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SOLIDARMED ART PROJECT

Evaluation of a balancing act

&

FINAL REPORT

Leusden / Gaborone, 17 April 2007
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ABBREVIATIONS

AMREF	African Medical Research Foundation, an NGO
ANC	Antenatal Care
ART	Antiretroviral therapy
ARVs	Antiretroviral drug(s)
CBC	Community Based Care
CBHC	Community Based Health Care
CDC	Chronic Disease Clinic (Lugala)
CF	Care Facilitators (CARE International Field Volunteers)
CHAC	Council HIV AIDS Coordinator (Multisectoral – Tanzania)
CMAC	Council Multisectoral AIDS Control (Tanzania)
CO	Clinical Officer
COOF	SDC Cooperation Office
CTC	Care and Treatment Centre (CDC in Lugala)
DAAC	District AIDS Action Committee (both countries)
DAC	District AIDS Control Coordinator (Health – Tanzania)
DMO	District Medical Officer
DNO	District Nursing Officer
FBO	Faith Based Organisation
FHI	Family Health International, an NGO
GFATM	Global Fund for AIDS, TB and Malaria
HBC	Home Based Care
HC	Health Centre
HCP	Health Care Provider (generally refers to a professionally trained clinician)
HCW	Health Care Worker (generally refers to non-medically trained personnel)
HEPU	Health Education and Prevention in Ulanga, a SolidarMed initiative
HIS	Health Information Systems
MO	Medical Officer
MOH	Ministry of Health
MOHSW	Ministry of Health and Social Welfare (Zimbabwe, used synonymously with MOH)
NACP	National AIDS Control Programme
NGO	Non-Governmental Organisation
NM	Nurse Midwife
NO	Nursing Officer
OI(s)	Opportunistic Infection(s)
OIP	Opportunistic Infection Prophylaxis
OPD	Out-Patient Department
PCC	Primary Care Counsellor (Zimbabwe)
PITC	Provider Initiated Testing & Counselling
SC	Site Coordinator
SDC	Swiss Agency for Development and Cooperation
SMART	SolidarMed Antiretroviral Therapy programme
TBA	Traditional Birth Attendant
TOR	Terms of Reference
VCT	Voluntary Counselling and Testing

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In Dareda (Babati District, Tanzania) Dr A. Laizer and his team set aside two full days to acquaint the evaluators with the SMART activities and accompany them in their visit to the DMO's office. Ms Susan Mallya, Site Coordinator, made sure that all documents that an evaluation team could possibly wish for were available and was a rich source of information. Ms Celine Adou took care of the logistics in her own gentle way. The entire team waved the evaluators good bye when they flew off to the next location, from a landing strip that had been prepared for the occasion.

In Lugala (Ulanga West) the team was welcomed by Ms Elisabeth Rotzetter, SolidarMed Country Coordinator, who chartered flights and, together with Dr Mary Temu, accompanied the team in its visits to the satellite health facilities, and later, back to Ifakara. Dr J. Pönnighaus and his staff, notably Mr Lusikelo Mphomi, spent considerable time with the team sharing their insights to the ART programme. Mrs Pönnighaus replenished the team's energy with tea and home made cakes on a daily basis. The opportunity to see St Joseph's Orphanage in Itete headed by Br. Samwel Mparange was much appreciated.

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The interviews and encounters with other staff are too numerous to list here. Annex 2 lists their names. Interviews with clients were for obvious reasons anonymous. The team is grateful to all those who agreed to share their experiences; their personal stories were at times heart breaking, and at the same time were a testimony to the difference that antiretroviral treatment can make, for the better.

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Finally, a debriefing meeting in Bern early April 2007, followed by concise comments on the draft report, made it possible for the consultants to complete the task, and highlight issues that were of special concern, particularly to SDC.

Leusden / Gaborone, April 2007

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[1] Ms Sara Nam was hired by SDC as an independent consultant; Dr Chakanyuka and Dr Bujari were contracted by ETC Crystal.

Map of Tanzania, with *Dareda* and *Lugala Hospitals*

Map of Zimbabwe, with *Musiso Hospital*

EXECUTIVE SUMMARY

Overview

With the support of the Swiss Agency for Development and Cooperation (SDC), SolidarMed has started to incorporate Antiretroviral Therapy (ART) in 7 selected rural districts of Tanzania, Mozambique, Lesotho, and Zimbabwe, where SolidarMed already had working experience and on-going collaborations. The project, being a pilot experience for SolidarMed, was planned for a 3 years period (from July 2004 to June 2007). The start of SolidarMed's Antiretroviral Treatment project (SMART) coincided in the host countries with the launch of multi-level initiatives to scale-up care and treatment of HIV/AIDS. The project has thus been running in concurrence with national ART roll-out programmes which has meant that project achievements have contributed to mainstream programmes, and vice versa: that mainstream programmes have adopted, or even absorbed, the project. A good example is the project localities. When SMART was designed in 2003 provision of ART at district level was a rarity in both countries visited. This no longer is the case as the national coverage criteria have evolved and now include, as a minimum, all districts for initiation and follow through of the therapy[2].

