SHAPING LOCAL MARKETS TO SCALE-UP ZINC AND ORS IN NIGERIA

CONTENTS

ACKNOWLEDGEMENTS

The Federal Ministry of Health, the National Primary Health Care Development Agency, and the state governments of Bauchi, Cross River, Kaduna, Kano, Katsina, Lagos, Niger, and Rivers, provided the overall leadership and vision to drive the success of this program. The Clinton Health Access Initiative, Inc. would also like to thank Global Affairs Canada and the Norwegian Agency for Development Cooperation for their generous support which made this program possible.

Program in Brief

GEOGRAPHIC SCOPE:
8 states (Bauchi, Cross River, Kaduna, Kano, Katsina, Lagos, Niger, and Rivers)

DONORS:
Global Affairs Canada
Norwegian Agency for Development Cooperation

DURATION:
2013 to 2017

APPROACH:
Build provider and caregiver demand, ensure widespread availability and affordability of optimal products, and support government to create an enabling environment

RESULTS:
Combined coverage of zinc and ORS among children under the age of five with diarrhea increased from 3% to 31%, overall, across all focal states.

Background

In 2012, diarrhea was one of the top three killers of children under the age of five years in Nigeria, responsible for approximately 100,000 deaths each year.[1] Zinc and oral rehydration salts (ORS) can prevent over 90% of diarrhea-related deaths. However, in Nigeria, less than 1% of children received the full recommended treatment. Instead, the majority of children continued to receive suboptimal products like antibiotics and antidiarrheals or received nothing at all. Approximately 70% of caregivers sought care for diarrhea in the private sector.[2]

Caregivers and health providers were often unaware of zinc and ORS as the recommended treatment of child diarrhea resulting in low demand. As a result, suppliers had limited incentive to invest in the distribution and promotion of the products thereby creating a 'market trap.' The political and partner environment further impeded the uptake of the products through limited attention, funding, and unfavorable regulatory conditions.

In response, the Federal Ministry of Health (FMoH), through the Nigerian Primary Healthcare Development Agency (NPHCDA), launched its first-ever *National Essential Medicines Scale-up Plan*, which aimed to reach an ambitious target of 80% coverage of zinc and ORS nationwide by the end of 2015.

1 Child Health Epidemiology Reference Group of WHO and UNICEF. "Global, Regional, and National Causes of Child Mortality: An Updated Systematic Analysis for 2010 with Time Trends since 2000." *Lancet*, vol. 379, pp. 2151-2161, 2012.

2 Secondary analysis of Nigeria Demographic Health Survey 2008 data.

APPROACH

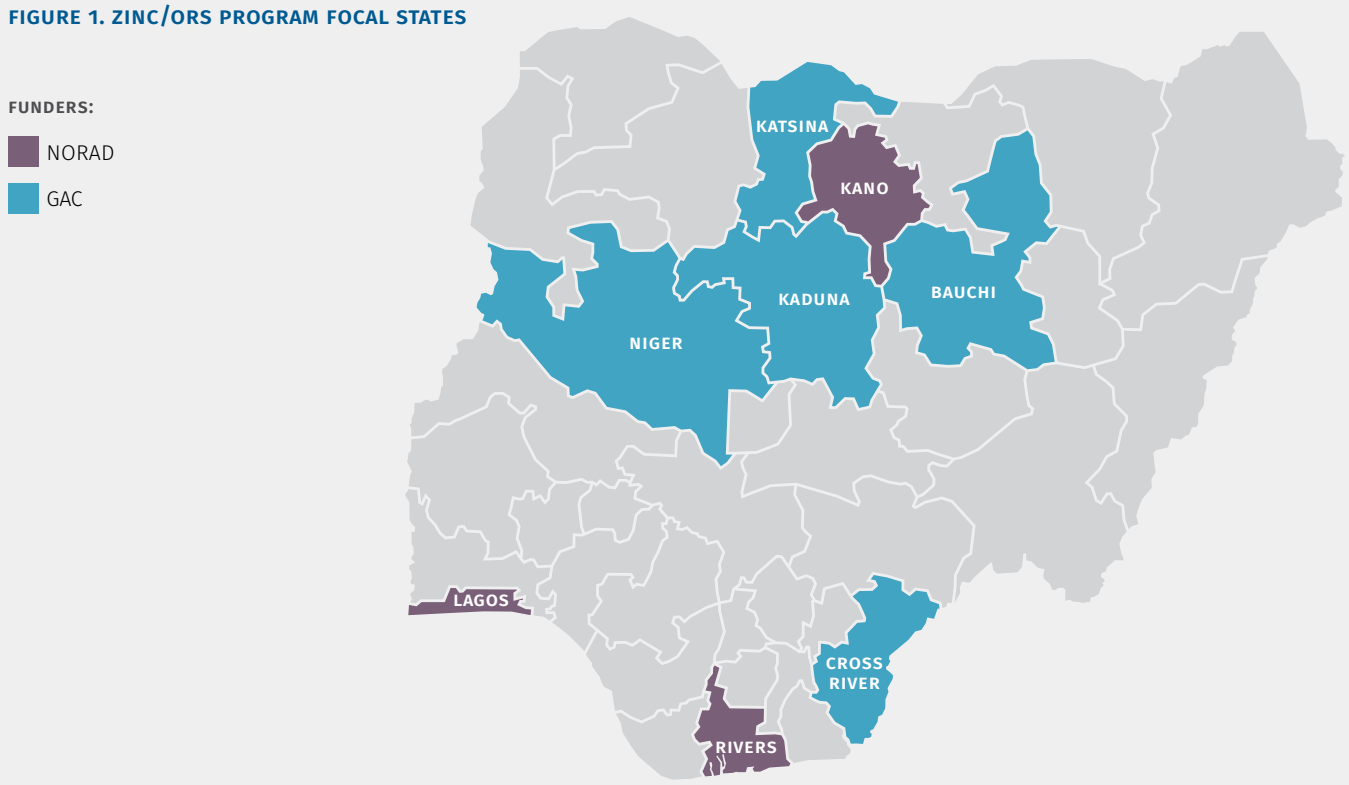
With funding from Global Affairs Canada (GAC) and Norwegian Agency for Development Cooperation (Norad), the Clinton Health Access Initiative, Inc. (CHAI) supported the Government of Nigeria and local partners to execute a large-scale program to break this 'market trap' by simultaneously building demand and ensuring widespread availability of zinc and ORS, particularly in hard-to-reach areas.

The program was implemented in eight focal states—Bauchi, Cross River, Kaduna, Kano, Katsina, Lagos, Niger, and Rivers—which account for approximately 40% of the total diarrheal burden in Nigeria (see Figure 1).[3] These states cover a population of over 8 million children under the age of five.[4]

In line with the *National Strategy*, the program focused on three core objectives (see Figure 2):

- **Creating an enabling environment:** The program partnered with FMoH, NPHCDA, and state ministries of health (SMoH) to establish coordination mechanisms at national and state levels to build broad support, mobilize resources for implementation, and align key stakeholders around the *National Strategy*. CHAI also worked with the government to revise treatment guidelines and policies at the national level and ensure these recommendations were translated at state levels. This included clarifying over-the-counter (OTC) status of zinc to key partners, enabling widespread marketing and promotion at the retail level.
- **Ensuring widespread availability and affordability of optimal zinc/ORS products:** The program engaged local manufacturers to encourage investments in production, promotion, and sales of optimal zinc and ORS products—including zinc dispersible tablets, the WHO-recommended low-osmolarity (Lo-ORS) formulation, and co-packaged zinc and ORS. Market intelligence was provided to partners through supplier forums, and one-on-one technical assistance on product registration, cost reduction, marketing, and product and packaging optimization strategies. To expand the reach of zinc/ORS in rural areas, innovative private sector strategies and streamlined distribution models targeting wholesalers, sub-distributors, and retailers were rolled out. In the public sector, CHAI also provided technical assistance to SMoHs on quantification, procurement, and distribution of zinc/ORS.

FIGURE 1. ZINC/ORS PROGRAM FOCAL STATES



3 Nigeria Demographic Health Survey, 2013.

4 Nigeria Population Census, 2006.

FIGURE 2. PROGRAM TIMELINE

2013	1 LAY A FOUNDATION FOR SCALE-UP	· Commencement of Norad support · Create an enabling policy / regulatory environment · Generate momentum and buy-in · Develop a reliable supply base
2014-2015	2 CEMENT INITIAL MARKET DEMAND	· Commencement of GAC support · Generate early sales volumes · Secure longer-term supplier interest · Train providers in public and private sectors · Engage top of the clinical pyramid of influence
	3 DRIVE INCREMENTAL EXPANSION	· Expand product introduction to highest potential markets · Use consumer and provider promotion to increase volumes and create economies of scale · Reinforce provider knowledge and practices · Activate community networks to reach caregivers
2016 - 2017	4 LEVERAGE ECONOMIES OF SCALE	· Economies of scale produce efficiencies in production and distribution · Increased efficiencies help create incentives for reaching remote areas
	5 TRANSITION TO PARTNERS FOR FULL INDEPENDENCE	· Non-supplier promotional activities wind down as suppliers increase promotional investments · Distribution incentives taper off after markets secured · Integrate activities into SMoH Annual Operational Plans

- **Build health provider and caregiver demand:** The program applied drug industry techniques to change the practices of consumers and providers. CHAI engaged SMoHs, professional associations, National Association of Patent and Proprietary Medicines (NAPPMED), and Pharmacists Council of Nigeria (PCN) to strengthen existing platforms for repeatedly reaching public and private providers. This included targeting proprietary and patent medicine vendors (PPMVs), retail drug shops and main source of care for diarrhea. Caregivers—predominantly mothers—were educated on diarrhea management through female vanguard associations, religious schools, key influencers, and health talks. A radio campaign was also implemented in Bauchi, Kaduna, Kano, Katsina, and Rivers.

