

# Digitization: Gateway to Accessing Real-time Adolescent Sexual and Reproductive Health (ASRH) data for decision-making in Nigeria & Tanzania

## AUTHORS

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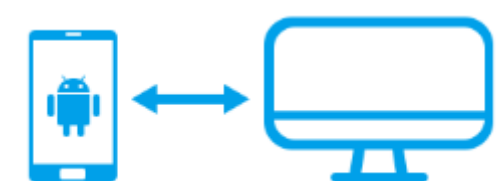
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## BACKGROUND

- Availability of accurate, timely, and quality data from service delivery interventions is key to provision of quality contraceptive services.
- Age, sex & method mix disaggregated data is often missing for adolescent clients from national HMIS systems. When available, data is often unreliable, of poor quality or packaged in formats that are difficult to interpret.
- In some contexts, facility staff are overwhelmed with multiple registers for data entry and monthly reporting, or lack the requisite skills required for using automated systems.
- The District Health Information System (DHIS 2) platform is an open-source, web-based platform currently used in 73 low and middle-income countries as the national HMIS.
- The Data2Action (D2A) framework is PSI's global approach to strengthening data use for adaptation & learning. The D2A framework is used to; (i) set expectations relating to data use, (ii) move data from 'field-to-fingertips' of end users, (iii) support implementation actions based on what the data tells us.

We evaluated the implementation of the DHIS2 in accessing real-time ASRH data routinely across healthcare facilities in Nigeria & Tanzania.

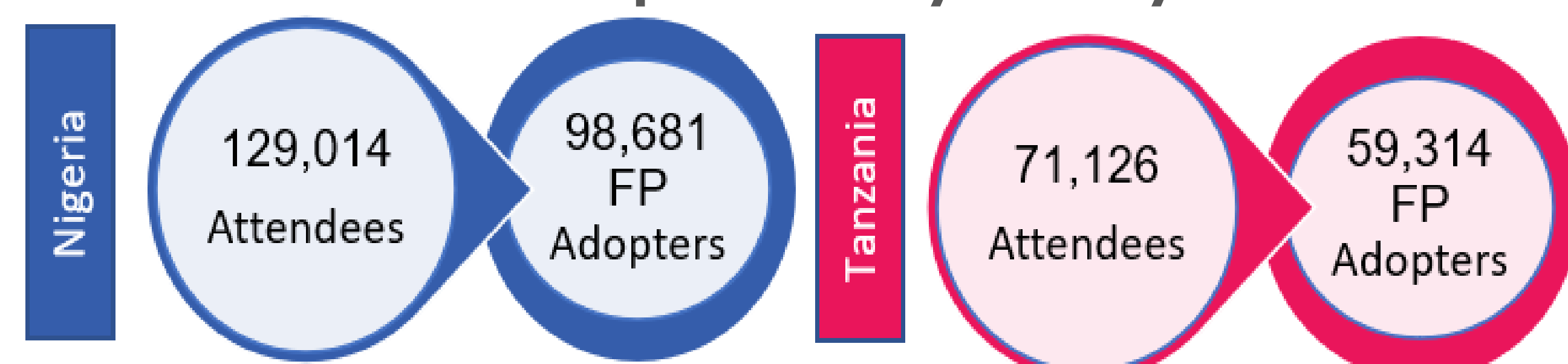
## METHODS



- To improve access to data A360 Amplify implemented the DHIS2 Android Capture Application(app) across 157 and 400 health facilities in Nigeria and Tanzania respectively, from October 2020 - October 2021.
- Priority government indicators were included in the app.
- The app provides built-in data validation capabilities and is directly linked to project DHIS2 to facilitate real-time visibility to project data through robust analytic dashboards.
- Data verification was conducted through routine data quality assessments (RDQAs).
- D2A frameworks were utilized to develop dashboard visualizations to provide context and facilitate conversations around performance and to allow teams to use the data interpretation features available in DHIS2.

## RESULTS

FIG 1- Attendee and adopter data by country



- The app was used to capture data in 990 out-of-clinic events and 983 in-clinic events targeting adolescents.
- Facilities using paper-based systems had an average data quality verification score of 86% compared to sites that were using the app, which recorded a data verification score of 92%.

