AFYA UGAVI NEWS

Strengthening Supply Chain for Improved Health Outcomes

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A mother and her infant daughter having received her LLIN during her routine clinic visit in Homabay County.
Welcome to Afya Ugavi Activity's quarterly newsletter providing key highlights of our technical support and collaborative activities undertaken across the 47 counties. In this issue, we recount the various activities in which the Activity has actively been involved in the fourth quarter of Financial Year 2021.

The Activity’s focus is contributing towards Health Systems Strengthening through the provision of critical resources, and technical expertise, a commitment of the USAID across the globe to strengthen health systems and ensure quality, affordable health services for people everywhere. Towards this, we are happy to report that notable milestones have been achieved.

In this issue, you will find a mix of news, stories, and features on a wide range of health related – supply chain topics.

Read about the countrywide roll out of the ODK based supervision mobile tool which is set to improve the data collection process for health workers making the process more accurate and efficient.

The tool also allows for offline data collection with mobile devices in remote areas and the submission of the data to a server can be performed when Internet connectivity is available.

Find out more about the various activities in the county such as the Vihiga County awards where excellence in commodity management was rewarded.

Learn more about the bi-annual forecasting and supply planning (FASP) for family planning commodities in the country conducted by the Ministry of Health, Division of Reproductive and Maternal Health to ensure availability of these commodities.

We also feature stories of counties whose continued commitment to developing robust supply chain systems that are responsive to the needs of the people, receive greater support and additional resources to realize this goal.

A huge thank you to all those who contributed to writing the wonderful and inspiring articles, without which there would not have been this edition of the newsletter.
We strive to support the Ministry of Health at all levels to strengthen service delivery, governance, and supply structures to be better positioned to and improve processes so that all people experience high-quality and equitable health care.

To do this, Afya Ugavi has employed a range of methods and tools including process improvement and redesign; collaborative improvement; and supportive supervision.

Through the Health Products and Technologies Units (HPTU) counties health departments can increase compliance with evidence-based health standards and guidelines and improve the quality of essential health care. This includes delivery of safe, effective, quality-assured medicines.

Through supportive supervision activities and training of healthcare workers, counties develop a ‘culture of improvement’ within their health systems. We know that improvements are better sustained in health systems that have an environment that is conducive to continuous improvement.

Over the last quarter, we worked with the Ministry of Health across the counties to ensure best practices are employed to improve service delivery. The roll-out of the ODK supportive supervision tool is an example of the innovations set to ease data collection for commodity management. Through the elaborate forecasting for contraceptives, we can ensure that the health needs of the country are met.

In this issue, we highlight the achievements made through the technical assistance provided by the activity in building the capacity of our health workers to fully implement the best practices in the supply chain management value chain.

I hope that you find our e-newsletter an interesting read and we also invite you to share your news with us in future issues of the newsletter as well!
MOBILE DEVICE BASED SUPPORTIVE SUPERVISION USING ODK

BY PAUL OMOBI

ODK is open-source software for collecting, managing, and using data in resource-constrained environments. It allows for offline data collection with mobile devices in remote areas. The submission of the data to a server can be performed when internet connectivity is available. It allows organizations/users to aggregate data with full control over the collected data and the servers where this data is stored.

In context to Afya Ugavi program, the previous manual and excel aggregated supportive supervision tool was transformed through use of ODK, into several forms that represents sub sections of the tool. This decision was agreed to allow multiple users to collect data for the same facility simultaneously and later merged from the server side during data visualization and analysis exercise.

The ODK based supervision mobile tool is intended as a tool to empower health workers in the data collection and analysis of data from supportive supervision exercises conducted at health facilities by an oversight team of county health workers. This will ensure that the entire process is done in a timely and efficient manner that allows them to go from data to insights about the data very quickly. The design and implementation of the tool is such that the limitations experienced by the previous process are eliminated through a fast and efficient approach that minimizes errors in the data collection and reporting and provides timely feedback to the oversight team based on data analyzed from the supervision.

Components of ODK

The ODK software suite consists of 3 different programs including ODK Form, ODK Collect and ODK Central Server. On the 3 programs mentioned above, the central server was set first in MOH (Ministry of health) server through the University of Nairobi HealthIT intervention. The server is accessed through an app known as PUTTY through a set of commands.

The server provides the ability for one to manage forms and users who accesses the forms during data entry. It's also worth noting that use of QR code to configure user details into ODK collect app has made server configuration simple to ODK users.

