# Notes from a site visit to a vitamin A supplementation (VAS) program supported by Helen Keller International in Conakry, Guinea, October 9-11, 2017

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# State of VAS programs

# Global funding situation

Global Affairs Canada (GAC), a department of the Canadian government, has funded vitamin A supplementation (VAS) work by HKI, UNICEF, and Nutrition International since the early 2000s. It has been the only major funder of VAS programs.

### 2013-2016 GAC grant

GAC made a 70 million CAD grant to HKI and UNICEF for VAS work in sub-Saharan Africa from 2013-2016. Of this, HKI received 30 million CAD, including ~700,000 CAD per year for Guinea. The remaining 40 million CAD went to UNICEF. This funding was generally used as follows:

HKI:

- **Distribution** HKI paid for distributors, training, and supervision, in places that needed help funding distributions.
- **Evaluation** HKI conducted post-event coverage surveys (PECS) every year in a set of regions chosen based on low coverage. (a household survey conducted to validate coverage for a region of interest and evaluate effectiveness of program)
- Field supervision.
- Covering operational costs.

### UNICEF:

- Drug supply transportation.
- Drug logistics.
- Field supervision.

### 2016-2020 GAC grant

HKI did not receive any funding directly from GAC in the most recent grant.

In 2016, UNICEF received 70 million CAD for four years of VAS, deworming, and immunization. Approximately  $\sim 60\%$  of the grant is earmarked for nutrition, including VAS, while the other  $\sim 40\%$  is for immunization, although this varies by country. The grant supports VAS in 15 countries:

- 1. Benin
- 2. Burkina Faso
- 3. Cameroon
- 4. Central African Republic
- 5. Chad
- 6. Côte d'Ivoire
- 7. Democratic Republic of the Congo
- 8. Ethiopia
- 9. Guinea
- 10. Madagascar
- 11. Malawi
- 12. Mozambique
- 13. Sierra Leone
- 14. South Sudan
- 15. Togo

UNICEF may also do some minor activities to assist with VAS in other countries in sub-Saharan Africa using funding from other sources.

Although the total amount included in this grant (70 million CAD) is the same as the total in the 2013 to 2016 grant, there is actually substantially less funding available per year between 2016 and 2020 for VAS activities than there was in 2013 to 2016. 70 million CAD is spread out over four years instead of three years, a large portion of the grant is restricted to immunization activities, and the Canadian dollar has

depreciated relative to other currencies. UNICEF will grant some of the funding it received through this grant to other organizations, including HKI.

### Support from other organizations

- **Nutrition International** Supplements for most of HKI's VAS campaigns come from Nutrition International, which receives funding from GAC.
- **Gavi** Many polio programs in sub-Saharan Africa are funded by Gavi, the Vaccine Alliance. HKI and UNICEF have often used the infrastructure of these polio campaigns to deliver VAS.

# **Global transition landscape**

### VAS transition process

In general, countries begin by adding VAS to polio campaigns, then move to child health days (CHDs), then finally move to a routine VAS distribution system.

### Polio vaccination campaigns

In polio vaccination campaigns – also known as national immunization days (NIDs) – health workers go door-to-door providing oral polio vaccines. These campaigns generally occur one or more times per year. Because teams are already going door-to-door, it is relatively simple and inexpensive to add an additional person to each distribution team to deliver VAS to children aged 6 to 59 months.

### Child health days (CHDs)

The term 'child health day' can refer to many different types of programs, but is generally some type of biannual event that provides a package of health interventions for preschool-aged children.

There are two broad types of CHDs:

- Mobile aka door-to-door distribution
  - Mobile CHDs involve health workers going door-to-door to provide communities with vitamin A supplements and other health services. This strategy is operationally very similar to polio NIDs.

### • Fixed-site distribution

- In fixed-site CHDs, caregivers must bring their children to health centers or other fixed distribution sites to receive the package of health services.
- Many CHD programs utilize a 'fixed + outreach' strategy, in which they implement outreach activities to encourage caregivers to bring their children to the fixed site to receive health services.

### Routine system

### Six-month contact points

HKI supports creating a "contact point" at six months of age for VAS in infants' immunization schedules, to complement CHD or NID campaigns. With six-month contact points, caregivers take their infants to health facilities to receive VAS when the infant turns six months old, rather than waiting for the next mass VAS campaign to occur.

### Fully routine systems

With a fully routine system, there are no periodic campaigns at all. Instead, vitamin A supplements are available at health centers, and parents are told to bring their children in to receive VAS every six months until the children are five years old.

### Progress on polio eradication

The Global Polio Eradication Initiative (GPEI), of which WHO and UNICEF are members, aims for global eradication of polio by 2018. Most of West Africa is poliofree or very close to being polio-free, and remained so even during and after the Ebola crisis. The major remaining obstacle to eradication is the presence of Boko Haram, which makes conducting vaccination campaigns in certain regions difficult or impossible. This mainly affects Nigeria, Cameroon, and Chad, but may affect neighboring countries as well.

### Effects of polio eradication on VAS

As polio cases decrease in frequency, polio campaigns are disappearing, and countries need support in making the transition to CHDs.

The transition to CHDs will significantly change how countries' VAS budgets are organized. It is relatively inexpensive to add VAS distribution onto the polio vaccination campaign infrastructure funded by Gavi. With the move to CHDs, countries will need to find new sources of funds to support VAS programs.

