

# DRIVING DEMAND FOR CHLORHEXIDINE

A human-centered design toolkit for the development of demand generation materials



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USAID's **Center for Accelerating Innovation and Impact (CII)** applies business-minded approaches to the development, introduction, and scale-up of health interventions to accelerate impact against the world's most important health challenges. Applying these forward-looking practices to USAID's health investments, CII invests seed capital in the most promising ideas and cuts the time it takes to transform discoveries in the lab to impact on the ground.



This toolkit used a human-centered design (HCD) approach to develop concepts and materials to drive demand for chlorhexidine. Human-centered design is a way of thinking that places the people you are trying to serve and other important stakeholders at the center of the design and implementation process. We are thankful to our partners at Dalberg's Design Impact Group (DIG) for their lead role in this project and in bringing more targeted HCD to our global health work. Questions and comments are welcome and can be directed to the USAID leads for this toolkit, David Milestone and Nikki Tyler.

For contact information and to learn more about CII, please visit [www.usaid.gov/cii](http://www.usaid.gov/cii).

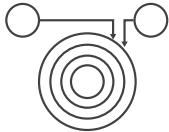

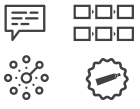



This toolkit is designed to support the development and adaptation of tools to drive demand of chlorhexidine for umbilical cord care. The toolkit is designed for countries and communities in the process of introducing and scaling chlorhexidine. This work uses Nigeria, a country which in 2016 is in the midst of its own chlorhexidine scale-up efforts, as a representative example. It also includes lessons learned from other countries' successful efforts. This toolkit builds upon previous work to increase demand for chlorhexidine<sup>1</sup> and other comparable products.

Drawing upon insights from research conducted in Nigeria, this guide walks you through the process of mapping an ecosystem to better understand the people and organizations associated with birth. It also explains how to capture and document representative birth stories, and how to generate concepts designed to create demand. We will highlight steps for recreating this process and modifying concepts for your own country or context.

 <b>NIGERIA</b>	 <b>GLOBAL</b>	<b>LOOK OUT FOR THESE SYMBOLS TO FIND THE CONTENT RELEVANT TO YOUR AREA</b>
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The toolkit has two parts: the guide which provides details about the concepts and how they were developed and an asset library which includes images and editable templates. These files provide a starting point for adapting the concepts in this guide or building your own. We hope this combination makes it easier to create sample versions that can be shared with stakeholders and the communities you serve.

<b>GUIDE</b>	
 <p data-bbox="1318 938 1541 954"><b>BIRTHING ECOSYSTEM</b></p>	 <p data-bbox="1591 938 1814 954"><b>BIRTHING ARCHETYPES</b></p>
 <p data-bbox="1304 1127 1556 1143"><b>INTERVENTION CONCEPTS</b></p>	 <p data-bbox="1646 1219 1835 1235"><b>ASSET LIBRARY</b></p> <p data-bbox="1661 1240 1820 1256"><i>see page 66 for details</i></p>

The guide and asset library can be downloaded at <http://www.healthynewbornnetwork.org>

We developed these tools using a human-centered design approach which puts the focus on understanding the people, traditions, and context that inform behavior. This deep understanding then guides the collaborative development of concepts likely to shift behavior to the best outcome. We created the concepts and materials you will find in this guide with the partners and communities where we did research in Nigeria, as well as partners at the global level. See more about human-centered design at the end of this guide.

<sup>1</sup> Such as the Demand Generation Implementation Kit materials developed by a variety of partners, including the Chlorhexidine Working Group.





## WHO IS THIS TOOLKIT FOR?

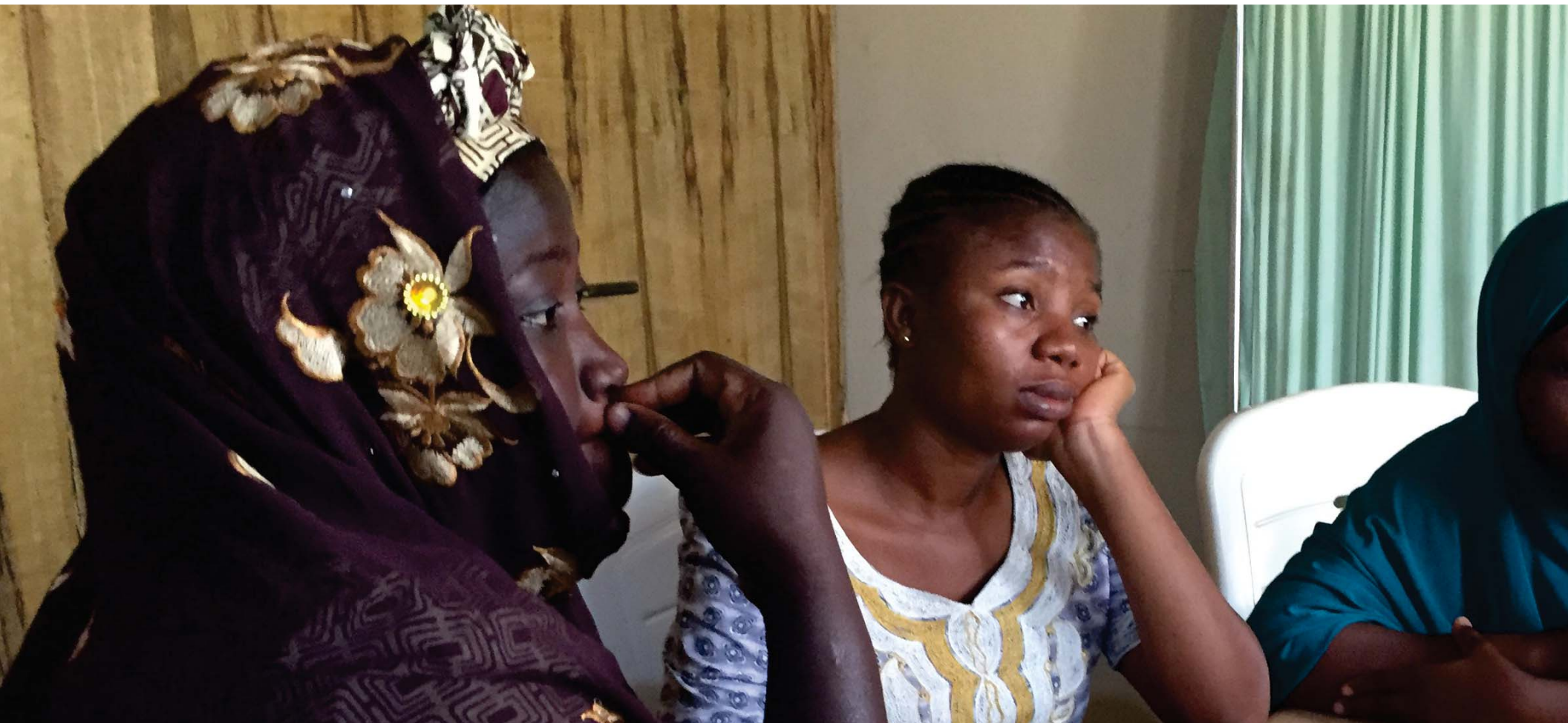
Potential audiences and users of these tools include:

- Governments (Federal and State Ministries of Health and/or Health Promotion Divisions)
- Non-governmental organizations and faith-based organizations
- Manufacturers
- Healthcare providers
- The media

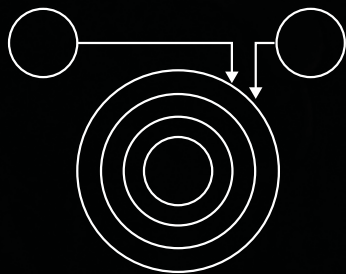
*“We have to make chlorhexidine the new methylated spirits”*

*Implementing Partner, Abuja*





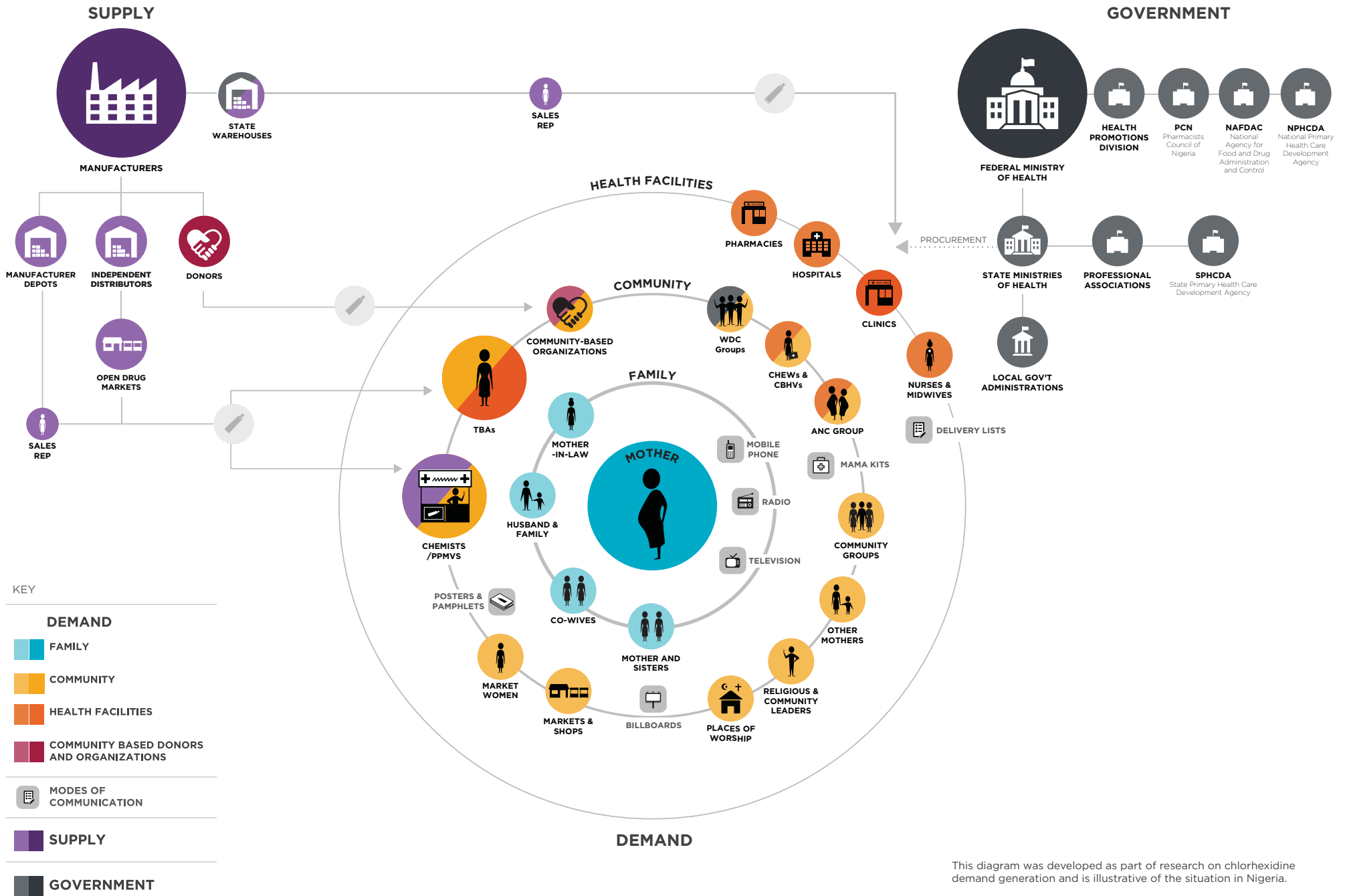
## BIRTHING ECOSYSTEM



A first step to understanding how chlorhexidine might fit into a woman's birth experience is to map the people and organizations who might be involved. For the Nigerian ecosystem, we focused on the expectant mother and used interviews, observations, and community visits to understand the stakeholders, relationships, and influences that inform childbirth.

