

Evaluation of Vitamin A Supplementation Piloting in Pakistan



STUDY REPORT

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Acronyms

ASV	Assistant Superintendent Vaccination
BHU	Basic Health Unit
CHWs	Child Health Weeks (CHWs)
DOH	District Officer Health
DSV	District Superintendent Vaccination
EDO(H)	Executive District Officer (Health)
EPI	Expanded Programme on Immunization
FP&PHC	Family Planning and Primary Health Care
LHWs	Lady Health Workers
LHVs	Lady Health Visitors
MI	Micronutrient Initiative
NIDs	National Immunization Days
OPD	Outpatient Department
RHC	Rural Health Center
TSV	Tehsil Superintendent Vaccination
TBAs	Traditional Birth Attendants
VAS	Vitamin A Supplementation

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1. EXECUTIVE SUMMARY

In 1999, Pakistan began large-scale distribution of Vitamin A supplement to children 6-59 months of age. In years 2001/2002, the prevalence of night blindness among mothers (9.4%), Bitots spots among under-five children (1.2%) and reduced retinol levels among mothers and children indicates persisting Vitamin A deficiency. Since 1999 the supplementation has so far mainly been linked to National Polio Immunization Days (NIDs) of the Expanded Program on Immunization (EPI) and coverage of target population has been close to 90%. As the NIDs are going to decrease and discontinue in the next few years, the search for alternate cost-effective means of Vitamin A supplementation was required. The UNICEF office Pakistan and the national programs, with funding support of Micronutrient Initiative (MI), have jointly piloted an alternate Vitamin A supplementation strategy in three provinces of Pakistan (except Sindh). The piloting in 14 EPI priority districts was done in August-September 2005.

The piloting of alternate VAS implementation strategy relied mainly on coordinated efforts of three workers. The Lady Health Workers covered all eligible children (aged: 06 – 59 months) in their respective catchment areas. In areas outside the LHW catchment but reachable for Vaccinators, the VAS coverage was through Vaccinators. The child health weeks, through community volunteers, were used for children living in areas not covered by LHWs and not reached by Vaccinators. This review of the early piloting experience, with MI support, has been conducted to inform the future strategies and operations for countrywide Vitamin A supplementation in post-NID era.

The **purpose** was to learn from the piloting experience and inform practical recommendations. The **objective** was to study the context as well as processes of the piloting experience and modify the new delivery strategy for Vitamin A supplementation for future scaling-up in the post-NID era.

This **qualitative study** has been based mainly on record reviews, interviews and focus group discussions. The mapping of the VAS delivery and management arrangements and processes, was done at the start of the proposed evaluation work. This enabled the team to elaborate on information needs, select a set of indicators to study the context as well as processes, and outline the data collection sources and arrangements

The **stakeholders** identified for inclusion in the study were: three national programs (i.e. EPI, FP & PHC, and Nutrition), two technical partners (i.e. UNICEF and MI), and six randomly selected pilot districts in three provinces. Specially designed tools have been used to collect data from multiple sources at national, provincial, district, and community levels. The data were collected, mostly by a team of senior and mid level professional, through record review, interviews and focus group discussions. In three programs and two technical partners, both national and provincial/regional level key informants were identified and interviewed. In case of EPI and FP&PHC programs the district and grass-root level staff (i.e. Vaccinators and LHWs) were also included. The Executive District Officer (Health) and District Officer Health in each of six selected districts were interviewed. Community volunteers in two of the selected pilot districts were also included in the study. The interaction with target communities (FGD) was dropped because of technical reasons. The collected qualitative data were transcribed, collated and interpreted by the core research team, with the help of data collection team. The core research team then synthesized the available information to identify and appraise options and draft practical recommendations for enhanced operational strategies

and arrangements. These draft recommendations were then discussed and finalized in the national level consultation of key stakeholders.

The UNICEF office, through informal consultation with stakeholders, developed VAS strategy paper that was then presented in a consensus-building workshop. However, most of the national level managers reported their minimal involvement in developing the strategy as well as implementation modalities. The strategy paper document however, lacks the “operational details” required for effective implementation of the agreed strategy. The VAS piloting was done in 14 selected EPI priority districts in three provinces (except Sindh). The provincial managers showed reservations on the process adopted for planning and implementing the VAS pilot activities. The perceived lack of public sector involvement seems to have contributed to the “compliance” rather than “ownership” response from the government functionaries.

The VAS piloting appears to have relied more on an adhoc and informal coordination among the key partners. The UNICEF led coordination seems to have been limited mainly to need-based meetings with key partners, to discuss significant matters and agree on mutually acceptable options. This lack of a coordination platform affected the degree of mutual understanding and trust among partners. An example is EPI Programme remaining skeptical of formal involvement of LHWs in VAS activities. Most of the managers, at national and provincial levels, emphasized the need of a formal coordination mechanism.

Most of the pilot implementation operations and tools were adapted EPI materials. No formal exercise carried out for assessing the training needs of various staff cadres (i.e. managers, health facility staff, and grass-root level workers). The district level managers and supervisors were oriented, using a set of informal training materials. Most of the health facility staff training could not be conducted, mainly because of shortage of time and other overlapping activities. A training guide was developed for the training of peripheral staff, however time constraints caused them inconvenience. The participation and quality of training events has generally been reported to be satisfactory, except occasional delays or rescheduling. However, none of them reported any formal evaluation or quality control arrangements for any of the training events. The managers and care providers shared their perceived need for simplified guidelines and practical training events for various staff cadres.

UNICEF estimated the requirement, on the basis of EPI statistics, and Micronutrient Initiative (MI) provided the required quantity of Vitamin A capsules. These capsules were then distributed to the districts, through National EPI Program arrangements. UNICEF office Islamabad centrally arranged and distributed the training and print materials as well as other supplies to the provinces/districts, according to the estimated requirements. Problems have been reported in the quantity as well as timeliness of the distribution of supplies to the districts. The project documents lack in details about logistic management, which contributed in the reported miscalculation as well as delayed distribution to the districts and below.

MI provided lump-sum funds to UNICEF for child health weeks (CHWs). UNICEF also supported some of the LHW and Vaccinator activities through its regular funds. The funds were provided to the EDOs for arranging and conducting trainings, as well as paying for community volunteers (per diem) and promotional activities. The UNICEF fund flow system was used for transferring money to the districts, which seems to have worked. However about 20% of the money, meant for volunteers and promotional activities, could not be disbursed in

time. The cost per additional person-year of coverage calculated by UNICEF¹ for the child health week (CHW) area was US \$ 0.0728, which compares quite favorably with the similar experiences in other developing countries including India, Nepal and Philippines. As evident from other country experiences, the cost of distribution can be significantly higher, as compared to cost of capsules, depending upon the implementation strategy. None of the three key national programs have so far undergone any planning exercise to estimate the requirements and get funds allocated for countrywide implementation of VAS in post-NID era. There is a need for detailed budgeting of countrywide replication of VAS activities, under routine program conditions.

The project document provided a very brief description of the mapping strategy and methods. This inadequate description left the districts to do the micro planning (including mapping) as per their own understanding and capacity. Each Vaccinator and LHW prepared micro-plans, for administering Vitamin-A in their respective catchment areas. Vaccinators reported three to four fold increase in the number of children they have to cover each day. LHWs reported difficulties due to VAS supply distribution not corresponding with their routine health facility visits to replenish the drugs and supplies. In general these micro-plans were adhered. Both workers reported a significant number of second visits, to cover those individuals who were not contacted/available during the first visit. Vitamin 'A' supplementation card was filled and given to almost every child covered. Most of the Vaccinators and LHWs perceived the filling of Vitamin A card as time-consuming and of limited relevance. Each child covered was recorded in a specially designed "tally sheet". The health facilities compiled these filled tally sheets on "Union Council Compilation sheets", which were then compiled further at district levels for transmission to higher levels. Some errors have been reported in compiling VAS coverage data from the tally sheets as well as union council compilation sheets.

About one third of the total reported coverage has been through child health weeks. Child health weeks were planned, as special campaigns, by respective districts. The child health weeks relied on inputs of community volunteers, who were either health staff or community representatives previously involved in health interventions. The child health weeks seems to have covered well the Vitamin A supplementation, however other health issues were not addressed adequately. In areas where community volunteers were health staff, the recording and reporting quality was found better as compared to areas served by non-health staff community volunteers. Many of the community volunteers reported delayed or non-payment of agreed amount for their per-diem as well as reimbursement of actual expenditures incurred, and under-estimation of the time required for achieving the coverage targets

The VAS piloting was able to achieve 87.5% coverage of the target children population. However, there have been instances of discrepancy in the reported coverage data. In NWFP and Balochistan the proportion of coverage achieved through LHW, vaccinators and community volunteers has been 40%, 34%, 26% and 40%, 11% and 49% respectively. The relevant data for Punjab was not available.

Each of the participating districts was found to have nominated a district focal person for coordinating VAS activities, under the supervision of respective EDO (Health). Both programmes used the existing mechanisms and tools, with some adaptation, to monitor and supervise their respective staff. The supervision and monitoring of vaccinators and lady

¹ Donor Report for the Micro Nutrient Initiative, Vitamin A supplementation, First Interim Technical Report - UNICEF

health workers, through regular programme channels, seem to have worked. However, supervision and monitoring of child health weeks was reported inadequate, both in arrangements as well as quality.

