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# UNFUNDED LIST HONOREE:

## Simprints

### Honoree Proposal Description:

Simprints is a nonprofit tech startup that helps NGOs, businesses, and governments fight poverty by solving the ID challenge.

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### Organization Website:

**https://www.simprints.com/**

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# Simprints Theory of Change

**OUTCOME**

Reduction of maternal and child mortality in Nigeria through achievement of SDG 3

**IMPACT**

Improved maternal and child health outcomes for women and children living in Adawama and Kebbi states, Nigeria

**OUTPUTS**

Creation of ONA/ODK biometric system that identifies and verifies attendance MNCH cash transfer programme.
*(<1% duplicate records, fraud, double dipping rates, as assessed by LGWA Liasion.)*

Clinic staff and programme officers are equipped and trained to use Simprints in their workflow, including automated reports if patients miss visits.
*(100% of staff complete the 2-day interactive Simprints training workshop and demonstrate correct usage at quarterly assessments.)*

MNCH patients receive access to better quality, accurate, and continuous care.
*(>80% of women are verified as having completed full recommended MNCH care coverage.)*

Systems fragmentation reduced through interoperability with Nigerian national registries, and lessons learned available for global programmes.
*(Compliance with ISO-19794-2 open standards, in addition to Privacy Impact Assessments, ONA/ODK/Simprints code base, and 'lessons learned' open-sourced.)*

**INPUTS**

Integrate biometric patient identification technology (fingerprint identification) into ONA/ODK digital patient registry system.

Develop and deploy culturally appropriate training for clinic staff on how to use Simprints for patient identification and care delivery.

Conduct real-time monitoring and evaluation to verify beneficiaries who have/have not received MNCH care, and follow up with those who were missed.

Open-source the project software and key learnings to benefit the hundreds of other ONA/ODK projects facing monitoring challenges in Nigeria and beyond.

**ISSUE**

Lack of reliable patient identification and tracking in MNCH cash transfer programmes prevents follow-ups with dropouts, integration with national registries, and efforts to combat duplication / fraud

**UKaid Grant Draft (EPRI)**

**INTRODUCTION**
**What is the name of your project?**
*Please provide a title which is no longer than 100 characters (with spaces).*
Preventing fraud with biometrics for maternal health cash transfer programs in Nigeria

**Please describe your proposed project.**
*In your description please include information about the changes you are trying to bring about. (750)*

Nigeria has exceedingly high maternal (814 per 100,000) and neonate (69 per 1,000) mortality compared to the regional average (World Bank 2015). A government cash transfer scheme has increased uptake of mothers attending life-saving screenings. However accurate beneficiary identification remains a key bottleneck, preventing follow-up with dropouts, enabling "double dipping", and preventing interoperability with national registries. Working with EPRI and UNICEF, we propose to integrate a novel biometric technology into a Ministry of Health cash transfer programme in Adamawa and Kebbi States. This project will eliminate fraud, drive value-for-money efficiencies, and improve maternal & infant health outcomes for 10,000 beneficiaries.

**What is the proposed duration of your project (in months)?**
*Please enter only the number. (3)*
24

**What is the full name of the applicant organisation?**
Simprints

**Do you hold any other funding from DFID?**
Yes

**ORGANISATIONAL DETAILS**
**Which country is your organisation registered in?**
United Kingdom (Great Britain)

**What is your registration number?**

08835431


**What year was your organisation registered?**

2014


**What is the registered address of the applicant organisation?**

The Chesterton Tower

Chapel Street

Cambridge, Cambridgeshire

CB4 1DZ

United Kingdom (Great Britain)


**Which Global Goal is your primary focus?**

Good health and wellbeing


**What is the geographic coverage of your organisation?**
- South Asia
- Sub-Saharan Africa


**Within the regions you have identified above which countries do you work in?**
- South Asia - Bangladesh, Nepal
- SSA - Uganda, Zambia