Evaluation aims & methodology

The evaluators were asked to assess achievements at three sites in two countries – Dareda and Lugala Hospitals in Tanzania and Musiso Hospital in Zimbabwe, as examples of the entire project. The evaluation was to identify the strengths and the weaknesses of the project in terms of learning experience, sustainability and integration in the local structure and propose measures for improvement, comparing it with other experiences in the sector (refer to Annex 1 for the Terms of Reference, and to Annex 5 for the methodology). The fact that the project has in practice not been a stand-alone project, but has become part of national roll-outs of ART, has had to be incorporated in the methodology. In practice this meant an assessment of added value, answering the question 'What if the project had not been there?', rather than, 'Has the project achieved its objectives? '

Main findings

The evaluation team found the SMART project to be a balancing act in multiple ways. Firstly, in giving support to an appropriate sequence of competences required for the different aspects of initiation of ART services resulting in a health system that is equipped to provide services along the continuum of care. Where the project has had added value is both in the speed at which this has occurred and in the apparent motivation of the staff concerned to make use of their new skills to the benefit of the clients. The evidence shows that without SMART, the process would have been slower and less complete, for want of critical inputs such as CD4 cell counters and renovations to out-patient departments to accommodate the expanded range of services in a practical and user-friendly way. These types of practical constraints have been identified as key obstacles for roll-out of ART in the countries visited [3].

While the project has generally done well on the supply side of services, it has had far less leverage on the demand side which, in the case of HIV/AIDS, is unusually complex given that individual clients, once diagnosed with HIV, need to be consistent in their health seeking behaviour and follow treatment advice over time. By the end of 2006, barriers to these demand issues had resulted in significant numbers of patients defaulting from the ART and more so from the Prophylaxis of Opportunistic Infections (OIP) programmes, similar to other ART programmes in sub Saharan Africa.

Number of OIP and ART losses to follow-up among registered patients at three SMART sites at end of 2006

	ART			OIP		
	Lugala	Musiso	Dareda	Lugala	Musiso	Dareda
No living patients registered	52	238	30	65	1203	62
No. lost to follow up	6	20	1	65	581	31
Proportion of patients lost to follow up	11.5%	8%	3%	100%	48%	50%

Those clients interviewed overwhelmingly stated cost of transport as a main difficulty to access the services. Other reasons, notably cited by women, were barriers to sharing test results with sexual partners, which in turn made it difficult for women to follow up on advice and access the services, including those of Prevention of Mother to Child Transmission (PMTCT).

[2] NACP (2006), Scaling up towards Universal Access to Prevention, Treatment, Care and Support for HIV and AIDS in Tanzania; Setting national targets for 2008 and 2010 (power point presentation)

[3] Dr. B. Bwijo, Care and Treatment Unit, National AIDS Control Programme, Positive Prevention; Retreat to Develop Health Sector Plan for Accelerating HIV/AIDS Prevention in Tanzania Mainland, *White Sands Hotel, Dar es Salaam, 5th – 7th April 2006*

The SMART project has been a balancing act, secondly, in supporting hospitals to upgrade their own readiness to provide ART services while at the same time acting as reference centres for satellite health facilities. In turn, this has led to the upgrading of these peripheral facilities' readiness to provide decentralised services in a coordinated fashion.

Thirdly, SMART has added inputs and skills when and where necessary, whilst acting with restraint in response to the activities of other actors. An excellent example of such complementarity is that of SMART with the Community Based Care project of CARE International, which is implemented in close cooperation with the satellite health facilities of Musiso Hospital in Zimbabwe.

Under-expenditure of the budgets in Tanzania and Zimbabwe has occurred mostly because of the treatment component: a budget for provisions of anti-retrovirals was eventually almost entirely covered by Government. (The same seems to apply In Lesotho and in Mozambique where 73% and 69% respectively of the treatment budget was unspent by mid-2006.) Under-expenditure has not been a strategy on the part of the project, but has been a result of hospitals becoming part of the mainstream thrust for ART roll-out and other actors taking on unforeseen roles.

Main conclusions
SMART sites have been part of the mainstream efforts for ART roll-out, from which they have also benefited. Once included in the mainstream, SMART hospitals and their satellites had access to provincial and national resources such as training, and monitoring by government institutions. In symbiosis, SMART has been an instrumental catalyst for this to happen.

Complementarity and partnership with other systems has fared differently in the different locations, not only because of strengths and weaknesses of other actors, but also because of the positions taken by the hospitals themselves. Decisions that may be criticised were not taken lightly and were all part of attempts to balance current needs with considerations of sustainability of the services.

The evaluation team supports the concept of replication in so far that SMART should continue to balance the provision of support to each specific context and aim to be complementary in its approach. This is particularly so given that gaps in essential resources cannot be predicted with certainty and SMART cannot be specific as to which components will need continued support in future.

In the opinion of the evaluation team, SolidarMed is ethically bound to ensure continued access to antiretroviral therapy for those patients who have initiated therapy at a minimum. The project also needs to address the increasing backlog of patients eligible to start ART. Until government or mission hospitals have the capacity to do this and to continue the scale up of ART services, SolidarMed will be required to continue its support. Smart activities now need to focus on improving follow-up mechanisms to identify patients lost to follow up among those on antiretrovirals. Only once mechanisms exist to ensure acceptable patient retention can SMART then aim to scale up its activities. In this sense decentralisation of services offers a symbiotic relationship between reducing losses to follow up (and promoting patient retention) and scaling up.

Main challenges
The major challenges now facing SMART are firstly, strengthening the follow-up mechanisms for individuals who have started on antiretrovirals (through community-based activities or links and decentralisation) and secondly, retention of individuals testing positive but not yet eligible for antiretroviral therapy (i.e. those initiated on prophylaxis for opportunistic infections). This is dependent on one further challenge: that of availability and retention of human resources in the remote and rural regions where SMART operates. At the institutional level the challenge is to pro-actively identify partnerships, and work out the conditions of cooperation, as has been set into motion with Family Health International (FHI) in Morogoro Region, Tanzania.

