



# Assessment of the National Vitamin A Supplementation and De-worming Program in Tanzania

Strategies for VAS and De-worming Distribution in Tanzania

Five Year Plan

June 27, 2011



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## Acronyms and Abbreviations

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AED	Academy for Educational Development
CCHP	Comprehensive Council Health Plan
CHMT	(District) Council Health Management Team
CHW	Community health worker
CORPs	Community-owned resource persons
DCCO	District Cold Chain Officer
DRCHCo	District Reproductive and Child Health Coordinator
EPI	Expanded Programme on Immunization
FGD	Focus group discussion
HKI	Helen Keller International
HMIS	Health management information system
IEC	Information, education and communication
MoHSW	Ministry of Health and Social Welfare
MSD	Medical Stores Department
NBS	National Bureau of Statistics
NGO	Non-governmental organization
PEC	Post Event Coverage (survey)
RCCO	Regional Cold Chain Operator
RCHMT	Regional Council Health Management Team
RMO	Regional Medical Officer
RRCHCo	Regional Reproductive and Child Health Coordinator
TDHS	Tanzania Demographic and Health Survey
TFNC	Tanzania Food and Nutrition Center
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
VAC	Vitamin A capsule
VAD	Vitamin A deficiency
VAS	Vitamin A supplementation

## I. Overview

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The purpose of this document is to recommend strategies that can be used to strengthen the long term sustainability of vitamin A supplementation and de-worming distribution throughout mainland Tanzania. It is presented as an accompanying document that follows on the work and results generated in the Assessment of the National Vitamin A Supplementation and De-worming Program in Tanzania completed in May 2011. Specifically it sets out to:

- Provide options on how to best harmonize the campaign and routine VAS approaches for a long term strategy in Tanzania.
- Suggest ways to improve upon supervision and monitoring of the VAS program.
- Learning from other programs reaching the “hard to reach” and suggest best way forward to reach these children.
- Develop and recommend, with options, a costed five-year plan to move Tanzania to a sustainable and fully-institutionalized vitamin A supplementation program reaching universal coverage, including the hard to reach.
- Cost out for central and district governments the long-term fully institutionalized VAS plan in Tanzania.

This document is presented in three sections:

Section II: Background and Current Context

Section III: Summary Assessment Findings and Recommendations

Section IV: Program Strategies

## II. Background and Current Context

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The consumption of foods containing beta carotene has been known to cure night blindness since the first century A.D. in Egypt. However, it was not until 1913 that a nutritionist, E.V. McCollum, first isolated vitamin A as an essential micronutrient. Sixty years later research led by Dr. Alfred Sommer in Indonesia and later in Nepal found that vitamin A was also one of the most effective means of preventing child and maternal mortality. The World Bank has since judged the vitamin A capsule (VAC) one of the most cost-effective medical interventions of all time.<sup>1</sup> The 2008 Copenhagen Consensus ranked micronutrient supplements (specifically VAS and therapeutic zinc supplementation for diarrhea) as the top development priority out of more than 40 interventions considered.<sup>2</sup>

Vitamin A deficiency (VAD) is a public health problem in 118 countries and an estimated 127 million children less than five years of age worldwide are vitamin A

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<sup>1</sup> [http://www.pbs.org/wgbh/rxforsurvival/series/champions/alfred\\_sommer.html](http://www.pbs.org/wgbh/rxforsurvival/series/champions/alfred_sommer.html)

<sup>2</sup> Horton, Sue; Begin; France; Greig, Alison; and Lakshman, Anand. *Micronutrient Supplements for Child Survival (Vitamin A and Zinc)*. Copenhagen Consensus Center. 2008.

deficient.<sup>3</sup> Because of vitamin A's role in the development of the immune system, each year up to 647,000 vitamin A-deficient, pre-school-aged children die from infections, such as measles and diarrhea, from which they would otherwise survive.<sup>4</sup> VAD is also the leading cause of preventable blindness in children.