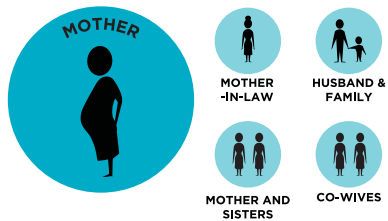
Consider these steps to build a birthing ecosystem for your own community or country:

1. Use this ecosystem as a starting point. Add, subtract, or move people and organizations around to represent the experience and relationships of mothers in your region.
2. Conduct interviews and community visits to fill in gaps in your understanding.
3. Share the visualization with experts and community members to obtain feedback.



This diagram was developed as part of research on chlorhexidine demand generation and is illustrative of the situation in Nigeria.





Family includes **the people closest to the expectant mother**. They are the first to know about a pregnancy and often participate in the delivery. They are involved in decision making and purchasing decisions, typically help care for the newborn, and share traditions and practices with the mother.



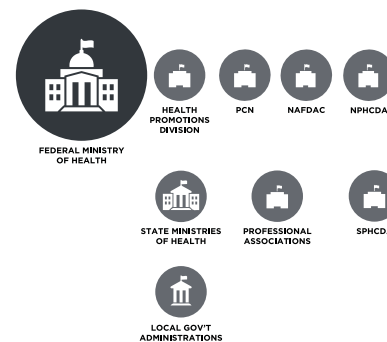
Community encompasses the **people, groups, and locations** including religious leaders and places of worship, gathering places (e.g. markets), community groups, local government, community health volunteers, traditional birth attendants, and chemists. Traditional birth attendant roles can be formal (i.e. trained and licensed as a birth attendant) or informal (i.e. a woman in the community who has helped with many births.) TBAs play an important role in supporting mothers and families in the birth experience. Chemists own and work at drug shops where people may buy delivery and newborn care products like chlorhexidine, in addition to other over-the-counter medicines.



Health facilities include **institutions like pharmacies, hospitals, and clinics, and individuals such as nurses, doctors, and midwives**. They often have strategies in place to educate and promote a new product like chlorhexidine, although the frequency and quality of a mother's interactions with these more formal health providers can vary significantly from community to community. In identifying a target audience, we've focused on women who are likely to have only a few, if any, interactions with these providers. This demographic represents a significant portion of Nigerian women.



Manufacturers and their supply partners are **responsible for getting products like chlorhexidine into the community**. The challenges manufacturers and suppliers face in ensuring chlorhexidine availability at the different locations where people purchase products for delivery and newborn care varies from state to state. The approaches to overcoming these challenges vary by region, as well. In the past manufacturers and suppliers have been open to exploring innovative strategies with products.



The government agencies play key roles in **approving, regulating, procuring, and advocating** for products like chlorhexidine. They have all participated in the National Strategy and Implementation Plan for Scale-up of Chlorhexidine in Nigeria. Going forward, implementation details will be planned and executed at the state level so that solutions can address the significant differences between states.



## BIRTHING ARCHETYPES



**Assisted by birth attendant**



**Assisted by family**



**Self-assisted**

The archetypes described here reflect the current situation in Nigeria. However, in accordance with international guidance, women should be encouraged to give birth in a healthcare facility.

The birthing archetypes are representative examples of pregnancy and birth. They establish a common frame to explore in greater detail the interactions, opportunities, and needs related to delivery and cord care. We developed them from interviews and observations conducted in Nigeria. These three examples were selected because they represent women and families who will likely have minimal interaction with health facilities and antenatal clinics.

Take these steps to build your own birthing archetypes.

1. Utilize existing categories or ways of talking about the types of births in your community or country. Key components include birth locations and types of caregivers present before, during, and after delivery.
2. Conduct interviews and community visits to capture representative birth stories.
3. Identify opportunity areas within these stories. Opportunity areas are moments, places, or people where chlorhexidine use could be introduced or supported.





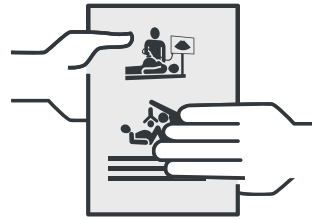
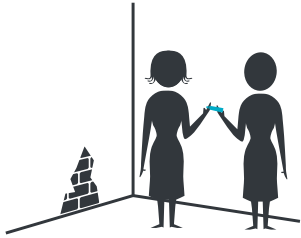
## Assisted by birth attendant

Barifaa is a religious woman who has been praying regularly for a smooth delivery. She has two children and made an effort during this pregnancy to visit an antenatal clinic despite the distance from her village. Her interactions with the nurses at the clinic left her frustrated, so she decided to use a birth attendant in her village. Jumoke, the birth attendant, has helped mothers give birth to dozens of babies and considers her faith an important part of her practice.

*“We want the cord to fall off quickly, to relieve the baby’s pain”*

*Expectant mother, Ewekoro, Nigeria*

# Assisted by birth attendant



## AWARENESS

## PREPARATION

## DELIVERY

## POST-DELIVERY

## SHARE

Jumoke heard about chlorhexidine at an orientation session a few months ago and has used it on four babies. During their first visit, Jumoke shares a flyer about chlorhexidine with Barifaa and they discuss the benefits. Jumoke mentions how chlorhexidine protects the baby from infection and shows Barifaa a sample of the product.

At another visit, Jumoke shares a list of the products Barifaa will need for the delivery, including chlorhexidine. Barifaa says that she will need to space out her purchases based on her irregular income. She asks how much chlorhexidine costs. Jumoke says it costs about the same as methylated spirits, maybe even cheaper since you only put it on once a day.

On the day of the delivery, Barifaa sends her oldest son to fetch Jumoke, who rushes to the home. Jumoke delivers the baby and cuts the cord with a blade, tying the end with a thread. She wipes the baby and puts chlorhexidine on the cord stump. She tells Barifaa not to wash the baby again until the next day. Jumoke announces the arrival of the baby to the village community.

Jumoke stops by each day to check on Barifaa and the baby. Barifaa is a little concerned that they waited a day before bathing the baby again and asks Jumoke if that might cause body odor issues. Jumoke reassures her that it will not and shares a message from their priest that babies who use chlorhexidine are especially blessed.

Once the naming ceremony has taken place, Barifaa and her husband bring the baby to church. Everyone remarks how beautiful the baby is and Barifaa credits Jumoke for all her help and advice, including her suggestion of chlorhexidine for the baby's cord.

### OPPORTUNITIES

- **Make birth attendants aware of chlorhexidine and how to use it.**
- **Develop materials to help communicate the value of chlorhexidine.**
- **Provide ways for birth attendants to share information and answer questions about chlorhexidine.**
- **Help attendants, mothers, and family members understand how to integrate chlorhexidine with other parts of the newborn care routine.**
- **Set expectations for how the cord will heal with use of chlorhexidine.**
- **Encourage mothers who have used chlorhexidine to share about the experience in their social circles.**

### CONCEPTS (DETAILS FOLLOW)



- Orientation and certificate
- Simple protection messaging



- Pictorial delivery list



- Pictorial routine



- Key community advocates



- Testimonials





## Assisted by family

Maka is a barely literate woman who lives with her husband Debare, her daughter, and her mother-in-law Mkem. Maka and Debare earn a living cultivating cassava and selling it in the city market every week. Maka is now pregnant for the second time. Carl, Debare's friend, is the local chemist and is respected for his medical knowledge. Debare receives advice from Carl regarding Maka's pregnancy and how to handle it.

*“Mothers are considered careless if the cord gets infected”*

*Expectant mother, Lagos, Nigeria*

# Assisted by family



## AWARENESS

The local community-based health volunteer (CBHV) visits Maka and Debare. When the CBHV learns of Maka's pregnancy, she encourages an antenatal visit and plays an audio recording of a local doctor talking about a new cord care product, chlorhexidine. The CBHV asks the couple what they applied to the cord with their last child and then shares a flyer about switching to chlorhexidine.

## PREPARATION

Despite some resistance from Mkem, Debare encourages Maka to get a check-up at the clinic. At that visit she receives a delivery list. Carl also prepares a list of products that Debare and Maka should buy for her delivery. Debare's mother, Mkem, thinks many of the products are unnecessary and a waste of money. Debare and his mother discuss the lists and decide to get a few things from both. Carl encourages them to purchase chlorhexidine. He provides a demonstration and gives them an informative flyer to take home.

## DELIVERY

On the day of the delivery, Maka's sister-in-law helps Mkem with the delivery. She heats up water while Mkem warms up the scissors to cut the cord. Post-delivery, they cut the cord and tie it in a knot. They wipe the baby clean with warm water and apply chlorhexidine to the cord stump, following the directions on the flyer Carl gave them. They take the baby out to Debare, who is happy to see his newborn son.

## POST-DELIVERY

Maka keeps an eye on Mkem, who is taking care of the baby. The instructional flyer they received from Carl is kept near the place where they bathe the baby, and Maka references the flyer when inspecting the cord to see how it's healing. She notices the cord looks a little different from how it did with her last child. She encourages her husband to ask Carl if that is normal.

## SHARE

Guests at the naming ceremony remark on how healthy the newborn looks. Debare and Maka are proud to show off their new son. Later, Debare returns to the drug shop for other products and tells Carl that the new baby is doing well and thanks him for recommending chlorhexidine.

### OPPORTUNITIES

- Recruit key influencers to endorse and support the use of chlorhexidine.
- Educate about the reasons to switch from previous products.
- Educate chemists on chlorhexidine and how to use it.
- Provide instructional materials that can be referenced at the point of care.
- Set expectations for how the cord will heal with use of chlorhexidine.
- Encourage fathers who have used chlorhexidine to share about the experience in their social circles.