The advocacy efforts targeted the district governments and the local bodies at grass root levels (i.e. union council). The methods included sensitization sessions with local politicians, displaying posters and distributing pamphlets, making public announcements, interpersonal communication during administering Vitamin A. The baseline coverage of 90% or more indicates reasonably high level of awareness and VAS utilization response, before the piloting was implemented. There has been no reported exercise to assess the quality and coverage of these advocacy and community mobilization efforts during the piloting. None of the operation research activity could be carried out during the VAS piloting.

The supplementation provides efficient and quick response to Vitamin A deficiencies. In the next at least a decade, the supplementation is likely to continue playing a major role in combating Vitamin A deficiency in Pakistan. The current situation of polio eradication campaign in Pakistan indicates that at least few more years would be required to achieve Polio-free status. This gives an opportunity to consider working on two-pronged development strategy i.e. further analyzing and strengthening the NID-linked VAS as well as further developing alternate VAS strategy for post-NID era. The piloting experience has highlighted the complementarities of efforts through three service providers (i.e. vaccinator, LHW and community volunteer). The programmes at national and provincial levels need to keep this fact in mind, while considering future strategies. The Vitamin A Supplementation provides an opportunity for the three national level programmes to develop public-public and public-private partnership modalities. The technical partners have so far been supporting the national programmes during the first few years of Vitamin A supplementation. The continued inputs of technical partners will be required. However, the government needs to start considering allocating public sector funds for countrywide implementation of Vitamin A supplementation. Embedding operational research in the intervention implementation may enhance the efficiency as well as the design of intervention for future replication/scaling-up.

The main recommendations included:

- Continue partnership approach to achieving optimal VAS coverage i.e. through collaborative efforts of LHWs, vaccinators and community volunteers. However, coordination between partners need further enhancement through establishing inter-partner coordination bodies at national, provincial and district levels.
- Establish a Technical Working Group to spearhead and steer the process of identifying and addressing the development needs for scaling up the VAS intervention under routine programme conditions. The development needs might include defining the roles and operations, assessing training needs, developing guidelines and training materials, strengthening the systems including management of logistics and fund, advocacy and social mobilization, and operational research.
- The refined set of interventions and strengthened arrangements for VAS implementation under routine programme conditions to be further implemented and evaluated on a small scale (i.e. in few selected districts), before countrywide scaling-up through public sector programmes. The evaluation may cover effectiveness, feasibility and cost analysis.
- The programmes to consider getting public sector funds allocated for VAS intervention in particular implementation cost.

2. BACKGROUND

In 1999, Pakistan began large-scale distribution of Vitamin A supplement to children 6-59 months of age. Since then the reported target population coverage, through twice-a-year administration, has been close to or above 90%. The Vitamin A supplementation in Pakistan has so far mainly been linked to immunization activities of the Expanded Program on Immunization (EPI), under the Ministry of Health.

Pakistan National Nutrition Survey 2001-2002² showed that 9.4% mothers were night blind and 1.2% under-five children had Bitots spots. The reduced retinol levels (i.e. <0.7umol/L) indicated Vitamin A deficiency in 5.9% mothers and 12.5% under-five children. The comparison of these indicators with the previously conducted sub-national studies gives a non-conclusive picture. The low-serum retinol level (<0.7umol/L) found among 32% of children in 1997 provincial survey³ has shown improvement in 2001/02 (i.e. 12.5%). Whereas, 0.2% occurrence of Bitots spots reported in 1985/87 survey⁴ has increased in 2001/02 (i.e. 1%), indicating an increase in Vitamin A deficiency. Though in-country evidence of the effectiveness of Vitamin A supplementation seems inconclusive, but international experiences elsewhere show that Vitamin A supplementation is appropriate as well as cost-effective in reducing Vitamin A deficiency⁵. The Government of Pakistan is committed to Vitamin A supplementation, and has already allocated some budgetary resources for the purchase of Vitamin A capsules.⁶

In the last few years, National Immunization Days (NIDs) for polio eradication has been the vehicle for periodically delivering Vitamin A supplement to the target population, with minimal additional effort and cost. As the polio eradication targets are achieved in the next few years, the NIDs will decrease and subsequently discontinue. This makes the search for alternate cost-effective means of Vitamin A supplementation important as well as timely⁷. The Programs and technical partners, including Micronutrient Initiative (MI) and UNICEF, have already started working jointly on alternate strategies for Vitamin A supplementation (children 06 – 59 months) in post-NID era. The UNICEF office Pakistan and the national programs, with funding support of MI⁸, have jointly piloted an alternate Vitamin A supplementation strategy in 14 districts of Pakistan. The piloting in three provinces (except Sindh) was done in August-September 2005.

The piloting of alternate VAS implementation strategy relied mainly on coordinated efforts of the staff from National Program for Family Planning and Primary Health Care (FP&PHC) and National EPI Program as well as volunteers from the communities. The Lady Health Workers covered all eligible children (aged: 06 – 59 months) in their respective catchment areas. In areas outside the LHW catchment but reachable for Vaccinators, the VAS coverage was through Vaccinators. The areas not covered by LHWs and not reached by Vaccinators

² National Nutrition Survey 2001-2002, Planning Commission Government of Pakistan & Unicef

³ Paracha PI, Jamil A, Northrop-Clewes CA, Thurnham DI. Interpretation of vitamin A status in apparently healthy Pakistani children by using markers of subclinical infection. *Am J Clin Nutr* 2000;72-1164-9.

⁴ National Nutrition Survey 1985-1987, Nutrition Division, National Institute of Health, Government of Pakistan.

⁵ World Bank. World Development Report 1993-Investing in Health. The World Bank, Washington, DC.

⁶ EPI Pakistan PC-1, 2004-05 to 2008-09

⁷ Pakistan, Country Assessment Report of the current Vitamin A Supplementary Program, Conducted by Joint Mission of UNICEF and MI-2004.

⁸ UNICEF Vitamin A Supplementary Funding Proposal for MI

were covered through child health weeks (CHWs). The child health weeks relied on engaging short-term volunteer inputs for achieving VAS coverage targets in defined geographic locations. The piloting experience has provided an opportunity to develop and field-test the strategies and operations, before countrywide scaling-up in near future. A systematic review of the early piloting experience was required to inform the future strategies and operations for Vitamin A supplementation in post-NID era.

The Micronutrient Initiative, as a non-government technical partner, responded to the need by commissioning an independent third party review of the VAS piloting experience in Pakistan.

3. STUDY PURPOSE AND OBJECTIVES

The **purpose** was to review and document the experiences of piloting the new/alternate delivery strategy of Vitamin A supplementation (VAS) to children 06 – 59 months, as well as to inform practical program recommendations for future preparation and anticipated scaling-up of the Vitamin- A supplementation strategy in post-NIDs era.

The specific **objectives** of the evaluation were:

1. To study the context in which the alternate/new delivery strategy of Vitamin A supplementation has been piloted in Pakistan.
2. To study the processes i.e. operational strategies, requirements, activities and experiences of implementing the new delivery strategy of Vitamin A supplementation
3. To recommend modifications in the new strategy, as well as steps for an anticipated expansion of the new strategy in near future.

Main **indicators** used to study the:

- **Context:** stakeholders; organizations; program policies and strategies; resources and gaps; coverage and quality of core interventions; strategic and implementation plans of the program; program understanding and ownership of VAS intervention; and relation with overall program plans and activities.
- **Intervention:** acceptable, feasible and replicable operational strategies; development inputs for quality of work; resource and management support requirements and arrangements; staff experience of implementing, managing and monitoring VAS activities; community mobilization and response; expected outputs with deviations and reasons; and considerations for potential scaling up. The community perceptions and experiences of VAS delivery arrangements were dropped, after initial inclusion, mainly because of long recall period, and multiplicity of overlapping interventions and messages since the piloting of VAS.

4. STUDY DESIGN AND METHODS

This qualitative study has been based mainly on record reviews, interviews and focus group discussions. The mapping of the VAS delivery and management arrangements and processes, was done at the start of the proposed evaluation work, which enabled the team to further elaborate on information needs as well as data collection sources and arrangements.

4.1 Sampling

- 4.1.1 A list of potential stakeholders for inclusion in the study was discussed and agreed with two technical partners (i.e. MI and UNICEF) and two national programs i.e. National Program for FP&PHC and National EPI Program. The **groups** included in the evaluation were:
- National Program for FP&PHC – national, provincial, district and community levels
 - National EPI Program - national, provincial, district and community levels.
 - National Nutrition Program
 - District health setup – Managers, health facility and community level personnel
 - Technical partners - UNICEF, MI – national and regional levels
- 4.1.2 In each of the three national programs and two technical partner organizations individuals, with adequate involvement/ knowledge of VAS piloting and significant program decision-making role at various hierarchical levels, were included in the study process. (please see the list of interviewees in Appendix-I)
- 4.1.3 Six districts, in three provinces, were selected for inclusion in the study. In NWFP and Balochistan, four out of twelve districts were selected randomly, whereas in Punjab both of the districts where VAS pilot had been implemented were included in the study. The six districts included in the study were: Mardan and Swabi in NWFP, Mastung and Pishin in Balochistan, and Sargodha and Gujranwala in Punjab.
- 4.1.4 The Executive District Officer (Health), District Officer Health, District Coordinator FP & PHC Program, and District Focal Person EPI Program in six selected districts were also included in the study. Lady Health Workers, Vaccinators and Community Volunteers were also selected among those having experience of implementing VAS pilot in these six districts (please see the list of FGDs in Appendix-I).
- 4.1.5 The planned interaction with target communities (FGD) was dropped on the recommendations of the Technical Work Group. The main objection was long interval between the intervention and the study, and multiple overlapping VAS related messages and activities since piloting.