# Specifics of HKI's work

## HKI's coverage survey methodology

HKI aims to use evidence-backed survey methodology. It uses cross-sectional surveys, and minimizes bias by conducting surveys as soon as possible after campaigns.

### National coverage surveys

National-level coverage surveys are generally expensive, and might not provide useful information on which regions require additional technical assistance in the future if there is a large amount of variation between regions within a country. HKI finds it more useful to do coverage surveys at a more local level, especially focusing on regions where it expects low coverage.

### Possibility of using lot quality assurance sampling (LQAS)

HKI could mitigate some of the problems with national-level coverage surveys by using LQAS, a survey technique that evaluates whether or not a threshold value has been met. This is in contrast to the methodology HKI has used for PECS in the past, which gives a point estimate for coverage. Using the LQAS method for national surveys would allow HKI to identify which districts in a country are not meeting target coverage, at a relatively low cost.

### Data checks

Survey teams in the field send cluster data via mobile connection every day, and an HKI team on the ground checks these data daily. This makes it difficult to falsify data. In the past, HKI has canceled some surveys in some sampled areas (and relied on back-up samples instead) if there are too many mistakes, or if a large amount of data was recorded at the same time (which might be because the surveyors are not actually walking from house to house and conducting interviews). In some cases, HKI has fired the teams responsible for such issues.

HKI also has supervision teams that visit every survey team in the field at least once.

# **Planning VAS programs**

Microplanning of VAS programs is critical, because campaigns may disrupt normal healthcare services if they are not done correctly. Therefore, planning and sensitization workshops are very important for the success of VAS campaigns. HKI currently runs workshops in which it teaches VAS program leaders how to organize teams and plan outreach strategies, among other things.

If HKI had additional funding, it would organize district-based workshops with comprehensive, practical planning. It would do this by bringing districts together at a central point for two workshops in one week, and then would sponsor the districts to run similar workshops with facility nurses. It would also send supervisors into the field with health workers, so that the supervisors could address issues as they arose.

It is also important to plan appropriate VAS programs for different types of communities. In urban areas, it may be difficult for many caregivers who work long hours (e.g., shopkeepers) to bring their children to a fixed point to receive VAS. In these types of communities, a door-to-door distribution approach may be more appropriate. In rural areas, where caregivers are usually engaged in agricultural work, it is easier to set up a fixed point distribution at a time when caregivers would be able to bring their children, since agricultural workers are generally following a common, regular schedule.

# Vitamin A deficiency (VAD) surveys

HKI's VAD surveys test serum retinol levels, which reflect liver vitamin A stores if the stores are severely depleted. Nationally-representative serum retinol surveys may cost  $\sim$ \$1 million. HKI does logistics for the surveys, but much of the technical work is done by NGOs that specialize in managing blood samples in the field.

### Possibility of funding new VAD surveys

While HKI has the capacity to do some serum retinol surveys, this work is not its strongest comparative advantage, and it does not expect that it will be able to do surveys in all the countries where it works.

### Results

HKI has supported serum retinol surveys in Sierra Leone and Tanzania. A 2013 survey in Sierra Leone found  ${\sim}16{\cdot}17\%$  VAD.

# HKI's room for more funding

If HKI had more funding going forward, it would spend a greater proportion of its funds on direct implementation than it did from 2013 to 2016. This is because there is now less funding available overall for VAS implementation (see discussion of Global Affairs Canada's grants above).

### **Prioritization of countries**

If HKI received \$5 million, it would most likely not distribute it amongst all twelve of the countries in sub-Saharan Africa where it currently works. HKI would probably prioritize spending funding in countries where additional funds would have the greatest impact.

The highest priority countries would be:

- **Guinea**, where significant progress could be made with a relatively small amount of funding,
- Mali, where no VAS campaign has taken place since early 2016, and
- Nigeria, where the current VAS campaigns are consistently underfunded.

Niger would also be a priority, but currently it appears that it would be able to distribute vitamin A through polio vaccination campaigns using funding from UNICEF for at least one more year. Some other countries, such as Côte d'Ivoire, might or might not urgently need support, depending on whether polio campaigns continue in those countries.

HKI might want to be opportunistic, providing funding for VAS in areas where it could increase coverage quickly, even if this meant making use of polio campaigns that were in the process of being discontinued. If HKI decided to do this, it would also run workshops and develop tools to prepare countries for the transition away from polio campaigns.

# Countries where HKI has recently worked

HKI has been supporting VAS programs in countries in sub-Saharan Africa since 2000. Using funding from its most recent grant from Global Affairs Canada between 2013 and 2016, it supported VAS programs in the thirteen countries discussed below. Since the end of Global Affairs Canada's grant in 2016, some of these countries have skipped implementing VAS mass campaigns because there was not enough funding available. Between 2000 and 2016, these countries always had at least two mass distributions of VAS per year (either National Immunization Days or Child Health Days), with a few exceptions:

- **Ebola crisis:** VAS campaigns in Guinea and Sierra Leone were cancelled in 2014 and in the first half of 2015 because of the Ebola crisis.
- **Health worker strikes**: A massive months-long health worker strike in Nigeria in 2014 blocked a campaign in several states. Similarly, a strike in Senegal from 2010-2013 impeded some campaigns.

