

## **Report to GiveWell**

# "Room for More Funding"

Financial gaps preventing universal coverage of Vitamin A Supplementation for Children 6 to 59 months in sub-Saharan Africa in 2022 to 2024

July 30, 2021

#### **Executive Summary**

The COVID-19 pandemic is not yet over. Countries have adapted services and practices to resume health services and resume mass health campaigns. Between July and December 2020, Helen Keller International has helped seven countries organize mass campaigns for Vitamin A Supplementation (VAS) that include COVID-19 prevention and control measures. These campaigns have resulted in the distribution of more than 20 million capsules.

The need for VAS has increased in 2021 as the disruption in health services, food systems and household incomes has driven up child undernutrition rates and increased mortality risk. Undernutrition has increased by ~1.5 percent in 2020 resulting in more than 100 million children facing hunger.¹ The impact of COVID-19 has been exacerbated by rampant political insecurity in most sub-Saharan African countries. Millions of children now face increased vulnerability and reduced access to nutritious foods, thus increasing their risk for vitamin A deficiency.

Unfortunately, donor funding for VAS is reducing rapidly in all countries. UNICEF, the main funding partner of VAS campaigns with Helen Keller, only received 7 million Canadian dollars from Global Affairs Canada for the period covering mid-2021 to mid-2022 and will not be able to cover campaigns at the level they used to in 15 countries. In the first round of 2021, UNICEF funding for campaigns was nearly nonexistent; Helen Keller Intl had to step up in most countries to cover gaps.

This major gap is expected to continue and requires Helen Keller Intl to significantly increase its efforts starting 2021 in all countries, with almost a doubling of its geographic coverage.

The deterioration of the humanitarian situation in all countries also highlights the need to maintain access to VAS even in countries where the situation is considered slightly better (such as Mozambique, Kenya, Senegal, and Tanzania) or where VAS has been integrated into the primary health care system (as in Sierra Leone).

Due to these circumstances, Helen Keller Intl estimates that there will be an approximately \$63 million funding gap that will need to be covered over the next three years in the 13 sub-Saharan Africa countries where it operates.

<sup>&</sup>lt;sup>1</sup> The State of Food Security and Nutrition in the World 2021, http://www.fao.org/documents/card/en/c/cb4474en

### Contents

2. Balance of funds received due to GiveWell's recommendation as of July 31, 2021.6 3. Amount committed to specific future programs	1.	Introduction	5
4. Vitamin A Supplementation and the COVID-19 pandemic. 8 5. Description of any other potential funding sources for Helen Keller's Vitamin A Supplementation program in the next year. 9 6. Management structure and costs for the Vitamin A Supplementation portfolio 9 7. Spending Opportunities 10 7.1. Burkina Faso 11 7.2. Cameroon 12 7.3. Cote d'Ivoire 16 7.4. Democratic Republic of Congo 18 7.5. Guinea 19 7.6. Kenya 20 7.7. Mali 22 7.8. Mozambique 22 7.9. Niger 25 7.10. Nigeria 25 7.11. Senegal 26 7.12. Sierra Leone 30 7.13. Tanzania 32	2.	Balance of funds received due to GiveWell's recommendation as of July 31, 2021	1.6
5. Description of any other potential funding sources for Helen Keller's Vitamin A Supplementation program in the next year	3.	Amount committed to specific future programs	7
Supplementation program in the next year       9         6. Management structure and costs for the Vitamin A Supplementation portfolio       9         7. Spending Opportunities       10         7.1. Burkina Faso       12         7.2. Cameroon       12         7.3. Cote d'Ivoire       16         7.4. Democratic Republic of Congo       18         7.5. Guinea       19         7.6. Kenya       20         7.7. Mali       22         7.8. Mozambique       22         7.9. Niger       25         7.10. Nigeria       27         7.11. Senegal       29         7.12. Sierra Leone       30         7.13. Tanzania       32	4.	Vitamin A Supplementation and the COVID-19 pandemic	8
6.       Management structure and costs for the Vitamin A Supplementation portfolio       9         7.       Spending Opportunities       10         7.1.       Burkina Faso       12         7.2.       Cameroon       12         7.3.       Cote d'Ivoire       16         7.4.       Democratic Republic of Congo       18         7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       25         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	5.	Description of any other potential funding sources for Helen Keller's Vitamin A	
7. Spending Opportunities       10         7.1. Burkina Faso       12         7.2. Cameroon       14         7.3. Cote d'Ivoire       16         7.4. Democratic Republic of Congo       18         7.5. Guinea       19         7.6. Kenya       20         7.7. Mali       22         7.8. Mozambique       22         7.9. Niger       25         7.10. Nigeria       25         7.11. Senegal       25         7.12. Sierra Leone       30         7.13. Tanzania       32			
7.1.       Burkina Faso       12         7.2.       Cameroon       14         7.3.       Cote d'Ivoire       16         7.4.       Democratic Republic of Congo       18         7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	6.	Management structure and costs for the Vitamin A Supplementation portfolio	9
7.2.       Cameroon       14         7.3.       Cote d'Ivoire       16         7.4.       Democratic Republic of Congo       18         7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.	Spending Opportunities	. 10
7.3.       Cote d'Ivoire       16         7.4.       Democratic Republic of Congo       18         7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.1.	Burkina Faso	12
7.4.       Democratic Republic of Congo       18         7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.2.	Cameroon	14
7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.3.	Cote d'Ivoire	16
7.5.       Guinea       19         7.6.       Kenya       20         7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.4.	Democratic Republic of Congo	18
7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.5.	·	
7.7.       Mali       22         7.8.       Mozambique       24         7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.6.	Kenya	20
7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.7.	•	
7.9.       Niger       25         7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.8.	Mozambique	24
7.10.       Nigeria       27         7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.9.	Niger	25
7.11.       Senegal       29         7.12.       Sierra Leone       30         7.13.       Tanzania       32	7.10.		
<b>7.13. Tanzania</b>	7.11.		
<b>7.13. Tanzania</b>	7.12.	Sierra Leone	30
	7.13.		
	8.		

## **Tables**

Table 1. Funds received by Helen Keller since 2018 to support VAS programs influenced by	
GiveWell	6
Table 2. Polio campaign organized in Helen Keller supported countries between 2018 and 20	)21
and links with VAS distribution	7
Table 3.Allocation of funds received following GiveWell recommendation, per country and pe	r
year, 2020 – 2023	8
Table 4. Allocation of funds received following GiveWell recommendation, per country and pe	er
<b>,</b> ,	8
Table 5. Spending Opportunities to cover financial gaps over three years in the most critical	
countries	
Table 6. Budgets per country if gaps proposed in table 5 are covered	11
Table 7. Children targeted per country and per year	12
Table 8. Target population of children 6 to 59 months in Helen Keller supported regions	14
Table 9. Target children 6 to 59 months in Helen Keller supported regions in Cameroon	16
Table 10: Target children 6 to 59 months in Helen Keller supported districts in Côte d'Ivoire	17
Table 11: Target children 6 to 59 months in Helen Keller supported regions in DRC	19
Table 12: Target children 6 to 59 months in Helen Keller supported regions in Guinea	20
Table 13: Targeted population of children 6 to 59 months in Helen Keller supported regions	22
Table 14: Target children 6 to 59 months in Helen Keller supported regions in Mali	23
Table 15: Target children 6 to 59 months in Helen Keller supported regions in Mozambique	25
Table 16: Helen Keller Int'l support on vitamin A supplementation in Niger from 2019 to 2021	. 26
Table 17: Helen Heller International VAS program target population in Niger for the coming	
three yearsthree years	27
Table 18: Current State of Nutrition Indices in the 4 New States	28
Table 19: Target population of children 6 to 59 months in Helen Keller supported regions	29
Table 20: Repartition of VAS coverage per district in 2020 in Senegal	29
Table 21: Target population of children 6 to 59 months in Helen Keller supported regions of	
Sierra Leone	32
Table 22: Target population of children 6 to 59 months in Helen Keller supported regions of	
Tanzania	34
Table 23: Prioritization of funding gaps	35

#### 1. Introduction

As Helen Keller Intl was submitting its 2020 "Room for More Funding" report to GiveWell in July, our country teams were in the field ensuring that children would receive Vitamin A Supplementation (VAS) taking precautions to mitigate the risk of COVID-19. In many countries, VAS campaigns were suspended in February 2020, and by July 2020, most children had passed the six-month threshold for vitamin A protection.

Helen Keller, however, managed to ensure that all countries organized at least one round of VAS in the second semester of 2020. Most countries (namely, Mali, Cote d'Ivoire, Burkina Faso, Guinea, Kenya), even succeeded to conduct two rounds. However, Niger and Nigeria failed to implement two VAS rounds. Côte d'Ivoire and Niger, with Helen Keller support, organized VAS distribution in January and February 2021; thus succeeding to "catch up" and ensure children received a high-dose vitamin A capsule within six-months of their previous dose.

As this report is being written, another VAS distribution is taking place in Niger. The next decision point for Niger is to either organize a third round in November, which will put the country back on its usual semi-annual VAS schedule (i.e., May and November campaigns), or adopt a new VAS schedule (i.e., February and July campaigns). In 2020, Helen Keller also resumed support to Nigeria in one state, and opened an office in the Democratic Republic of Congo, where we expect to support our first VAS campaign in July-August 2021.

The COVID-19 crisis is not over, but host-country governments, technical partner organizations and Helen Keller's country teams have learned to live with it and ensure service continuity despite COVID's continuous threat on everyone concerned. We have taken mitigation measures to minimize the risk of COVID. These include conducting virtual coordination and planning meetings, organizing outdoor small group trainings, and strictly adhering to wearing face masks, social distancing and using hand sanitizers across all actors including health management teams, health workers, community distributors, and caregivers. These measures have increased costs in terms of personnel effort required to adequately prepare for VAS campaigns and in terms of financial cost associated with the purchase of protective equipment and multiplication of small training sessions.

During this time, the VAS donor landscape has continued to evolve as well. The grant UNICEF expected from Global Affairs Canada (GAC) will be funded at a significantly lower level than their previous GAC grants. It will also be delayed until at least April 2022 with UNICEF receiving a costed extension of its existing grant through 2021. Uncertainty remains on whether UNICEF will receive a grant from GAC at all in April 2022. This creates a situation where UNICEF countries teams are uncertain about the capacity to support VAS programs in the future. Fortunately, Nutrition International (NI) received a CND \$29.5 million grant from GAC as an emergency response to boost VAS and minimize "coverage gaps" where VAS distribution has been disrupted due to COVID-19. However, these gaps occur in more than a dozen countries in Sub-Saharan Africa at any point in time.

Thus, it remains difficult to clearly anticipate the magnitude and location of funding gaps. Although only three international actors—NI, Helen Keller and UNICEF—support VAS in sub-Saharan Africa, coordination and the transparent sharing of funding support remains challenging. UNICEF, for example, seems unable to provide clear information on their future funding in any country. NI, on the other hand, which has an assured funding amount from GAC, directly approached Ministries of Health without first asking whether UNICEF or Helen Keller

had resources to support specific countries. Confusion about funding gaps resulted from this lack of coordination, and in some countries, host governments negotiated for support from NI when one of the other partners were prepared to fill the funding gap.

