Impact and Assessment report April 2017- Jan 2019

A dignified start to life



# **Toto Care Box** Africa Trust



Africa Trust

Report Prepared by Lucy Kaigutha

www.totocarebox.org



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## Introduction

The story began in 2012 in a little village called Marich in West Pokot, when Lucy Wambui Kaigutha, the founder of Toto Care Box was working as a public health researcher collecting data in integrated management of childhood illnesses. She had to conduct focus groups amongst women from this village. One mother stood out to her, she had 5 children her fifth barely 2 weeks old, and she had nothing.

This woman stayed in Lucy's mind long after she came back from West Pokot, she knew she needed to do something for the mother and her baby. One day she stumbled upon and article about "Why Finnish babies sleep in cardboard boxes" as she was browsing the internet and that was the inspiration for the Toto Care Box. In Finland, babies have been sleeping in cardboard boxes since 1939 after the 2nd world war as a government initiative to reduce maternal and infant mortality. Currently Finland has the lowest maternal and infant mortality in the world. Lucy then decided to create the Toto Care Box tailored to Kenyan needs aimed at having a similar outcome.

#### Vision

To save one million newborns in Africa by 2022

#### **Mission Statement**

We exist to protect, preserve and promote the health and well-being of newborns in their first 28 days of life.



#### **Core Values**

Our Values are Nurturing LIFE.

L Love all we do

I Integrity shall be our guide

#### **F** Fearless boldness to be the voice of the voiceless

E Embrace change and impact lives

#### **Our Hope**

If the availability of even one Toto Care Box saves the lives of one mother and one infant, our mission has been accomplished.

If the lives of one mother and one infant is saved or improved by the Toto Care Box our mission has been accomplished. We hope that working together with the public and private Sector will facilitate towards increasing the number from one mother and one newborn to 1,000,000 mothers and 1,000,000 newborns.

Let's give every Kenyan child a dignified and equal start to life.



# INTRODUCTION TO CURRENT SOCIAL AND ECONOMIC SITUATION IN MUKURU

Current estimates of maternal mortality ratios in Kenya are at least as high as 560 deaths per 100,000 live births. Given the pervasive poverty and lack of quality health services in slum areas, the maternal and newborn mortality situation in this setting can only be expected to be worse. With a functioning health care system, most maternal and newborn deaths are avoidable if complications are identified early.

Like many other health indicators, the burden of maternal and newborn mortality is heaviest among the poor. In the context of urban informal settlements (or slums), our understanding of maternal mortality remains very limited although other indicators (such as low use of health services and increasing child mortality), suggest that the urban poor are a highly vulnerable and marginalized group.

Rapid urbanization, fueled by high levels of rural to-urban migration, under conditions of poor economic performance has led to the growth of urban informal settlements in Nairobi and Kenya as a whole. The slums are characterized by poor housing, lack of basic amenities (such as water and sanitation), and low availability and utilization of formal health services including maternity care.

There are many challenges confronting efforts to understand and address high maternal and newborn mortality burden in Kenya. These include limited availability of health facilities with basic emergency obstetric care capacity, low staffing levels of birth attendants, and the lack of reliable data are a few of the many challenges

## BACKGROUND

Toto Care Box is a maternal and newborn incentive that was launched on the 31st of March 2017, to encourage antenatal care attendance and facility delivery in Mukuru informal settlement.

In addition, the TCB program runs at the Dream Center in Langata, Nairobi to encourage HIV positive expectant women to attend at least 4 ANCs and 2



support groups as well as deliver in a health facility. This initiative is part of the prevention of mother-to-child transmission (PMTCT) of HIV program.

This is report addresses the impact of using non-monetary incentives to contribute to the global knowledge base on increasing utilization of maternal and newborn health services in sub-Saharan Africa. The project has been running since April 2017.

# Beneficiaries of the Toto Care Box Project

The TCB program was designed to address key health needs of mothers and newborns living in informal and marginalized settlements in Nairobi and Kenya as whole and have limited or no contact with facility-based health services. They are the main beneficiaries of the project. The goal of TCB is to have a marked, measurable impact on the health status of these groups.

# Community needs the project will address:-

Our aim is to see sizable increases in health service utilization by women and newborns. Examples of these achievements include the following:

- 1. Antenatal Care- Attend at least 4 antenatal care visits
- 2. Birth preparedness- learns about breastfeeding, nutrition, cord care and family planning.
- 3. Increase Health facility delivery
- 4. Postnatal Care follow up at household level within 2 weeks of birth
- 5. Newborn Care- receive lifesaving education on newborn care
- 6. Management of emergencies- facilitate referrals in case of emergencies

## How needs are identified.

Community-based maternal and newborn care was selected as a core concept in identifying the needs of mothers and newborns in Mukuru. This was aimed to strengthen linkages between the community and health facility. The strategy was focused on improving awareness, demand, access, availability and acceptability healthy behaviors and services.