### Burkina Faso

### VAS delivery

Until recently, Burkina Faso used polio vaccination campaigns to administer VAS. For those campaigns, HKI would do a PECS after every round, and would move from region to region, providing training, supervision, and mentoring. HKI also focused on optimizing communication and social mobilization.

In most of the country, VAS is now delivered via fixed-site distributions. In large urban areas, it is distributed door-to-door, and at the village level it is delivered by community health workers (CHWs), though people are still invited to come to the health center.

### Transition

In 2015, Burkina Faso had nearly eradicated polio, so it began to transition to a routine system for distributing VAS. Unfortunately, preliminary stakeholder meetings took a very long time, and after 2.5 years of meetings, the transition is only just beginning now.

The government is currently running its first round of Child Health Day-style campaigns using a Community Health Worker-based system. There will be a one-month campaign every six months, during which each Community Health Worker covers his or her assigned area. These campaigns deliver VAS and deworming, but nothing else.

This is an interesting approach, but HKI would like to evaluate its cost-effectiveness to see if it is feasible as a long-term strategy. At this stage, HKI needs to do a formative assessment to identify potential barriers to CHWs' activities, and finetune the design. There is no coverage survey planned for this round.

### Support from NGOs, before and after 2016

Both UNICEF and HKI had funding available from GAC to support VAS programs in Burkina Faso between 2013 and 2016. HKI mostly focused on communication and social mobilization efforts. Only one VAS mass campaign occurred in Burkina Faso in 2016, because there was not enough funding available for implementation of the program following the end of GAC's 2013 to 2016 grant. Only one VAS mass campaign occurred in 2017 as well. UNICEF has continued to receive funding from GAC to provide support for VAS programs between 2016 and 2020, but it only had enough funding to provide support for one campaign each year so far. In 2018, UNICEF may not have enough funding to support any VAS mass campaigns.

HKI has received a small amount of funding through UNICEF to assist with monitoring and evaluation of the current campaigns.

### Cameroon

### CHDs and polio campaigns

### Transition to CHDs

Cameroon transitioned to CHDs in 2000-2005, and was successful in getting high vitamin A coverage using this method for several years.

#### Return to polio campaigns

In recent years, polio cases in Nigeria led WHO to conduct as many as ten polio campaigns per year in Cameroon, and VAS was added to some of these campaigns.

With the return of polio campaigns, CHDs have been neglected. HKI has tried to advocate for a return to CHDs for several years now, but campaigns are likely to continue to be polio-driven for some time, because as long as Boko Haram makes it impossible to immunize children in some parts of Nigeria, there will still be occasional cases of polio.

VAS is currently delivered along with at least two polio campaigns per year. WHO supports these campaigns financially, and HKI is confident that there will be campaigns for at least the next few years.

### Support from NGOs, before and after 2016

Between 2013 and 2016, UNICEF and HKI divided the regions of Cameroon between themselves for VAS work. HKI mainly worked in the Littoral region, where coverage was low. After a few years working with the Ministry of Health, HKI was able to greatly improve coverage.

UNICEF is continuing to receive funding from GAC for supporting VAS programs in Cameroon between 2016 and 2020. It will likely continue to focus on adding VAS to ongoing polio campaigns. UNICEF may provide funding to HKI for conducting coverage surveys is Cameroon, but the details of the grant are not yet finalized. HKI also has plans to sign a grant with UNICEF for technical support, focusing on the national scale-up of six-month contact points, but the status of this grant is uncertain as well. If HKI had additional funding for supporting VAS programs in Cameroon, it would like to provide targeted support to regions where coverage is known to be low.

# Côte d'Ivoire

Côte d'Ivoire is richer than most of the other countries where HKI works, but it still has relatively high rates of maternal and child mortality.

### VAS delivery methods

Côte d'Ivoire was declared polio-free in December 2015, so the government began to consider different methods for distributing vitamin A. Even though Côte d'Ivoire was declared polio free, polio campaigns (including distributions of VAS) continued in 2016 and 2017. Polio vaccination campaigns (including VAS) are planned for 2018, but it is likely that they will not be implemented in 2019.

Stakeholders have now agreed to switch to the more cost-effective strategy of fixed + outreach CHDs, at least for three to five years. This system will make mothers familiar with coming to the health center regularly. After this transition period the government is eager to transition to a fully routine, community-based approach.

### Support from NGOs, before and after 2016

Between 2013 and 2016, HKI covered some operation costs and provided technical support for polio campaigns with VAS in Côte d'Ivoire. Using GAC funding, HKI also supported monitoring and evaluation, supervision, and independent monitoring, while UNICEF and the Ivorian government supported the remainder of the work. HKI has also done advocacy for VAS campaigns, and conducted an RCT on the use of SMS reminders for maternal and child health, routine immunization, and vitamin A.

UNICEF has some limited funding available to support VAS programs in Côte d'Ivoire between 2016 and 2020. In 2017, it was able to provide funding to add VAS to polio vaccination campaigns, but it did not have enough funding to also add deworming, as had been done in the past.