Through these activities, the program covered all local government areas (LGAs) across the eight focal states and reached more than 24,000 public providers in primary health centers and secondary health facilities and nearly 32,000 individual PPMVs (see Table 1).

TABLE 1. REACH OF ZINC/ORS PROGRAM (ESTIMATED)*

STATE	# PUBLIC PROVIDERS REACHED (% OF TOTAL)	# PPMVS REACHED (% OF TOTAL)
Bauchi	2,900 (77%)	2,700 (84%)
Cross River	2,600 (66%)	2,600 (95%)
Kaduna	3,000 (66%)	6,800 (94%)
Kano	3,300 (82%)	4,100 (82%)
Katsina	3,400 (75%)	4,000 (96%)
Lagos	4,200 (89%)	3,800 (88%)
Niger	4,300 (81%)	3,400 (96%)
Rivers	2,000 (87%)	4,600 (90%)

* Each provider reached at least once by the program

CASE STUDY:

ESTABLISHING A NATIONAL COORDINATION MECHANISM FOR SCALE-UP

BACKGROUND

In 2012, the Government launched the *National Essential Childhood Medicines Scale-up Plan*, which aligned with the recommendations of the *UN Commission on Life-Saving Commodities for Women and Children*. The strategy provided a framework for aligning efforts to increase access to and use of zinc and ORS. Given the Strategy's ambitious targets, partner contributions and resources were needed to implement the plan.

APPROACH

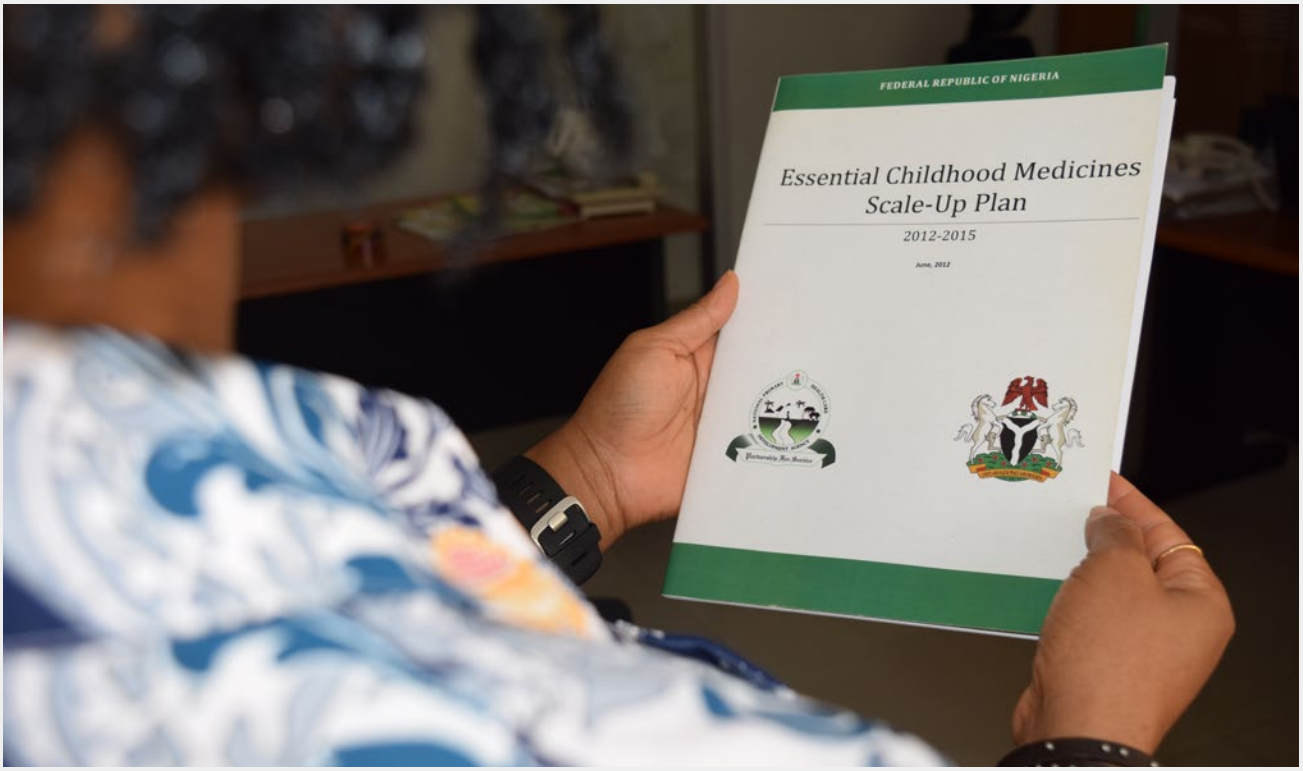
The NPHCDA and FMoH established the National Essential Medicines Coordination Mechanism (NEMCM) composed of government and over 15 partners to coordinate implementation of key activities. CHAI provided secretariat support to establish the terms of reference for the NEMCM, develop a detailed partner mapping and a joint workplan, and convened regularly meetings to evaluate progress and resolve bottlenecks.

RESULTS

By the end of 2016, the NEMCM mobilized **over USD 50 million in new funding** from partners to support implementation. After 12 months of its inception, CHAI fully transitioned the responsibility of chairing the NEMCM to the NPHCDA. In each of the eight focal states, similar state-level mechanisms (SEMCM) were created.

LESSONS LEARNED

- Strong leadership from the NPHCDA was critical to the success and effective functioning of the NEMCM. This ensures ownership of the strategy, active participation from members, and increased accountability.
- Regular attendance from participants (from the right levels of organizations) is needed to ensure effective follow-up.



RESULTS

To evaluate the program, CHAI collected data in all focal states—including approximately 21,600 household surveys (at baseline, midline, and endline), 14 quarterly private retail audits, and four semi-annual public facility audits. Results from household surveys are weighted. Existing data sources such as the Demographic and Health Survey (DHS), Multiple Indicator Cluster Surveys (MICS), and Health Management Information System (HMIS), were also leveraged to complement and validate data collected by CHAI.

In 2015, the program first rolled out in three states—Kano, Lagos, and Rivers. **Combined zinc and ORS coverage increased from 0% to 20% across these three states.** The strongest improvement occurred in Rivers, from 0% to 33%; in 2015, a health worker strike in public facilities ended which likely led to subsequent improvements in provider prescription rates, care-seeking, co-pack adoption, and the total cost of treatment. In contrast, ORS coverage declined slightly in Kano—likely due to a 60% drop in usage of the product in the home between midline and endline when the country was experiencing an economic downturn. During the same period, a concurrent increase in the use of home remedies was observed.

FIGURE 3. COMBINED ZINC AND ORS COVERAGE (BASELINE VS. ENDLINE)[5]

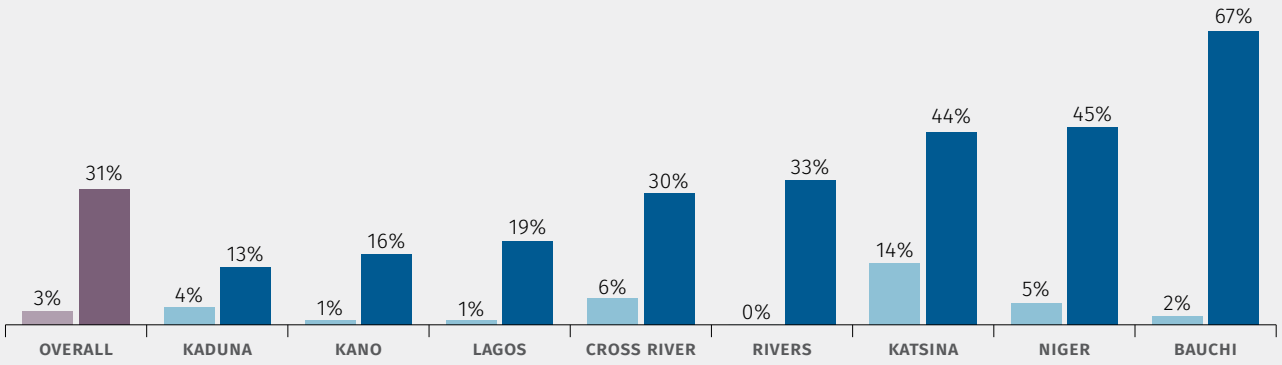
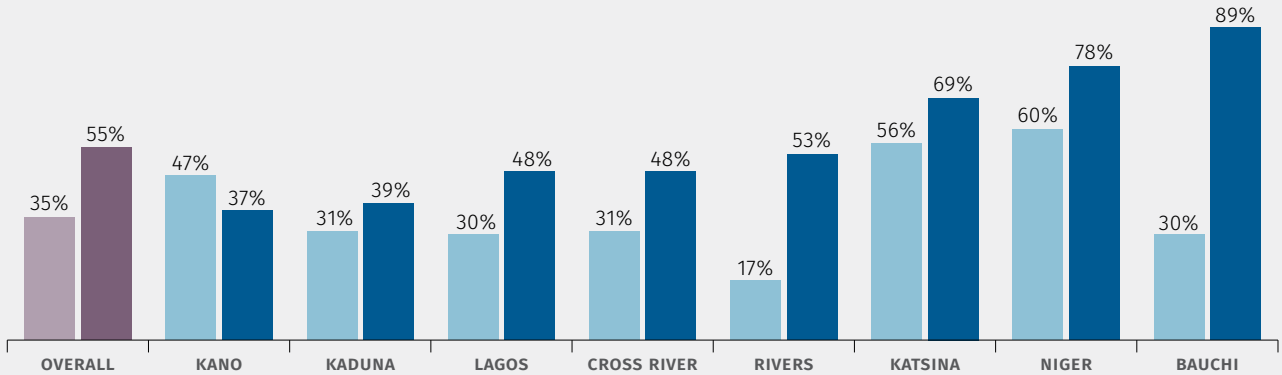


FIGURE 4. ORS COVERAGE (BASELINE VS. ENDLINE)[5]



5 Figures 3 and 4 source: Norad baseline (Dec 2013-Feb 2014), Norad endline (Apr-May 2016), GAC baseline (Sep-Oct 2014), GAC endline (May-Jun 2017)

Nearly one year later, the program was expanded in five states—Bauchi, Cross River, Kaduna, Katsina, and Niger. These states were able to leverage and apply lessons from earlier implementation in Kano, Lagos, and Rivers. Specifically, routine data from DHIS was used to inform intensified efforts in low performing areas in the final year of the program for the five states. The initial community activation strategy required a high cost per contact to reach key influencers at the ward level to monitor and ensure messages were actually cascaded to caregivers. As such, the strategy was also adapted to leverage existing networks such as female vanguard associations and Islamiyah schools, which offered a central rallying point for securing commitments and achieving consistency of message dissemination. This new strategy allowed the program to reach twice the number of key influencers with fewer resources. Clinic-based group health education (CBGHE) in health facilities was also leveraged to reach mothers. On the supply side, wholesaler activation and market sensitization activities linked suppliers with wholesalers.