The Academy for Educational Development's (AED) A2Z Project was established by a cooperative agreement with the U.S. Agency for International Development (USAID) to save and improve the lives of women and children through state-of-the-art micronutrient and child blindness programs. A2Z's country programs strive to strengthen and expand existing programs that deliver micronutrients to individuals to address vitamin and mineral deficiencies through supplementation and food fortification. In the United Republic of Tanzania (mainland), AED's A2Z Project has been implemented by its partner Helen Keller International (HKI), in close collaboration with the Tanzania Food and Nutrition Center (TFNC), from 2006 to 2011. There HKI has worked with Tanzanian government agencies, local organizations, and other international NGOs to improve micronutrient intakes, specifically for vitamin A, zinc and iron folate.

In 1987 Tanzania began including vitamin A capsules (VAC) in kits distributed through the Essential Drugs Program to government-run primary health care facilities. To increase coverage, vitamin A supplementation (VAS) was introduced into routine immunization services (EPI) in 1997 and the sub-national measles immunization campaigns in 1999 and 2000. Twice-yearly distribution was initiated in 2001 for children aged 6-59 months as part of two popular annual events: Day of the African Child (June) and World AIDS Day (December). Distribution of de-worming tablets was added to these events in December 2004.<sup>5</sup> Direct support to the district councils for VACs and de-worming programs was provided by UNICEF beginning in 2001.

In 2007 UNICEF direct financing of VAS was concluded to comply with the Government of Tanzania's adoption of a policy of decentralization. From that point district level councils were responsible to utilize other funding, including donor-generated basket funds, to cover the costs of VAS special events. Each district council is now responsible for developing its own annual Comprehensive Council Health Plan (CCHP), based on the CCHP guidelines developed by the central level MoHSW, and assisted by a representative from their Regional Council Health Management Team. The CCHP must be based on 11 national health priorities, and include district health priorities, activities related to the implementation of all public health services and line-item budgets including sources of funding.

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<sup>3</sup> Rice, Amy et al. Vitamin A Deficiency. *Comparative Quantification of Health Risks Global and Regional Burden of Disease Attributable to Selected Major Risk Factors, Volume 2.* (WHO, 2004) p. 249

<sup>4</sup> Ibid, p. 249.

<sup>5</sup> Assessment of the Sustainability of the Tanzania National Vitamin A Supplementation Program. 2008. A2Z Project, Academy for Educational Development, Washington DC.

### III. Summary Assessment Findings and Recommendations

Table 1 below presents a summary of the findings for the VAS assessment.

**Table 1. Summary of Tanzania Vitamin A supplementation program strengths and challenges.**

	Strengths	Challenges
<b>National</b>	<ul style="list-style-type: none"> <li>• Uninterrupted continuation of VAS distribution throughout transition from direct UNICEF support to the districts over to the use of basket funding from the national government to the districts. HKI reports that over 95% of districts budgeted for VAS distribution in the CCHPs after this transition occurred.</li> <li>• VAS is an identified health priority of the MoHSW and therefore included in all District CCHP.</li> <li>• VAS ancillary activities are funded through health basket funds perceived by Districts and Regions as their most “reliable funding.”</li> <li>• The MoHSW is currently in the process of revising National policy and implementation guidelines for micronutrients and VAS programming and has designed (and will soon pilot) a new Child Health “booklet”.</li> <li>• Twice annual VAS special events are planned for, budgeted and carried out nationally.</li> <li>• Project-produced planning and budgeting tool utilized at the regional and district levels.</li> <li>• Project produced VAS IEC materials well received and utilized.</li> <li>• Zonal meetings resulted in opportunities to share successes/challenges and for technical training and data collection.</li> </ul>	<ul style="list-style-type: none"> <li>• The lessons learned from VAS in Tanzania have yet to be fully utilized to improve comprehensive child health programming.</li> <li>• Long term VAD prevention not yet addressed (increased from 24% in 1997 to 35% in 2010).</li> <li>• Reliance on donor funds (including basket funds and UNICEF procurement of VACs and de-worming medicine) may not be sustainable.</li> <li>• High quality and well received HKI/A2Z IEC materials have been produced but supply insufficient to saturate communities and outlying areas. Consistent with finding that the main reason individuals did not attend the events was because of a lack of awareness.</li> <li>• At least five national level coordinating bodies are involved in some aspect of nutrition and/or micronutrients under the umbrella of the “Nutritional Multisectoral Working Group.”</li> <li>• Underutilization of existing nutrition-focused personnel at the district level (i.e. Ministry of Agriculture staff and Home Economics Officers).</li> <li>• Program sustainability is not solely based on available funding. Trained health staff, a strong M&amp;E system, solid reporting are also necessary.</li> <li>• The project is using two different indicators to track coverage that results in different rates: PEC (68%) and TDHS (60%) versus VAS coverage based on tally sheets (98.5%).</li> </ul>