### CONCEPTS (DETAILS FOLLOW)



- Key community advocates
- Changing times messaging



- Orientation and certificate
- Pictorial routine



- Pictorial routine



- Cord appearance



- Testimonials





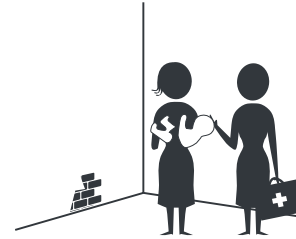
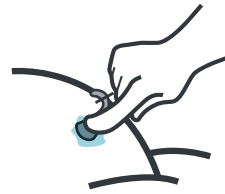
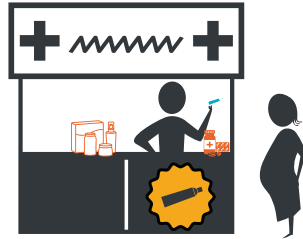
## Self-assisted

Uwem and Djimon have been married for 12 years, and Uwem is pregnant with her fourth child. Djimon works in the city as a laborer, visiting his family once or twice a month. Uwem supplements Djimon's earnings by selling any surplus she can produce from her small farm. She talks about her children and her recent pregnancy with other women at the market. Ejiro, one of the women she meets regularly, is greatly respected for having given birth to all three of her children without any assistance. Uwem feels encouraged to do the same with her own upcoming delivery.

*“I don't need much help now as it's my fourth child”*

*Expectant mother, Imeko Afon, Nigeria*

# Self-assisted birth



## AWARENESS

## PREPARATION

## DELIVERY

## POST-DELIVERY

## SHARE

Uwem talks with Ejiro about her recommendations for a delivery list. Ejiro tells Uwem about the products she considers most important to have and mentions chlorhexidine, a new product for umbilical cord care that she learned about from a community-based health worker in the market a few weeks ago. She says it is supposed to help keep babies from getting sick right after they are born.

On one of his visits home, Djimon brings some soap and oil for the baby. Uwem asks him if he could get chlorhexidine on his next trip into the city. She tells him to visit a chemist near a hospital and says to look for the umbilical cord symbol to make sure he gets the right product. When Djimon goes to the drug shop in the city, he sees products arranged into different groups. Chlorhexidine is included with delivery items.

When Uwem goes into labor, she asks Djimon to wait outside. Uwem is determined to handle the delivery on her own. She lies down and pushes until the baby comes out. After delivery, Uwem cuts the umbilical cord herself with a kitchen blade. Ejiro comes in to help Uwem bathe the baby with warm water. Then, she applies chlorhexidine to the cord stump. Djimon has started celebrating outside.

A community-based health worker stops by a few days after the baby is born. She asks how the delivery went and what Uwem is using for cord care. Uwem proudly shows the chlorhexidine. She says she is a little worried that the cord doesn't seem to be getting as dry as it did with her other children. The community-based health worker shares a visual aid. They compare the images to the baby's cord. Uwem feels relieved.

When she returns to the market, Uwem shares her experience with the self-assisted birth. She is proud of what she was able to do by herself. She also tells the women about chlorhexidine. She says that her baby is healthier and stronger as a result.

### OPPORTUNITIES

- **Recruit key influencers to endorse and support the use of chlorhexidine.**
- **Explain the reasons to use chlorhexidine.**
- **Provide trusted ways to identify chlorhexidine.**
- **Group delivery-related products together at point of sale.**
- **Ensure supply of chlorhexidine near facilities pregnant women frequent.**
- **Provide trusted ways to identify chlorhexidine.**
- **Set expectations for how the cord will heal with the use of chlorhexidine.**
- **Encourage mothers who have used chlorhexidine to share about the experience in their social circles.**

### CONCEPTS (DETAILS FOLLOW)



- Key community advocates
- Clinical argument messaging



- Common identifier
- Bundling and signage
- Targeting chemists



- Common identifier



- Cord appearance



- Testimonials





## INTERVENTION CONCEPTS



### Behavior change messages

The intervention concepts are grouped into four categories that emerged as areas of opportunity from our research. These categories served as jumping-off points for concept generation.



### Visual storytelling

Behavior change messages focus on encouraging the switch from the current cord care substance to chlorhexidine and targeting the unique value propositions relevant to the population.



### Service delivery

Visual storytelling focuses on the use of images (e.g. illustrations, photos) to enhance existing tools or develop new ones.



### Common identifier

Service delivery focuses on interventions at the community level.

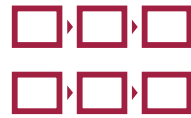
Common identifier focuses the development of a widely understood mark to signify chlorhexidine and its connection to cord care in newborns.

We encourage the selection of multiple concepts across different categories when thinking about a chlorhexidine plan for a country or community. You can adapt these and add your own.

# Intervention concepts framework



## BEHAVIOR CHANGE MESSAGES



## VISUAL STORYTELLING



## SERVICE DELIVERY



## COMMON IDENTIFIER



**Clinical argument** that chlorhexidine kills a wider spectrum of bacteria



**Pictorial delivery list** for mothers, situating products in scenarios of their use with images



**Orientation and certificate** for non-clinical roles, e.g. TBAs, chemists, CHEWs



**On chlorhexidine packaging** for easy identification and as an indication of authenticity



**Simple protection messaging**, e.g. chlorhexidine protects like a fence or a mosquito net



**Pictorial routine** for mothers and care providers, placing cord care in a larger daily newborn care routine



**Bundling and signage** for birth products in shops



**On communication materials** for easy identification and consistency of brand



**Other substances** traditionally used for cord care



**Cord appearance** from birth until it drops off while using chlorhexidine



**Key community advocates** share messages about chlorhexidine in-person or through audio recordings



**On signage** for easy identification and consistency of brand



**Changing times** and changing practices



**Targeting chemists** with shops near health facilities and antenatal clinics for distribution of chlorhexidine



**Testimonials** from people who used chlorhexidine for cord care





## BEHAVIOR CHANGE MESSAGES

Nigeria has an established practice of putting a substance on the umbilical cord in the days after birth. The particular substance can vary from the most common, methylated spirits, to a hot compress, mentholatum, toothpaste, salt, Vaseline, or other traditional herbs. The variations often indicate local or traditional practices, intended to support the spiritual as well as the physical health of the newborn, and are often passed down from generation to generation.

The primary metric that the public uses to signify good cord care is the cord drying up and falling off within a week or so after birth. Interviews with women and community members suggest that many struggle to see a connection between newborn illness, infection prevention, and umbilical cord care. Taken together, the challenge for messaging seems to be less about developing an entirely new behavior and more about supporting the transition to chlorhexidine.

We worked with members of the public to identify meaningful value propositions and messages to support this behavior transition. We found some variation in preferred messaging based on whether people lived in a rural or urban area, their level of literacy, the frequency of antenatal visits, and the intended place of delivery. The messages you will find presented here could easily be adapted to a variety of media, including posters, job aids, flyers, print advertising, radio jingles, radio dramas, and television ads. We have explored the messages primarily as posters as a way to highlight possible visual assets and messaging.

## Moving forward



### NIGERIA

The Health Promotions Division, State Ministries of Health, and implementing partners are best positioned to identify the messages most appropriate for particular populations and create and test the necessarily evaluation materials to see if they are successfully achieving their goals.

The assets and template in the asset library can provide a starting place for concept development as the key messages and strategic communication plan are developed.



### GLOBAL

Within other communities and countries, the following activities are recommended:

1. Identify existing cord care practices and motivations.
2. Understand how these cord care practices were established and sustained.
3. Define the primary aim of behavior change messaging.
4. Use assets and templates from the asset library to build early prototypes and share them with community members.
5. Use early findings to inform further development and creation of materials as part of a larger communication and messaging strategy program.

These activities could be pursued by implementing partners and/or Ministries of Health at the national or sub-national level based on the size and scope of the communities being targeted for change.

## Possible collaborators / partners

Implementing partners, marketing and advertising firms, donors to support media development, maternal and newborn health programs.

## CLINICAL ARGUMENT

Chlorhexidine reduces neonatal mortality because it attacks the bacteria that cause umbilical cord sepsis and kills a wider spectrum of bacteria than a product like methylated spirits. We found varying responses in the communities we visited to this clinical explanation of how chlorhexidine works. In more rural and less literate populations, the relationship between risk of infection and umbilical cord care was less clear. In more urban communities, they had heard this message previously. A key difference between these groups may be the number of antenatal clinic visits they have attended since risk of infection is often mentioned in this context. Antenatal visits are on the rise in Nigeria with a growing number of women attending at least one.

During our visits to antenatal clinics, we noted that expectant mothers were used to hearing recommendations for products, procedures, and behaviors that were “newer” and “better.” Framing a directive as the right thing to do was also common. We attribute this to the strong educational components of the antenatal clinic visits and increased interactions with nurses, midwives, and doctors who were swayed by the clinical argument. This suggested that highlighting the clinical argument for chlorhexidine within the antenatal clinic environment may increase the power of messaging to healthcare providers and serve as an educational job aid for nurses, midwives, and doctors.

### Moving forward



#### NIGERIA

The Health Promotions Division, State Ministries of Health, implementing partners, and clinical associations are best positioned to take this idea forward. They might consider trying it in multiple settings (e.g. urban and rural antenatal clinics, public spaces) to see how that affects understanding.



#### GLOBAL


If this message is deemed relevant for a community or country, it might be pursued by implementing partners and/or Ministries of Health at the national or sub-national level. Divisions responsible for reviewing and creating health messaging will likely also be involved.

#### ACTIVITIES TO PURSUE:

- Use the asset library and templates to build out a version of posters or flyers to share and test in antenatal clinics.
- Work with antenatal nurses to develop a teaching module about chlorhexidine for mothers that includes mention of the clinical value.
- Record doctors, nurses, and midwives explaining the clinical benefit of chlorhexidine in easy to understand language. They will have a sense for how to explain it to the population of mothers and communities they serve.


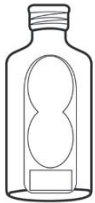
#### ADAPT TO COUNTRY CONTEXT

**Chlorhexidine protects your baby's umbilical cord from infection.**




**The new way keeps more germs away from your baby.**

*Germs lead to infections in newborns*

**The old way does not.**

**Choose the best for your newborn.**



**CORD GEL** **Chlorhexidine 4% gel**  
Gentle and safe for your baby

Find this poster in CHX Asset Library>Behavior Change Messages>Clinical Argument

#### Examples of use

- Posters in antenatal clinic waiting areas.
- Educational materials (e.g. flip books) to support teaching mothers about the benefits and use of chlorhexidine during antenatal clinic sessions.
- In the pharmacy, have posters and train staff to support educating mothers on the clinical value of chlorhexidine.
- Recordings of doctors talking about how chlorhexidine kills more bacteria than other products used for cord care.
- Radio messages or jingles focused on the clinical benefit of chlorhexidine for urban and highly literate populations.



