



# Systemic Barriers to MomConnect's Capacity to Reach Registration Targets

A Process Evaluation

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Cover photo: A pregnant woman with her mobile phone in Uganda. © 2014 Josette de Vroeg/TTC, Courtesy of Photoshare

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## EXECUTIVE SUMMARY

MomConnect, an initiative of South Africa's National Department of Health, is designed to improve services to mothers and children, by sending preventive healthcare information to pregnant women through mobile-phone text-messaging technology. The idea is for healthcare facilities to register each newly pregnant woman in a national database during her first antenatal care (ANC) visit. Registrants then would receive text messages on their mobile phones at specified stages before and after childbirth. They could also use the technology to provide feedback to the healthcare facility.

The program was launched in August 2014. During the first five months of 2015, healthcare facilities registered 305,000 pregnant women to receive messages through MomConnect. Registrations averaged about 7,334 women per week nationwide, or 39 percent of the 19,000 women appearing weekly for their first antenatal care visits. Although this represents significant progress, the program did not reach its target goal of registering at least 60 percent of first ANC patients at all facilities by June 1, 2015.

National Department of Health officials were interested in understanding why registration targets were not achieved at the facility level. This operational research project was designed to learn more about the following:

- MomConnect implementation procedures at facilities
- Management and supervisory structures at facilities
- Staff training procedures for MomConnect
- Common characteristics for high-registration facilities and for low-registration facilities

We used a process evaluation framework for this research. Three districts (each from a different province) were selected to represent urban, periurban, and rural areas. All the facilities were stratified, and then some were selected at random from each district for this study. For each of the three sample districts, we selected five facilities from the highest-performing quartile, five from the lowest-performing quartile, and 10 from the two middle-performing quartiles (20 facilities from each district; 60 facilities total). We interviewed ANC staff members at each facility about the registration process, the training they received, and the management structures in place for MomConnect. We also interviewed supervisors at facilities, district offices, and provincial offices and three training partners.

Our study showed that facilities registered pregnant women in one of three ways:

- Individually
- As a group
- In batches, where patient information was recorded in a logbook and registered by a staff member at a later time

Facilities that registered the women in batches had higher registration numbers, although batched registrations were not as common as individual or grouped registrations. To measure performance, we used the mean registration percentage (that is, the number of women registered compared with the number of women slated for registration by June 1, 2015, which represents 60 percent of women at their first ANC visit). The mean registration percentage at facilities performing grouped registrations was higher than at facilities performing individual registrations, indicating that group registrations yielded higher efficiency and higher performance. Those facilities with “new” staff respondents (who had worked there for a year or less, or three years or less) were found to be higher performing facilities.

The barrier to MomConnect registrations mentioned most often involved network problems. “Time-outs” for system reboots was the second most common type of barrier. Despite the persistent network problems and time-outs, staff generally had a positive perception of MomConnect and thought it was a beneficial program for pregnant women and new mothers.

This study also found a lack of supportive management or supervision, and inadequate training. There also were variations and uncertainty on how to and to whom reports should be sent.

This report contains recommendations to improve registration throughout the system with new protocols for management, supervision, training, and reporting practices. We recommend using batched or group registration when possible. Retraining for all facilities should incorporate findings from this study. Training should emphasize that registrations must occur during the first ANC visit. To prevent time-outs and improve efficiency and performance, all required registration information should be available before the registration process starts.

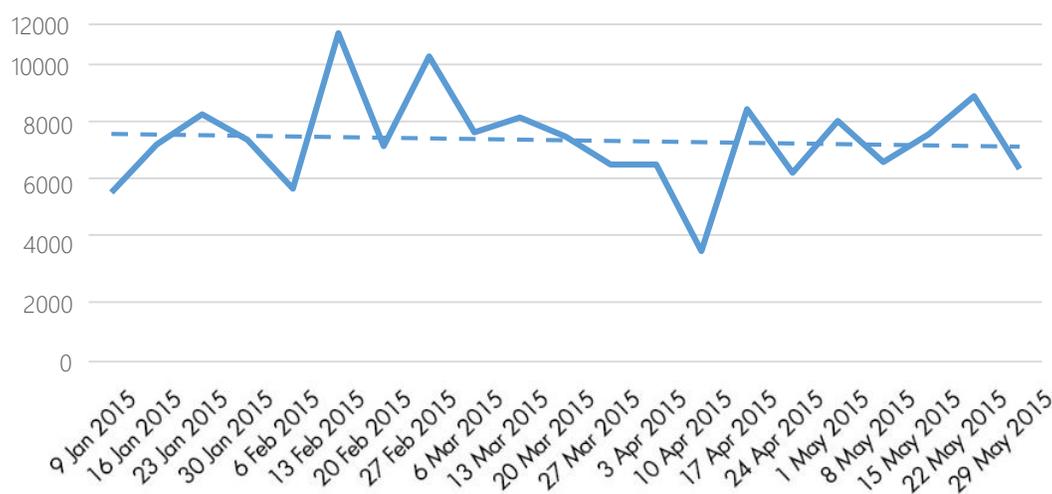
## PROJECT SUMMARY

MomConnect, an initiative of South Africa’s National Department of Health, aims to register all newly pregnant women receiving ANC in a national database that will make it possible for them to receive relevant, stage-based health information through mobile-phone-based SMS (short message system) technology. Subscription to partial messages from MomConnect is open to the public, but registration to the full volume of messages can only occur at ANC facilities. Registration to MomConnect is restricted to the ANC facilities so the estimated delivery date can be confirmed to ensure accurate stage-based messaging. Registration to MomConnect also requires the ANC facility code, which allows the Department of Health to monitor where mothers are being registered to the MomConnect system. MomConnect was launched in August 2014, and has been sending messages to a large cohort of pregnant women and new mothers across South Africa. Registrants can also use MomConnect to provide feedback about health services.

By June 1 of the next year, 3,274 facilities (92% of facilities providing ANC) had entered at least one registration in the MomConnect system. More than 30,000 healthcare workers had been oriented on how to register women for the program.

From January 1–May 31, 2015, the program achieved about 305,000 clinic-based registrations, with an estimated 7,334 new clinic-based registrations per week nationwide, or 39 percent of the estimated 19,000 women in first ANC visits each week. However, these achievements were below the program’s target goal of registering 60 percent of first ANC patients by June 1, 2015. The actual number of registrations per week achieved by Mom Connect is shown in Figure 1.

**Figure 1. Registrations by week**



Preliminary site visits to one hospital and one clinic with ANC services, and discussions with stakeholders, indicated that staff used varied approaches to register women in the MomConnect system. For example, some facilities practiced group registrations, where a staff member guided a group of up to 20 women through the registration process at one time. Other facilities registered women on an individual basis. Staff and stakeholders described varying supervisory structures.

There were no clear processes for how trainings were provided or how registrations were managed. Some additional issues identified at the sites were:

- Registrations sometimes occurred on second instead of first ANC visits.
- Registrations posed a time burden on facility staff.
- Network issues affected registrations.

Different registration approaches and complications experienced at facilities could have contributed to the below-target registration numbers.

Other elements of MomConnect warrant attention for operational research, such as the low number of transitions from subscriptions to registrations, and the effectiveness of the help desk component. After discussions with National Department of Health officials and other stakeholders, we agreed that our first priority for operational research was to understand the current MomConnect training and registration processes, and to identify the characteristics of high- and low-registration facilities.

## **PROBLEM STATEMENT**

National Department of Health officials aimed to have 100 percent of newly pregnant women registered through MomConnect during their first visit to ANC facilities from 2016 onward. Staggered goals for registering women were put in place for the initial implementation: 40 percent of first ANC visits in the first five months of the program (August–December 2014), 60 percent from January–May 2015, and 80 percent from July–December 2015.

It is not clear why the program did not reach the 60 percent target by June 1, 2015. Preliminary site visits revealed several possible contributing factors:

- Registration training for health workers was not standardized.
- Training and re-training protocols were unclear for existing and new employees.
- Supervisory structures were unclear at the facility, district, and provincial levels.
- Registration methods were not standardized.

It was difficult for the National Department of Health and other MomConnect stakeholders to understand how the program was being implemented on the ground. This made it difficult to determine reasons for the below-target registration rates. Operational research was needed to enhance understanding of how MomConnect was being conducted at the facility level, to help determine characteristics of high- and low-registration facilities, and to recommend approaches to improve the program.

## **OBJECTIVES**

The general objective of our operational research was to study how MomConnect has been implemented at the facility level. We looked at its management structures, registration processes, and perceived barriers to successful registrations. Specific objectives were:

- To understand the perceptions of MomConnect at the facility level
- To learn about the different training approaches that were used

- To understand the program management structures between the provincial, district, subdistrict, and facility levels
- To determine characteristics of high- and low-registration facilities

We finalized the priorities for the operational research in consultation with the National Department of Health and other MomConnect stakeholders.

## METHODS

Operational research is often used to study the implementation of new or innovative programs designed to improve service delivery and to strengthen aspects of the program. A process evaluation framework guided our study of MomConnect. This research used qualitative and quantitative methods to determine how pregnant women were registered in the program, explore the challenges and perceptions of MomConnect, identify initial and ongoing training methods, and determine the management structures that were in place to support MomConnect.

### Study Design

We used a process evaluation design approach for this research. Process evaluations assess the implementation of programs and help provide explanations for their successes or failures. Conducting a process evaluation early can reveal inadequacies in a program's design, planning, training, and implementation, so they can be avoided. We used the process evaluation framework developed by Saunders, Evans, and Joshi (2005)<sup>1</sup> focusing on targeted health promotion interventions. Their framework emphasizes the elements of fidelity, dose delivered, dose received, reach, recruitment, and context. The elements and their relation to MomConnect are described in Table 1.

