

# IMPROVING PARENT AND CHILD OUTCOMES (IMPACT) IN NIGERIA



**tearfund**

*We're Christians Passionate About Ending Poverty*

# Improving Parent and Child Outcomes (IMPACT) in Nigeria

## Introduction

Nigeria has a population of 187m people (2016), growing at 2.6% per annum and is ranked as the 7th largest country by population in the world. Whilst Nigeria is a middle income country, it has some of the world's worst health statistics. Although maternal mortality is declining, it still has 814 maternal deaths per 100,000 live births (i.e. 90 times higher than that in UK) and this represents a quarter of all female deaths in Nigeria. As such it is in the top 5 countries with the highest maternal mortality ratios. Infant mortality statistics are not much better, with 69 infant deaths per 1000 live births (17 times higher than UK) and is ranked 10th worst in the world.

Of all the people living in the world with HIV, 9% live in Nigeria. Whilst the overall HIV prevalence is relatively low at about 3%, it is higher in the states targeted for the IMPACT project. In addition, the progress in addressing HIV in Nigeria has been much slower than in poorer countries, measured by testing rates and provision of antiretroviral treatment (ART). The IMPACT programme was implemented in 3 Nigerian states, Plateau, Benue and Kaduna and these results have been derived from baseline and endline household surveys (a total of 2260 surveys) and comparisons between clients of Mother Buddies and similar 'control' group pregnant women (non-clients).

## Summary of Key Findings – all results are statistically significant ( $p < 0.05$ ) unless indicated.

- **Antenatal Care:** A 15% increase in having at least 4 Antenatal Care visits (WHO standard) for clients versus controls.
- **Birth delivery:** A 22% increase in delivery by a health professional and a 13% increase in deliveries in a health facility.
- **Male partner involvement:** There was an overall increase in being accompanied by someone to ANC for clients and a 34% increase in male partner attendance.
- **Birth planning:** Almost twice as many clients had a Birth Plan compared to controls (a 98% improvement) and it was the Mother Buddies who most often had helped to prepare the Birth Plan.
- **Access to counselling:** A 62% increase in accessing family planning counselling when comparing clients and non-clients. There was also a 30% increase in clients receiving emotional support.
- **Key knowledge Areas:** There was a 27% improvement in comprehensive HIV knowledge and a 45% higher level of maternal health knowledge for clients.
- **Practical help and support:** There was more than a doubling of receiving practical help for clients of Mother Buddies (58% versus 23%) compared with non-clients
- **HIV Mother to child transmission:** Although not statistically significant due to the small sample size, there was a reduction from 50% to 0% in the transmission of HIV from mother to child.



## Project Overview:

The IMPACT (improving parent and child outcomes) project has been implemented in Nigeria by 3 Tearfund partners, Faith Alive Foundation (FAF), COCIN AIDS Awareness and Care Programme (CAACP) and The ECWA AIDS Ministry (TEAM), with project management from Tearfund Nigeria and support from Tearfund HIV Team. The main funding for the project was provided by The Souter Charitable Trust for over 2 years and ongoing support from Tearfund Nigeria.

The programme has mobilised churches and communities to engage in a comprehensive approach towards eliminating parent to child transmission of HIV (EPTCT) and improving maternal and infant health. Central to the programme design is the training of a network of community-based volunteers, Mother Buddies. These were trained in 9 key areas of HIV, maternal and infant health (see figure below). Mother Buddies targeted vulnerable, pregnant women in rural

communities who tend to be at greatest risk of maternal and infant mortality, especially women living with HIV (as this increases the risk of maternal death 6-fold). Through a prescribed schedule of 8 visits during pregnancy and 6 months after delivery, Mother Buddies helped these women make appropriate antenatal care visits, and provided them with holistic care. Each Mother Buddy, Supervisor and Coordinator is equipped with an innovative mobile phone system termed MiHope (mobile interactions bringing hope).

The MiHope system provides:

- Guidance on key discussion areas for each of the 8 visits
- Project information, training and spiritual reflections (Poimapper, and third party apps)
- Communication through mobile instant messaging (Hip Chat), and longitudinal record keeping (Poimapper).

### 1. Primary Prevention

Young people-based programmes of education aiming to reduce unintended pregnancy and transmission of HIV.

### 2. Prevention of Unintended Pregnancies (Family Planning)

Promotion of counseling and use of contraceptives provided at government clinics, including injectable contraceptives and condoms. If government supplies run out, the programme will advocate for supply.

