

MyChild Solution in Uganda:

An External Evaluation -Transfer of Work Processes to Existing Health System

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Glossary & Abbreviations

Fixed session: An immunisation session that occurs within a health centre/clinic.

Outreach session: An immunisation session that occurs outside of a health centre/clinic. During outreach sessions, health workers will generally travel to rural or underserved parts of the municipality.

EPI: The Expanded Programme on Immunisation developed by the World Health Organisation in 1974 with the goal of reducing child morbidity and mortality by making immunisation services available for all children. The EPI was first implemented in Uganda in 1975.

EPI Dashboard: An online platform where clinics report details and indicators from their immunisation sessions are visualised. All planned, held, and missed sessions are displayed on the EPI Dashboard. Only data for clinics that are using MyChild Solution is displayed in the EPI Dashboard.

HC (I-IV): Public health centres in Uganda ranging from village health teams (level I) to health sub-districts/municipalities (level IV). These health centres (also referred to as clinics in this document) provide a range of promotive, preventive, outpatient, maternity and laboratory services.

MCC: MyChild Card, the paper home-based record used within MyChild Solution

SPF: Smart Paper Forms are the forms/vouchers are used to capture health information. These forms/vouchers can be scanned and digitised.

Abstract

Background: Shifo has recently implemented MyChild Solution, a health information management system designed for child health, within Mukono Municipality in Uganda. This report, written by an external evaluator, will provide an analysis of which, and to what extent, work processes related to MyChild Solution are being transferred to specific facility and municipal levels of the health system structures in Uganda.

Objective: This evaluation first outlines the Standard Operating Procedures needed for the transfer of MyChild Solution to Mukono Municipality. This study then seeks to discover what essential processes have been transferred, and to assess the *accuracy* and *sustainability* of these transferred processes.

Methods: This is a qualitative study, focused on semi-structured interviews conducted with health workers at several clinics within the Mukono Municipality. Interviews are analysed using a narrative analysis approach. To support interviews, research access was granted to supporting documents from Shifo. These documents include receipts, printing orders, stock cards, data completeness reports, and verification logs.

Results: The results of this external evaluation indicate that a significant portion of processes essential to MyChild Solution - 84% - have been transferred to the local level in Mukono Municipality. In most cases where these processes have been transferred, they are being performed in a way that is both accurate and sustainable. Nearly all remaining processes are planned to be fully transferred to Mukono by the end of 2018.

Introduction

MyChild Solution, a health information management system designed for child health, developed by Shifo Foundation, has been implemented and evaluated in Uganda (Mukono Municipality). One critical step to fully integrating MyChild Solution within the current health system structure is the transferal of essential tasks and routines to the local level. After training health workers in this new health delivery/data collection system, Shifo's goal is to gradually transfer processes connected with the intervention and allow MyChild Solution to be sustainable at the facility and municipal levels. This report, written by an external evaluator, will provide an analysis of which, and to what extent, work processes related to MyChild Solution are being transferred to specific facility and municipal levels of the health system structures in Uganda.

Background

MyChild Solution was introduced in Uganda in July 2016, within Mukono Municipality, located in Mukono District, Northern Region. MyChild Solution was designed as a replacement for the previous health management system, which was primarily paper-based and involved a significant burden of administrative paperwork for health workers. MyChild Solution was intended to ease this burden of paperwork, combining a paper child health card (MyChild Card) and a digital component based on Smart Paper Technology.

Health workers enter information about the services provided to each child on Smart Paper vouchers in MyChild Cards, just as would be normally done with regular paper using ballpoint pens. At the end of the immunisation session, the nurse compiles all the vouchers from the day into a 'session bundle'. Following this, the vouchers are scanned at the municipal scanning station, which must have electricity and internet connectivity. The data is uploaded onto a secure server where an electronic medical record is created for each child (Aboce et al 2016).