## SIMPLE PROTECTION MESSAGING

Rural and illiterate populations frequently struggled to connect newborn illness to umbilical cord infections, even when provided with the clinical explanation that chlorhexidine kills bacteria that cause sepsis. When we asked expectant mothers “what are the things you do to keep your baby healthy?” they mentioned washing the baby twice a day, breastfeeding, keeping the baby wrapped in clean blankets, and following the traditional practices suggested to them by their family, birth attendants, and neighbors. People saw these practices as a way to nourish their babies while also keeping bad elements away, suggesting that positioning chlorhexidine as something that keeps bad things away might be a convincing strategy.

In support of that message, we looked to the simple metaphor that chlorhexidine is a protectant just as in another commonly found scenario in the community. For example, we developed a visual message based on a Yoruba proverb that compared fences which protect crops from animals to chlorhexidine protecting babies from infection. This idea resonated with the communities we visited. While sharing early prototypes of this poster, people made other suggestions of metaphors that might be compelling, including a mosquito net protecting a mother and baby from mosquitoes. Different communities might have different examples of protection that would be compelling to their populations and could be developed as messaging.

### Moving forward



#### NIGERIA

The Health Promotions Division, State Ministries of Health, and implementing partners are best positioned to take this idea forward. They might consider the range of metaphors that would be appropriate for different settings and populations.



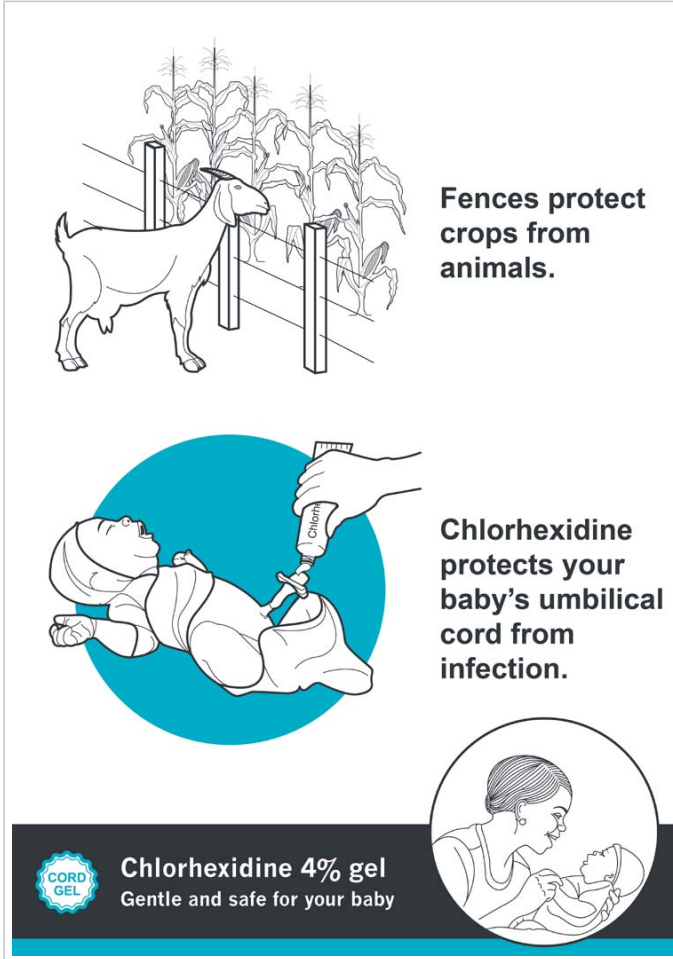
#### GLOBAL

If this message is deemed relevant for a community or country, it might be pursued by implementing partners and/or Ministries of Health at the national or sub-national level. Divisions responsible for reviewing and creating health messaging will likely also be involved.

#### ACTIVITIES TO PURSUE:

- Use the asset library and templates to build a flyer to share and receive feedback.
- Collaborate with communities to identify other possible protection examples.
- Work with implementing partners and community-based health workers to develop relevant materials to integrate into existing maternal and newborn health programs and education.

### ADAPT TO COUNTRY CONTEXT



**Fences protect crops from animals.**

**Chlorhexidine protects your baby's umbilical cord from infection.**

**Chlorhexidine 4% gel**  
Gentle and safe for your baby

Find this poster in [CHX Asset Library](#)>Behavior Change Messages>Simple Protection

### Examples of use

- Posters or advertising in public areas in rural or less literate communities.
- Flyers shared at gathering places such as churches, festivals, community events, mother child health weeks.
- Shared by community-based health workers as a way of talking about the benefits of chlorhexidine during home visits or group discussions.



## OTHER SUBSTANCES

A key challenge in generating demand for chlorhexidine in Nigeria is how to acknowledge and address the substances currently being used for cord care. We want to discourage their use while not being seen as dismissive or judgmental. Nigeria's most common and recommended product, methylated spirits, is seen to work well in the mind of mothers, and is multi-use, widely available, inexpensive, and ingrained in the culture and practices surrounding newborn care. Expectant mothers, and the older generations that counsel them, see little need for an alternative to methylated spirits.

We experimented with a direct message that acknowledges the other substances people

use for cord care, identifies appropriate uses for those substances, and positions chlorhexidine as the best option for a baby's cord. While we were initially counseled against directly mentioning other products, we found support for this concept in the communities. People imagined using it to speak with their mother or mother-in-law who was recommending something else. We received significant feedback on the specific substances we chose to highlight. When a substance did not resonate, community members were quick to point it out. This suggested a certain community or cultural variability which could be used to customize the message to address the particular behavior change that we are advocating.

### Moving forward



#### NIGERIA

The Health Promotions Division, State Ministries of Health, and implementing partners are best positioned to take this idea forward. They might consider a strategy that allows communities to customize a poster based on their community practices.



#### GLOBAL

If this message is deemed relevant for a community or country, it might be pursued by implementing partners and/or Ministries of Health at the national or sub-national level. Divisions responsible for reviewing and creating health messaging are also likely to be involved.

#### ACTIVITIES TO PURSUE:

- Identify the substances currently used for cord care in a community.
- Use the asset library and templates to design out a version of a poster to share and obtain feedback. If images for substances are not present in the library, use online images.
- Work with community-based health workers to develop a flyer to support conversations they may have with families or community groups about the switch to chlorhexidine.
- Share early poster or flyer drafts with key community advocates, nurses, midwives, and birth attendants. Ask for their critiques of the posters to make it as customized to the community as possible.
- Record key community advocates talking about the need to switch from the current substance to chlorhexidine.

#### ADAPT TO COUNTRY CONTEXT

**Salt is good for cooking.**

**Methylated spirits are good for wounds.**

**Mentholatum is good for headaches.**

**But chlorhexidine is best for your baby's umbilical cord.**

**CORD GEL**

**Chlorhexidine 4% gel**  
Gentle and safe for your baby

Find this poster in CHX Asset Library>Behavior Change Messages>Other Substances

#### Examples of use

- Posters and advertising in drug shops and other public spaces.
- Shared by community-based health workers as a way of talking about existing practices with families or other groups and advocating a switch to chlorhexidine.
- A narrative story line in a radio play switching from methylated spirits to chlorhexidine.
- Recordings of nurses, midwives, or birth attendants advocating the specific switch from certain products or substances to chlorhexidine.



## CHANGING TIMES

In many places the introduction of more modern approaches must be balanced with traditional practices. Mothers we spoke with mentioned the challenge in navigating these points of difference, citing situations in which recommendations from the older generation conflicted with healthcare providers' recommendations.

This messaging approach attempts to connect the switch to chlorhexidine with other shifts toward the modern, new way of doing things. Support and examples for this type of approach emerged in multiple community collaborations, suggesting it may have broad appeal. In fact, a traditional birth attendant noted to us, "Our

ancestors used sharpened bamboo to cut the umbilical cord, and then our parents used scissors, and now we use razor blades. Just like that change, chlorhexidine gel is now the best thing for babies' stumps."

Early versions of this concept were well received by those we shared it with. We did find that a connection to experiences and products familiar to the audience was critically important and these were likely to vary significantly between communities.

### Moving forward



#### NIGERIA

The Health Promotions Division, State Ministries of Health, and implementing partners are best positioned to take this idea forward. They might consider working with communities to identify relevant examples for talking about change.



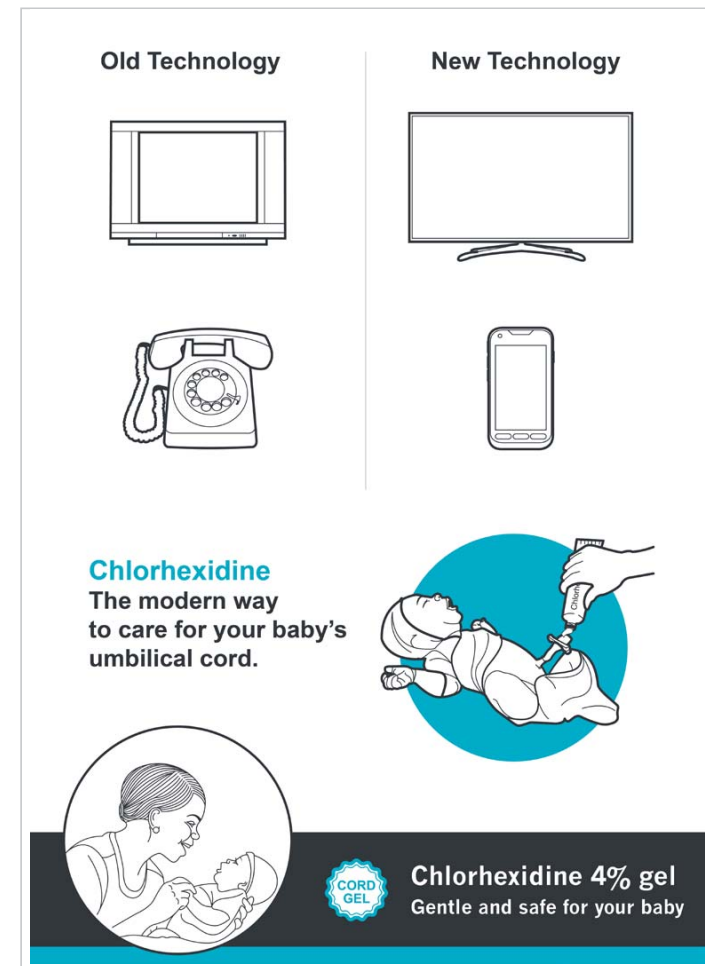
#### GLOBAL

If this message is deemed relevant for a community or country, it might be pursued by implementing partners and/or Ministries of Health at the national and state level. Divisions responsible for reviewing and creating health messaging will likely also be involved.