Across these five states, combined coverage increased from 6% to 37%. Bauchi and Niger achieved the greatest increases. In Bauchi, strong government ownership and effective partner coordination were key drivers of success. In Niger, the robust sub-distribution strategy and house-to-house campaigns leveraging existing routine immunization structures facilitated increases in availability and care-seeking in hard-to-reach areas. In contrast, coverage was lower in Kaduna and Cross River—states that did not have a capitalized Sustainable Drug Supply System (SDSS). Additionally, management of PHCs in Cross River under transitions at the start of the program, hampering initial progress on public sector availability. In Kaduna, relations between PCN and NAPPMED limited the ability of the program to reach PPMVs.

Combined zinc and ORS coverage increased from 3% to 31% across all eight states.

By the end of the program, **combined zinc and ORS coverage increased from 3% to 31% across all eight states** (see Figure 3). ORS coverage also increased from 35% to 55% (see Figure 4). Notably, Bauchi, Katsina, and Niger surpassed 40% in combined zinc and ORS coverage. Globally, the only other country that has reached similar levels is Bangladesh—of 34% coverage, which took seven years and substantial investments to achieve.

Finally, ORS coverage increased across wealth, location, and gender. In terms of equity, ORS coverage was 167% higher among the wealthiest than poorest households at baseline, but this gap **decreased by about 70%** by endline (see Figure 5). The disparity between urban versus rural areas also decreased; ORS coverage among urban households was 47% higher than rural households and, by endline, **coverage among rural households was 9% higher compared to urban areas** (see Figure 6). For gender, ORS coverage among male children was 4% higher than females at baseline, though the disparity widened to 22% by endline. Disparity was largest, overall, among the first three states that implemented the program. In the following five states, the disparity decreased from 15% at baseline to 8% at endline. Further analysis is needed to understand the key drivers of these results.

FIGURE 5. ORS COVERAGE DISPARITY WEALTHIEST VS. POOREST [6]

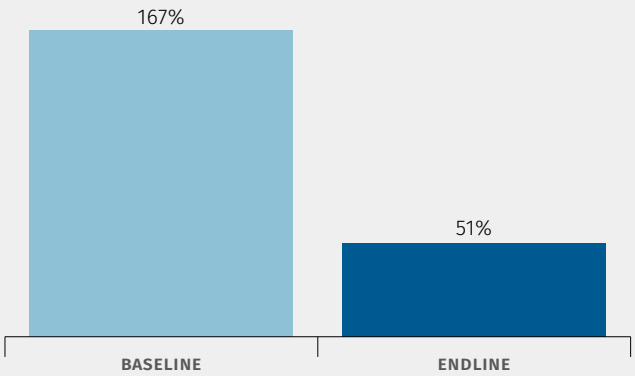
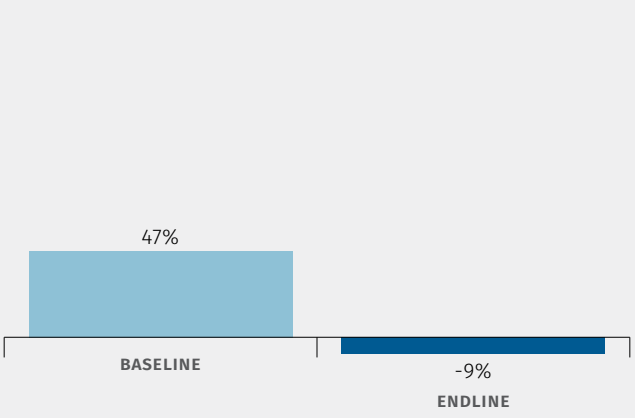


FIGURE 6. ORS COVERAGE DISPARITY URBAN VS. RURAL [6]



6 Figures 5 and 6 source: Norad baseline (Dec 2013-Feb 2014), Norad endline (Apr-May 2016), GAC baseline (Sep-Oct 2014), GAC endline (May-Jun 2017)

CASE STUDY:

INTRODUCING NEW, AFFORDABLE ZINC AND ORS PRODUCTS TO THE LOCAL MARKET

BACKGROUND

Low margins and demand for zinc/ORS discouraged Nigerian suppliers from investing in the diarrhea treatment market. At the start of the program, only one local manufacturer supplied the WHO-recommended low-osmolarity solution (Lo-ORS) and there were no manufacturers of zinc in the dispersible form. The average wholesale price per combined zinc and ORS treatment course was NGN 250/USD 1.55.

APPROACH

CHAI engaged with local manufacturers—through forums and one-on-one meetings—to introduce new, optimal, and affordable zinc and Lo-ORS products to the market. This included technical assistance on market intelligence, formulation development, local registration, and cost reduction strategies. As part of these engagements, CHAI also facilitated adoption of more optimal product design and packaging based on market research.

RESULTS

Five new LO-ORS, four zinc dispersible, and six co-packaged products were introduced to the local market. As a result, wholesale prices for the combined treatment dropped by nearly 70% since baseline to NGN 80/USD 0.41. Over one-third of all registered Lo-ORS suppliers (34 out of 92 suppliers) in the country have received regulatory approval for the Lo-ORS formulation.

LESSONS LEARNED

- Signing confidentiality agreements can be useful to secure confidence of manufacturers. Assurance of public sector demand also helped to attract new suppliers.
- Leveraging existing players in the supply chain ensures sustainability of private sector supply.

PROGRAM IMPACT AND SUSTAINABILITY

PROGRAM IMPACT

The program has facilitated large-scale increases in the local zinc/ORS market, allowing many more providers and patients to access zinc and ORS. Initial estimates indicate that the program contributed to averting 18,400 deaths, with the potential for averting tens of thousands more moving forward (see Table 2).

SUSTAINABILITY

The program was designed with a strong focus on promoting sustainability of these results, as well as the continuation of high-impact activities introduced through its partners:

- **At the national level, the government of Nigeria is committed to scale-up:** The NEMCM has established itself as a strong coordinating platform for child health and NPHCDA is playing a leadership role. Similar platforms have been created as well at the state level. State and national policies have been updated changing the locally accepted diarrhea treatment.
- **In the private sector, there is now a robust and competitive zinc/ORS market:** Local manufacturers and others along the supply chain are investing in production and promotion. The rising demand for zinc/ORS will lead to sustained high availability as has been demonstrated in the focal states.
- **In the public sector, state governments are using domestic resources to ensure reliability of supply:** All eight states have incorporated zinc, ORS, and co-pack into SDSS schemes. Diarrhea-related activities have also been included in Annual Operation Plans such as supportive supervision, peer detailing, commodity procurement, and community engagement.
- **The program has built the capacity of a range of partners to effectively manage and address child diarrhea:** The program helped to upskill SMoH officials, facility staff, professional associations, and others at state and LGA levels to enable further increases in correct practices. This included institutionalizing program interventions and zinc/ORS messaging into training curriculums, continuing medical education models, PPMV zonal meetings and other regular activities. A pool of master trainers was also created in public and private sectors. Finally, the program incorporated diarrhea messaging into health talks to reach even more caregivers.

Key Accomplishments

- First national scale-up plan endorsed and coordinating mechanisms (national and state) established
- OTC status clarified for zinc, enabling widespread use among PPMVs
- More than 15 new zinc and Lo-ORS products (including co-pack) were introduced to the local market, resulting in a 70% drop in wholesale price since baseline
- First-ever procurements of zinc, Lo-ORS, and co-packs by SMOHs in all 8 focal states conducted through state funding mechanisms
- A total estimated 60 million ORS and 18 million zinc units sold in 2016 (representing a CAGR of 90% and 139%, respectively, since 2013)

TABLE 2. LIVES SAVED FROM SCALING UP ZINC/ORS (ESTIMATED)*

STATE	LIVES SAVED DURING PROGRAM YEARS (2013-2017)	LIVES SAVED IN THE 5 YEARS AFTER PROGRAM (2017-2021)
Bauchi	4,800	9,800
Cross River	1,100	3,300
Kaduna	1,400	1,900
Kano	1,500	N/A
Katsina	2,500	6,400
Lagos	2,000	4,600
Niger	2,600	5,400
Rivers	2,500	5,700
Total	**18,400**	**37,100**

* Based on inputs of changes in zinc and ORS coverage. Does not account for changes in other interventions. Lives saved in Kano only includes program years 1-3 because coverage levels at endline dipped below baseline years. Due to this, lives saved cannot accurately be calculated or projected forward for future years and are therefore excluded.