FIG 2- Monthly adolescent contraception user trends

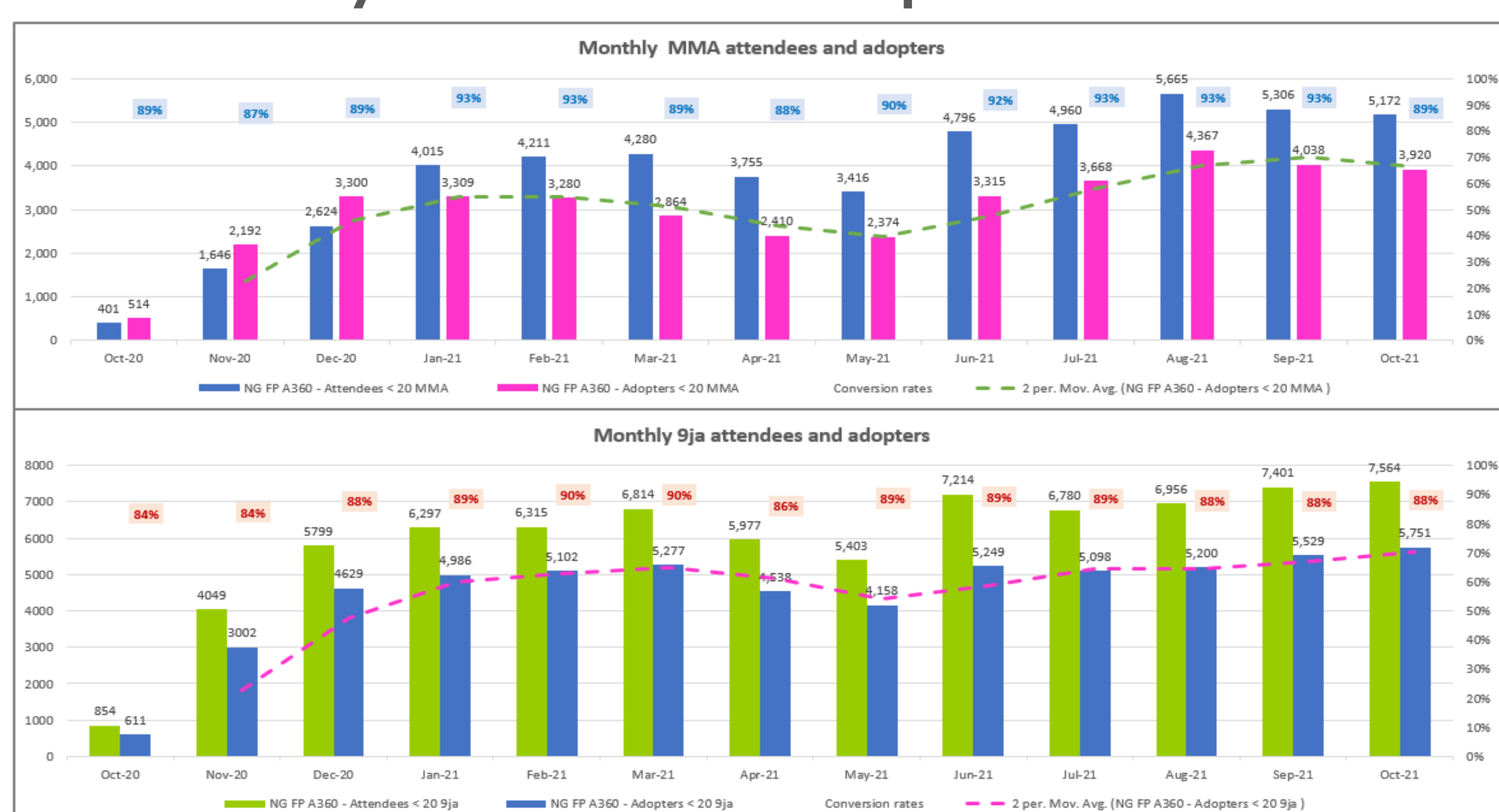
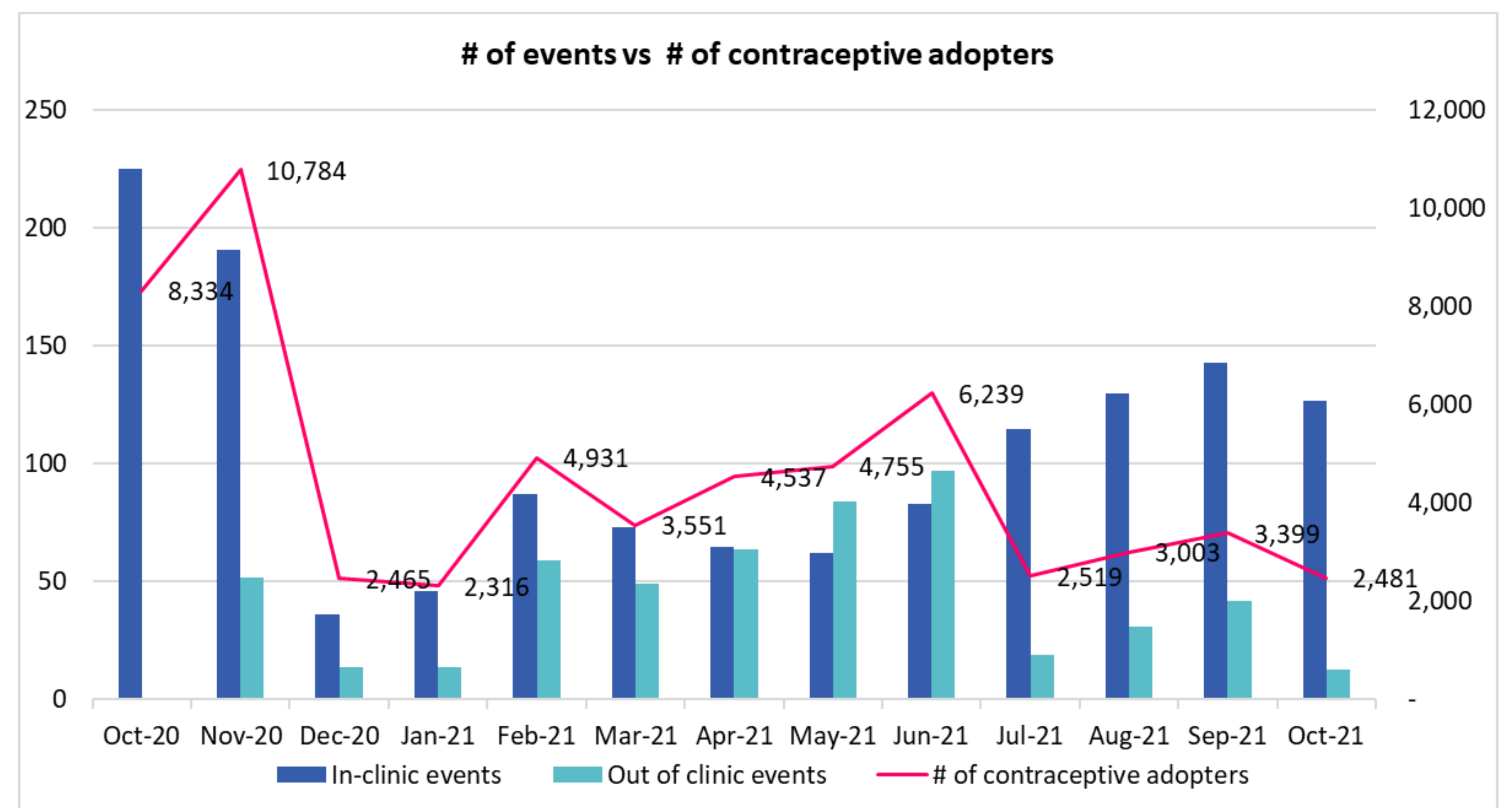