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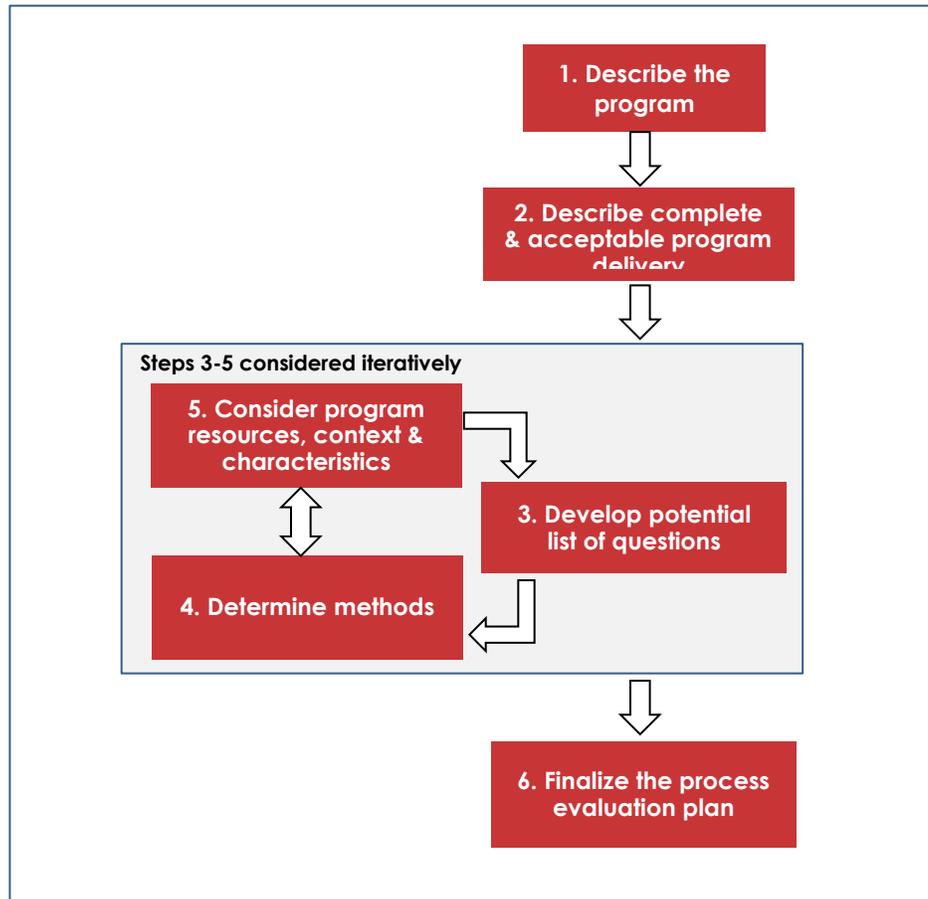
<sup>1</sup> Saunders, R.P., Evans, M.H., & Joshi, P. (2005). Developing a process-evaluation plan for assessing health promotion program implementation: A how-to guide. *Health Promotion Practice*, *6*(2), 134–147.

**Table 1. Description of process evaluation elements and their relation to MomConnect**

	Description	Relation to MomConnect
<b>Fidelity (quality)</b>	The extent to which the intervention was implemented as planned	<ul style="list-style-type: none"> <li>To determine whether the correct process was followed in registering women in MomConnect</li> <li>To identify all processes used for implementation at facilities (both correct and incorrect) and to determine whether processes were effective</li> <li>To determine whether ANC staff understood the importance of MomConnect</li> <li>To determine whether the percentage of MomConnect registrations affected high-quality delivery</li> </ul>
<b>Dose delivered (completeness)</b>	The amount or number of intended units of each intervention or component delivered or provided by interventionists	<ul style="list-style-type: none"> <li>To determine whether all necessary content was covered during training for MomConnect</li> <li>To determine whether there was sufficient time for training</li> <li>To determine whether all intended training methods, strategies, and activities were used</li> </ul>
<b>Dose received (exposure)</b>	<p>The extent to which participants engaged with, were receptive to, and/or used materials or recommended resources</p> <p>The extent to which participants were satisfied with program and implementation staff</p>	<ul style="list-style-type: none"> <li>To determine whether trained staff remembered the training</li> <li>To determine whether the training material or knowledge was shared</li> <li>To determine whether the staff were receptive to the intervention and the training methods for the intervention</li> <li>To determine the proportion of the priority target staff who participated in each training session</li> </ul>
<b>Reach (participation rate)</b>	The proportion of the intended priority audience who participated in the intervention	<ul style="list-style-type: none"> <li>To determine whether enough staff were appropriately trained at the facility, district, and provincial levels</li> <li>To determine whether the appropriate staff were trained at each level</li> </ul>
<b>Recruitment</b>	The procedures used to approach and attract participants at individual or organizational levels, which includes the maintenance of measurement components of the study	<ul style="list-style-type: none"> <li>To determine whether there were perceived or real barriers to registration and the registration process</li> <li>To identify planned and actual procedures used to encourage continued involvement of ANC staff, supervisors, and the pregnant women</li> <li>To determine whether there were perceived or real barriers to continued involvement</li> </ul>
<b>Context</b>	The aspects of the environment that may have influenced intervention implementation or study outcomes	<ul style="list-style-type: none"> <li>To determine whether there were organizational, community, social, or political factors that affected program implementation (and possibly outcome)</li> <li>To determine if contextual factors were identified, and how they would be monitored</li> </ul>

The process evaluation used an iterative six-step process (see Figure 2). Steps 1 and 2 were designed to ensure that researchers would understand the MomConnect program. Step 1 entailed a description of the program, including any theoretical framework used to guide program design, inputs, and expected impacts and outcomes.

**Figure 2. Steps in the process evaluation**



MomConnect’s aims and objectives are described in the project summary section of this document. Figure 3 shows the program’s logic model.

**Figure 3. MomConnect logic model**

Inputs	→ Immediate Impact	→ Short-Term Impact	Behavioral Impact	→ Health Outcomes
Providing MomConnect training, technology infrastructure and materials, and consultation to ANC staff and supervisory staff will	result in the registration of all pregnant women in the MomConnect system, which will	result in increased maternal knowledge of antenatal health, which will	result in increased health-seeking behaviors related to ANC, which will	reduce infant and maternal mortality

Step 2 required our research team (in consultation with MomConnect stakeholders) to agree on the most critical and acceptable components of MomConnect delivery. This included the following training and registration components:

- **Training:** Workshops, presentations, a staff manual, posters, and “cheat-sheets” were developed for training purposes. The National Department of Health, in agreement with MomConnect stakeholders, outlined training instructions, which included the use of training materials. The training instructions were presented at a participatory demonstration, which included notes on the Unstructured Supplementary Service Data (USSD) numbers to use during registration.
- **Registration:** The most critical aspect of the registration procedure was that it must be started when pregnant women come to the facility for their first ANC visit. Moreover, registrations must be performed or guided by trained personnel.

Steps 3–6 involved the iterative process of developing potential questions, research methods, consideration of resources and context, and finalization of the evaluation plan to address the six process evaluation elements specific to MomConnect. These steps incorporated data collection methods, sampling approaches, data analysis, and costs.

## Data Collection Questions and Methods

The following data collection tools captured questions regarding the elements of fidelity, dose delivered, dose received, reach, recruitment, and context:

- **Facility ANC staff survey:** This survey (see Appendix A) captured staff knowledge, attitudes, and perceptions of the MomConnect program; processes followed in registering women; barriers to registering women; and challenges to continued involvement with MomConnect. This information reflected the elements of fidelity, dose delivered, dose received, recruitment, and context. The survey consisted of quantitative and open-ended qualitative questions. Qualitative questions allowed researchers to get an in-depth picture of processes being used at the facilities.
- **Supervisory/management staff survey:** This survey (see Appendix B) for supervisory or management staff at the provincial, district, and subdistrict levels captured supervisory staff knowledge, attitudes, and perceptions of the MomConnect program; supervision processes related to MomConnect; the perceived challenges with implementation of MomConnect; and district-based ownership of the registration process. This information reflected the elements of dose received, recruitment, and context. The survey also included quantitative and qualitative questions.
- **Training partners’ survey:** This survey (see Appendix C) of partners that administered training for MomConnect captured the training processes, training documentation, completed follow-up activities, and challenges encountered with the training. This information reflected the elements of fidelity, dose delivered, dose received, and context. The survey consisted mainly of quantitative questions on training processes, with open-ended qualitative questions about barriers to the training process.

