Neonatal mortality rates in Francophone West Africa are extremely high ranging from 23/1000 live births in Burkina Faso to 34/1000 live births in Mali. This high rate of newborn death can be reduced by cleansing the umbilical cord at birth with 7.1% chlorhexidine (CHX).

In January 2014, the WHO issued a new recommendation to use CHX for newborn umbilical cord care (once per day for 7 days) in settings with high neonatal mortality (30 or more neonatal deaths per 1000 live births).1

- The application of 7.1% chlorhexidine to the umbilical cord reduces risk of omphalitis.
- Although substantial reductions in mortality were seen in trials in South Asia,2 application of 7.1% chlorhexidine to the umbilical cord did not significantly reduce NMR in the study sites in Tanzania3 or Zambia.4 This means that study results have shown an impact on mortality risk in populations with high NMR (30–40 deaths/1,000 live births) and have not shown an impact on mortality risk in populations with low NMR (≤17 deaths/1,000 live births).
- In high-mortality settings, use of 7.1% chlorhexidine on the umbilical cord reduced deaths regardless of whether infants were born at home or in a facility.5,6

PATH is leading the introduction and scale of 7.1% chlorhexidine for umbilical cord care in nine Francophone West African countries as part of the INSPIRE project coordinated by IntraHealth (see: https://www.intrahealth.org/projects/inspire).

7.1% Chlorhexidine (CHX) for umbilical cord care is a proven life-saving intervention

- Chlorhexidine digluconate is an antiseptic with a broad spectrum of activity against gram-negative and gram-positive bacteria.
- When used as directed, the safety record has been well established in adults as well as in newborns.
- For umbilical cord care, a concentration of 7.1% was selected to be sufficiently potent as an antiseptic.

Our Approach

We are driving change by advancing three synergistic areas: 1) increase access to supply of high-quality CHX product, 2) engage stakeholder participation and leadership, 3) generate demand for product use. This approach is based on years of on-the-ground experience of introducing and scaling CHX for umbilical cord care around the world. This overall experience was captured by the Chlorhexidine Working Group (CWG) in their Guide to Implementing 7.1% chlorhexidine digluconate for umbilical cord care: Three phases to ensure sustainable implementation.
Increase access to CHX

PATH is partnering with Drugfield Pharmaceutical, Ltd (Ikeja, Nigeria; see: https://www.drugfieldpharma.com/chlorxy-g-story/) to create a sustainable supply of CHX gel product for Francophone West Africa. To do this, we:

- Supported an initial visit to factory of key stakeholders to inspire confidence in the Chloroxy-G® Gel CHX product manufactured in Nigeria
- Seeded initial supply of product in Burkina Faso and Niger
- Liaised with PromoA, the distributor for Francophone West Africa engaged by Drugfield, and the national regulatory agencies to support market authorization of Chloroxy-G® Gel
- Provided technical assistance to MOH newborn working groups to create newborn commodity procurement plans that include CHX

As a result, market authorization of the Chloroxy-G® Gel product has been received for Benin, Burkina Faso, and Cote d'Ivoire and is pending in Niger, Mali, Mauritania and Togo. Supply agreements for Chloroxy-G® Gel are in place with the public sector through the national purchasing agency called the Centrale d'Achat des Médicaments Essentiels Génériques (CAMEG) in Benin, Cote d'Ivoire, Mali, Niger and Togo. In addition, the Chloroxy-G® Gel for umbilical cord care was prequalified by the West African Health Organization (WAHO) in all 15 countries in the Economic Community of West African States (ECOWAS) region through March 1, 2025.

Finding solutions for stakeholder concerns

PATH conducted market research about how to enable demand generation for CHX in response to stakeholder concerns around the best way to assure product availability in Togo. We collected data in December 2019 via 13 focus group discussions with 60 pregnant women and 38 women who recently birthed and through semi-structured interviews with 39 providers in 13 randomly selected facilities in all six regions of the country that provide essential newborn care services. The results suggested that to generate demand, providers could prescribe CHX as an essential item at the time of delivery. The CHX product should be available for sale in both private and public sectors through pharmacies and health facilities as a key component of an integrated birthing kit. A tiered pricing strategy could extend coverage to both facility-based and home-based births. As a result, MOH stakeholders decided to integrate CHX use into the delivery register, advance inclusion in the nEML and market authorization, and extend guidance to all private sector providers to make CHX available in their clinics.