While the introduction of MyChild Solution has been shown to reduce administration time for health workers, and has received positive feedback (see Aboce et al 2016), there is a need to ensure that this new health information management system has been implemented accurately and sustainably. Nearly two years after initial pilot studies in Mukono, it is appropriate to conduct an external evaluation on the transition of MyChild Solution.

Research Questions

1. What are the required work processes associated with operations of MyChild Solution in Mukono Municipality (Uganda)?
2. In Mukono Municipality, how many of the required work process for MyChild Solution have been successfully transitioned to the local health system structures?
3. To what degree are these required work processes being performed in a manner that is accurate and sustainable within the local health system?

Evaluation Structure and Framework

The major processes and sub-processes listed here have been adapted from a document on Standard Operating Procedures provided by Shifo. The Standard Operating Procedures document details the standard operating procedures for MyChild Solution, including all the work processes that are essential to the full functioning of MyChild Solution. Each of these tasks has been categorized into five broad types (or *major processes*). The tables below list the major processes (and their relevant sub-processes) that need to be verified in Uganda.

1. Major process: Procurement and supply management

This major process involves the negotiation, purchase, and consistent supply of all materials used for MyChild Solution.

Table 1

Sub-processes
Procurement of MyChild Cards/Smart Paper Forms (MCC/SPF)
Purchasing internet services
Purchasing replacement equipment (scanners)
Supply and stock management of MyChild Cards/Smart Paper Forms at district level
Supply and stock management of MyChild Cards/Smart Paper Forms at health centre level

2. Major process: Data entry

This major process involves the daily entry of patient (child) data onto MyChild Cards and Smart Paper Forms, as well as their delivery to scanning stations. Data entry is most often done by a nurse or nursing assistant.

Table 2

Sub-processes
Data entry using MCC/SPF
Delivering MCC Vouchers/SPF to designated scanning stations

Continuous feedback and improvements on data entry tools

3. Major process: Scanning operations

After data entry and the delivery of Smart Paper Forms, the Forms need to be scanned and archived at scanning stations within clinics.

Table 3

Sub-processes
Receiving Smart Paper Forms and vouchers from health centres
Scanning and archiving Smart Paper Forms and vouchers
Operational maintenance of required scanning stations

4. Major process: Data processing

After being scanned, patient data from Smart Paper Forms is processed and saved digitally within the local health system. While some of this major process is automatic, there is manual work needed to verify any data that could not be verified automatically.

Table 4

Sub-processes
Automatic image processing of handwritten text and check marks
Data verification
Reporting on technical errors and system improvement

5. Major process: Monitoring and evaluation

This major process involves monitoring of data quality using a range of indicators and reports that are produced by the system. This process ensures that reports are complete and timely. Any errors or inconsistencies can be detected, and feedback is provided to the health workers.

Table 5

Sub-processes
Ensuring data completeness
Timely reporting
Analysing data recording errors
Printing and handing over paper-based reports to health centres
Finding personal data of a child from the electronic register when parents lose child health cards
Providing facility based Key Performance Indicators via SMS to health workers

Methods

Study Setting & Design

This external evaluation is conducted for clinics in Mukono Municipality, Uganda. There are currently 21 clinics in the municipality operating with MyChild Solution.

This is a qualitative study, focused on semi-structured interviews conducted with health workers at several clinics within the Mukono Municipality. To support interviews, research access was granted to supporting documents from Shifo. These documents include receipts, printing orders, stock cards, data completeness reports, and verification logs. In addition, supporting media files (videos and photos of daily operation within clinics) were provided by a Senior ServiceDesk Technician from Shifo.

Study Participants

For Uganda, the first point of contact was a Senior Service Desk Technician at Shifo who can arrange interviews with relevant staff and health workers in Mukono clinics. After an initial Skype call on April 13th, the evaluator received contacts of study participants that could provide details of how each work process has been transferred and is being performed at the local level. To protect their privacy, all participants are referred to by their titles rather than their names. Table 6 below provides a list of these contacts.