## Sampling Frame

The units of interest for this study were:

- ANC staff responsible for registering pregnant women at selected facilities

- Facility managers who oversaw the MomConnect program, and the district and provincial managers of those facilities
- MomConnect trainers

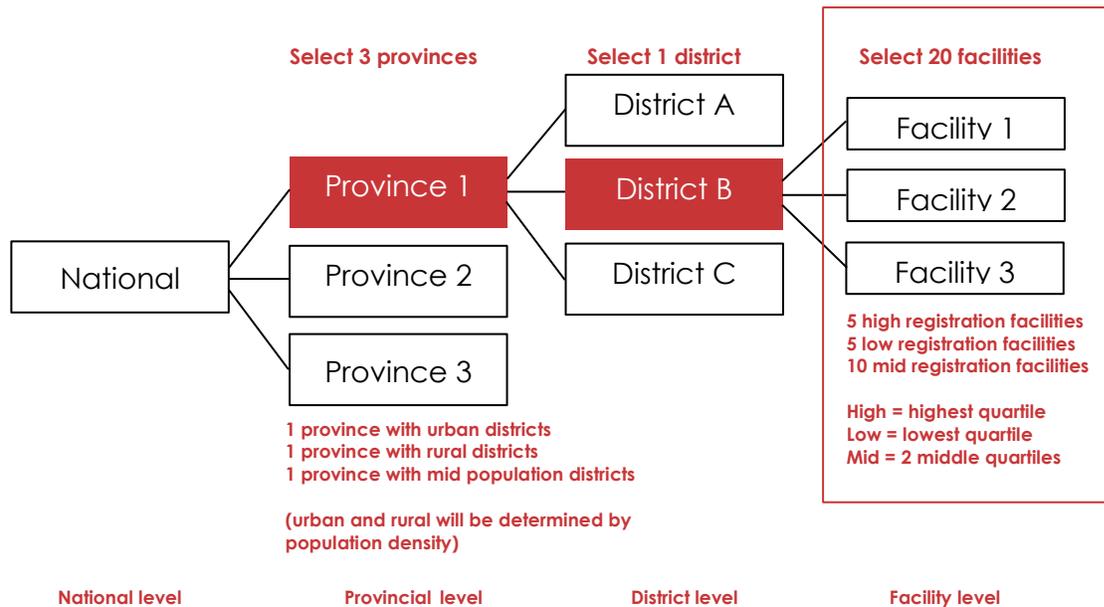
We sampled public health facilities from a stratified master list. South Africa has about 3,500 public health facilities that provide ANC services across 9 provinces and 52 districts. ANC staff and facility supervisors surveyed were from the selected facilities. District and provincial managers surveyed were from district and provincial offices that oversee the selected facilities.

### Sampling Strategy

Convenience and stratified purposive sampling approaches were used to select health facilities for our study. Limited financial resources and time restrictions required that the provinces and districts selected be easily accessible from Pretoria. The selection of provinces and districts with strong working relationships facilitated the timeliness of data collection.

The health facilities were stratified in geographic categories that might have influenced MomConnect registration rates. The geographical strata included provincial and subdistrict levels. Moreover, we selected provinces were purposively selected to capture districts in urban and rural areas. Selected provinces included one province with a conveniently accessible urban district, one province with a conveniently accessible rural district, and one province with a conveniently accessible periurban district. Facilities in the selected districts also were purposively selected. We chose 5 high-registration facilities, 5 low-registration facilities, and 10 mid-registration facilities. Figure 4 summarizes the stratified sampling approach.

**Figure 4. Stratified purposive sampling logic**



In addition, we considered district-level HIV prevalence among pregnant women when we selected the districts. Higher prevalence had higher priority for selection.

The provinces and districts selected for the study were:

- **Gauteng Province, Tshwane District:** This is an urban district with about 3 million people and a population density of 460 people per square kilometer. The HIV prevalence among pregnant women tested at ANC facilities in the district is 26 percent.
- **KwaZulu-Natal Province, uThungulu District:** This is a periurban district with about 1 million people and a population density of 110 people per square kilometer. HIV prevalence among pregnant women in uThungulu is 39 percent, among the highest rates in South Africa.
- **Free State Province, Thabo Mofutsanyana District:** This is a rural district with about 750,000 people and a population density of 20 people per square kilometer. HIV prevalence among pregnant women in the district is 34 percent.

We used convenience sampling to select MomConnect training partners to be interviewed.

## Sample Size

Cost was a consideration in determining the sample size of facilities for site visits and facility ANC staff interviews. Available resources allowed interviews during visits to 60 sample facilities across three provinces and three districts. The limitation of 60 facilities also restricted the number of ANC staff interviews and supervisory staff interviews.

Seven organizations provided MomConnect training throughout the country. The organizations, or training partners, trained all facilities in the districts that were assigned to them. The three MomConnect training partners that were selected to participate in the study were those that provided training for the three districts selected for the study.

## Data Analysis

All of the quantitative data collected from the tools described above were related to the actual performance of the associated clinic with respect to registrations against targets. The facilities were grouped in five categories, based on their performance:

- Less than 50 percent
- 50 percent to 99 percent
- 100 percent to 149 percent
- 150 percent to 199 percent
- 200 percent or more

Quantitative analysis was primarily univariate and bivariate, because of the descriptive nature of the study. Correlation analysis in Stata (data analysis and statistical software) identified characteristics that were influencing high or low performance, and any additional patterns that emerged from the data. Qualitative data from the instruments were analyzed to identify common themes using ATLAS.ti (qualitative data analysis software).

## Ethical Review

This study sought and obtained exemption/approval from the DDG Strategic Health Programs.

## RESULTS

The research team completed ANC staff interviews at 54 of 60 facilities in our study's sample:

- 17 in Thabo Mofutsanyana district
- 20 in uThungulu district
- 17 in Tshwane district

Supervisory/management staff surveys were completed at 42 facilities, two district offices, and two provincial offices. Three training partners also were interviewed.

Fifty of 54 interview respondents were ANC nurses. Three respondents were community health workers (CHWs) and one was a data collector. Table 2 is a summary of the facilities and the types of respondents who were interviewed.

**Table 2. Summary of facilities and respondents interviewed**

District Performance Levels (% against target)	Number of Facilities Visited	Number of Respondents by Type		Length of Time Respondent in Position (Years)				Mean Registration Performance % against Target (DHIS 2 Data)
		Nurse	CHW	<1	1-3	4-5	>5	
<b>Thabo Mofutsanyana</b>	<b>17</b>	<b>16</b>		<b>4</b>	<b>4</b>	<b>2</b>	<b>7</b>	<b>66.4</b>
Less than 50	8	7		3	3		2	18.9
50-99	4	4				1	3	72.7
100-149	3	3			1	1	1	113.6
150-199	2	2		1			1	173.3
200 or higher								
<b>uThungulu</b>	<b>20</b>	<b>20</b>		<b>9</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>104.9</b>
Less than 50	7	7		2	4	1		28.8
50-99	4	4		1	1	1	1	76.5
100-149	4	4		1	1	1	1	109.2
150-199	2	2		2				171.2
200 or higher	3	3		3				270.4
<b>Tshwane</b>	<b>17</b>	<b>14</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>96.3</b>
Less than 50	3	3			1		2	26.6
50-99	7	5	2	1	2		4	77.1
100-149	5	5		1	2	1	1	122.6
150-199	1	1			1			162.3
200 or higher	1		1	1				242.2
<b>TOTAL</b>	<b>54</b>	<b>50</b>	<b>3</b>	<b>16</b>	<b>16</b>	<b>6</b>	<b>16</b>	<b>90.1</b>

There was a difference in performance between the provinces. KwaZulu-Natal was the highest-performing province: facilities in the province on average achieved 105 percent of registrations against their targets. Gauteng achieved 96 percent and Free State achieved 66 percent. The average for the three districts was 90.1 percent.

About 60 percent of the respondents we surveyed had worked in their facility positions for three years or less, and 30 percent worked at their positions for less than one year.

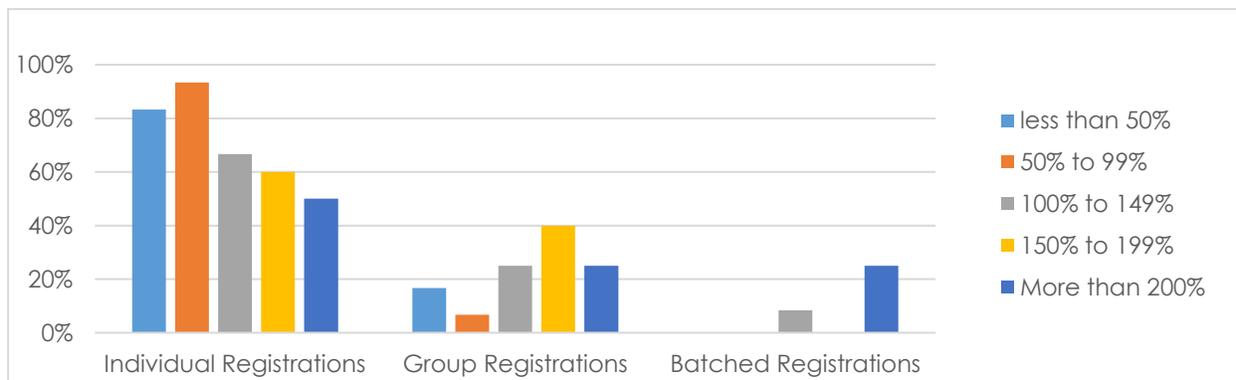
Simple regression analysis determined that a negative association existed between a facility’s performance against its target and the length of time respondents had been in their positions at the facility ( $p=0.06$ ). That is, the facilities where respondents had worked in their positions at the facility for a shorter length of time generally had better performance.

### Implementation of MomConnect at the Facility Level

We found that MomConnect registrations at facilities occurred in one of three ways:

1. **Individual registration:** Facility staff individually conducted the MomConnect registration for each pregnant woman during a private consultation session. However, most respondents who said they conducted registrations individually said that they introduced information on the MomConnect program to the registrants during a group session.
2. **Group registration:** Facility staff introduced the MomConnect program to all pregnant women present at the facility for their first ANC visit, as a group. Afterwards, staff conducted a group registration process for all of the women who agreed to participate in the MomConnect program. The staff gave verbal instructions for the registration and the women registered using their personal mobile phones. Staff provided additional registration help to individual women as needed.
3. **Batched registration:** Facility staff collected information from pregnant women during their first ANC visit and entered the information in a logbook. Later, when staff had time, they would use the latest batch of information in the logbook to register the women in the MomConnect system.