**How would you describe your organisation?**
Social enterprise


**How would you describe your organisation in terms of its core business?**
Service delivery


**Whether in a consortium or not, please provide a list of your proposed implementation partners.**
Economic Policy Research Institute (EPRI)
UNICEF


**Please provide a list of acronyms.**

MNCH

**PROPOSED PROJECT**
**Please tick all the DFID strategic objectives that your project addresses.**
Tackling extreme poverty and helping the world's most vulnerable

**In which country is the project to be implemented?**
Nigeria

**What is the context in which your proposed project will work?**
*Please be specific about the context in which you are working (which country, what the needs are, what challenges and opportunities this context presents). (750)*

While SDG 3.1 targets a global reduction of neonate mortality to 12 per 1,000 live births, in Nigeria today still 69 in every 1,000 children do not live to see their first birthday (World Bank 2015). To increase MNCH coverage, UNICEF, EPRI, and the Ministry of Health launched cash transfer programmes of £21 (8k Naira) for mothers across 5 visits. Staff use ONA/ODK to collect visit data on smartphones, including pictures of patients for identification. However photos have proven unreliable for ID, and controversial with high rates of veil use. Lack of ID prevents follow-up with dropouts and programme integration with national / health registry efforts, while enabling duplication, inefficiency, and "double dipping" by beneficiaries.

**What is your strategy to address the contextual needs? (750)**

We propose to leverage a novel biometric technology to solve this identification challenge. Supported by UKaid and USAID, our research at the Univ. of Cambridge collected 135,000 fingerprints from Sub-Saharan Africa to develop an open-source fingerprint solution that is 228% more accurate with the scarred, worn fingerprints common in this context. This project proposes to 1) integrate Simprints with the digital ONA/ODK monitoring platform used by UNICEF-EPRI, 2) develop a training curriculum for clinic staff, 3) provide technical support and impact monitoring, and 4) openly share the project's codebase and key learnings for other digital programs facing similar monitoring challenges in healthcare, education, and aid distribution.

**How does your project fit with the UK Aid Direct theory of change?**
*Please see the Priorities page on our website for information on the UK Aid Direct theory of change.*

Our project supports UK Aid Direct's theory of change by "Tackling extreme poverty and helping the world's most vulnerable". To address high maternal and child mortality, the Nigerian government has adopted a broad strategy of free maternal and child health care for mothers who visit clinics. However, for the poorest mothers, visiting clinics poses real costs in terms of transport and lost income from missing work (EPRI 2016). Cash transfer programmes have shown real progress incentivising uptake, but without reliable ID the most vulnerable are lost to follow-up or indirectly excluded through inefficiencies. By solving these challenges, this project will help the world's most vulnerable mothers and children access MNCH services.

**Please detail a recent example that demonstrates your organisation's track record and capability in engaging in and contributing to bringing about a similar type of change in the past five years. (750)**

In 2015, Simprints partnered with BRAC to solve patient ID challenges for maternal & child healthcare delivery across slums in Dhaka. Despite high MNCH availability through BRAC's community health worker programme, only 36% of their patient received the full recommended 4+ health screenings due to challenges in patient tracking (BRAC 2013). With the support of DFID and the Global Innovation Fund, we integrated biometrics into BRAC's eHealth platform to increase frontline MNCH coverage to 70%. Today BRAC health workers are using Simprints to track coverage of 22k women and children, and the project is under evaluation to scale reach to 7m women in 2018. It was also featured by the World Economic Forum, BBC, and Wall Street Journal.

