. If the problem persists, contact the VCCM of the district.

Q19. What should be done in case a transaction has not taken place properly?

Ans. Click on the Refresh icon on the bottom left of the screen, or log out and login again. If the problem persists, contact the VCCM of the district.

Q20. What should be done in case the user is unable to locate a material in the eVIN application?

Ans. If the number of materials under the specific category is greater than 10, then it can be searched using the Search bar. Type the material name in the search bar to look for the material.

Q21. What should be done in case the user is unable to switch on the mobile phone?

Ans. ▶ Make sure that the mobile phone battery is charged.
▶ Pull out the mobile phone battery.
▶ Insert the battery again and switch on the mobile phone.

Q22. What should be done if the mobile phone is not getting charged?

Ans. ▶ Make sure that the battery is fitted properly in the mobile phone and the mobile cover is properly inserted.
▶ Ensure that the charger is plugged properly into the power plug.
▶ Ensure that the charging indicator is on and the mobile charging indication is lit/ blinking.
If the problem persists, contact the VCCM.

Follow the mobile user manual for any other problem.

**Q23. What should be done if 'invalid SIM' message appears on the mobile phone screen?**

**Ans.**
- Switch off your mobile and take out the SIM card.
- Insert the SIM card again and switch on the mobile phone.
- If the error message continues to appear, try to insert the SIM in some other mobile phone to check.
- If the problem persists, contact the VCCM.

**Q24. What should be done if the user loses the mobile phone?**

**Ans.** Follow the guidelines from the state in this case.

**Q25. What should be done if 2G or 3G connection is not available?**

**Ans.**
- Make sure that you are in or move to an area with network connectivity.
- Change your location to an open place/outdoors and check again.
- There is a possibility that the mobile data/internet is switched off. Switch on the data and check again.
- Make sure that your mobile is always recharged/carries balance.

**Q26. What should be done if the mobile phone has insufficient mobile balance?**

**Ans.** Contact the VCCM of the district.