Source: CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

CASE STUDY:

PEER DETAILING OF PPMVS TO IMPROVE DISPENSING RATES

BACKGROUND

Nearly 70% of caregivers seek treatment for their child's diarrhea from the private sector. PPMVs are a major source of care and are licensed to sell OTC medicines like zinc and ORS; however, low knowledge among PPMVs and continued recommendation of inappropriate treatment was a key challenge.

APPROACH

CHAI partnered with SMoHs, PCN, and NAPPMED to engage PPMVs, applying best practices from the drug industry in provider education. NAPPMED members were recruited as 'detailers' to conduct shop-to-shop visits and mentor PPMVs on diarrhea management—including the identification of danger signs and referrals of severe cases. Detailers were also trained on interpersonal skills and given mobile devices to track completed visits and help identify knowledge gaps. Reference materials (posters and flipcharts) were also left behind. At least four cycles of detailing were completed per PPMV to reinforce knowledge and practices.

RESULTS

More than 115,000 detailing visits were conducted in all eight states. As a result, **zinc/ORS recommendation rates among PPMVs increased from 16% (baseline) to 93% (endline)**, on average, across states. PPMVs detailed were nearly twice as likely to recommended ORS and zinc compared to non-detailed providers.[7]

LESSONS LEARNED

- NAPPMED is an effective platform for mobilizing PPMVs—the majority of PPMVs are registered with NAPPMED, which exhibits strong leadership and structures to facilitate implementation at national, regional, and local levels.
- PPMVs can gain new knowledge through peer education. Institutionalizing this mechanism has potential to improve access to basic healthcare services in the country.

7 Tao Y., Bhattacharyjya D., Hechin A., Effectiveness of Peer Detailing in a Diarrhea Program in Nigeria. *IBM Journal of Research and Development*, vol. 61, no. 6, 2017.

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc and ORS coverage are possible in Nigeria. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical. Key lessons learned include:

- **Government leadership promotes ownership, speed of implementation, and sustainability**: This includes government officials at the national (FMoH, NPHCDA) and at state and LGA (SMoH, relevant departments and agencies, and other parastatals) levels. A Project Steering Committee—comprised of NPHCDA, SMoHs of Bauchi, Cross River, Kaduna, Katsina, and Niger, GAC, and partners was as an effective mechanism for guiding strategy development, monitoring progress, and sharing lessons and best practices. NPHCDA's leadership at regular meetings also helped to ensure active engagement and accountability among partners.
- **PPMVs play a key role in treatment scale-up:** The private retail sector is dominated by largely untrained PPMVs who were encumbered from freely accessing capacity-building interventions due to PCN's regulatory requirements. Building trust with both PCN and PPMVs was essential for reaching this audience.
- **Public-private sector collaboration is essential for the success of a market-oriented public health intervention:** The launch of the *National Essential Medicines Scale-up Plan* and commitment from national and states governments inspired investments from the private sector and providers for demand generation.
- **A functional Sustainable Drug Supply System is critical to ensure reliability of supply in the public sector:** The functional SDSS schemes in Bauchi, Kaduna, Kano, Lagos, and Niger likely contributed to high product availability.
- **Improving caregiver outcomes is needed to increase product uptake, but is resource-intensive:** Achieving significant improvements in care-seeking requires intensive and frequent community level activities to reinforce correct knowledge and behavior.
- **Demand and supply interventions should be appropriately sequenced:** Addressing demand alongside availability and affordability was pivotal for improved coverage—interventions were planned and rolled out concomitantly.
- **Leveraging female group platforms was effective in building demand in the community:** Identifying and engaging female groups—such as female vanguard associations, Islamiyah schools, and CBGHE—helped to build awareness trust among mothers and caregivers, thereby improving care-seeking and product uptake. Engaging religious leaders helped to enlist support from husbands in their wives' participation in community forums on zinc and ORS.
- **Usage of OTC products may be heavily impacted by changes in economy:** Household usage of OTC products like zinc and ORS may be susceptible to periods of economic decline and under conditions of constrained consumer spending. Poorest populations are particularly vulnerable underscoring the value of Universal Health Coverage to protect against declines in health services.

CASE STUDY:

ENGAGING WHOLESALER AND SUB-DISTRIBUTORS TO EXPAND RURAL AVAILABILITY OF ZINC/ORS

BACKGROUND

Zinc and ORS were not widely available at the retail level in the country and were perceived as low-demand, low-margin products. This resulted in limited investments among key actors along the supply chain. Despite the relative size of the pharmaceutical sector in Nigeria, distribution networks often only reached larger cities and towns; coverage was limited in rural areas.

APPROACH

CHAI completed a detailed assessment to understand the markup structure and cost components along the supply chain for diarrhea treatment. Based on this analysis, CHAI established partnerships with local manufacturers, wholesalers, and sub-distributors. Specifically, distribution agreements with Olpharm and Emzor were signed, which provided time-limited incentives to partners for deploying sales forces in rural areas and meeting volumes, availability, and price targets. Wholesalers in all focal states and regional supply hubs were also activated to expand supply in rural areas. Sub-distribution agreements were signed with nine wholesalers with an existing footprint in rural LGAs (in Bauchi, Cross River, Kaduna, Katsina, and Niger) to further expand distribution.

RESULTS

Overall, significant product volumes were sold by manufacturer, wholesaler, and sub-distributor partners and strong conversion rates were observed among PPMVs and community pharmacists. Specifically, 74% and 66% of private provider purchased zinc and ORS from wholesaler activation and sub-distribution activities. Availability of zinc/ORS in the private sector increased from 15% (baseline) to 72% (endline), on average, across the focal states. Detailed PPMVs were nearly twice as likely to stock both ORS and zinc compared to non-detailed PPMVs.[8]

LESSONS LEARNED

- An appropriate sales manager structure as well as a rich basket of goods are critical for the success of direct distribution to the rural areas.
- Most rural PPMVs are located in terrains that are difficult to access and therefore underserved. Creating supply hubs within these localities by sub-distributors can reduce costs.

8 Tao Y., Bhattacharyjya D., Hechin A., Effectiveness of Peer Detailing in a Diarrhea Program in Nigeria. *IBM Journal of Research and Development*, vol. 61, no. 6, 2017.

BAUCHI

"Availability and affordability of zinc and ORS has improved significantly in Bauchi with the introduction of the co-pack. The concerted effort to reach a range of health providers in public and private sectors was unique."

DR. ROBINSON YUSUF, DIRECTOR HOSPITAL SERVICES, HOSPITAL MANAGEMENT BOARD

INTRODUCTION

In 2012, diarrhea was responsible for nearly 2,700 deaths in Bauchi.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Global Affairs Canada, the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health (SMoH) of Bauchi to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** A new State Essential Medicines Coordination Mechanism (SEMCM) was established as the child health sub-committee of the Partners Coordination Forum to harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH and Drug and Medical Consumables Management Agency (DMMA) to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and sub-distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH, Primary Health Care Board (SPHCB), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and

Program in Brief

STATE:
Bauchi

DONOR:
Global Affairs Canada

DURATION:
2014-2017

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 2% to 67%**

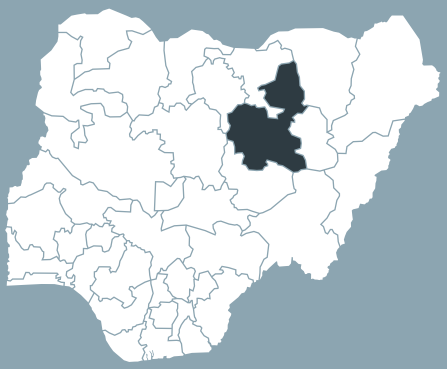
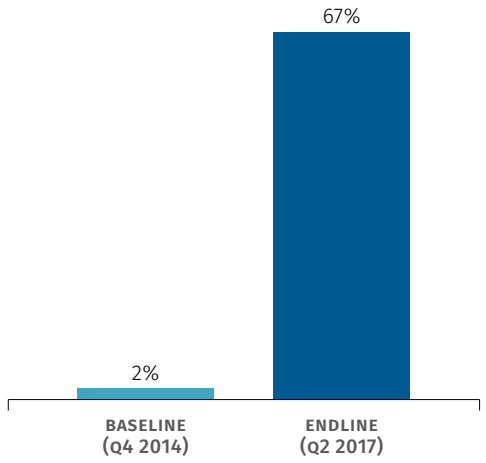


FIGURE 1. ZINC/ORS COVERAGE IN BAUCHI



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers, which was supplemented with clinic-based group health education and outreach to female vanguard leaders and Islamiyah schools.

These activities covered all 20 LGAs in the state and reached approximately 2,900 public providers (77% of total in the state) in primary health centers (PHCs) and secondary health facilities and 2,700 PPMVs (84% of the estimated total).

RESULTS

Since baseline, an increase of **more than 30-fold, from 2% to 67%**, in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices, product availability, and care-seeking[2] (see Figure 2).

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM was paramount to the success of the program;
- Strengthening sustainable drug supply systems could have further bolstered public sector supply;
- The deteriorating economy forced suppliers to increase costs of goods sold which impacted zinc/ORS prices; the lowest median price for the co-pack was achieved at midline (NGN 50), but increased four-fold by endline (to NGN 200); and
- Increasing intensity of efforts in poor-performing LGAs—based on midline results and guided by lessons from earlier implementation in Norad-funded states—contributed to high coverage rates.