The needs were identified through: -



- 1. Focus groups: with women, community health workers and gate keepers of Mukuru area.
- 2. We held semi-structured interviews with health care professionals
- 3. We collected raw data from maternity and newborn records in hospitals in Mukuru

The main needs identified were: -

- 1. Pregnant women were not attending at least four antenatal care clinics
- 2. Pregnant women were not delivering in health facilities
- 3. There was a gap in quality lifesaving education and training for community maternal and newborn care.
- 4. There was a gap in early recognition of danger signs, referral and treatment of complications.

# How the project will address the community needs?

Toto care box is a simple public health intervention and incentive tool that aims of reducing maternal and newborn deaths in the most vulnerable people of our society. The main objectives of the Toto Care Box are to: -

- Incentivize women to attend at least 4 ante-natal visits (can detect and prevent early complications such as hypertension and pregnancy diabetes; both of which can dramatically affect the fetus. Early detection means regular monitoring and treatment)
- 2. Incentivize women to deliver in health facilities.
- 3. To reduce the four major causes of death of newborns born (malaria, neo-natal sepsis, pneumonia and diarrheal diseases) by providing low cost, high impact essentials for optimum survival of newborns.

## **Project Activities**

The project is conducted at Mukuru and the environs neighboring Dream center, that is, Kibera, Rongai, Ngong, Emabakasi, Bangladesh informal settlements. The population of interest is all pregnant women residing in these underprivileged and underserved communities. Lengo health facility and the Dream center are the major facilities in these catchment areas that provide ANC and delivery services to the people living in these areas.



The following criteria were used to conduct the project: -

1. All private and public hospitals were excluded from the sample because the target women would not be able to afford the services provided.

2. Any local health facility within this catchment area, where administrative records indicated that the number of facility deliveries and antenatal care attendees exceeded 66% was excluded from the study.

3. The study population was comprised of pregnant women who visited the study facility at least once for antenatal care (ANC).

The TCB program includes both facility-based and community-based elements and is centered on established community-level platforms or vehicles through which a set of core services are delivered:

(1) Antenatal contacts between health facilities and pregnant women

(2) Health facility delivery

(3) Early postnatal home visits by TCB to postpartum women. The services provided through these vehicles include household follow up, assessment and referral as needed.



Picture 1: Intervention facility: Lengo Medical Clinic

## Intervention

The Toto Care Box (TCB) kit valued at \$30 each contains a box (acts as a crib), a blanket, an under sheet, 3 pairs of nappies, 3 pairs of nappy liners, a pack of



baby clothes, a nappy fastener, a waterproof pant, two packs of condoms, a bottle of water purifier, a TCB leaflet, a net, a bar soap, Chlorhexidine gel for cord care, 2 packs of cotton wool were given to all women in the treatment facility who:-

- 1. Completed 4 ANC visits.
- 2. Delivered at Lengo facility.
- 3. Resided in the facility catchment area.

## **Program Inputs**

Health staff and community health volunteers focused on community maternal and newborn health issues are informed and trained on the Toto Care Box as well as trained on proper TCB distribution, storage and documentation.

The facility health staff are also instructed to inform pregnant mothers of the Toto Care Box newborn package during ante-natal care visits at the facility and Community Health Volunteers (CHVs) are also instructed to notify all pregnant women in the facility catchment area. Health staff are instructed to record whenever a Toto Care Box was given out in the facility's delivery register as well as in the Toto Care Box delivery register. At the facility, the health facility administrator is appointed to be Toto Care Box manager responsible for monitoring TCB stocks at the facility and notifying the Toto Care Box management team when additional TCB kits were required.

Toto Care Boxes are provided to mothers delivering babies at Lengo Health facility and Dream Center. The facility is visited monthly and follow-up of mothers who received a TCB is conducted weekly. This is to ensure adherence to Toto Care Box eligibility criteria, monitor TCBs, verify accurate administrative record keeping and detect any issues arising.

## **Program Success**

Toto Care Box program was introduced to Lengo on the 4th of April 2017 and at the DREAM center it was introduced in February 2018. The programs are still running to date. We have trained mothers, health professional, community health workers, church congregations on the Toto Care Box and



its health benefits to mothers and newborn. Below, is a summary of the TCB successes.