	Strengths	Challenges
National	<ul style="list-style-type: none"> <li>Plans to increase national-level nutrition focus through the placement of Nutritionists at the regional and district levels.</li> </ul>	<p>While the most accurate measure of coverage requires a community-level survey, this is also the most labor-intensive and costly method. While comparing the number of VAC distributed through VAS to the population is the most frequently used measure by health systems worldwide, it may over estimate true coverage and does not identify more isolated communities.</p>
District / Region	<ul style="list-style-type: none"> <li>HKI/A2Z 2010. Post Event Coverage (PEC) Survey – Mainland Tanzania, June 2010. <ul style="list-style-type: none"> <li>86% of health workers know that VAS prevents blindness</li> <li>90% of health workers know that children 6-59 months are a target group for VAS</li> </ul> </li> <li>Health workers reported that the supply of VAC and de-worming tablets has improved as a result of HKI/A2Z.</li> <li>Planning and budgeting tools developed by HKI were useful and can be modified for use on other interventions as well.</li> <li>District level ‘ownership’ led to innovation (i.e. Babati Rural and Iringa Rural Districts) and use of local resources (i.e., community radio stations).</li> <li>Regional priorities can be set and met (i.e., Manyara).</li> <li>Zonal coordination meetings applauded as an important forum to: <ul style="list-style-type: none"> <li>discuss challenges and successes</li> <li>identify key partners to involve in VAS distribution including community leaders and FBOs</li> <li>plan and participate in the annual events</li> <li>strengthen their reporting systems</li> <li>increase the level of collaboration between the districts, regions, TFNC and MoHSW</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Limited budgets and resources now and questionable for the future.</li> <li>PEC survey data from 2010 found: <ul style="list-style-type: none"> <li>76% of health workers said they had a role in administering VAS and only 17% were responsible for recording this in tally sheets</li> <li>Only 55% of health workers know that VAS strengthens the child’s immune system</li> <li>Only 19% of health workers know that production and consumption of vitamin A rich foods will help prevent VAD</li> <li>Only 5% of health workers know that children with infections are a target group for receiving VAS</li> <li>Only 2% of health workers know that malnourished children are a target group for receiving VAS</li> </ul> </li> <li>The packaging of the VACs in 500 unit packs complicates its distribution (now being addressed by UNICEF)</li> <li>Limited human resources at the region and district levels impacts service delivery especially in remote areas and areas without health facilities</li> <li>Many district’s report shortages of VACs and delivery delays for scheduled events</li> <li>Some districts/regions unaware of upcoming end of HKI/A2Z project; there remains concern at the district level on the future of VAC procurement</li> </ul>

	Strengths	Challenges
<b>Community</b>	<ul style="list-style-type: none"> <li>• Mothers expressed satisfaction in the availability of VAS at the twice yearly events.</li> <li>• District CHMT members noted an increase in community knowledge about and acceptance of VAS, especially as they sensitized and mobilized religious, political and community leaders through meetings.</li> <li>• Positive involvement of leaders at all levels in mobilization and sensitization on VAS twice yearly events.</li> <li>• Community ownership of VAS (Simanjiro District)</li> <li>• Mothers displayed knowledge of the importance on VAS</li> <li>• Mothers committed to bringing the children of family, friends to VAS events if their mothers are not available.</li> <li>• Mothers appreciate that health services have been brought “a bit” closer during VAS special events</li> <li>• Utilization of CHWs to sensitize and mobilize community members</li> </ul>	<ul style="list-style-type: none"> <li>• Remote villages and hard to reach communities have limited access to services.</li> <li>• Existing VAS coverage reports do not provide adequate analysis to determine coverage in remote and underserved areas.</li> <li>• Poor attendance at twice annual events may be caused by distances to travel and the limited number of health workers (impacting the allocation of outposts).</li> <li>• Persistent rumors that VAS events are being used to dispense family planning and the side effects from the 2008 bilharzia campaign were identified by mothers as reasons why some are not attending the events.</li> <li>• PEC survey data (2010) found: <ul style="list-style-type: none"> <li>- Low levels of knowledge about what foods contain vitamin A</li> <li>- Only 5% of respondents found out about the VAS campaigns from posters (project IEC materials)</li> <li>- Primary reason respondents said they did not attend the events was because they were not informed</li> <li>- 58% of CHWs reported being responsible for administering VAS</li> <li>- Only 18% of CHWs knew production and consumption of vitamin A-rich foods will help prevent VAD</li> <li>- Missed opportunities for provision of health services</li> <li>- Long-term (food based) VAD prevention not yet addressed</li> </ul> </li> </ul>