Main recommendations
The principal recommendation is to continue to balance attention for the supply and demand of services (as defined above) and in being 'smart' in identifying opportunities to improve on both. On the supply side, this requires improved coordination within the health system, notably the two-way referral system. In addition, the necessary inputs and human resources must be sustained with help of SMART where necessary. On the demand side, this requires strengthening external coordination with community based care initiatives. Demand can also increasingly benefit from public awareness maximising on treatment successes which SMART could help to publicise. A focus on male uptake of services, all along the continuum of care, is

warranted. In all scenarios SMART could play a role in data capture that is both specific to the long term nature of ART, and enhances mainstream data collection systems and also serves the above agenda.

1. BACKGROUND & FINDINGS

In 2003 the Swiss Agency for Development and Cooperation (SDC) sought to support practical experience in provision of antiretroviral therapy. It selected SolidarMed as the implementing NGO. As SolidarMed wrote in its Programme Document[4], ART pilot projects were at that time mainly implemented in urban areas in collaboration with research institutions, and with heavy inputs in terms of funds and external expertise. SolidarMed proposed a different approach: to introduce ART in 'regular' district health care settings with minimal external inputs and without creating any parallel structures, thus aiming from the beginning at working under conditions which foster long term sustainability. In contexts with no previous SolidarMed interventions this would have been very difficult to achieve. The project would thus be integrated as an additional component into existing SolidarMed support programmes and would share resources with them, including expatriate field staff already on duty. SolidarMed selected nine sites (later reduced to seven) that fulfilled these criteria, in four countries: Lesotho, Mozambique and the two countries assessed for this evaluation, Tanzania and Zimbabwe.

As it turned out, however, the design and development of SolidarMed's Antiretroviral Treatment project (SMART) has in all four countries run in parallel with the development and implementation of national roll-out of ART, to an extent that project objectives are virtually inseparable from those of the national programmes. The project therefore cannot be evaluated as a stand-alone effort, but necessitates assessment on its ability to make decisions in terms of *initiating* and *complementing* the capacities of the respective health care systems to do what is required to support national roll out.

'What is required', however, is not definitive as the health systems themselves are in a dynamic process of adapting to the realities of HIV/AIDS as a chronic ailment (at least in the two countries evaluated, Tanzania and Zimbabwe). Ministries of Health (MOHs) are constantly revising treatment guidelines to reflect emerging clinical (and other) evidence, tri-therapy for Prevention of Mother to Child Transmission (PMTCT) in Tanzania being just one example. Health information systems are likewise adapted and re-adapted to enable capture of patient cohorts over time (and in Zimbabwe, more efficient detection of defaulters), in line with WHO guidelines.

It follows that, while the project has been a pilot for SolidarMed, it has also been part of a larger scale 'project': the introduction and roll-out of antiretroviral treatment on a national scale in each country. Given the peculiarities of HIV/AIDS, the national roll-outs can themselves be seen as pilot projects in the sense that success depends on the willingness and competence of all actors involved to coordinate their efforts, learn from each other and keep searching for functional ways that make services more accessible (particularly in marginalised rural and poor regions) as experiential evidence emerges.

The four Goals of Tanzania's National Care and Treatment Plan

Goal One: To provide quality, continuing care and treatment to as many HIV+ residents of the United Republic of Tanzania as possible.
Goal Two: To contribute to strengthening the health care structure of Tanzania, through expansion of health care personnel, facilities and equipment and comprehensive training in the care and treatment of PLWHA
Goal Three: To foster information, education and communication efforts focused on increasing public understanding of care and treatment alternatives, reducing the stigma associated with HIV/AIDS, and supporting ongoing prevention campaigns
Goal Four: To contribute in strengthening social support for care and treatment of PLWHA in Tanzania, such as home-based care, local support groups, and treatment partners

Source: Tanzania National Care and Treatment Plan (2003-2008)

The lessons that are learned typically emerge first in workshops and power point presentations by senior officials, while official guidelines, strategies and policies tend to lag somewhat behind, or are of a more general nature, Thus, while Tanzania's National Care and Treatment Plan (2003-2008) elaborates at the level of goals and targets the current focus of decision makers is firmly on reduction of obstacles that have *in*

[4] SolidarMed, Provision of antiretroviral treatment at rural hospitals in Eastern and Southern Africa, Programme Document, Submitted to the Humanitarian Aid Division of SDC, November 2004.

practice proven to hinder achievement of these goals[5,6]. The obstacles can be seen to concern both aspects of supply of the new services, and aspects of demand for these services, ranging from shortages in laboratory equipment and distribution of reagents, to low public awareness on ART and treatment literacy. A third common obstacle is the linkage of health service provider systems with other systems, notably the link with community Home Based Care providers[7]. As will be elaborated in this report the SMART supported institutions have experienced the same hurdles, which raises the issue to what extent the project has contributed to a steeper learning curve than would have been the case without the project.

In both countries visited, the district has been the administrative entity with one or two hospitals in each district acting as the operational unit of the ART provider system to date. Addressing the HIV/AIDS epidemic has required these hospitals to take a more prominent role in leading efforts in the districts. They act as referral centres serving up to twenty satellite health facilities and need to supervise new competences at the level of the clinics as services are decentralised, while they are themselves in a learning phase.

Some of the challenges to take on this demanding and expanding role without loss of quality are vividly illustrated in recent travel reports from SolidarMed backstoppers visiting Lesotho and Zimbabwe[8,9]. However, the speed at which this decentralisation is happening differs substantially in each district reflecting the prevalence of HIV/AIDS in each setting. In Morogoro region, Tanzania, where the estimated prevalence is in the order of 2%, there was less pressure on the SMART-supported hospital to off-load work and decentralise (although not less significant) than in Zimbabwe, where the prevalence is around 20% and decongestion of the hospital is urgent. Yet for the individual clients in both settings decentralisation is equally vital, regardless of overall prevalence, as patients from both settings cannot afford to travel long distances on a monthly basis to access centralised follow-up.