This report provides details on funding received by Helen Keller Intl for VAS over the last years, how these funds were used, and room for additional funding to support VAS programs in the next three years. It also describes the VAS context and the anticipated funding gaps in countries where Helen Keller operates.

#### 2. Balance of funds received due to GiveWell's recommendation as of July 31, 2021

The main financial change in Helen Keller's VAS portfolio during the past year was GiveWell's donation of approximately USD \$19 million to support VAS in existing GiveWell-supported countries though 2023, to significantly scale up programs in Nigeria, and to resume support for VAS in Cameroon.

In addition to support directly from GiveWell, Helen Keller's "Top Charity" designation has contributed to the following:

- Preliminary discussions with and the submission of a project renewal proposal to the Ray and Tye Noorda Foundation for approximately USD \$2 million to support VAS in Niger and Cote d'Ivoire in 2023 and 2024;
- Anticipated extension of the Every Child Thrives project in Kenya with funding from GAC through March 31, 2022, with a budget of approximately CND \$1 million (~USD \$795,000).
- Smaller donations by Founders Pledge and Effective Altruism accumulated over a oneyear period that would be donated to Helen Keller once per year to ease the financial, management and reporting requirements.

In total, from 2018 to present, Helen Keller received approximately USD \$57 million for VAS.

Table 1. Funds received by Helen Keller since 2018 to support VAS programs influenced by GiveWell

Source	Available funding for VAS campaigns programming 2018 - 2023
Noorda	\$4,000,000
GV 1, 2, 3 & 4	\$46,810,910
Small Donations	\$2,690,344
Effect Hope	\$1,103,809
Effective Altruism Foundation	\$135,342
Founders for Good	\$207,332
Three Graces 1	\$250,000
Three Graces 2	\$1,500,000
Centre Effective Altruism	\$141,698
UNICEF	\$234,603

see Note 1 and Note 2

see Note 1

Effective Altruism Australia	\$543,420
Effect Hope 2	\$679,079
Total	\$58,296,535

Note 1-UNICEF and Small Donations were used for VAS activities and included in the 2018 and 2019 Reports

#### 3. Amount committed to specific future programs

As of July 31, 2021, Helen Keller Intl has received slightly more than USD \$57 million following GiveWell's recommendation and Helen Keller's designation as a GiveWell Top Charity. The annual budget for the VAS programs has reached approximately USD \$15 million per year in 2021.

VAS programming varies between countries and varies between rounds within the same country. Negotiations between the local governments and stakeholders regarding funding support occur a few months before each distribution round to determine the budget of the coming campaign and the roles and financial contributions of each actor.

When polio campaigns take place, the World Health Organization and the Global Polio Eradication Initiative cover the cost of the core teams, and VAS stakeholders "only" have to support the addition of one distributor. When there is no polio campaign, VAS partners usually support two distributors per campaign, resulting in significantly higher costs. The frequency of polio campaigns organized in Helen Keller countries continues to decline (see **Table 2**). The darkest cells in Table 2 show occurrences of polio campaigns where VAS could not be integrated, either for reasons of timeline or refusal of WHO. In situations where VAS could not be "piggy-backed" on polio campaigns, we had to increase funding support for VAS in these countries. Thus, in these situations, large variations occurred between the amounts originally budgeted by the country and amounts spent.

Table 2. Polio campaign organized in Helen Keller supported countries between 2018 and 2021 and links with VAS distribution

2021 4110		18	2019		2020		2021	
	R1	R2	R1	R2	R1	R2	R1	R2
Burkina Faso	No	No	No	No	No	No	No	No
Cameroon	VAS combined with national polio	No	VAS combined with national polio	VAS combined with national measles	No	VAS combined with local measles	VAS combined with national polio	No
Cote d'Ivoire	VAS combined with national polio	No	No	No	Yes but not combined	Yes but not combined	No	Yes but not combined
DRC	No	No	No	No	VAS combined with local polio	Yes but not combined	Yes but not combined	No
Guinea	No	VAS combined with national polio	VAS combined with local polio	No	No	Yes but not combined	Yes but not combined	No
Kenya	No	No	No	No	No	No	No	No
Mali	No	No	No	No	VAS combined with local polio	No	Yes but not combined	No
Mozambique	No	No	No	No	No	No	No	No
Niger	No	VAS combined with local polio	VAS combined with national polio	VAS combined with local polio	VAS combined with local polio	No	VAS combined with local polio	VAS combined with local polio
Nigeria	No	No	No	No	No	No	No	No
Senegal	No	No	No	No	No	No	No	No
Sierra Leone	No	No	No	No	No	No	No	No
Tanzania	No	No	No	No	No	No	No	No

 $<sup>^{\</sup>text{Note 2}}$ -\$2.073m fund balance has not been allocated to countries and is reserved to support countries when a funding gap is identified

**Table 3** provides actual spending for VAS from 2018-2020, and projects anticipated needs from 2021-2022.

Table 3. Allocation of funds received following GiveWell recommendation, per country and per

year, 2018 – 2023 (2018 – 2020 represent actual expenditures)

year, 2018 – 2023 (2018 – 2020 represent actual expenditures)						
		Actual		Budget		
	2018	2019	2020	2021	2022	2023
Burkina Faso	\$497,352	\$565,043	\$794,145	\$1,058,274	\$737,268	\$730,245
Cameroon	\$0		\$75,052	\$1,269,189	\$1,232,782	\$1,223,101
Cote d' Ivoire	\$472,416	\$1,173,552	\$1,015,906	\$2,206,874	\$732,462	\$512,800
DRC	\$0	\$0	\$32,476	\$1,718,971	\$1,751,447	\$999,426
Guinea	\$832,259	\$819,744	\$1,274,493	\$383,427	\$797,105	\$829,246
Kenya	\$0	\$482,683	\$631,162	\$1,277,519	\$300,926	\$0
Mali	\$464,032	\$574,136	\$1,088,508	\$1,069,405	\$856,105	\$810,065
Mozambique	\$0			\$22,533	\$0	\$0
Niger	\$58	\$864,667	\$1,036,925	\$1,181,202	\$1,520,423	\$212,084
Nigeria	\$0		\$493,003	\$4,404,255	\$4,598,768	\$3,520,785
Senegal	\$0	\$0	\$134,466	\$239,914	\$0	\$0
Sierra Leone	\$17,774	\$156,655	\$103,367	\$30,690	\$0	\$0
Tanzania	\$0	\$0		\$0	\$0	
Regional Technical						
Support	\$748,548	\$1,204,792	\$1,259,157	\$962,801	\$2,017,030	\$71,592
Contingency Fund				\$132,059		
	\$3,032,440	\$5,841,273	\$7,938,661	\$15,957,114	\$14,544,317	\$8,909,344
	\$56,223,148					

\*Difference between Table 1 and 3 is due to direct individual donations that amount to approximately USD \$2 million since 2018 and for which no specific budgets are prepared. These funds are used a contingency when needs arise. To date, more than USD \$1 million was spent on these funds.

#### 4. VAS and COVID-19 pandemic

Relative to last year, the COVID-19 situation has improved significantly in all countries of sub-Saharan Africa where Helen Keller Intl operates, though the situation continues to evolve. Some countries, such as Kenya and Senegal, experienced a second and third wave of increased COVID cases between July 2020 and July 2021, with each subsequent wave proving more lethal than the prior one. However, the proportion of the population affected by COVID-19 in sub-Saharan Africa remains significantly lower than in other regions of the world. With the arrival of the new Delta variant in many countries, however, the future remains uncertain. It is worth noting that vaccination remains very low in most countries in sub-Saharan Africa. The number of vaccines available is very limited and will remain low for the foreseeable future.

In response to COVID, Helen Keller developed global guidelines in early 2020 to describe ways to mitigate COVID risk during VAS distribution. These guidelines helped countries modify how their campaigns were organized and implemented, and they continue to inform campaigns going forward. Standard practice for VAS campaigns now involves the wearing of masks by all

distributors, disinfecting hands with a hydro-alcoholic solution before and after each household visit, maintaining a minimum 1.5-meter distance between the distributor and the caregiver and the child, distributing the vitamin A capsule outside the household, and organization meetings and training sessions outdoor (whenever possible) in groups of no more than 25 people. Variations exist between countries depending on national policies, but all have adopted the above listed measures as a minimum.

# 5. A description of any other potential funding sources for Helen Keller's Vitamin A Supplementation program in the next year

Helen Keller has applied for a renewal of a grant from the Ray and Tye Noorda Foundation for two more years (2023 and 2024) for Niger and Cote d'Ivoire, at a level of USD \$1 million per year. A decision about the grant renewal is pending. We have also asked Three Graces Foundation about the potential for follow-on support, and have been instructed to follow up at the end of the current grant period. They are currently funding VAS at a level of USD \$1.5 million for three years (2019-2022).

We also expect future donations for VAS from Effective Altruism and Founders but are uncertain about the amounts that will be donated.

Helen Keller is also expecting USD \$500,000 for Sierra Leone from UNICEF and Irish Aid to support VAS in 2022-2023.

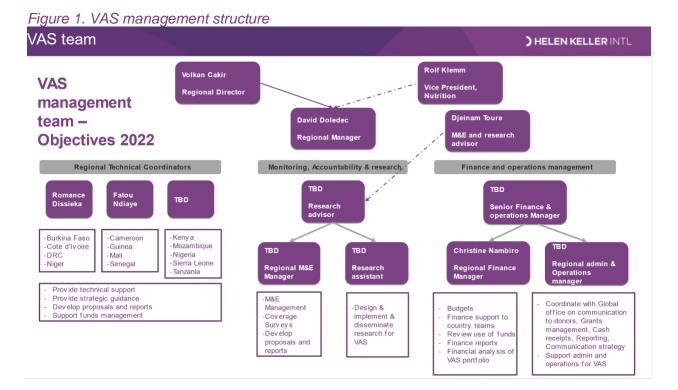
#### 6. Management structure and costs for the Vitamin A Supplementation portfolio

Since GiveWell's first donation, Helen Keller has increased the number of countries it supports from three in 2018 to nine in 2021. Within each supported country, Helen Keller has also increased the number of regions and districts within each country to fill funding gaps. With growing uncertainty about UNICEF's VAS funding levels, Helen Keller has agreed with country governments and UNICEF to support a larger number of regions in most countries to ensure all children will continue receiving VAS in the coming years. It is expected that more than 50 million capsules will be distributed in 2022 with direct support from Helen Keller Intl in sub-Saharan Africa.

To manage such a large and growing portfolio, Helen Keller plans to strengthen its global and regional technical, financial and management support to ensure quality implementation at the country level (**Figure 1**). We plan to strengthen our technical team by adding the following positions:

- a) Technical Coordinator who will provide support to East African countries;
- Regional Monitoring and Evaluation Manager to ensure the quality implementation of post-event coverage surveys (PECS) for the growing number of countries;
- c) Research Advisor to help design a set of studies to evaluate the cost and coverage of alternative models for integrating VAS into the health system. Findings from these studies will help inform country strategies when mass campaigns are phased out. Specific study ideas and designs will be discussed with GiveWell; and
- d) Senior Finance and Operations Manager to strengthen our capacity to analyze country budgets and spending with the goal of increasing the cost-effectiveness of our VAS programs.