#### ACTIVITIES TO PURSUE:

- Use the asset library and templates to build out a version to share and gather feedback.
- Run regional or community workshops to identify relevant examples for change.
- Work with key community advocates to develop customized messaging drawn from the community's experiences.
- Work with media companies to develop radio plays or dramas to model conversations about changing cord care practices.

#### ADAPT TO COUNTRY CONTEXT



Find this poster in CHX Asset Library>Behaviour Change Messages>Changing Times

#### Examples of use

- Posters or advertising in public areas, especially in places where the older generation or multiple generations congregate.
- The narrative aspect of this message may lend itself to inclusion in radio plays and dramas that highlight stories about changing cord care practices, including conflicts and conflict resolution between the generations. This might involve an expectant mother being challenged by her mother-in-law over cord care decisions.
- A customized message developed with chiefs and religious leaders within a community that is shared through their platforms.



## TESTIMONIALS

The substances currently used for cord care in Nigeria came to be accepted practice, in part, through a social process. Women shared within a community. Mothers shared with daughters and daughters-in-law. A way of doing things was passed down from person to person. One interviewee from a partner organization in Nigeria remarked that our collective aim with demand generation was to get people to share and accept chlorhexidine the same way they shared knowledge about methylated spirits.

community, we asked expectant mothers what would convince them to use chlorhexidine on their babies. Almost every mother said that while the posters were useful what would convince them to try the product was hearing from women similar, and preferably known to them, who had used chlorhexidine and been happy with the experience. These two insights led us to think more specifically about avenues for mothers and others associated with cord care to share their experiences of use.

While gathering feedback on some of the early messaging prototypes we took into the

### Moving forward



#### NIGERIA

Implementing partners with rich community engagement programs may be best positioned to identify effective strategies for capturing and sharing testimonials. Partnering with antenatal clinics may provide a platform for early experimentation and data collection.



#### GLOBAL

Understanding the role that word of mouth plays in birth practices is important. Implementing partners with rich community engagement programs may be best positioned to identify effective strategies for capturing and sharing testimonials.

#### ACTIVITIES TO PURSUE:

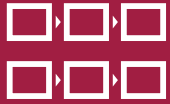
- Understand what mediums and pathways already exist for sharing experiences about a product like chlorhexidine (e.g. community-based health workers, audio recordings, flyers, radio, TV, social media.)
- Provide chlorhexidine samples to mothers and families. Capture media (e.g. photos, audio, video, etc) related to their experience over the week after the birth.
- Work with antenatal clinics and other mothers' groups to recruit and host mothers talking about their experiences using chlorhexidine.



ILLUSTRATIVE ONLY

### Examples of use

- Mother returning to antenatal clinic after birth of baby to share about her experience using chlorhexidine.
- Community-based health worker visits mother in the week after birth and captures stories about using chlorhexidine. A focus on how the experience was different from previous experiences may be useful in educating and setting expectations with other mothers.
- Community member testimonials on flyers pinned up or made available at the drug shop.
- Recordings of fathers talking about using chlorhexidine, shared by community-based health workers with other fathers.
- Radio testimonials by key community advocates after the birth of a child or grandchild.



## VISUAL STORYTELLING

The experience of using chlorhexidine is different from that of other substances traditionally used for cord care, and chlorhexidine fits into the daily routine differently. Methylated spirits, for example, are applied to the cord 5-10 times a day and result in a cord that appears to be visibly drying. In Nigeria, chlorhexidine is applied only once a day, and the cord may continue to look moist across the daily applications. Nigerian chlorhexidine instructions state that the newborn should not be washed for a full day after application, which runs contrary to the oft-cited local custom for adults and babies to bathe twice a day.

In addition to these chlorhexidine-specific challenges, caregivers face difficulty introducing new medicines to illiterate and semi-literate expectant mothers and counseling these mothers throughout pregnancy and delivery. These pregnant women rely on the advice of a wide range of voices to prepare for delivery, including antenatal clinicians, traditional birth

attendants, their families, and other community influencers. The various voices can conflict, and expectant mothers can struggle to recall the purpose and importance of the different products and behaviors that contribute to a healthy childbirth.

All of this suggests that there is an opportunity to do a better job setting expectations for mothers about the experience of delivery, daily routine care of a newborn, and the specifics of the cord healing and falling off. Images in the form of illustrations or photos are likely to be a valuable addition to the oral and written strategies currently used. The creation of some of these visual tools provides a platform to advocate for chlorhexidine and its correct use.

## Moving forward



### NIGERIA

The State Ministries of Health and implementing partners, along with input from the Federal Ministry of Health, national associations, and community leaders, are best positioned to develop some of these tools and evaluate their value at the community level.

Developers might begin by adapting templates from the asset library to inform discussions with stakeholders and guide conversations about content and policy. Once there is consensus, the images and templates should also provide a starting point for developing tools to test with the public.



### GLOBAL

Countries devising chlorhexidine strategies and implementation plans should be aware that mothers and caregivers do not view umbilical cord care in a silo but place it in the larger continuum of newborn care.

Within other communities and countries, the following activities are recommended:

1. Develop a birth journey detailing existing cord care practices.
2. Identify changes to the experience that might come with switching to chlorhexidine.
3. Understand the role that images currently play in information, education, and communication related to delivery and newborn health.
4. Identify common tools shared with mothers or family members to support delivery or newborn health practices (e.g. delivery lists, flip books.)
5. Develop prototypes to share at committee meetings/stakeholder gatherings for feedback.
6. Test prototypes with the public to determine value.

We imagine that these steps could be pursued by implementing partners and/or Ministries of Health at the national or sub-national level, depending on the size and scope of the communities being targeted for change.

## Possible collaborators / partners

Implementing partners, manufacturers, clinical organizations, maternal and newborn health programs.





## PICTORIAL DELIVERY LIST

Pregnant mothers in Nigeria are expected to purchase all the necessary items for their delivery, even if they are planning to give birth in a facility. To ensure the mothers are aware of the items needed for a successful birth, care providers distribute delivery lists to expectant mothers. These lists may be formal lists created and printed by State Ministries of Health and provided by nurses at antenatal clinics or they may be informal suggestions shared on a scrap of paper or orally from family or birth attendants. In addition to delivery lists, expectant mothers typically receive a wealth of recommendations from mothers, mothers-in-law, sisters, and chemists. When making purchasing decisions, mothers must prioritize the items to purchase based on their many

sources of information and constraints, such as their irregular and variable incomes, product availability, and costs.

We identified an opportunity for a pictorial delivery list which provides a visual guide to the steps of the birth process and demonstrates the role of particular products. Pictorial delivery lists may be particularly useful in illiterate and semi-literate populations, and the connection of steps to products may help mothers and family members in making purchasing decisions. Finally, the list presents an integrated approach connecting chlorhexidine to the larger birth experience.

### Moving forward



#### NIGERIA

Because delivery lists are not standardized, implementing partners and organizations with ties to antenatal clinics may prove to be initial good partners. Collaborating with professional clinical organizations would also provide clinician input on the most important steps and products for a delivery.



#### GLOBAL

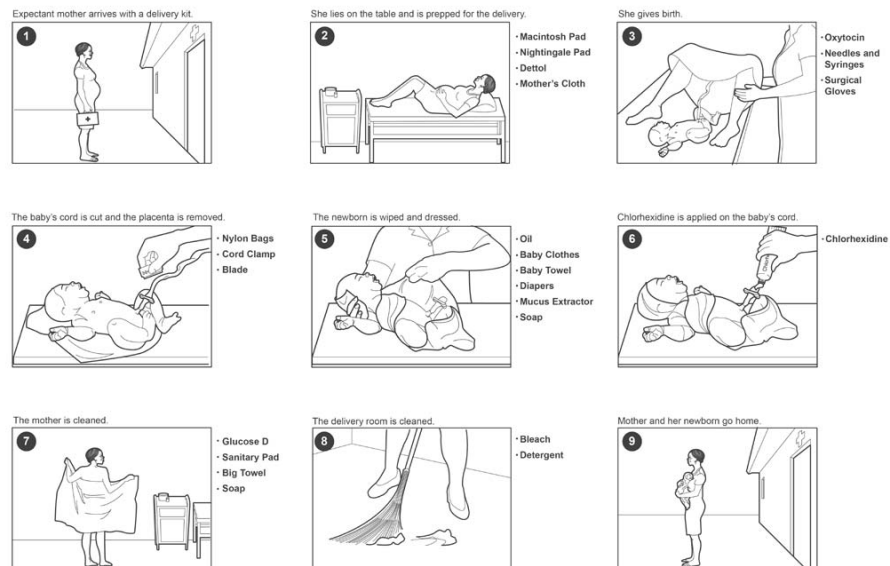
Globally, we imagine that if this concept is deemed relevant for a community or country, then this idea is closely tied to delivery product purchases. If not relevant in your context, consider if there are other educational uses of images and information related to delivery. If relevant, implementing partners and/or Ministries of Health at the national or sub-national level would be appropriate partners.

#### ACTIVITIES TO PURSUE:

- Working with clinical advisors, identify the common steps related to birth and associated products to be highlighted.
- Using images and templates from the asset library, develop prototypes to take into communities and share with caregivers and mothers.
- Consider a small study in which expectant mothers who may give birth at home and may need to prioritize their products for purchase are given the pictorial delivery list. Follow through the birth of their child to see if use of the tool increased the likelihood that they would purchase and correctly use chlorhexidine.

### ADAPT TO COUNTRY CONTEXT

#### PICTORIAL DELIVERY LIST



Find this pictorial delivery list in CHX Asset Library > Visual Storytelling > Pictorial Delivery List

### Examples of use

- A poster-sized pictorial delivery list could be displayed at antenatal clinics to support discussion and teaching by nurses.
- A small flyer of the pictorial delivery list could be made available at the drug shop near a display of delivery list items, including chlorhexidine.
- Community-based health workers could share pictorial delivery lists during visits to homes where women are planning home births, encouraging a discussion about which products to prioritize.
- Share with birth attendants and chemists at orientation sessions so that they can facilitate these conversations with mothers and family members.



## PICTORIAL ROUTINE

In Nigeria, the Federal Ministry of Health has selected the gel formulation of chlorhexidine. The instructions call for chlorhexidine to be applied once a day the first seven days after birth or until the cord has fallen off. The first application should happen within two hours of birth. The gel is squeezed from the tube and rubbed on and around the cord and stump. After the gel dries slightly, the baby should be dressed in loose clothing, and the cord should be kept outside the diaper. The baby should not be washed again for at least 24 hours. These practices are different from the use of methylated spirits, the most common product. Methylated spirits can be applied multiple times a day with a cotton ball and dries quickly.

