



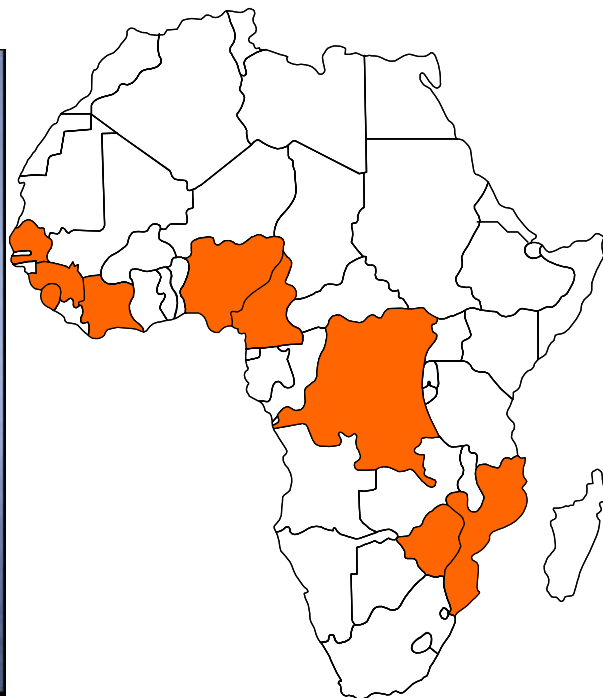
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Post-National Immunization Days Vitamin A Coverage in High-Risk Countries in sub- Saharan Africa

Funded by the Canadian International Development Agency (CIDA)
Implemented by Helen Keller International (HKI)
and the United Nations Children's Fund (UNICEF)

HKI ANNUAL PROGRESS REPORT

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Summary Project Data

Table 1: Project Summary Data

Programmatic Reporting Period:	January 2006 – December 2006
Total Programmable Amount:	C\$14,947,375/US\$ 12,027,177
Total Expenditures to Date (March 31, 2007):	US\$ 6,435,513
Total Expenditures January – December 2006:	US\$ 3,988,775 (3,538,361 direct and 450,413 indirect)
Balance of Funds Available (April 2007-March 2008):	US\$ 5,591,664 (4,961,883 direct and 629,782 indirect)
Total Additional Doses in 2006:	24,363,575
Estimated Cost per Additional Dose 2006:	US\$ 0.19

1.0 Executive Summary

Vitamin A deficiency (VAD) has been recognized as the leading cause of preventable pediatric blindness in developing countries, and since the population-based morbidity and mortality trials in the 1980s, awareness of the child survival importance of effective VAD-control has rapidly increased. Data show that in settings where VAD is prevalent, improving the vitamin A status of children reduces their risk of mortality from measles by an average 50%, from diarrhea by an average 40%, and all-cause mortality in children 6-59 months by an average 23%.

Recent analyses of available population-based surveys in sub-Saharan Africa show that in the absence of adequate and sustained policy and program action to control VAD, 42% of children 6-59 months are at risk of VAD. These same analyses show that effective VAD-control has the potential to reduce mortality rates in children 6-59 months by an estimated 25% and avert over 645,000 deaths per year. The best epidemiological data to date show that vitamin A supplementation (VAS) is the most-cost effective strategy to immediately improve vitamin A status in children.

The United Nations Children's Fund (UNICEF), Helen Keller International (HKI) and the Canadian International Development Agency (CIDA) partnership for high and sustained VAS coverage commenced in 2002 (Phase I). This partnership continues with this project, Phase II, and builds on the work of the previous collaboration to ensure high and sustained VAS coverage in countries with populations most vulnerable to VAD.

The goal of the Phase II project (March 2005-March 2008) is to support country-driven plans to sustain current achievements and ensure additional coverage of VAS, as National Immunization Days (NIDs) to eradicate poliomyelitis are phased out. Specific objectives of the 3-year project are: (1) to support country-driven plans to achieve and sustain high VAS coverage (i.e. VAS coverage > 80 percent twice-yearly for children 6-59 months); (2) to achieve and sustain high VAS coverage (> 80

percent) for children presenting with common childhood illnesses; (3) to use semi-annual VAS as a platform for an integrated package of low-cost, high-impact, setting-specific child survival interventions; (4) to build national capacity including budget allocations that will allow VAS programs to be mainstreamed into national policies and programs; and (5) to improve monitoring systems for VAS.

In 2004, HKI submitted two proposals to CIDA. One was submitted jointly with UNICEF' West and Central Africa Regional Office (WCARO) for joint implementation in several 4 countries and the second was submitted for support to VAS in an additional 5 countries. During negotiations with CIDA it was requested that the two submissions be merged into one proposal. Between signature of the grant and submission of the project implementation report, several modifications were made. HKI and UNICEF added Senegal to the project since this country required additional VAS support and in consultation with the UNICEF East and Southern Africa Regional Office (ESAR), HKI removed Madagascar from the project as since it was estimated that the country had adequate support for VAS. At the end of the first year of the project, HKI submitted a proposal to CIDA to re-allocate funding to include support to VAS in selected States in Nigeria, where there was a major overall funding gap and poor performance of the VAS program. In 5 countries, there is explicit joint implementation with UNICEF. In the other 4 countries, the project implementation is closely coordinated with UNICEF.

Joint Implementation with UNICEF

- Cameroon
- Côte d'Ivoire
- Guinea
- Sierra Leone
- Senegal

Implemented in Coordination with UNICEF

- Democratic Republic of Congo (DR Congo)
- Mozambique
- Nigeria (selected States)
- Zimbabwe

Table 2 summarizes the prevalence of VAD, population and children 6-59 months, total VAS coverage and additional VAS coverage achieved through CIDA support in 2006.