All health workers selected for this study satisfy the following criteria:

- They are recommended by the Desk Technician as representative of Shifo processes within Mukono Municipality; AND
- They are responsible for MyChild Solution and/or immunisation supplies at a Mukono Municipality or District level; OR
- They have been engaged in routine immunisation at a health centre for at least 1 month

Table 6

Major Process	Relevant Contact Person(s)	Placement	Interview date
Procurement and supply management	Cold Chain Assistant	District Vaccine Store (DVS)	April 20th, 2018
Data entry	Nursing Assistant (1) Enrolled Nurse, EPI Focal Person for Goma Division (2)	Mukono Health Centre IV (1) Goma Health Centre III (2)	April 20th, 2018 (1) May 24th, 2018 (2)

Scanning	Medical Assistant	Records	Mukono Health Centre IV	April 20th, 2018
Data processing	Medical Assistant	Records	Mukono Health Centre IV	April 18th, 2018 May 30th, 2018 (Follow-up interview)
Monitoring and evaluation	Medical Assistant	Records	Mukono Health Centre IV	April 20th, 2018

Data Collection

Given the inability to travel to Uganda (due to time limitations) for interviews and participant-observation, semi-structured interviews were conducted over Skype and Slack. Open-ended questions (see samples below) were asked regarding each work process from the respective health workers, with specific attention paid to where there have been inconsistencies or challenges encountered in the transfer process of MyChild Solution. In some cases, interviewees were asked to visually demonstrate how particular processes are performed (e.g., for data entry). All conversations were recorded on video to make transcription and subsequent analysis more reliable. Each interview ranged from 15 minutes to 45 minutes, with an average time of approximately 25 minutes. All interviews were conducted in English in the Mukono Municipality scanning station (where there was the most consistent internet connection available).

Open-ended interview questions that were asked to all participants include:

What is your role within the clinic/office and within MyChild Solution?

How long have you been working within your role?

What daily/weekly/monthly tasks are you responsible for?

Do you have any feedback on the processes you work with?

Have there been any problems adapting to the new MyChild Solution?

If needed, would you be able to teach a new health worker the steps you perform?

Data Analysis

Interviews were constructed with the intention of both confirming the processes carried out by staff in Mukono and discovering if these tasks could be passed on or taught to potential incoming staff. Regarding the research questions, *accurate and sustainable processes* are defined as the following:

1. **Accuracy:** Processes are performed in a manner that encompasses all steps and sub-processes essential for the functioning of MyChild Solution (see *Evaluation Structure and Framework* for more details).
2. **Sustainability:** Processes are well-understood by health workers and receive consistent feedback. Staff feel comfortable performing these processes on their own and teaching them to others.

Regarding *accuracy*, the aim is to determine the extent to which each major process that has been transferred to the local health system in Mukono. Within the results, for each major process and sub-process, a percentage is assigned. This percentage indicates whether the process has been evaluated as fully transferred (100%), not transferred at all (0%), or partially transferred. Ideally, all processes under evaluation should be fully transferred to Mukono Municipality; 100% is the goal in all categories.

Regarding *sustainability*, staff were asked questions to ascertain how well they understand MyChild Solution and how comfortable they would feel explaining/teaching their role to auditors and new staff.

Interviews were analysed using a narrative analysis approach (see Chase 2005). Each interview was viewed multiple times, as the evaluator looked for the 'story' of the interviewee's daily routine. These narratives, taken together, were used to give a holistic picture of how MyChild Solution operates in Mukono on a daily basis. Within the Results, the evaluator has aimed to represent the interviewee in their own words, using the same terminology that they employ in their descriptions. Time stamps were used in each video to create reference points that could be easily returned to during the analysis.

Ethical Considerations

Prior to the interviews, all objectives of this evaluation were explained to participants. All interviewees were informed that participation in this evaluation was voluntary. They were also assured that they had the right to withdraw or refuse to answer questions at any stage of the interview. Recorded interviews, transcriptions, and notes were only accessible to the external evaluator. To ensure confidentiality, no specific details of financial transactions (e.g., from receipts or order transcripts) have been included here.