If HKI had additional funding to use to support VAS programs in Côte d'Ivoire going forward, it would like to assist the government in preparing for the transition to Child Health Day Campaigns. Like in Burkina Faso, CHWs in Côte d'Ivoire distribute vitamin A to their communities in a one-month campaign every six months. This strategy is cheaper than CHDs implemented in shorter periods of time because NGOs simply need to give the vitamin A to the CHWs, who then visit all of the households in their area. HKI still needs to do a rigorous cost-effectiveness analysis of this strategy.

# Democratic Republic of the Congo (DRC)

DRC has the second largest population of all the countries where HKI has worked, and was the country for which HKI had the largest budget between 2013 and 2016. HKI shut down its DRC office in 2016 at the end of the 2013 to 2016 GAC grant, since VAS was the only program it was supporting in DRC.

### Funding

HKI and UNICEF split DRC between themselves, each taking half of the country, and supported the addition of VAS to polio campaigns. Because the government of DRC did not have funding for VAS, HKI and UNICEF supported and paid for all the work themselves, which was very expensive. HKI spent ~\$2.5 million per year on VAS in DRC, with each round costing ~\$1 million.

#### History of VAS delivery in DRC

When HKI started working in DRC ten years ago, VAS was mainly delivered via polio campaigns. Since then, DRC has been declared polio-free, and the government has slowly stopped running polio campaigns.

Until HKI ceased its work in DRC in 2016, it adapted its strategy to different contexts, using polio campaigns where possible, and transitioning to a fixed strategy where the health system would allow it. Together with UNICEF, HKI developed a mixed system for VAS delivery, and at one point in 2015, there were four types of campaigns taking place in different areas:

- Polio campaigns with VAS,
- CHDs using a fixed + outreach strategy,
- Door-to-door VAS, and
- VAS coupled with community distribution of drugs for neglected tropical diseases (NTDs).

This mixed strategy resulted in very good coverage, and allowed HKI to compare the effectiveness of different strategies.

#### **Reasons for leaving DRC**

HKI had to leave DRC because it was unsuccessful in securing grants to diversify its operations in the country, and HKI could not run a country office after it ran out of funding for its VAS program. If HKI had additional funding for its VAS programs again, it might consider re-opening its DRC office.

#### **Relationship with UNICEF**

There were some regions in DRC where the two organizations worked closely together to pilot either CHD programs or routine systems, and HKI did coverage surveys in some of those regions.

When the GAC grant ended in 2016, UNICEF planned to fund HKI's work in DRC because the country was too large for UNICEF to manage alone. Unfortunately, the process took too long, and HKI did not have enough unrestricted funds to continue operations in DRC, so it had to leave the country.

### Guinea

#### VAS delivery methods

VAS has been distributed through door-to-door polio vaccination campaigns since 1999. These campaigns were implemented consistently until 2014, when they were disrupted by the Ebola crisis. No campaigns occurred in 2014, and a campaign in the first half of 2015 was also skipped.

Polio vaccination campaigns were still ongoing in 2016, but the government decided to switch to distributing VAS through Child Health Days, since it expected that funding for polio vaccination campaigns would end soon. Only enough funding for one Child Heath Day campaign was available in 2016. In 2017, the only Child Health Day was implemented in October 2017.

### Support from NGOs, before and after 2016

HKI has been providing support for VAS campaigns in Guinea since 2000. HKI has provided a variety of different types of support: it helped design national guidelines for VAS, produced technical instructions on how to administer VAS for use in health centers, provided technical support for VAS policy design to the Division of Food and Nutrition, assisted with microplanning for VAS campaigns, provided direct financial support to some governments at the regional level, sent supervision teams to observe some VAS campaign activities, and created radio spots to advertise the VAS campaign.

HKI also completed PECS surveys in Guinea following VAS campaigns. These surveys were usually targeted at areas where HKI expected coverage to be low based on administrative data. HKI focused on implementing PECS in areas where it expected coverage to be low because a survey finding low coverage can be a useful advocacy tool—it can be used to show government officials that coverage is low, and that some improvements need to be made for the next campaign.

UNICEF also provided support for VAS campaigns throughout the country before 2016. UNICEF would handle the logistics of managing and transporting vitamin A capsules and would assist with supervision of VAS campaigns.

UNICEF has continued to receive funding for supporting VAS campaigns in Guinea between 2016 and 2020. In 2016, no mass campaign in the first half of the year occurred, because UNICEF only had enough funding available to support one campaign. In 2017, the situation was similar, with only one Child Health Day campaign occurring in the year, during October.

Even though HKI has not had funding available for supporting VAS campaigns in Guinea after 2016, it has been involved somewhat in the planning of the Child Health Day campaign in October 2017. HKI may receive some funding from UNICEF to conduct a coverage survey of the October 2017 campaign.

### October 2017 Maternal and Child Health Week

GiveWell staff were in Guinea during the October 2017 Maternal and Child Health Week. GiveWell spoke with staff from HKI, UNICEF, and Guinea's Ministry of Health about the ongoing activities and observed selected health centers and outreach posts implementing the program.

The October 2017 Maternal and Child Health Week included a large number of health programs. For preschool-aged children, the programs were VAS, deworming with albendazole, vaccinations, and mid-upper arm circumference measurement (to check for malnutrition). The program also aimed to provide prophylactic malaria treatments for pregnant women.