Table 2: Summary of VAD Prevalence, Number of Children < 5, VAS Coverage and Additionality by Dose

Country	VAD prevalences (1)	No of children (6-59 mo) with VAD	Dose 1 - 2006			Dose 2 - 2006		
			Population 6-59 mos (2)	Total coverage (%)	Additional coverage (%)	Population 6-59 mos (2)	Total coverage (%)	Additional coverage (%)
Cameroon	40	1,009,670	2,888,928	92.4	77.3	2,888,928	93.2	77.3
Côte d'Ivoire	34	976,190	5,028,321	92.4	30.9	5,028,321	89.5	30.9
DR Congo	61	6,347,975	10,577,437	82.7	27.0	9,474,691	94.9	30.2
Guinea	57	938,377	1,825,719	100.1	42.4	1,905,561	92.9	40.6
Mozambique	71	2,102,949	3,287,852	24.8	21.7	3,287,582	33.3	21.7
Nigeria (3, 4)	27	5,579,161	not applicable			29,234,274	82.0	11.5
Senegal	26	494,841	1,917,815	97.9	39.8	1,942,989	95.4	39.3
Sierra Leone	88	863,215	774,571	93.5	69.7	792,401	100.5	68.1
Zimbabwe	28	441,504	1,567,049	94.0	76.2	1,578,018	65.3	58.5
Total	41	18,753,883	27,867,692	81.7	38.2	56,132,765	83.2	24.5

(1) Aguayo VM, Baker SK. Vitamin A deficiency and child survival in sub-Saharan Africa: a reappraisal of challenges and opportunities. Food Nutr Bull. 2005 Dec;26(4):348-55

(2) The estimates of targeted populations (population 6-59 mos olds) were based on census of national populations or on targeted populations provided by National Immunization Days or Expanded Program of Immunization.

(3) Due to National Immunization Days (NIDs) in accordance with CIDA's approval of inclusion of Nigeria, HKI did not support the first dose in 2006 in Nigeria

(4) HKI supported VAS in 7 States in Nigeria for dose2, representing the 11.5% additional coverage.

2.0 Overview of Coverage of Vitamin A Supplementation (VAS)

In this reporting year, overall VAS figures for both doses 1 and 2, in most countries far surpassed the 80% required target. This high level of coverage was attained through a combination of innovative strategies used at the country level which in most cases resulted in high coverage achieved at relatively low cost per dose administered (see table below). In Guinea for instance, coverage was achieved through integration with de-worming and measles campaigns as was the case in Senegal. In Sierra Leone, with the discontinuation of National Immunization Days (NIDs), the first round supplementation exercises were conducted during a national micronutrient week and the second round during combined measles, Insecticide Treated Bed Nets (ITN) and de-worming campaigns. In DR Congo, coverage in three provinces was obtained through integration with Community Based Treatment with Ivermectin (CDTI) measles and ITN campaigns while in Zimbabwe, child health days as well as integrated measles campaigns were the main conduit for VAS.

Table 3 provides information, by country on coverage attained and strategies adopted for both doses 1 and 2.

Table 3: Summary of Coverage and Strategies for VAS in 2006

Country	Year	Coverage		Methodology	
		Dose 1	Dose 2	Dose 1	Dose 2
Cameroon	2006	87.9% 2,252,923	96.2% 2,509,526	LIDs, EPI, CDTI & Micronutrient days	EPI & measles campaigns
Côte d'Ivoire	2006	92% 4,644,016	89.5% 4,501,040	NIDS	NIDS
DR Congo	2006	82.7% 8,749,424	94.9% 8,992,381	Mebendazole campaign CDTI	Mebendazole campaign CDTI Measles & Bednets
Guinea	2006	100.1% 1,826,861	92.9% 1,770,647	Child Health week	Measles Campaign
Mozambique	2006	24% 815,573	33% 1,095,504	Routine supplementation through health centers, mobile clinics and community health workers	Routine supplementation through health centers, mobile clinics and community health workers
Nigeria	2006	(Because of NIDs no HKI support provided)	104% 23,054,915	NIDs (no HKI support was provided in compliance with CIDA's directives to HKI)	Various strategies depending on State. HKI supported CDTI+VAS in 7 States
Sierra Leone	2006	92% 730,815	100.5% 796,509	National Micronutrient days	Measles - Malaria (NIDS)
Senegal	2006	97.9% 1,876,987	95.4% 1,853,315	Child Health Survival VAS days	Measles campaign
Zimbabwe	2006	94% 1,473,026	65% 1,031,203	Integrated measles campaign	Child health days

It is worthwhile highlighting the remarkable achievements made in Zimbabwe where despite difficulties with start up in year one (due to delays in signing an agreement with the Ministry of Health and Social Welfare) and a challenging socio-political environment that 94% coverage was attained with dose one and 65% with dose two. HKI contributed to achieving this coverage through its active participation in the national EPI+ (Expanded Program of Immunization) task force, a body that oversees the programming of immunization and VAS activities in the country. As shown in the table above, coverage was attained through child health days and through an

integrated measles campaign. Both national programs were implemented in all districts across the country.

While there was exceptional achievement across the board in all countries, there were unfortunately challenges in Mozambique where coverage remains below the 80% target. Coverage attained with doses one and two was 32.3% and 28.8% respectively. This was primarily due to continuing challenges with the Ministry of Health at the national level (this was also reported in the year one report). Despite HKI's best efforts, VAS remains an area of low priority for the Ministry of Health and there is a refusal to adopt child health week-type approaches. Nonetheless, joint program implementation occurred with UNICEF, with UNICEF covering 6 provinces (about 42% of the target population) and HKI covering 5 provinces with 58% of the target population. The main methodology employed as shown above was routine supplementation.

Tables 4 and 5 summarize estimated VAS coverage per dose, per country, additional doses delivered through CIDA support, and costs per additional dose. In 2006, the project delivered an estimated additional 24,363,575 VAS doses, that could not have been delivered without CIDA support, and cost per additional dose was estimated at 19 cents (US).