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

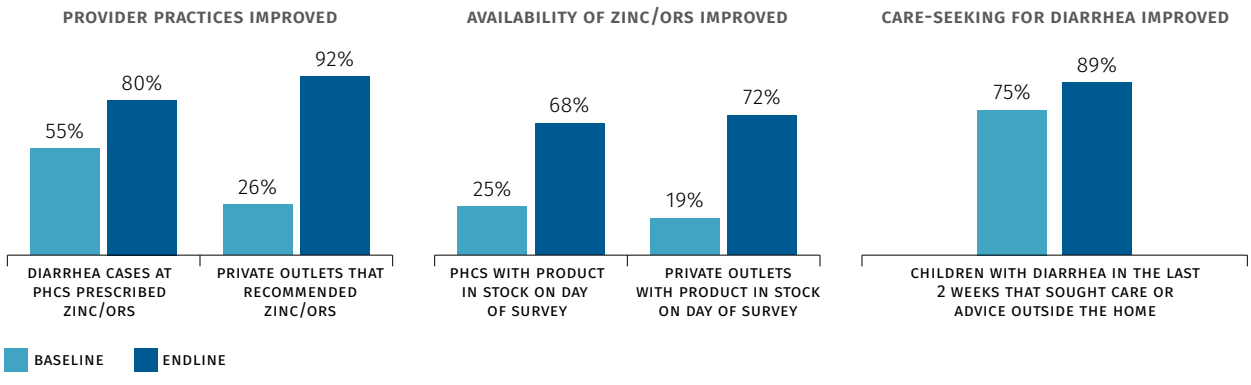
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., supportive supervision, peer detailing, community activation, and zinc/ORS procurement);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continue to procure volumes each year;
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, health facilities, and LGA NAPPMED; and
- Sub-distributors are linked to NAPPMED and PHCs and have reached profitability with zinc/ORS sales, thereby creating new business channels.

CALL TO ACTION

While Bauchi surpassed the program coverage target of 50%, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen the existing sustainable drug supply system so zinc/ORS is available in all PHCs; and
- Further expand zinc and ORS availability, particularly in rural areas.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014 and endline conducted in 2017.

CROSS RIVER

"The diarrhea program has been so impactful. Prior to its launch, coverage of zinc and ORS in the state was at its lowest, but from our observations in the field everyone is singing about zinc and ORS. Yet, more can be done to strengthen procurement and the SMoH is committed to this."

DR. INYANG ASIBONG, COMMISSIONER FOR HEALTH, CROSS RIVER STATE MINISTRY OF HEALTH

INTRODUCTION

In 2012, diarrhea was responsible for more than 2,000 deaths in Cross River.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Global Affairs Canada, the Clinton Health Access Initiative (CHAI) supported State Ministry of Health (SMoH) of Cross River to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** A new State Essential Medicines Coordination Mechanism (SEMCM) was established as the child health sub-committee of the Partners Coordination Forum to harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability and affordability of zinc and ORS:** Technical assistance was provided to SMoH to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Sub-distributors were also linked to primary health centers (PHCs) and areas. Wholesaler activation campaigns and sub-distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider and caregiver demand:** Support was provided to SMoH, Primary Healthcare Development Agency (SPHCDA), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers, which was supplemented with clinic-based group health education and outreach to female vanguard groups and their members.

Program in Brief

STATE:
Cross River

DONOR:
Global Affairs Canada

DURATION:
2014-2017

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 6% to 30%**

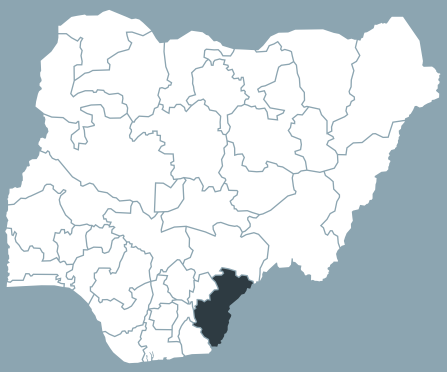
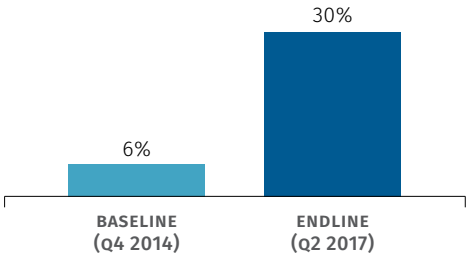


FIGURE 1. ZINC/ORS COVERAGE IN CROSS RIVER



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

Through these activities, the program covered all 18 LGAs in the state and reached approximately 2,600 public providers (66% of total in the state) in primary health centers (PHCs) and secondary health facilities and 2,600 PPMVs (95% of the estimated total).

RESULTS

Since baseline, a **five-fold increase, from 6% to 30%**, in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM was paramount to the success of the program;
- Increasing intensity of efforts in poor-performing LGAs—based on midline results and guided by lessons from earlier implementation in Norad-funded states—contributed to high coverage rates;
- While the lack of public sector procurement limited public sector supply, the program's focus on private sector interventions helped to increase confidence in and care-seeking in the private sector;
- Due to difficult terrains, demand generation and sub-distribution activities were often introduced together in a single trip for efficiency; and
- The deteriorating economy forced suppliers to increase costs of goods sold which impacted zinc/ORS prices; the lowest median price for the co-pack was achieved at midline (NGN 50), but increased four-fold by endline (to NGN 200).

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

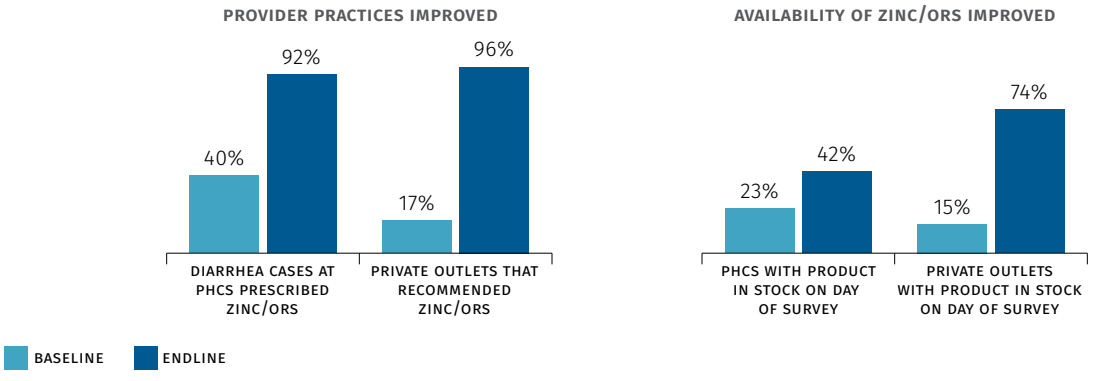
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., supportive supervision, SEMCM meetings, community activation, and zinc/ORS commodity procurement);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continue to procure volumes each year;
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, health facilities, and LGA NAPPMED; and
- Sub-distributors are linked to NAPPMED and PHCs and have reached profitability with zinc/ORS sales, thereby creating new business channels.

CALL TO ACTION

While significant progress was made to improve coverage in Cross River, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen the existing Drug Revolving Fund so zinc/ORS is available in all public facilities;
- Further expand availability in private outlets; and
- Improve care-seeking to accelerate uptake.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014 and endline conducted in 2017.

KADUNA

"Despite legal issues between the SMoH & HS, NAPPMED, and PCN, CHAI has been able to bring all parties together to plan, implement, monitor, and evaluate activities in the private sector to scale up zinc and ORS."

DR. ADO ZAKARI, DIRECTOR OF PUBLIC HEALTH, KADUNA STATE MINISTRY OF HEALTH & HUMAN SERVICES

BACKGROUND

In 2012, diarrhea was responsible for nearly 4,000 deaths in Kaduna.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Global Affairs Canada, the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health & Human Services (SMoH & HS) of Kaduna to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** The MNCH Child Health Core Technical Committee (MNCH-CTC) was revised to serve as the child health sub-committee of the Partners Coordination and harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH & HS and Drug and Medical Supplies Management Agency (DMSMA) to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and sub-distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH & HS, State Primary Health Care Development Agency (SPHCDA), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers and ward development committees, which was supplemented with clinic-based group health education (CBGHE) and outreach to female vanguard leaders and Islamiyah schools.

Program in Brief

STATE:
Kaduna

DONOR:
Global Affairs Canada

DURATION:
2014-2017

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 4% to 13%**

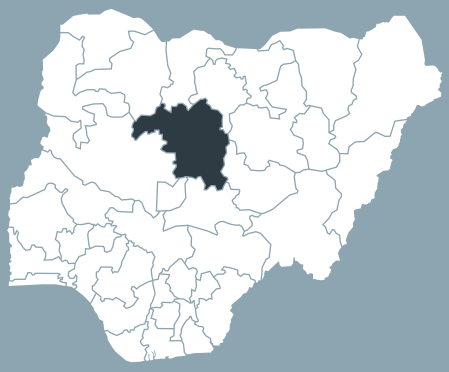
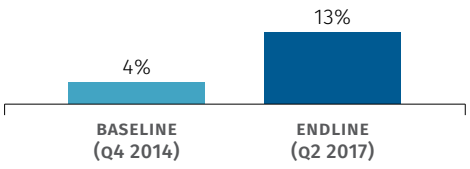


FIGURE 1. ZINC/ORS COVERAGE IN KADUNA



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

These activities covered all 23 LGAs in the state and reached nearly 3,000 public providers (or 66% of total in the state) in primary health centers (PHCs) and secondary health facilities and 6,800 PPMVs (96% of the estimated total).

RESULTS

Since baseline, a **three-fold increase, from 4% to 13%**, in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH & HS and effective partner coordination through the MNCH-CTC was paramount to the success of the program;
- Increasing intensity of efforts in poor-performing LGAs—based on midline results and guided by lessons from earlier implementation in Norad-funded states—contributed to high coverage rates;
- The introduction of a Treasury Single Account delayed payment and zinc/ORS commodity procurement; independent SMoH accounts and credit lines between DMSMA and manufacturers were facilitated to improve availability in PHCs; and
- Establishing platforms to strengthen the relationship between PCN-SMoH and NAPPMED was critical to advancing progress in the private sector.