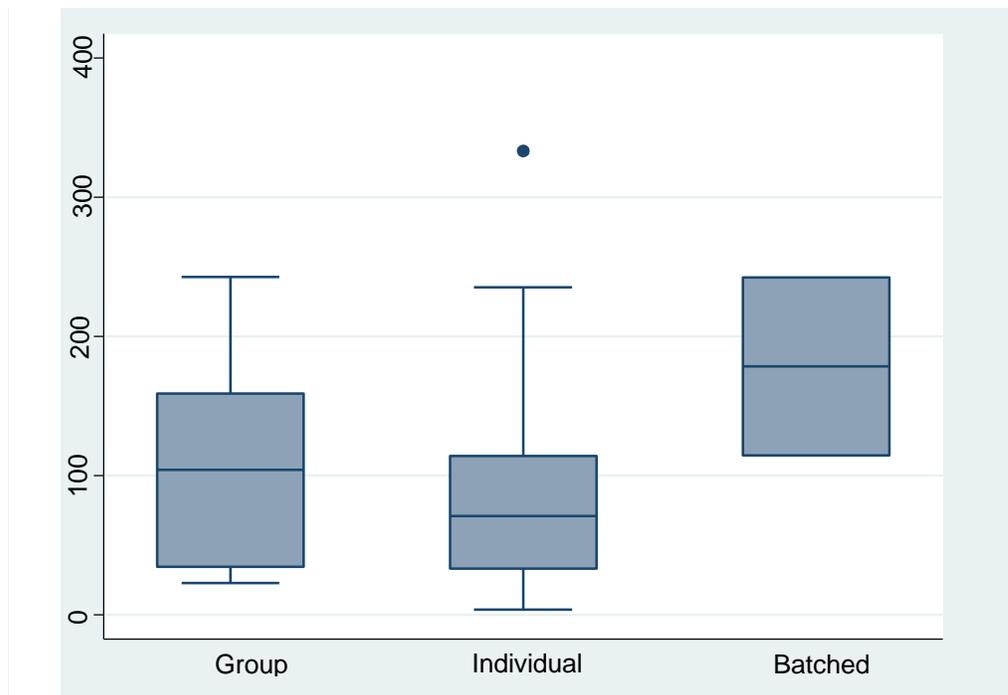
**Figure 5. Type of registration by facility performance rate**



Most facilities (78%) reported doing individual registrations; 18% did group registrations; 4% did batched registrations. When we disaggregated the data by performance, we found a higher percentage of the higher-performing facilities had done either group or batched registrations (see Figure 5). No facility that achieved

less than 100 percent of registrations against its target reported doing batched registrations. Facilities that performed group registrations had higher registrations than those facilities that performed individual registrations (see Figure 6). The performance was even higher for facilities that used batched registrations. The mean performance percentages for facilities that did individual, group, and batched registrations were, respectively, 81 percent, 110 percent, and 179 percent.

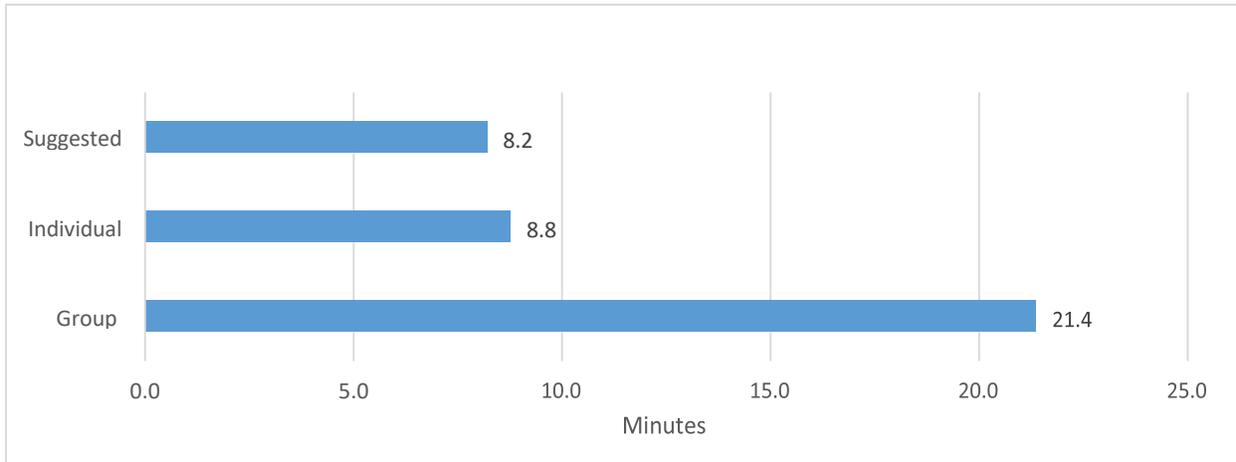
**Figure 6. Box plot of performance by registration type**



The most critical component of the MomConnect registration process was to register pregnant women only during their first ANC visit. Ninety-one percent of facilities adhered to this standard. Five facilities reported registering women during their second ANC visit. Those facilities that adhered to registering women during the first ANC visit had a performance percentage average of 91.5 percent against the 60 percent target. Facilities that registered women during the second visit had a performance percentage average of 75.7 percent against the 60 percent target.

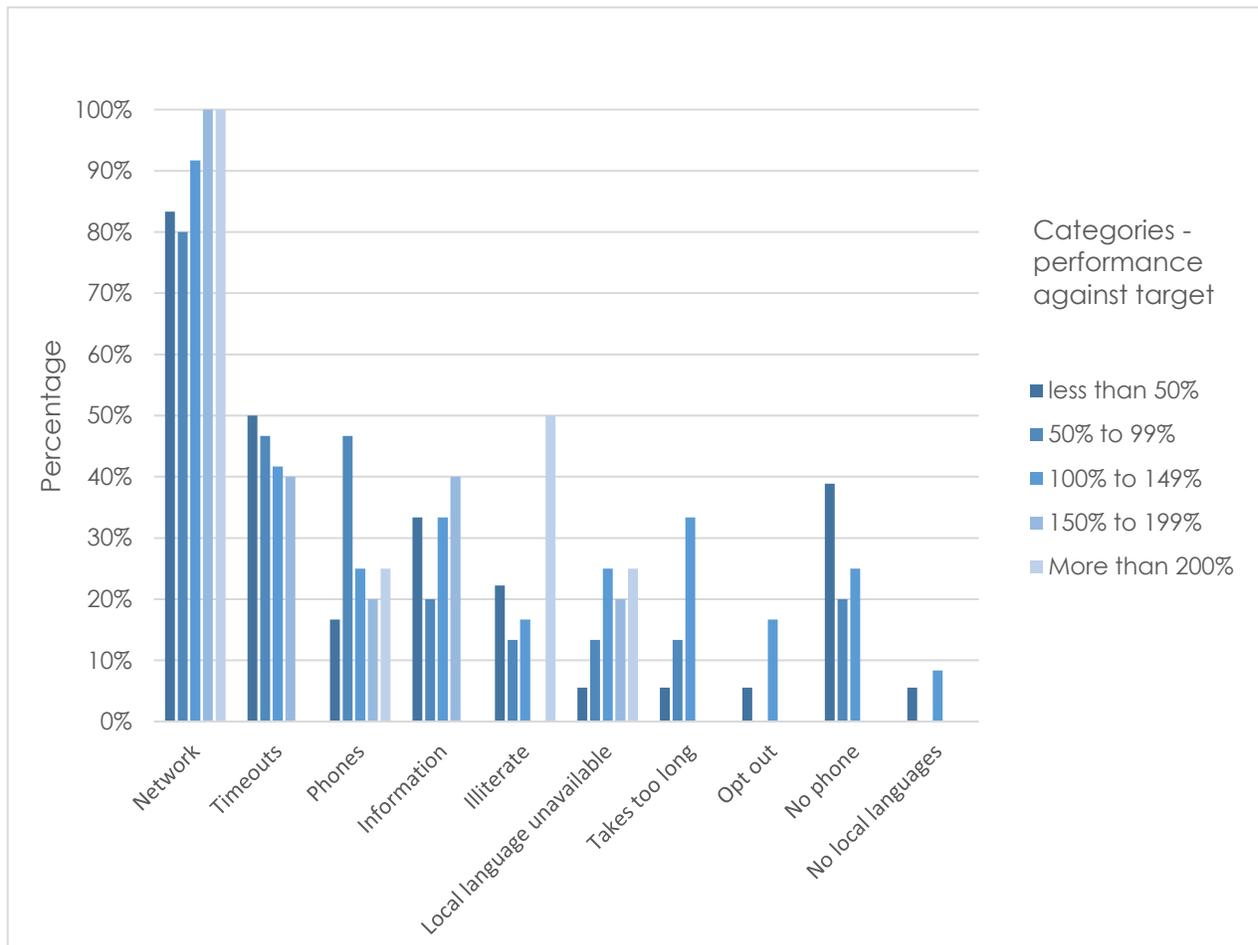
The average time it took for ANC staff to facilitate a group registration was 21.4 minutes. For individual registrations, it took an average of 8.8 minutes. When staff were asked how long a registration process should take, the mean response was 8.2 minutes per woman (see Figure 7). The lowest-performing and the highest-performing facilities took the shortest time for MomConnect registrations.

**Figure 7. Average time for registration**



The most common barrier to MomConnect registrations at facilities was network failure. Eighty-seven percent of respondents reported network failure as one of the main deterrents to registrations. The second most common barrier (mentioned by 43 percent of facilities, was “time-outs” (that is, when registrants are not able to enter required information into the USSD) system before the system reboots). The next most common barriers were phone issues and not having all of the appropriate information during registrations, mentioned equally by 28 percent of facilities. Figure 8 summarizes the barriers to registration.