Key recommendations, directed primarily at continuation and improvement of VAS activities, are noted below.

**Recommendation 1:** Institute 3-point strategy to improve child survival and enhance on-going comprehensive child health initiatives:

- Strategy 1: Continue twice yearly VAS events reinforced by a strengthened and expanded IEC promotional campaign that starts well before the events. Twice yearly VAS should be regarded as routine health service provided over the entire months of June and December.

- **Strategy 2:** Expand VAS distribution and coverage by incorporating VAS with all other outreach and clinic based campaigns and services, for instance measles campaigns, well-baby checks, and other activities and services identified by communities and providers where there is access to children between 12 and 59 months of age.
- **Strategy 3:** Engage trained community volunteers (i.e. CORPs, TBAs, village health committee members, etc.) in dispensing VAC between the twice yearly events

**Recommendation 2:** Twice yearly VAS should continue to be implemented in conjunction with nutrition based programs that improve household diet AND the expansion of food fortification programs is essential to improving national nutrition (with a special emphasis on rural food fortification).

**Recommendation 3:** Incorporate the following revisions into the VAS program monitoring and evaluation process:

- Systematic random monitoring spot checks to ensure that VAS reaches most remote areas, conducted by RHMT members.
- Strengthening of HMIS system for reporting routine VAS at all levels
- Validation of coverage data by population-based surveys (e.g. PEC survey and TDHS).

**Recommendation 4:** Consolidate and formalize the various coordinating bodies in Tanzania involved in nutrition and micronutrients into a single entity administered by the TFNC and holding regularly scheduled meetings (e.g. quarterly). Membership should include representation from partner ministries (i.e. the Ministries of Health and Social Welfare, Agriculture, Community Development, Education, etc.) and other stakeholders. Separate sub-committees should be established focusing on specific technical areas (VAS, zinc, food fortification, etc.)

**Recommendation 5:** Provide front-line health workers with additional and on-going technical training, refresher training and supportive supervision on VAS through zonal and regional meetings, and “in-service” training during routine supportive supervision. Topics should include:

- Therapeutic VAS for the sick and malnourished child
- Provision of VAS for postpartum women
- Data collection and reporting
- Food fortification and diet modification

**Recommendation 6:** RHMT should budget for the supportive supervision of twice yearly VAS separately from routine supportive supervision.

**Recommendation 7:** Rapid post-distribution community level surveys should be done as frequently as possible (every other year) and the results compared to the data collected through the project tally sheets.<sup>6</sup>

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<sup>6</sup> Ibid.

## IV. Program Strategies

Multiple, complementary strategies led by an engaged and coordinated group of public, private and community partners is required for the successful continuation of vitamin A supplementation and de-worming in Tanzania. The responsibilities and activities of current Vitamin A supplementation and de-worming partners are outlined in Table 2 below, while the broad components of recommendations to enhance this program are described in the sections below. Each is set against the backdrop of a three-phased time frame in the attached work plan: short term (Year 1), medium term (Years 2-3) and long term (4+ years). (See Attachment A.) The components of this plan are fully in support of the *United Republic of Tanzania's Policy Guidelines for Micronutrient Supplementation*, consistent with the current science, and based on the recommendations developed by the participants at the June 2011 *Workshop for Policy Makers and Program Managers on Sustainability of the National VAS and De-worming Program* in Tanzania. These components cover:

- a. Harmonizing VAS with routine services to expand coverage.
- b. Strengthening procurement so the supply of VAC is consistently available nationwide.
- c. M&E to track coverage – especially for the hardest to reach.

