Activity Impact
- Viola streamlined supply management and allowed proactive and informed inventory control preventing over- and under-stocking, with better accuracy.
- Fanos allowed easy and real-time access to supply chain data for procurement, supply and distribution decision-making at ePLSIS and its hubs. Fanos also provided greater visibility into last-mile logistics at health facility level, which in turn led to an understanding of stock-out rates and enabled supply to be better aligned with demand, enhancing equity.
- Dagu shortened articulation processing time, increased last-mile stock visibility, reduced wastage rate, and helped to save significant amounts of resources.
- eAPTS enabled pharmacy personnel to focus on patient counseling and reduced patient waiting time at dispensaries. It also improved the availability of medicines at the dispensary level due to the integration between Dagu and eAPTS, which created greater visibility of stock in dispensatories.
- mBrana ensured safe, efficient, and equitable rollout of LLINs and vaccines including the COVID-19 vaccine. It also provided information on routine immunization, COVID-19 vaccine and LLIN stock status, vaccine shipments ordered and received, total consumption, months of stock, ending balance, and potential expiry.

Evidence
- USAID conducted a study in October 2022 to determine the effect of eLMIS on service quality. Six health facilities were grouped into three categories. Category I (those implementing Dagu and eAPTS integrated system), Category II facilities not implementing either of the two systems). Two health facilities were included in the assessment in each category (1 hospital and 1 health center). The result showed that:
  - Availability of the tracer drugs, or essential medicines, was higher by 19.4% in Category I and 19.8% in Category II facilities compared to Category I and II facilities, respectively.
  - Stock out of tracer drugs in Category I facilities (at least once in the last six months) was higher by 30.6% and 23% compared to Category I and II facilities, respectively.
  - Six-month wastage rate of tracer drugs due to expiration in Category II facilities was higher by 8.3% and 9.3% compared to wastage rate in Category I and II facilities, respectively.
  - The implementation of upstream and downstream eLMIS tools reduced wastage rate and helped to save significant amounts of resources that can be used for other priority health problems.

Facilitators
- Establishment of a technical working group at MOH level, resource allocation, and guidance by the government contributed significantly to the effective implementation of the system.
- Effective communication and collaboration between all stakeholders played a critical role in enhancing the implementation process.
- Involvement of users in the design, development and implementation process ensured eLMIS met their needs and requirements.

Challenges
- Weak healthcare infrastructure including limited internet connectivity and unreliable power supply challenged the implementation process.
- Poor acceptance and motivation of staff of the system hindered effective implementation and utilization of the tools.
- Self-fund availability maintenance and support to troubleshooting and ensure programs or user issues were quickly resolved also hindered smooth uptake.

Lessons Learned
- Enhancing the supply chain with digital tools increased accuracy, efficiency and visibility resulting in increased access to needed medicines where implemented.
- The implementation of downstream eLMIS tools improved articulation processing time, increased last mile stock visibility and availability, reduced wastage rate and helped to save significant amounts of resources that can be used for other priority health problems.
- The implementation of upstream and downstream eLMIS tools streamlined operations from forecast to issued, and allowed proactive inventory control preventing over- and under-stocking.
- Government engagement and capacity strengthening initiatives ensure long-term support and sustainability of interventions.
- Regular monitoring and evaluation of the system helped identify areas for future system adjustment.
- Collaboration with development partners help provide technical expertise and financial support for successful implementation of the system.