**Table 5** includes a management line item that reflects the estimated amount needed to provide the necessary global and regional technical, financial and management support given Helen Keller's expanded VAS portfolio.



#### 7. Spending Opportunities

Helen Keller estimates a funding gap of approximately USD \$63 million to ensure universal VAS coverage in the 13 Sub-Saharan countries where we operate. In countries already supported by GiveWell, with the exception of Nigeria, additional funds are needed by January 2022 to cover additional regions that are losing UNICEF support.

As expected, the larger amount is for 2024, as a number of countries are already partially supported by GiveWell for the years 2022 and 2023.

Table 4. Spending Opportunities to cover financial gaps over three years in the most critical countries

Country	2022	2023	2024	Total
Country	2022	2020	2024	(USD)
Burkina Faso	1,018,586	770,661	1,599,871	3,389,118
Cameroon	943,229	839,039	2,314,287	4,096,554
Cote d'Ivoire	2,356,134	2,330,068	2,909,083	7,595,285
DRC	394,268	1,709,114	2,862,086	4,965,468
Guinea	1,000,754	1,029,375	1,944,720	3,974,850
Kenya	1,183,497	1,383,537	1,408,807	3,975,841
Mali	3,253,042	2,193,356	3,517,982	8,964,380

Mozambique	1,093,280	1,114,997	1,148,447	3,356,724
Niger	1,868,600	3,438,220	4,316,700	9,623,520
Nigeria			4,299,768	4,299,768
Senegal	718,408	587,772	676,305	1,982,486
Sierra Leone	513,043	512,256	515,042	1,540,342
Tanzania	944,175	928,628	943,202	2,816,005
Management	795,694	854,005	1,353,407	3,003,106
Total	16,082,711	17,691,028	29,809,709	63,583,448

Table 5 shows the budget per country after additional funds are added to funds already available.

Table 5. Budgets per country if gaps proposed in Table 5 are covered.

2022	2022		Total
2022	2023	2024	(USD)
1,755,854	1,500,906	1,599,871	4,856,631
2,176,011	2,062,140	2,314,287	6,552,437
2 000 506	0.040.000	2 000 002	0.040.547
3,088,596	2,842,868	2,909,083	8,840,547
2 145 715	2 708 540	2 862 086	7,716,341
2,140,710	2,700,040	2,002,000	7,710,041
1,797,859	1,858,621	1,944,720	5,601,200
, ,	, ,	, ,	, ,
1,484,424	1,383,537	1,408,807	4,276,768
4,109,147	3,003,421	3,517,982	10,630,551
4 000 000	4 444 007	4 4 4 0 4 4 7	0.050.704
1,093,280	1,114,997	1,148,447	3,356,724
3 389 023	3 650 304	4 316 700	11,356,026
0,000,020	0,000,001	1,010,100	11,000,020
4,598,768	3,520,785	4,299,768	12,419,321
718,408	587,772	676,305	1,982,486
513,043	512,256	515,042	1,540,342
044.475	000 000	0.40,000	0.040.005
944,175	928,628	943,202	2,816,005
2 912 725	025 507	1 353 407	5 001 720
2,012,123	920,097	1,303,407	5,091,729
30,627,028	26,600,372	29,809,709	87,037,109
	2,176,011 3,088,596 2,145,715 1,797,859 1,484,424 4,109,147 1,093,280 3,389,023 4,598,768	1,755,854       1,500,906         2,176,011       2,062,140         3,088,596       2,842,868         2,145,715       2,708,540         1,797,859       1,858,621         1,484,424       1,383,537         4,109,147       3,003,421         1,093,280       1,114,997         3,389,023       3,650,304         4,598,768       3,520,785         718,408       587,772         513,043       512,256         944,175       928,628         2,812,725       925,597	1,755,854       1,500,906       1,599,871         2,176,011       2,062,140       2,314,287         3,088,596       2,842,868       2,909,083         2,145,715       2,708,540       2,862,086         1,797,859       1,858,621       1,944,720         1,484,424       1,383,537       1,408,807         4,109,147       3,003,421       3,517,982         1,093,280       1,114,997       1,148,447         3,389,023       3,650,304       4,316,700         4,598,768       3,520,785       4,299,768         718,408       587,772       676,305         513,043       512,256       515,042         944,175       928,628       943,202         2,812,725       925,597       1,353,407

Table 6 shows the number of children expected to be reached by Helen Keller if gaps identified and listed in Table 5 are filled.

Table 6. Children targeted per country and per year

Country	2022	2023	2024	Total	Total country population	% of total population
Burkina Faso	1,934,620	1,994,595	2,056,426	5,985,641	3,719245	55%
Cameroon	3,467,931	3,551,159	3,636,384	10,655,474	7,006,952	52%
Cote d'Ivoire	3,717,555	6,168,734	6,329,121	16,215,410	6,329,121	100%
DRC	5,909,020	6,938,623	7,146,782	19,994,425	19,398,685	37%
Guinea	2,097,700	2,160,631	2,225,450	6,483,781	2,734,723	81%
Kenya	2,077,794	2,140,128	2,204,332	6,422,253	5,604,430	39%
Mali	6,450,873	6,683,104	6,923,696	20,057,673	8,570,175	81%
Mozambique	5,083,941	5,236,459	5,393,553	15,713,953	5,393,553	100%
Niger	6,284,408	6,608,700	6,951,338	19,844,446	7,254,075	96%
Nigeria	5,931,211	6,109,147	6,292,422	18,332,780	37,980,000	17%
Senegal	710,151	731,456	753,399	2,195,006	2,662,992	28%
Sierra Leone	991,559	1,021,306	1,051,945	3,064,810	1,051,945	100%
Tanzania	1,900,098	1,951,401	2,004,089	5,855,588	11,101,298	18%
Total	46,557,061	51,293,443	52,968,939	150,819,443	118,806,994	

#### 7.1. Burkina Faso

#### Context

In 2019, Burkina Faso ranked 182 out of 189 countries on the Human Development Index score <sup>2</sup> and registered an under-five mortality rate for children of 105 deaths per 1,000 live births.<sup>3</sup> Political insecurity continues to spread throughout the country and is a growing factor in the country's very high (9.1 percent) prevalence of GAM. <sup>4</sup> The 2020 SMART survey showed that only 29.2 percent of children had consumed foods from four or more of eight essential food groups indicating a very low dietary diversity and high risk for micronutrient deficiency. The country has not yet reported the prevalence of vitamin A deficiency from a National Micronutrient Survey completed in 2019 due to delays encountered with sample transport to laboratories due to COVID-19. Thus, the most recent estimates of vitamin A deficiency prevalence are from 2003 from a study conducted in Sanmatenga province, which reported low levels of serum retinol concentration among 84.5 percent and 61.8 percent of children under 5 and their mothers<sup>5</sup>, respectively.

Vitamin A Situation

<sup>&</sup>lt;sup>2</sup> http://hdr.undp.org/en/countries/profiles/BFA

<sup>&</sup>lt;sup>3</sup> http://www.healthdata.org/burkina-faso

<sup>&</sup>lt;sup>4</sup> National nutritionnel survey (SMART) 2020

<sup>&</sup>lt;sup>5</sup> Zagré et al, 2003

Since 2006, the government of Burkina Faso has been organizing VAS campaigns every six months for children aged 6-59 months using two delivery mechanisms. One approach is used only for urban areas and is called "Vitamin A + days" (Journées de la vitamin A +, JVA+). This approach involves door-to-door VAS distribution by recruited community members who are paid 3,000 CFA per day (~\$5). The second approach is used in rural areas. This approach is similar to the urban JVA+ campaign, but takes place over one month instead of four days and is conducted twice each year. Community Health Workers, who deliver primary health care services to households, add VAS distribution to their work during the month-long campaigns. These workers are provided a monthly incentive by the government throughout the year. In addition to VAS, children 12 to 59 months are provided deworming tablets and all children under five are screened for acute malnutrition based on Mid-Upper Arm Circumference (MUAC) measurements. Helen Keller has been organizing post-event coverage surveys at least once a year in Burkina Faso which have consistently shown a VAS coverage of more than 80 percent.

#### Funding Gaps

Since 2018, UNICEF and Helen Keller Intl have been the only actors supporting VAS in Burkina Faso, working closely with the national government on all aspects of planning, tools and guides, supply management, monitoring, and supporting separate regions for each round of supplementation. As shown in Figure 2, the number of regions supported by UNICEF decreased in 2020 and 2021, due to lack of available funds. Helen Keller stepped up to support the non-supported regions. In 2021, Helen Keller supported seven regions for the first semester. as UNICEF lacked sufficient GAC funding.

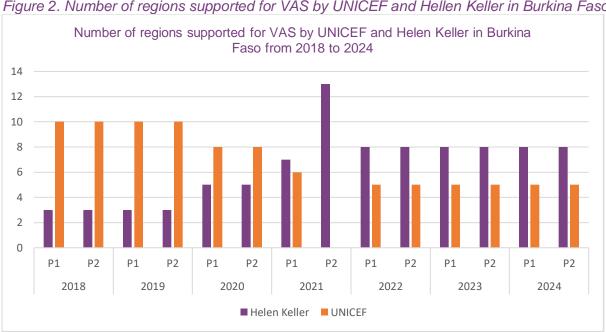


Figure 2. Number of regions supported for VAS by UNICEF and Hellen Keller in Burkina Faso

For the second distribution round of 2021, Helen Keller plans to support 13 regions of the country to fill the UNICEF funding gap. NI recently contacted the Burkina Faso government and VAS stakeholders to express their willingness to support VAS activities including monitoring and evaluation, but discussions and final decisions are pending.

For 2022-2024, UNICEF will likely only be able to support five regions. Thus, Helen Keller was asked by the government to consider providing support to eight regions (**Table 7**). The eight regions were selected jointly with UNICEF and the Ministry of Health based on factors, including: (i) high level of political insecurity, (ii) Helen Keller's long history of partnership with management teams in these regions and ability to provide supervision, and (iii) that three of the eight regions (Cente-Est, Hauts-Bassins and Sud-Ouest) are part of a new Bill and Melinda Gates Foundation-funded project called "MIRAMA," which aims to reduce infant mortality through prophylactic administration of azithromycin. This project will use the JVA + platform to deliver azithromycin to children 1-11 months of age.

Table 7. Target population of children 6 to 59 months in Helen Keller supported regions

Regions	Target population 6 to 59 months					
Regions	2021	2022	2023	2024		
Cascades	138,102	142,383	146,797	151,348		
Centre	380,936	392,745	404,921	417,473		
Centre Est	286,912	295,806	304,976	314,430		
Centre Ouest	283,016	291,789	300,835	310,161		
Centre Sud	146,891	151,445	156,140	160,980		
Hauts Bassins	324,745	334,812	345,191	355,892		
Plateau Central	166,145	171,295	176,606	182,080		
Sud Ouest	149,704	154,345	159,129	164,062		
Total	1,876,451	1,934,620	1,994,595	2,056,426		

We estimate the VAS funding gap in Burkina Faso to be \$3,389,118. Of this amount, \$1,018,586 would be used to support 10 additional regions in 2021 and 5 in 2022; \$770,661would be used to support 5 regions in 2023, and \$1,599,871 would support VAS in 8 regions in 2024.