**Figure 8. Common problems encountered during registration**

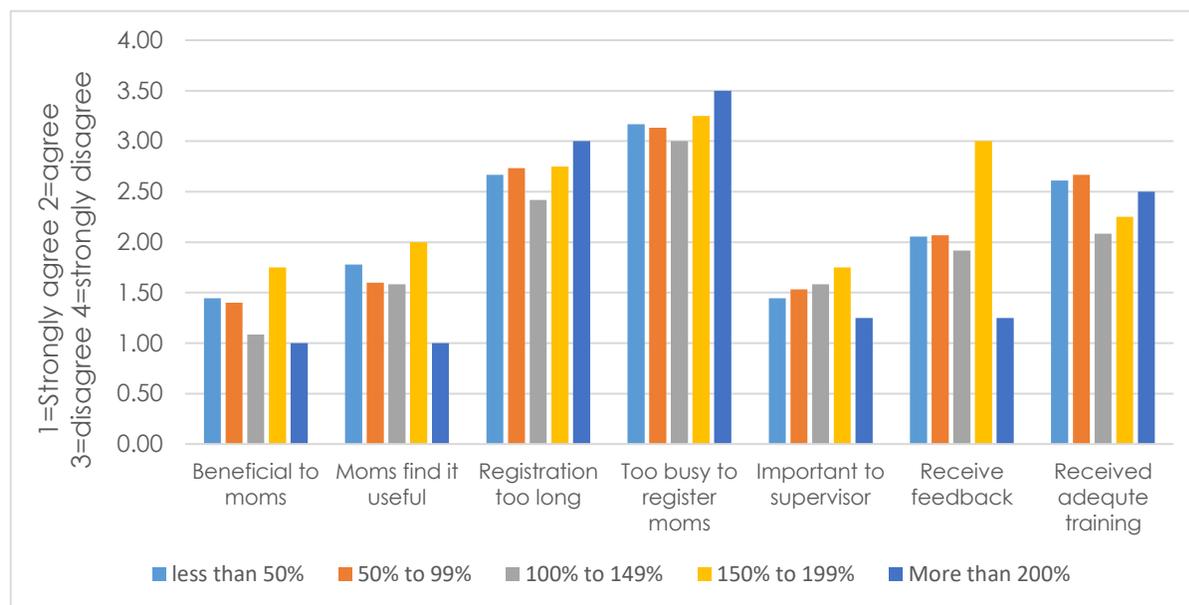


### Staff Perception of MomConnect Program

We used Likert-scale data to assess the facility staff’s perception of MomConnect (see Figure 9). The Likert data were relatively consistent across the five performance groups, with a generally positive attitude toward MomConnect. The highest-performing facilities had the most positive responses regarding MomConnect’s perceived usefulness to mothers. They also had the most positive responses about receiving feedback from registrants and about the amount of time spent on MomConnect registrations.

The questions about registration time and whether staff received adequate training had the most negative responses.

**Figure 9. Likert data results**



## Training

Training materials and guidelines were developed by the National Department of Health and the Praekelt Foundation, a South Africa-based incubator for the use of mobile technology to improve public health and well-being. Our operational research team was interested in learning whether there was fidelity in using the training materials and guidelines. The Likert data indicated that ANC staff were ambivalent about whether the MomConnect training was adequate; they leaned slightly toward perceiving training as inadequate. Most (61.1%) of the training provided was for less than a day. Only 14.8 percent reported receiving follow-up training. The training material that respondents mentioned most (24.1%) was the staff manual. Half of respondents (50%) said that their supervisors were also trained to register women in MomConnect. New staff were trained on MomConnect primarily by previously trained employees (57.4%). Only 5.6 percent of respondents recalled seeing the MomConnect poster during training, and 20.1 percent of facilities had a poster visible during the site visit. Table 3 shows our results regarding MomConnect training.

**Table 3. Training results**

Training Results	Percentage
<b>Type of training received</b>	
Training for more than 1 day	2.8
Training for less than a day	61.1
Provided training materials	5.6
Supervisor provided training	22.2
Another staff provided training	8.3
<b>Training materials/methods recalled by respondents</b>	
Staff manual	24.1
"Cheat sheet"	1.9
Flip book	11.1
Poster	5.6
Training on actual phones	7.4
<b>Follow-up or retraining</b>	
Yes	14.8
No	44.4
<b>Supervisor trained</b>	
Yes	50.0
No	14.8
I don't know	35.2
<b>New staff trained</b>	
By staff who have been trained	57.4
By outside partner who visits clinic	5.6
By facility manager	9.3
I don't know	25.9

The training partners' survey responses indicated that they thought their organization was well-prepared to train facilities, provided high-quality training, left the facilities well-equipped to register pregnant women in MomConnect, and followed up with the facilities after training. Supervisory staff at facilities and district offices received the same training as the facility staff, with no additional guidance on how to provide support for the facility staff. The training partners also reported that the facilities understood the benefits of MomConnect, but facility staff were not excited to learn about MomConnect.

## Supervision/Management

A total of 46 supervisory/management staff surveys were completed, covering 42 facilities, two district offices, and two provincial offices. Two-thirds (67%) of supervisory/management staff were trained on MomConnect (see Figure 10). Sixty-four percent of those who received training had onsite training for less than a day with an outside trainer. The remainder of the respondents either received training materials only or training from another staff member. Nearly three-fourths of the respondents (73%) said the training or training materials they received were sufficient.

**Figure 10. Summary of training received by supervisory staff**



More than half (54%) of the supervisory staff received reports on MomConnect registrations; 56 percent sent reports to their superiors. These superiors were district managers, subdistrict managers, district MomConnect champions, program managers, program directors, primary healthcare officers, and maternal health coordinators. The reports were primarily on paper.

## DISCUSSION

It is not clear why performance differs among the three districts. Each district was purposively chosen, with one representing an urban area, one representing a periurban area, and one representing a rural area. However, many more variables were not accounted for in this study and could have contributed to the differences in performance among the districts beyond their urban/periurban/rural characteristics. Because this operational research was descriptive, emphasized understanding the registration process on the ground, and used a small sample, it was difficult to show statistically significant correlations between performance levels and other variables. Nevertheless, we found trends and characteristics that were associated with high or low performance.

One statistically significant finding was that newer staff (who had worked at the facility for less than one year or less than three years) tended to perform better than others. No additional information was collected about the respondents so we cannot explain this finding with confidence. It is possible that the newer staff performed better because they had been trained more recently than those longer on the job.

The high percentage of new staff (those hired within the past three years and those hired within the past year), indicated that staff turnover is high at facilities. Therefore, it is important for MomConnect stakeholders to provide follow-up and retraining opportunities to ensure that new staff are adequately trained to register pregnant women on MomConnect. Follow-up and retraining are especially important to ensure quality, because the majority of respondents reported having been trained by previously trained staff.

Higher-performing facilities tended to do more group registrations than individual registrations. Group registrations were more efficient, taking less time overall to register a larger number of women. Registering women as a group was not an option presented in the Praekelt-developed training materials. Comments by facility staff and supervisors show that facilities adapted the registration process to include group registrations to accommodate the high demands on staff time. The batched registration process, where staff kept the women's information in a logbook and registered them in MomConnect later, was also more common among the highest-performing facilities. The facilities' mean performance percentage against their targets was almost 80 percent higher for those facilities that performed batched registrations than for those that performed group registrations and 100 percent higher than the mean for facilities performing individual registrations. We cannot explain why some facilities that are doing group registrations still have low registrations. The group and batched registration processes could be better developed and incorporated in the formal processes of MomConnect registration as a way to improve overall registration performance.

### **Example of a Low-Performing Facility**

- Facility had a mean registration performance of 29.9 percent against its target.
- The staff member interviewed was identified as a professional nurse and had been working at the facility in that role for more than five years.
- The respondent reported that the facility had been implementing MomConnect since September 2014 and that registrations were performed by nursing or administrative staff.
- MomConnect registrations were done individually by staff members, during private consultations with the pregnant women.
- Registrations were completed during first ANC visits.
- The average registration took an estimated 15 minutes.
- During observation, network complications occurred, though there seemed to be strong network coverage in the area. The phone was restarted. The staff member also experienced a time-out.
- No MomConnect posters or materials were visible at the facility.
- The respondent had a positive perception of MomConnect but did not think the training was adequate. The respondent recalled that training was provided 10–12 months prior; the respondent did not participate in that training session.
- New staff were trained to use MomConnect by other staff who had been previously trained.
- MomConnect registration data were verbally reported weekly to the district supervisor.

It was important for the MomConnect registration to occur during the first ANC visit. This was the most critical component of the registration process that was measured for the process evaluation's fidelity element. Only a few facilities were not adhering to first ANC visit registrations, and those facilities tended to be the lower-performing ones. This requirement will need to be reemphasized during follow-up or retraining in the future.

The Likert results showed that respondents had a positive view of the MomConnect program. Respondents agreed that MomConnect is a beneficial program for pregnant women and that they find it useful. The highest-performing facilities (those with a performance rate against target of more than 200 percent) had the best perception of MomConnect and indicated that they received feedback from supervisors. This suggests to us that both perception and feedback may influence performance. While there was not a strong correlation (because low-performing facilities also had a generally positive perception of MomConnect), we believe it is likely that improving staff perception of MomConnect can also improve registrations.

The Likert-scale question about whether staff had adequate training received the lowest ratings from both high- and low-performing facilities. This is contrary to training partners' perception that they provided high-quality training and that facility ANC staff were well equipped for MomConnect registrations after the training. This discrepancy supports our belief that retraining is needed. Supervisory staff had higher satisfaction with the training on the registration process, but many still requested additional training, especially on reporting and providing support to their staff. Training partners acknowledged that no additional training was provided to supervisory staff on reporting procedures and how to support their staff with MomConnect. This could be because training partners considered their role to be about "orienting" facilities to the MomConnect program; the word "orientation" was used more than "training" to describe the training sessions. It could also be because there were no clear supervision processes in place for MomConnect when the initiative was originally launched. Therefore, there would have been no additional expectations of facility, subdistrict, and district supervisors to monitor or support MomConnect performance.

