Enhancing the pharmaceutical supply chain through innovation

The Stock Visibility System

Ms Nyaradzo Mandimika
Current challenges in DSM

- Late/Non-payment of suppliers
- Global shortages
- Facility level HR challenges
- Poor supplier performance
- Manual, non-networked stock management systems
- Weakened demand planning at all levels
- Poor/no communication between different levels in the supply chain
- Lack of patient level consumption data
SVS Features

- mHealth application, available on Google Play Store;
- Uses a zero-rated channel;
- Networked system – data available on a web-portal;
- Geo-special mapping;
- Weekly and monthly stock update items;
- Adaptable, simple system;
- ‘Store and forward’ functionality

Capture **Stock on hand**, **Stock received**, **stock lost** and **expiry date**
Visibility of stock at PHC facilities

STOCK IN
(RECEIVED)

PHC Facility

STOCK DISPENSED
(CONSUMPTION DATA)

STOCK REMAINING

STOCK LOST
Improved consumption data

NET OUT = NET IN – (W1 + W2 + W3 + W4 + W5 + STOCK ON HAND)
CoJ SVS Stakeholders

SVS

Health
Department:
Health
REPUBLIC OF SOUTH AFRICA

Gauteng Province
HEALTH
REPUBLIC OF SOUTH AFRICA

Joburg

a world class African city

Anova
Health Institute

USAID
From the American People

PEPFAR
SVS App: Recording Stock Levels

Select “Main Menu”.
Select “Record Stock Levels”.
Select option from drop down list.
Select “Proceed”.
Select option from drop down list.
SVS App: Recording Stock Levels

Tap on the empty grey box under current stock level.

Enter the item stock number then tap on “Pick Date”.

Under “Stock lost since last update” tap on the grey box to enter a value. Select Proceed.

Swipe up on the phone screen to see all of the details of the stock item.

Select “Accept” to complete the process.
The SVS Web-portal
### Facility Product Details

- **Facility name:**
- **Facility Manager:**

### Facility Stock Levels

<table>
<thead>
<tr>
<th>Category</th>
<th>Stock item name</th>
<th>Stock item inventory code</th>
<th>Update date</th>
<th>Days Since Last Update</th>
<th>Days Since Stock Out</th>
<th>Stock level</th>
<th>Expiry date</th>
<th>Stock received</th>
<th>Stock lost</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARV</td>
<td>ABACAVIR 20mg/ml oral solution, 240ml bottle with syringe top and a calibrated oral dosage syringe</td>
<td>181781208</td>
<td>2015-09-28 14:30:07</td>
<td>14</td>
<td>14</td>
<td>10</td>
<td>2017-10-31</td>
<td>0</td>
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<tr>
<td>Vacc</td>
<td>Measles Vaccine 10-Dose</td>
<td>189705289</td>
<td>2015-09-28 14:38:38</td>
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<tr>
<td>Vacc</td>
<td>Pentavalent Vaccine (DTaP-IPV/HIB)-1-Dose</td>
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<td>2015-09-28 14:41:26</td>
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<tr>
<td>ARV</td>
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<td>181898196</td>
<td>2015-09-28 14:42:44</td>
<td>14</td>
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<td>0</td>
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<tr>
<td>TB</td>
<td>ISONIAZID 300mg tablet, 28 tablets</td>
<td>181879045</td>
<td>2015-09-28 14:46:01</td>
<td>14</td>
<td>14</td>
<td>10</td>
<td>2015-11-30</td>
<td>50</td>
<td>40</td>
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<tr>
<td>ARV</td>
<td>TENOFOVIR 300mg, EMTRICITABINE 200mg, EFAVIREN 800mg tablet, 28 (30) tablets</td>
<td>181898256</td>
<td>2015-09-28 14:50:14</td>
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<td>715</td>
<td>2016-02-28</td>
<td>1000</td>
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<tr>
<td>ARV</td>
<td>ABACAVIR 300mg tablet, 56 (60) tablets</td>
<td>181899191</td>
<td>Not Sub</td>
<td>Not Sub</td>
<td>Not Sub</td>
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<td>Not Sub</td>
<td>Not Sub</td>
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<tr>
<td>ARV</td>
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<td>180165395</td>
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<td>Not Sub</td>
<td>Not Sub</td>
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<td>Not Sub</td>
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</tr>
</tbody>
</table>
SVS: Supply Chain Enhancements

- Improved consumption data;
- Improved inventory management;
- **Real-time dissemination of information** between different levels of government;
- Data for demand forecasting and planning – to better inform selection and procurement processes;
- Improving **communication** between the different hierarchical levels of the supply chain; and
- Identify **problematic suppliers**.
## SVS CoJ Roll-out

<table>
<thead>
<tr>
<th>Region</th>
<th>Operational Manager</th>
<th>Professional Nurse</th>
<th>Pharmacist</th>
<th>Pharmacist's Assistant</th>
<th>Data capturer</th>
<th>Admin Clerk</th>
<th>Total trained by Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region A</td>
<td>10</td>
<td>12</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>35</td>
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<tr>
<td>Region B</td>
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<td>0</td>
<td>5</td>
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<td>28</td>
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<tr>
<td>Region C</td>
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<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>21</td>
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<tr>
<td>Region D</td>
<td>24</td>
<td>28</td>
<td>5</td>
<td>6</td>
<td>10</td>
<td>9</td>
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<td>Region E</td>
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<td>0</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Region F</td>
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<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Region G</td>
<td>11</td>
<td>16</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>44</td>
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<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>81</strong></td>
<td><strong>74</strong></td>
<td><strong>14</strong></td>
<td><strong>18</strong></td>
<td><strong>30</strong></td>
<td><strong>34</strong></td>
<td><strong>251</strong></td>
</tr>
</tbody>
</table>
Reporting with SVS

Current:
- District stock status report – dashboard;
- Stock-out report.

Next phase – early warning system:
- Short dated stock;
- Expired stock;
- Over/under stock.
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Challenges

- **Facility level support** – essential for the success of the system;
- **Consistent updating of stock levels** – affects usability of data for upstream interventions;
- **Utilisation of data** for forecasting at lower levels;
- **Integration with programmes** – utilisation of data by the programmes (EPI, HAST etc).
- **Efficient and reliable drug supply management** – affects data quality.
Next steps....The value of SVS

- DSM capacitating – roving team model OR PAs.

- Informed Push Supply Chain Model
  - Use data to forecast stock need and place orders for facilities.

Heavily reliant on data quality!!
Acknowledgements

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- Anova HSAS Team!