#### 7.2. Cameroon

#### Context

Mortality among children under five in Cameroon remains high with 71 deaths for 1,000 live births as of 2019.<sup>6</sup> A national Demographic and Health Survey (DHS) from 2018 reported a prevalence of GAM of 4 percent, with only 40 percent of infants being exclusively breastfed and only 10 percent of children reaching the minimum acceptable diet criteria. <sup>7</sup> There has been no micronutrient survey measuring prevalence of Vitamin A Deficiency in Cameroon since 2000 when vitamin A deficiency prevalence was estimated at approximately 40 percent among children under five.<sup>8</sup> More recent data suggests that high levels of vitamin A deficiency persist.<sup>9</sup>

#### Vitamin A Situation

In Cameroon, VAS distribution has been organized as door-to-door campaigns for more than 20 years. For most of these last two decades, VAS was coupled with polio vaccination during campaigns called Action Weeks for Health and Nutrition (SASNIM). These campaigns were

<sup>&</sup>lt;sup>6</sup> http://www.healthdata.org/cameroon

<sup>&</sup>lt;sup>7</sup> https://dhsprogram.com/pubs/pdf/FR360/FR360.pdf

https://www.researchgate.net/publication/7763833 Vitamin A Deficiency and Child Mortality in Cameroon The C hallenge Ahead

<sup>9</sup> https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5452252/

highly centralized and involved recruiting CHWs who would visit all households in the country and administer VAS. This approach consistently achieved VAS coverage of more than 80 percent.

Since 2016, however, polio campaigns have stopped, and UNICEF has been the sole supporter of VAS. Due to funding limitations, UNICEF only supported four regions (Far-North, North, Adamawa and East), leaving more than 60 percent of children un-supplemented. In general, if UNICEF has sufficient funds, it supports two additional politically insecure regions (North West and South West).

To illustrate the highly variable funding situation in Cameroon, one VAS distribution round in 2017 was cancelled due to UNICEF's escalating funding gap. In 2018, again, support was only sufficient to support the four regions mentioned above. In 2019, both VAS rounds were implemented in all regions because they were piggy-packed to the polio campaign (Round 1) and measles campaign (Round 2). However, in 2020, VAS was implemented during only one round and limited to 2 of 10 regions in the country.

Fortunately, the first round of 2021 covered all 10 regions because it was also coupled with the polio/VAS campaign and financed by two partners: WHO (which financed the costs related to polio for the 10 regions) and UNICEF (which financed the Vitamin A costs). For the second VAS distribution round in 2021, UNICEF will continue to support the Far-North, North, Adamawa and East regions and Helen Keller will support four other regions (Center, Littoral, West and South).

In addition to mass campaign activities, Helen Keller has been conducting a small-scale pilot project in two districts of the Far-North region to test the impact of using community workers to remind caregivers to bring their children to health facilities for VAS distribution. Thus far the pilot has provided encouraging coverage results: 99 percent of eligible children were given the first dose and 94 percent the second dose.

#### Funding Gap

For 2022-2024, it is expected that funding gaps will continue to worsen, although the magnitude of these gaps remains uncertain. There is no funding available from the government to support VAS campaigns. UNICEF Cameroon projects to have less than \$500,000 to support all VAS campaigns from the second round of 2021 through 2024. Thus, they will prioritize funding for only two of the four-to-six regions they previously supported (i.e., Extreme North and North) leaving North West, South West, Adamaoua and East without support. However, with funding received from GiveWell, Helen Keller will support Centre, Littoral, West and South for 2022 and 2023, and add—Adamawa and East—from the second round of 2021 to end of 2024. This will partially fill the funding gap left by UNICEF; however, this leaves North West and South West regions unsupported.

Currently, Helen Keller plans to support a total of six regions: Centre, Littoral, West, South, Adamawa and East. These six regions include more than 3 million children 6-59 months of age (see **Table 8** below), accounting for around 50 percent of all children in Cameroon in addition to internally displaced persons (IDP) who are victims of insecurity in Northwest and Southwest regions.

Table 8. Target children 6 to 59 months in Helen Keller supported regions in Cameroon

Regions	Target 6-59	Target 6-59						
	2022	2023	2024					
Adamaoua	457,184	468,156	479,391					
Centre	1,323,193	1,354,949	1,387,467					
Est	376,606	385,644	394,899					
Littoral	610,854	625,514	640,526					
Ouest	537,353	550,249	563,454					
Sud	162,741	166,647	170,647					
Total	3,467,931	3,551,159	3,636,384					

Helen Keller will support door-to-door VAS campaigns implemented through community health workers under the leadership of the Ministry of Health and in collaboration with WHO and UNICEF.

Helen Keller estimates the total amount needed to support the six regions from 2022 to 2024 will be approximately USD \$4,096,554. This amount includes the support for Adamaoua and East regions during second round 2021. This support was not budgeted in Helen Keller Cameroon's current budget because it was planned that UNICEF would fund these two regions by 2021. Around \$900,000 will be used for these additional regions in 2022 and 2023 and approximately \$2 million will be used for all six regions in 2024.

#### 7.3. Cote d'Ivoire

#### Context

Under five mortality rates in Cote d'Ivoire remain very high at 73 deaths per 1,000 live births. <sup>10</sup> Malnutrition in all its forms is the underlying cause of around 45 percent of the annual deaths of children under five, or 115 deaths per day in Côte d'Ivoire. Stunting affects up to 21 percent of children under 5 years. <sup>11</sup> Global child acute malnutrition rates are 6 percent with 1.2 percent of children suffering from severe acute wasting. Children's diets are inadequate: Only 26 percent of children 6-23 months meet the minimum dietary diversity threshold of four out of eight food groups, and only 23 percent of children under six months are exclusively breastfed. <sup>12</sup>

The latest information on the magnitude of micronutrient deficiencies comes from the MICS survey conducted by UNICEF in 2016, which reported anemia prevalence of 66.4 percent among reproductive-aged women and 73.4 percent among children under five years of age, although anemia is not a specific indicator for iron deficiency.<sup>13</sup> The prevalence of vitamin A deficiency (inflammation adjusted) among preschool-age children is 25 percent.<sup>14</sup>

#### Vitamin A Situation

For two decades, strategies to address vitamin A deficiency and parasitic diseases were essentially based on mass campaigns integrated into the National Immunization Days (NIDs) to

<sup>10</sup> http://www.healthdata.org/cote-divoire

<sup>11</sup> https://www.wfp.org/countries/cote-divoire

https://www.unicef.org/cotedivoire/sites/unicef.org.cotedivoire/files/2019-

<sup>01/</sup>C%C3%B4te%20d%27Ivoire MICS%202016.pdf

<sup>13</sup> https://apps.who.int/nutrition/landscape/report.aspx?iso=civ

<sup>&</sup>lt;sup>14</sup> https://pubmed.ncbi.nlm.nih.gov/24171836/

eradicate polio. Between 2016 and 2018, as National Polio Vaccination Days ended, funding gaps for VAS campaigns resulted in canceled distribution rounds and pushed the government to integrate VAS distribution into routine services to minimize costs. However, the country's weak health system is unable to achieve high coverage of VAS through routine services. Thus, even if areas where routine VAS distribution is operational, campaigns still have to be organized at the end of each semester to reach a high proportion of "missed" children.

Over the past three years, Helen Keller Intl, with GiveWell funding and in partnership with UNICEF, has provided technical and financial support to the Ministry of Health through the National Nutrition Program (PNN) for the implementation of national mass VAS campaigns.

In 2018, Helen Keller provided technical and financial support to 17 out of 72 health districts (1,426,247 children aged 6 to 59 months per round) for the first VAS distribution round. The funds made available to the PNN were used to support: (i) campaign supervision, (ii) central-level coordination costs, and (iii) independent monitoring. In 2019, with Helen Keller support, 2,808,461 children from 46 out of 72 districts received VAS. In 2020, Helen Keller supported all 72 districts to compensate for UNICEF's financial limitations, reaching 5,698,091 children reached during the first round. In the second round, 45 districts were supported reaching 3,477,290 children. Annual coverage surveys were implemented and consistently revealed VAS coverage greater than 80 percent.

In addition to GiveWell funds, Helen Keller has received support from the Ray and Tye Noorda Foundation to supplement VAS integration and campaign activities.

#### Funding Gap

NI recently informed the government of Cote d'Ivoire of their intention to fill VAS funding gaps. As a result, Helen Keller was asked by the government to provide direct support to 36 districts for the first VAS distribution round in 2021 targeting approximately 3.3 million children with NI supporting 9 districts and UNICEF 27 districts. For this year's second VAS distribution round, Helen Keller and UNICEF will support 45 (36 plus NI's 9) and 27 districts, respectively. However, under current support levels, Helen Keller's resources can only support 26 districts in 2021 to 2023; thus, we are requesting additional funding to support for the added 19 districts in 2021 and 2022 and 46 districts in 2023 and 2024. Without this support, VAS distribution may be cancelled in these districts.

Table 93: Target children 6 to 59 months in Helen Keller supported districts in Côte d'Ivoire

	2022	2023	2024
Geographic coverage (Districts)	45	72	72
Target population	3,717,555	6,168,734	6,329,121

This funding gap for Cote d'Voire is approximately USD \$2.4 million for 2022, \$2,3 million for 2023 and \$2.9 million for 2024, or a total of \$7.6 million over the three years from 2022 to 2024.

#### 7.4. Democratic Republic of Congo

#### Context

The Democratic Republic of Congo has one of the highest child mortality rates in the world at 70 deaths per thousand live births (MICS 2017-18).<sup>15</sup> About 48 percent of these deaths have undernutrition as an underlying cause. Stunting prevalence is high at 42 percent (MICS, 2017-18) and has stagnated over the past. Global acute malnutrition remains high at 6.7 percent with 2 percent of children suffering from severe acute malnutrition.

In addition to the high prevalence of stunting and wasting, micronutrient deficiencies are also widespread in the country and constitute another serious public health problem. There are no recent estimates of vitamin A deficiency prevalence among children; however, based on a survey in 1998, prevalence rates were extremely high at 61 percent of children (PRONANUT, 1998).

#### Vitamin A Situation

Over the past two decades, the National Nutrition Program (PRONANUT) has administered vitamin A capsules and deworming for children through mass campaigns organized every four to six months. To ensure continuity of campaigns, the country integrated VAS and deworming with any available opportunity including polio and measles campaigns, child health days, and stand-alone VAS campaigns.

In 2016, after Helen Keller pulled out of DRC, UNICEF remained the sole VAS support partner of the PRONANUT; however, their funding limited the geographic coverage area for VAS. About this time, UNICEF and the PRONANUT started to integrate VAS into the primary health care system; however, VAS coverage through this approach remains extremely low (approximately 20 percent). The health system remains very weak in most parts of the country, with limited infrastructure, insufficient work force, supplies and equipment. Support provided by UNICEF to each province is limited to a few thousand US dollars per distribution round.