### **Example of a High-Performing Facility (Batched Registration)**

- Facility achieved 242.2 percent of registrations against target (60 percent of women in first ANC visit).
- The person interviewed for the survey was a data collector who had been working at the facility for less than a year.
- The facility started enrolling pregnant women in MomConnect in September 2014. Nurses, community health workers, and administrative staff could register women in MomConnect.
- Staff collected information from newly pregnant women during their first ANC visit and entered the information in a logbook. Staff used the logbook information to perform batched registrations later when there was sufficient time and the network was available.
- The average time it took to complete one registration was seven minutes (network complications slowed down the registration process). Staff preferred that the registration time take less than a minute per registrant.
- Network failure and time-outs were listed as common problems, though network was available during the interview.
- A MomConnect poster was visible during the interview.
- Training was provided to the facility more than one year prior to our study. The respondent received training from a supervisor, without any training materials other than the use of a phone.
- MomConnect registration data were verbally reported to the head nurse each day that registrations were completed (the facility did not perform registrations every day).

### Example of a High-Performing Facility (Grouped Registration)

- Facility achieved 242.6 percent of registrations against its target.
- The person interviewed for the survey was an ANC nurse who had been working at the facility for less than a year.
- The facility started enrolling newly pregnant women in MomConnect in August 2014. ANC nurses and peer educators were responsible for MomConnect registrations.
- Registrations occurred during group sessions. Peer educators incorporated an introduction of MomConnect into regular health talks that typically were part of first ANC visits. A peer educator or nurse then facilitated the registration process. Registrants used their own mobile phones for registration.
- The average time it took to complete a registration session was 15 minutes per registrant; staff preferred that it only take 5 minutes.
- Network issues and time-outs were listed as common problems, though network was available during the interview. Respondent also listed illiteracy and language barrier as additional barriers to registration.
- A MomConnect poster was not visible during the interview.
- Training was provided to the facility more than one year prior to our study.
- The respondent received training from a previously trained staff. A MomConnect flipbook was used during training and no retraining had been provided.
- Staff reported MomConnect registration numbers to the district supervisor every day that registrations were completed, via paper reports.

Results from the supervisory staff survey further support our finding that there was not a clear management structure or reporting protocol; a formal management structure is needed to support the system. Reports were sent to personnel in a variety of positions, and there were no obvious plans to address problems with MomConnect registrations. Moreover, supervisors requested more clarity on reporting structures. For these reasons, we recommend the development of strategies for management, supervision, and reporting.

Respondents across all facilities agreed that network issues were a strong barrier to efficient MomConnect registrations. Time-outs were the second most-mentioned barrier. It is possible that time-outs were misunderstood to be “network” problems by the respondents. For example, when asked to describe an encounter with network issues, some respondents said that they were “kicked out” of the system before they could enter all of the information. While this could have been related to a network outage or failure, it is also possible that the respondent took longer than the allotted time to enter information before the USSD system timed out, which on average is 180 seconds total or 20 seconds of inactivity. Network issues and time-outs were also mentioned by training staff and the data collection team. These problems existed even among high-performing facilities. This study did not explore the steps that were taken by high-performing facilities to overcome the barriers. If they had developed a strategy to overcome the persistent network and time-out issues, it would be valuable to share it with the National Department of Health and other facilities.

## RECOMMENDATIONS

Based on the findings discussed in this report, we recommend the following actions to the National Department of Health and MomConnect stakeholders:

- 1) **Consider “batched” and “group” registration methods as the standard process, instead of individual registrations.** Batched registrations might require a different technology platform. For example, it might be easier for staff to enter facility and patient data in an online database for uploading, or to enter data directly in the national district health information system database, instead of manually entering isolated pieces of information for each patient in the current USSD platform. Shifting from individual registrations to group registrations will require MomConnect partners to develop new registration platforms/infrastructure, training materials, and protocols to train facility staff on the new registration approach.
- 2) **Re-emphasize that registrations must occur during the first ANC visit.** This can be emphasized during retraining or follow-up processes.
- 3) **Develop a MomConnect management structure from the national level to the facility level.** This must cover reporting guidelines and proactive support functions that include feedback and mechanisms for troubleshooting issues encountered at the facility.
- 4) **Provide feedback to the district, subdistrict, and facility levels.** Constructive feedback on registration performance can help build rapport, improve attitudes, and improve registrations.
- 5) **Explore solutions to overcome network and time-out issues.** When patients and staff do not have the necessary information available during registration, registration can be delayed, leading to time-outs. Facility ANC staff should be advised to ensure that all information is available before registrations starts, to avoid these issues. The batched registration method of recording information in a logbook and entering it later when staff have more time or more reliable network access may be more efficient for some facilities. This may warrant further study to reflect local facilities’ needs and conditions.
- 6) **Develop a new training protocol incorporating the recommendations; then retrain all facilities.** The new training protocol should introduce management structures so all staff will know the appropriate lines of support, and when and how to expect feedback on the facility’s registration performance.

## CONCLUSION

The National Department of Health's database indicated that most facilities successfully registered pregnant women on MomConnect. However, registration targets were not achieved, indicating that challenges needed to be addressed for all facilities to achieve the goal of registering all pregnant women during their first ANC visits. Our study respondents listed network issues and time-outs as primary barriers to registrations at facilities. We also found that facilities need better staff training and follow-up, and more effective management and feedback procedures. The use of logbooks followed by batched registration proved to be an effective registration method and was associated with higher-performing facilities. Batched registrations may be a promising practice to overcome the network issues and improve registration rates. The challenges identified in this study may be addressed by implementing a new training protocol that includes clear supervisory structures and continual improvement planning, using performance feedback from the MomConnect database.

# APPENDIX A. Facility ANC Staff Survey

**Q101**

Questionnaire ID Number



No.	Question	Coding categories
<b>SECTION 1. FACILITY AND FACILITY STAFF INFORMATION</b>		
<b>To be filled out before the interview by the interviewer</b>		
Q102	Province	Free State 1 KwaZulu Natal 2 Gauteng 3
Q103	District	Thabo Mofutsanyana 1 Uthungulu 2 Tshwane 3
Q104	Facility Name:	
Q105	Facility Code:	
<p><b>READ:</b> Hello, my name is &lt;your name&gt;, and I am working with the National Department of Health to complete a survey about MomConnect.</p> <p style="text-align: center;"><b>IF RESPONDENT AGREES, CONTINUE.</b></p>		
<b>READ CONSENT FORM, HAVE RESPONDENT INITIAL IT, AND HAND FACT SHEET TO RESPONDENT.</b>		
Q106	What is your current job role at this facility?	Facility Manager 1 Medical Doctor 2 Antenatal Care Nurse 3 Administration 4 Community Health Worker 5 Data Collector 6 Other, Specify: _____ 7

No.	Question	Coding categories
Q107	How long have you worked in this position at this facility?	Less than one year 1 1–3 years 2 4–5 years 3 More than 5 years 4
<b>SECTION 2. MOMCONNECT QUESTIONS</b>		
<b>READ:</b> Now I’m going to ask more specific questions about the training that this facility received on MomConnect.		
Q201	Does this facility register mothers on MomConnect?  <b>If “No” then skip to question Q203</b>	Yes 1 No 2 Don’t know 3
Q202	When did the facility start registering moms on MomConnect?	DATE: ____/____/____ DD    MM    YY
Q203	Do you know how to register moms on MomConnect?	Yes 1 No 2
Q204	Who at this facility registers mothers on MomConnect?  <b>Select all that apply.</b>	ANC nurses 1 Medical doctors 2 Community Health Workers 3 Data Collectors 4 Administrative staff 5 Anyone who is available 6
Q205	At this facility, are mothers registered as a group or individually?  <b>If not “3” then skip to Q207</b>	Group 1 Individually 2 Both 3 I don’t know 4

No.	Question	Coding categories
Q206	If both, describe when a group registration would occur and when an individual registration would occur.	
Q207	<p>At this facility, do staff register the mothers on MomConnect or do the staff facilitate the registration and the mothers register themselves?</p> <p><b>If not “3” then skip to Q209</b></p>	<p>Staff perform registrations 1</p> <p>Staff facilitate registrations 2</p> <p>Both 3</p> <p>I don’t know 4</p>
Q208	If both, describe when a staff would perform the registration and when a staff would facilitate the registration	
Q209	<p>At this facility, during which ANC visit are most mothers registered on MomConnect?</p> <p><b>If “I don’t know” then skip to Q211</b></p>	<p>The mother’s first ANC visit 1</p> <p>The mother’s second ANC visit 2</p> <p>I don’t know 3</p>
Q210	Why do you think most mothers are registered during (answer from Q209)?	

**Q211**

**Can you talk me through an entire MomConnect registration process,  
from beginning to end?**

Please use this space to take detailed notes of the registration process, as described by interviewee.