4.2 Data Collection Instruments

Three main methods have been used to collect data from multiple sources at national, provincial, district, and community levels. These methods were record review, interviews and focus group discussions. A technical working group, led by the study team leader, drafted a set of instruments for collecting required data through multiple methods. The instruments were (please see Appendix-III):

- a) Instrument 1: Document Review Checklist
- b) Instrument 2: FGD Guidelines: LHWs, Vaccinators and Volunteers
- c) Instrument 3: Interview Schedule (Managers and technical partners)

The drafted instruments were shared with the stakeholders, and revised in light of their comments. A team of two experienced researchers then used the revised instruments to conduct the first interview and the FGD. In light of this early administration of FGD guidelines and interview schedules, these instruments were refined for further use in the study.

4.3 Data Collection Process

As mentioned above, the following three qualitative research methods were used mainly to collect the required data from various sources. A team of qualified mid-level professionals collected the data, under supervision of senior researchers. The team expertise-mix included: anthropology; qualitative research; management and program reviews; and epidemiology.

4.3.1 Record Review

The relevant documents were enlisted in consultation with three programs and two technical partner organizations. A focal person was identified from each partner program/organization to facilitate access to and review of the relevant records. A group of two senior public health professionals, with adequate relevant experience, reviewed the records and extracted the relevant information. The initial understanding, based on document review, was shared with the relevant focal persons to avoid inadequacies and/or misinterpretations.

4.3.2 Interviews

In each of the three national programs and two technical partner organizations “key informant” individuals at various hierarchical levels were enlisted. Each of the identified individual was contacted and requested for an in-depth interview, at the time and place of his/her convenience. At district level, few of the managers engaged in VAS piloting were found transferred to other districts/places. These individuals were located and contacted at their new positions, for an in-depth interview. Senior and mid-level public health professionals conducted the in-depth interviews at national, provincial and district levels.

4.3.3 Focus Group Discussions

In each of six selected districts, separate focus group discussions were held with lady health workers and vaccinators. Through district health management, about 12 to 15 individuals in each category with experience of VAS piloting were identified and invited to focus group discussions. On average about 8 – 10 invitees attended each focus group discussion. Each focus group discussion lasted between one - one and a half hours. On expert advice, focus group discussions with community volunteers (with experience of implementing child health week) were also added in two of the six districts. Each focus group discussion was conducted by a group of two qualified researchers (i.e. an anthropologist and a public health professional). One of these two facilitated the interaction, whereas the other person took notes.

4.3.4 Quality of data collection

The professionals responsible for data collection were also involved in the study design process, including drafting, pilot testing and refining the study instruments as well as methods. The data collection activities at district and provincial levels were planned in such a way that a senior professional could make himself available for supervising and supporting the data collection activities i.e. interviews and focus group discussions. This included his participating in few data collection events, regularly reviewing the collected data, discussing data collection problems and making suggestions accordingly. In addition the core research team in Islamabad also made themselves available for quick response to telephonic and electronic queries from the field.

4.4 Data Processing and Analysis

This study was based on qualitative data collected through document review, interviews and focus group discussions. The data collection team, under supervision of senior researcher, transcribed the notes taken during interviews and focus group discussions. The senior researcher, with help of data collection team, then collated the transcribed data into various categories and groups of information. The core research team, on the basis of collated transcribed data, then interpreted the key comments, issues, explanations and suggestions made by various respondents. ASD team took appropriate precautionary measures to ensure limited/authorized access to any sensitive information, coming out of the evaluation exercise.

The core research team assessed the gathered information, in light of professional comments and reported international evidence. The core team synthesized the available information to identify and appraise feasible options for enhanced operational strategies and arrangements to deliver VAS components. These include organizational support, training and supervision, logistic management, storage and distribution, record keeping and monitoring, and periodic evaluation. This synthesis and option appraisal exercise helped the core research team to draft practical recommendations for future scaling-up of VAS under regular program arrangements. These draft recommendations were then discussed, modified (where needed), and finalized in the national level consultation of key stakeholders including three national programs and two technical partners.

5. STUDY FINDINGS

5.1 Formulation and Ownership of the VAS Intervention

In 2004, the joint mission of UNICEF and MI prepared a project document, as a part of 'Country Assessment Report of the Current Vitamin A Supplementation Program'⁹. Formation of a working group was envisioned, with representation from three national programs (i.e. EPI, FP&PHC, and Nutrition) and other partners. This working group was to draft VAS strategy for consensus of stakeholders in a national level consultation. The development of operational guidelines and annual action plan were to follow the strategy formulation exercise.

This formal working group was never constituted. The UNICEF office, through informal consultation with stakeholders, developed VAS strategy paper¹⁰. The strategy paper, prepared on the basis of above mentioned project document, was presented in a consensus-building workshop held in 2005. This document outlines the objectives, implementation modalities, key activities and supervision and monitoring structure. However, these documents lack the "operational details" required for effective implementation of the agreed strategy.

The strategy was aimed at providing VAS to children 6 to 59 months of age. Three pronged approach was planned to provide VAS biannually: a) LHWs to provide VAS in their respective catchment area during their routine activities b) Vaccinators to provide VAS in those areas not covered by LHWs as a part of their monthly visit to each village c) Child Health Weeks (CHWs) in areas not reached by LHWs and Vaccinators. Trained community volunteers, including cadres of health staff, were given the responsibility for organizing CHWs and administering VAS to target populations.

According to initial plans, the new VAS strategy was to be piloted in 34 Phase-1 EPI priority districts. Consultations were held at national and provincial levels for: i) agreement on strategy ii) decisions on implementation arrangements, and iii) implementation planning. Subsequently 14 districts in three provinces were included, based upon district willingness and preparedness to participate, in the piloting. The number of VAS pilot districts in Punjab, NWFP and Balochistan were two, seven and five respectively. In addition to 14 districts, an agency was also included. The Sindh province, though attended most of the planning meetings, decided to stay out of the first round of piloting.

Generally health managers at various levels were found aware of the importance of Vitamin A supplementation for 6 – 59 month children. Most of them also showed commitment to the cause and the set of VAS activities. However, most of the national level managers reported their minimal involvement in developing the strategy as well as implementation modalities. They also pointed out that the planning was done in haste, and scheduling of VAS activities overlapped with national immunization days (polio eradication) and local body elections. The provincial managers showed reservations on the process adopted for planning and implementing the VAS pilot activities. The main reservation noted was the perceived lack of

⁹ Acceleration of Coverage with Vitamin-A Supplements PAKISTAN, Country Assessment Report of the current Vitamin A Supplementation Programme, Conducted by Joint Mission of UNICEF and MI-2004.

¹⁰ Strategy Paper, Consultation on Piloting Vitamin-A Supplementation (VAS) In 34 Phase-1 EPI Priority Districts in Pakistan 2005

balance between the donor (technical partner) and the government resources as well as technical inputs (influence) for VAS activities in their respective provinces. This perceived lack of public sector involvement seems to have contributed to the “compliance” rather than “ownership” response from the government functionaries.

5.2 Inter-partner Coordination

The VAS intervention envisioned instituting an effective coordination mechanism for communication and joint decision making by key stakeholders. The main public sector collaborating partners identified were Federal EPI Cell, National Program of FP & PHC, Health Education Cell, Nutrition Wing and Directorates of Mother and Child Health. The main technical partners were UNICEF and MI. It was also envisioned that systematic efforts would be made to involve NGOs and CBOs, especially in areas not currently covered by LHWs.

The VAS piloting seems to have relied more on an adhoc and informal coordination among the key partners. The UNICEF led coordination seems to have been limited mainly to need-based meetings with key partners, to discuss significant matters and agree on mutually acceptable options. It appears that adequate attention was not given to instituting a formal and long-term coordination mechanism among partners. This lack of a platform for partners to openly and frequently communicate on matters of mutual concern, affected the degree of mutual understanding and trust among partners. An example is EPI Programme remaining skeptical of formal involvement of LHWs in VAS activities.

Most of the managers, at national and provincial levels, emphasized the need of a formal coordination mechanism. One main suggestion was to establish inter-partner coordination bodies at national, provincial and district levels, with clearly defined terms of reference (TOR). These bodies then act as platforms to enhance communication with and contribution of government partners as well as nurturing partnership with private sector partners.