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

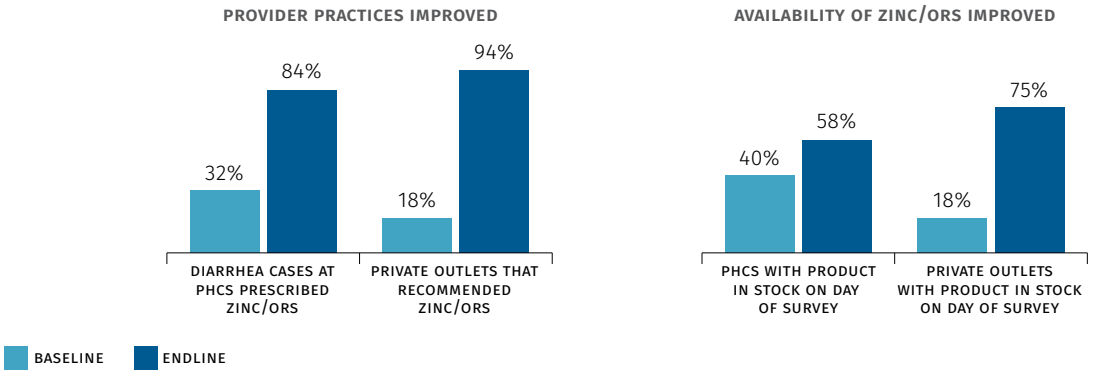
- Diarrhea-related activities are now included in SMoH & HS's Annual Operational Plans (e.g., supportive supervision, mass media campaigns, community activation, CBGHE, and zinc/ORS commodity procurement);
- SMoH & HS conducted its first-ever procurement of zinc/ORS during the program and continue to procure volumes each year;
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, health facilities, and LGA NAPPMED; and
- Sub-distributors are linked to NAPPMED and PHCs and have reached profitability with zinc/ORS sales, thereby creating new business channels.

CALL TO ACTION

While significant progress was made to improve coverage in Kaduna, continued support from SMoH & HS and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen the existing Drug Revolving Fund (integrating free MNCH weeks within this mechanism) so zinc/ORS is available in all PHCs;
- Further expand availability in private outlets;
- Improve care-seeking to accelerate uptake; and
- As part of a broader effort to improve policies and availability of key pneumonia and diarrhea commodities, CHAI will continue to provide TA to SMoH to improve zinc/ORS coverage.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014 and endline conducted in 2017.

KANO

"Demand generation activities have increased uptake of zinc/ORS at the DMSCA resulting in increase in procured quantities. Even after the program, facilities continue to request zinc/ORS on sustainable basis, thereby ensuring availability of the product and eliminating stock outs."

PHARMACIST KAMILU MUD, DIRECTOR DRUGS, DMSCA KANO

INTRODUCTION

In 2012, diarrhea was responsible for approximately 6,000 deaths in Kano.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Norwegian Agency for Development Cooperation (Norad), the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health (SMoH) of Kano to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** A new State Essential Medicines Coordination Mechanism (SEMCM) was established as the child health sub-committee of the Partners Coordination Forum to harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH and Drugs, Medical Supplies, and Consumables Agency (DMSCA) to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and direct distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH, Primary Health Management Board (SPHCMB), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers and ward development committees, which was supplemented with clinic-based group health education and outreach to female vanguard leaders and Islamiyah schools.

Program in Brief

STATE:
Kano

DONOR:
Norad

DURATION:
2013-2016

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 1% to 16%**

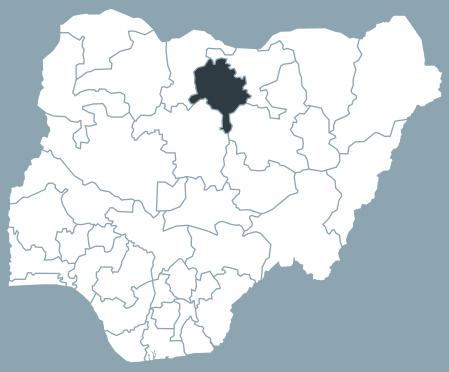
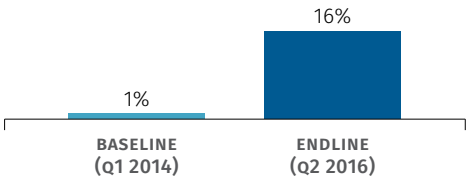


FIGURE 1. ZINC/ORS COVERAGE IN KANO



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

These activities covered all 44 LGAs in the state and reached approximately 3,300 public providers (82% of total in the state) in primary health centers (PHCs) and secondary health facilities and 4,100 PPMVs (82% of the estimated total).

RESULTS

Since baseline, a **16-fold increase—from 1% to 16%**—in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM was paramount to the success of the program;
- Usage of OTC products may be impacted by periods of economic declines and under conditions of constrained consumer spending, as observed by the decrease in ORS coverage between midline and endline;
- An unexpected shift in care-seeking from public to private sector was observed; future investments should increase in the private sector in periods of economic decline; and
- A greater focus on caregiver-facing activities as soon as high performance among providers is achieved is necessary to accelerate uptake among the home treatment segment.

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

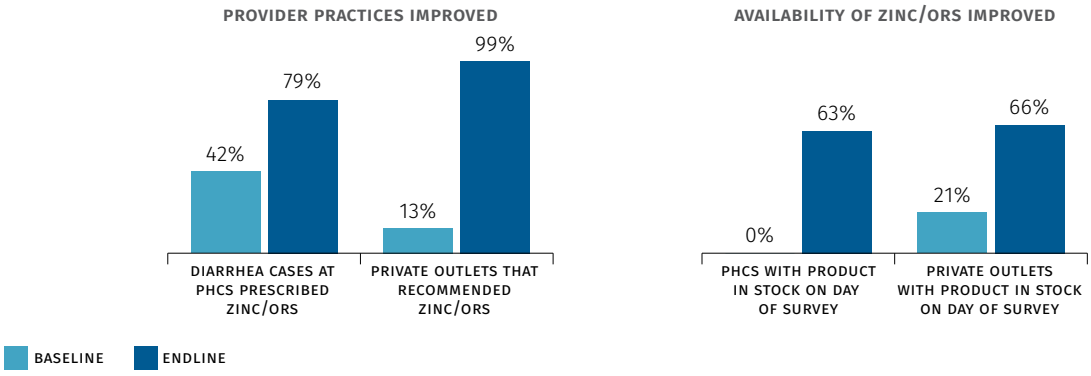
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., supportive supervision, SEMCM meetings, community activation, and commodity procurement);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continues to fund procurement of commodities through the Drug Revolving Fund; and
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, NAPPMED, and professional associations.

CALL TO ACTION

While significant progress was made to improve coverage in Kano, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and procure commodities through the DRF so zinc/ORS is available in all PHCs;
- Further expand zinc/ORS availability, particularly in rural areas;
- Improve care-seeking to accelerate uptake; and
- As part of a broader effort to improve policies and availability of key pneumonia and diarrhea commodities, CHAI will continue to provide technical assistance to SMoH to improve zinc/ORS coverage.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014 and endline conducted in 2016.

KATSINA

"The program had a clearly defined strategy addressing gaps in both the public and private sector to improve access to treatment for diarrhea. This was essential for the substantive results observed to date."

PHARMACIST ADAMU SULEIMAN GACHI, DIRECTOR PLANNING RESEARCH AND STATISTICS, KATSINA SMOH

INTRODUCTION

In 2012, diarrhea was responsible for approximately 3,400 deaths in Katsina.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Global Affairs Canada, the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health (SMoH) of Katsina to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** A new State Essential Medicines Coordination Mechanism (SEMCM) was established as the child health sub-committee of the Partners Coordination Forum to harmonize efforts across partners. The state Essential Medicines List (State Free Medicare List) was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH and Primary Health Care Development Agency (SPHCDA) to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and sub-distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH, Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers and ward development committees, which was supplemented with clinic-based group

Program in Brief

STATE:
Katsina

DONOR:
Global Affairs Canada

DURATION:
2014-2017

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 14% to 44%**

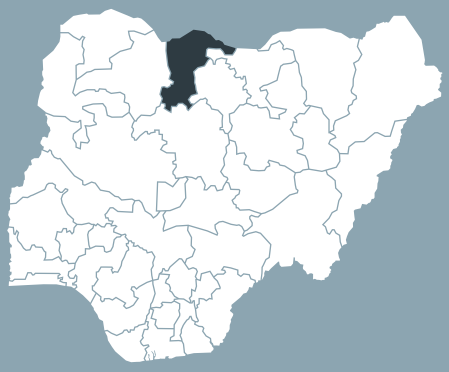
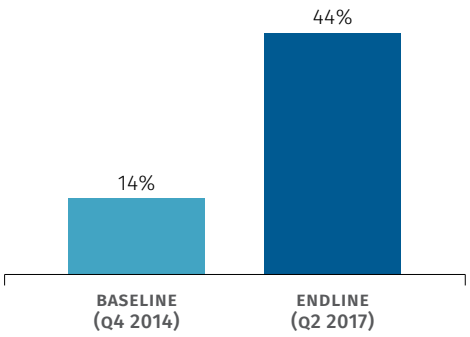


FIGURE 1. ZINC/ORS COVERAGE IN KATSINA



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

health education and outreach to female vanguard leaders and Islamiyah schools.

These activities covered all 34 LGAs in the state and reached approximately 3,400 public providers (75% of total in the state) in primary health centers (PHCs) and secondary health facilities and 4,000 PPMVs (96% of the estimated total).