No.	Question	Coding categories
Q212	Approximately how much time does the registration process take?	Minutes _____
Q213	How much time do you think should be spent on registering mothers onto MomConnect?	Minutes _____
Q214	What common problems are encountered during the registration process? <b>(Select all that apply)</b>	Network Issues 1 Time outs 2 Phones do not work 3 Do not have required information available 4 Illiterate 5 Moms cannot read in available languages 6 Take too much time 7 Mothers do not want to register 8 Other, Specify: _____ 9
Q215	What are common reasons for mothers who opt out of MomConnect?	List all that apply: _____ _____ _____ _____
Q216	Please select Strongly Agree, Agree, Disagree or Strongly Disagree.	
	A. MomConnect is beneficial to pregnant women.	1 Strong Agree 2 Agree 3 Disagree 4 Strongly Disagree
	B. Expectant mothers find MomConnect useful.	1 Strong Agree 2 Agree 3 Disagree 4 Strongly Disagree
	C. MomConnect registration takes too long.	1 Strong Agree 2 Agree 3 Disagree 4 Strongly Disagree
	D. I am too busy to register moms on MomConnect.	1 Strong Agree 2 Agree 3 Disagree 4 Strongly Disagree
	E. My supervisor treats MomConnect as an important part of my job	1 Strong Agree 2 Agree 3 Disagree 4 Strongly Disagree

No.	Question	Coding categories
	F. I receive feedback from my supervisors about MomConnect.	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	G. I received adequate training for MomConnect.	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
<b>SECTION 3. MOMCONNECT TRAINING/SUPERVISORY QUESTIONS</b>		
<b>READ:</b> Now I'm going to ask more specific questions about the training that this facility received on MomConnect.		
Q301	How many staff members are trained at this facility to use MomConnect?  <b>If "None" then skip to Q307</b>	None 1 1–5 2 6–10 3 More than 10 4 Don't know 5
Q302	When was this facility trained to use MomConnect?	1–3 Months ago 1 4–6 months ago 2 7–9 months ago 3 10–12 months ago 4 Over a year ago 5
Q303	Were you trained to use MomConnect?  <b>If "no" or "I don't know" skip to Q307</b>	Yes 1 No 2 don't know 3
Q304	Which of the following best describes the training you were provided?	Trainer provided onsite training for 1 more than 1 day Trainer provided onsite training for 2 less than 1 day Was provided training materials 3 Supervisor provided training 4 Another staff provided training 5

No.	Question	Coding categories
Q305	<p>Can you recall any of the training materials that were used during the training that you received?</p> <p><b>Select all that apply</b></p>	<p>Staff manual 1</p> <p>Cheat Sheet 2</p> <p>Flipbook 3</p> <p>Poster 4</p> <p>Training was only done on the actual phone</p>
Q306	<p>Has there been any follow up or retraining after the original training?</p>	<p>Yes 1</p> <p>No 2</p> <p>don't know 3</p>
Q307	<p>Has your supervisor been trained on MomConnect?</p>	<p>Yes 1</p> <p>No 2</p> <p>don't know 3</p>
Q308	<p>How are new ANC staff trained on MomConnect?</p>	<p>By staff who have been trained</p> <p>1 By an outside partner who visits the clinic 2</p> <p>By the Facility Manager 3</p>
Q309	<p>Are the number of MomConnect registrations at this facility reported separately?</p> <p><b>If "No" or "I don't know," skip to Section 4.</b></p>	<p>Yes 1</p> <p>No 2</p> <p>I don't know 3</p>
Q310	<p>If yes, how often are the MomConnect registrations reported?</p>	<p>Daily 1</p> <p>Weekly 2</p> <p>Every 2 weeks 3</p> <p>Monthly 4</p>
Q311	<p>To whom are the MomConnect registrations reported?</p>	<p>Facility Manager 1</p> <p>Clinic Supervisor 2</p> <p>District Supervisor 3</p> <p>Provincial Supervisor 4</p> <p>Other, Specify: _____ 5</p>
Q312	<p>How are MomConnect registrations reported?</p>	<p>Paper report 1</p> <p>Verbal report 2</p> <p>Other 3</p>

**SECTION 4. OBSERVATION OF MOMCONNECT REGISTRATION**

**If you are able to observe a MomConnect Registration process, then take detailed notes and proceed to Q401.**

**Take detailed notes of the observation of the MomConnect Registration process on the paper provided to you, labeled**

**"Section 4. OBSERVATION OF MOMCONNECT REGISTRATION".**

**If you are unable to observe a MomConnect Registration, please proceed to Q408**

Please use this space to take detailed notes of the registration process.

No.	Question	Coding categories
Q401	Who facilitated/performed the registration?	ANC Nurse 1 Medical Doctor 2 Community Health Worker 3 Volunteer Health Worker 4 Administrative staff 5
Q402	Was it a group or individual registration? <b>If "Individual" then skip to Q404</b>	Individual 1 Group 2
Q403	If group, how many mothers were in the group?	Number _____
Q404	Did the staff provide the correct USSD registration number?	Yes 1 No 2
Q405	Did the staff provide the correct facility code?	Yes 1 No 2
Q406	Did the mother(s) seem receptive to MomConnect?	Yes 1 No 2 Could not tell 3
Q407	List any challenges you observed during the registration (e.g. no network, moms did not understand, time outs)	1. _____ 2. _____ 3. _____
Q408	Was there a MomConnect poster visible at the facility?	Yes 1 No 2
Q409	Were there other printed MomConnect materials available during the interview?	Trifolds 1 Registration Cheat Sheets 2 Registration Manual 3 Other, Specify: _____ 4
Q410	As far as you can tell, were cellular or wireless networks available in the facility?	Cellular network only 1 Wireless only 2 Cellular and wireless 3 No available network 4 I don't know 5

**END OF SURVEY**

# APPENDIX B. Supervisory/Management Staff Survey

**Q101**

Questionnaire ID Number



No.	Question	Coding categories
<b>SECTION 1. GENERAL INFORMATION</b>		
<b>To be filled out before the interview by interviewer</b>		
Q102	Province	Free State 1 KwaZulu Natal 2 Gauteng 3
Q103	District	Thabo Mofutsanyana 1 Uthungulu 2 Tshwane 3
Q104	If facility supervisor, Name of Facility	Facility Name
Q105	If facility supervisor, Facility Code	Facility code

No.	Question	Coding categories
<p><b>READ:</b> Hello, my name is &lt;your name&gt;, and I am working with the National Department of Health to complete a survey about MomConnect.</p> <p style="text-align: center;"><b>IF RESPONDENT AGREES, CONTINUE.</b></p>		
<p><b>READ CONSENT FORM, HAVE RESPONDENT INITIAL IT, AND HAND FACT SHEET TO RESPONDENT.</b></p>		
Q106	What is your current job role in this district/province?	Sub District Officer/Manager 1 District Officer/Manager 2 Facility Manager 3 Head Nurse 4 Other, Specify _____ 5
Q107	How long have you worked in this position?	Less than one year 1 1–3 years 2 4–5 years 3 More than 5 years 4
<p><b>SECTION 2. MOMCONNECT QUESTIONS</b></p>		
<p><b>READ:</b> As I mentioned, this survey is intended to help the National Department of Health improve the MomConnect program. Therefore, the remainder of this survey will ask questions specific to your role, as it relates to MomConnect.</p>		
Q201	Can you describe your role in MomConnect?	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Q202	Did you receive any kind of training to fulfil this role? <b>If “No” or “I don’t know” then skip to Q204.</b>	Yes 1 No 2 I don’t know 3

No.	Question	Coding categories
Q203	If yes, how would you describe the training that you received?	Trainer provided onsite training for 1 more than 1 day Trainer provided onsite training for 2 less than 1 day Was provided training materials 3 Supervisor provided training 4 Another staff provided training 5
Q204	Do you feel that this training was sufficient?	Yes 1 No 2 I don't know 3
Q205	Do district/facility staff report MomConnect registration numbers to you?  <b>If "No" or "I don't know" then skip to Q208.</b>	Yes, facility staff 1 Yes, subdistrict staff 2 Yes, district staff 3 No 4 I don't know 5
Q206	If yes, how are the registration numbers reported to you?	Via telephone 1 Via email 2 Via paper 3 Verbally 4
Q207	In what ways do you provide support for staff that report to you, related to MomConnect?	Accessing their training needs 1 Logging Problems/Issues and escalating them 2 Giving a standard process for 3 registering women on MomConnect Giving feedback on compliments and 4 complaints received Other, specify_____5
Q208	Do you report MomConnect registration numbers to the district/provincial office?  <b>If "No" or "I don't know" then skip to Q211.</b>	Yes 1 No 2 I don't know 3

No.	Question	Coding categories
Q209	If yes, how do you report the registration numbers to district/provincial personnel?	Email 1 With other paper-based data reports 2 Telephone conversation 3
Q210	If yes, to whom at the district/provincial office do you report the registration numbers?	District Manager 1 Subdistrict Manager 2 District MomConnect Champion 3 Health Information Officer 4
Q211	Please select Strongly Agree, Agree, Disagree or Strongly Disagree.	
	A. MomConnect is beneficial to pregnant women.	1 Strong Agree 2 Agree 3 Disagree 4 Strongly Disagree
	B. Expectant mothers find MomConnect useful.	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	C. Facility staff should treat MomConnect as an important part of their job.	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	D. I treat my duties related to MomConnect as an important part of my job.	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree

# APPENDIX C. Training Partners Survey

**Q101**

Questionnaire ID Number



No.	Question	Coding categories
<b>SECTION 1. GENERAL INFORMATION</b>		
<b>To be filled out before the interview by interviewer</b>		
Q102	Name of Training Partner Organization	
<p><b>READ:</b> Hello, my name is &lt;your name&gt;, and I am working with the National Department of Health to complete a survey about MomConnect.</p> <p><b>IF RESPONDENT AGREES, CONTINUE.</b></p>		
<b>READ CONSENT FORM, HAVE RESPONDENT INITIAL IT, AND HAND FACT SHEET TO RESPONDENT.</b>		
Q103	Which of the following best describes your current role in this organization?	<p style="text-align: right;">High level, Management 1            Technical Consultant/Advisor 2            Program Manager (oversee projects) 3            Program Coordinator (oversee field teams) 4            Field Staff (provide training or data collection) 5            Other, Specify: _____ 6</p>
Q104	How long have you worked in this position?	<p style="text-align: right;">Less than one year 1            1–3 years 2            4–5 years 3            More than 5 years 4</p>