Results

The results of this evaluation, including a breakdown of the transition status for every major process and subprocess, are available in a series of tables below. The evaluator's understanding of the accuracy and sustainability of each major process is also included in the text below each table. The descriptions of the sub-processes also serve as an answer to the first research question in this text: *what are the required work processes associated with operations of MyChild Solution in Mukono Municipality (Uganda)?* A more general summary of the results is included at the end of this section.

1. Procurement & Supply Management (75% transferred)

Table 7

Process	Description	Transition Status	Supporting document(s)	Results
Procurement of MCC/SPF	Negotiating and contracting printing companies to supply MyChild Cards and Smart Paper Forms to clinics	Not transferred (0%)	N/A	Shifo has confirmed their responsibility for procuring and purchasing MyChild Cards and SmartPaper Forms. This process has not yet been transferred to Mukono District
Purchasing internet services	Negotiating and contracting an internet service provider for scanning stations	Transferred (100%)	Contract from NITA (National Information Technology Authority) Uganda confirming internet access in Mukono Health Centre IV	Supporting document from Mukono Municipality indicates successful transfer
Purchasing	Negotiating and	N/A	N/A	Currently

replacement equipment (scanners)	contracting Smart Paper scanners and replacement rollers			scanners are still operational and there has not yet been a need for replacement. It was therefore not possible for me to assess this process within my interviews. Current equipment was purchased as part of a collaboration with Shifo
Supply and stock management of MCC/SPFs at district level	Monitoring stock and securing deliveries of MyChild Cards and Smart Paper forms to individual clinics	Transferred (100%)	Scans of MCC stock cards/purchase receipts from Mukono district	Interview with the CCA and supporting documents indicate successful transfer
Supply and stock management of MCC/SPFs at health centre level	Monitoring stock and securing deliveries of MyChild Cards and Smart Paper forms to individual clinics	Transferred (100%)	Scans of MCC stock cards from individual clinics within Mukono district	Interview with the Nursing Assistant and supporting documents indicate successful transfer

The video interview with the Cold Chain Assistant (CCA), who manages MCC/SPF supply and stock at the district level, took place on April 20th, 2018. He described, in specific detail, his routine for managing stock cards, requisition & issue vouchers, and delivering new MCC/SPF supplies to clinics in Mukono. After the printing company delivers MyChild Cards, extra registration slips, extra registration slips, and SmartPaper session vouchers to the District Vaccine Store, a *stock card* is produced by the Vaccine Store. This stock card specifies the amount of each document that the store received. This stock card is also used for keeping track of how many documents (e.g., MyChild Cards) are picked up by each clinic. The clinic will also fill out a *requisition form* for their own records, which serves as an official receipt of their request for more stock.

The CCA showed me paper copies of stock cards and requisition forms from his records. The CCA indicated that he was very comfortable with his duties and had experienced no noteworthy problems with MCC/SPF supply so far.

I was also able to have a related interview with a Nursing Assistant. He monitors stock at the facility level. When he delivers vouchers after a vaccination session, he can see how many MyChild Cards are left and can go to the District Vaccine Store when he needs more. This store is only a short walk away. In his stock cards (I got a close-up on the paper), he writes the date/facility name where the session took place. He also records the number of new MyChild Cards that he has collected. When he is done filling in his clinic's stock card, he takes his session vouchers and stores them in the inbox in the scanning room. Like the CCA, the Nursing Assistant also expressed that he was comfortable with his role and had no complaints or negative feedback.

In addition to the interview material, I was provided with photocopies of MCC/SPF stock cards from the Mukono District store dating from July 2016 to March 2018. These photocopies clearly show that both district-level and facility-level supply and stock management have been successfully and consistently taking place in Mukono.