The "ODK Collect" app is downloaded from Google Play on android devices and a given QR code is used to connect the device with the Central Server (hosted by the ministry of health).

After configuring the server through ODK collect on the user’s device, one can download the forms ready for data entry during the supervision activity. At this point, Afya Ugavi staff consisting of County coordinators, Advisors and technical teams are looped in to help users who incur any difficult on the configuration process. On the same note, a manual has also been provided for users to follow with clear steps on how the configurations are done.
As early mentioned, users can access separate forms independently and fill the information to the server by use of internet. Updated forms are accessed through ODK collect up and these happens when an update has been made and it doesn’t affect the flow of data nor the previously saved data.

ODK Collect renders forms through a sequence of input prompts that apply form logic, entry constraints, and repeating sub-structures. Users work through the prompts and can save the submission at any point. Finalized submissions can be sent to (and new forms downloaded from) a server. Collect support’s location, audio, images, video, barcodes, signatures, multiple-choice, free text, and numeric answers. It can even accept answers from other apps on your device.

Data Visualization:
Visualization is the graphical presentation of information, with the goal of providing the viewer with a qualitative understanding of the information contents. It is also the process of transforming objects, concepts, and numbers into a form that is visible to the human eyes by assessing the relationship of the variables being measured.

A customized Java based middleware application was designed, that helps to fetch data from ODK central server, transform the data and then store the data on a Postgres database on the server. This is the same server that runs the ODK app. All apps are running independently by use of the docker app in form of docker containers. The middleware app is designed in a manner that server details can be changed easily by users, through a graphical use interface in case server details changes over time.

After a careful analysis and on how the dashboard should be developed, Afya Ugavi looked for an open-source dashboard to visualize ODK collected data. This was because the power Bi dashboards previously used were not open source and would pose a challenge when it came to transition to other stakeholders for ownership purposes in a scenario where Afya Ugavi Activity comes to an end.

A dashboard app known as Grafana was identified to solve the data visualization challenge. Being an open-source and web-based app, it was selected as the best suited app to allow data dissemination and visualization. The app is installed on the MOH server running on a docker container does running as an independent application but visualizing the data from the Postgres database that receives data seamlessly at the top of every hour. This means that users do receive updated data tables/analysis one-hour after uploading the data into the server. Below is a sample out from one of the Kitui County.

![Figure 1: High level summary data output for Kandwia Dispensary giving a comparison of the # of items that have the actual stock on hand being equal to what is expected](image-url)
So far, 11 counties have successively carried out the support supervision using the ODK tool, these are Kitui, Kisumu, Elgeyo Marakwet, Uasin Gishu, Lamu, Muranga, Tharaka Nithi, Homabay, Kakamega, Siaya and Isiolo. Plans are underway to roll out the tool to the rest of the counties. Currently most of the counties are requesting to be supported to roll out the ODK tool since they have discovered that data entry using is much easier as compared to the previous excel tool.

![Dashboard showing the summary performance scores](image)

**Fig 2: Dashboard showing the summary performance scores**

**EQUIPPING COUNTIES FOR SERVICE DELIVERY**

To ensure that recently established Health Products and Technologies Units (HPTU) are operational, Afya Ugavi supported the units with the procurement of laptops, printers and furniture.

Through this support, HPTU leadership are able to focus on their management functions and give them the tools to be effective.

Speaking during the handover of laptops in Busia County, Dr. Aila Head of the HPTU noted that assets provided will go a long way in helping the assisting the HPTU perform its functions.

The last quarter saw 20 counties establish HPTUs raising the total number of counties with functional units to 35.
Motor vehicles donated to the Homabay and Busia Counties Health Products and Technologies Units by USAID Afya Ugavi are a vital boost to the counties’ efforts to improve service delivery through availability of health products and technologies in all health facilities.

The motor vehicles will be deployed to increase access to key underutilized services that are recognized as having the capacity to save the lives of residents of these counties. In addition, these vehicles will support the medical teams in the field in their day-to-day activities such as commodity redistribution and supportive supervision activities across the counties.

In Busia, the donation was handed over to Busia Deputy Governor Moses Mulomi by Chief of Party Dr James Riungu, at the Busia County Referral Hospital (BCRH) in the presence of Chief Officer of Public Health Jonathan Ino and Director Universal Health Coverage (UHC) Dr David Mukabi.

H.E Mulomi expressed gratitude to Afya Ugavi project for the support, asserting that it will go a long way in ensuring that commodity management in health facilities is enhanced besides being undertaken in a manner that will boost service provision to the people of Busia.

