

## **Conditional Cash Transfers for Vaccinations**

### **Background: Complementing CCTs for PMTCT**

New Incentives helps HIV-positive women give birth to healthy babies by incentivizing them to complete their medical treatment through conditional cash transfers (CCTs). Given the high mortality rate of HIV-positive infants, 1 in 2 die within two years lacking treatment, CCTs for the prevention of mother-to-child transmission of HIV (PMTCT) are among the most cost-effective interventions.

Due to the focus on a highly cost-effective approach with a small target group, scaling the CCT for PMTCT by itself is a challenge. According to the latest clinic-level data for Akwa Ibom State, Nigeria, New Incentives can serve 1,500 to 2,000 HIV-positive expecting mothers on an annual basis by operating in 10 clinics that have a minimum volume of poor HIV-positive pregnant women (from 5 to 40 women per month). Expansion to smaller clinics in Akwa Ibom or to other Nigerian states entails administrative costs that would increase the overhead ratio of New Incentives and dilute its mission to provide cash transfers that result in health benefits at a reasonable cost.

New Incentives could address this scaling challenge by complementing its CCT for PMTCT with a highly cost-effective CCT for vaccinations. This would allow the organization to build upon its established network of clinics and cash transfer infrastructure in Akwa Ibom. Implementing two CCT arms for maternal and newborn health would make scaling to new clinics and new states considerably more efficient. It would eventually also enable New Incentives to work in clinics with a smaller number of HIV-positive pregnant women and increase the number of HIV-positive women current clinic sites serve by attracting more women overall to register their pregnancy.

### **Impact: CCTs for Vaccinations**

CCTs for Vaccinations encourage mothers irrespective of their HIV-status to complete the full vaccination cycle for their newborns from birth to 9 months after delivery.

Similar to CCTs for PMTCT, the new program would address a demand-side problem for a highly cost-effective health program. Vaccinations are considered to be among the most cost-effective interventions by the [WHO](#), [Gavi](#), and [GiveWell](#). Vaccination coverage for key vaccinations is low in Nigeria overall, Akwa Ibom State, and the clinics where New Incentives operates. Rates are particularly low for the following vaccinations with a high impact in the Nigerian context (see table on the next page).

Vaccination	Impact	Sample Coverage [Clinic name redacted]	Coverage Akwa Ibom (2007)	Coverage Nigeria (2012)
<b>Yellow Fever</b>	80'000 deaths in 2013 in Africa. 2% of all-cause deaths in Nigeria.	[Redacted]	7%	25%
<b>Polio</b>	Eradication of polio is a major public health target.	[Redacted]	44%	59%
<b>Measles</b>	More than 20 million people are affected by measles each year. In 2012, there were 122 000 measles deaths globally – about 330 deaths every day or 14 deaths every hour. // Measles Outbreak 2011: Nigeria (18 843 cases). // In populations with high levels of malnutrition and a lack of adequate healthcare, mortality can be as high as 10%. In cases with complications, the rate may rise to 20–30%	[Redacted]	53%	[obtaining data]
<b>Penta (five vaccines in one)</b>	Penta prevents a certain percentage of pneumonia cases among other diseases. Pneumonia responsible for 17% of deaths under 5 in Nigeria. 129,000 deaths in Nigeria (2011)	[Redacted]	DPT (39%), HepB (41%), [obtaining remaining data]	DPT1 (47%), DPT3 (41%), Hib3 (10%), Hepatitis (41%)

Sources: Impact – various sources. [Redacted Clinic Name] (New Incentives), Akwa Ibom (Knoema), Nigeria (UNICEF)

The percentages in the above table reflect rates of completion of vaccinations based on women who complete at least one vaccination visit. Based on conversations with Ministry of Health officials and multiple hospital staff, vaccination rates among women who register for ANC services during their pregnancy are significantly lower. New Incentives is in the process of gathering this data.

### Program Structure: CCTs for Vaccinations

The CCTs for Vaccinations could be introduced in select clinics in Akwa Ibom State beginning in January 2015<sup>1</sup>.