**Table 2. Roles and responsibilities of Vitamin A supplementation partners.**

	Activity	Responsible Parties	Resources Required
<b>National</b>	Ensure adequate stocks of VAC available in country.	UNICEF, MSD and TFNC	Manufacture and/or importation.
	Forecast target population estimates (based on NBS projections), fill orders and transport VAC to districts.	MSD and TFNC	Transport of VAC to districts.
	Organize and facilitate semiannual Zonal Meetings.	TFNC and A2Z/HKI	Conference facility Lodging for participants
	Provide supportive supervision, TA and training to Regional Focal Person on VAS. Ensure compliance with National Micronutrient Policy.	MoHSW and TFNC	Included with the semiannual Zonal Meetings above.
	Update National Micronutrient Policy based on monitoring of national VAS distribution and developments in the science of micronutrients.	MoHSW and TFNC	N/A
<b>Region</b>	Provide supportive supervision, TA and training to the Regional Focal Persons on VAS, including input on development of district CCHP.	RCCO	Transport and per diem from the RMO's office to each of the DMOs offices throughout the region.
	Participate in the semiannual Zonal Coordination meetings	RCCO and RMO	Transport and per diem from RMO's office to the

	<b>Activity</b>	<b>Responsible Parties</b>	<b>Resources Required</b>
			Zonal Coordination meetings.
	Report regional level distribution of VAS to the MoHSW.	RCCO and RMO	Reporting formats
<b>District</b>	Educate health workers, religious leaders, traditional healers, etc. on the importance of VAS and where/when to get it.	DCCO, DRHC	Available transport from DMO's office to health facilities and events.
	Ensuring the supply and distribution of VAS and IEC materials to health facilities and events through review of inventories and submission of orders to the MSD.	DCCOs	VAS supplied to the district from the MSD. IEC materials. Transport and per diem from DMO's office to health facilities and events.
	Report district level distribution of VAS to the CHMT and RHMT.	DCCO and DMO	Reporting formats
	Provide supportive supervision to staff at health facilities and health workers at events.	DCCO	Transport and per diem from DMO's office to health facilities and events.
	Plan, budget and advocate for VAS in the CCHP.	DCCO, DMO, and RCCO	Planning and budgeting templates
<b>Community</b>	Educate parents, care givers and pregnant women on the importance of VAS and where to get it.	Health workers, community leaders, religious leaders, traditional healers, etc.	IEC materials, radio/TV station announcements, etc.
	Provide VAS to children and postpartum women at health facilities.	Parents, care givers, pregnant women, and health workers.	Access to a staffed health facility that has VAS in stock.
	Provide VAS to children at annual events	Parents, care givers, and health workers.	Access to annual events where VAS is available and being provided.

### ***A. Harmonizing VAS and De-worming with Routine Services to Expand Coverage***

#### **Build Leadership Support for VAS**

The continuation of VAS requires a positive and supportive policy environment driven by bottom-up demand that spans from the community to the national level. Without proactive engagement of every level, the drops will not reach the children's lips. The following leaders and constituencies need to be sensitized throughout the life of VAS in Tanzania for these services to continue:

- National, regional and district leaders on the value of VAS.
- District councils and CHMTs to continue to prioritize VAS in their CCHPs and use the HKI/A2Z-developed tools for planning and budgeting.
- Health workers to promote VAS to their clients.

- Community leaders and health volunteers to educate the public on VAS.

TFNC and the newly consolidated national committee responsible for micronutrients should take an advocacy and leadership role and be responsible for coordinating this effort.