### 3. HIV testing and Antenatal Care

Household testing by community volunteers for all members with special focus on pre-marital and pre-conception testing together with promotion of adequate antenatal care by government. If mothers cannot afford money to access government clinics, the programme will contribute to provide transport support to ANCs.

### 4. Increasing Male Involvement

Intensive programmes of support for male involvement and testing of male partners – using proven effective social mobilization methods (e.g. Guardians of Our Children's Health – GOOCH) and 'Father Buddies', utilising best practice ideas e.g. special father friendly clinics in Nigeria.

### 9. Infant and Young Child Care

Intensive promotion of testing using PCR for infants of HIV +ve mothers and access to ARV treatment (supporting transport of samples and mother/child to clinic where necessary), ensuring access to clean water (WASH), immunisations, use of ITNs, early recognition of and access to treatment of infection (esp. malaria, pneumonia and diarrhoea) – using "experienced Mother Buddies" working with health professionals.

**IMPACT**  
(improving parent and child outcomes)

Comprehensive EPTCT care to reduce infant and maternal mortality

### 5. ARV Prophylaxis in Pregnancy

Intensive promotion of CD4 testing/viral load and uptake of locally approved maternal ARV prophylaxis regime. If mother cannot afford money to access government clinics – programme will provide transport support to government clinics, where these can be supplied and advocate for closer access.

### 8. Essential Newborn Care

Intensive promotion to ensure that mothers are supported re: Breastfeeding, Infant feeding, keeping warm and early recognition of Infection (especially birth asphyxia, neonatal sepsis and preterm complications) by "experienced mother buddies" in association with health care professionals.

### 7. Skilled Birth Care

Intensive promotion of ensuring that delivery is attended to by professionally trained and skilled birth attendant in a clinic, wherever possible with referral if complications including bleeding and obstructed labour occur – by support of communications (mobile phone) and transport.

### 6. Health of both parents

Intensive support using tried and tested "buddy system" and – where necessary – transport support to ensure regular access to supplies and taking HAART for people living with HIV, DOT for TB, Cotrimoxazole for all HIV +ve parents. Access to WASH and malaria bednets. Identification of symptoms of potential complications during pregnancy.



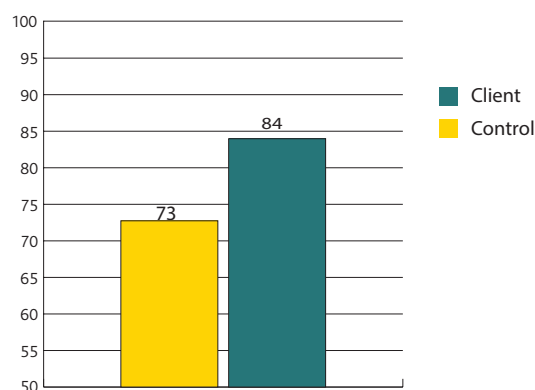
## The End of Programme Survey Report

There are many (>100) qualitative stories of change demonstrating benefits for individual clients and families as a result of the IMPACT programme. These have been gained partner visits and 'snippet' stories from Mother Buddies, posted on HipChat. However, what is of particular interest is the quantitative assessment of this programme. A Knowledge, Attitudes, Practice (KAP) survey was conducted both at baseline and endline and it is the results from these surveys that are the main focus of this report.

### Quantitative Methodologies

The KAP survey analysis mainly focuses on comparing a range of indicators between two groups of women – those who have been supported by Mother Buddies (clients), and a control group of similar women (non-clients). The indicators focus on key determinants of maternal and newborn health, and factors ensuring that all children born to HIV+ve mothers are born HIV free. In addition, the endline KAP was also compared to the baseline KAP to consider general community changes and those areas where the churches/project can be shown to have made a contribution to these changes. In terms of assessing HIV transmission, data were also collected from the key clinics in the intervention areas and through MiHope.

#### 15% Increase in 4+ ANC visits



### Key behavioural changes

The analysis provides a good deal of evidence of ways in which the IMPACT programme, working through Mother Buddies and the local church, has made progress towards improving health outcomes for vulnerable women in Nigeria:

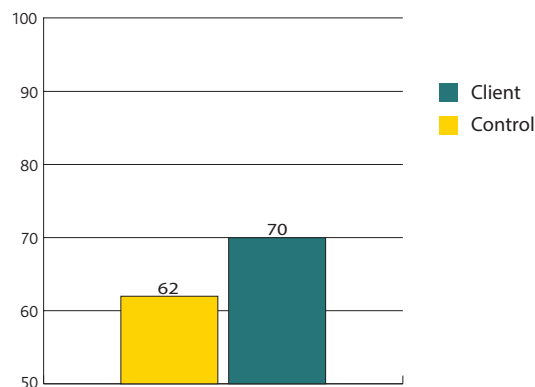
#### 1. Antenatal Care

One of the primary objectives in reducing risk was to ensure that vulnerable women access good antenatal care, and in particular achieve the WHO standard of at least 4 ANC visits. Among clients whose last born was born within 2 years (i.e. within the lifetime of the programme), 79% had seen someone for antenatal care during their last pregnancy, which was similar to the 75% of the control group who had attended antenatal care (difference was not significant). Women who had attended antenatal care first accessed care at an average of 3.8 months into their pregnancy, roughly the same for both groups. However, 84% of clients who attended antenatal care for a child born within the last two years attended 4 or more visits, which was significantly higher than the 73% of women not supported by Mother Buddies (MW U-test,  $p = 0.007$ ).

The increase in the WHO standard of 4+ ANC visits providing 'focused antenatal care' (FANC) is important to address complications in pregnancy and to ensure all tests are carried out. This may also help to explain the increase in HIV testing amongst clients as part of antenatal care. 92% of clients, compared to 83% of the control group received HIV testing during antenatal care ( $p=0.001$ ).

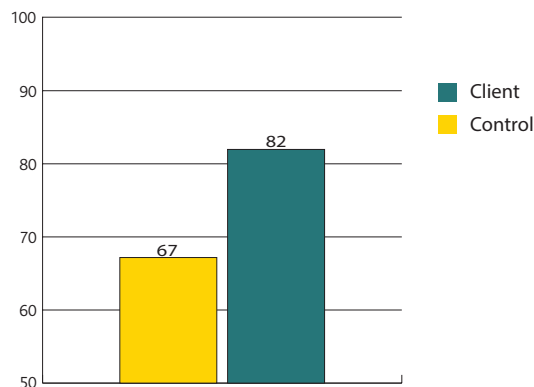
#### 2. Delivery Care

#### 13% Increase in clinic deliveries



Together with 4+ANC visits, delivering in a hospital/health clinic with a health professional (Doctor, Midwife, Nurse) in attendance are key determinants of maternal and infant mortality. WHO does not recognise even trained Traditional Birth Attendants as health professionals. There were correspondingly fewer home births in the client group.

### 22% Increase in professional attendance at delivery

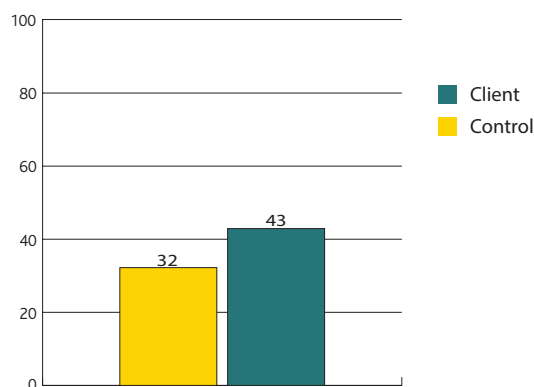


Over time it is postulated that the significant increase in 4 ANC visits, together with the increase in professionally attended clinic deliveries will lead to a significant reduction in maternal and infant mortality.

### 3. Male Partner Involvement

There was an overall increase in clients being accompanied to ANC, compared to controls. 66% of clients were accompanied by someone, compared to 42% of the control group ( $P < 0.001$ ). This included accompaniment by the Mother Buddy themselves, in about 1 in 5 cases. There was a significant increase of over a third of male partners being involved with clients compared with the control group.

### 34% Increase in Male Partner Involvement

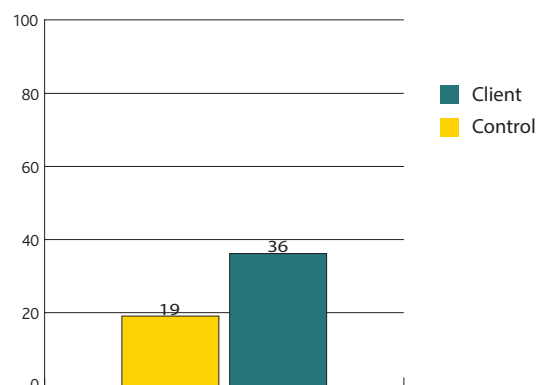


Increasing male partner involvement is an important achievement because of the evidence showing that such involvement can reduce HIV transmission from mother to child and infant mortality by as much as 40%. In terms of future intent there were also positive signs. Among women who said they would get antenatal care in the future, there was a positive intention to take their partner with them; again this was consistent across the two groups (83% and 77% in the client and control groups respectively). Note that these figures are much higher than the actual rates of male attendance at antenatal care, suggesting that there are still some barriers preventing men from attending antenatal care, which should be investigated further.