5.3 Training/ Capacity Building

The managers, health facility staff, and community-based primary health care workers required orientation/training for carrying out VAS related micro-planning and implementation, as per agreed strategy. Most of the pilot implementation operations and tools were adapted EPI materials. The district level managerial staff mainly included: district and sub-district (tehsil) superintendent vaccination from EPI Program; lady health supervisors and district coordinators from the FP&PHC Program; and district and deputy district officers health from district management team. The health facility level staff included: medical officers, lady health visitors (LHV), obstetricians and nurses. The community-based primary health care workers included: Lady Health Workers; Vaccinators and other EPI workers; and other health related staff such as sanitary patrol, malaria supervisors, and traditional birth attendants (TBAs).

The training of national and provincial level master trainers was conducted jointly. Most of the in-use training material in NID related VAS was adapted for piloting the alternate VAS strategy for post-NID era. No formal exercise carried out for assessing the training needs of various staff cadres for implementing alternate VAS strategy. The district level managers and supervisors were oriented, using a set of informal training materials. A special VAS related

training also covered logistic management, recording and reporting, and follow-up mechanisms. Most of the health facility staff training could not be conducted, mainly because of shortage of time and other overlapping activities. A training guide¹¹ was developed for the training of peripheral staff highlighting the importance of vitamin A, administration of vitamin A capsule, micro planning, recording & reporting and interpersonal communication. Training of grass-root workers had been carried out on relatively short notices, which seems to have caused inconvenience/pressure to the managers, trainers and trainees.

The managers reported, on the basis of monitoring visits, the participation and quality of training events generally to be satisfactory. They also reported occasional delays in the availability of training materials and last-moment rescheduling of training events mainly due to overlap with NIDs and local body elections. However, none of them reported any formal evaluation or quality control arrangements for any of the training events. For future replication or scaling-up, the managers and care providers shared their perceived need for context-sensitive and simplified operations and tools as well as role-specific and skill-oriented training events for various staff cadres.

5.4 Logistics Management

UNICEF estimated the requirement of Vitamin A capsules, on the basis of EPI statistics. The Micronutrient Initiative (MI) provided UNICEF the required quantity of Vitamin A capsules. These capsules were then distributed to the districts, through National EPI Program arrangements. UNICEF office Islamabad arranged and distributed the training and other print materials to the provinces/districts, according to their estimated requirements. Other supplies e.g. scissor, boxes etc were also purchased centrally and then distributed to districts. Small-scale local purchase of VAS implementation materials was also reported at district level.

The requirement estimation at district level, based on EPI statistics, took into account 5% wastage for the outreach and about 20% extra for health facilities i.e. basic health units (BHUs), rural health centers (RHCs), and gynecology/obstetrics outpatient department in hospitals.

At national level, the procurement and distribution of VitaminA capsules and other supplies has generally been reported as adequate and in-time. However, problems have been reported in the quantity as well as timeliness of the distribution of supplies to the districts. These gaps had been more in the union councils selected, at a later stage, for coverage through child health weeks. The main items where logistic management gaps were reported were print materials and empty containers.

The project proposal and the strategy developed for VAS piloting was found silent on details of the logistic management arrangements. The management protocols of NID linked VAS were used, which were found inadequate for the piloting. The inadequacy of logistic management guidelines seems to have resulted in miscalculation of material requirements as well as delays in distribution of supplies to the districts and below. For future replication or scaling-up, the managers and care providers shared their perceived need for context-sensitive and simplified operations and tools for managing VAS related supplies/logistics.

¹¹ Vitamin A ki Khorak – Training guide - Ministry of Health Pakistan

5.5 Fund Flow

MI provided lump-sum funds to UNICEF for child health weeks (CHWs). UNICEF also supported some of the LHW and Vaccinator activities through its regular funds. The funds were provided to the EDOs for arranging and conducting trainings, as well as paying for community volunteers (per diem) and promotional activities. The UNICEF fund flow system was used for transferring money to the districts.

The respondents did not report any major problem in managing the flow of training funds. However about 20% of the money, meant for volunteers and promotional activities, could not be disbursed. The problem was mainly in the districts, which were added at a later stage for child health week events. The delayed submission of district disbursement plans, probably due to changes in district management, was one of the stated reasons for undue delay in disbursement.

The cost per additional person-year of coverage calculated by UNICEF¹² for the child health week (CHW) area was US \$ 0.0728. The following table documents figures for some other developing countries. It provides just a crude comparison, as precise comparison is not possible due to difference in methods and costing components used in each country. The VAS piloting cost in Pakistan is comparable to India (US \$ 0.07) and seems lower than Nepal {even if 69% direct cost component i.e. US \$ 0.86 is used.}.

Country/Year	Average cost per person year of vitamin A protection (US \$)
Pakistan 2005	0.0728*
India1998 ¹³	Rs. 3.20 (US \$ 0.07 current rate)
Nepal-1996 ¹⁴	1.25**
Philippines 1994 ¹⁵	0.28

* Cost included payment to volunteers, promotional cost and the training cost. No breakdown available.

** Direct budgetary costs 69% and off budget indirect personnel costs31%. Breakdown: promotion costs 28%, training costs 22%, cost for Vitamin A capsules 5%.

The above cost for VAS piloting in Pakistan was calculated for EPI priority districts. If the piloting strategy is to be replicated in non-priority districts, the cost may be higher but could be compensated for economy of scale.

The replication and expansion of VAS piloting throughout the country may mean a substantial requirement of additional funds. As evident from other country experiences, the cost of distribution can be significantly higher, as compared to cost of capsules, depending upon the implementation strategy. There is a need for detailed budgeting of countrywide replication of VAS activities, under routine program conditions. None of the three key programs have so far undergone any planning exercise to estimate the requirements and get funds allocated for countrywide implementation of VAS in post-NID era.

¹² Donor Report for the Micro Nutrient Initiative, Vitamin A supplementation, First Interim Technical Report - UNICEF

¹³ Pandav CS et al. Cost of Vitamin A and iron supplementation to at risk population. Indian J Pediatrics 1998;65:849-56.

¹⁴ Fiedler JL. The Nepal National Vitamin A Program: prototype to emulate or donor enclave. Health Policy and Planning; 15(2):145-156.

¹⁵ Fiedler JL et al. Cost analysis as a vitamin A program design and evaluation tool: a case study of Philippines. Social Science & Medicine 51 (200) 223-242.

5.6 Administering Vitamin A Supplement

5.6.1 Mapping of coverage areas

Vitamin A supplement was administered in accordance with the strategy stated in project proposal: a) LHWs administered Vitamin A to children in their catchment areas, b) Vaccinator, in their respective union councils, covered the localities not covered by LHWs, and c) Child health weeks (through community volunteers) were used to cover areas not reached by LHWs and Vaccinators.

The project document provided a very brief description of the mapping strategy and methods. This inadequate description left the districts to do the mapping as per their own understanding and capacity. The districts prepared service area maps for administering Vitamin A through a combination of three options. The Vaccinators, with help of LHWs and community volunteers, prepared maps for VAS piloting in the district. Database of EPI and LHW programs and tools from EPI program were used for preparing these maps. Some deficiencies have been reported in the district level mapping of child health weeks, which resulted in subsequent changes in the initial coverage plans. There is a perceived need for developing clear mapping guidelines to make future implementation (on-scale) effective.

5.6.2 VAS through Vaccinators and LHWs

a. Activity

The Vaccinators were responsible for fixed as well as mobile outreach services. The Vaccinators covered those areas in their respective catchment population which were not covered by LHWs. Micro-plans were prepared, by each Vaccinator and LHW, for administering Vitamin-A in their respective catchment areas. LHWs reported difficulties due to VAS supply distribution not corresponding with their routine health facility visits to replenish the drugs and supplies. In general these micro-plans were adhered.

The managers and health staff also mentioned that in many places a second VAS visit was also required to cover those individuals who were not contacted/available during the first visit. The reported proportion of eligible children requiring a second visit was higher for Vaccinators as compared to LHWs. None of the care providers or managers reported the core programme work being affected due to their involvement in VAS activities. In Balochistan, the role of Vaccinators in VAS piloting was found quite limited, mainly due to longer distances and lack of mobility arrangements, whereas the LHW role was constrained due to non-availability of LHWs and difficult terrain.

b. Recording & Reporting

Vitamin 'A' supplementation card was filled and given to every child covered, except in few places where temporary shortage of Vitamin A cards was reported. Each child covered was recorded, by respective Vaccinator or LHW, in a specially designed "tally sheet". These filled tally sheets were submitted to the health facility in-charge. The facility in-charge, through Vaccinator inputs, got these data compiled on "Union Council Compilation sheets". These Compilation sheets were submitted to tehsil / taluka level vaccination person (i.e. Tehsil Superintendent Vaccination /Assistant Superintendent Vaccination) for district level compilation and further transmission to higher levels.

Most of the Vaccinators and LHWs perceived the filling of Vitamin A card as laborious, time-consuming and of limited relevance. Most of them preferred to add VAS data recording to an existing card e.g. EPI card. Some errors have been reported in compiling VAS coverage data from the tally sheets as well as union council compilation sheets.

c. Staff perceptions :

- There is a need for better planning to avoid an overlap with other local activities such as local body elections and NIDs.
- Vaccinators reported three to four fold increase in the number of children they cover each day, without any corresponding incentive or additional facility. Vaccinators also reported four to ten times higher VAS activity load as compared to LHWs. The Vaccinators supported the idea of sharing the coverage responsibility with LHWs. However they requested for more “fair” distribution of VAS related workload between Vaccinators and LHWs.
- LHWs perceived that VAS activities can be made more efficient, if VAS activity scheduling corresponds with their routine work plans. Both vaccinators and LHWs felt the need for simplifying the recording and reporting requirements.