Decentralisation is thus important firstly as a requirement to offer more equitable services especially to remote areas; secondly, as an attempt to utilise health care providers (HCPs) to their full capacity at all levels, to lessen the burden of hospitals; and thirdly to optimise the referral system both to central service providers – notably for initiation of antiretrovirals – and back to satellite providers – for pre-ART counselling and follow up. The concept of decentralisation does not, however, feature prominently in the 2004 SolidarMed programme concept documents as the project was originally conceived primarily as a hospital based endeavour[10]. Even so project components of the Logical Framework including ART, PMTCT and Voluntary Counselling and Testing (VCT) are increasingly being executed in satellite health facilities (health centres, clinics and dispensaries). These satellites in turn act as reference centres for another log frame component, community and home based care (CBC and HBC), largely implemented by volunteers where it exists.

Needless to say that provision of the continuum of care is a challenge to any health care system, including: pre-test counselling, testing, post-test counselling and diagnosis, clinical assessment backed up by CD4 cell counts, opportunistic infection prophylaxis (OIP), pre-ART counselling, initiation of ART and routine follow up over time. In future it will in addition require expertise in dealing with the need for second and third line regimens and resistance monitoring. The SMART project has played a relatively modest role in the over-riding context of national roll-out, but has been an important catalyst in each of the three districts reviewed in this evaluation in the establishment of the national processes.

The prominent contributions of the SMART project include firstly, the provision of nationally accredited training of health staff in testing, counselling, clinical assessment and OI prophylaxis, while doctors have been trained in the basics of ART medication, including management of side-effects and treatment failure. The evaluation found that training has in all SMART sites made a huge difference in terms of readiness to start ART, which in turn powered the demand for VCT and gave added value to provider initiated testing. Training has also strengthened the bonds between the service providers bringing staff of government, councils and missions together in a joint and challenging purpose.

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[5] Dr. B. Bwijo, Care and Treatment Unit, National AIDS Control Programme, Positive Prevention; Retreat to Develop Health Sector Plan for Accelerating HIV/AIDS Prevention in Tanzania Mainland, *White Sands Hotel, Dar es Salaam, 5th – 7th April 2006*

[6] NACP (2006), Scaling up towards Universal Access to Prevention, Treatment, Care and Support for HIV and AIDS in Tanzania; Setting national targets for 2008 and 2010 (power point presentation)

[7] Dr. B. Bwijo, Care and Treatment Unit, National AIDS Control Programme, *ibid*

[8] N. Furlan, Report on the SMART project visit and clinical backstopping to Lesotho and Zimbabwe, 13 January – 10 February 2007.

[9] G. Waldegg, Report on the SMART project visit to Seboche Hospital, Butha Buthe, Paray Hospital, Thaba Tseka and St.Josephs Hospital, Roma, Lesotho, from 14.1.– 28.1.07.

[10] SolidarMed, Provision of antiretroviral treatment at rural hospitals in Eastern and Southern Africa, Programme Document, Submitted to the Humanitarian Aid Division of SDC, November 2004.

Secondly, the project has provided commodities and infrastructure that have enabled SMART hospitals to establish their role as ART initiating and referral centres. Notable examples are the provision of CD4 cell counters and analysers for haematology and blood chemistry (Lugala Hospital in Ulanga District, Tanzania; Musiso Hospital in Zaka District, Zimbabwe) and renovation or extension of outpatient departments to cater for VCT and OI/ART clients (Dareda Hospital in Babati District, Tanzania; Musiso Hospital).

Thirdly, SMART has had an important function as a stop-gap facility, for example stepping in when essential government supplies were running out, or were not provided. Examples are the VCT test kits that Dareda hospital decided to routinely buy when it appeared that government Medical Stores in Tanzania were not supplying them; drugs for prophylaxis and treatment of OIs; and lab reagents for CD4, haematology, and blood chemistry, which have at times been out of stock or nearly so, particularly in Tanzania. Most drugs for OIP for the moment seem to be routinely available in both countries, but the availability of an alternative source for emergencies has been important. The position on utilising the SMART budget for supplies that ought to be routinely available has varied among the three sites. Lugala Hospital, for example, did not use its budget for VCT test kits, even if supplies ran out. The evaluation team found that in all three sites the project budget was under-spent across the board, suggesting a frugal attitude and a drive to operate in the boundaries of the (government) system[11].

Fourthly, SMART funds have been used sparingly to reduce patient fees, for example in Lugala Hospital where admission fees were halved for cases based on individual need. The SMART policy has been to subsidise laboratory fees for all HIV patients.

Findings of the evaluation are reported based on the objectives elaborated in the Terms of Reference (TORs, refer to Annex 1). Specific objectives have been merged into one another, to avoid duplication, and have on occasion been re-ordered to enable a more logical presentation. In particular, section 4.6 of the TORs (Beneficiaries) has been incorporated into the whole of chapter one as we believe that our findings always relate back to the best interest of the beneficiaries. Issues of cooperation (section 4.7 of the TORs) are described in examples throughout the text. The question on 'value for money' is answered in the concluding chapter where an attempt is made to assess issues from a broader perspective. Annex 5 refers for the evaluation team's methodology, and for its composition.