Table 4: Estimates of VAS Coverage and Additionality by Country - 2006

Country	Population 6-59 mos (1)	Dose 1 - 2006					
		Total VAS coverage		0		Additional VAS coverage	
		%	No. of children	%	No. of children	%	No. of children
Cameroon	2,888,928	92.4	2,670,473	15.1	437,201	77.3	2,233,272
Côte d'Ivoire	5,028,321	92.4	4,644,016	61.4	3,089,561	30.9	1,554,455
DR Congo	10,577,437	82.7	8,749,424	55.7	5,890,181	27.0	2,859,243
Guinea	1,825,719	100.1	1,826,861	57.7	1,052,916	42.4	773,945
Mozambique	3,287,852	24.8	815,573	3.1	103,163	21.7	712,410
Nigeria (2)		not applicable					
Senegal	1,917,815	97.9	1,876,987	58.0	1,112,923	39.8	764,064
Sierra Leone	774,571	93.5	723,994	23.8	183,979	69.7	540,015
Zimbabwe	1,567,049	94.0	1,473,026	17.8	278,504	76.2	1,194,522
Total	27,867,692	81.7	22,780,354	43.6	12,148,428	38.2	10,631,926

(1) The estimates of target population (6-59 mos) are based on census of national populations or on target populations provided by the National Expanded Program of Immunization.

(2) Due to National Immunization Days (NIDs) in accordance with CIDA's approval of inclusion of Nigeria, HKI did not support the first dose in 2006 in Niger

Country	Population 6-59 mos (3)	Dose 2 - 2006					
		Total VAS coverage		Estimated VAS coverage without		Additional VAS coverage	
		%	No. of children	%	No. of children	%	No. of children
Cameroon	2,888,928	93.2	2,692,632	15.9	459,360	77.3	2,233,272
Côte d'Ivoire	5,028,321	89.5	4,501,039	58.6	2,946,584	30.9	1,554,455
DR Congo	9,474,691	94.9	8,992,381	64.7	6,133,138	30.2	2,859,243
Guinea	1,905,561	92.9	1,770,647	52.3	996,702	40.6	773,945
Mozambique	3,287,582	33.3	1,095,504	11.7	383,094	21.7	712,410
Nigeria (4)	29,234,274	82.0	23,972,105	70.5	20,601,285	11.5	3,370,820
Senegal	1,942,989	95.4	1,853,315	56.1	1,089,251	39.3	764,064
Sierra Leone	792,401	100.5	796,509	32.4	256,494	68.1	540,015
Zimbabwe	1,578,018	65.3	1,031,203	6.8	107,778	58.5	923,425
Total	56,132,765	83.2	46,705,335	58.7	32,973,686	24.5	13,731,649

(3) The estimates of target population (6-59 mos) are based on census of national populations or on target populations provided by the National Expanded Program of Immunization.

(4) HKI supported VAS in 7 States in Nigeria for dose 2, representing 3,370,820 additional doses.

Table 5: Total Additionality and Costs per Additional Dose - 2006

Country	Total additionality (Dose 1 and Dose 2) and cost per additional capsule		
	Total Additional Doses - 2006	Funds utilized during reporting period (US \$) (1)	Cost per additional dose (US \$)
Cameroon	4,466,544	849,643.95	0.19
Côte d'Ivoire	3,108,910	605,707.22	0.19
DR Congo	5,718,486	1,447,753.80	0.25
Guinea	1,547,890	309,634.09	0.20
Mozambique	1,424,820	446,641.84	0.31
Nigeria (2)	3,370,820	104,278.68	0.03
Senegal	1,528,128	232,608.51	0.15
Sierra Leone	1,080,030	217,948.37	0.20
Zimbabwe	2,117,947	531,791.35	0.25
Total	24,363,575	4,746,008	0.19

(1) Funds utilized during reporting period reflect both HKI & UNICEF expenditures for the following countries (Cameroon, Côte d'Ivoire, Guinea, Senegal and Sierra Leone)

(2) HKI supported VAS in 7 States in Nigeria for dose 2, representing 3,370,820 additional doses.

3.0 Impact of Independent Verifications/Assessments of Coverage

There were a number of countries in which independent surveys were conducted to ascertain VAS coverage. Such surveys took place in Guinea, Sierra Leone, DR Congo, Côte d'Ivoire and Zimbabwe. In most countries survey results were close to administrative data. For example, in Zimbabwe, an independent assessor, Select Research, conducted a post-event VAS survey. The outcome of the survey revealed a national VAS coverage of 94%. There was only a 4% difference with the campaign coverage data meaning that health service statistics during the campaign were fairly reliable. The survey recommended increased vitamin A awareness in those provinces which recorded low coverage. In addition, educational campaigns were also recommended.

In Guinea, HKI and UNICEF funded an independent coverage survey in September 2006 (round 1) and WHO funded an independent coverage survey in February 2007 (round 2). In Sierra Leone, an independent post campaign coverage survey funded by the Canadian Red Cross was conducted in January, 2007 to determine whether the objectives of the campaign were met. Preliminary results showed the following:

Intervention	Objective %	Tally Sheet % Coverage	Survey % Coverage
Vitamin A	At least 95%	100.5	90
Mebendazole	At least 90%	98.7	91
Measles	At least 95%	100.4	88
LLIN	At least 80%	98.9	84
LLIN use	At least 60%	Not applicable	51

In DR Congo an independent evaluation was financed by HKI in 2006, and a second, done in two parts; one on non-CDTI areas financed by UNICEF and another one on CDTI areas, financed by HKI. All surveys were conducted by the national nutrition program (PRONANUT) and the Demographic Institute of the University of Kinshasa. Draft reports are available on all surveys. Key amongst the findings was that

mothers as well as distributors are not aware of the real benefits of vitamin A neither are they aware of how to improve their nutritional habits. Preliminary results of the CDTI reports show that coverage is similar in both non CDTI and CDTI areas. In Côte d'Ivoire there were a number of specific recommendations made from the post-event coverage surveys including:

- That the training of agents be prolonged to ensure more effective use of the vitamin capsules;
- That a more appropriate period (other than the month of June) be selected for future campaigns;
- That there should be improvements made in the future to the way logistics is organized; and finally,
- That more emphasis should be placed on strengthening social mobilization for vitamin A delivery.

Given the growing use of post-event surveys, the HKI regional office has undertaken a review of these surveys undertaken in sub-Saharan Africa and Asia. This review has resulted in the development of a "how-to" guide for conducting post-event VAS coverage surveys and a review article that will be submitted for publication.

4.0 Value-added by Technical Support

The nature of technical support provided by HKI staff varied from country to country. HKI was particularly instrumental in making sure that micro-level plans were effectively developed and that activities during supplementation days were supervised and carried out effectively. HKI's support was also instrumental across the board in all countries, in not only ensuring that guidelines for VAS were developed and that distribution agents were adequately trained and equipped to do their jobs effectively but also in advocating for community based distribution of vitamin A through organizations with community based programs.