5.6.3 VAS through Child Health Weeks

a. Activity

Areas not reached by LHWs and Vaccinators (i.e. about one third of catchment population) were identified as eligible for child health weeks. Child health weeks were planned, as special campaigns, by respective districts. The Vaccinators played a major role in preparing micro-plans for child health weeks. The child health weeks relied on inputs of community volunteers, who were paid a minimal fixed per-diem for an agreed coverage. In most of the districts, a majority of these volunteers were found either to be health staff, including vaccinators and LHWs, or community representatives previously involved in health interventions such as polio NIDs.

The child health weeks were expected to cover Vitamin A supplementation as well as other health issues. The child health weeks were reported to be of significant help for achieving the VAS coverage targets. However, these were not found to be of any help for other health components such as water, environmental sanitation, de-worming, hygiene education, immunization awareness and distribution of vaccination cards.

b. Recording & Reporting

The recording and reporting instruments and guidelines used by vaccinators and LHWs were also used for VAS through child health weeks. In areas where community volunteers were health staff (including vaccinators and LHWs from other localities), the recording and reporting quality was reported satisfactory. However, in areas served by non-health staff community volunteers, more problems were reported in the quality as well as timeliness of VAS coverage data. Some managers considered complexity of the tools and inadequate training of community volunteers as main reasons for poor quality of their recording and reporting.

c. Community volunteer perceptions

- Many of the community volunteers reported delayed or non-payment of agreed amount for their per-diem as well as reimbursement of actual expenditures incurred, and under-estimation of the time required for achieving the coverage targets.

5.7 VAS Coverage

The project document envisaged that the VAS piloting would either sustain or further enhance the current level of above 90% coverage of the target population. According to available information, through UNICEF sources, the VAS piloting achieved 87.5% overall coverage of the target children. However, there have been reported instances of discrepancy in the reported coverage data (e.g. in Swabi district of the NWFP province, where initial reported coverage, through child health weeks, was about 692%). This was stated to be due to some clerical error that was rectified later.

The target population for each of the three service providers was not available. However, the following table gives the relative population coverage share of the three service providers in NWFP and Balochistan. The relevant data for Punjab was not available.

Service Provider	Contribution in the total reported coverage of the province		
	NWFP	Balochistan	Punjab
Vaccinators	34%	11%	NA
LHWs	40%	40%	NA
Community volunteers	26%	49%	NA

The table shows that community volunteers are responsible for about half of the reported VAS coverage in Balochistan, as compared to about a quarter in NWFP.

5.8 Monitoring and Supervision

The monitoring and supervision of the three service providers was done mainly through their respective district level structures. District and tehsil level superintendent vaccination supervised and monitored the working of vaccinators in their respective areas. The Lady Health Supervisors (LHS), under supervision of Assistant and District Coordinators, supervised the lady health workers for VAS related activities. Both programmes used the existing mechanisms and tools, with some adaptation, to monitor and supervise their respective staff. The managers at district level showed satisfaction with the supervision and monitoring of vaccinators and lady health workers through regular programme channels. The supervision and monitoring of child health weeks (through community volunteers) was found inadequate, both in arrangements as well as quality.

Each of the participating districts was found to have nominated a district focal person for coordinating VAS activities, under the supervision of respective EDO (Health). The district as well as provincial staff was facilitated, by the provincial program coordinators of MI, for their planning and implementing VAS activities as per agreed protocols.

The ongoing review of piloting progress, at provincial and national levels, could not be carried out because of weak coordination and shortage of time for implementation. This affected the level of managers' involvement and interest at national and provincial levels. The proposed post-intervention coverage survey could not be carried out because of changed priorities as a result of earthquake and quake-related relief work.

5.9 Advocacy and Social Mobilization

The advocacy and community mobilization efforts for the VAS piloting were informed by a number of successful experiences e.g. National Immunization Days for Polio, Maternal and Neonatal Tetanus Elimination and Supplemental Immunization Activities.

The advocacy efforts targeted the district governments and the local bodies at grass root levels (i.e. union council). The district assemblies were briefed on the importance of preventing Vitamin A deficiency through supplementation. District focal person, with support of UNICEF and MI staff, held meetings with local politicians and opinion leaders. Respected local politicians were involved, where possible, in inaugurating the VAS piloting activities. The Councilors were also oriented and involved in dissemination of messages to their respective population. Lady Health Workers were trained for involving health committees and women's groups in social mobilization. Posters and pamphlets were distributed locally. Mosques and motor vehicles with loud speakers were used to make public announcements. Rickshaws were used, particularly for displaying stickers. The service providers, during their administering Vitamin A, also communicated verbal as well as printed messages.

It must be kept in mind that most of these communities were already exposed to the Vitamin A supplementation messages in the past (i.e. Vitamin A supplementation has been done with NID). The baseline coverage of 90% or more indicates reasonably high level of awareness and VAS utilization response, before the piloting was implemented. There has been no reported exercise to assess the quality and coverage of these advocacy and community mobilization efforts during the piloting. It was also not possible to assess any change(s) in utilization behavior associated with advocacy and community mobilization campaign during the piloting.

5.10 Operational Research

The operations research activities envisioned in the piloting seems ambitious for its size and duration. A Core Technical Working Group (TWG), with help of an identified institution in each province, was expected to coordinate operations research related to documentation of baseline, ongoing activities and evaluation (through surveys and routine data collection). None of the operation research activity, including forming a core technical working group, could be carried out during the VAS piloting.

6. DISCUSSION

- 6.1 The current levels of Vitamin A deficiency in mothers and children (6 – 59 months) justify the need for planning mid-term and long-term interventions. The interventions can mainly be fortification and/or supplementation. In Pakistan, fortification of edible oil has been mandatory for the last many years. However, the enforcement of regulation is weak, hence quality of oil fortification varies widely. Looking at the corrective measures being taken, the situation is less likely to significantly change in near future. The supplementation provides efficient and quick response to Vitamin A deficiencies. In the next at least a decade in Pakistan, the supplementation is likely to continue playing a major role in combating Vitamin A deficiency.
- 6.2 The current situation of polio eradication campaign in Pakistan indicates that at least few more years would be required to achieve Polio-free status. This implies

continuation of NIDs for a period longer than what we anticipated a couple of years back. This gives us an opportunity to consider working on two-pronged development strategy i.e. further analyzing and strengthening the NID-linked VAS as well as further developing alternate VAS strategy for post-NID era. The piloting of alternate VAS strategy has reported satisfactory coverage achievement. However certain “development gaps” have also been identified, which need priority attention of the programmes and their technical partners.

- 6.3 The piloting experience has highlighted the complementarities of efforts through three service providers (i.e. vaccinator, LHW and community volunteer). It appears that none of the three could have managed the workload and achieved the targets, if were not complemented by the other two. These service providers have also shown keenness to work jointly in future for Vitamin A supplementation interventions. The programmes at national and provincial levels need to keep this fact in mind, while considering future strategies as well as role of their respective staff in Vitamin A supplementation.
- 6.4 Child health week has shown promising results in achieving Vitamin A supplementation targets. However, less-promising response on other health issues need be carefully reviewed in more detail. The strengthening and support needs of the managers and care providers need be identified and addressed for their getting equally good response on VAS as well as other health interventions in the child health weeks.
- 6.5 The Ministry considers enhanced inter-programme and inter-partner linkages as a priority. There are multiple small-scale ongoing initiatives in this direction. The Vitamin A Supplementation provides an opportunity for the three national level programmes to develop public-public and public-private partnership modalities. The partnership development implies mutually agreed roles, responsibilities and relationship for achieving common objectives. The potential challenges that the programmes may face in developing the partnerships include political, administrative, technical and resources constraints.
- 6.6 The technical partners have so far been supporting the national programmes during the first few years of Vitamin A supplementation in Pakistan. The continued inputs of technical partners will be required to sustain the momentum as well as to carry out the required development work for effective implementation of VAS. However, this is about the right time for the government to start considering allocating public sector funds for countrywide implementation of Vitamin A supplementation. Without public sector funding, it would be difficult to reduce the “ad hocism” and bring stability and strength to the supplementation interventions.
- 6.7 Though nothing has happened, during the piloting, in an area of operational research. However, there is a potential to “embed” operational research in the future intervention implementation work. This can enhance the efficiency and learning of the ongoing work as well as lead to improved intervention design for future replication/scaling-up. The programmes and technical partners could achieve better operational research outputs by giving due attention and encouraging inputs from researchers.

7. RECOMMENDATIONS

The core research team developed a matrix for the stakeholders summarizing the study findings, contextual considerations and options for scaling-up in future. The criteria for making recommendations on the basis of study findings and option appraisal, included: technical appropriateness, feasibility and stakeholders' consensus on the "suggested actions" for potential scaling up in future i.e. during post-NID era. In the said national level consultation, the key stakeholders made the following set of consolidated recommendations (for more details see Appendix-II).