1.1 Relevance

Beneficiaries: clients / patients, host institutions and government

The introduction of ART in Zaka, Ulanga and Babati districts has been welcomed by both government (national and district level) and communities. Interviews with patients treated on antiretrovirals revealed that they had seen an improvement in the quality of their life and appreciated both the quality of services and psychological support provided. Individuals who had been unable to look after themselves due to HIV-related illnesses were, after starting on antiretrovirals, able to perform their daily duties and were then able to support themselves and their families. Both patients and HCPs interviewed emphasized that the observable improvement in the health of people on antiretroviral therapy had resulted in other patients coming voluntarily to seek testing and treatment and care.

> *"When I felt sick, I went to different hospitals and would be getting relief a day and two. Neighbours were all saying I was a living dead, especially when I lost weight. I came to Dareda myself to confirm and was tested and advised to start treatment. Now, because of the drugs, I feel health and can even work on the farm…."* *(Male Chair of Post-Test Support Group in Dareda Hospital)*

The mission hospitals as host institutions have enjoyed a mutually beneficial relationship with SMART support where SolidarMed have been able to develop capacity to initiate antiretroviral therapy and SMART has been able to draw upon support from the institutional mechanisms of the hospital to conduct its activities. At sites where SolidarMed has been integrated more fully into the day-to-day running of the hospitals and where project-salaried staff are based, SolidarMed are active partners involved in hospital planning and management teams. However, in Lugala Hospital where the SMART Site Coordinator (SC) spends 25% of her time, she is not integrated into the management structure and her activities did not meet with the expectations of the hospital Medical Officer's (MO). This is partly due to the fact that for 75% of her time, the

[11] Financial reports made available by SolidarMed , updated to medio 2006.

SC is conducting visits with the District AIDS Coordinator (DAC) to satellite clinics and is involved in other community based activities.

In Zaka and Lugala district level authorities have benefited from SMART intervention: supervision visits to satellite clinics are conducted jointly where project funds provide transport. This collaboration promotes a closer working relationship and enables communication with district level authorities. National AIDS programmes also benefit through SolidarMed supporting the roll out of ART and in both countries, the respective MOHs have expressed their desire for SolidarMed to maintain their support.

Cultural and gender aspects; holistic approach

SMART has added value through the provision of VCT, PMTCT and ART services initially necessitates a bio-medical approach. Without being able to offer treatment, there is little incentive for individuals to test, and beneficiaries we talked to paid testimony to this. In this respect, the medicalised approach and focus that SolidarMed has given to establishing hospital-based services thus far, is deemed appropriate.

The SMART proposal specifies a community based care (CBC) component, which aims for an holistic approach through provision of home based care (HBC) and reduction of stigma and discrimination. The project initially aimed to train community volunteers and family members to undertake physical and psychological care of bed-bound HIV/AIDS patients; provide home based care kits and IEC materials; establish village HIV/AIDS committees; form PLHA support groups and establish links with NGOs working in CBC activities. However, as the environment in which SMART operates has changed since the project's initial inception, the programme has adjusted its activities to take local situations into account in addressing these aims.

The need for home-based care in the sense of palliative care has not been as great as anticipated, particularly in Tanzania, and has therefore not been a priority in the project's activities. Efforts have been initiated to work more closely at grassroots level in order to initiate activities to reduce stigma: In Babati, the Council Multisectoral AIDS Committee (CMAC) invited SolidarMed to support activities to involve people living with HIV/AIDS (PLHA), which they have been doing since the last quarter of 2006. The SMART SC helped establish a newly formed support group for ART patients in December 2006. In Ulanga, no direct links existed with community-based support groups for HIV positive individuals at the time of the evaluation. SMART in Zaka also lacked direct links with support groups but CARE International - as a collaborative partner to SMART – does provide a link between several community support groups and the treatment programme.

The late establishment of support groups is attributable to the low numbers of patients retained on the ART and OIP programmes and is somewhat reliant first on the reduction of stigma. In this sense, the greater involvement of people living with HIV/AIDS could not have occurred before there was an environment that enables such individuals to be open about their status. In this respect it is noteworthy that in 2006 a growing number of hospital staff have come forward as HIV positive, and have been started on treatment. In all three hospitals visited, there now are people living with HIV/AIDS among the ART staff. Also in Mozambique and Lesotho, there is reputedly a growing number of hospital staff under treatment, many of whom have key functions in ART provision[12]. Although the effect is hard to quantify, one palpable result is that the rapport between staff and clients has become personal and effortless, as observed by the evaluation team.

The medical aspect of the project has had some effect in addressing stigma, thanks to the availability of antiretroviral therapy in conjunction with community sensitisation. Although hard to measure with no baseline data, negative attitudes related to HIV/AIDS do seem to be changing thanks partly to SMART in relation to the broader effects on stigma resulting in benefits to the medico-social aspects in the lives of beneficiaries. Whilst recognising obvious biases in discussing such issues with patients who return for follow-up visits (5 in Babati, 5 in Ulanga, 4 in Zaka), three key points were made in support of SMART's efforts. Firstly, although some had experienced severe consequences of disclosing their status (divorce, ostracisation, partner leaving them), they had been treated with less scorn and more respect since starting ART and looking healthy as a result. Secondly, they felt that community awareness meetings had also contributed to reducing negative attitudes in their communities.

[12] Thomas Gass, SolidarMed, personal communication, April 2005

"At the beginning of 2003, [stigma] was worse – people [with HIV] were refused water at hotels and people would point their finger at them. They would refuse to serve them and ask them to leave hotels and shops, or refuse to shake [their] hands. Now, because of [sensitisation] meetings in the community, people know we are normal. They made a lot of changes, those meetings."
(Adult female ART patient, Dareda Hospital)

Thirdly, several beneficiaries interviewed commented on how the improvement in their health had enabled them to return to work or to their normal activities, such as tending to the farm and being able once again to contribute to the well-being of their family and stop being a burden and drain on household resources.