Success	Impact
No. of boxes given to date	963
No. of Follow ups	326
No. of women trained on TCB	943
No. of women trained on breast feeding	943
No. of people TCB has trained (Health professionals, Community Health Workers (CHW) and pastors.	120





Picture 2: Training CHVs at the Dream Center





# Impact of Toto Care Boxes on completion of ANC visits and facility deliveries at Lengo Clinic and Dream Center in Nairobi

Toto Care Box has had positive impacts on utilization of maternal and newborn health services at the health facility. The program's target is achieved on the following parameters. There were 124 women who delivered between April 2017 and August 2017.

Of these, 70 had a corresponding ANC record. This differed with the 78 women who delivered between July 2019 and December 2016. High facility delivery rate observed at the facility. There was an increase of 45 deliveries after the TCB intervention. There is significant increase in total health facility delivery (61 %). In addition, there was a 53% increased awareness of importance of ante-natal care. In addition, there was increased ANC attendance by 9% in 6 months respectively.

Interrupted time series	Completed ANC Visits	Re- Visits of ANC Clients	HF Delivery
October 2016 — March 2016	79	182	124
April 2017 – Sept 2017	128	450	138
% increase	62%	147%	10%

Interrupted time series	Completed ANC Visits	Re- Visits of ANC Clients	HF Delivery
October 2017 — March 2018	154	600	178
April 2018 – Sept 2018	345	706	196
% increase	124%	17%	10%



#### Table 1: Raw ANC and Health facility delivery data

We have had positive perceptions recorded during individual interviews with respondents both the mothers and health care professionals. On the supply side, the health facility administration is having a challenging time managing the increased number of deliveries, but they were able to adjust to the demand by increasing the capacity by building extra delivery and recovery rooms. Lengo health facility normally refers mothers who have birth complications to either Mbagathi Hospital or Kenyatta National Hospital.

All the clients are trained on the use of the box and its contents, educated on how to prevent common neonatal infections; birth spacing; keeping the baby warm: danger signs of a pregnancy and newborns; nutrition and immunization. This ensures optimum survival of both mother and baby. Semistructured interviews help shed light on some factors that influence a mother's choice around where to deliver. It appears that mothers, through community sensitization and the use of TCB, now understand the benefits of delivering in a health facility.

While some mothers do have negative perceptions of health facilities (charges, long lines) none of these seemed to be a major deterrent to mothers delivering at the health facility. The main deterrent from attending and completing ANC visits where the ANC costs and some felt they have experience and did not see the need for completing the 4 recommended ANCS. One of the major challenges for mothers to deliver in a health facility where lack of baby supplies to bring in the facility. Lack of money to buy these supplies was a major factor.

Comments indicating Toto Care Box had a positive influence include:

"Because we have seen at the clinic, they are giving you something for the baby, now, we who gave birth in the slum, at home, were given nothing" ~ Woman who delivered at home.

"The Toto Care Box encourages mothers to deliver at a clinic because most mothers do not have these items. I didn't have anything for my newborn baby.



I used the clothes and blanket in the box to clothe and keep my baby warm as I was taught" ~Beatrice woman who delivered at a facility.



#### <u>Picture 3: A women presented with a TCB, who has completed 4 ANC visits</u> <u>and delivered in the health facility.</u>

"Even from the past, they used to tell us to deliver at the clinic, but we were scared of not having the things required for the baby; powder, soap, baby blanket, but now since we were being given Toto Care Box, we were free to come. I used the CHX for my baby. He had a bad cord infection. I learnt a lot from the training given to us" ~ Mwende, a woman who delivered at Lengo health facility.

"When I came home, I went to show my friends [the Toto Care Box], and they said they will deliver at the facility when they get pregnant. One is due soon and she will come. I was very excited. I wish all the mums in the world can get



a Toto Care Box. My baby sleeps to well in it" ~ Priscilla woman who delivered at Lengo health facility.



Figure 4: Semi-structured interview with a mum presented with a TCB

There have been noteworthy shortcomings as well. There was an increase of deliveries in the month of June and July and some mothers who delivered in the facility had to leave without TCB but were provided with one within one week of delivery.

# **Unexpected Events**

Description	Actions taken
Lack of funds	Apply and secure for more funding to run the program
Political Climate	Ensure buffer stock in the facilities



# Policy recommendation

This report confirms that the low-cost high impact Toto Care Box is a promising intervention to cost-effectively increase health facility delivery rates in both urban and rural Sub- Saharan Africa settings. TCB can be embedded in maternal and child health programs. Finally, any large-scale implementation of Toto Care Box kits intervention should have proper stocking controls similar to the other commonly used health commodities.



Mchanga Paybill Number: 891300 Account Number: TOTOCAREBOX

totocarebox@gmail.com

www.totocarebox.org