“Results indicate clearly that the presence of Afya Ugavi has added value to our efficiency in providing services to our patients. As you prepare to exit you should be proud that you have played a significant role in improving the quality of service,” he said.

Receiving the motor vehicle in Homabay County, Dr. Celes Akeche, Chief officer, Dr Gordon Okomo Director of Health and Dr. Aila, Chair HPTU all reaffirmed that the motor vehicles will help to strengthen the health system to provide the highest quality of care and accountability is entrenched at all levels of care.

Afya Ugavi also handed over some office equipment for the HPTU including laptops, a printer and four-way workstation and four chairs.
Vihiga County Referral hospital was recognized at the second annual Vihiga county commodity management awards, after it emerged top in its category to win the award for best overall facility in commodity management improving access to healthcare services.

The award ceremony, was organized by the Vihiga county health department in collaboration with Afya Ugavi and other partners to recognize and reward excellence in supply chain management and motivate health workers to maintain good practice in commodity management and introduce a culture of accountability that sustains access and availability of services.

Afya Ugavi supported the county and sub-county teams to carry out support supervision and supply chain audit using the scored integrated supportive supervision and supply chain audit tool to gauge performance of facilities. The tool looked at parameters such as resolution of previous action points, storage of health products, inventory management, availability and use of commodity management information system tools, verification of commodity data, guidelines and job aids, and accountability for commodities.

Speaking at the ceremony, the Chief Officer of Health Dr Mary Anyiendah said her department is committed to ensuring that health facilities are well equipped to ensure seamless service delivery to the people.

The awards were based on performance indicators for the best overall health facility in supply chain management. The assessment reviewed an annual performance and created the following categories: top 3 health facilities per sub-county, top 3 health facilities in the county, most improved health facility, best sub-county in the county, and best county and or sub-county hospital. A total of 69 health facilities participated in the contest with Kisiru scooping the award for the most improved dispensary. Under the category of the best Sub County in commodity management, the Vihiga sub-county emerged as the victor.
FORECASTING FOR CONTRACEPTIVE COMMODITY SECURITY

BY DANIEL MENGE

Over the last few months, health facilities in the country have reported considerable stock outs of some Family Planning (FP) commodities particularly implants and injectable options. At central level (KEMSA) only five out of twelve FP options were available as at the end of August 2021. This has negatively impacted on the right of choice for those seeking FP services in public health facilities. Consequently, clients have had to opt for limited available options while in some instances going without any modern FP method. This has slowed down the intended progress to achieve 66% modern contraceptive prevalence rate (mCPR) for Kenya by 2030.

It is on this basis that Afya Ugavi (AU) provided both technical and logistical support to the Ministry of Health, Division of Reproductive and Maternal Health to undertake a bi-annual forecasting and supply planning (FASP) for family planning commodities in the country. The main objective of the FASP workshop was to develop the FP commodity forecast for financial year 2021/22 to 2023/24. This is in line with the divisions mandate in ensuring contraceptive commodity security.

Using both consumption and population data, a supply plan that is expected to provide contraceptive commodity security for the next three years was developed.

Other partners who supported the process include FCDO-DESIP, Clinton Health Access Initiative, UNFPA and InSupply Health.

The FASP report indicated USD 1.7m, USD 1.6m and USD 1.5m funding gap for 2021/2022, 2022/2023, 2023/2024 respectively. Mobilization of sufficient financial resources to reduce this gap will support procurement of all family planning commodities as per the public-sector method mix that includes; Combined Oral contraceptives (COCs), Progestin only Pills (POPs), Depot Medroxyprogesterone Acetate Injection (DMPA) both intramuscular (IM) and subcutaneous (SC), 2-rod Implants (Levonorgestrel) 3 and 5 years, 1-rod Implants (Etonogestrel), Intra-Uterine Contraceptive Device (IUCD) both hormonal and non-hormonal, Emergency Contraceptive Pills (ECP), Male Condoms, Female Condoms and Cycle Beads. Advocacy for increased financial commitments from the government should be done to slowly shed off continued overreliance to donor funding for contraceptive availability.

AU will continue supporting the division and counties to conduct data quality assessments, supportive supervision and on job training that guarantee good commodity management practices for FP commodities. This is in line with the recommendations in the report that are expected to ensure accuracy of future forecasts. Other recommendations include availing correct reporting tools across facilities, monthly monitoring of the supply plan and development of an allocation tool for reordering in addition to review of the forecasts every six months.