### 4. Birth Planning

An important aspect of IMPACT is to encourage pregnant women (and their spouses/male partners) to plan properly for the birth of the child, including planning for possible emergencies. Almost twice as many expectant mothers in the client group, compared to the controls had prepared a Birth plan.

### 89% Increase in Birth Plans



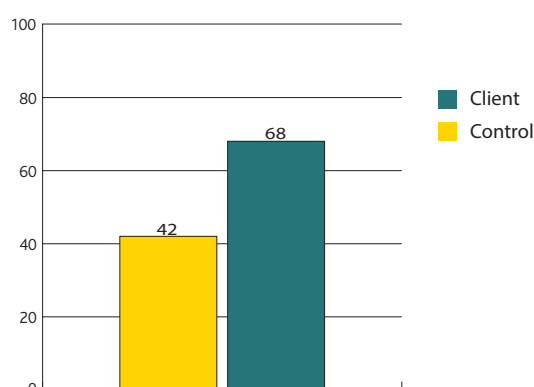
Although not statistically significant, again twice as many clients had developed a specific emergency plan as part of their Birth Plan (32% v 16%).

In terms of post-natal care, the numbers receiving a health check were 39% of clients and 33% of the control group (not significant). Overall, there is no difference in the proportion of women receiving some kind of post natal check, either for themselves or their child (44% of clients, and 41% of the control group). Breastfeeding was an almost universally adopted practice with no difference between the groups (98% of clients, 96% of controls), although a greater number of clients (77%) had no difficulties breastfeeding compared to 56% in the control group ( $p < 0.001$ ).

## 5. Accessing family planning counselling

At the time of the survey very few women were doing something to avoid getting pregnant; 24% of controls compared with 15% among clients ( $p < 0.001$ ). There are several reasons why clients might not have been using any contraception at the time, the most obvious being that they were pregnant at the time, had just given birth, or were trying for another child. Around 90% of women that were taking some kind of action (in both groups) were using some kind of modern contraception – injectables, pills and implants were most common. However, there was a big increase amongst clients supported by Mother Buddies, in accessing counselling on how to avoid unintended pregnancies in the future ( $p < 0.001$ ).

### 62% Increase in accessing Family Planning counselling



In addition to family planning counselling, 86% of clients had received counselling on pregnancy, which was significantly more than the 72% in the control group and such counselling was most commonly provided by Mother Buddies and nurses/midwives. The proportion of clients accessing counselling from nurses/midwives is similar to the proportion of women in the control group, indicating that the work of Mother Buddies supplemented rather than displaced the work of nurse/midwives. 89% of women supported by Mother Buddies who had given birth in the last two years had received counselling on parenting and child health, which was higher than the 61% of women in the control group ( $p < 0.001$ ). As with counselling on pregnancy, most had received counselling from nurse/midwives, but clients had accessed additional counselling from their Mother buddies. Clients generally perceived greater value in the counselling they received, irrespective of who provided the counselling, suggesting that Mother Buddies were effective in helping mothers consolidate the information and advice they were receiving.

## 6. Practical Support

During their last pregnancy (among women who gave birth within the last two years), women supported by Mother Buddies were more likely to have received some kind of support; 58% of clients received some kind of support, but only 23% of the control group received practical help ( $p < 0.001$ ). It appears that Mother Buddies focused mainly on helping with hygiene, transport, and caring for the family. Similarly, during the 6 months following their last pregnancy, 63% of women supported by Mother Buddies enjoyed some kind of practical help, whereas only 25% of women in the control group received similar help ( $p > 0.001$ ). It appears that Mother Buddies mainly focused on helping clients access hygiene care, and transport to/from clinics.

## Knowledge and attitude changes in HIV and maternal healths

Comprehensive HIV knowledge was higher among women supported by Mother Buddies; 41% of women, compared with 33% among the control group ( $p < 0.01$ ).

81% of clients who had given birth within the last two years had received specific advice on how HIV might be transmitted to their child during and after birth, which was higher than among the control group (68%;  $p < 0.001$ ). This was supported by a composite 'Prevention of Parent to Child Transmission of HIV' (PPTCT) knowledge score which was calculated for each respondent on the basis of responses to 6 indicators. 60% of clients had a positive knowledge across all six indicators compared with 36% among the control group ( $p > 0.001$ ).