RESULTS

Since baseline, a **nearly three-fold increase—from 14% to 44%**—in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provide practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM was paramount to the success of the program;
- Following midline results, the program increased its focus in poor-performing LGAs—guided by lessons from earlier implementation in Norad-funded states—which contributed to high coverage rates;
- Strong engagement from NAPPMED's state chapter and the program's sub-distribution strategy helped to achieve positive outcomes in correct practice and stocking among PPMVs; and
- Strengthening sustainable drug supply systems could have further bolstered public sector supply.

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

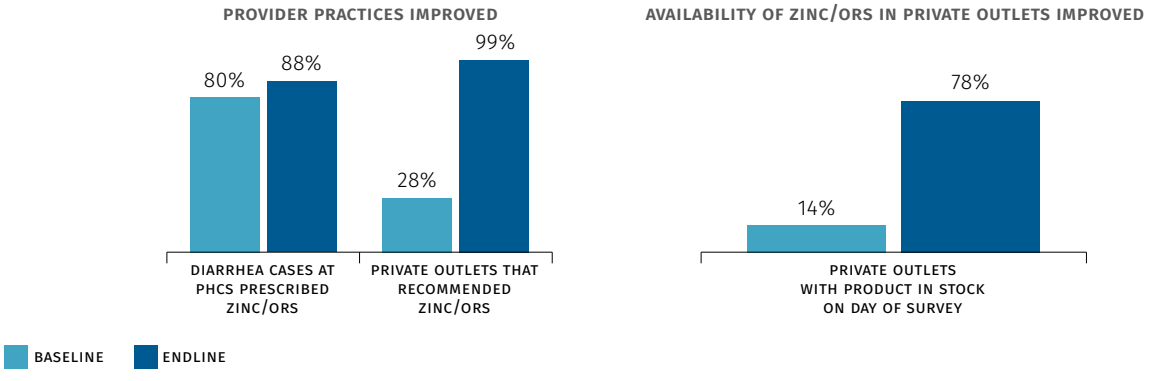
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., IMCI trainings, zinc/ORS commodity procurement, and printing and distribution of IEC materials);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continue to procure volumes each year;
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, health facilities, and LGA NAPPMED; and
- Sub-distributors are linked to NAPPMED and PHCs and have reached profitability with zinc/ORS sales, thereby creating new business channels.

CALL TO ACTION

While significant progress was made to improve coverage in Katsina, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen existing Drug Revolving Fund so zinc/ORS is available in all public facilities;
- Further expand zinc and ORS availability, particularly in rural areas; and
- Improve care-seeking to accelerate uptake; SMoH is already planning to collaborate with NAPPMED, Plan International, and other partners on additional activities such as trainings, radio, and community engagement.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014/2015 (Q4 2014 for household, Q4 2015 for retail audit, and Q3 2015 for facility audit). Endline conducted in Q2 2017.

LAGOS

"CHAI's diarrhea program has improved the knowledge of PPMVs in Lagos and made zinc and ORS co-pack more affordable and available. We will continue to recommend zinc and ORS to save lives."

ALHAJI BABATUNDE ADEWALE, FORMER PRESIDENT, NAPPMED LAGOS

INTRODUCTION

In 2012, diarrhea was responsible for nearly 3,400 deaths in Lagos.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Norwegian Agency for Development Cooperation (Norad), the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health (SMoH) of Lagos to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** The State Essential Childhood Illnesses Coordination Sub-Committee (SECICs), formerly the Clinical Advisory Group, was established as the family health sub-committee of the Partners Coordination Forum to harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH and State Central Medical Store (CMS) to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and sub-distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH, Primary Health Care Board (SPHCB), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key opinion leaders and ward committees, which was supplemented with clinic-based group health education and outreach to female vanguard leaders and Islamiyah schools.

Program in Brief

STATE:
Lagos

DONOR:
Norad

DURATION:
2013-2016

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 1% to 19%**

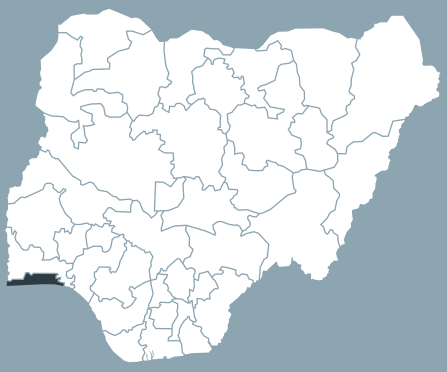
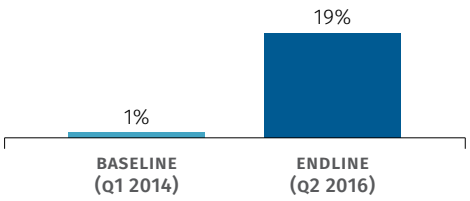


FIGURE 1. ZINC/ORS COVERAGE IN LAGOS



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

These activities covered all 20 LGAs in the state and reached approximately 4,200 public providers (89% of total in the state) in primary health centers (PHCs) and secondary health facilities and 3,800 PPMVs (88% of the estimated total).

RESULTS

Since baseline, a **19-fold increase—from 1% to 19%**—in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM and Clinical Advisory Group was paramount to the success of the program; and
- The deteriorating economy from midline to endline may have influenced a shift in care-seeking from the public to private sector; however, increased usage in the private sector helped to mitigate the impact on overall coverage.

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

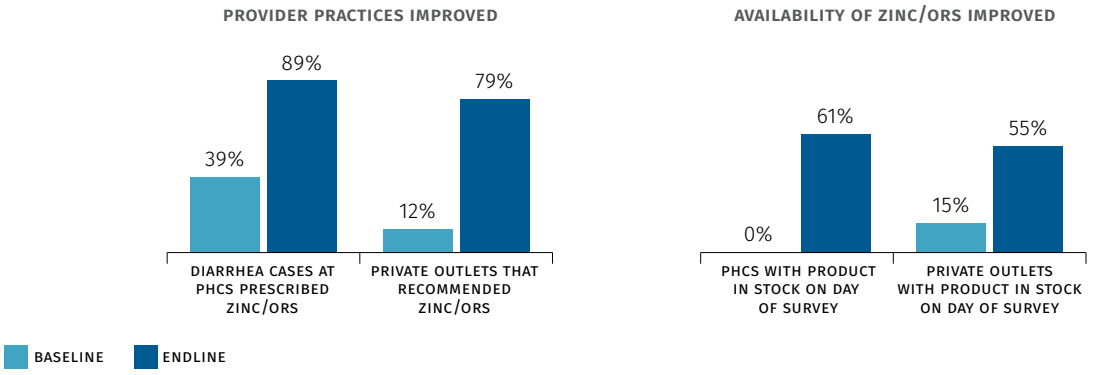
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., supportive supervision, peer detailing, community activation, and zinc/ORS procurement);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continues to fund procurement of commodities through the Drug Revolving Fund; and
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, health facilities, and LGA NAPPMED.

CALL TO ACTION

While significant progress was made to improve coverage in Lagos, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen the existing sustainable drug supply system so zinc/ORS is available in all public facilities;
- Further expand zinc and ORS availability, particularly in rural areas; and
- Increase care-seeking to accelerate uptake.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014 and endline conducted in 2016.

NIGER

"CHAI's intervention through promotion of zinc and ORS for diarrhea has not only saved lives of children under-5 in Niger state but it has also economically empowered wholesalers and PPMVs in the state through its partnership with pharmaceutical firms to make the products available."

DR. WILFRED UGWU, MD/CEO, OKOMA PHARMACY LTD. MINNA

INTRODUCTION

In 2012, diarrhea was responsible for approximately 2,400 deaths in Niger.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Global Affairs Canada, the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health (SMoH) of Niger to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** A new State Essential Medicines Coordination Mechanism (SEMCM) was established as the child health sub-committee of the Partners Coordination Forum to harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH and Drug and Medical Consumables Management Agency (DMMA) to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and sub-distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH, Primary Health Care Development Agency (SPHCDA), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through trainings, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers and ward development committees (WDC), which was supplemented with clinic-

Program in Brief

STATE:
Niger

DONOR:
Global Affairs Canada

DURATION:
2014-2017

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 5% to 45%**

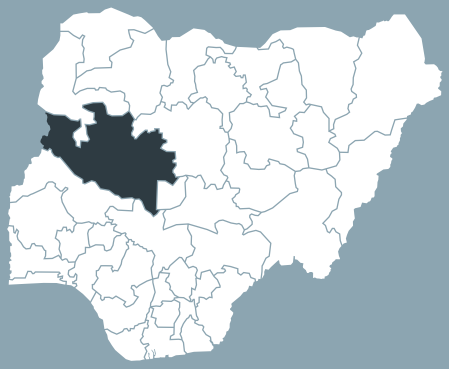
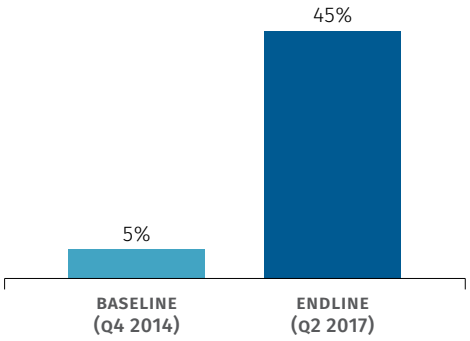


FIGURE 1. ZINC/ORS COVERAGE IN NIGER



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

based group health education and outreach to female vanguard leaders and Islamiyah schools.

These activities covered all 25 LGAs in the state and reached approximately 4,200 public providers (81% of total in the state) in primary health centers (PHCs) and secondary health facilities and 3,400 PPMVs (96% of the estimated total).