No.	Question	Coding categories
<b>SECTION 2. MOMCONNECT QUESTIONS</b>		
<b>READ:</b> As I mentioned, this survey is intended to help the National Department of Health improve the MomConnect program. Therefore, the remainder of this survey will ask questions specific to your role, as it relates to MomConnect.		
Q201	Can you describe your organization’s role in the MomConnect program?	<hr/> <hr/> <hr/> <hr/> <hr/>
Q202	How was your organization prepared to provide training for the MomConnect program?	<p style="text-align: center;">Training received from Praekelt 1</p> <p style="text-align: center;">Training materials provided by Praekelt 2</p> <p style="text-align: center;">Training received from National NDOH 3</p> <p style="text-align: center;">Training materials received from NDO 4</p> <p>Other, Specify: _____ 5</p>
Q203	If you received training from Praekelt or NDOH, who in your organization was trained?	<p style="text-align: center;">Organization managers 1</p> <p style="text-align: center;">Training staff 2</p> <p style="text-align: center;">Both managers and training staff 3</p> <p>Other, Specify _____ 4</p> <p style="text-align: center;">Did not receive training from 5 Praekelt or NDOH</p>
Q204	Approximately how many facilities did your organization train?	Number

Q205	How did your organization provide training to facilities on MomConnect?	An offsite 1–2 day workshop for facility staff 1 Onsite 1–2 day workshop for facility staff 2 Onsite training for less than 1 day 3 Provided the facility with training materials 4
Q206	Who did your organization train at each facility? <b>Select all that apply.</b>	ANC nurses 1 Facility in charge/director 2 Administrative staff 3 Community Health Worker 4 Volunteer Health Worker 5
Q207	What materials and/or methods did your organization use to train facility staff? <b>Select all that apply.</b>	PowerPoint presentation 1 Demonstrations 2 Promotional booklets 3 Hands-on interactive sessions 4
Q208	Please select Strongly Agree, Agree, Disagree or Strongly Disagree below	
	A. My organization was well prepared to provide MomConnect training to facilities	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	B. My organization provided high quality training to facilities	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	C. Facility staff easily understood the benefits of MomConnect	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	D. Facility staff were excited to learn about MomConnect	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	E. It was easy to teach facility staff how to register new mothers on Mom Connect	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	F. Facility staff were well-equipped to register mothers on MomConnect after the training	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree
	G. My organization followed up with facilities after the training	1 Strongly Agree 2 Agree 3 Disagree 4 Strongly Disagree

Q209	<p>Did your organization provide any training at the provincial, district, and/or subdistrict level?</p> <p><b>If “No” then this is the end of the survey.</b></p>	<p>Yes, at the Provincial 1</p> <p>Yes, at the District 2</p> <p>Yes, at the Subdistrict 3</p> <p>Yes, at both 4</p>
Q210	<p>Who was trained at the province, district, and/or subdistrict level?</p> <p><b>Select all that apply.</b></p>	<p>Provincial Supervisor 1</p> <p>District Supervisor 2</p> <p>PHC Director 3</p> <p>Information Officer 4</p> <p>Clinic Supervisor 5</p> <p>Other 6</p>
Q211	<p>Was the training provided to provincial, district, and subdistrict personnel the same training that was provided to facility staff?</p> <p><b>If “Yes” then this is the end of the survey.</b></p>	<p>Yes 1</p> <p>No 2</p>
Q212	<p>How was this training different than the training for facility staff?</p> <p><b>Select all that apply.</b></p>	<p>Additional training on how to 1 receive and report data</p> <p>Additional training on how to provide 2 support for MomConnect</p> <p>Additional training on how to 3 troubleshoot MomConnect issues</p> <p>Also trained to monitor progress 4 of MomConnect in the province/district</p> <p>Other, Specify: _____ 5</p>

## APPENDIX D. Selected Facilities

### Thabo Mofutsanyana District: Free State

Subdistrict	Facility	MomConnect Registrations for month Jun-15	Antenatal 1st Visits for month Jun-14	Target for for month Jun-15	Achievement against target %
Maluti a Phofung	Boiketlo Clinic	1	42	25.2	4
Setsoto	Senekal Clinic	1	25	15	6.7
Nketoana	Petsana Clinic	1	21	12.6	7.9
Maluti a Phofung	Kopanong Clinic	1	16	9.6	10.4
Phumelela	Memel Clinic	1	9	5.4	18.5
Dihlabeng	Paul Roux Clinic	1	7	4.2	23.8
Dihlabeng	Bohlokong Clinic	5	27	16.2	30.9
Setsoto	Soetwater Clinic	5	25	15	33.3
Maluti a Phofung	Tebang Clinic	6	29	17.4	34.5
Setsoto	Phomolong (Ficksburg) Clinic	6	16	9.6	62.5
Maluti a Phofung	Harrismith Clinic	7	18	10.8	64.8
Phumelela	Bophelong (Vrede) Clinic	7	17	10.2	68.6
Setsoto	Clocolan Clinic	11	24	14.4	76.4
Maluti a Phofung	Qholaqhwe Clinic	12	23	13.8	87
Maluti a Phofung	Namahali Clinic	13	20	12	108.3
Maluti a Phofung	Blue Gum Bush Clinic	25	36	21.6	115.7
Maluti a Phofung	Riverside Clinic	14	20	12	116.7
Setsoto	Mamello CHC	24	26	15.6	153.8
Maluti a Phofung	Monontsha Clinic	21	22	13.2	159.1
Setsoto	Boitumelo (Senekal) Clinic	9	8	4.8	187.5

**Uthungulu District: KZN**

<b>Subdistrict</b>	<b>Facility</b>	<b>MomConnect Registrations for month Jun-15</b>	<b>Antenatal 1st Visits for month Jun-14</b>	<b>Target for for month Jun-15</b>	<b>Achievement % against target</b>
<b>Mthonjaneni</b>	KwaYanguye Clinic	1	17	10.2	9.8
<b>Nkandla</b>	Mfongosi Clinic	2	24	14.4	13.9
<b>Ntambanana</b>	Buchanana Clinic	5	36	21.6	23.1
<b>uMlalazi</b>	Siphilile Clinic	3	15	9	33.3
<b>Nkandla</b>	Thalaneni Clinic	4	19	11.4	35.1
<b>uMlalazi</b>	King Dinizulu Clinic	13	58	34.8	37.4
<b>uMlalazi</b>	Ndlangubo Clinic	10	34	20.4	49
<b>uMlalazi</b>	Gingindlovu Clinic	8	20	12	66.7
<b>Nkandla</b>	Nxamalala Clinic (Eshowe)	13	29	17.4	74.7
<b>Mbonambi</b>	Sokhulu Clinic	6	13	7.8	76.9
<b>uMhlathuze</b>	Thokozani Clinic	61	116	69.6	87.6
<b>uMhlathuze</b>	Phaphamani Clinic	47	78	46.8	100.4
<b>Mbonambi</b>	Ocilwane Clinic	8	13	7.8	102.6
<b>uMhlathuze</b>	Richards Bay Clinic	75	109	65.4	114.7
<b>uMlalazi</b>	Catherine Booth Hospital	10	14	8.4	119
<b>uMlalazi</b>	Ensingweni Clinic	18	20	12	150
<b>Nkandla</b>	Mpandleni Clinic	60	52	31.2	192.3
<b>Ntambanana</b>	KwaMbiza Clinic	24	17	10.2	235.3
<b>uMhlathuze</b>	Empangeni Clinic	147	101	60.6	242.6
<b>Ntambanana</b>	Luwamba Clinic	10	5	3	333.3

## Tshwane District: Gauteng

Subdistrict	Facility Name	MomConnect Registrations for month Jun-15	Antenatal 1st Visits for month Jun-14	Target for for month Jun-15	Achievement % against target
Tshwane 2	Mandisa Shiceka Clinic	1	46	27.6	3.6
Tshwane 3	Hercules Clinic	2	31	18.6	10.8
Tshwane 1	Boekenhout Clinic	12	67	40.2	29.90
Tshwane 6	Silverton Clinic	12	51	30.6	39.20
Tshwane 2	New Eersterus Clinic	15	46	27.6	54.30
Tshwane 6	Pretorius Park Clinic	15	42	25.2	59.50
Tshwane 5	Rayton Clinic	5	13	7.8	64.10
Tshwane 5	East Lynne Clinic	30	74	44.4	67.60
Tshwane 7	Zithobeni Clinic	16	34	20.4	78.40
Tshwane 3	Bophelong (Region C) Clinic	17	35	21	81.00
Tshwane 2	Kekanastad Clinic	25	45	27	92.60
Tshwane 1	Phedisong 4 CHC	36	62	37.2	96.80
Tshwane 7	Ekangala Clinic	15	25	15	100.00
Tshwane 2	Refentse Clinic (Odi)	35	51	30.6	114.40
Tshwane 1	Soshanguve Block TT Clinic	60	80	48	125.00
Tshwane 1	Mercy Winterveldt NGO Clinic	24	30	18	133.30
Tshwane 3	Lotus Gardens Clinic	53	63	37.8	140.20
Tshwane 1	Phedisong 1 Clinic	37	38	22.8	162.30
Tshwane 2	Kameeldrift Clinic	22	17	10.2	215.70
Tshwane 1	Kgabo CHC	93	64	38.4	242.20

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