- 7.1 Continue partnership approach to achieving optimal VAS coverage i.e. through collaborative efforts of LHWs, vaccinators and community volunteers. However, coordination between partners need further enhancement through establishing inter-partner coordination bodies at national, provincial and district levels.
- 7.2 Establish a Technical Working Group to spearhead and steer the process of identifying and addressing the development needs for scaling up the VAS intervention under routine programme conditions. The development needs might include defining the roles and operations, assessing training needs, developing guidelines and training materials, strengthening the systems including management of logistics and fund, advocacy and social mobilization, and operational research.
- 7.3 The refined set of interventions and strengthened arrangements for VAS implementation under routine programme conditions to be further implemented and evaluated on a small scale (i.e. in few selected districts), before countrywide scaling-up through public sector programmes. The evaluation may cover effectiveness, feasibility and cost analysis.
- 7.4 The programmes to consider getting public sector funds allocated for VAS intervention in particular implementation cost.

LIST OF INTERVIEWS AND FOCUS GROUP DISCUSSIONS

A- List of Interviews

National Level	
National EPI Programme	Dr Rehan Hafiz- National Manager
	Dr. Qadir Bakish Abbasi – Deputy Director Monitoring and Evaluation
National Programme for FP&PHC	Dr Haroon Jahangir - National Manager
	Dr Zareef ud din Khan- Deputy National Coordinator
National Nutrition Programme	Dr.Zahid Larik – National Manager
	Dr.Fakhra Waheed - Programme Support Officer
MI Pakistan	Dr. Noor Ahmaed Khan – National Programme Manager
	Dr. Riaz Solangi – Notional Programme Officer (VAS)
UNICEF Pakistan	Dr Rashid Zar- Assistant Project Officer CSD/ Nutrition
	Dr Muhammad Nauman Khan – Programme Officer Health
Punjab Province	
Provincial Directorate	Dr.Muhammad Afzal Shaheen - Director HS-EPI Punjab Lahore
	Dr.Azhar Masood Bhatti - Additional Director EPI,
	Dr. Mehmood Ahmed - Additional Director Health Services (Food & Nutrient)
	Dr.Tauseef Akhtar Janjua - Provincial Coordinator Punjab (MI)
	Dr.Javed Umar - Ex-Provincial Coordinator National Programme for FP and PHC
Sargodha District	Dr.Arshed Mehbob Tabasum – DoH
	Dr Tahir Mehmood Awan - DDHO
	Dr.Pervaiz Azam - District Coordinator National programme
	Dr.Atiq Arshed - Vitamin-A Focal Person EPI

	Dr.Ch. Abdul Ghafoor – District Superintendent Vaccination
Gujranawala District	Dr. Hamid Rafique - DDHO
	Dr.M.Sarwar - Ex-District Coordinator National programme
NWFP	
Provincial Directorate	Dr. Waheed Khan - Deputy Director EPI
	Dr.Inam Ullah - Provincial Coordinator National Programme for FP/PHC
Swabi District	Dr.Muhammad Anwar – DDHO
	Dr.Ihsan-ul-Akbar - Coordinator National Programme for Family Planning/PHC
	Dr.Muhammad Tariq - EPI Coordinator Swabi
Mardan District	Dr.Abdul Jamil - Coordinator Public Health/DDHO
	Dr.Hidayat-ur- Rehman - EPI Coordinator
	Dr.Sardar Ahmed - Coordinator National Programme for Family Planning/PHC
Baluchistan Province	
Provincial Directorate	Dr Munir Ahmed Kansi – Director EPI
	Dr Ali Nasir Bugti – Coordinator National Programme for FP&PHC
	Dr.Mian Ajmal Lateef - Provincial Coordinator MI
Mastung District	Dr Irfan Zehri - Coordinator National Programme for FP&PHC
	Dr Siddique Aftab – EDO/ADHO
	Mr. Abdul Salam – ASV (EPI Focal Person)
Pishin District	Dr Mahmood Panezai – ADHO/ Coordinator National Programme for FP&PHC
	Mr. Amin Ullah – ASV (Focal Person EPI)

B- List of FGD's

Sr.No	Date	District	Participant	Venue	# of participants
1	28-09-2006	Sargodha	Vaccinators	THQ Hospital Bhalwal	9
2	28-09-2006	Sargodha	LHWs	THQ Hospital Bhalwal	11
3	16-10-2006	Sargodha	Volunteers	DoH office Sargodha	8
4	29-9-2006	Gujranawala	Vaccinators	DoH office Gujranawala	8
5	29-9-2006	Gujranawala	LHWs	DoH office Gujranawala	8
6	17-10-2006	Gujranawala	Volunteers	DoH office Gujranawala	15
7	25-09-2006	Mardan	Vaccinators	EDO office Mardan	10
8	25-09-2006	Mardan	LHWs	EDO office Mardan	9
9	26-09-2006	Swabi	Vaccinators	DTC office Swabi	9
10	26-09-2006	Swabi	LHWs	DTC office Swabi	9
11	17-10-2006	Mastung	Vaccinators	District Health Office	15
12	17-10-2006	Mastung	LHWs	District Health Office	15
13	03-11-2006	Pishin	LHWs	District Health Office	15
14	09-11-2006	Pishin	Vaccinators	District Health Office	11

MATRIX FOR STAKEHOLDERS CONSULTATION

Following matrix provides summary of pilot experiences, the current context and scaling-up considerations. The last column provides space for agreed recommendations through technical consultation.

PILOT EXPERIENCES	CURRENT CONTEXT	SCALING-UP CONSIDERATIONS <small>(presented in the stakeholders workshop)</small>	SELECTED RECOMMENDATIONS <small>(selected in the national stakeholder workshop)</small>
1. Formulation and ownership of the VAS Intervention			
<ul style="list-style-type: none"> • A strategy paper on Vitamin-A supplementation piloting was developed by the national programmes with the support of UNICEF, on the basis of project document, and shared with stakeholders. The envisioned work group of stakeholders could not be formed to review/finalize the strategy paper. • Most of the pilot components were outlined in the project document/strategy paper however none of the document provided the details for roles/responsibilities and relationships at different levels, logistic and 	<p>Enhanced commitment to participate among programme managers at national/provincial and district levels for vitamin- A supplementation interventions.</p>	<p>A formal Technical Work Group may be constituted and supported to review and address the development needs including defining the roles and responsibilities at different levels/partners.</p>	<p>There was consensus among the stakeholders to form the Technical Work Group.</p>

<ul style="list-style-type: none"> • The activities and operations of LHW and vaccinator role and their monitoring arrangements were described in detail. • Micro-planning of district level implementation was done in consultation with provincial and district staff. • Short time for planning, overlapping implementation schedules, inadequate formal involvement and heavy reliance on donor support was a concern for most of the managers 			
2. Inter-partner Coordination			
<ul style="list-style-type: none"> • The main collaborating partners identified were Federal EPI Cell, National Programme of FP & PHC, and Nutrition Wing. • Due to time constraint more reliance on an informal interaction with individual stakeholders, with inadequate arrangements for horizontal as well as vertical coordination. • Coordination with Health Education Cell, Directorates of Mother and Child Health, and NGOs/CBO was minimal. 	<ul style="list-style-type: none"> • Enhanced realization at national, provincial and district levels for better inter and intra-partner/programme coordination. 	<ol style="list-style-type: none"> 1. Develop TORs and establish inter-partner coordination bodies at national & provincial levels. 2. Develop operational guidelines for involving NGOs and CBOs in VAS interventions. 	<p>There was consensus among the stakeholders to establish inter-partner coordination bodies and development of system/mechanisms to involve NGOs/CBOs in VAS interventions</p>

3. Training / capacity building			
<ul style="list-style-type: none"> Managers were oriented through lectures (with use of audio-visual aids) followed by discussion. No formal training package was developed for managers/ supervisory staff. All categories of field staff were trained, at sub-district level, on a common training manual (one-day). Training plans and schedules were generally adhered to with some exceptions Trainings at lower level were carried out on short notices and overlapped with other time limited activities, which to some extent overburdened the trainers/trainees and at times compromised the quality. 	<p>Advanced knowledge/ability of assessing and addressing the training needs of various staff cadres, through in-country expert inputs.</p>	<ol style="list-style-type: none"> Task-analysis based training need assessment for different cadres of staff. Develop standardized training materials to impart required knowledge and skills in various staff cadres. Calendar of national/local activities and social events should be kept in mind while organizing trainings. 	<p>There was consensus among the stakeholders to develop need based training packages for various cadres of staff involved in VAS interventions</p>
4. Logistics Management			
<ul style="list-style-type: none"> MI supplied the required quantity of vitamin-A capsules to federal EPI Cell, through UNICEF, for distribution to the districts through EPI Programme channels. The districts have not reported delays/interruptions. UNICEF arranged and distributed most of the other materials/supplies directly to the 	<p>The EPI Pakistan, PC-1 2004-05-2008-09 recommends VAS to infants and children in accordance with WHO guideline 1997. The document recommends that in addition to existing strategies innovative ways of delivering VAS (use of</p>	<ol style="list-style-type: none"> Develop VAS logistic management system along with detailed operational guidelines for procurement, distribution, storage etc. of supplies. 	<p>Since VAS interventions require multi-partner involvement, the stakeholders were in agreement to develop/adapt context sensitive logistic system</p>