Regarding internet connectivity for the scanning station, I was able to confirm its presence by viewing an internet services contract forwarded to me from Mukono Municipality.

As noted in Table 7 above, procurement of MCC/SPF is done by Shifo - it has not been transitioned to the local level in Mukono. This was confirmed by several Shifo staff, including the Desk Technician. I was also not able to properly evaluate equipment/scanner replacement: Mukono is currently using scanners originally supplied to them by Shifo and have so far not had to replace it or purchase another.

2. Data entry (100% transferred)

Table 8

Process	Description	Transition status	Supporting document(s)	Results
Data entry using MCC/SPF	Recording personal details of children onto MyChild Cards; recording daily and monthly vaccine use	Transferred (100%)	Data completeness reports generated by Shifo; links to EPI Dashboard	Interview with the Nursing Assistant indicates successful transfer
Delivering MCC Vouchers/SPF to	Bringing smart paper forms and	Transferred (100%)	Data completeness	Interview with the Nursing Assistant

designated scanning stations	vouchers for scanning to the scanning station at the end of the month		reports generated by Shifo; links to EPI Dashboard	and supporting documents indicate successful transfer
Continuous feedback and improvements on data entry tools	Sending feedback to Shifo regarding the use of MyChild Cards and Smart Paper Forms	Transferred (100%)	N/A	Interviews with two Medical Records Assistants indicate successful transfer

To evaluate the transition of data entry processes, I interviewed the Nursing Assistant, who oversees data capture and delivery in Mukono HCIV. The Nursing Assistant first described how he captured biodata from mothers visiting the clinic (recording gender, mother's name, address, etc into MyChild Cards). After filling in data during each vaccination session, he delivers child vouchers and session vouchers to the scanning room, which is located inside Mukono HCIV. He indicated that he found the system very easy to understand and work with.

Interviews with two Medical Records Assistants (MRAs) (given more detail under the following tables) confirm that they are tasked with giving feedback on data entry tools. They communicate with Shifo primarily via email.

To provide additional evidence and information regarding data entry, the evaluator was given access to the EPI Dashboard, where I could view and confirm that all clinics in Mukono district have been reporting sessions (fixed and outreach) since June 2017. Their reporting dates also align with the public immunisation schedule for Mukono Municipality.

3. Scanning operations (100% transferred)

Table 9

Process	Description	Transition status	Supporting document(s)	Results
Receiving Smart Paper Forms and vouchers from health centres	Receiving and organizing MyChild Card vouchers for scanning	Transferred (100%)	N/A	Interview with MRA indicates successful transfer

Scanning and archiving Smart Paper Forms and vouchers	Running Smart Paper Forms through the scanner and ensuring that their files are received and processed by the office laptop	Transferred (100%)	Links to EPI Dashboard	Interview with MRA and supporting documents indicate successful transfer
Operational maintenance of required scanning stations	Cleaning and changing scanner rollers once a year; clearing paper jams; ensuring laptop functionality; internet maintenance	Transferred (100%)	N/A	Interview with MRA indicates successful transfer

One MRA oversees a scanning station that serves all health facilities in Mukono Municipality. He receives MCC vouchers from each local health centre and scans them daily. After scanning, he connects to the internet, the scans are uploaded, and the next step (data verification/processing) commences. During the interview, a demonstration was provided of how session vouchers are scanned. The evaluator was able to observe a full scanning session in progress via video.

Whenever there are problems (such as paper jams), which has so far been rare, the Desk Technician has always been on hand to help and provide solutions. In one MRA's opinion, health workers are adapting well to the new system and have a positive view of the new processes.

One challenge for the MRAs has been the late submission of vouchers from other facilities. When vouchers come late, his related scans and reports are also late. However, the scanning itself has not been a problem. The machine has been reliable and functional regarding internet connectivity.

As with the data entry processes, EPI Dashboard access has allowed the evaluator to confirm that vouchers from vaccination sessions are being properly scanned and uploaded to the system.