Also the composite indicator scores on maternal health were higher among women supported by Mother Buddies (mean value of 5.3 compared with 4.9 among the control group,  $p < 0.001$ ). 55% of clients had a positive knowledge across all six maternal health indicators compared with 38% among the control group ( $p < 0.001$ ).

Attitudes towards male involvement in antenatal care were also more positive among clients; 85% of clients held this view, compared with 73% of the control group ( $p = 0.01$ ). This confirms that Mother Buddies have changed attitudes as well as behaviour concerning male partner involvement.

## Context and general trends

The baseline and endline surveys were undertaken about 2 years apart so it is also possible to highlight areas where overall community changes have taken place – the key results are as follows:

- There were little differences in antenatal care, delivery arrangements, over the 2 years.
- There were significant positive changes in comprehensive HIV and maternal health knowledge
- Access to HIV testing, other than through ANC has increased (from 54 to 63%).
- Access to counselling generally, and particularly to family planning has increased with Mother Buddies becoming a key source of counselling, second only to nurses.
- Whilst attitudes towards expectations of sexual behaviour (abstinence and fidelity) became more conservative, perceptions were that actual sexual behaviour had become more liberal – more investigation would be needed to

explain this finding, although this type of discord between attitudes and behaviours in terms of sexual issues has also been seen in Malawi.

- In terms of HIV positive respondents there are some encouraging findings. HIV and maternal health knowledge were higher at endline (although not significant). Treatment with ARVs increased from 77% at baseline to 100% at endline ( $p=0.015$ ). Early infant diagnosis of HIV increased from 25% to 87% and of those tested the transmission rate had reduced from 50% to 0% (these are not significant due to small sample sizes).
- An interesting finding was that Muslim women were less likely to have made 4+ ANC visits, they received less help and had more stigmatising attitudes towards people living with HIV. However, there is a strong suggestion that Mother Buddies have helped to address these issues as these points of difference were only found in the control group and not in the client group!

## Discussions and Conclusions

This quantitative assessment of the IMPACT programme in Nigeria has shown some clear evidence of success in indicators which may lead to reductions in HIV parent to child transmission, maternal and infant mortality! The Mother Buddies have clearly been effective in modifying knowledge and behaviours. Perhaps the most important are the increases in 4+ ANC visits, professionally attended clinic deliveries and involvement of male partners. These indicators have all been shown to influence maternal and infant mortality.

The Mother Buddies have also been effective at targeting pregnant women with HIV (who have a 6-fold increased risk of maternal mortality). In the client group there were 15.6% of women who were HIV+ve, compared to 6.1% in the control group. Increases in HIV testing for pregnant women, the increase in ARV access and increase in early infant diagnosis strongly suggest an improving situation in HIV. The Mother Buddies have also embraced the MiHope Smartphone technology, with around two thirds of client records in the total IMPACT programme being generated from Nigeria. It can be speculated that the MiHope system has added to the effectiveness of the Nigerian Mother Buddies.

Overall, these are remarkable achievements in just 2 years of running the programme. General analyses of MiHope data suggests that Mother Buddies spend on average about 3-5 days a week working on the IMPACT programme – which is a high proportion of their time. A degree of ongoing stipend/incentives is obviously needed and the sustainability plan developed by Tearfund and the 3 partners is now enabling the IMPACT programme to continue its success in Nigeria.



Example of clients who received support from Mother Buddies

Tearfund is a Christian relief and development agency building a global network of local churches to help eradicate poverty.

Tearfund would like to acknowledge Faith Alive Foundation (FAF), COCIN AIDS Awareness and Care Programme (CAACP) and The ECWA AIDS Ministry (TEAM) who helped facilitate this research.

Tearfund Nigeria contact: Paul Mershak

Email: [paul.mershak@tearfund.org](mailto:paul.mershak@tearfund.org)

Editor: David Deakin

Cover photo: David Deakin

© Tearfund October 2016

This summary report is based on research commissioned by Tearfund's HIV Team. The KAP surveys and analyses were carried out by Gamos.



**tearfund.org**

100 Church Road, Teddington TW11 8QE  
Challenge House, 29 Canal Street, Glasgow G4 0AD  
241 Newtownards Road, Belfast BT4 1AF  
[enquiries@tearfund.org](mailto:enquiries@tearfund.org) 0845 355 8355



RECYCLED  
Paper made from  
recycled material  
FSC® XXXXXXX