<p>districts, except a few were distributed through provincial DoH channels.</p> <ul style="list-style-type: none"> • A small amount of few items were also procured at district level. • Districts reported delays/ interruptions in distribution from UNICEF as well as provinces. • The project proposal and the strategy developed for the pilot did not provide details on logistic management. 	<p>community based institutions/commercial outlets) may also be experimented.</p> <p>A sum of Rs:160 million is allocated in PC-1 for purchase of Vitamin A capsules required for 6 – 59 month children during the next five years.</p>		
5. Fund Flow			
<ul style="list-style-type: none"> • UNICEF supported LHW and Vaccinator component through its regular funds, and CHWs through MI provided funds. • UNICEF fund flow system was used for transferring money to the districts via provincial health directorate. • A small amount of money allocated for CHW is still pending for distribution. In NWFP districts few Vaccinators reported paying volunteers from their pocket, and credibility loss due to non-payment of committed amount. • The cost per additional person-years of average calculated by UNICEF for the CHWs area was US \$ 0.0728. 	<p>EPI Pakistan has allocated substantial amount for purchase of Vitamin A during next five years.</p> <p>Remainder balance available from VAS piloting budget, due to inclusion of less number of districts (i.e. 14 out of the 34 initially planned).</p>	<ol style="list-style-type: none"> 1. Early attention to sort out the release of held-up money so that outstanding payments could be made in the districts (credibility concerns). 2. Develop context-sensitive guidelines for managing fund flow, including inter-partner flow of funds for VAS implementation. 3. Allocate/identify sources of funds for covering the CHW areas and implementing innovations. 	<p>There was consensus among the stakeholders for; early attention to sort out the release of held-up money, development of context-sensitive guidelines for managing fund flow, including inter-partner flow of funds for VAS implementation and to carryout an exercise for sorting out additional resources required (and sources of funding) for VAS intervention more specially implementation cost for CHWs.</p>

6. Administering Vitamin A Supplement			
<ul style="list-style-type: none"> EPI mapping tools have been used effectively for VAS micro-planning. No problem reported in demarcating localities for Vaccinators and LHWs. However, problems have been reported in identification of localities to be covered through CHW. Due to on-ground non-availability of Vaccinators in some areas, CHW option was expanded to more than anticipated number of localities. In one of the districts, it was found that only 8 localities were initially planned for CHW, which was then increased to about 40, after getting an impression of additional funds being available. Overlapping with local body elections and NIDs added extra load to the staff. Vaccinators reported 3 – 4 fold increase in number of children to be covered each day. They also reported 4 -1 0 times higher daily load of VAS 	<p>A few new cases of polio have been identified in the year 2006 ¹⁶ and polio NIDs are likely to continue for the next few years.</p> <p>Polio vaccine coverage is being reported as a proxy of VAS coverage through NIDs.</p> <p>The routine EPI infrastructure is being strengthened through government and GAVI inputs.</p> <p>The target for LHW coverage by year 2010 is 90% for rural and 30% for urban population. ¹⁷</p> <p>The future vision (mid-term) of the National Programme for FP&PHC states to involve LHWs in routine EPI activities. ¹⁸ This seems to be</p>	<ol style="list-style-type: none"> Since NIDs are likely to continue an assessment of VAS with NIDs may be carried out to make adjustments with respect to VAS planning, delivery, logistic support, monitoring, recording/reporting and evaluation of coverage. For preparing for post NID era we may evolve effective operational strategies and tools for VAS implementation. Following are broad options to further consider: <ol style="list-style-type: none"> Individual programme (EPI and FP&PHC) efforts in defined localities, as was done in the VAS piloting. Combined programme efforts, with defined individual roles and 	<p>The stakeholders recommended;</p> <ol style="list-style-type: none"> An assessment of VAS with NIDs may be carried out to make adjustments with respect to VAS planning, delivery, logistic support, monitoring, recording/reporting and evaluation of coverage. For preparing for post NID era, carry out the required consultation and development work which should be followed by a small scale implementation (individual programme EPI and FP&PHC efforts in defined localities) and evaluation. The donor partners may provide technical assistance for the

¹⁶ 46 weeks National AFP Surveillance Coordinator Report

¹⁷ Revised PC-1 2003-10 of National Programme for FP&PHC

¹⁸ Annual Report, National Program For FP&PHC 2006

¹⁹ National Nutrition Strategic Plan December 2004

²⁰ National Plan of Action for the Control of Micronutrient Malnutrition in Pakistan- October 2005

<p>activities, as compared to LHWs. Vaccinators though willing to collaborate with LHWs, requested for measures to re-distribute VAS work load between them and LHWs.</p> <ul style="list-style-type: none"> • Vaccinators, LHWs and volunteers complained about excessive recording requirements (taking undue time and effort) • The overall reported coverage achieved through VAS was around 87% (lower than the coverage reported through NIDS). • In Balochistan most of the target population was covered by CHWs even then the coverage remained lowest among the provinces. 	<p>a unilateral statement affecting mutual trust and confidence between two programmes.</p> <p>Support from National Nutrition strategic and Plan of Action for Vitamin A supplementation¹⁹²⁰</p> <p>Encouraging experiences of informal coordinated efforts of LHWs and Vaccinators have been noted for routine EPI activities. This indicates the possibility of combined efforts for achieving common targets.</p>	<p>responsibilities, for common target localities. This implies Vaccinators and LHWs working jointly to achieve VAS targets in an assigned locality.</p> <p>2.3 For areas not reached through routine activities of Vaccinators and LHWs, we may need to consider:</p> <ul style="list-style-type: none"> • Continue child health weeks, after addressing the payment related and development issues. • Test alternate approaches such as involving NGO/CBO/ commercial outlets. <p>The proposed process for each of two options would include: carry out the required consultation and development work, followed by small scale implementation and evaluation. The donor partners may provide technical assistance for the required development work as well as material gaps.</p>	<p>required development work as well as material gaps.</p>
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7. Monitoring and Evaluation			
<ul style="list-style-type: none"> • Regular supervisory system of EPI and LHW programme was used for their respective workers. The district focal persons (one in each district) and MI provincial coordinators complemented this supervision arrangement. • This supervision system worked well with vaccinator/ LHW but was not found adequate for CHW. • The agreed reviews at provincial and national levels could not be carried out, which affected the level of staff interest/commitment. • The proposed baseline coverage survey could not be carried out. 	<p>The National Programme for FP&PHC has recently revised/enhanced their monitoring and supervision tools and guidelines, for improving an overall performance of their ongoing interventions.</p>	<ol style="list-style-type: none"> 1. Two options for collecting and reporting VAS related data are: <ul style="list-style-type: none"> • Stand alone VAS recording/reporting system • VAS incorporated into routine programme recording/reporting. <p>The choice of VAS recording reporting would depend on agreed implementation modalities.</p> <p>Some development work would also be required for recording/ reporting and monitoring of CHWs and/or its alternatives.</p> 2. Current arrangements to record/report/monitor VAS with NIDs need further enhancement. 	<p>The stakeholders were in agreement that VAS monitoring and evaluation system should be incorporated into routine programme recording/reporting. They recommended that consultation may be carried to identify the required development work.</p>

8. Advocacy and social mobilization			
<ul style="list-style-type: none"> • Due to overlapping with NIDs/ local body elections and lack of appropriate preparation advocacy remained sub-optimal. • VAS print materials used for NIDs, were also used for the piloting. • Reported delay and inadequate display of print materials. • No strategy was adopted to assess coverage and quality of advocacy and social mobilization. 	<p>Realization of the importance of effective advocacy and social mobilization in health interventions.</p>	<p>Develop a well-defined advocacy and social mobilization strategy for VAS.</p>	<p>Stakeholders were in consensus for the development of a well-defined advocacy and social mobilization strategy for VAS.</p>
9. Operations Research			
<ul style="list-style-type: none"> • Operations research was planned but could not be carried out. 	<p>More realization among the managers of the importance of operations research for continued improvement in program implementation.</p> <p>Because of continuity of NIDs more time is available to make serious efforts for experimenting</p>	<p>Research capacity building of the programs, including involving academic and research institutions in programmatic research.</p>	<p>The stakeholders recommended for research capacity building of the programs, including involving academic and research institutions in programmatic research.</p>

STUDY TOOLS

Evaluation of Vitamin A Supplementation Pilot Tool-1: Document Review Checklist
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INFORMATION	SOURCE DOCUMENT
1. Programme Background 2. General Programme Strategies 3. Organizational arrangements and Roles and responsibilities 4. Strategies/Roles for Vitamin A supplementation 5. Financial estimates and sources of finance	Strategic Plan
6. Allocation of resources – overall 7. Allocation for VAS 8. Implementation arrangements	PC-1
9. VAS Targets achieved 10. Gaps and constraints identified 11. Suggested actions	Evaluation Reports
12. VAS monitoring indicators 13. Concurrence of VAS tools and reporting with general programme operations 14. Action orientation reflected in reports	Recording, reporting and monitoring tools
15. Concurrence of VAS guidelines and training materials with general programme operations	Operational guidelines and Training Materials

Evaluation of Vitamin A Supplementation Pilot
Tool-2: FGD GUIDELINES LHWs AND VACCINATORS