4. Data processing (83% transferred)

Table 10

Process	Description	Transition status	Supporting document(s)	Results
Automatic image processing of handwritten text and check marks	Handled by software (SmartPaper Engine)	Transferred (automatic) (100%)	N/A	This is handled automatically by Shifo software
Data verification	Checking and correcting for flagged errors/marks/bad handwriting in vouchers scanned by SmartPaper Engine. This involves two steps: <i>primary verification</i> and <i>master verification</i>	Partially transferred (50%)	Verification logs from February, March, and April 2018	Primary data verification is done by one MRA, which was confirmed via interview and supporting documents. However, master verification (a second step where any further flagged errors are corrected) will not be transferred until August 2018. At present, master verification is still performed by Shifo staff.
Reporting on technical errors and system improvement	Sending feedback to Shifo regarding any technical problems with software and suggestions for improvement	Transferred (100%)	N/A	Interview with one MRA indicates successful transfer

One MRA oversees Primary Data Verification for all health facilities in Mukono Municipality. He has recently started the job, having been trained by the Desk Technician over the last few months. The transfer of this process has been very recent (within a few days). The MRA described his role as series of simple steps: each workday, after connecting his laptop to the internet in the scanning station, he will start correcting bad handwriting or problematic characters. An example was given of how '6.7' could be misread as '67' – this is a handwriting error that he would quickly detect in the system. The MRA is able to see where names/numbers have been written poorly and can cross-check this information with the clinic's system. Access to verification logs from Shifo confirms that clinics in Mukono have been submitting and verifying data. However, the Desk Technician had been responsible for this step until very recently. Because of this, a follow-up interview was conducted on May 30th, where the MRA expressed his and increasing confidence and familiarity with the verification role.

I consider data verification to be only halfway transferred (50%), since the crucial second step of Master Verification is still done by Shifo. However, Master Verification is on course to be transferred to Mukono Municipality in August 2018, at which point data verification should be 100% transferred.

The MRA is also in charge of reporting on technical errors and system improvement. He confirmed that he can communicate any problems or suggestions to the Desk Technician and Shifo (primarily via email).

5. Monitoring and evaluation (60% transferred)

Table 11

Process	Description	Transition status	Supporting document(s)	Results
Ensuring data completeness	Measured by comparing the number of immunisation sessions (both fixed and outreach) captured in electronic reports to the number of sessions that were planned to be held according to facility schedules. In the possible case of	Partially transferred (33 %)	Access to EPI Dashboard and communication with Desk Technician showing that missing data for fixed/outreach sessions are being noted and reported	Ideally, ensuring data completeness encompasses three components: 1. Reporting on missing data for specific fixed/outreach sessions, 2. Reporting on missing registration/visit forms, and 3. Reporting any

	a missed session, the responsible person must call the health facility and clarify whether the session took place or why it was cancelled or missed.			missing data from registration/visit forms. At present, only component 1 is being done locally in Mukono. The rest are planned to be transferred in summer 2018.
Timely reporting	Ensuring that all electronic HMIS reports are available to the district health offices by the 5th of every month. The EPI Dashboard and email are used as platforms for sharing reports.	Transferred (100%)	Logs confirming that reports from Mukono have been reported on time	Supporting documents indicate successful transfer
Analysing data recording errors	Ensuring that any recording errors made by health workers are analysed and that any related feedback is passed on to health workers	Not transferred (0%)	N/A	Communication with the Desk Technician and other staff at Shifo confirmed that this process has not been transferred
Printing and handing over paper-based reports to health centres	After electronic reports are generated, the reports are printed and shared with facilities that do not have access to electronic	Transferred (100%)	N/A	Interview with an MRA indicates successful transfer

	reports			
Extracting personal data of a client from electronic register when parents lose child health cards	Properly retrieving any needed personal data from the clinic's system when a parent's MyChild Card has been lost	Transferred (100%)	N/A	Interview with an MRA indicates successful transfer
Providing facility based Key Performance Indicators via SMS to health workers	The system can generate new Key Performance Indicators (KPIs) that facilitate monitoring and evaluation of EPI performance at the facility level. KPIs are sent by SMS to health workers monthly. KPIs are plotted and followed up on the monitoring boards by health workers every month.	Partially transferred (10%)	N/A	This process is only done in 2 health facilities, which constitutes only 10% of the 21 facilities that use MyChild Solution within Mukono Municipality. Communication with the Desk Technician and other staff from Shifo confirms these details