**Which of the following UK Aid Direct approaches will your proposed project contribute to?**
- Develop and use partnerships to promote greater accountability
- Strengthen the ability of existing and new advocacy actors to enable decision makers to be held to account
- Improve access, supply and quality of basic services

**RESULTS**
**Please upload your theory of change.**
*Please upload one version of this document.  If you need to replace it at any point*

*during your application click 'Update' and chose a new file.  (File size max: 15MB each)*

**Please explain the theory of change for your proposed project. (750)**

Our theory of change is that biometrics improves MNCH outcomes through better beneficiary identification and tracking. This enables 1) staff follow-ups with mothers which the biometric system has flagged have missed ANC/PNC visits, 2) reduced inefficiencies and patient duplication, 3) prevention of fraud or "double dipping" by programme beneficiaries, and 4) integration with current Nigerian national and health registry efforts that reduce system fragmentation and enable synergies across programmes. By tracking in real time exactly which patients have received MNCH services and cash transfers, we can ensure the efficient allocation of resources, and make sure no mothers and children are excluded from life-saving care.

**Who are your primary beneficiaries?**

*Please define your primary beneficiaries by clicking the button below and selecting the relevant population type, age and gender.*

- Vulnerable and marginalised
- People living with HIV/AIDS
- Girls married before age 18
- Extreme poor
- Rural

*Options (choose multiple):*

- Under 5
- 5-14 years
- 15-24
- 25-39

*Options (choose multiple):*

- ***Female***

**What is the total number of primary beneficiaries you intend to reach?**
10,000

**Who are your secondary beneficiaries? How many secondary beneficiaries in total will benefit from your project?**
*Please define your secondary beneficiaries by clicking the button below and selecting the relevant population type, age and gender.*

- Extreme poor
- Rural

*Options (choose multiple):*
- Under 5
- 5-14 years
- 15-24
- 25-39
- 50-64
- Over 65

*Options (choose multiple):*
- Female
- Male

41,000 secondary beneficiaries will benefit from the project (the HH of the mother who benefit from communicable disease management and prevention of maternal morbidity and mortality provided by MNCH services. Average household size in Nigeria = 5.1 in rural areas:  http://dhsprogram.com/pubs/pdf/FR148/02Chapter02.pdf)

**Please provide more detail on the 3 (max) UK Aid Direct approaches you will take.**

We will take three UKaid direct approaches. First, this project will 'Develop and use partnerships to promote greater accountability'. By working with UNICEF, EPRI, and the Nigerian Ministry of Health, this biometric-enabled digital cash transfer programme will increase the transparency and visibility of how health funds are spent. Interviews with policy-makers has shown that fraud and "double dipping" have proven to be serious concerns in the success and scale of cash transfer initiatives. This is particularly problematic in Nigeria, which ranks 136 out of 176 countries on the corruption index (Transparency International 2015). During our UKaid direct grant planning phase, project staff reported "I have watched women spit and rub their Cash Transfer Cards to

remove the stamp, and then get back in line to collect another payment". While staff use an ONA/ODK data collection on smartphones to take pictures of beneficiaries, the photos have proven unreliable, and often controversial with high rates of veil use in the Northern states that reflect cultural modesty norms. It is estimated that fraud costs the Nigerian Ministry of Health $2.2m for vaccine programmes along between 2011-2013 (GAVI 2014). This partnership will enable greater accountability in the delivery of MNCH services.

Second, this project will 'Improve access, supply and quality of basic services'. The perinatal period is fraught with risks for both mother and child, accounting for over 70% of preventable maternal and neonatal deaths annually in developing countries. Complications such as malnutrition, low birth weight, preeclampsia, and gestational diabetes can screened and managed by accessing MNCH care, specifically through a sequence of ante-natal (ANC) and post-natal (PNC) care. However, it is estimated that globally only ~40% of mothers in developing countries receive 4+ ANC/PNC screenings (World Health Organization 2013). This project will a) allow health workers to accurately follow-up with mothers who have missed life-saving screenings through biometric verification, and b) ensure the efficient allocation of resources, ensuring that programme funds do not run out, thus excluding eligible mothers. Together these steps will improve the access, supply, and quality of MNCH services.