Clinic selection would focus on the following criteria:

- Low vaccination coverage
- High number of low-income mothers and infants
- Situated in rural, high-poverty areas based on poverty statistics by local governing areas (LGAs)

The CCTs would incentivize completion of the full Nigerian vaccination schedule.

<sup>1</sup> February 2015 is election month in Nigeria during which violence and random incidents increase. New Incentives Field Officers will continue implementation of the PMTCT CCT program during this period but New Incentives managers will leave the state during this month, supervise the program remotely on a daily basis, and return immediately after the elections.

	ANC Registration Day (pre-birth)	Week After Birth				9 Months (post-birth)
		0-2	6	10	14	
Vaccination	Tetanus (mother)	Polio, BCG (infant)	Polio 1, Penta 1 (infant)	Polio 2, Penta 2 (infant)	Polio 3, Penta 3 (infant)	Yellow Fever, Measles (infant)
In-Person Enrollment	X					
In-Person Verification	X		X	X	X	X
Cash Transfer Issued	X		X		X	X
Cash Transfer Amount	2,000 Naira (\$18.00)		2,000 Naira (\$18.00)		4,000 Naira (\$36.00)	8,000 Naira (\$36.00)

A Field Officer of New Incentives will enroll all women in the program on their antenatal booking (registration) day. This is also when they receive the first transfer for getting vaccinated against Tetanus, the recommended vaccination for all pregnant women. At 6 weeks, the women receive a cash transfer for vaccinations at both 0-2 and 6 weeks. At 14 weeks, the women receive a cash transfer for vaccinations at both 10 and 14 weeks. At nine months, the women receive a cash transfer for the final vaccinations Measles and Yellow Fever. If a woman misses the required vaccination at 0-2 weeks, she will not be eligible to receive the transfer at 6 weeks. If a woman misses the required vaccination at six weeks, she will not be eligible to receive the transfer at 14 weeks. However, if a woman misses the vaccination at 0-2 weeks she can still be eligible for the vaccination at 14 weeks as long as she completes the vaccinations at 6 and 10 weeks.

The cash transfer amount increases from \$18 before and after birth to \$36 fourteen weeks and nine months after delivery when retention rates are the lowest. The total amount per woman is \$110. The transfer has a two-fold objective: besides the life-long health impact of early childhood vaccinations the transfers also provides cash support to poor women during the critical neonatal and infant stage of their children.

To prevent perverse incentives a woman may only participate in the program once in her lifetime.

A dedicated New Incentives Field Officer will conduct verification of the vaccinations at the vaccination ward. As each clinic has dedicated vaccination days, the Field Officer will always be present. Given the high volume of women from 30 to 100 a week this is considered a reasonable investment.

Verification measures:

1. Information from vaccination card (name, patient number, type and date of vaccination)
2. Biometric face recognition (identification and prevention of fraud and duplicate enrollments)
3. Date and time-stamped pictures: 1) mother and baby, 2) vaccination card, and 3) puncture after vaccination for each vaccination (except oral vaccinations)

## **Relationship with CCTs for PMTCT Program**

The CCTs for PMTCT and CCTs for vaccinations are two separate programs even though both will sometimes be implemented in the same clinic. HIV-positive pregnant women are not eligible for the CCTs for vaccinations. Doing so would distract HIV-positive women from the focus on PMTCT treatment. Moreover, vaccinations for HIV-positive women are already encouraged by the third stage of the CCTs for PMTCT program. This division between programs is reasonable because HIV-positive pregnant women earn considerably more (\$186 compared to \$110) in the CCTs for PMTCT program.

## **Funding**

Implemented at three clinics in rural areas a total of 456 mothers could be enrolled per month. This would result in funding requirements of \$529,092 for 2015. Additional clinics could be added if more funding is secured.

According to recent facility data, there are 13 clinics with a minimum volume of 17 women per week, which results in a funding potential of \$2.68 million per year in Akwa Ibom State alone (serving 22,800 women and their newborns).