Helen Keller renewed its VAS support to DRC with GiveWell funding in three provinces: Kinshasa, Kasai Oriental and Kongo Central using VAS campaigns that target children missed by the routine distribution system. The first distribution round started in June 2021. Community health workers (CHWs) visit all households in their catchment area over a five-day period to supplement children missed by the health system approach. Plans are being made to develop CHW registers to help CHWs identify and visit all catchment areas households to ensure high VAS coverage.

#### Funding Gap

Helen Keller plans to continue its support to the three provinces initially selected jointly with Pronanut, UNICEF and support 4 additional provinces in 2022. Other than UNICEF which supports routine VAS distribution, currently Helen Keller is the only organization providing "mopup" campaign support for VAS.

<sup>&</sup>lt;sup>15</sup> https://mics.unicef.org/news entries/149/JUST-RELEASED:-DRC-2017-18-SURVEY-FINDINGS,-SNAPSHOTS-AND-DATASETS

Table 10: Target children 6 to 59 months in Helen Keller supported regions in DRC

Provinces	2021	2022	2023	2024
Kinshasa	2,083,107	2, 145,600	2,209,968	2,276,267
Kongo central	725,054	746,806	769,210	792,287
Kasaï Oriental	933,949	961,968	990,827	1,020,552
Haut Katanga		1,284,573	1, 323,110	1,362,803
Lomami		770,073	793,175	816,970
Lualaba			537,713	553,844
North Ubangi			314,620	324,059
Total	3,742,111	5,909,020	6,938,623	7,146,782

We estimate a funding gap of USD \$394,268 in 2022, \$1,709,114 in 2022, and \$2,862,086 in 2023 to support VAS campaigns or a total of \$4,965,468 from 2022-24.

#### 7.5. Guinea

#### Context

Despite a reduction in infant and child mortality in the last two decades, rates remain very high 111 death per live births (DHS 2018). Global acute malnutrition also is very high at 9 percent and dietary adequacy among children remains abysmally low with only 4 percent of children aged 6 to 23 months consuming a minimum acceptable diet. Only a third of children under 6 months are exclusively breastfed. About 75 percent of children are anemic and only 24 percent have received all basic vaccines.

No recent data on vitamin A deficiency exists for Guinea, although a modeling exercise estimates VAD prevalence at 40 to 60 percent (Stevens et al., 2015),<sup>17</sup> similar to prevalence rates during the 1990s of 24 and 63 percent in the regions of Haute and Moyenne Guinea, respectively.<sup>18</sup>

#### Vitamin A Situation

With GiveWell support, Helen Keller Intl covered VAS funding gaps in Guinea since 2018. Helen Keller and UNICEF are the two main actors providing VAS technical and financial support to the Ministry of Health. VAS distribution continues to take place through door-to-door campaigns organized twice a year, usually in May and November.

Over the last years, funding gaps have been inconsistent and required negotiations between Helen Keller, UNICEF and the Ministry of Health prior to each distribution round. When funding gaps occur, Helen Keller has covered the gaps. As a result, Helen Keller provided supported four regions for the first and three regions for the second distribution rounds, respectively, in both 2019 and 2020. We are expecting to support two regions for each round in 2021. VAS was coupled with polio campaigns during the second round in 2018 and the first round in 2019; however, in 2020, the timing of the polio campaign did not match the annual VAS schedule. In

<sup>&</sup>lt;sup>16</sup> https://dhsprogram.com/methodology/survey/survey-display-539.cfm

https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(15)00039-X/fulltext

<sup>&</sup>lt;sup>18</sup> Directives nationales de Supplémentation en Vitamine A en Guinée, Minsitère de la Santé, 2016

2021, a polio campaign was conducted in early June, but the Nutrition Directorate was not ready for adding VAS to it. A second polio campaign is also planned for the second half of 2021.

For 2021, NI has announced its willingness to support three regions as well as the costs of a national post event coverage survey. Their support will continue until mid-2022. The Child Fund has also provided support to VAS campaigns in 2021 by purchasing one million tablets of Albendazole 400mg.

For several years, UNICEF and the Government of Guinea have tested routine delivery of VAS in 40 communes, but coverage has remained very low. Exploratory discussions are underway to assess whether a hybrid approach can be used by targeting VAS to children ages 6-11 months through the primary health care facilities, but reaching older children through door-to-door catch up events at the end of each semester.

#### Funding Gap

UNICEF funding remains uncertain over 2022 to 2024. NI is expected to provide financial support for the second round of 2021 and the first round of 2022 for two out of eight regions. During discussions between Helen Keller and the Ministry of Health, projected funding gaps over the next three years were identified. Other than NI support for two regions during the second distribution round in 2021 and the first round 2022, no other funding source has been identified. During the next three years there is a high risk of a substantial funding gap. Thus, it was agreed with the Ministry of Health that Helen Keller would support six regions between 2022 and 2024. The support to these six regions will ensure biannual supplementation of around 2 to 2.2 million children during each year over the three years period. (See **Table 11** below).

Table 4: Target children 6 to 59 months in Helen Keller supported regions in Guinea

Degione	Target 6-59			
Regions	2022	2023	2024	
Boké	266,929	274,937	283,185	
Conakry	462,320	476,190	490,475	
Labé	234,889	241,936	249,194	
Faranah	224,702	231,443	238,386	
Kindia	464,648	478,587	492,945	
Kankan	444,212	457,538	471,265	
TOTAL	2,097,700	2,160,631	2,225,450	

The estimated funding gap over from 2022-2024 is approximately USD \$4 million. Two million is already budgeted for 2022 and 2023 to cover increased costs associated with COVID-19 mitigation measures (i.e., infection control, masks, hand sanitizer, and added training costs) and to cover four regions. An additional \$1.9 million is budgeted for 2024 to cover VAS funding for the six proposed regions.

#### **7.6.** Kenya

#### Context

Kenya's under five mortality rates is 43.2 deaths per 1000 live births<sup>1</sup>. The country is experiencing the triple burden of malnutrition characterized by the coexistence of (i) undernutrition (i.e. stunting, wasting, underweight); (ii) micronutrient deficiencies; and (iii)

overweight and obesity including diet-related non-communicable diseases. Data from the Kenya Health Demographic Survey (KDHS) 2014 <sup>2</sup> indicates that out of 7.22 million children under the age of five, nearly 1.9 million are stunted (26 percent); 290,000 wasted (4 percent) and 794,200 (11 percent) underweight. Notwithstanding this, there are notable geographical and social demographic variations in the severity of malnutrition in the country. Out of the 47 counties, 9 (19 percent) have a prevalence of stunting above 30 percent.

The national prevalence of vitamin A deficiency (VAD) for the preschool children was estimated at 9.2 percent in 2011, and marginal VAD at 53 percent (KNMS 2011). However, the reliability of the results has been contested in Kenya and the government is preparing for a new national micronutrient survey. In 2014, the DHS showed that only 41 percent of children 6-23 months consumed a diet meeting a minimum dietary diversity threshold.

#### Vitamin A Situation

There are very important variations in VAS coverage in the country. Out of 47 counties, half have VAS coverage rates below 80 percent with some as low as 20 percent, putting many children at a higher mortality risk.

Vitamin A supplements in Kenya are administered to children aged 6-59 months through various delivery approaches. Throughout the year, children can access VAS in primary health care facilities, but this routine coverage only accounts for around 20 percent of children, essentially children below 12 months, as many caregivers do not bring their children to the health facilities after the end of the immunization contact points at one year of age. To compensate for this low routine coverage, campaigns called Malezi Bora are implemented twice yearly, combining door-to-door distribution by community health volunteers and outreach distribution in communities and early childhood development centers.

Over the last years, Helen Keller has increased its support from 6 to 11 counties (**Table 10**).

#### Funding Gap

Helen Keller is currently supporting VAS in 11 out of 47 counties with funding from the Three Graces Foundation, Effective Altruism Australia and GAC. The Three Graces Foundation and Effective Altruism Australia grants will end in June 2022, while the GAC grant will end in March 2022. The 11 Helen Keller supported counties will therefore remain without support as from July 2022.

From 2017 to 2020, VAS coverage rates reveal that only 9 out of 47 counties achieved the national target of 80 percent and 15 counties were below 50 percent. Thus, most children in Kenya do not receive VAS protection. The main reasons for low VAS coverage are lack of adequate funding, weaknesses in service delivery and reporting, and lack of caregivers' knowledge on the importance of VAS.

Helen Keller proposes to continue to support the current 11 counties and to add 3 more counties that have demonstrated low coverage over the years and are not supported consistently by UNICEF or NI.

Table 12: Targeted population of children 6 to 59 months in Helen Keller supported regions

County	Beneficiaries	Coverage (2020) %	Coverage (average of 2017- 2020) %
Kilifi	329,054	103.0	54.6
Kwale	200,833	128.7	62.7
Taita Taveta	63,475	89.3	53.1
Siaya	217,909	115.7	51.6
Uasin Gishu	239,092	57.3	30.4
Elgeyo Marakwet	55,329	128.9	101.7
Kakamega	112,411	70.8	73.4
Bungoma	198,975	43.8	81.4
Transzoia	118,968	69.6	44.8
Kirinyaga	51,505	29.8	41.2
Tharaka Nithi	69,134	107.7	67.3
New Counties			
Narok	173,488	21.0	25.0
Kisii	147,405	31.3	16.6
Kericho	100,216	30.1	27.1
Total	2,077,794		

The funding gap amounts to USD \$3,975,841 distributed over the three years between 2022 and 2024.

#### 7.7. Mali

#### Context

Under five mortality in Mali remains very high at 114.1 deaths for 1,000 live births<sup>19</sup>. According to the results of a SMART survey from 2020, GAM affects 7.2 percent of children under 5, and severe acute malnutrition affects 1.3 percent .

Recent data on micronutrient deficiencies in Mali are lacking. However, a study conducted in 2006 in the regions of Bamako and Koulikoro, reported a prevalence of 72 percent in rural areas and 17 percent in urban areas. Approximately 8 out of 10 children (82 percent) are anemic, of whom 25 percent, 51 percent and 6 percent suffer from mild, moderate and severe anemia, respectively. In addition, only 40 percent of children less than 6 months are exclusively breastfed (DHS 2018). Among children aged 6 to 23 months, only 8 percent consume a minimally acceptable diet with lower rates among 6 to 8 month olds (4 percent) and higher rates for 12 to 17 months (10 percent) (DHS 2018).

Vitamin A Situation

<sup>19</sup> http://www.healthdata.org/mali

<sup>&</sup>lt;sup>20</sup> AG IKNANE A, KASSOGUE K, DJANGO DM, DIAWARA A, THIERO TA, KONATE K, SANGHO H, TRAORE AK, Prevalence of retinolemie among the children and women in age to procure in two areas of Mali, 2006

In Mali, VAS is delivered through national health weeks called "Semaine d'Intensification des Activites de Nutrition (SIAN)." These campaigns are organized twice a year and consist of door-to-door delivery by community workers. Helen Keller and UNICEF are the Ministry of Health's main VAS partners providing up to 80 percent of financial needs for VAS.