This combination of technical assistance interventions was particularly valuable for instance, for Côte d'Ivoire where the National Nutrition Program (NPN) was conducting campaigns of this nature for the very first time. There, prior to conducting training with distribution agents, HKI offered training to directors of regions and departments to enable sufficient understanding in the importance of integrating VAS activities. In DR Congo, HKI's technical assistance included enabling integration of VAS with CDTI.

Summary of the Diverse Technical Assistance Interventions Adopted at Country Level

- **Côte d'Ivoire:** Support was primarily provided in conjunction with UNICEF to the National Nutrition Program. UNICEF provided support in the development of the annual VAS plan of action, planning of national immunization days, development of training tools and developing a report on supervision of the campaigns and routine data entry. HKI fast tracked the implementation of the plan of action for the NNP, participated in training of the distributors and facilitated micro-level planning as well as the management of the VAS campaign.
- **Cameroon:** Direct support by HKI resulted in the adoption of the national policy and nutrition program in December 2006. Support was provided for the revision of the national VAS protocol to include all non breast-fed children aged 0-5 months. HKI also developed the distribution plan for vitamin A, piloted VAS in routine activities in a few

districts (with promising results) and incorporated the 9 doses to be received by a child up to 5 years in the child vaccination cards as it is expected that supplementation will take place as a routine activity.

- **DR Congo** – HKI participated in all country level planning meetings and contributed to improved national and provincial budget preparation. It also strengthened supervision and supported integration of VAS into CDTI in 3 pilot provinces.
- **Guinea** – HKI provided funding for regional micro-planning as well as training materials, and distribution of supplies. HKI spearheaded fundraising and resource mobilization activities, provided logistical support in difficult areas, and provided the framework for monitoring and evaluation of results.
- **Mozambique:** HKI trained all community health workers (730 in 5 provinces) and developed the training and implementation package which has now been adopted by the Ministry of Health. HKI also developed and facilitated the use of the new registration forms.
- **Nigeria:** Prior to including Nigeria in this grant, HKI led a post-event coverage survey in 10 states and has continued to disseminate the results of these surveys. HKI played a key role in community mobilization and the development and implementation of IEC tools for community outreach in hard to reach areas. HKI was also instrumental in brokering the partnership between CDTI partners and the National Program of Immunizations, which proved useful for supervision and monitoring of VAS activities.
- **Sierra Leone:** HKI provided technical support in collaboration with UNICEF to all stages of the campaign, participated in national and district micro planning, conducted training of trainers, produced guidelines for VAS, developed an integrated reporting form for routine VAS and provided supervision during actual VAS campaigns.
- **Senegal:** HKI was instrumental in developing a “minimum support package” that is provided to all districts by the national level and is then used to leverage district-level support. 19 districts received direct support from HKI. HKI developed material for television and radio spots, supervised actual local supplementation days, and provided technical support to the national services for health and education to develop the television and radio broadcasts.
- **Zimbabwe:** HKI played an important role on the EPI+ taskforce, in development of mass media material, in campaign planning and in reviewing the monitoring forms. The HKI program officer also provided supervision in one of the provinces during the campaign.

The HKI Regional Office for Africa provided overall support to the country offices to ensure high-quality implementation of the project. Specific activities to note include:

- Undertaking a review of post-event coverage surveys in sub-Saharan Africa and Asia resulting in the development of a “how-to” guide for these surveys and a review article that will be submitted for publication.
- Technical assistance was provided to Nigeria to finalize analysis of the post-event coverage survey undertaken in 10 states and development of results dissemination reports for the 10 states and the federal level. (The survey had been undertaken with funding from the Micronutrient Initiative - MI.)
- Providing support for development of abstracts for submission to the Micronutrient Forum, to disseminate results of the project (the Micronutrient Forum will be held in Istanbul, Turkey in April 2007). Abstracts submitted that received significant input from HKI and HKI staff were authors/co-authors include:

- Improving National Vitamin A Supplementation Program Monitoring: Conclusions of an Informal Consultation of the Global Vitamin A Alliance.
- Building Host Country Support for Vitamin A Supplementation Programs
- Coupling of De-Worming and Vitamin A Supplementation: National-Level Success in Senegal
- The Use of Mass Media is Important for Reaching the Hard-to-Reach for Vitamin A Supplementation in Zimbabwe
- Vitamin A Supplementation Coverage; Using Post-Event Coverage Surveys and Other Methods to Examine Coverage and Strengthen VAS Programs
- Analysis and Action in West and Central Africa: Using Surveys to Improve Vitamin A Supplementation Performance
- Ensuring Twice-Yearly Vitamin A Supplementation in Senegal: Assessment Validates High Coverage
- First National Micronutrient Week in Sierra Leone
- Multiple Strategies for Vitamin A Supplementation post-NIDs: the Case of Cameroon
- Assessment of Vitamin A Supplementation in Nigeria
- Validating VAS Campaign Results in the Democratic Republic of Congo
- Achieving High Vitamin A Supplementation Coverage in Zimbabwe: What Works?

Without HKI/CIDA support, the level of coverage reported would not have been attained. In the context of the phasing out of NIDs and the broader more challenging context of deteriorating health systems, community sensitization, mobilization and ownership, and combined deliver with other child survival and development interventions are going to be important strategies for focus in the future. This is addressed in more detail below.

5.0 Lessons Learnt and Major Constraints

In this second year of implementation, countries have built upon and are consolidating on generic lessons learnt in year one which were:

- Partnering with vaccination outreach programs such as measles is an excellent way to reach high coverage.
- Integrating VAS into routine EPI can be a good mechanism to reach younger children but is very limited in ability to reach all children 6-59 months.
- VAS programming provides a good opportunity for the addition of de-worming interventions for children 12-59 months old.
- NIDs phase-out is not complete and in some countries continuation of NIDs has hampered development of post-NIDs strategies. New mechanisms have to be developed (or existing ones enhanced) to ensure sustainable and high VAS coverage as NIDs are phased out.
- In some countries, using community resource groups and persons is an important strategy and one that must be promoted in the future.