"Life is better now. Before [I started the antiretrovirals], I had no energy – I would come to this [counselling] room and could not even get up from the couch. Now, I'm much, much better. …I have been on ARVs for a year now. Before, I could not work. I had rashes on my ankles and my face, sores in my mouth and was so, so weak. Now I feel healthy and can work again on my farm and feed my family"
(Male patient and Chair of PLHA group, Dareda Hospital)

One beneficiary in Zaka commented that the availability of free antiretrovirals through SMART had enabled her to adhere to her treatment after starting in the private sector, where the cost of the drugs was becoming infeasible:

"If this programme was not here, I think I would be dead by now, because at the local pharmacy, the drugs were too expensive when I left [the private sector] last year"
(Adult female ART patient, Musiso Hospital).

However, discriminatory attitudes still exist and this is an area that SMART can continue to contribute to:

"There is still a lot of stigma. Some people here say that neighbours laugh at them. … People talk and have negative attitudes towards people who are positive. They isolate you and ignore you, so I've only told my family. People will blame you. They feel if you are not diagnosed [with HIV] they think it's not their problem." (Adult female ART patient, Musiso).

Whilst recognising that community sensitisation and community based PLHA activities contribute to the reduction of stigma and promotion of SMART services, these activities are better addressed through collaborative relationships with community-based organisations at this stage in SMART's progress. For example, continuity of community sensitisation through edutainment activities through contracting a small local NGO, LISO, in Babati. This will enable SMART to focus on consolidating its medical provision of services. SolidarMed's efforts in the community now need to be focussed on tracing patients lost to the programme from PMTCT and ART, and in moving people eligible from OIP onto ART.

The log frame also makes reference to promoting PMTCT activities with Traditional Birth Attendants (TBAs), which has not yet occurred. Such links may be beneficial in addressing the retention of mother-infant pairs on the PMTCT component. Community based activities could also work to strengthen other preventive activities such as provision of condoms, particularly as the catholic mission hospitals in Dareda and Musiso will not allow distribution of condoms. Satellite health facilities however, were seen to be providing free condoms and were not bound by the same religious restrictions.

Table 1: ART patients >15 years, by gender, in three SMART sites *

	Dareda	Lugala	Musiso
Females	19	29	160
Males	11	17	72
Proportion females/total	63%	63%	69%

* Source: Performance indicators SMART programme as at 31.12.06 (Annex 3 of this report)

In terms of gender, women are far more visible as beneficiaries across all project sites, particularly in the numbers of individuals testing, attributable partly to antenatal care being an access point for women. This translates in a skewed gender balance in the ART clients (Table 1 above). According to the latest set of

SMART performance indicators (Annex 3,) other SMART sites show the same pattern, for example in Roma (Lesotho) where 70% of all ART patients are women. This is only partly explained by a difference in HIV prevalence between the genders. Men across all project sites are notably reluctant to attend for testing even when their partners may be diagnosed as positive.

"I have told him [my partner] that it's a requirement to test [even though I have known my status for a year].But he said that I should test, he doesn't want to know the results. These men, they just don't want to know." (Adult female ART patient, Musiso).

Men are universally encouraged to attend for testing through their pregnant partners but the uptake remains low with men stating that they prefer not to know their status despite being encouraged to attend for booking with their partners.

"Now the challenge is on fathers – very few are coming [to be tested]. Some men will come if their wife is positive because they know they can get OIs. But very few men come whose wives are negative – they have no interest to come." (Senior Nurse/Midwife, Musiso Hospital).

It is envisaged that as the use of antiretrovirals continues, more men will be encouraged to test in order to access drugs whereas before their availability, individuals would question the point of testing in the absence of any cure or treatment. Innovative approaches to engaging men need to be considered such as in Dareda where they are considering conducting 'well man clinics'. 'Well man clinics' are just an example of how the SMART project could maintain its relevance by helping the hospitals it supports in bridging the gap between supply and demand. This would apply to the entire range of services and not just the provision of antiretrovitral therapy. For example, the large reservoir of men and women who now know their HIV status – either positive or negative – may be tapped to feed public debate on 'knowing one's status'. Added value as a result of SMART could be established both at the implementation level – as has happened thus far - and at other levels, notably at the levels where innovative experiences are shared with others. This has thus far not been the case, primarily because the effort of establishing ART services and all that it entails has taken all available energy.

1.2 Effectiveness and appropriateness (outcome)

Quality of results (refer to LogFrame and indicators)

This is elaborated in section 1.5. In summary, by the end of 2006, SolidarMed in Tanzania and Zimbabwe had initiated antiretrovial treatment on around 520 patients and OIP on around 1,430 (excluding 270 who moved from OIP to ART included in the former figure). Losses to follow up are discussed in section 1.5.

Access to (equal quality) ART

"If this programme did not exist, people would have forgotten us." (Female ART patient, Dareda Hospital)

SMART has been a catalyst for the provision of ART in remote, rural areas. Prior to the SMART intervention, the unavailability of laboratory services on site and inadequate numbers of trained personnel would have made patient care and monitoring inadequate. The project has speeded up the process of official accreditation through sponsoring training, as it identified and addressed gaps in infrastructure which then enabled the hospitals to initiate HIV testing, PMTCT, OIP and ART. SolidarMed's intervention has also channelled resources to promote regular follow-up of the hospitals by government institutions such as NACP, and promoted the hospitals to become part of the mainstream thrust for ART provision in both countries.