An incomplete form of the *data completeness* subprocess is performed each month in Mukono. This process is handled by an MRA. He expressed that he was very comfortable with his own role and that he had been trained well by the Desk Technician. Once vouchers from health facilities are scanned and verification is complete, these sessions are all visible on the EPI Dashboard. Any facility that has a missing when they were supposed to vaccinate means that they did not have a session, or a session was not delivered. The Desk Technician documents these and will call health workers to check on what happened with these sessions. However, two other critical elements of this subprocess – monitoring on missing registration/visit vouchers and reporting on missing data – have not yet been transferred. For this reason, I consider the date completeness subprocess to be only 33% transferred.

An MRA also deals with giving feedback to different health workers, as well as distributing paper-based reports to each facility.

It is rare that parents lose child health cards, but in these cases, it is retrieved from the child register. In every case so far, this has been doable (via parents' telephone number or ID).

The final sub-process in Table 11, *providing key performance indicators*, is still in the process of being transferred. Communication with the Desk Technician and Shifo indicates that this is currently being done at only 2 facilities (out of 21) in Mukono Municipality. However, plans are in place to expand these key performance indicators to the rest of the clinics in Mukono later in 2018. A specific date has not been set for this transfer yet.

Overall Transfer

In total, this study estimates that 84% of processes essential for the proper functioning of MyChild Solution have been transferred to Mukono Municipality in Uganda (see Table 12).

Table 12

Major Process	Percentage Transferred
Procurement & supply management	75%
Data entry	100%
Scanning operations	100%
Data processing	83%
Monitoring & evaluation	60%
Total for MyChild Solution	84%

Conclusion

The results of this external evaluation indicate that a significant portion of processes essential to MyChild Solution - 84% - have been transferred to the local level in Mukono Municipality. In most cases where these processes have been transferred, they are being performed in a way that is both accurate and sustainable. All interviewees stressed that they were comfortable in their roles, appreciated the ease and convenience of working with MyChild Solution, and expressed their ability to teach incoming staff these processes if needed. Only a few sub-processes - *Procurement of MCC/SPF*, *Data verification*, *Ensuring data completeness*, *Analysing data recording errors*, and *Providing Key Performance Indicators* - were not entirely transferred to Mukono Municipality. Apart from *Procurement of MCC/SPF*, all these subprocesses are planned to be fully transferred to Mukono by the end of 2018.

Limitations

Despite the generally positive trend of these findings, there are several limitations of this study that should be considered by readers. These are:

1. Due to constraints of time and distance, all interviews needed to be arranged and conducted through Skype and Slack. The ability to observe work processes in action was greatly diminished over a video call (as compared to being on-site), and it was occasionally difficult to get a sense of how MyChild Solution had been integrated within day-to-day actions and routines.
2. Challenges in communication and translation. Although all interviews were conducted in English, in most cases, English was not the native language of interviewees. In one case, the Desk Technician was needed during the interview as a translator. This opens the possibility for misunderstandings and mistranslations that might have affected results.
3. The low number of interviewees. This is the most significant limitation of the study, as the evaluator was only able to observe health workers from 2 health centres out of a total of 21 using MyChild Solution within Mukono Municipality. While not ideal, time constraints made it difficult to conduct a more expansive study and acquire a more representative sample of health workers from across Mukono.

These limitations highlight the need for a further on-site evaluation of work process transitions at a later date in 2019 or 2020.

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