Across the board, it was evident that integrated mass campaigns lead to high coverage for all interventions promoting child survival and are more cost effective. However, a lot of time has to be spent on planning if all activities should go on successfully.

In this second year, additional country specific lessons emerged. Although they relate to specific country contexts, the lessons are adaptable across the board. A summary is provided below:

- *Improved Planning and Organization*

A number of lessons emerged on the need to improve planning to ensure high impact and efficient use of resources. In Guinea, staff learnt that technical working groups should be established at the national and district levels at least 6 months before each campaign, that micro planning needs to be improved so that each health centre receives the number of capsules and vaccines required based on an accurate assessment of target populations and that backup stocks should be given to each regional supervision team to ensure shortages of stock do not occur. Essential too to planning is ensuring that a complete package of tools (including daily distribution monitoring forms, daily summary forms, stock supply and distribution forms, supervision forms etc) is distributed at each district at least two weeks before each planned campaign.

In the DR Congo, an important lesson learnt was that planning should incorporate additional and/or continuous distributor training/briefings particularly where there is potential for high personnel attrition. In Côte d'Ivoire, involving senior management (such as regional directors and heads of department of health) has ensured that sensitization has happened at important strategic levels of the system which should bode well for greater political will, commitment and support for future supplementation exercises.

- *Data Quality*

Reliable census data is an area of particular concern. Although a problem across most countries, this was particularly acute in the DR Congo and in Nigeria where teams witnessed first-hand, the importance of establishing accurate census of target beneficiaries before the commencement of supplementation activities. HKI played an important role in most countries in ensuring for instance that rapid surveys were undertaken, that monitoring tools and systems were put in place and that staff were adequately trained to undertake this important task.

- *Social Mobilization*

Important lessons from Cameroon, Guinea, Nigeria and Zimbabwe emerged around social mobilization. VAS of children aged 12-59 months was found to be feasible as a high impact, high coverage strategy in routine circumstances but only where strong social mobilization for increased awareness and supervision had been provided. In Guinea what was evident was that where local political and religious leaders were involved, there were better results achieved. Rural radios were also extremely effective and plans are underway to see how to involve the Ministry of Education, specifically the School Health program to further improve on social mobilization. In Zimbabwe, an independent evaluation showed that the mass communication campaign supported by HKI through radio and television had proved to be an effective strategy for urban areas. Separate strategies were however recommended for rural areas. In Nigeria, it was evident that there is need for continuous awareness. What may appear to be mundane or routine aspects of a program can result in misunderstanding amongst community members. The team in Nigeria for instance found itself having to assure people that the 100,000 IU capsules (blue) have the same quality of content as the red capsules (200,000 IU). The perception amongst community members tended to be that the red are of a far superior quality than the blue.

Some trends in constraints encountered by country programs in this phase are similar to constraints reported in the first phase and they include delays in the release of funds from donors and partners involved in certain administrative procedures; mobility and attrition of health workers as a key factor in hindering out-reach services to children in remote areas, an inability for partners to generate required additional resources and difficulties with obtaining not just reliable target population figures but also with ensuring accurate and verifiable results. The issue of inability to properly verify target populations was particularly challenging in the DR Congo and Nigeria where accurate population statistics do not exist in the first place

Also in DR Congo, obstacles remain around insecure, inaccessible areas where roads are virtually non-existent, fuel hard to obtain and planning much more difficult thus resulting in overall costs being high.

While unexpected remarkable progress was made in Zimbabwe, there is growing concern around whether the positive achievements made can be sustained in the worsening political environment. Similarly, the brewing political crisis in Guinea which erupted at the end of 2006 is likely to have impacts on implementation in 2007. It is hoped that year three will not see an eroding of the progress achieved in 2006.

Mozambique continues to present challenges of a far more different nature and will continue to be a key area of concern in the next reporting period. According to HKI staff on the ground: "The health system is geared towards treatment rather than prevention. Although prevention is mostly focused on children under five, as soon as the vaccinations are completed at nine months, children will only come to a health facility if they are sick. This makes it very difficult to have successful vitamin A supplementation without additional strategies". A further challenge is the constantly changing policies and procedures of the Ministry of Health which makes working in the provinces difficult. Implementation is held back as organizations which want to ensure that that they are not on the wrong side of approved policy become heavily reliant on national level approval at each step.

6.0 Financial Reporting and Year 3 Budget

Financial reporting is included for two different periods. In order to calculate cost per additional VAS coverage, expenditures for the calendar year (January – December 2006) are used. For overall financial reporting and budgeting, expenditures are reported by project year (April 2006 – March 2007).

In general, countries were on track with spending as programmed for year 2. As of end of March 2007, there was approximately US \$ 491,000 in unspent program funds (11% under-spending). The major under-spending was in Nigeria, where no support was provided by HKI for first dose of VAS due to ongoing NIDs and in DR Congo, where some economies were made in both VAS distribution rounds.

HKI has maintained the terms of the grant for allocation of at least 70% to front-line delivery activities (71.1%). For the third and final year of the grant, the bulk of the under-spending will be allocated to DR Congo and Nigeria as these two countries have the highest funding gaps. Table 6 summarizes spending and revised Year 3 budget by country, and Table 7 summarizes spending and revised Year 3 budget by activity category.