### Fixed sites and outreach posts in the October 2017 Maternal and Child Health Week

Health clinics are used as "fixed sites" for distribution of VAS and other programs included in the October 2017 Maternal and Child Health Week. People that reside within 5 kilometers from a health clinic are expected to come to the clinic to receive services from the program.

Outreach posts are set up for people who live farther than 5 km from a health center. In rural areas, community health workers may staff outreach posts. For very rural areas, a "mobile" site may be scheduled to visit a village for a few hours so that residents can receive the program's services.

### GiveWell staff's observations from visits to health centers and outreach posts

Mohamed Fofana (of HKI) chose a few health centers and outreach posts for GiveWell staff to visit during Maternal and Child Health Week (MCHW). These particular health centers and outreach posts were chosen because they were accessible during a day trip from Conakry.

The first health center visited by GiveWell staff was Tombolia Health Centre in an urban area in Conakry. Mothers we spoke to at the clinic had not heard of MCHW; all were there either because their children were sick or because they needed routine vaccinations. The clinic staff said that they were not seeing any increased volume in patients due to MCHW. The administrators at the clinic were not keeping records related to MCHW (e.g., number of children/pregnant women receiving services in the MCHW package).

GiveWell staff also visited an outreach site in the same district. This outreach team consisted of two women who had been instructed to sit in a designated spot to provide treatments. They were midway through their second day of MCHW and said they had treated three total children (much fewer than they aimed for). They said they thought not many people in the area knew about MCHW so they began going door-to-door to try to find children to treat instead of remaining in their designated spot. They had the necessary administrative forms but did not have necessary drugs for all of the interventions they were meant to deliver. They also said they did not know if they would be paid for their work.

At the second health center visited by GiveWell staff (Manéah Health Centre in Coyah district outside of Conakry), one child received VAS and deworming medication while GiveWell staff were present. The workers in this health clinic had received the appropriate forms and were filling them out. The health workers at the center were uncertain whether they were seeing an increase in children and pregnant women seeking services as compared to the volume of patients seen outside of MCHW; according to their records, they had delivered VAS to about 120 children that day. However, they did not know the number of children that would constitute achieving their target, so we are unsure how many children they were treating relative to how many they would need to treat to achieve high coverage.

GiveWell staff also visited an outreach post in Coyah district. The health workers at the outreach post had received the appropriate forms and were filling them out. GiveWell staff noticed a large discrepancy between the number of recorded VAS treatments (about 25) and deworming treatments (about 50). The health workers said that this was a mistake.

### What HKI would do with additional funding in Guinea

HKI noted that the October 2017 Maternal and Child Health Week program appeared to have insufficient funding for microplanning and social mobilization. HKI would guess that between 40% and 60% of targeted preschool-aged children in Guinea will receive VAS through this program.

If HKI had additional funding, it would like to provide financial and technical support to the government for these activities. The budget for the October 2017 Maternal and Child Health Week was also insufficient to support supervisors observing selected implementation sites—HKI would also like to be able to provide funding for these activities as well. With additional funding, HKI also believes it could enable a second Maternal and Child Health week per year to occur.

Under its current grant from GAC, UNICEF has around \$400,000 per year that it can use to support VAS programs. This amount of funding is only enough to support one Maternal and Child Week per year, with the budget limitations discussed above. If HKI had around \$800,000 per year in additional funding it believes that, in combination with support from UNICEF, two Maternal and Child Health Weeks per year could be supported, and that high coverage of VAS (80% or higher) could be achieved.

### GiveWell staff's additional reflections on HKI's impact in Guinea

### Note: Uses of "we" and "us" in this section refer to GiveWell staff.

It seems likely to us that if it had more funding, HKI would cause an additional VAS campaign to happen each year in Guinea. We spoke to a few different actors (HKI, Guinea government officials, UNICEF) who told us that there used to be twice-yearly VAS campaigns in Guinea but that there is currently barely enough funding available for once-yearly campaigns. (Campaigns were also skipped during Guinea's Ebola crisis in 2014.)

Our understanding is that Guinea used to have about \$1.2 million/year available through external partners (UNICEF and HKI) for two annual VAS campaigns, but

now only has about \$400,000/year for one campaign. It is our understanding that this change occurred in 2016, when the total amount of funding available for VAS campaigns from Global Affairs Canada was reduced (see "Global Funding Situation" section above). This change in funding levels led the government of Guinea to cut one campaign per year and also to cut costs for that one campaign, leading to potential issues. In particular, it cut funding for 1) advertising and other social mobilization to get mothers to bring their children to the fixed sites where VAS would be distributed, and 2) "microplanning": training for specific districts and health centers on how to deliver the intervention and how to record their results. They also didn't have enough money to cover the whole country, so one district will not receive VAS during the distribution in October 2017.

What we saw in our observations of health centers and outreach posts seemed consistent with the idea that a lack of funding was contributing to a poor-quality campaign. However, it is hard to know for sure whether more funding would improve the quality of the campaign.

Nevertheless, we thought HKI staff had reasonable answers to questions about how they would improve this campaign, and the issues we observed seemed consistent with what government officials, UNICEF, and HKI told us about how the campaign might struggle due to lack of funding. HKI told us that with additional funding it would support more communication and microplanning for the campaign, which we think has the potential to mitigate the issues we observed.