RESULTS

Since baseline, **a nine-fold increase, from 5% to 45%**, in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM was paramount to the success of the program;
- Increasing intensity of efforts in poor-performing LGAs—based on midline results and guided by lessons from earlier implementation in Norad-funded states—contributed to high coverage rates;
- Ownership from sub-distributors coupled with the organized NAPPMED structure were essential for advancing progress in the private sector; and
- Leveraging house-to-house visits under existing Routine Immunization structures contributed to the success of the community activation approach.

SUSTAINABILITY

The program leveraged and strengthened existing platforms to promote sustainability of these results:

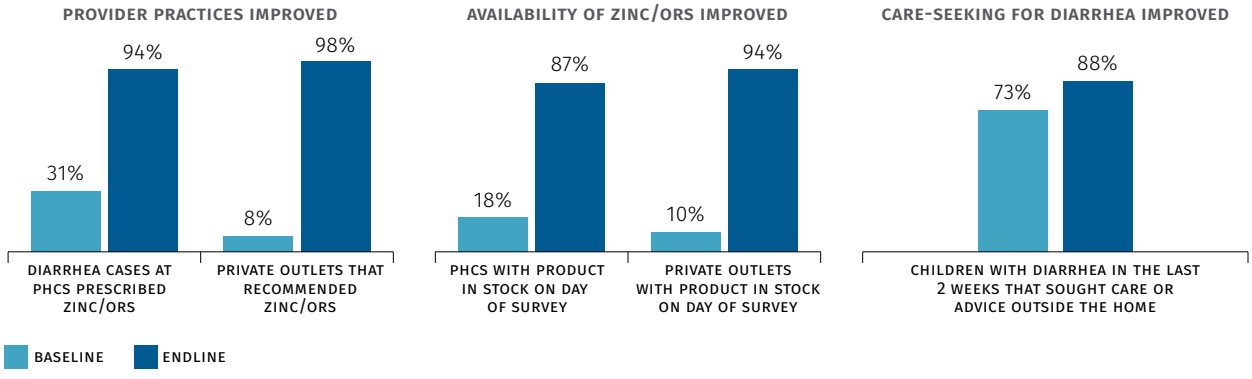
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., supportive supervision, SEMCM meetings, community activation, and zinc/ORS commodity procurement);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continue to procure volumes each year;
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, health facilities, and LGA NAPPMED; and
- Sub-distributors are linked to NAPPMED and PHCs and have reached profitability with zinc/ORS sales, thereby creating new business channels.

CALL TO ACTION

While significant increases in coverage were achieved in Niger, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen the existing sustainable drug supply system so zinc/ORS is available in all public facilities;
- Further expand zinc and ORS availability, particularly in rural areas;
- Increase care-seeking to accelerate uptake through further investments in mass media and WDCs; and
- As part of a broader effort to improve policies and availability of key pneumonia and diarrhea commodities, CHAI will continue to provide technical assistance to SMoH to improve zinc/ORS coverage.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014/2015 (Q4 2014 for household, Q4 2015 for retail audit, and Q3 2015 for facility audit). Endline conducted in Q2 2017.

RIVERS

"I have started spreading the good news on managing childhood diarrhea. I will not fail the society and our generation."

MRS. IFEKWE KALU, FEMALE VANGUARD PARTICIPANT

INTRODUCTION

In 2012, diarrhea was responsible for approximately 3,000 deaths in Rivers.[1] Zinc and oral rehydration salts (ORS) are highly-effective; but less than 5% of children with diarrhea received the full treatment. Caregivers and providers were often unaware of the correct treatment and the low demand led to low availability of affordable products. Unfavorable policies and limited resources further impeded uptake.

APPROACH

With funding from Norwegian Agency for Development Cooperation (Norad), the Clinton Health Access Initiative (CHAI) supported the State Ministry of Health (SMoH) of Rivers to launch a large-scale program to increase access to and use of zinc and ORS, focusing on three market-shaping objectives:

- **Creating an enabling environment:** A new State Essential Medicines Coordination Mechanism (SEMCM) was established under the platform of the MNCH Core Technical Committee to harmonize efforts across partners. The state Essential Medicines List was also revised to include zinc and ORS.
- **Ensuring widespread availability & affordability of zinc/ORS:** Technical assistance was provided to SMoH to strengthen quantification, tendering, and procurement of zinc/ORS and link them to high-quality suppliers. Wholesaler activation campaigns and direct distribution were also rolled out to expand availability in hard-to-reach areas.
- **Build health provider & caregiver demand:** Support was provided to SMoH, Primary Health Management Care Board (SPHCMB), Pharmacist Council of Nigeria (PCN), National Association of Proprietary Patent Medicines Dealers (NAPPMED), and professional associations to activate clinical opinion leaders and reach providers through training, peer detailing, and other follow-up (supportive supervision and SMS reminders). Caregivers were reached by community activation of key influencers, which was supplemented with clinic-based group health education and outreach to female vanguard leaders.

These activities covered all 23 LGAs in the state and reached approximately 2,000 public providers (87% of total in the state) in primary health centers (PHCs) and secondary health facilities and 4,600 PPMVs (90% of the estimated total).

Program in Brief

STATE:
Rivers

DONOR:
Norad

DURATION:
2013-2016

RESULT:
In 3 years, zinc and ORS coverage in children under 5 with diarrhea **increased from 0% to 33%**

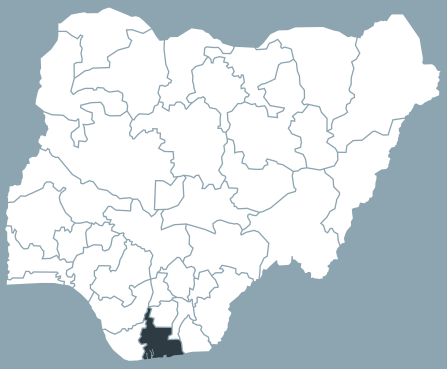
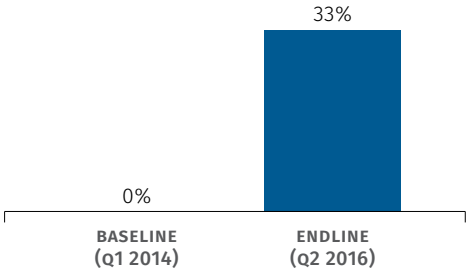


FIGURE 1. ZINC/ORS COVERAGE IN RIVERS



1 CHAI analysis using the Lives Saved Tool (LiST) in Spectrum version 5.5.1

RESULTS

Since baseline, a dramatic increase, **from 0% to 33%**, in the percentage of children under the age of five with diarrhea who received zinc and ORS was achieved (see Figure 1 on previous page). Key drivers included significant increases in provider practices and product availability.[2]

LESSONS LEARNED

The program demonstrated that large-scale increases in zinc/ORS coverage are possible. A multi-pronged approach addressing both supply and demand side barriers in public and private sectors was critical:

- Strong ownership by the SMoH and effective partner coordination through the SEMCM was paramount to the success of the program;
- The program's strong focus in both public and private sectors allowed continued progress despite the PHC health worker strike between 2014 and 2015;
- The relatively strong, existing PHC system was also leveraged for quick gains in public sector outcomes by endline following the strike; and
- Substantial adoption of the co-pack compared to singles products may have contributed to the relatively stronger increase in zinc coverage.

SUSTAINABILITY

The program leveraged and strengthened existing government and partner platforms to promote sustainability of these results:

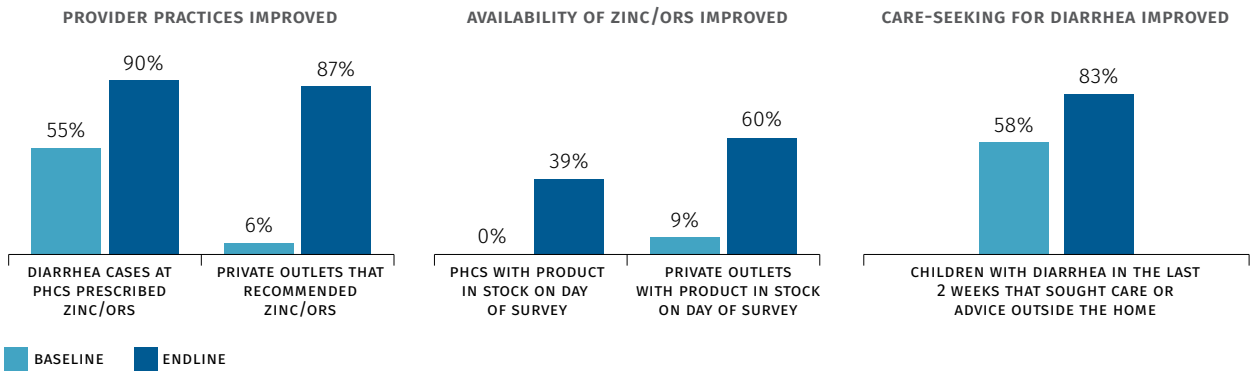
- Diarrhea-related activities are now included in SMoH's Annual Operational Plans (e.g., supportive supervision, SEMCM meetings, community activation, and commodity procurement);
- SMoH conducted its first-ever procurement of zinc/ORS during the program and continue to procure volumes each year; and
- Provider trainings and community activities (e.g., health talks) have been institutionalized by SPHCB, LGA NAPPMED, and PCN/PSN.

CALL TO ACTION

While significant increases in coverage were achieved in Rivers, continued support from SMoH and partners can help ensure all children who need zinc/ORS receive it:

- Continue to play a leadership role and strengthen the existing sustainable drug supply system so zinc/ORS is available in all public facilities;
- Further expand zinc and ORS availability, particularly in rural areas; and
- Increase care-seeking to accelerate uptake through further investments in mass media and WDCs.

FIGURE 2. KEY INDICATORS



2 Sources: CHAI household survey, CHAI retail audit, CHAI public facility audit, and DHIS 2.0. Baseline conducted in 2014 and endline conducted in 2016.

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