Helen Keller has supported the regions of Kayes and Segou (around 1.7 million children under the age of 5) for the last three years and UNICEF has supported the eight remaining regions. At times, depending on funding gaps, Helen Keller has provided support other regions as was the case in Sikasso region for the first VAS distribution rounds in 2019 and 2020.

Other partners occasionally fund SIANs:

- World Vision with the purchase of Albendazole tablets for deworming; and
- Save The Children, which sometimes supports part of the operational costs of certain regions (e.g., Sikasso for the first round in 2020).

Polio campaigns have taken place inconsistently. Since 2018, only two VAS campaigns were coupled with national polio (first rounds 2019 and 2020). In 2021, faced with less funding from UNICEF, Helen Keller will support the Koulikoro region for both rounds, in addition to Kayes and Segou.

#### Funding Gap

UNICEF confirmed that they are uncertain about their ability to maintain VAS funding at current levels over the next three years. They mentioned a high likelihood of financial gaps in the coming years. Thus, after discussion with UNICEF it was agreed that for the next three years:

- Helen Keller would support five regions in the south of part of Mail: Bamako, Kayes, Segou, Koulikoro and Sikasso;
- UNICEF would support the six northern regions: Mopti, Tombouctou, Gao, Kidal Taoudenit and Menaka

The financial resources needed by Helen Keller to support VAS in five regions is a total of USD \$8.9 million over three years. The support to these five regions will ensure biannual supplementation of around 6.9 million children during each year over three years (Table 13).

Table 53: Target children 6 to 59 months in Helen Keller supported regions in Mali

Pagiona	Target 6-59			
Regions	2022	2023	2024	
Kayes	832,170	862,128	893,165	
Segou	983,395	1,018,797	1,055,474	
Koulikoro	1,274,482	1,320,363	1,367,896	
Bamako	2,042,560	2,116,092	2,192,271	
Sikasso	1,318,265	1,365,723	1,414,889	
Total Target	6,450,873	6,683,104	6,923, 696	

#### 7.8. Mozambique

#### Context

Despite important progress in the last two decades, Mozambique ranks 181<sup>th</sup> out of 189 countries based on the global human development index.<sup>21</sup> Under five mortality rates are estimated at 68 deaths per 1,000 live births. <sup>22</sup> Vitamin A deficiency has not been measured since 2002, when it peaked at more than 70 percent of children under the age of five.<sup>23</sup> Malnutrition also remains high in Mozambique, with 43 percent of children under the age of five who are stunted due to chronic illness and poor diet (MISAU et al., 2011). Stunting is higher in rural areas (46 percent) compared to urban areas (35 percent).

According to UNICEF, less than half of children under 6 months are being exclusively breastfed and only 13 percent of children aged 6–23 months receive the minimum recommended diet. Following the El Niño climate shocks and cyclones in 2016, more than 2 million people fell into acute food insecurity. While the situation has improved due to above-average harvests in mid-2017, several centrally located provinces remain at high levels of food insecurity.

#### Vitamin A Situation

In 2016, the Ministry of Health of Mozambique stopped mass campaigns for VAS due to lack of funds, leaving millions of children without VAS for several years. Between 2017 and 2020, Helen Keller and UNICEF joined efforts to boost coverage through supporting VAS distribution through routine health services, but coverage remained low (~30 percent) due, in part, to the high opportunity cost associated with bringing children from remote villages to distant facilities for VAS only.

The routine distribution system consists of three platforms: (i) health facilities that serve children within a five-kilometer radius around the facility, (ii) mobile brigades (outreach events where health facility staff provide services in the community) that are intended to reach children living beyond the five kilometer radius from a facility, and (iii) CHWs who deliver VAS in more remote rural communities (between 8 and 25 km from a health facility).

This routine system was implemented alongside the scale-up of the UNICEF supported Reaching Every Community (REC) platform for vaccination. Over the past three years, Helen Keller supported VAS activities in 5 of the 11 (Manica, Tete, Sofala, Zambezia and Nampula) provinces of Mozambique, targeting 3,152,681 children aged 6 to 59 months.

#### Funding Gap

Funding for VAS is almost non-existent in Mozambique. The REC platform was rolled out but targets primarily children under the age of 12 months and fails to reach older children. The country suffers from a weak health system that has also been weakened further by a series of threats and hazards including devastating cyclones, COVID-19, terrorist attacks, and political instability.

There is an urgent need to organize catch up campaigns at the end of each semester to reach children under five who are currently systematically missed by routine VAS services. These

<sup>&</sup>lt;sup>21</sup> http://hdr.undp.org/en/countries/profiles/MOZ

<sup>&</sup>lt;sup>22</sup> http://www.healthdata.org/mozambique

<sup>&</sup>lt;sup>23</sup>https://pubmed.ncbi.nlm.nih.gov/15705242/#:~:text=Results%3A%20In%20Mozambique%2C%20an%20estimated, mortality%20in%20this%20age%20group.

events will be organized with the primary health care facilities and community workers to reach every child not reached yet by routine services. We plan to initially support districts with low VAS coverage.

Table 64: Target children 6 to 59 months in Helen Keller supported regions in Mozambique

Province	2022 – 2024
Cabo Delgado	437,893
Niassa	349,774
Nampula	1,064,404
Zambezia	954,009
Sofala	403,084
Manica	366,677
Tete	433,723
Inhambane	256,543
Gaza	240,392
Maputo City	185,372
Maputo	392,070
Total	5,083,941

The estimated funding need to support VAS is USD \$1.1 million per year or a total of \$3.3 million over three years.

#### 7.9. Niger

#### Context

Niger has made progress on the rights of children. Under-five mortality has decreased considerably over the past decade but remains as high at 105 deaths per 1,000 live births. <sup>24</sup> A national SMART survey conducted in 2020 showed a national prevalence of global acute malnutrition (GAM) of 12.7 percent with some regions having GAM rates as high as 19.4 percent (Diffa) and 14.9 percent (Zinder). <sup>25</sup> Severe acute malnutrition affects 2.6 percent of children. Stunting prevalence has increased to 45.1 percent nationally, but with higher rates in some regions (58.0 percent in Maradi and 55.8 percent in Zinder).

The proportion of children aged 6 to 23 months consuming at least four food groups is very low at 13.8 percent increasing their risk of micronutrient deficiencies. Although there are no recent vitamin A prevalence studies, the lack of access to vitamin A-rich foods in most parts of Niger and inadequate dietary and feeding practices indicate that the dietary risk for vitamin A deficiency may be very high. Modeled estimates for vitamin A deficiency suggest a prevalence of 40 to 60 percent (Stevens et al.,2015).

#### Vitamin A Situation

The Ministry of Health in Niger has adopted several strategies to address micronutrient deficiencies that include VAS. For three decades, VAS has been organized twice a year through the National Immunization Days (NIDs). However, with the eradication of polio from sub-Saharan Africa, national mass campaigns are reducing rapidly in frequency and geographic coverage, leaving VAS without a dedicated delivery platform. Every six months, main partners supporting VAS in Niger coordinate to identify opportunities to couple VAS with polio if a

<sup>&</sup>lt;sup>24</sup> http://www.healthdata.org/niger

<sup>&</sup>lt;sup>25</sup> https://www.stat-niger.org/wp-content/uploads/nutrition/RAPPORT\_SMART\_Niger\_2020\_VF.pdf

campaign for polio vaccination is planned. If no coupling opportunity exists, VAS and deworming stand-alone door-to-door campaigns are organized with UNICEF and Helen Keller dividing their support between regions. The last national polio campaign took place in first semester 2019.

Table 75: Helen Keller Int'l support on vitamin A supplementation in Niger from 2019 to 2021

Years	Rounds	Geographic coverage	Number of children target	Number of children reached	Administrative coverages	PECS Coverage
	First	8 regions	5,170,238	5,395,477	104.4%	95%
2019	Second	14 districts in 3 regions	1,168,976	1,175,428	National coverage:104% Dosso: 97% Zinder: 103% Maradi: 105%	87%
2020	First	4 regions	6,048,533	5,428,857	89.8%	Not conducted
2021	First	9 districts in 2 regions	5,730,373	5,319,907	National coverage: 93% Zinder: 99% Maradi: 97%	Not conducted

Until 2017, national polio vaccination campaigns were coupled with VAS for both rounds. However, since 2018, with polio eradication and reduced funding, the second rounds of polio vaccination campaigns have become increasingly localized and limited in geographic coverage. To maintain VAS coverage nationally, Helen Keller and UNICEF support districts and/or regions that are not targeted by the polio campaign.

In 2019 the two rounds of polio vaccination campaign coupled with vitamin A supplementation were organized as follows:

- A first national round in 72 health districts of the 8 regions. Helen Keller supported central and regional levels to ensure that vitamin A was coupled to the polio campaign across the country.
- A second round of local polio campaigns organized by WHO. VAS partners supported
  the Ministry of Health to organize a VAS campaign at national level to reach as many
  children as possible with vitamin A and deworming. Specifically, Helen Keller supported
  national and local operational costs in 14 health districts and 3 regions. Helen Keller
  purchased bags to transporting VAS and scissors to cut the capsules. UNICEF and
  WHO respectively supported 26 and 32 remaining health districts.

In 2020, the COVID-19 pandemic modified the timing and organization of VAS campaigns. The first VAS round was postponed until the second semester. Helen Keller and UNICEF ensured the supply of VAS and Albendazole (for deworming) for all children in 4 out of 8 regions while WHO organized polio campaign in the other half of the country. Helen Keller supported all 8 regions by procuring bags, scissors, and protective equipment against COVID-19 for supervisors and distributors. Helen Keller has also supported operational costs for Maradi and Zinder regions.

For 2021, polio campaigns will not be national in scope. The first polio round targeted 53 health districts. With support from Helen Keller and UNICEF VAS activities were conducted in 67 out of

72 health districts. VAS distribution was not implemented in the remaining five districts due to political insecurity. Helen Keller provided overall support to the VAS program including supervision from the central level, and the purchase of bags, scissors and equipment for the entire country (8 regions), and also supported operational costs in two regions (Maradi and Zinder). The second VAS round is planned for July 2021 and will be coupled with polio in 24 health districts. During this round, Helen Keller will support VAS distribution in 67 districts including purchase of bags, scissors and supplies for all 8 regions, and support operational costs in Zinder and Dosso.

Helen Keller is also working with UNICEF and the government of Niger to identify more sustainable approaches to VAS delivery that are less dependent on external funding. An evaluation study conducted by Helen Keller in 2019 showed poor performance and capacity of the health system to deliver VAS through routine services. These findings are informing an approach that uses community workers to deliver VAS to households. This approach will be pilot tested between 2022 and 2024.

#### Funding Gap

We expect that polio campaigns will stop in Niger over the coming years. Thus, VAS standalone campaigns will have to be organized. GiveWell has provided Helen Keller with funds to support these campaigns in two of the country's eight regions in 2022 and 2023. However, we plan to support five additional regions. Thus, overall Helen Keller will support of seven of the country's eight regions to fill funding gaps resulting from UNICEF's funding shortfall.