HKI staff told us that they expected this campaign would achieve roughly 40-60% coverage across Guinea, but that with additional funding, they expect that future campaigns could achieve ~80% coverage. It is currently uncertain whether HKI will receive funding from UNICEF to implement a coverage survey for this campaign; if the coverage survey occurs, it could provide a valuable baseline to compare against future coverage surveys.

### Mali

Mali has one of the highest rates of child mortality in sub-Saharan Africa. It is also the largest country in West Africa, so it has more regions than the other countries where HKI has worked. For VAS, HKI and UNICEF divide the country between themselves. HKI focuses on two regions – Ségou and Sikasso – where it covers all expenses, operational costs, supervision, and logistics for VAS.

### **Delivery of VAS**

The most recent national VAS campaign in Mali took place in May 2016, accompanying a polio campaign. In Mali's last polio campaign, at the end of 2016, UNICEF and HKI had insufficient funds to support adding VAS. There will not be national-level polio campaigns in Mali in the future, but it is likely that the campaigns will continue to be implemented in some parts of Mali.

### Support from NGOs, before and after 2016

In the past, UNICEF spent ~\$700,000 on each CHD in Mali, but it can no longer sustain this level of expenditure. Though UNICEF is working with several partners, including CARE International, the Child Fund, and World Vision, it still does not have complete funding for a VAS campaign.

The funding shortage is due to the fact that the new GAC grant did not provide UNICEF with money for VAS in Mali. There are two main reasons for this:

- 1. The GAC grant is a transition grant, aiming to establish sustainable VAS programs and integrate them into existing health systems. It is not yet possible to do sustainable work in Mali because the health system is too weak, there are too many security issues, and the political climate is not right, so Mali is not a good candidate for GAC funding.
- 2. GAC wants to have a large impact for a relatively small cost. Mali has a large population and low coverage, and is a difficult country in which to work due to being mostly desert, so it would take a very large amount of funding for Mali to reach 90% coverage. This makes it unappealing for GAC to work there.

Since 2016, HKI has not had any funding available to support VAS programs in Mali. If HKI had additional funding, it would provide financial and technical support for campaigns in some regions of the country.

Most of Mali is desert and much of the population is pastoral, so the population is too scattered for a fixed strategy to work. In addition, the country is very heterogeneous, so an effective VAS delivery strategy should use different methodologies for different areas.

HKI wants to test different strategies in two or three regions in Mali, focusing on ensuring high coverage. It may try using:

- Door-to-door campaigns,
- Fixed + mobile CHDs,
- CHW-based strategies, and
- Opportunistic campaigns.

### Mozambique

### Funding

Historically the government of Mozambique has provided the majority of funding for VAS campaigns, and has not received substantial support from external donors.

### Transition

Along with Tanzania, Mozambique is the country at the most advanced stage of the VAS transition. Accommodating a country in this stage of the transition is a new challenge for HKI; HKI and UNICEF can advise the country, but final decisions should be made by the government.

### CHDs

Mozambique moved to CHDs  $\sim$ 7 years ago, using a fixed + outreach strategy. Like all countries, it struggled during the initial transition, but UNICEF and HKI worked with the government to improve coverage, and in the last few years coverage has been consistently high.

The community approach was very successful in Mozambique because the country has an extensive network of CHWs, who do both campaigns and routine work.

#### Routine systems

After HKI and UNICEF stopped supporting Mozambique due to their lower budgets, Mozambique decided it was time to move on to the third step of the VAS transition, and began to transition to a full-scale routine system.

Mozambique's system has contact points at 14 weeks, six months, and nine months. This works relatively well because parents are generally willing to bring children under one year old to health centers, since these children are still visibly vulnerable. However, HKI does not expect that parents will continue to bring their children in every six months until the age of five, as is the goal in a fully routine system.

### Future of the transition

Like other countries slowly approaching middle-income status, Mozambique will not continue VAS indefinitely, and will soon need to scale up food fortification. However, Mozambique will still need support for VAS for several more years while it transitions and stabilizes.

### Routine scale-up and microcampaigns

Mozambique will need support for at least the next three years so that it does not have a large drop in vitamin A coverage while it scales up its routine system.

### Routine scale-up

On January 1<sup>st</sup>, HKI signed a grant with UNICEF to scale up routine immunization and vitamin A over the next four years. HKI will work in four provinces in the first two years, and four others in the next two years. Since the government recently decided to stop all CHD campaigns completely, this means that of Mozambique's ten total provinces, six will receive no VAS at all for the first two years.

HKI would like to run CHD campaigns in the neglected provinces for the first two years, and do microcampaigns in areas where the routine system is in place but coverage is still low. This would give the country time to get the routine system operational without causing a dramatic decrease in coverage. HKI would slowly scale back the reach of CHD campaigns while simultaneously scaling up routine work, until there is only routine when the grant finishes in 2020.

### Niger

### HKI's activities

HKI used its funding in Niger to:

- Run a VAS campaign using polio NIDs,
- Perform evaluation and coverage validation,
- Do advocacy for routine strategies, and
- Put in place routine systems.

This strategy has been used in parts of the country since 2012. Comparison of HKI's baseline evaluation to its 2016 situation analysis showed that coverage increased after HKI began using this strategy.