Discussion Issues	Responses
<p>1. Current level of understanding</p> <p>Prompts</p> <p>1.1 Vitamin A and good health</p> <p>1.2 Health effects of Vitamin A deficiency</p> <p>1.3 VAS interventions</p>	
<p>2. Current role in VAS interventions</p> <p>Prompts</p> <p>2.1 VAS through Vaccinators/LHWs</p> <ul style="list-style-type: none"> ○ Micro-planning involvement and problems ○ Listing of clients – methods and problems ○ Logistic support and availability of VAS/print materials - What (Capsules, Scissors, Containers, Telly Sheets, Parent Cards, Promotional Materials), quantity according to demand, timely supply, quality. ○ Screening of beneficiaries (children) – Ask about screening criteria (children above 6 months and 1 to 5 years, have not taken VAS in previous 6 months) and provision of transport where needed. ○ Administration of dose according to protocol – Blue capsule for? Red capsule for? <p>2.2 VAS through CHWs</p> <ul style="list-style-type: none"> ○ Participation in micro planning at Union Council Level ○ Logistic support and availability of VAS/print materials (as given above) ○ Conduction of house to house round for Vitamin A supplementation – issues and problems 	
<p>3. Existing <i>mechanisms</i> to plan and implement VAS activities with the counterpart staff (i.e. LHW and Vaccinator)</p>	
<p>4. Implementation arrangements</p> <p>Prompts</p> <p>4.1 Training –transport, quality and usefulness, supervision during working</p> <p>4.2 Supplies - <i>Needs assessment</i> and Perceived quality and timely availability</p> <p>4.3 Storage and distribution arrangements at community level</p> <p>4.4 Coverage of those not available/covered in routine</p>	

<p>4.5 Refuters and their characteristics</p> <p>4.6 Recording, reporting and monitoring of VAS activities</p> <p>4.7 Compatibility with his/her other responsibilities</p> <p>4.8 Information dissemination – challenges and support.</p> <p>4.9 Response of communities to VAS activities & VA <i>per se</i></p>	
<p>5. Current challenges and support for carrying out the VAS role</p> <p>Prompts</p> <ul style="list-style-type: none"> ○ Administrative ○ Social 	
<p>6. Perceived feasibility and continuity of his/her existing role in the new VAS interventions.</p>	
<p>7. <i>Comparison with NIDS strategy</i></p>	
<p>8. Overall suggestions for improvement</p>	

**Evaluation of Vitamin A Supplementation Pilot
Tool-3: FGD GUIDELINES LHWS AND VACCINATORS**

Discussion Issues	Responses
<p>1. Current level of understanding</p> <p>Prompts</p> <p>1.4 Vitamin A and good health</p> <p>1.5 Health effects of Vitamin A deficiency</p> <p>1.6 VAS Child Health Week</p>	
<p>2. Role in VAS Child Health Week</p> <p>Prompts</p> <p>2.1 Participation in micro planning at Union Council Level</p> <p>2.2 Logistic support and availability of VAS/print materials - What (Capsules, Scissors, Containers, Telly Sheets, Parent Cards, Promotional Materials), quantity according to demand, timely supply, quality.</p> <p>2.3 Screening of beneficiaries (children) – Ask about screening criteria (children above 6 months and 1 to 5 years, have not taken VAS in previous 6 months) and provision of transport where needed.</p> <p>2.4 Administration of dose according to protocol – Blue capsule for? Red capsule for?</p> <p>2.5 Conduction of house to house round for Vitamin A supplementation – issues and problems</p>	
<p>3. Implementation arrangements</p> <p>Prompts</p> <p>3.1 Training –transport, quality and usefulness, supervision during working</p> <p>3.2 Coverage of those not available/covered in routine</p> <p>3.3 Refuters and their characteristics</p> <p>3.4 Recording, reporting and monitoring of VAS activities</p> <p>3.5 Compatibility with his/her other responsibilities</p> <p>3.6 Information dissemination – challenges and support.</p> <p>3.7 Response of communities to VAS activities & VA <i>per se</i></p>	
<p>4. Perceived feasibility and continuity of his/her existing role in the new VAS interventions.</p>	
<p>5. Overall suggestions for improvement</p>	

1.2 Programme involvement and individual contribution			
1.3 Compatibility with other responsibilities			
1.4 Interface issues across different programmes (including joint planning and monitoring, demarcating geographic boundaries for work distribution etc.)			

<p>2. Form Working Group, with representation of EPI, FP& PHC, Nutrition and other partners.</p>			
<p>3. The Working Group, with TA from MI and UNICEF, to:</p> <p>3.1 Draft working paper on VAS strategy</p> <p>3.2 Inception workshop to build consensus on VAS strategy and respective partner roles.</p> <p>3.3 Agree on selection criteria and select districts for VAS piloting.</p> <p>3.4 Develop Mapping guidelines for three VAS strategies i.e. Vaccinators, LHWs and Child Health Weeks</p> <p>3.5 Prepare the 1st Annual Plan (2004) with key partners' inputs / agreement.</p>			

<p>3.6 Develop the intervention i.e. protocols and materials (for LHW VAS, Vaccinator VAS, Child Health Week).</p> <p>3.7 Incorporate VAS into facility-based (RHCs, BHUs, OPDs) MCH services.</p>			
<p>B. INTERPARTNER COORDINATION</p>			
<p>1. Define inter-partner coordination bodies and their TORs at national, provincial and district levels.</p>			
<p>2. Coordinate and support the functioning of coordination bodies at national, provincial and district levels.</p>			

3. Document the collective reviews/ decisions/ plans.			
C. TRAINING / CAPACITY BUILDING			
1. Enlist actors and roles in VAS activities.			
2. Assess training needs for VAS implementation actors:			
2.1 LHW & lady health supervisor 2.2 Vaccinator and ASV/ DSV			

<p>2.3 Community Volunteers</p> <p>2.4 Other field-based staff including malaria supervisor and sanitary patrol.</p>			
<p>2.5 MO and LHV (other paramedical staff) at FLCF and hospitals (OPD gynae./obs.)</p> <p>2.6 District health management teams and field programme officers.</p>			

<p>3. Develop materials to train/ orient VAS implementation actors.</p> <p>4. Arrange and conduct training of various VAS actors.</p> <p>5. Evaluate the gain in trainees' knowledge and skills</p>			
D. IMPROVING LOGISTICS OF VAS			
<p>1. Develop guidelines (including roles and responsibilities) to procure, store, and distribute VA.</p>			

<p>2. Select vendor and product, as per guidelines.</p> <p>3. Assess need, put demand, store and distribute VA, as per guidelines.</p> <p>4. Assess requirements for VAS related activities (Scissors, boxes etc) put demand, store and distribute.</p> <p>5. Identify and address gaps/delays in logistics.</p>			
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E. IMPROVING FUND FLOW

1. Develop detailed budgets and arrange funds for VAS. (Including logistics, training, supervision, payment to gross-root workers, payment to Govt. servants)

2. Develop guidelines for transparent and efficient flow of funds from/to VAS partners

3. Disburse funds as per VAS activity plans and guidelines

4. Identify and address gaps/ delays in fund flows.

<p>4. Enable programmes (training, logistic, guideline) to carryout VAS supervision & monitoring activities i.e. field visits, reporting, monitoring meeting.</p> <p>5. Programme decisions based on information.</p>			
<p>F. ADVOCACY AND SOCIAL MOBILIZATION (ENCOURAGING WIDER PARTICIPATION)</p>			
<p>1. Advocacy plan with defined client groups, agents (responsible to deliver), messages, channels and materials.</p> <p>2. Enable agents with advocacy skills and kit (i.e. information material for various client groups).</p>			

<p>3. Arrange/ conduct VAS advocacy with district assemblies, councilors and health committees.</p> <p>4. Design/implement mass media campaign on VAS</p> <p>5. Monitor the coverage and response of advocacy activities.</p>			
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G. OPERATION RESEARCH

1. Establish a Technical Working Group to oversee operation research related to documentation of baseline, ongoing activities and evaluation (through routine data collection and surveys)

2. Identify one medical institution in each province to coordinate OR activities at provincial level

3. Conduct study on serum retinol levels in VAS pilot districts.

H. IMPLEMENTATION OF VAS IN ACCORDANCE WITH MAPPING FOR VACCINATORS, LHWS, AND CHWS

1. Map for three VAS options i.e. Vaccinators, LHWs and Child Health Weeks			
2. VAS through Vaccinators			
2.1 Plan/List clients			

<p>2.2 Arrange logistics</p> <p>2.3 Provide VAS to clients -Screen all beneficiaries (children) and administer dose according to protocol</p> <p>2.4 Record and report</p> <p>3. VAS through LHWs</p> <p>3.1 Plan/List clients</p> <p>3.2 Provide logistics</p> <p>3.3 Provide VAS to clients -Screen all beneficiaries (children) and administer dose according to protocol</p>			
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3.4 Record and report			
4. VAS through CHWs			
4.1 Conduct micro planning at Union Council Level			
4.2 Arrange and manage logistics			
4.3 Conduct house to house round for Vitamin A supplementation (once in 2005)			
4.4 Record and prepare reports			

H. FUTURE SCALING UP PLANS			
1. Feasibility			
2. Budget allocations			
3. Staff capacity			
4. General Recommendations for improvement of the intervention			