Table 86: Helen Heller International VAS program target population in Niger for the coming three years

Région	2021	2022	2023	2024
MARADI	1,280,935	1,257,864	1,328,304	1,402,689
TAHOUA	1,241,169	1,712,638	2,620,336	4,009,113
ZINDER	1,405,574	1,373,129	1,476,113	1,586,822
TILLABERY	773,233	797,203	821,917	847,396
DOSSO	644,665	664,650	685,254	706,497
AGADEZ	123,044	127,474	132,063	136,817
NIAMEY	341,545	351,450	361,642	372,129
Total target population per round	5,470,346	6,284,406	7,425,628	9,061,463

We estimate the need for approximately UDS \$9.6 million over three years to cover the funding VAS gap to support campaigns in seven regions. We anticipate needing \$1.9 million for the first year, \$3.4 million in year two, and \$4.3 million in year three. UNICEF has informed us that they have funding to support the eighth region (Diffa), thus enabling VAS coverage for the entire country.

#### 7.10. Nigeria

#### Context

Mortality among children under the age of five in Nigeria remains exceeds 100 deaths for 1,000 live births, <sup>26</sup> The 2018 DHS reports significant nutritional problems among children with prevalence rates of child wasting, stunting and anemia at 7%, 37% and 68%, respectively.

27

<sup>&</sup>lt;sup>26</sup> http://www.healthdata.org/nigeria

Dietary risks are also high as evidenced by low exclusive breast feeding rates (29%) among children <6 m) and low dietary diversity among children 6-23 m of age (only 11% consume a diet that meets minimal dietary diversity thresholds). <sup>27,28</sup>

#### Vitamin A Situation

The National Nutrition and Health Survey (NNHS) conducted in 2018 showed that only 41 percent of children received vitamin A capsule in the six months previous to the survey which is an improvement from 35 percent in 2014.

In Nigeria, VAS is distributed through mass campaigns usually held in May and November, during the Maternal Newborn and Child Health Weeks (MNCHW). During these weeks, primary healthcare services are offered in health facilities, public places, and at community stations by health workers. Some services offered include focused antenatal care, newborn care, VAS, deworming, routine immunizations, malaria prevention and distribution of mosquito nets, HIV/AIDS testing and counselling, nutrition and health talks on water, sanitation and hygiene (WASH) and management of common childhood illnesses.

Helen Keller successfully supported VAS integration in MNCHW until mid-2016 when support ceased due to a lack of funds. For the last five years, many states were unable to implement VAS campaigns. Helen Keller resumed support for VAS in 2018 with modest funding from NI but not sufficient to significantly improve VAS coverage. Since 2020, with GiveWell support, Helen Keller supported VAS in Nassarawa state and then added Benue state in 2021.

#### Funding Gap

In the next three years, Helen Keller plans to continue support Nasarawa and Benue, but also support four more states (Adamawa, Akwa Ibom, Katsina and Taraba states). **Table 16** below shows the current state of nutrition indicators in these states along with VAS coverage.

Table 97: Current State of Nutrition Indices in the 4 New States

STATES	GAM Rate	SAM Rate	Stunting	VAS Coverage
Adamawa	7.1%	2.2%	39.4%	46.5%
Akwa Ibom	8.0%	2.0%	25.7%	48.7%
Katsina	5.7%	1.0%	58.0%	13.0%
Taraba	4.2%	0.2%	31.9%	23.9%

Source: National Nutrition and Health Survey (NNHS) 2018

We have sufficient funds from GiveWell to support VAS in these states in 2022 and 2023; however, estimate the need for an additional USD \$4.2 million to extend this support in 2024. This gap is due the lack of partners—other than UNICEF, which supplies the capsules—supporting VAS campaigns. Also of note, the funds provided by the state government through the Saving One Million Lives (SOML) grant has ended.

**Table 18** shows the population eligible for VAS in the six states.

<sup>27</sup> https://dhsprogram.com/publications/publication-fr359-dhs-final-reports.cfm

<sup>28</sup> https://bmcpublichealth.biomedcentral.com/track/pdf/10.1186/s12889-019-6413-1.pdf

Table 18: Target population of children 6 to 59 months in Helen Keller supported regions

Regions	Population of children 6 to 59 months
Nassarawa	977,426
Benue	1,073,380
Adamawa	798,953
Akwa Ibom	1,032,708
Katsina	1,473,637
Taraba	575,107
TOTAL	5,931,211

#### 7.11. Senegal

#### Context:

Senegal has made significant progress in reducing child mortality which is estimated at 49 per 1,000 compared to 72 per 1,000 in 2010. <sup>29</sup> However, national averages hide important regional disparities in mortality with at least one region reporting 90 deaths per 1,000 live births (DHS, 2017). Nutritional status indicators show persistent high stunting and global acute malnutrition prevalence at 19 percent and 9 percent, respectively. Vitamin A deficiency prevalence, based on 2010 data, is 24 percent among children (COSFAM data from 2010) and child anemia prevalence is 71 percent (DHS, 2017). Exclusive breastfeeding and minimum dietary diversity remains low at 42 percent and 26 percent, respectively.

#### Vitamin A Supplementation Situation

In Senegal, VAS has been integrated into routine health services at the national level since 2019. Integration involves providing VAS twice per year at health facilities using available platforms such as vaccination, growth monitoring or sick children consultation. To date, based on data from the country's health information system (HIS) (and not population coverage surveys), VAS coverage is below 60 percent in 10 and below 40 percent in six regions (**Table 19**). Of the six regions with very low VAS coverage, half have an infant and child rate greater than 70.

Table 1910: Repartition of VAS coverage per district in 2020 in Senegal based on health information system data

REGIONS	Total Target	Coverage S1 2020	Coverage S2 2020
Matam	130,536	18,7%	56,8%
Diourbel	284,635	20,1%	26,2%
Tambacounda	148,704	17,5%	22,8%
Louga	146,276	22,3%	38,4%
Saint-Louis	145,030	60%	94,7%
Dakar	488,932	40%	88%
Thies	288,217	55%	100%
Kaffrine	121,987	59,7%	79,7%
Fatick	143,269	23,7%	24,6%

<sup>&</sup>lt;sup>29</sup> http://www.healthdata.org/senegal

2

Kaolack	176,854	51,7%	59,6%
Kolda	129,474	43%	57,7%
Sedhiou	94,337	28%	33,6%
Kedougou	31,560	34%	48,9%

Low VAS coverage is due to the high opportunity costs for caregivers associated with bringing children to distant health facilities. Also, coverage figures reported by the HIS may overestimate true coverage due reporting system weaknesses.

To address low VAS coverage, the Senegalese government and partners (Helen Keller, NI and UNICEF) initiated semi-annual catch-up or "mop-up" sessions using community health actors. Also, for the past five years, Helen Keller has supported VAS through a USAID-funded project. Together these efforts have resulted in 964,276 children being supplemented each year. This support has included VAS through routine activities as well as end-of-semester scale-up activities which were started during Covid-19 (S2 2020). However, COVID impeded the implementation of the end-of-semester "mop-up" activities and VAS coverage remains low. The USAID project ended in May 2021, and with it, so did Helen Keller's support. We expect UNICEF to continue to support six regions, and NI to support 31 districts in four regions until early 2022, after which funding uncertain.

#### Funding Gap

We anticipate that UNICEF can support six regions and NI four regions (although only until mid-2022); thus, four regions (Matam, Diourbel, Tambacounda, and Louga) remain without any VAS campaign support. Helen Keller proposes to support these four regions with semester based catch-up campaigns to reach children missed by the routine system. This represents a total target of 710,151 children for each semester. We estimate the funding needed to support these four regions over three years is USD \$1.9 million.

#### 7.12 Sierra Leone

#### Context

Mortality among children under five in Sierra Leone remains very high at 100 deaths for 1,000 live births. <sup>30</sup> Stunting prevalence in 2015 was 30 percent and wasting was 5.4 percent. <sup>31</sup> Vitamin A deficiency prevalence among children remained at moderate to severe levels based on a 2015 survey: 17 percent (inflammation adjusted) and 28 percent (not corrected for inflammation). <sup>32,33</sup> Dietary risk for micronutrient deficiencies remains high among young children with only 30 percent of 6-59 month old children meeting the minimum dietary diversity level and only 14 percent consuming vitamin A-rich foods. <sup>1</sup> The percentage of women (married/in-union) whose demand is satisfied with modern contraception was 47 percent in 2020. <sup>34</sup>

31 Ministry of Health and Sanitation. National Nutrition Survey. 2015

<sup>30</sup> http://www.healthdata.org/sierra-leone

Ministry of Health and Sanitation, UNICEF, Helen Keller International, and WHO. 2013 Sierra Leone Micronutrient Survey.

Wirth JP, Rohner F, Woodruff BA, Chiwile F, Yankson H, Koroma AS, et al. (2016) Anemia, Micronutrient Deficiencies, and Malaria in Children and Women in Sierra Leone Prior to the Ebola Outbreak - Findings of a Cross-Sectional Study. PLoS ONE 11(5): e0155031. doi:10.1371/journal.pone.0155031#

<sup>34</sup> http://www.familyplanning2020.org/sierra-leone

#### Vitamin A Situation

Between 2017 and 2021, Helen Keller and UNICEF supported the Ministry of Health to transition from a campaign-based to a routine approach to VAS delivery. Routine VAS is part of a package of services that include immunization, provision of deworming tablets, growth monitoring, weekly cooking demonstrations (for children 6-23 months of age) and routine contraceptive counselling for mothers.

VAS is delivered by health workers in the peripheral health units (PHUs) and outreach services augmented by defaulter tracing by CHWs. Coverage measured by Lots' Quality Assurance Sampling survey was greater than 80 percent in 2018, equitable by sex, mothers' education, religion, location, and occupation. The protocols excluded the weekly demonstrations of complementary feeding the overall coverage remained over 80 percent but five hard-to-reach lots and one of seven districts were less than 80 percent. The monthly district HMIS coverage data 2020-2021 that feeds into the national DHS2 fails to capture VAS comprehensively due to lack of reporting tools and training on the use of those tools at health facility level with inaccuracies most notable in older age groups. Helen Keller is investigating the cost-benefit of re-instating the weekly complementary feeding demonstrations in health facilities serving the hardest to reach (HTR) communities where distances, travel expenses and time away from home provide a significant barrier to attendance by mothers.