#### VAS delivery

#### Polio campaigns

In the past, HKI delivered VAS along with polio campaigns, and managed to get high coverage, but this is no longer a viable strategy. Though there will likely be some polio campaigns in the next few years, since there are still occasional polio cases near the Boko Haram area, these campaigns may not cover the entire country. In addition, even if there are polio campaigns, neither HKI nor UNICEF currently has the funding to add VAS to these campaigns.

HKI used its last money for Niger to add VAS to the first polio campaign in 2016, but there was no second VAS campaign that year due to lack of funding. Two polio vaccination campaigns (also delivering VAS), took place in 2017. It is not yet clear whether large-scale polio vaccination campaigns will take place in Niger in 2018.

#### Routine systems

HKI's advocacy was successful in getting the Nigerien government to put in place a six-month contact point, as well as a routine system in which children older than 12 months come to health centers to receive VAS every six months.

#### Other strategies

The fixed + outreach strategy is not viable in many parts of Niger, because people live too far from health centers. It is possible that door-to-door campaigns might work better, but this has not been attempted.

#### Funding

Neither HKI nor UNICEF currently has funding for VAS in Niger. UNICEF worked on VAS in Niger until 2016, but Niger was not included in the 2016-2020 GAC grant. Most of the aid money in Niger is in emergency funds, which do not fund vitamin A.

#### Use of additional funds

If HKI had more funding for Niger, it would want to change strategies. Niger does not want its VAS system to rely on polio NIDs, because it does not know when these

will stop. HKI would help Niger to select the most cost-effective strategy that would reach the most children (this might vary between regions).

# Nigeria

HKI and UNICEF divided Nigeria between themselves geographically, and HKI managed between six and nine states. HKI had the second biggest budget for Nigeria, after DRC.

Nigeria is a devolved country, so most health decisions are made at the state level. States receive money from the central government but are responsible for allocating and managing their own budgets.

### HKI's work

HKI's work at the central level included designing policy, training packages, and communication tools, among other things. At the state level, HKI worked on microplanning, capacity-building, advocacy, and community organization. It also provided financial support to 'local government areas' (LGAs) and to some states.

### Monitoring and evaluation

HKI conducted many coverage surveys in Nigeria, and also supported independent monitoring, with  ${\sim}150$  monitors in nine states.

### Results

HKI spent  $\sim$ \$1.5 million/year in Nigeria, but this was not enough to cover its six to nine states. Though HKI increased VAS coverage by  $\sim$ 20% in some areas, it never reached its target of 80% coverage, because it worked in so many states that it was unable to work closely enough with any single state to achieve high coverage there.

If HKI were to return to Nigeria, it would decrease the number of states in which it worked in order to use its funds more efficiently. Before, it stretched  $\sim$ \$1 million over nine states, so that each state had only  $\sim$ \$70,000 to  $\sim$ \$100,000, which was insufficient.

### VAS delivery

### CHDs

Nigeria switched to fixed + outreach CHDs seven years ago. It currently has no plans to transition away from this model, because child mortality is still very high and communities rely heavily on CHD campaigns for health services. There is also a strong political will to continue CHDs.

Though UNICEF and HKI have both stopped working in Nigeria, CHDs continue to take place. They are mainly funded by the government, and some funding is also provided by Nutrition International and several other partners.

### Issues with implementation

There are large areas in Nigeria that are not well-covered by the CHD campaigns, due to issues with governance and planning. HKI has identified two main problems:

- **Distribution** In many cases, not all health facilities are used as fixed sites. Often only ~70% of sites are distributing vitamin A, so coverage cannot be any higher than ~70%.
- **Social mobilization** Outreach is not done well, so people in the community are often unaware when a campaign is happening.

### Polio campaigns

Polio campaigns continue to take place in Nigeria, but have not been used for VAS delivery in many years. This is because polio campaigns in Nigeria do not get systematically high coverage because:

- They are not conducted everywhere, only in some northern states, and
- The country is very large and much of it is jungle, making many areas difficult to reach.

### Inconsistencies in coverage data

Administrative data in Nigeria shows ~90% coverage in every state every year, but HKI did ~12 PECS in several different states, and ~95% of these showed coverage of ~50-60%.

### **Current VAS situation**

After HKI and UNICEF withdrew from Nigeria due to lack of funding, the vitamin A situation rapidly deteriorated, to the point where even administrative data now shows low coverage. This is because, even though CHDs continue to happen, they are consistently under-funded. If HKI had additional funding in Nigeria, it would use it to support the CHD campaigns.

## Senegal

### Partners on VAS work

In Senegal, HKI worked with Nutrition International and UNICEF, and the three organizations divided the country amongst themselves. HKI also worked with IntraHealth, a USAID project which provided vitamin A for use in HKI's regions of Senegal. IntraHealth has also participated in routine VAS work.

### VAS delivery

In Senegal, HKI uses a mix of VAS strategies, doing fixed + mobile CHDs mixed with routine in some areas, and polio campaigns in other areas. Polio campaigns are currently the most effective approach, providing >80% coverage according to the most recent PECS. Senegal's eventual goal is to move to fully routine VAS.

Attempts to transition to a routine system

Nutrition International has been working to scale up routine VAS in many parts of Senegal since 2014, and HKI has joined its efforts in some regions. The Senegalese government and Nutrition International are eager to move to a routine strategy, but transitioning is operationally difficult, and attempts at it so far have led to steep drops in coverage.