The correct use of chlorhexidine may challenge established cultural practices in Nigeria. These include multiple baths a day for adults and

babies and wiping babies down with olive oil after birth. Since women other than the mother (e.g. maternal mother, mother-in-law, sister, birth attendant) do the majority of care for the baby during the first week, these women will also need to be appraised of the correct use of chlorhexidine.

Integration of chlorhexidine into the daily routine of caring for a newborn suggests the value of instructions that go beyond simply how to apply the gel. For mothers and their caregivers to correctly understand how to use chlorhexidine, instructions should situate chlorhexidine into the other activities that are likely to take place in the first week after a baby is born. The addition of illustrations and images expands the relevance to the illiterate and semi-literate.

### Moving forward



#### NIGERIA

Consider collaborating with professional clinical organizations for clinician input on the recommended daily routine. Implementing partners and community engagement programs will likely provide interesting testbeds to try out some of these ideas.



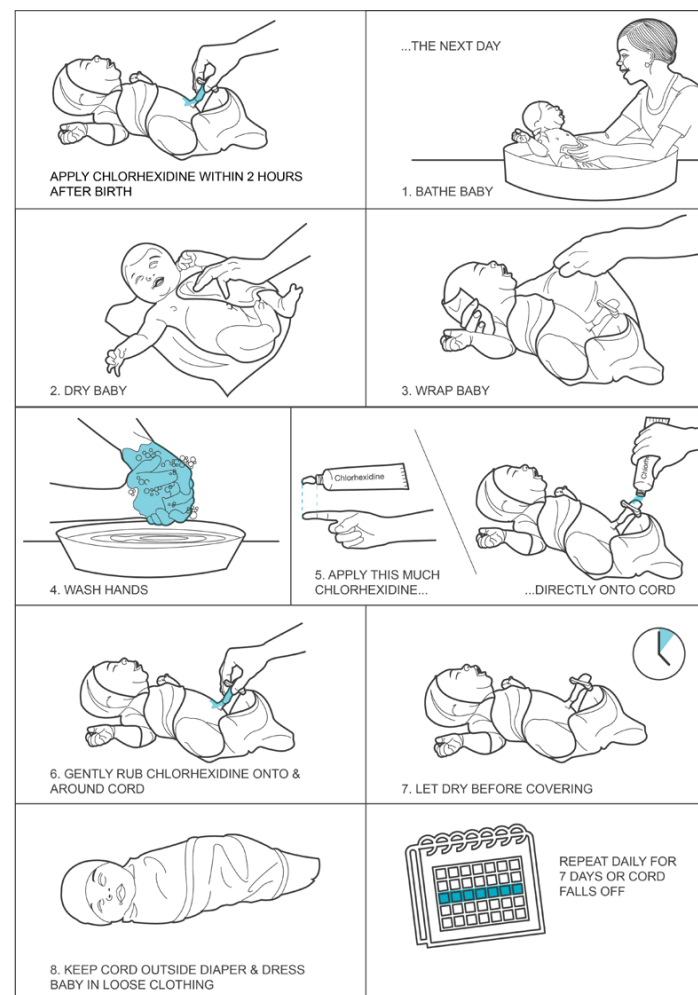
#### GLOBAL

Understand how cord care fits into daily care of newborns and how it differs from existing practices. If a concept like this is relevant, implementing partners and/or Ministries of Health at the national or sub-national level would be appropriate partners.

#### ACTIVITIES TO PURSUE:

- Work with clinicians, implementing partners, and Ministries of Health to identify common and recommended newborn care practices.
- Consider chlorhexidine instructions within this larger frame of the daily routine.
- Using images and templates from the asset library, assemble a draft pictorial routine flyer to share with mothers, family members, birth attendants, and chemists.

#### ADAPT TO COUNTRY CONTEXT



Find this pictorial delivery list in CHX Asset Library > Visual Storytelling > Pictorial Routine

#### Examples of use

- A small flyer of the daily routine could be made available at the drug shop near a display of delivery list items, including chlorhexidine.
- Community-based health workers could share daily routine flyer during visits, encouraging a discussion about rituals of care and how chlorhexidine can fit into those.
- Educational poster and community advocate who speaks at public events or social groups targeting the older generation.
- Share with birth attendants and chemists at orientation sessions so that they can facilitate these conversations with mothers and family members.



## CORD APPEARANCE

A primary insight from our conversations with people in Nigeria suggests that the metric the public uses for successful cord care is the cord drying and falling off. Most expect this to happen in advance of the naming ceremony, an event with social and cultural significance that is conducted about a week after birth in some areas. Methylated spirits, currently the most common umbilical cord substance, is a drying substance. It is applied multiple times a day, and there is the perception that increasing applications can hasten cord drying.

Anecdotes from those involved in chlorhexidine programs in Nigeria suggest that an umbilical cord treated with chlorhexidine may dry in a less visible way, even though the average amount of time for the cord to fall off is about the same

whether methylated spirits or chlorhexidine are used. Further stories suggest some mothers, nervous that the cord hasn't fallen off, may have applied methylated spirits in addition to chlorhexidine. While the effects of combining these two products are unknown, the official recommendation is to not use anything in addition to chlorhexidine.

Mothers and those that care for newborns would likely benefit from familiarization with how an umbilical cord treated with chlorhexidine will look, especially if it is different from the current common practice. And this information will help them decide when to seek care if they notice something unexpected in the cord's healing process.

### Moving forward



#### NIGERIA

Documenting the process of cord healing using chlorhexidine versus methylated spirits is an important first step. Based on the difference, implementing partners and State Ministries of Health are likely well positioned to turn this information into a communications piece.



#### GLOBAL

Discover if cord appearance is likely to be an important barrier to use. If it is not, consider other topics related to the chlorhexidine experience that could benefit from advanced expectation setting. If so, implementing partners and/or Ministries of Health at the national or sub-national level would be appropriate partners.

#### ACTIVITIES TO PURSUE:

- Capture photos showing cord healing with chlorhexidine and with other prominent substances (multiple days and multiple babies).
- Identify key messages related to expectation setting around cord healing.
- Develop flyers or posters comparing the two processes and share them with mothers.

#### Average cord stump healing time using chlorhexidine



DAY 1



DAY X



DAY X



DAY X



DAY X

ILLUSTRATIVE ONLY

### Examples of use

- Large format cord healing poster could be displayed at antenatal clinics to support education.
- Community advocate and flip book speaking at public events or social groups targeting the older generation.
- A flyer of the cord healing process could be made available at the drug shop near a display of delivery list items including chlorhexidine.
- Community-based health workers could share cord healing flyers during visits.
- Share with birth attendants and chemists at orientation sessions so that they can facilitate these conversations with mothers and family members.





## SERVICE DELIVERY

As illustrated in the birthing ecosystem, many people influence a mother's decision on what substance to use for umbilical cord care. Each touchpoint is a chance for new information or a new opinion. This presents both a challenge and an opportunity when thinking about designing for behavior change at the systems level. How do you get as many people as possible in the birthing ecosystem to recommend chlorhexidine?

A number of community-level concepts emerged from our time spent co-designing interventions with Nigerian communities. These concepts focused on ways to utilize the natural interactions within a community, particularly those in drug shops, with birth attendants, and in places where the general public and community leaders come together, for awareness and education about chlorhexidine.

Additionally, research revealed an opportunity to enlist those that are knowledgeable about the

community in identifying specific barriers that might keep people from using chlorhexidine. Armed with this knowledge, the solutions can be customized, and the people with deep knowledge can be recruited as messengers. The concepts highlighted in this section build on some common themes witnessed across communities.

## Moving forward



### NIGERIA

The State Ministries of Health and implementing partners, along with input from the Federal Ministry of Health, national associations, and community leaders, are best positioned to develop some of these tools and evaluate their value at the community level.

In particular, the community-level programs that Nigerian states and implementing partners have developed could provide interesting labs to test concepts focused specifically on the uptake of chlorhexidine.



### GLOBAL

Within other communities and countries, the following activities are recommended:

1. Identify a community collaborator and construct an ecosystem map.
2. Identify key stakeholders and influencers.
3. Host a workshop with collaborators to generate additional service delivery concepts more specific to this community.
4. Share relevant concept examples from this toolkit.
5. Use the asset library to build some early prototypes to share.
6. Gather feedback from the public.

These steps could be pursued by implementing partners and/or Ministries of Health at the national or sub-national level, depending on the size and scope of the communities being targeted for change.

## Possible collaborators / partners

Implementing partners, manufacturers, professional organizations, local governments and local government organizations, maternal and newborn health programs.



## ORIENTATION AND CERTIFICATE

Chlorhexidine is a relatively easy product to use and requires minimal training, although there are significant differences between chlorhexidine instructions and the instructions for other substances. Birth attendants and chemists are well positioned to advocate for chlorhexidine if they can speak to the use and benefits of the product in the language of their communities.

In interviews and concept generation activities with chemists and birth attendants, participants revealed that training and evidence of that training (i.e. a certificate of participation) was the intervention with the greatest value to them. Chemists, in particular, saw that proof of additional expertise or knowledge about a product raised their standing within the

community. Discussions with implementing partners highlighted the challenge of formal trainings which can be expensive and difficult to coordinate. A solution that seemed to work for all was a one or two hour orientation focused on providing basic information, demonstrating how chlorhexidine is applied, and providing tools to talk with mothers and families about the switch.

This session could be added to an organizational meeting or other event. Completion of the orientation session could come with a certificate demonstrating the chemist or birth attendant has learned the basics about chlorhexidine. This certificate could be hung in their shop or place of business.

### Moving forward



#### NIGERIA

The State Ministries of Health, implementing partners, and health provider groups such as NPHCDA may be best positioned to identify the content of an orientation session. NAPPMED (chemists' association), birth attendant organizations, and programs like SHOPS will be helpful in identifying meetings and places to hold the orientation sessions.



#### GLOBAL

Consider if there are non-clinical roles connected to the birth or delivery experience who would benefit from and appreciate some additional instruction. If so, implementing partners and/or Ministries of Health at the national, sub-national, or local level would be appropriate partners.

#### ACTIVITIES TO PURSUE:

- Develop an orientation curriculum. Consider videos and demonstrations related to application of the product, a discussion of barriers to use, common questions, flyers, and job aids to support discussion with customers.
- Develop a certificate.
- Trial the orientation session with a small group of chemists or birth attendants.
- Follow up to see how the session changed their advocacy and conversations with patients.
- Gather feedback about materials, including which flyers and job aids are most useful.



