**Research Article**

**EVIN (ELECTRONIC VACCINE INTELLIGENCE NETWORK)**

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**ABSTRACT**

ANM covered the population of10,000-12000 people and their work mainly involves providing primary health service for maternal and child health, family planning, nutrition and immunization programs.

It is a powerful contribution to strengthening health system. The main aim of ensuring equity through easy and timely availability of quality vaccines to all children, Capacity building of vaccine cold chain handler and vaccine store managers through intensive training programs forms an integral component of eVin.

In the North, East, eVIN is currently implemented in six states- Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland and Tripura.

**EVIN (VACCINE ON LINE)**
Mobile app based application for ANM & other health staff

**INTRODUCTION**

Over 26000 vaccine store managers across the country are committed to the immunization program me in their regions.

To enhance the immunization coverage and ensure equality, sustained availability and accessibility to quality vaccines is a prerequisite. 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 programmers. In doing so eVIN provides an integrated solution to address constraints of infrastructure, monitoring and human resource, often inadequate vaccine stocks and related challenges.

**Literature Survey**

She has to cover several register in the field. After that she ha to make entries in Master Immunization, Master Reproductive and child health (RCH) register and ultimately this data is...
entered by data entry operator at community health center in the RCH web portal.

**Register Maintained by Anm Sub- Center**

1. Village Record Register
2. Sub- Center OPD Register
3. Maternal and Child Health Register
4. Eligible Couple Register including Contraceptive
5. Birth and Death Register
6. Drugs Register
7. Immunization Register
8. Stock Ledger (Equipments’ Instruments, Furniture, and other accessories)
9. Register for Recording minutes of village health and Nutrition day (VHND) meeting
10. Communicable disease/Epidemic disease
11. Record / Register as per various National Health Programs guidelines (NLEP, RNTCP, NVBDCP etc.
12. Rumor Register
13. Passive surveillance register for malaria cases
14. Record pertaining to Janani Surakha Yojana (JSY)
15. Maintenance of accounts including untied funds
16. Record of distribution and receiving of vaccine at the end of session and campaign

**RESEARCH METHODOLOGY**

In the effort to improve data collection and the overall standards of child and maternal health service provision in India, the ministry of health and family welfare (MOHFW) and the United Nation Development Program me (UNDP) is transforming the traditional methods of the vaccine storage and record-keeping. With the support from UNICEF, has introduced an Android – based smart phone application called as **EVIN APP** (Electronic vaccine intelligence network)

So how to help the ANM and improve data collection and updating was a million dollars question and here’s comes the solution.

**View Stock**

To view material details - Select the appropriate tag. For example to view details of vaccine for campaign, select campaign.

Similarly, you can view material details for open vials and RI vaccines.

**Stock levels in the following colors denote**

- < Minimum Stock
- Maximum Stock
- Zero stock level

Categories with more then ten material will be displayed on the screen, in sets of ten on each page.

**Inventory**

This shows how many vaccines are available in stock in eVIN. It also show clickable vaccine which gives the complete line list of each type of vaccine. In Inventory –Total tock of a specific material available at the vaccine store or cold chain point.

**Inventory has divides in following parts**

- Campaign vaccine
- Open vials vaccine
- RI vaccine
**Issue/Net utilization of vaccine**

1. Open vial vaccine
2. Receipt vaccine
3. Entre Discard vaccine
4. Export Inventory
5. Transaction History

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.

1. Main Menu
2. Navigation
3. Details
4. Logouts

**Remote Temperature monitoring**

5. Listing

**Escalation Mechanisms**

**Scenario**

- **Cold Alarm**
  
  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 display a temperature below 30 degrees centigrade.

  **Inference**
  
  Temperature logger requires maintenance.

  **Action**
  
  Contact the vccm

- **Hot Alarm**

  Above recommended range (+8°C) for more than 8 hours

  **Alarm-Cold**

  Below recommended range (+2) for more than 1 hours

**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 Alarm**

**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 is securely connected to the logger.
- Sensors placed inside the refrigerators are secured on the fridge wall with the clips and have not fallen outside.
- Observe the sensors closely to detect any potential damage by the baskets or any sharp materials.

**RESULT AND DISCUSSION**

It is a powerful contribution to strengthening health system. The main aim of ensuring equity through easy and timely availability of quality vaccines to all children. Capacity building of vaccine cold chain handler and vaccine store managers through intensive training programs forms an integral component of eVin.

**Key message and Objective of eVin**

1. The partnership between the govt. of India and United Nations Development Programmers (UNDP) for implementation of the Electronic vaccine Intelligence Network (eVin).
Network (eVIN) is a significant step towards strengthening health system in the country.
2. It is a stepping stone for revolutionizing and upgrading the vaccine logistics management to support the universal Immunization Programmers of the govt.
3. It is improved HR performance leading to an efficient and effective universal Immunization Programs (UIP) in India.
4. eVIN system is powerful by a state of the art technology and software. It has a very simple and easy to understand front-end smart phone interface that is very user-friendly to use.
5. The main aim of that is 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.
6. View the real-time availability of vaccine stock.
7. Forecast and estimate monthly and weekly requirements.
8. Ensure appropriate storage temperatures and check if the vaccines are safe.
10. Get an overview of vaccine replenishment times, supply and consumption patterns.
11. Reallocate vaccine inventories.
12. Plan for emergencies and special programmes

CONCLUSION
Analysis revealed a total of 900 lakh vaccine does were saved in the states in which eVIN was implemented.

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