Finally, this project will 'Show positive behaviour change in targeted groups as a result of the interventions'. Visits to health clinics during the perinatal period can save the lives of mothers, and their children. However, for the poorest mothers, visiting clinics poses real costs in terms of transport and lost income from missing work (EPRI 2016). The cash benefit for visiting clinics for ANC/PNC services of 8,000 Naira across 5 payments can greatly mitigate these costs for poor mothers. A biometric-enabled digital cash transfer scheme encourages positive behavior change through health clinic visits for eligible mothers, while discouraging negative behavior change through double-dipping or fraud from ineligible beneficiaries by leveraging biometric verification. As a result this

project supports the use of MNCH as a normal part of pregnancy and delivery for Nigerian women.

**Which of the following outcome areas will your project contribute to?**
- Women and Girls empowerment
- Ending preventable child and maternal deaths
- Family planning users

**What will the impact of your project be? (750)**

This project seeks impact at three levels. First, empowering the current digital platform with biometric capabilities will enable accurate, real-time progress reports on which mothers have received all 5 ANC/PNC visits, increasing completion rates >80%. Second, biometrics will prevent both accidental duplicates and deliberate double dipping, cutting fraud to <1% and saving £21 (8,000 Naira) per ineligible beneficiary. Third, this project will support systems interoperability for Civil Registration and Vital Statistics (CRVS) efforts in Nigeria and beyond. Using open standards (ISO 19794-2) this initiative is interoperable with national & health registries, and can be leveraged to solve similar challenges for other projects globally.

**How will you demonstrate value for money for this grant? (750)**

Preventive MNCH care is among the most directly cost-effective ways to save the lives of mothers and children (WHO 2012). Ensuring cash transfers reach eligible mothers can cut fraud <1% and save £21 per eligible beneficiary, equating to a 5:1 return-on-investment per scanner even at a low 5% duplication rate. Furthermore biometrics reduce the need for the expensive—and often contentious—fraud monitoring currently in place by digitising identification. This reduces staffing costs, and streamlines workflows. Finally, by making the training materials and code for the integration open-source, this project can benefit the hundreds of other ONA/ODK projects worldwide that could leverage biometric capabilities to reduce fraud and increase VFM.

**Please explain the project's approach to sustainability. (750)**

First, the project develops technical sustainability for the Nigerian Ministry of Health through training-of-trainers (ToT) workshops, culturally customised training materials,

and open biometric standards (ISO 19794-2) that prevent technical "lock in". Second, the project creates financial sustainability by saving £21 per ineligible beneficiary. The fixed engineering cost of creating an open source ONA/ODK-Simprints is only required once. Third, the project supports social sustainability by removing the contentious need for patient photos currently taken to fight fraud, despite many of the female patients being veiled and uncomfortable with being photographed due to cultural modesty norms.

**FINANCIAL DETAILS**

**Please upload your project budget**

*Please upload one version of this document.  If you need to replace it at any point during your application click 'Update' and chose a new file. (File size max: 15MB each)*

**What is the total budget you are requesting?**

£250,000

**Please detail the annual income of your organisation, for the past 3 years.**

- Income for 2016 (£): 640087.19
- Income for 2015 (£): 325622.84
- Income for 2014 (£): 28518.89

**Please upload your 3 most recent sets of audited accounts.**

*If you are applying for a Community Partnership grant and have only been in operation for less than 3 years, please submit available audit documentation based on your years of operation. These files should be labelled 'Audited Accounts (year) (name of applicant).  These should be submitted as PDF files.  You must submit financial information for 2015.  If audited accounts are not yet available, interim financial statements will be accepted. (File size max: 15MB each)*

**Has a Financial Management Assessment (or other due diligence assessment) been completed on your organisation in the past 3 years by an international donor?**

Yes

**What are the key risks associated with your proposed project and how will you mitigate against them?**

*In this section please identify risks that you may encounter during your project and the approach you will take to mitigate these risks.*