FIG 3- In-clinic & out of clinic performance trends mapped against the total number of contraceptive adopters.



- Use of the Android app for data capture enabled access to real-time service uptake data.
- Results were visualized through the DHIS 2 analytics dashboards.

FIG 4 - Data-to-action (D2A) Framework.

Indicator	Objective: Why is it important?	Action Plan: What questions will you ask based performance against target/benchmark?	How would you like the data visualized?
Conversion Rate: Numerator: Adopters Denominator: Total attendees - (Continuing users + Pregnant) 100 girls visit a clinic 10 Adopters 15 Continued users 5 pregnant 80 nonusers Conversion rate: $10 / (100 - (15 + 5)) = 10 / 80 * 100 = 12.5\%$	To track quality of counselling and effectiveness of the program. It's a reflection of the ability of a program to attract new clients to take up contraception.	<b>If target is met:</b> What was the age distribution among the adopters?  What strategies contributed to achievement of the target?  <b>If target is not met:</b> How effective is the counselling?  Was periodic supportive supervision carried out?  Does the provider understand the indicators being reported?  Was the method of choice available?  Are the mobilisers mobilising the right girls to the facility?	Map: for visualizing the conversion rate  Bar graph: Tracking conversion rates by month  

- Key indicators collected using the Android capture app were mapped on the projects D2A framework and analytics dashboards developed on DHIS 2.
- The data-to-action frameworks were instrumental in driving performance conversations & facilitating timely course correction during implementation.

## CONCLUSION

- The DHIS2 Android Capture App is an effective tool for enhancing access to real-time data for decision making when used hand-in-hand with Data-to-Action frameworks.
- Findings suggest that there could be a positive correlation between automation and data quality, however more research is needed to validate this assumption.
- Use of the DHS2 app was key in ensuring access to timely data for adolescent contraception services during the COVID-19 pandemic.
- To achieve universal health coverage, programs and governments need to invest in automation of data management systems at facility and other levels to increase access and, reduce errors and time used in transferring data from paper-based systems to automated systems.
- Data automation accords health providers more time for service provision compared to manual systems.
- Collaboration with government is key to ensuring that digital platforms used, adhere to national data management tools and for sustainability of interventions after program transition.