ILLUSTRATIVE ONLY

### Examples of use

- Orientation session attached to a regional chemist or birth attendant organization meeting.
- Orientation session sponsored by a community group or antenatal clinic for mothers and informal birth attendants in communities and regions that do not recognize birth attendants.

## BUNDLING AND SIGNAGE

Signs and inventory within drug shops are not displayed in a manner that educates or helps customers make purchasing decisions. Customers typically must ask a chemist to locate a product, requiring the customers to know what they are looking for, or at least what ailment they hope to treat.

Workshops and community visits suggest opportunities related to bundling. Bundling refers to placing products that serve a similar purpose or are likely to be bought together next to each other.

This provides benefits to chemists and customers alike. For chemists, clustering products with a similar profile allows products with a higher margin to be placed adjacent to products with a lower margin (like chlorhexidine) and encourages the purchase of multiple products. For consumers, bundling acts as a supplement to the delivery list and assists customers in prioritizing and making purchasing decisions.

### Moving forward

#### NIGERIA

Work with chemists, NAPPMED (chemists' association), manufacturers, and programs like SHOPS to identify the materials necessary to support bundling and allow for modular and adaptable bundling practices. Collaborate with clinical providers, manufacturers, and other organizations to craft and develop bundling strategies. Recruit chemists to participate.

#### GLOBAL

Consider the role that bundling and product adjacency might have on demand generation. Partner with drug shop organizations to better understand customers' purchasing decisions related to newborn care. Implementing partners and/or Ministries of Health at the national, sub-national, or local level might be appropriate partners.

#### ACTIVITIES TO PURSUE:

- Visit shops where delivery products are sold to understand how education and bundling might be integrated into the current experience.
- Collaborate with health provider organizations to identify appropriate content of bundles.
- Work with manufacturers to develop appropriate signage.
- Test bundling concept in one or two shops by building a functioning prototype.



ILLUSTRATIVE ONLY

### Examples of use

- Using shelves in the drug shops, organize products according to essentials for delivery and newborn care with a second or third tier for related but less critical products.
- Using shelves in the drug shops, organize products according to essentials for delivery and essentials for newborn care.
- Use signage to explain different bundles and identify agencies or care provider organizations that assisted in the process.





## KEY COMMUNITY ADVOCATES

The opinion and endorsement of a product or program by community leaders such as chiefs, religious leaders, and elders carries significant weight with the general public. Many other public health and social marketing programs in Nigeria have used such leaders to help spread the word.

Community leaders should be enlisted in the effort to encourage the switch to chlorhexidine. The respect and trust afforded to these leaders make them well positioned to address the differences in the experience that might result from using chlorhexidine (i.e. such as the cord taking longer to fall off or it looking different). Leaders can draw from their own experiences

with delivery and cord care to encourage a switch to a new product. They are uniquely positioned to understand and address the barriers to behavior change that might be present in their communities. These messages could be delivered live at public gatherings or as recordings that can be shared by community-based health workers, birth attendants, and chemists.

### Moving forward



#### NIGERIA

Implementing partners with rich community engagement programs, as well as State Ministries of Health, may be well positioned to integrate chlorhexidine messages and strategies into existing programming.



#### GLOBAL

Implementing partners and/or Ministries of Health at the national, sub-national, or local level, especially those with rich community engagement programs, would be appropriate partners. There is an opportunity to integrate chlorhexidine messages and strategies into existing programming.

#### ACTIVITIES TO PURSUE:

- Identify a range of leaders within a community - perhaps building on existing programs.
- Identify the likely barriers to change within this community.
- Work with leaders to craft messages to address those barriers.
- Share messages with community members to see what effect they may have on their decision to use chlorhexidine.



ILLUSTRATIVE ONLY

### Examples of use

- Religious leaders may talk about chlorhexidine as part of their religious services.
- Religious leaders and chiefs can address specific issues such as the belief that the cord should have fallen off before the naming ceremony.
- Male community leaders can create messages specifically for the fathers in their community.
- Older community leaders can create messages specifically for the older generation in their community, addressing issues of resistance to change.



## TARGETING CHEMISTS

Chlorhexidine is a relatively inexpensive product and is only authorized for use on the umbilical cord after birth (i.e. one tube for one baby). This narrow use case presents a challenge for chemists in stocking the product since sales may be low in small communities with a limited number of births or in areas with multiple drug shops.

stock the product. Expectant mothers often receive delivery lists during their antenatal clinic visits and purchase the products near the facility immediately following their visit. Concentrating chlorhexidine sales around antenatal clinics might entice these chemists to supply the new medicine with unproven demand.

One approach to overcome limited sales may be for suppliers to target chemists near antenatal clinics and encourage them to consistently

### Moving forward



#### NIGERIA

Work with NAPPMED (chemists' association), programs like SHOPS, implementing partners, and manufacturers to identify drug shops near the antenatal clinics. Conduct research and interviews to understand how much of the chemist's business comes from delivery products. Coordinate with antenatal clinic to direct mothers to this drug shop.



#### GLOBAL

If targeting and driving volume to a smaller number of drug shops near antenatal clinics would have value in your community or country, implementing partners, drug shop organizations, and/or Ministries of Health at the national, sub-national, or local level would be appropriate partners.

#### ACTIVITIES TO PURSUE:

- Consult with chemists near antenatal clinics to see if they do see higher volume of sales related to delivery products.
- Identify an antenatal clinic and chemist to partner with for a prototype.
- Provide chlorhexidine to chemists on credit.
- Coordinate with antenatal clinics to have them start recommending chlorhexidine on their delivery lists and develop signage for the chemists that lets mothers know the product is being sold at that store.



ILLUSTRATIVE ONLY

### Examples of use

- Installment purchasing plan available to chemists near antenatal clinics.
- Pooled purchasing of chlorhexidine for chemists near antenatal clinics.



## COMMON IDENTIFIER

As we shared chlorhexidine product samples and early messaging prototypes with people, we asked about the name and packaging. Almost universally, people remarked that “chlorhexidine” is difficult to pronounce and remember, and the name does not clearly link the product to cord care. Additionally, mothers often asked “how will I know if chlorhexidine is safe?” and expressed apprehension with using a new medicine.

As of April 2016, only one manufacturer actively produces chlorhexidine in Nigeria, but other manufacturers may soon make their own products. As more chlorhexidine products enter the Nigerian market, messaging and packaging will become increasingly complicated as each manufacturer markets their product with its own unique name and brand. Many people cited the mosquito identifier on the artemisinin combination therapy (malaria treatment) packaging as a successful example of new medicines dealing with multiple names and brands.

This insight led us to consider common identifiers - similar names, graphics, and marks shared across chlorhexidine products - that may address some of the issues around multiple brand identities. The common identifier could clearly establish chlorhexidine as a product for cord care, work across manufacturers' products and brand identities, connect information, education, and communications material across programs, and provide some indication of quality and safety.

We tested early concepts with expectant mothers and caregivers and found that people favored a strong link with images and words centered around the umbilical cord. People also identified with images of healthy babies because chlorhexidine is a product that prevents sickness in healthy babies rather than one that treats sick babies.

## Moving forward



### NIGERIA

Within Nigeria, NAFDAC (National Agency for Food and Drug Administration and Control) and manufacturers would have to lead this effort to authorize a common identifier across chlorhexidine products and related marketing materials. As key messages and strategic communication plans are developed, the common identifier assets and templates in the asset library can provide a starting point for initial concepts.



### GLOBAL

If your country is still developing its chlorhexidine strategy and implementation plan, the development of a common identifier can simply be added to that process. If your country has already begun to implement its chlorhexidine implementation strategy, creating a common identifier may be a bit more challenging but will likely be worth the effort. Stakeholders responsible for the introduction and scale up of chlorhexidine in Nepal have described the value of a common identifier on packaging and posters, particularly for less literate populations.

Across communities and countries, the following activities are recommended:

1. Gather relevant stakeholders (e.g. manufacturers, regulatory bodies, Ministries of Health, implementing partners).
2. Explore possible common identifiers.
3. Gather feedback from the public regarding connections to cord care, readability, etc.
4. Once approved, create guidelines for use across product packaging, information, education and communication (IEC) materials, and other touchpoints.

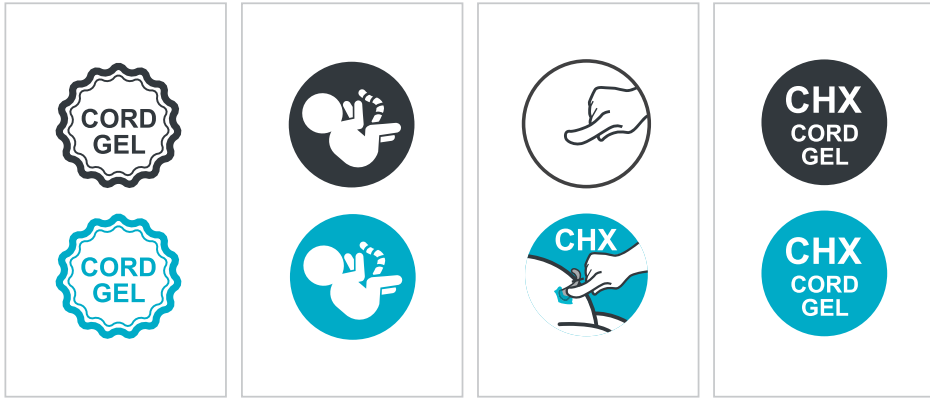
## Possible collaborators / partners

NAFDAC to enforce common identifier across approved brands, Federal Ministry of Health to develop reference information, education, and communication (IEC) materials, State Ministries of Health to implement health promotion strategy, implementing partners to facilitate the process throughout all stages.



## Examples of use

ILLUSTRATIVE ONLY



More explorations of possible common identifier marks can be found in the asset library. There are challenges with the iconography given the small size and difficulty simplifying the umbilical cord into a readable image, but the options should provide a starting place for thinking about what might work best for your country or community.

## ON PACKAGING

A common identifier helps the public understand that differently branded products are intended for the same use and reinforces the case for chlorhexidine as a cord care product for newborns.