*Risk planning is an important phase of project planning and effective assessment and understanding of risk can ensure project teams are better prepared for when things wrong. We encourage you to think through the challenges that you may encounter during the course of your project and document these risks here.*

*Click the 'Add Risk' button below to enter a risk.*

**RISK #1**
*Short title (short description of risk in 60 characters):*
Partnership challenges across MoH, UNICEF, EPRI, & Simprints

*Risk description (key elements of the risk that need to be considered in 250 characters):*
This project will require alignment across four stakeholders (Nigerian Ministry of Health, UNICEF, EPRI, Simprints), which increases the risk of mis-alignment in mission and impact goals across partners.

*Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):*
Challenges in our partnership could stall or halt the project. Key issues include delays in project activities, slow staff adoption of new technology, and hospital staff left with system inefficiencies and unclear directives.

*Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):*
Institutional

*Potential impact levels:*
Major

*Likelihood:*
Minor

*Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):*
The existing programme was developed through Nigerian MoH, UNICEF, & EPRI collaborations. Key staff worked together for years and proactively reached out to us.

We will establish and maintain alignment via an MoU and bi-weekly coordination meetings.

*Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)*
Moderate

*Revised likelihood:*
Minor

**RISK #2**
*Short title (short description of risk in 60 characters):*
Health workers misunderstand or resist adoption of the use of new system

*Risk description (key elements of the risk that need to be considered in 250 characters):*
Clinic staff may incorrectly use biometrics in the new Simprints-ONA/ODK system, or resist its adoption because it requires adjustments to existing workflows and established routines.

*Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):*
Incorrect use or low adoption of Simprints by staff can negatively affect MNCH delivery, as patients will not be biometrically identified or tracked to ensure completion of care

*Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):*
Programmatic

*Potential impact levels:*
Major

*Likelihood*
Possible

*Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):*

We have co-developed the product and training with health workers to ensure intuitive system design. Preliminary training, assessments, and regular follow-up have shown health workers can adopt and continuously use the technology adeptly

*Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)*
Minor

*Revised likelihood:*
Unlikely

**RISK #3**

**Short title (short description of risk in 60 characters):**
Security is breached by unauthorised access to data.

**Risk description (key elements of the risk that need to be considered in 250 characters):**

Third party gets unauthorised access to biometric data which is used for malicious means, e.g. using patient fingerprints to set up ghost accounts and defraud agencies delivering goods or services.

**Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):**

Depending on how stolen personal data is used, people may be unwillingly identified for other means, or they may be excluded from the distribution of other goods or services.

**Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):**
Security

**Potential impact levels:**
High

**Likelihood:**
Possible

**Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):**
Fingerprint images are discarded on capture, and only partial numeric bit-array templates are stored. Data is encrypted by Google Firebase, held separately from patient data, and only moved via OAuth/TL(SSL)—standards used in online banking.

**Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)**
Minor

Revised likelihood:
Unlikely

**RISK #4**

**Short title (short description of risk in 60 characters):**
Breach of patient privacy or mission drift

**Risk description (key elements of the risk that need to be considered in 250 characters):**
Patients do not give sound consent / do not understand the implications of fingerprinting, or biometric data is used for purposes other than what it was obtained for.

**Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):**
If individual privacy is intruded or perceived to be, people lose trust in the system and may be harmed. E.g. if biometric and health data are used to determine health insurance eligibility.

**Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):**
Security

**Potential impact levels:**
High

**Likelihood:**
Possible

**Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):**
Our privacy protocols comply with EU Data regulations, the strictest in the world. Only essential data is taken and is stored separately from patient info. CHWs take culturally appropriate, informed consent, and care is still delivered if refused.

**Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)**
Minor

**Revised likelihood:**
Unlikely

**RISK #5**
*Short title (short description of risk in 60 characters):*
Liability from match error / exclusion from failure to ID

*Risk description (key elements of the risk that need to be considered in 250 characters):*
Biometric errors could prevent patients from being enrolled in the ONA/ODK system, or lead to mis-identification.

*Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):*
False accept errors (patient incorrectly IDed as another patient) leads to incorrect health visit data. False reject errors prevent records from being retrieved / cause duplicate records creation. Failure to enrol causes exclusion from services.

*Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):*
Technical

*Potential impact levels:*
Moderate

*Likelihood:*
Possible

*Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):*

Our system has been tested on 135k fingerprints demonstrating 228% higher accuracy than existing solutions. Multiple fingers can be used to increase accuracy. ONA/ODK workflow will check patient ID with secondary identifiers (e.g. name, village).

*Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)*
Minor

*Revised likelihood:*
Unlikely

**RISK #6**
*Short title (short description of risk in 60 characters):*
Slow data bandwidth

*Risk description (key elements of the risk that need to be considered in 250 characters):*
There are multiple mobile operators in Nigeria, with 4G LTE available, and over 92.4m subscribers. However mobile bandwidth speeds are extremely variable across time and location.

*Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):*
Data access is occasionally needed to sync records from phones to a central server, and when updating the Simprints ID app. The key issue would be delays in updating cash transfer records across points of care. Connectivity is rarely down for >1 day.

*Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):*
Technical

*Potential impact levels:*

Moderate

*Likelihood:*
Unlikely

*Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):*
Simprints ID's offline syncing enables records to be retrieved and modified on the phone database and synced centrally whenever connection is established. This ensures periods of connectivity loss do not stop project operations.

*Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)*
Minor

*Revised likelihood:*
Unlikely

**RISK #7**
*Short title (short description of risk in 60 characters):*
Shipping project hardware to field sites

*Risk description (key elements of the risk that need to be considered in 250 characters):*
Simprints scanners and complementary equipment (e.g. chargers) must be shipped to Nigeria, and international shipping and border customs requirements can vary and deviate from publicly available info, potentially leading to delays/seizures.

*Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):*
Perceived violation of regulations can cause delays or outright seizure of goods. Potential impacts include monetary loss and delay in project roll out, which directly affects patients though delayed system integration and inaccurate identification.

*Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):*
Procurement

*Potential impact levels:*

Major

*Likelihood*
Possible

*Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):*
We have extensive experience shipping hardware to Sub-Saharan African. Also, our UPS Nigeria contact can intercede at customs and relay necessary requirements to prevent delays or seizure of goods.

*Revised impact (Based on the proposed mitigation approach how would you assess the impact and the likelihood of your risk? In some cases the impact and likelihood ratings will remain the same. However it can be helpful for planning purposes to identify how mitigation steps can reduce the impact of a risk, and the likelihood of it happening.)*
Major

*Revised likelihood:*
Unlikely

## RISK #8
*Short title (short description of risk in 60 characters):*
Political instability, natural disaster, or epidemic outbreaks

*Risk description (key elements of the risk that need to be considered in 250 characters):*
As the Ebola crisis demonstrated, natural disasters & epidemics are a real threat in West Africa due to lack of infrastructure or strong EMS response. Northern Nigeria continues to suffer political unrest with the activity of fundamentalist groups.

*Potential impacts (how this risk could impact on the project directly or indirectly + what are the key issues that would arise if this risk occurred in 250 characters):*
Natural disasters, political instability, or epidemic outbreaks can halt regular MNCH care delivery, cause deaths among patients and staff, and damage infrastructure and system.

*Risk category (choose one among: Communications, Financial, Institutional, Political, Procurement, Programmatic, Security, Technical):*
Security

*Potential impact levels:*
Major

*Likelihood:*
Possible

*Risk mitigation (proposal to mitigate risk described + steps to take to reduce impact that the risk would have if it occurred in 250 characters):*
UNICEF has worked closely with EPRI and the Nigerian MoH for years on health projects, with well established emergency response, security, & outbreak protocols already in place. Training of trainers will be done in South Africa to lower staff risks.