Table 6: Expenditures to Date, Expenditures during 2006 Calendar Year and Revised Year 3 Budget

Country	Revised 3-Year Budget	Total expenditures to date (1)	Expenditures this	Balance (3-year	Year 3	New Year 3 Budget (April 1 07-March 30 08)
			during calendar year Jan 06-Dec 06	budget - expenditures to date) (1)	Budget (as revised March 06)	
Cameroon:	803,109	476,104	253,230	327,005	331,644	327,005
Côte d'Ivoire:	707,085	379,907	161,101	327,178	304,508	304,508
DR Congo:	3,749,568	2,015,371	1,447,754	1,734,197	1,573,405	1,768,484
Guinea:	494,808	278,147	134,930	216,661	187,075	216,661
Mozambique:	1,263,586	839,198	446,642	424,388	449,300	424,388
Nigeria:	777,067	182,741	104,279	594,326	407,067	616,996
Senegal:	370,402	266,393	165,934	104,009	137,088	137,088
Sierra Leone:	267,205	140,541	74,496	126,664	104,917	126,664
Zimbabwe:	1,346,662	643,889	531,791	702,773	634,200	668,486
Regional Africa:	896,102	491,419	218,206	404,683	341,625	371,604
SubTotal Direct Costs	10,675,594	5,713,711	3,538,361	4,961,883	4,470,829	4,961,883
Indirect Project Costs	1,351,583	721,801	450,413	629,782	581,208	629,782
Total Expenses (US\$)	12,027,177	6,435,513	3,988,775	5,591,664	5,052,037	5,591,664
Total Expenses (CAD\$)	14,947,376	7,998,055	4,957,249	6,949,321	6,278,672	6,949,321

(1) Expenses are based on financial reports up until February 31, 2007 and projections for March 2007

Table 7: Expenditures and Revised Year 3 Budget by Activity Category

ACTIVITIES	\$CDN	\$US	Total Expenditures to Date US\$	New Year 3 Budget (April 1 07 - March 30 08)	70%/30%
FRONT-LINE DELIVERY ACTIVITIES	10,843,022	8,765,599	4,572,493	4,193,106	71.1
Wages, Training and Travel for personnel delivering interventions		6,564,361	3,613,397	2,950,964	56.1
Communication and dissemination activities for Vitamin A promotion		1,527,882	544,397	983,485	8.5
Equipment and supplies		673,356	414,700	258,656	6.4
OTHER ACTIVITIES					17.7
Monitoring, Evaluation, and Supervision	1,221,114	937,392	716,788	220,604	11.1
Technical Support including:	976,970	786,105	316,657	469,448	4.9
a) Staff:	611,587	492,105	279,121	212,984	4.3
b) Travel and Perdiem:	365,383	294,000	37,536	256,464	0.6
Regional office support costs	132,358	106,500	91,709	14,791	1.4
Annual review meetings and workshops	99,424	80,000	16,063	63,937	0.2
Sub-total	13,272,888	10,675,596	5,713,711	4,961,885	
Indirect Cost	1,674,486	1,351,583	721,801	629,782	11.2
Total Expenses	14,947,374	12,027,179	6,435,512	5,591,667	100.0

7.0 Future Plans and Projected VAS Coverage

As with the last phase, strategies will continue to be explored to respond to the post-NIDs environment for VAS. Examples of future plans include:

- Continuing work on VAS efforts to ensure twice yearly supplementation with less than 6 months between the two doses;
- Continuing advocacy on VAS for children aged 6-59 months in routine activities with a focus on mobilizing in-country support for VAS;
- Scaling up integration with CDTI in selected provinces/states;
- Developing more rigorous systems for effective monitoring and evaluation;
- Improving field level training of volunteer distributors;
- Intensifying social mobilization to further build demand for VAS;

Country specific strategies that will be adopted as a means to ensuring sustainable, high coverage of VAS include reinforcing public-private partnerships in Guinea to sustain bi-annual VAS after the CIDA grant has expired, paying greater attention to the supplementation of sick children who are highly in need in Cameroon (recent studies have shown that this target group is only known to 8% of health workers), conducting rapid prevalence and coverage surveys in Cameroon and Mozambique, and integrating VAS into the neo-natal tetanus eradication campaign in Sierra Leone.

In Zimbabwe, HKI has planned to support a review of the whole VAS process to identify strengths and weaknesses of the program. The outcome will be useful in designing mechanisms by which the whole program can be strengthened. This will address all issues relating to development of guidelines, supplies and distribution, training, supervision, reporting and monitoring and evaluation.

Senegal does not plan to organize immunization campaigns in 2007 but will instead focus on attaining coverage through local VAS days.

A special focus will be Mozambique in order to further engage policy makers to re-evaluate VAS strategies.

Table 8 summarizes both targets for year 3 and the strategies to be adopted for their realization.

Table 8: Projected VAS Targets and Strategies by Country for 2007

Country	Dose	Target	%*	Strategy
Cameroon	Dose 1	2,242,539	85	LIDs, Micronutrient days, Child Health Week, CDTI
	Dose 2	2,242,539	85	LIDs, Micronutrient days, Child Health Week & CDTI
Côte d' Ivoire	Dose 1	4,674,830	90	Twice-yearly outreach
	Dose 2	4,674,830	90	As above
DR Congo	Dose 1	10,722,673	85	3-day campaign with mebendazole, Integrated with CDTI and possibly polio
	Dose 2	10,883,513	85	3-day campaign with mebendazole Integrated with CDTI and measles
Guinea	Dose 1	1,728,866	95	Child Health week
	Dose 2	1,728,866	95	As above
Mozambique	Dose 1	2,004,092	60	Routine through health centers, mobile clinics and community health workers
	Dose 2	2,004,092	60	As above
Nigeria	Dose 1	25,125,480 (3,370,820 in 7 States supported by HKI)	80 (90 in 7 States supported by HKI)	Various depending on State. HKI will support integration with CDTI in at least 7 States
	Dose 2	25,125,480 (3,370,820 in 7 States supported by HKI)	80 (90 in 7 States supported by HKI)	As above
Sierra Leone	Dose 1	662,183	90	Integrated neo-natal tetanus eradication
	Dose 2	662,183	90	As above
Senegal	Dose 1	1,945,057	95	Child Survival days and local VAS days
	Dose 2	1,991,738	95	As above
Zimbabwe	Dose 1	1,271,251	80	Child Health days
	Dose 2	1,280,088	80	As above

*Target agreed upon in proposal for year 3 was 85%

At the regional level, major undertakings during the final year of the project will include:

- Continued involvement in regional and international VAS coordination efforts
- Finalization, publication and dissemination of the "how-to" guide for post-event VAS coverage surveys and the post-event VAS survey review article
- Organization of a project review workshop in collaboration with UNICEF
- Ongoing support to country VAS programs
- Development of the third phase of funding request to CIDA in partnership with UNICEF

Tables 9 and 10 summarize anticipated VAS coverage, additional VAS doses attributable to CIDA support, and costs per additionality by country, for 2007.