Stakeholder engagement

The Federal Ministry of Health in Nigeria in collaboration with PATH, the INSPiRE initiative funded by the Bill and Melinda Gates Foundation and the USAID-funded Maternal and Child survival program (MCSP) convened a regional learning workshop on Chlorhexidine introduction and scale from July 24-28, 2018. This workshop engaged high-level MOH country representatives to act as CHX champions for product introduction/scale.

PATH provided technical and financial support to the product champions to convene working meetings to facilitate a national dialogue about CHX and support newborn technical working groups at country level when needed.

These national discussions and newborn working group platforms resulted in the establishment of a policy framework to sustainably introduce and scale CHX use at country level. The policy framework includes:

- Introduction of CHX in national newborn care policy
- Revision of national and subnational guidelines to show CHX as part of essential newborn care
- Inclusion of CHX in the essential drugs list (nEML)

PATH maintains virtual engagement with stakeholder champions via a WhatsApp group chat. See Table 1 for advancements in newborn policy frameworks in the 9 countries.
TABLE 1. Establishment of policy framework for CHX from 2017 to 2020, by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Cord care practices</th>
<th>CHX in national newborn policy</th>
<th>CHX on nEML</th>
<th>CHX in care guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>Dry cord care</td>
<td>CHX gel single use at birth</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Alcohol 70°</td>
<td>CHX gel once daily for 7 days</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>CHX gel twice daily with cord bandage</td>
<td>CHX gel once daily for 7 days</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Guinea</td>
<td>Dry cord care</td>
<td>Dry cord care</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mali</td>
<td>Dry cord care</td>
<td>CHX gel once daily for 7 days</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Mauritania*</td>
<td>Dry cord care</td>
<td>CHX gel once daily for 7 days</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Niger</td>
<td>CHX gel once daily for 7 days</td>
<td>CHX gel once daily for 7 days</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Senegal**</td>
<td>CHX liquid once daily for 7 days</td>
<td>Dry cord care</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Togo</td>
<td>Alcohol</td>
<td>CHX gel once daily for 7 days</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Information for Mauritania was current as of 2019.
** National policy to use gel CHX product is on hold due to improper use; government now piloting Umbipro 7.1% CHX in sachet product manufactured by GSK. Umbipro is registered in Senegal for market authorization.

Generate Demand

PATH, in collaboration with national champions and stakeholders, developed materials to raise awareness of CHX by providers and the community. Job aids for health workers are used to orient and train staff who are delivering CHX to newborns. Behavior Change Communication (BCC) materials for the community help families become familiar with the novel CHX product. Both providers and community become familiar with CHX as part of the essential newborn care package. At product launch, these materials are posted in health centers and help staff monitor use of this new way to care for newborns.

PATH created a broad strategy for ensuring proper use of the CHX product by coordinating BCC materials across the Francophone region. These included:

- As part of this effort, PATH translated the Global Health Media Project video on CHX use into Dioula and Hausa. See: https://youtu.be/Tc2yRXBX_DAand https://
- Creation and performance of a song about proper CHX use by Rovane, a locally recognized recording artist based in Ouagadougou, Burkina Faso. The song is available in various languages (Zarma and Hausa version sung by local Nigerien artist Madame Hadari).
  - Moore, Dioula, Kassena, French version
  - Dioula, Baoule, French version
  - Zarma, Hausa, French version
- Creation of a music video based on the song and which includes a demonstration of correct CHX use. The video is most appropriate for Benin, Burkina Faso, Côte d’Ivoire, Guinea, and Togo—countries with similar cultures and customs. It is available in the following languages:
  - Moore, Dioula, Kassena, French version
  - Dioula, Baoule, French Version
Coordinated BCC posters adapted for each country context.

Impact

The INSPIRE project established modèle d'excellence sites in three countries to demonstrate the impact of an integrated package of services that includes CHX. Data from the 3 modèle d'excellence sites in Burkina Faso, Côte d'Ivoire and Niger show that CHX was used in 100% of live births since the time of their establishment. In total, CHX has been applied to 2600 infants who were born in the modèle d'excellence sites over ten months.

References