Lack of supply of VCT kits and OI drugs has been a barrier to the provision of services at all sites. This is largely a result of procurement issues. However in Zimbabwe, which is less endowed with external support than Tanzania, there is in addition a structural threat of ARV shortages, to an extent that major hospitals are sometimes asked to reduce the speed of enrolment in the ART programme, until stocks are at comfortable levels (Musiso is not among these).

SolidarMed have constantly been trying to balance the demand and need for services with consideration for sustainability (whether to risk losing government allocation of supplies) and quality (by enrolling more patients than they feel they have time to consult adequately). In Zaka, Zimbabwe the strict compliance to targets as stated in the log frame ('number of patients to be initiated on ART'), admission criteria and enrolment process have limited and delayed people's access to antiretrovirals through SMART. By the end of January 2007, 269 patients were continuing on first line antiretrovirals and 20 patients were newly started on ART (as taken from the MOHCW 'ART/OI program monthly report' ending 25 January 2007). At the same point in time, 1,079 individuals were eligible to initiate ART. While we recognise that there is likely to be some error in these figures (for example, through individuals who have died), this 'waiting list' grows every month and the slow expansion of enrolment jeopardises the lives of patients. The position adopted by SMART in Zaka is that with current staffing levels the hospital cannot manage more than 500 patients on ART.

Direct costs incurred by patients pose an enormous barrier to access. Primarily, the cost of transport for travel to hospitals was cited as the most common difficulty hindering access to HIV care. This issue further supports the continued decentralisation of services. (Direct cost related to user fees is discussed in section 1.3.) Other barriers still exist: abandonment and isolation are still very real consequences of stigma and the fear of the negative effects of disclosure of HIV-status are likely to remain barriers to accessing social support and therefore support in making clinical decisions (e.g. support with transport money, caring for kids, etcetera). However, discussions with patients and HCPs reveal the effects of community sensitisation have been positive, along with the effects of ART and the provision of ART services (since the establishment of ART acts as an incentive for people to test), especially as more and more people are seen to recover from poor health on antiretrovirals.

In terms of equal quality care compared to other facilities, a comparison of Musiso Hospital in Zaka with Silveira Mission Hospital in neighbouring Bikita District, Zimbabwe, substantiates evidence that SMART provides improved quality in care. Silveira is supported by SolidarMed, but is not part of the SMART project, and has had no specific ART inputs such as a CD4 cell counter. (Musiso Hospital extends support to Silveira and, for example, does the required laboratory tests.) As documented in a recent report by a SolidarMed backstopper, *'One important problem is that Silveira-hospital is still waiting for the registration as OI/ART-Clinic by the MOHC. ... One of the big advantages of the registration will be the free supply of ARVs by the government.'*

Table 2: Comparing two SolidarMed-supported mission hospitals in Zimbabwe.

Parameter	Musiso Hospital	Silveira Hospital
Training	Many health workers have been trained in HIV/AIDS management using funds provided by SolidarMed	Very few health workers have been trained under the normal provincial or national training. (Several Health Workers were actually trained during the week of the evaluation and this was with support from SolidarMed funds)
Laboratory Services	▪ Basic new laboratory functional equipment is available including CD4 machines ▪ Laboratory personnel have been trained with resources from SolidarMed ▪ Supply has of reagents has been constant	▪ Laboratory not fully functional due to lack of equipment and reagents shortage ▪ HIV patients requiring CD4 testing facilities actually get the service from Musiso. This set up is working well because the two hospitals are sister mission hospitals
Provision of ART services	Musiso began offering ART in 2005; 269 patients are continuing on ART (January 2007)	▪ Silveira hospital has not yet been formally assessed and approved to offer ART under the National network ▪ Very few patients are on ART. These have actually been initiated at the provincial hospital
M & E	Musiso has been submitting its OI/ART figures on a regular basis to the district, provincial & national level	Silveira is lagging behind in submission of data
Decentralisation of OI services	This has gone on well with about 7 facilities already following up stable OI patients Soon these facilities will also be following up patients on ART hence making the service more accessible to the population in the district	Decentralisation is minimal as Silveira hospital has not yet managed to capacitate clinics in the district to be able to manage patients with OIs

Source: Dr C.C.Chakanyuka, National ART Coordinator

There are of course also other comparisons to make. Taking Father O'Hea Hospital as a particularly active mission hospital in Zimbabwe for comparison, Table 3 lists differences with Musiso Hospital. The differences can be seen to be largely those of strategy, where Musiso Hospital has been somewhat more restrained – or should we say, careful – in its ART implementation policy, and has not yet decentralised OI/ART services to satellite units to the same extent as Father O'Hea has.

Table 3: Comparison of Father O' Hea Mission hospital and Musiso Hospital

Parameter	Father O' Hea	Musiso
Partner Support	Father O'Hea has been supported with funds from the Global Fund since December 2005	Supported by funds from SolidarMed since 2004 (and long-standing cooperation before)
Setting	Rural and farming community	Mostly rural setting
Target setting	Target set at the inception of the ART services was high i.e 700 pts per year for 2 years (Target for district hospitals in Zimbabwe is minimum 500 patients on ART per year)	Initial target set was low
Eligibility for ART	Father O'Hea has been more flexible in terms of eligibility criteria. They do not rely purely on CD4 testing before initiating ART, although they do a baseline CD4 test.	Musiso seems to rely on CD4 testing alone & less so on the WHO clinical staging
Waiting time before initiation of ART	It now takes only 2 weeks for a patient to be prepared & be commenced on ART There is more participation and supervision of nursing staff by the local doctor	It is taking more than a month before ART is initiated
Laboratory Services	Hospital has a laboratory but no scientist or laboratory equipment. Have to send specimens to the provincial hospital or to Harare central hospital (both referral facilities are over 70kms away	Musiso has a fully functional lab with reliable machines, reagent supply & trained staff
Accessibility	Hospital is closer to a main road and is close to an urban setting; the capital Harare is about 70kms away	Hospital is also close to a highway but not close to an urban setting
Decentralisation of OI services	Have started decentralising ART patients	Have decentralised OI patients only , not yet those on ART