The lack of success so far is partially because the country lacks funding for the transition, and also because routine VAS systems rely on the use of existing community platforms, many of which are not functional in Senegal.

In the first round of 2014, the government decided to transition from door-to-door campaigns to a routine VAS delivery system, which led coverage to drop  $\sim$ 40% in some areas. In 2016, when only routine VAS was offered and there were no polio campaigns at all, coverage was down to  $\sim$ 20%. After getting such low coverage from the routine system for several years, the government is ready to return to using campaigns.

### **Current funding situation**

HKI stopped working in Senegal in mid-2016 when its GAC funding ran out, and UNICEF also no longer has funding to work there. Nutrition International no longer has its regional office in Senegal, though it is still involved in routine VAS work in the country.

### Use of additional funds

If HKI had more funding, it would work with the Ministry of Health and other partners to develop a plan for some form of campaign, since though the routine strategy does work in some parts of the country, there are too many places where community platforms are not functional. HKI would like to go back to a fixed-site distribution strategy, with one-month campaigns every six months.

### Sierra Leone

### Polio campaigns with VAS

Sierra Leone has delivered VAS along with polio campaigns for many years. Polio NIDs are currently ongoing, but are expected to stop soon.

### Funding

Because Sierra Leone is a small country with only  $\sim 1$  million children, its polio campaigns are relatively inexpensive. They are supported financially by UNICEF, DFID, Irish Aid, and the Sierra Leonean government. When HKI worked in Sierra Leone, it used  $\sim 20\%$  of its funding to support polio campaigns, but mainly focused its efforts on six-month contact points.

### Routine system with six-month contact points

The government has decided to scale up routine VAS with six-month contact points as a long-term strategy. A routine system is more cost-effective than CHDs, so it is a

good investment for the government even though it means that children will be underserved for a few years.

A routine system is a good fit for Sierra Leone, because the country is small, with a dense population and decent availability of health services, meaning that one is never more than a few kilometers away from a health center. Initial national scaleup of six-month contact points has been successful.

### Six-month package

HKI and UNICEF have been working with the government to develop the new routine system. The goal is for mothers to bring their children into clinics every six months up until they are five years old. To incentivize mothers to do this, health centers offer a package of services that includes contraceptives and other family planning services, in addition to vitamin A supplements. Initial results from use of this package are promising – the package has been successful in getting mothers to come in every six months, and there is evidence that dropout is lower where the sixmonth package is offered than where it is not.

HKI will have funding for this package for the next few years, and there is additional funding for the package from Irish Aid, USAID, and UNICEF.

### Transition

The most important work for the next few years will be to ensure a smooth transition from the door-to-door campaigns to the routine system. The government wants to stop supporting polio campaigns altogether very soon, so there may be a large funding gap for the next few years. It would be valuable if HKI could fill that gap for the next two years while the routine system gets up and running. It would do this by supporting a fixed + outreach campaign, targeting children in areas where coverage is low.

### Tanzania

Tanzania has the best health system of all the countries where HKI works, and is at the most advanced stage of the VAS transition. Like Mozambique, Tanzania is becoming autonomous in its management, and is nearing the end of its need for HKI's support. HKI still does some work to ensure that all regions have reached the minimum target coverage level, but there are not many regions where this is necessary.

### Funding

VAS campaigns in Tanzania are almost entirely funded by the government, and HKI does not provide direct financial support to the campaigns because they are already so well-funded. UNICEF does not fund any VAS activities in Tanzania.

### CHD campaigns

Tanzania runs one-month CHD campaigns every six months, using mainly a fixed + outreach strategy, and also using a mobile strategy in some areas. This results in quite high coverage.

Campaigns are organized by the government over the course of several months. Though campaigns are centrally managed, the power of implementation lies at the district level. Each district plans its own campaign, receives money from the government, and then has one month to implement the plan and centralize the data.

### HKI's work

### Social mobilization

One of HKI's focuses in Tanzania was social mobilization. It developed a toolkit of radio shows, TV shows, posters, leaflets, and press guidelines, to promote VAS. These materials were produced in both Kiswahili and English.

### Monitoring and supervision

HKI also focused on planning and monitoring. After each campaign, it would fund four or five review workshops throughout the country, in which it would bring together five to ten districts to discuss monitoring and supervision data, determine coverage rates, and identify areas that needed improvement.

### Use of additional funds

If HKI had additional funding for VAS in Tanzania, it would not fund campaigns; instead it would push for a routine system, and work to improve the design and management of the current CHD campaigns.

# What we did

Day 1

- Attended Maternal and Child Health Week (MCHW) opening ceremony in Conakry.
- Met with members of the Guinean Ministry of Health (Dr. Daffe, Dr. Kourouma, and Dr. Ballo).
- Met with Dr. Tapsoba of UNICEF.
- Spoke with HKI staff (Mr. Doledec, Mr. Yattara, and Mr. Tchitembo).

## Day 2

• Spoke with HKI staff (Mr. Doledec, Mr. Yattara, and Mr. Fofana).

# Day 3

• Visited health centers and outreach sites in Tombolia and Manéa, and the Provincial Department of Health in Coyah.

All GiveWell site visit notes are available at <u>http://www.givewell.org/international/site-visits</u>