### **Strengthened Promotion of the VAS Months**

Reaching children between 12-59 months of age presents unique challenges since this group tends to have less formal contact with mainstream public services. They have completed their childhood immunization schedule, yet they have not started school. Most of their time is spent at home with their family where they seldom participate in regular community level activities. Focusing on VAS distribution every June and December should make it easier for everyone; mothers are more likely to remember the dates and supply management is easier to schedule and track. This is why the twice annual VAS months should continue to be the focus of VAS for this age group. The following steps outline recommendations that will help to strengthen this strategy:

- Reassess and adapt the health education messages promoting VAS and attendance at the annual VAS months. Test them for effectiveness and persuasiveness in the target communities.
- Identify all viable channels for communicating VAS promotional messages and event notices, especially focusing on those that can reach the most remote villages. Examples:
  - Transmit VAS event reminders through all cell phone service providers.
  - Recruit leaders and other popular, recognized individuals to promote VAS.
  - Disseminate positive stories about VAS events that can be aired on TV/radio and written up in the print media.
  - Other options can include: posters, calendars (highlighting event dates), community bulletin boards, newspapers, community bullhorns, social gatherings (religious activities, sporting events, market days, school, peer-to-peer, etc.), health workers, and volunteers. (NOTE: Communities might have additional ways to communicate messages that should be explored and adopted if viable.)
- Initiate communication of VAS promotional messages at least one month in advance of each VAS month/event so caregivers have time to make the necessary arrangements to attend (i.e., starting messages in May for June activities, etc.).
- Work with communities to choose and provide incentives for volunteers to bring others to VAS events.
- Reward every mother and child with a graduation certificate when the child has completed the entire course by the fifth birthday. This graduation certificate should be presented to the mother by the village health committee and village leaders. It could also be a part of the child's school enrollment packet.

## **Integrate VAS with other routine services**

Even with an effective far-reaching health education campaign VAS has traditionally been a relatively low-demand intervention. Its impact is well documented, yet its immediate benefits are imperceptible to most individuals, especially for subclinical cases, and when compared with other health interventions such as ORS, antibiotics, and curative care, where improvements are rapid, readily visible and dramatic. Linking VAS with high demand services is key to achieving sustained increases in VAS coverage and ultimately having an impact on deficiency. This was one of the most valuable lessons learned from the coupling of VAS distribution with de-worming at the national events starting in 2004. De-worming produces positive and apparent results within hours as the children feel better and the mothers see the results. Examples of how VAS can be harmonized with routine, mainstream services include the following:

- Promote a policy of adding VAS to routine integrated child health services and growth monitoring, to reach children at their 6 month birthday (the earliest contact and critical for additional months of protection).
- Ensure that every health worker checks the RHC card/growth monitoring card, provides VAS as needed, and updates the card for every child that comes to a health facility for whatever reason. This should be included in supervisory checklists and other record keeping and reporting forms used at the health facilities so it can be tracked.
- Expand the number of health workers and volunteers who can promote, provide, record and report on VAS to include TBAs, CORPs, and others.
  - Develop and implement training plans
  - Develop supply system for providing VACs to trained distributors through health facilities.
- Work with community leadership to identify isolated and hard-to-reach clients so they can be directly targeted by health volunteers.
- Remind mothers during postpartum checks about the need for VAS for their infants starting at six months.
- Involve community health volunteers to do follow up reminders and follow up on ‘no shows.’
- Pilot the strategy of providing caregivers a second dose of VAC that they can give to the children at home between the two annual VAS months. This would help to address VAD more directly by doubling the frequency they receive VAS during the year.<sup>7</sup>
- Explore options for integrating VAS with vitamin A diet modification and food fortification efforts which can support and smooth the transition to these longer term strategies for addressing VAD. Providing seeds for vitamin A-rich foods as an incentive for bringing others to attend VAS distribution is one such option.

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<sup>7</sup> Klemm R.D.W. et al. Testing the feasibility of delivering Vitamin A to newborns in Nepal and Bangladesh. *Sight and Life*. Vol 25(1):30-37, 2011.