ILLUSTRATIVE ONLY

## ON SIGNAGE

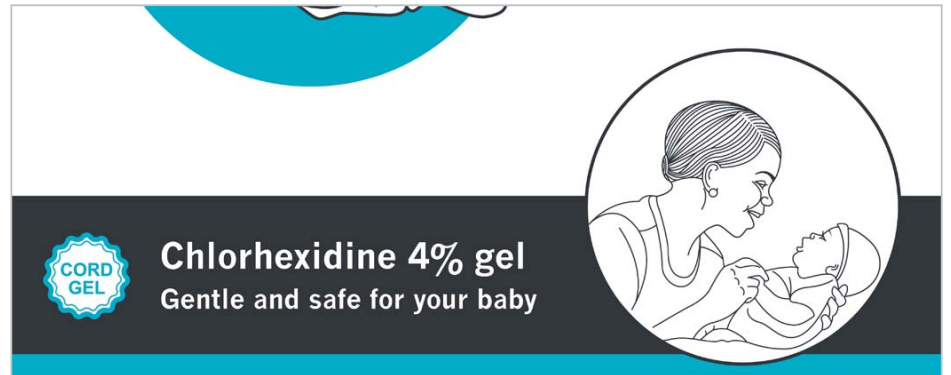
People need to know where to buy chlorhexidine, particularly as the market is nascent. Beyond product packaging, a common identifier can help signal that a drug shop carries quality-assured chlorhexidine. The sign can be an enlarged version of the common identifier mark, creating a unified visual brand that reinforces the communication materials that first introduced the public to chlorhexidine.



ILLUSTRATIVE ONLY

## ON COMMUNICATION MATERIALS

Communication and messaging materials (e.g. posters, job aids, radio jingles) developed by the Ministry of Health and implementing partners will be brand agnostic. However, the different manufacturers will market chlorhexidine under their specific brands. To avoid confusion among the consumer, IEC materials can include the common identifier - making it easier for people to connect touchpoints in the larger demand generation strategy.



ILLUSTRATIVE ONLY



## ASSET LIBRARY INSTRCTIONS FOR USE

The asset library is part of the chlorhexidine demand generation toolkit and is intended to be used in conjunction with this guide to provide a starting point to develop many of the concepts highlighted here. You should feel free to edit and adapt the materials provided. You can find the asset library at <http://www.healthynewbornnetwork.org>

### ADAPT TO CULTURAL CONTEXTS

All tools should be tested and adapted to be relevant to the national or local culture, regulatory/policy guidelines (e.g. gel vs. liquid, multi-day vs. single day, etc.), local laws, and other (e.g. language, cultural norms) contexts.

### GENERAL

We have made an effort to make the toolkit work for both those who may have access to graphic designers and graphic design programs and for those who may be developing initial concepts without access to designers.

The folders in the asset library mirror the intervention concepts framework and the concept titles. Inside each folder, you will find PNG and PDF versions of initial designs as well as AI (Adobe Illustrator) and PPTX (Microsoft Powerpoint) templates that you can use to edit or adapt.

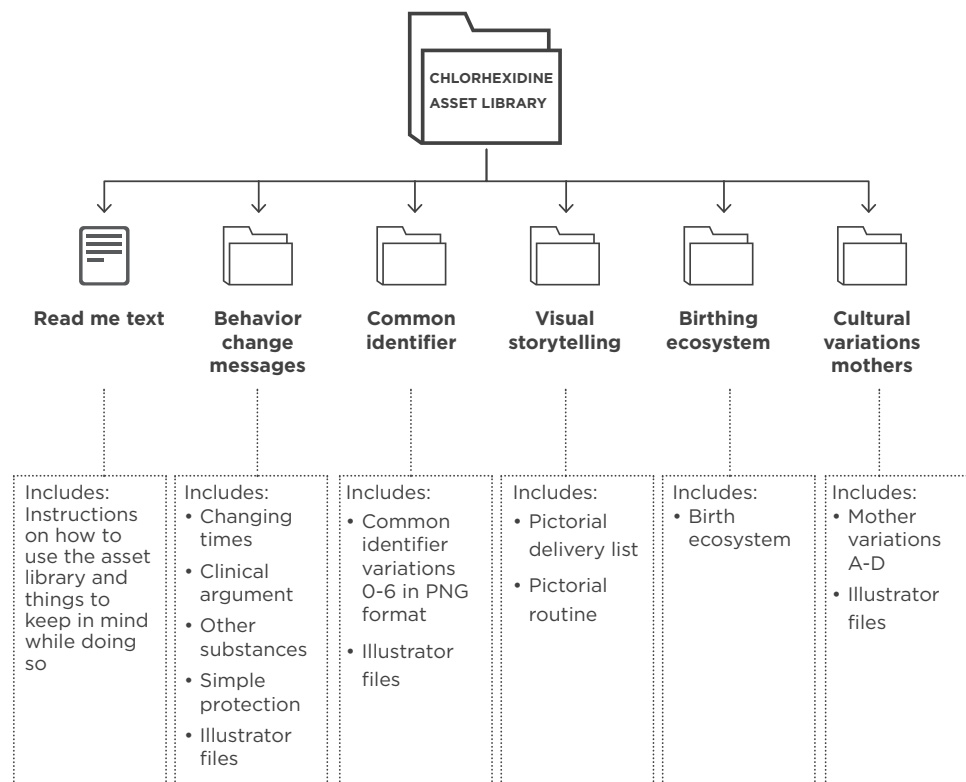
### KEEP IN MIND

- In an effort to make printing easier, assets are primarily in black and white with some spot colors.
- We have used a simple line drawing style to give detail and character to the visuals and make them clear to understand.
- We have used default system fonts (Arial and News Gothic) to keep the formatting consistent and easy to edit.
- We have provided editable text templates to make it easy to customize message for different languages and settings.
- We have provided multiple versions of the images (high-res PNG files as well as Adobe Illustrator files.)
- All images and templates provided here are made available under Creative Commons. You can feel free to use and adapt as you wish.

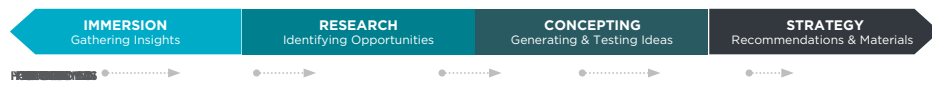
If you have any questions or comments about the toolkit or asset library or need help with files or file formats, reach out to the following people:

Chlorhexidine Working Group  
[chx@healthynewbornnetwork.org](mailto:chx@healthynewbornnetwork.org)

USAID/Center for Accelerating Innovation and Impact  
[cii@usaid.gov](mailto:cii@usaid.gov)



## HUMAN-CENTERED DESIGN (HCD) PROCESS



A defining characteristic of the human-centered design process is that it prioritizes talking to and collaborating with the people who are most likely affected by the development of a new intervention or program.

For this project, we interviewed mothers, visited homes and antenatal clinics, held community and professional workshops, visited drug shops, and shadowed birth attendants to understand the issues and concerns informing decisions about what substances to put on the umbilical cord stump. Insights from these activities informed our concepts. At each step we solicited additional feedback from the people, communities, and collaborators we were engaging with through rapid prototyping.

### IMMERSION Gathering Insights

To establish a baseline understanding, we built on the previous strategy work conducted by the Ministry of Health and spoke with key stakeholders to understand Nigerian birth practices, the mother's experience, the communities' context, and the role of different organizations in health behavior change. This input informed the ecosystem map and research approach for the next phase.

### RESEARCH Identifying Opportunities

To understand existing needs and behavior, we visited communities and talked with and observed mothers, families, birth attendants, chemists, community leaders, religious leaders, and antenatal clinic personnel. We synthesized our observations into insights about the barriers and opportunities to greater adoption and use of chlorhexidine.

### CONCEPTING Generating & Testing Ideas

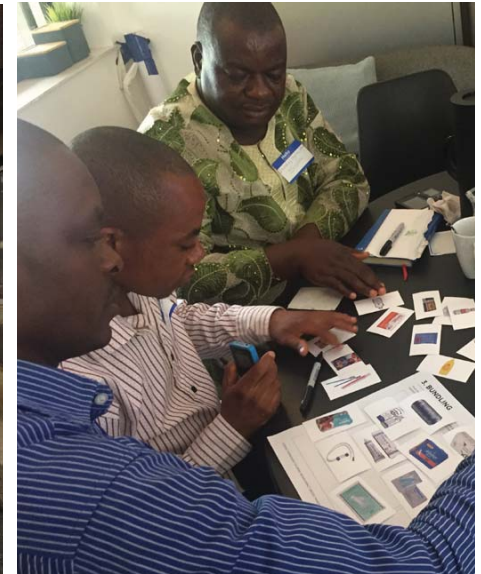
To translate these opportunities into initial concepts, we held five workshops; one in New York, four in Nigeria. Together we generated and voted on concepts, constructed rapid prototypes of promising ideas, and then took these into communities to share with people, gather feedback, and inspire new concepts directly with our end-users.

### STRATEGY Recommendations & Materials

To ensure value to local and global stakeholders, we incorporated feedback from local communities as well as partners and advisors into a portfolio of preferred solutions. We captured this portfolio as part of an overarching engagement strategy to encourage uptake and use in Nigeria and other countries scaling up chlorhexidine.



IMMERSION



RESEARCH



CONCEPTING



STRATEGY



## ACKNOWLEDGMENTS

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Chlorhexidine Working Group (CWG)  
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Emzor Pharmaceutical Industries Ltd.  
Ewekoro Local Government Area, Ogun, Nigeria  
Federal Ministry of Health and Parastatals, Nigeria  
Health Promotions Division, Nigeria  
Imeko Afon Local Government Area, Ogun, Nigeria  
Insight Health Consulting  
John Snow Inc. (JSI)  
Lomus Pharmaceuticals  
Lagos State Traditional Medicine Board (LSTMB)  
Marie Stopes International (MSI)  
Maternal and Child Survival Program (MCSP)  
National Agency for Food and Drug Administration (NAFDAC), Nigeria  
National Association of Nigeria Nurses and Midwives (NANNM), Nigeria  
National Association of Proprietary and Patent Medicine Dealers (NAPPMED), Nigeria  
Nigerian Schools of Nursing and Midwifery (NISONM), Nigeria  
PACT International  
PATH  
Pathfinder International  
Pharmaceutical Society of Nigeria (PSN)  
Save the Children International (SCI)  
Society for Family Health (SFH)  
Society of Gynaecology and Obstetrics of Nigeria (SOGON), Nigeria  
State Ministry of Health, Ogun, Nigeria  
State Ministry of Health, Lagos, Nigeria  
Strengthening Health Outcomes through the Private Sector (SHOPS)  
United Nations Population Fund (UNFPA)  
USAID/Center for Accelerating Innovation and Impact  
USAID/Maternal and Child Health Division  
USAID/Nigeria  
U.S. Pharmacopeial Convention (USP)  
World Health Organization (WHO)

The following organizations also served as advisors throughout the course of the development of this work:

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Johnson & Johnson (J&J)  
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CENTER FOR ACCELERATING  
INNOVATION AND IMPACT  
USAID | GLOBAL HEALTH

Dalberg DESIGN  
IMPACT GROUP

USAID's Center for Accelerating Innovation and Impact (CII) is partnering with Dalberg's Design Impact Group (DIG) to utilize human-centered design across the Bureau for Global Health's work. This project and resulting toolkit are one such example of this work.



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