Table 9: Projected VAS Coverage and Additionality by Dose and by Country - 2007

Country	Population 6-59 mos (1)	Dose 1					
		Total VAS coverage		Estimated VAS coverage without CIDA		Additional VAS coverage resulting	
		%	No. of children	%	No. of children	%	No. of children
Cameroon	2,922,151	90.0	2,629,936	54.5	1,591,275	35.5	1,038,661
Côte d'Ivoire	5,098,717	90.0	4,588,845	56.4	2,878,071	33.6	1,710,774
DR Congo	10,725,521	90.0	9,652,969	57.4	6,160,300	32.6	3,492,669
Guinea	1,932,239	90.0	1,739,015	28.6	553,346	61.4	1,185,669
Mozambique	3,330,594	90.0	2,997,535	64.9	2,160,388	25.1	837,147
Nigeria (2)	31,406,850	80.0	25,125,480	69.1	21,699,697	10.9	3,425,783
Senegal	1,967,276	90.0	1,770,548	27.1	533,624	62.9	1,236,924
Sierra Leone	799,929	90.0	719,936	39.5	316,249	50.5	403,687
Zimbabwe	1,578,018	90.0	1,420,216	5.6	89,037	84.4	1,331,179
Total	59,761,295	84.7	50,644,480	60.2	35,981,987	24.5	14,662,493

(1) The estimates of target population (6-59 mos) are based on census of national populations or on target populations provided by the National Expanded Program of Immunization.

(2) HKI projects to support VAS in at least 7 States in Nigeria for dose 1 with 90% coverage target, projected an additional 3,425,783 doses.

Country	Population 6-59 mos (3)	Dose 2					
		Total VAS coverage		Estimated VAS coverage without CIDA		Additional VAS coverage resulting	
		%	No. of children	%	No. of children	%	No. of children
Cameroon	2,955,756	90.0	2,660,180	54.9	1,621,519	35.1	1,038,661
Côte d'Ivoire	5,170,099	90.0	4,653,089	56.9	2,942,315	33.1	1,710,774
DR Congo	10,875,678	90.0	9,788,110	57.9	6,295,441	32.1	3,492,669
Guinea	1,959,290	90.0	1,763,361	29.5	577,692	60.5	1,185,669
Mozambique	3,373,892	90.0	3,036,503	65.2	2,199,356	24.8	837,147
Nigeria	31,406,850	80.0	25,125,480	69.1	21,699,697	10.9	3,425,783
Senegal	1,991,867	90.0	1,792,680	27.9	555,756	62.1	1,236,924
Sierra Leone	807,528	90.0	726,775	40.0	323,088	50.0	403,687
Zimbabwe	1,589,064	90.0	1,430,158	6.2	98,979	83.8	1,331,179
Total	60,130,024	84.8	50,976,336	60.4	36,313,843	24.4	14,662,493

(3) The estimates of target population (6-59 mos) are based on census of national populations or on target populations provided by the National Expanded Program of Immunization.

(4) HKI projects to support VAS in at least 7 States in Nigeria for dose 2 with 90% coverage target, projected an additional 3,425,783 doses.

Table 10: Projected Additional Doses and Costs per Additional Dose for 2007

Country	Total additionality (Dose 1 and Dose 2) and cost per additional capsule		
	Total Additional Doses	Funds utilized during reporting period (US \$) (1)	Cost per additional dose (US \$)
Cameroon	2,077,322	395,157	0.19
Côte d'Ivoire	3,421,548	666,619	0.19
DR Congo	6,985,338	1,768,484	0.25
Guinea	2,371,338	474,354	0.20
Mozambique	1,674,294	424,388	0.25
Nigeria (2)	6,851,566	616,996	0.09
Senegal	2,473,848	232,609	0.09
Sierra Leone	807,374	217,948	0.27
Zimbabwe	2,662,358	668,486	0.25
Total	29,324,986	5,465,040	0.19

(1) Funds for 2007 during reporting period reflect both HKI & UNICEF projected expenditures for the following countries (Cameroon, Côte d'Ivoire, Guinea, Senegal and Sierra Leone)

(2) HKI projects supporting VAS in at least 7 States in Nigeria for total additional coverage of 6,851,566 doses.

8.0 Issues for CIDA's attention

It is anticipated that WHO will issue new VAS guidelines during the final year of the project. Preliminary discussions with WHO indicate that these new guidelines will include post-partum VAS (at 200,000 IU) and neo-natal VAS (at 50,000 IU). It will be important to assist countries in adapting national VAS policies to incorporate these revised guidelines. CIDA will need to provide guidance on support to these aspects of the VAS program when revised WHO guidelines are issued.

Advocacy support is requested of CIDA (towards WHO) to ensure that the latter understands the importance of integrating VAS into measles campaigns (WHO tends to have a singular focus on measles rather than adopting an integrated prevention of childhood diseases approach).

An important point to take in to account in contexts such as Cameroun, Guinea and Nigeria is although this grant was provided to facilitate VAS in post-NIDs environments, NIDs continued to be held throughout much of the project. While this facilitated high coverage and reduced use of resources, it delayed the effective implementation of post-NIDs VAS strategies and has limited the ability of district health teams to independently plan and implement integrated child survival events.

There are specific country concerns for Mozambique and Zimbabwe. Mozambique's issues have been highlighted above and further advocacy work will need to be undertaken with the National Ministry of Health. Zimbabwe has unique concerns. Due to the political crisis there and an accelerating economic meltdown, Zimbabwe has the highest inflation rate in the world (estimated at 2,200%). This has enormous impacts on the cost of VAS activities. Campaign costs get higher and higher per

round. This will inevitably impact on future activities and could potentially also impact on coverage.

Political instability and insecurity continue to affect several countries. Progress is being made in Côte d'Ivoire, however this will be a critical year in the peace process. Despite successful elections in DR Congo, there has been recurring political violence and the situation remains unpredictable. A new government has been named in Guinea, however the situation remains volatile.

As identified through the Global Alliance for Vitamin A (GAVA) coordination calls, there are looming funding gaps for VAS in DR Congo and Nigeria. This information has informed HKI's re-allocation of resources for 2007 and UNICEF has submitted supplementary funding requests for these two countries. However, additional efforts need to be continued to close these gaps.