## ***B. Strengthening Procurement so the Supply of VAC is Consistently Available Nationwide***

UNICEF plans to phase out its support of the VAS provided at the twice per year events in Tanzania within the next two years. This provides the MoHSW, TFNC and the district counsels with a timeframe for transitioning to an internally financed VAS system. During the June 2011 Workshop, the following schedule was developed to cover this transition period over to district ownership:

**Table 3. Transition to district VAC procurement.**

<b>Year</b>	<b>District Procurement Responsibilities</b>
2012-2013	VACs for infants under 12 months and postpartum women.
2013-2014	VACs for infants under 12 months, postpartum women, and the June VAS month for children 6-59 months.
2014-2015	All

The TFNC needs to take the lead in preparing the districts and working with them through this transition to ensure continuity of services and supply. The districts need to be informed about this transition as soon as possible and provided with refresher training in the use of the HKI/A2Z tools for planning and budgeting. District uptake on incorporating increased resources towards VAS also needs to be monitored closely by TFNC so special attention can be provided to the districts that require additional technical support and assistance.

The low cost, long shelf life and fact it does not require an elaborate cold chain makes VACs one of the cheapest health commodities to purchase, store and transport. The cost of the two VACs for every Tanzanian child 6-59 months of age is estimated at \$250,000 per year. This along with the dramatic impact that addressing VAD has on mortality and the low risk of overdose, together present a strong case for saturating high risk, hard-to-reach groups with an over supply so the most in need are covered. The current distribution system is not equipped to do this and the current M&E system cannot track it.

## ***C. M&E Tracking the Hardest to Reach***

The HKI/A2Z project and TFNC have used indicators generated by health facility tally sheets, NBS-supplied population estimates, and community-level surveys to track progress and compare and contrast results. None of these is a cost-effective means for identifying pockets of underserved children. They tend to under-count the hard-to-reach and over-estimate coverage, so those with the greatest need tend to experience the greatest risk of falling through the cracks. Alternative monitoring mechanisms are required to ensure that these populations are in fact receiving VACs.

- Regional and district officials should include VAS monitoring in their regular supervisory visits to track their VAC supply, VAC storage, record keeping, presence of IEC materials and health worker knowledge about VAS. This could be adapted from the supervisory tools HKI/A2Z has developed.

- Random visits should be made to VAS activities during June and December to make sure the VACs are available and being distributed appropriately. While this does not provide a coverage rate, it can help to identify problems in transportation, delivery and community mobilization that need to be addressed.

With regard to tracking coverage, there is a strong consensus that the current method of comparing children dosed to total population should continue to be used with slight modifications. All districts should continue to report official figures based on the NBS estimates, as required by MOHSW. But for internal monitoring at the district and other levels, program officers can monitor coverage using headcount denominators to get a better sense of actual reach. The TFNC should compare these distribution results with the coverage rates that are measured during the Demographic and Health Surveys which will provide some estimation of the reach, scope and effectiveness of the distribution, in addition to periodic post event coverage surveys where possible.

## Attachment A – Work Plan<sup>8</sup>

	Time Frame (Year)						Cost			
	1	2	3	4	5	6+	Level*	Freq	Annual Cost	Total
<b>On-going Core VAS Programming</b>										
Order annual national supply of VAC/De-worming for VAS months							N	Annual		
Transport VAC to MSD warehouse							N	Annual		
Transport VAC from MSD to zonal warehouses							R	Annual		
Transport VACs from zonal warehouses to districts							D	Annual		
Transport VACs from districts to health facilities							D	Annual		
Hold semiannual Zonal Coordination Meetings							N	Annual		
Provide supportive supervision, TA and training on VAS to regional/district staff							N	Annual		
Community-level promotion of VAS							D	Annual		
Implementation of VAS Month events two times per year							D	Annual		
Report district level distribution of VAS to the CHMT and RHMT							D	Annual		
Plan, budget and advocate for VAS in the CCHP							D	Annual		
<b>Recommendations for Strengthened VAS</b>										
<b>Strengthen and extend the reach of VAS promotion messages</b>										
Collect current VAS-related IEC messages and materials							N	Year 1 only		
Test messages for effectiveness through community FGDs & BCC, focusing on hard-to-reach							N	Year 1 only		
Test messages for technical efficacy							N	Year 1 only		
Adapt/update messages as needed							N	Year 1 only		
Survey viable communication channels by type of setting (community size, location, urban/rural, hard-to-reach, etc.)							R	Year 1 only		

<sup>8</sup> The cost level and frequency are provided. However, given the difference in costs across the district and regional levels, as well as the elasticity in Tanzania's inflation rate, the annual costs will need to be added.