Nationwide the proportion of children reached with VAS (routine plus mass) every six months has been ≥80 percent from 2017 to 2021.<sup>37,38</sup> (Prior to 2017, the country was only using mass VAS and coverage was regularly reported as 90%-95%.)<sup>39,40</sup>

#### Funding Gap

Funding from Irish Aid and GAC (via UNICEF) supported the transition from mass to routine VAS and ceases in 2021. Funding from 2022-2024 is recommended to sustain effective coverage including:

- Refresher training of health workers served by Maternal and Child Health Posts (MCHPs) in HTR communities;
- Training of health workers in all PHUs on reporting of VAS disaggregated by age group using the new reporting tools to better inform the HMIS;
- Refresher training and supportive supervision of M&E officers imputing HMIS data;
- Outreach services by health workers and defaulter tracing by CHWs;
- Semi-annual catch-up mini campaigns for VAS defaulters;
- Annual semi-national LQAS coverage surveys.
- Geographic coverage: nationwide, targeting all 667 MCHPs in 16 districts (4 regions);
- Number of children 6-59 months targeted and reached per region by 2024 (twice a year):

<sup>35</sup> Routine vitamin A supplementation and other high impact interventions in Sierra Leone Koroma AS, Conteh SG, Bah M et al. Matern Child Nutr. 2020;16:e13041. https://doi.org/10.1111/mcn.13041

<sup>36</sup> Koroma AS, Kamara HI, Francis Moses F et al *The impact on key indicators of reproductive and child health after changes in program modalities* in Sierra Leone, 2019. Health Science Reports *in press* 

<sup>37</sup> Koroma AS, Sulaiman G. Conteh SG, et al (2020) Routine vitamin A supplementation and other high impact interventions in Sierra Leone *Matern Child Nutr.* 2020;16:e13041. https://doi.org/10.1111/mcn.13041

<sup>38</sup> Koroma AS, Kamara HI et al (2021) The impact on key indicators of reproductive and child health after changes in program modalities in Sierra Leone Health Science reports (in press)

<sup>39</sup> Hodges MH, Sesay FF, et al. High and equitable mass vitamin A supplementation coverage in SierraLeone: a post-event coverage survey Glob Health Sci Pract Advance Access Article, 2013 doi: 10.9745/GHSP-D-12-00005

<sup>40</sup> Sesay,FF, Mary H. Hodges MH et al 2014 High coverage of vitamin A supplementation and measles vaccination during an integrated Maternal and Child Health Week in Sierra Leone Int Health doi:10.1093/inthealth/ihu073

All regions have been selected as HTR communities exist nationwide. Coverage will be assessed by routine monitoring of HMIS data and support to M&E officers at district level and health workers at PHU level. A semi-national LQAS survey will be performed annually and results shared with all key stakeholders.

Table 110: Target population of children 6 to 59 months in Helen Keller supported regions of Sierra Leone

Giorna Eddino				
Regions	Estimated population of 6-59 months old			
North	350,661			
South	201,085			
East	229,811			
West	210,001			
Total	991,559			

VAS will be provided by health workers in integrated routine services and recorded in the child health cards. This will be augmented by PHU-outreach services routinely scheduled but often cancelled due to lack of logistic, funding and supervision/monitoring by the District Health Management Teams (DHMTs). This will be supported by defaulter tracing by CHWs and minicampaigns as and when indicated to ensure effective coverage is maintained.

The estimated funding needed to support the activities described above is USD \$1.5 million over three years. Without funding it is likely that VAS coverage in the most HTR communities will decline significantly impacting the most vulnerable families.

#### 7.13. Tanzania

#### Context

Vitamin A deficiency (VAD) is problem of significant public health importance in Tanzania. A nationally representative sample survey conducted in 1997 revealed that 24 percent of children aged 6-71 months have low serum retinol levels (<20  $\mu$ g/dL). <sup>41</sup> The current estimate for Vitamin A deficiency in Tanzania is 38 percent. <sup>42</sup> In Tanzania infant mortality has decreased from 92 deaths per 1,000 live births in 1991-92 to 43 deaths per 1,000 live births in 2015-16, and during the same period, under-5 mortality has declined from 141 to 67 deaths per 1,000 live births. <sup>43</sup> Diet quantity, quality, and diversity are limited in Tanzania, which along with high rates of infection in children contribute to high rates of VAD. The Tanzania DHWS (TDHS) 2015-16 revealed that in the 24 hours before the survey, only 62 percent of children aged 6–35 months ate fruits and vegetables rich in vitamin A. <sup>43</sup>

The TDHS 2015-16 survey also showed that one in every three children under five are stunted, or too short for their age. By region, stunting rates range from 15 percent in Dar es Salaam to 56 percent in Rukwa. Wasting is far less common in Tanzania (5 percent), and 14 percent of children are underweight, or too thin for their age. The nutritional status of children in Tanzania has improved since 1991-92, when half of children were stunted, compared to 34 percent in 2015-16. Error! Bookmark not defined.

<sup>&</sup>lt;sup>41</sup> Tanzania National Nutrition Survey 2018

<sup>&</sup>lt;sup>42</sup> Results of the 2010 Tanzania Demographic and Health Survey

<sup>43</sup> Tanzania Demographic and Health Survey and Malaria Indicator Survey 2015-2016

#### Vitamin A Situation

The Tanzania government implements twice yearly VAS distribution during Child Health and Nutrition Months (CHNM), and their administrative data shows that coverage is at 100 percent. VAS distribution is coordinated by Tanzania Food and Nutrition Centre (TFNC) which is part of the Tanzania Ministry of Health. VAS service delivery is mainly done at health facilities by facility health workers. The national biannual VAS campaign was initiated in 2001 and since then, VAS coverage in Tanzania from administrative data has been reported consistently high (> 90 percent). However, accuracy of these reports is unlikely due to erroneous tally sheet summarization and overestimation or underestimation of target populations. For example, the TDHS 2015-16 survey showed that only 61 percent of children aged 6–59 months received a vitamin A supplement in the six months prior to the survey. Similarly, the Tanzania National Nutrition Survey (TNNS) 2018 found that the proportion of children who had received vitamin A in the last 6 months was 63.8 percent, thus 36.2 percent of children did not receive it.

In 2010 a national post event coverage (PEC) survey was conducted to validate administrative coverage data but found that coverage during the June 2010 distribution round was 65%, about 30% lower than what was reported by the tally sheets (98%). Over half (53%) of the children who missed VAS did so because their caretaker did not know about the campaign. In 2021, PECS surveys supported by Nutrition International, a key partner in VAS activities in six regions, showed similarly disparate results.

HKI has not been involved in VAS since 2016. Before that time, we conducted advocacy meetings with district, regional, and national government partners to build capacity in planning and budgeting for VAS. We also conducted supportive supervision and PEC surveys and were involved in development of SBCC materials, guidelines, and training manuals.

#### Funding Gap

The funding gap for VAS programming in Tanzania in the next three years is for activities supporting the government to improve VAS distribution and increase coverage. Activities such as district-level micro planning, capacity building of FHWs/CHWs, social mobilization, monitoring and evaluation, and VAS distribution to hard-to-reach areas/ populations are currently not supported by the government with their limited funds. Currently all districts plan and budget for VAS with a very limited amount of funds, roughly USD \$2,000 per year. This mostly covers district level per diems to deliver supplies to the health facilities, as well as other general administrative costs. This gap will continue to exist in coming years because budgeting for VAS is still not given priority among many other challenging health concerns, including most recently the COVID-19 pandemic. If GiveWell funding is not available, VAS distribution will continue but the coverage will continue to be low (though officially labeled as being high), thus many children will miss life-saving vitamin A supplementation.

The Helen Keller Tanzania office, in consultation with TFNC, are proposing to support VAS campaigns in five regions with a total of 36 districts. This selection is based on TDHS and TNNS data showing that these districts/regions have low VAS coverage data. While there are some other districts with even lower coverage, our partners at Nutrition International are supporting those districts within their six-region area of work.

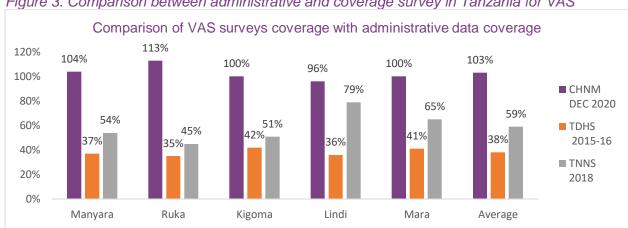


Figure 3. Comparison between administrative and coverage survey in Tanzania for VAS

We are targeting to reach over 1,900,000 children with VAS services which will be distributed from health facilities and selected mobile posts twice yearly (i.e., June and December) through the existing Child Health and Nutrition Month (CHNM) platform. The main VAS distributors will be health facility workers and CHWs. To ensure that these children are reached by VAS service we will conduct monitoring through tally sheets, exit interviews, follow up and supervision visits. We will also evaluate the coverage through post-event coverage surveys which will be validating administrative tally sheet data. Table 21 below show numbers of targeted children in each region.

Table 121: Target population of children 6 to 59 months in Helen Keller supported regions of Tanzania

Regions	2022	2023	2024
Manyara	378,316	388,530	399,021
Rukwa	226,061	232,165	238,434
Kigoma	584,609	600,394	616,604
Lindi	166,019	170,501	175,105
Mara	545,093	559,810	574,925
Total	1,900,098	1,951,401	2,004,089

The total proposed budget for three years is USD \$2,816,005.

#### 8. Prioritization process

The large VAS funding gaps described in this "Room for More Funding" Report are due largely to dramatic reduction of funding from UNICEF and the uncertainty of UNICEF's future VAS funding levels. As Helen Keller considers priority areas for funding, we are assessing three contexts (**Table 22**):

- 1. Continued support for countries with the highest mortality and vitamin A deficiency levels in the region: Mali, Guinea, Burkina Faso, Niger, Cote d'Ivoire, Nigeria, DRC, Cameroon. In these countries, extending support to areas where declining UNICEF support creates funding gaps is a top priority to ensure continued VAS protection to millions of children. Extending support in Cameroon, however, is a secondary priority as Helen Keller is already supporting four regions in the second semester of 2021.
- 2. Meeting funding gaps in Kenya and Mozambique are ranked as a 2<sup>nd</sup> priority.
- 3. Meeting funding gaps in Sierra Leone, Tanzania and Senegal are a third priority because existing routine delivery systems reach some children in Sierra Leone and Senegal, although many are children are missed. Similarly, Tanzania has a semifunctional VAS program, but coverage remains low.

We feel, however, that closing most, if not all, the VAS funding gaps described in this report, is a cost-effective investment to save the lives of thousands of children in sub-Saharan Africa.

Table 22: prioritization of funding gaps

Country	Total (USD)	Overall priority ranking	Priority ranking for maintaining same geographic coverage	Priority ranking for extending to more regions to fill gaps	Gaps without extension
Burkina Faso	3,389,118	1	1	1	1,411,781
Cameroon	4,096,554	1	1	2	2,851,316
Cote d'Ivoire	7,595,285	1	1	1	3,895,387
DRC	4,965,468	1	1	2	2,906,124
Guinea	3,974,850	1	1	1	1,621,177
Kenya	3,975,841	2	2	2	3,135,987
Mali	8,964,380	1	1	1	3,016,845
Mozambique	3,356,724	2	2	2	3,356,724
Niger	9,623,520	1	1	1	3,204,687
Nigeria	4,299,768	1	1	1	4,299,768
Senegal	1,982,486	3	3	3	1,982,486
Sierra Leone	1,540,342	3	3	3	1,540,342
Tanzania	2,816,005	3	3	3	2,816,005
Management	3,003,106	1	1	N/A	3,003,106
Total	63,583,448				39,041,735