While both HKI and UNICEF are committed to keeping costs per additional dose below 25 cents (US), certain countries have particularly high operating costs. Excluding these countries because of a rigid application of the cost per additional dose would be unethical and neglect some of the most vulnerable children. We believe it is more appropriate for CIDA to approach cost per additional dose on a regional basis. Across the nine countries the average cost per additional dose for 2006 was 19 cents.

HKI, UNICEF and MI coordinate their VAS efforts in Africa. Currently HKI and UNICEF are implementing successful VAS programs in Burkina Faso, Mali and Niger with funding from MI. In order to streamline the partnership, MI has decided not to continue support beyond the current grant (March 2008). HKI and UNICEF will be integrating these three countries into the phase III funding request to CIDA.

Phase I of the partnership focused on leveraging NIDs to ensure high VAS coverage. Phase II of the partnership has focused on developing VAS policies and programs for the post-NIDs environment. Much progress has been made during the first two years of this Phase II grant. HKI will work with UNICEF in the third year to develop a Phase III proposal for CIDA that will focus on positioning VAS as central to institutionalized child survival events and life-saving emergency response. It is important that the momentum developed under Phases I and II be maintained and used to develop further gains in VAS for child survival programming.

9.0 Acknowledging CIDA's Contribution

CIDA's generous contribution to this project was acknowledged at every opportunity. At the global level, HKI honored CIDA with the inaugural presentation of its International Development Award at a reception on November 29, 2006. The award was given in recognition of CIDA's global leadership in VAS for child survival and as the funder of the vast majority of the world's supply of vitamin A capsules. Deborah Robert, ABC News correspondent, presented the award to Bruce Montador, Vice President of CIDA's Multilateral Programs Branch. The award has resulted in several articles in Canadian and US press.

At the country level, CIDA's contribution is routinely acknowledged. Examples include the following:

- The CIDA logo was used in all TV spots highlighting the campaign in Senegal;
- CIDA's logo was included on all banners, T-Shirts and monitoring forms and their financial support mentioned in speeches and in communication campaigns in Guinea. The same applied to Sierra Leone where the Canadian Embassy is always invited when national activities are planned;
- In DR Congo, posters, t-shirts etc have included the CIDA logo and for the launching ceremony, the Canadian Ambassador, as well as the Health Advisor were invited. The Launching ceremony and the campaign obtained media coverage and in all cases CIDA support was mentioned.
- In Cameroon, the HKI director, the UNICEF representative and the Canadian High Commissioner met to discuss project achievements. The High Commissioner also participated in the just ended integrated campaign and participants at all meetings/workshops were informed of CIDA's support to the project
- In Zimbabwe, the Canadian Ambassador officiated at the launch ceremony of the integrated measles campaign in June 2006 and CIDA's contribution to the campaign was well recognized. All campaign materials produced included an acknowledgement of CIDA. CIDA support was also acknowledged in planning and reporting meetings with health personnel attending.

9.0 Coordinating Structures

HKI plays an active role in GAVA including participation in quarterly coordination calls. At the Africa level, HKI participates in the Africa vitamin A coordination calls. HKI is an active member of the Multi-Partner 10-Year Strategy to Reduce Vitamin A Mineral Deficiencies. HKI is a member of the Reference Group, is leading the Working Group on supplementation and participates in the Africa Working Group. HKI maintains ties with the African Union, to advocate for VAS programming and works closely with the West African Health Organization (WAHO), to ensure regional commitment and support to VAS.

At the national level, in all countries, the partnership for VAS is primarily with the Ministry of Health and departments within it that have responsibility for nutrition and or immunization programs. Whether or not UNICEF was a joint implementing partner of the CIDA grant, all HKI offices ensured there was close collaboration between HKI and UNICEF in VAS. As is shown below, HKI is also an active member of country Inter Agency Coordinating Committees or partnerships of one form or another which bring together key stakeholders in-country on VAS activities. Table 11 summarizes the coordination structures in place in each country.

Table 11: Summary of Key Partners and Coordination Structures by Country

Country	Key Partners	Comments
Cameroon	Ministry of Health – Health Promotion Department, Expanded Program for Immunization.	HKI became a full member of the Inter Agency Coordinating Committee (IACC). WHO, UNICEF, PLAN were invited to the VAS annual review
Côte d'Ivoire	The Inter Agency Coordinating Committee managed all activities relating to Polio and VAS	The Directorate of Community health was also involved in the program
DR Congo	The Ministry of Health (National Nutrition Program) and the National Onchocerciasis Control Program, UNICEF and Micronutrient Initiative and WHO	Contacts have also been established with the World Bank and the European Union to see whether they can contribute to VAS financing
Guinea	Ministry of Health, UNICEF and WHO	HKI met weekly with partners to plan each campaign. These meetings were chaired by the vaccination campaign manager. HKI disseminated information from these meetings to a network of civil society partners, donors, diplomats and other NGOs
Mozambique	Ministry of Health at national and provincial levels, UNICEF, and Micronutrient Initiative (MI)	The Vitamin A partnership meets every 3 months for planning and to coordinate implementation
Nigeria	National Committee for Food and Nutrition in the Presidency (National Planning Commission); the Federal Ministry of Health (Nutrition Division) and that National Vitamin A Core Group	The National Vitamin A Core Group is made up of international NGOs, Bilateral agencies and the UN
Senegal	Ministry of Health, in particular the Food, Nutrition and Child Survival Division and UNICEF.	The World Bank-supported Nutrition Project plans on supporting VAS in some districts in 2007. Advocacy is undertaken with USAID implementing partners
Sierra Leone	Ministry of Health, UNICEF	HKI encourages NGOs working at the district level to participate in field level training of distributors and supervisors and supplementation activities
Zimbabwe	Ministry of Health and Community Welfare (EPI unit), UNICEF	Zimbabwe has integrated VAS with the EPI program. The EPI Unit is responsible for supplementation and distribution of capsules while the nutrition unit is responsible for technical issues related to Vitamin A. Partners like Rotary International, Plan and other NGOs participate in the EPI+ meetings.