Develop regional IEC/BCC plan specific to each communication channel/type of setting							R	Annual		
Adapt new messages to format, media and target audiences							N	Annual		
Engage communication channels through training, scripting, contracting, etc. as defined in IEC/BCC plans							R	Annual		
Trigger cell phone messages at least one month in advance of VAS activities							R	Annual	Private sector contribution	
Selectively monitor/survey the reach & effectiveness of messages							N	Annual		
Adapt messages and communication approaches as needed							N	Annual		
<b>Identify village incentives that will increase attendance at VAS</b>										
Pilot test promising incentives in randomly selected communities							D	Year 1 only		
Assess, adapt and roll-out effective incentives on a broader scale							N	Annual		
<b>Pilot mother/child reward system for graduating VAS by 5<sup>th</sup></b>										
Assess, adapt and roll-out mother/child reward system on a broader scale							D	Annual		
<b>Inclusion of VAS in routine integrated child health services and</b>										
Advocate with key policy makers to include VAS in routine integrated child health services and growth monitoring							N	Annual		
<b>Improve health worker skills in VAS and nutrition</b>										
Train and supervise health workers to provide IEC and VACs as appropriate							D	Annual		
<b>Pilot the use of TBAs, CORPs and other health volunteers in providing VAS and de-worming in their villages and do follow-up to</b>										
Work with local leaders to identify hard-to-reach communities from which to select an appropriate sample for the pilot							D	Year 1 only		
Establish supply system and provide training to health workers to manage it							R	Year 1 only		
Recruit and train TBAs, CORPs and other health volunteers in providing VAS and de-worming in their villages.							D	Year 1 only		
Initiate services in selected communities							D	Year 1 only		
Assess results of the pilot and consider scaling up to a larger area							D	Annual		

<b>Pilot the approach of providing caregivers with a second dose of VAC at every VAS event so they can give this to the child between the two annual VAS events</b>											
Select an appropriate setting and event to pilot this approach								D	Year 1 only		
Develop health education materials on the purpose of VAS, the correct dosage and the timing (provided on a free calendar)								N	Year 1 only		
Train and supervise participating health workers on this approach								D	Year 1 only		
Test the strategy at selected settings								D	Year 1 only		
Assess the results and considering scaling up the strategy to a larger area								N	Annual		
<b>Integrate VAS with VitA food fortification and diet modification</b>											
Coordinate with organizations, donors and agencies involved in food fortification and diet modification to identify promising strategies for integration (i.e., providing seeds and tools for bringing others to attend VAS events, child graduating upon compl								N	Annual		
Develop, pilot, assess and scale up cost-effective and sustainable strategies								N	Annual		
<b>Prepare for conclusion of UNICEF purchasing of VAC for VAS</b>											
Review and update HKI/A2Z-developed District VAS Planning and Budgeting Table as necessary								N	Year 1 only		
Provide training and technical support to the districts in the planning and budgeting for their CCHPs								N	Annual		
Districts take on full responsibility for covering the cost of all VACs effective year 2014-5								D	Annual		
Monitor and provide technical assistance to districts as needed								R	Annual		
<b>Incorporate VAS monitoring into regular supervisory visits</b>											
Advocate with senior MoHSW and TFNC leadership for policy								N	Year 1 only		
Incorporate content into supervisory checklist, based on checklists developed by HKI/A2Z								N	Year 1 only		
Train and monitor supervisors								R	Annual		

Initiate spot check monitoring of VAS activities										
Design a system of random spot checks of VAS Month events and corresponding checklist to ensure that adequate supplies arrived on site/stored properly, sufficient/trained workers are available, patient interaction is positive, VAC is being administered co								N	Year 1 only	
Train supervisors on this system for testing in selected pilot areas								D	Year 1 only	
Pilot test system and compare results to those provided by the districts								D	Year 1 only	
Adapt system and scale up								N	Annual	

\* N=National, R=Regional, D=District

## **Attachment B – Tanzania Vitamin A Supplementation Assessment Report**

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See attached.