Source: Dr C.C.Chakanyuka, National ART Coordinator

1.3 Efficiency

Cost Effectiveness

We have calculated a crude cost analysis with the figures provided based on expenditure to medio 2006, and with the patient-client figures who were reported to have accessed the various services by this time, as shown in Table 4:

Table 4: Cost analysis

	Cost CHF		
	Tanzania	Zimbabwe	All sites*
Total cost per VCT client who ever had a test is:	29	18	23.5
Total cost per VCT client found positive, is:	414	55	234.5
Total cost for all patients who ever started ART is:	2,107	1,339	1,723
Total cost for all patients who remain on ART is:	3,202	1,637	2,420

* Mean for the two countries, i.e Babati plus Ulanga in Tanzania and Zaka in Zimbabwe

The ART and VCT services draw upon infrastructure and human resources that are already in place in the host institutions. The calculations only take into account the dedicated SolidarMed expenditure. As would be expected, the cost per patient is lower in the higher prevalence regions and where the patient load is greater,

and where there, in addition, is no dedicated full-time staff paid for by SMART, as in Musiso. In addition, it must be borne in mind that start up costs for smaller scale projects such as the SMART project will be higher in the first year or two until larger start-up costs have been covered (vehicles, laboratory equipment, etcetera).

As a rough comparison to another ART programme from the region for which such information is available, we use data from the ART programme in the Western Cape of South Africa. Here, the average cost per patient per year on ART between 2004-2006 was CHF 1,445 (ZAR 7,504) [13] which is to be compared with SMART's CHF 2420 calculated above (CHF 3202 for Tanzania; CHF 1637 for Zimbabwe). However, this is not an easy comparison to make for several reasons: the Western Cape includes urban clinics, where costs for transport are lower. Further, the Western Cape project was started in 2001, and these figures are based on costs 3-5 years into the project, so the large start-up costs have been absorbed by the larger number of patients accessing the project as time has gone on. In addition, this crude analysis does not include any PMTCT activities as no expenditure was made directly from this budget line, although PMTCT activities have been supported through staff and benefit from the project.

SolidarMed have a long history of medical activities at the three sites visited for this evaluation. As such they were, in this era of a generalised HIV epidemic, obliged to establish HIV treatment. An argument that resources for HIV and antiretroviral therapy should have been directed elsewhere (say, to a region with a more densely populated area) is a double edged sword. Whilst recognising the benefits of this argument in terms of maximising resources for a larger, more urbanised population, the diversion of HIV activities away from an area where SolidarMed had a long-standing relationship and duty of care, could arguably have contributed towards urban bias at the cost of the beneficiary populations already disadvantaged through their rural location. The comparative advantage of SMART in relation to other funding mechanisms (e.g. through the governmental baskets) relates primarily to assurance of quality (through the on-going and pre-SMART provision of medical expertise), location and guarantee of the resources reaching SolidarMed's intended sites. The SMART project is moreover part of a larger portfolio of SolidarMed support such that overhead costs can be shared between projects, as is the case for the support office in Ifakara.

Human resources

The implementation of SMART activities has required a degree of task shifting, whereby staff take on additional duties to their regular work. This includes pre- and post-test counselling, HIV testing and OI prophylaxis. The additional work load created (in particular through counselling which is time consuming) affects not only staff involved directly in the provision and delivery of HIV/AIDS services, but also necessitates task sharing where colleagues undertake additional duties to cover for those who are occupied with HIV activities.

Nursing staff in all three hospitals and in satellite health facilities said they felt additional personnel were required to cover the extra work load (although we did not perceive them to be extremely busy or overworked). Despite this, staff commented on the positive aspects and opportunities these new challenges brought to them; this was reflected in the motivation and dedication many of the staff demonstrated in their conduct. Further, they felt satisfied that they were able to offer their HIV patients more comprehensive and appropriate services with the availability of prophylaxis and treatment.

Musiso hospital has managed to start the decentralisation of stable patients as a way of addressing the human resource challenge and in taking the services closer to people living further away from the hospital. Continued decentralisation of ART/OIP follow up (including pharmacy refilling) and the establishment of satellites being able to initiate ART/OIP will reduce the work load of staff at centralised sites and enable faster roll out. Parallel to this, training and other incentives appear imperative for satisfaction and retention.

Various institutional mechanisms in each country aim to address the continent-wide human resource crisis, some which SMART benefits from and others which it currently does not. For example, Lugala mission hospital grants sponsorship for medical, nursing and laboratory training, on the condition that upon completion of their education, trainees agree a number of years of service for the hospital. NGOs can offer an alternative to MOH compulsory internship after completing qualifications. Other examples are the Tanzania government's provision of incentivised salary and hardship allowance for staff working in remote

[13] Western Cape Department of Health. *The Western Cape Antiretroviral Programme: Monitoring Report, June 2006.* Cape Town: Provincial Government of the Western Cape; 2006. This was similarly calculated based only on dedicated ART funds and did not include existing infrastructure costs. Exchange rate was based on the average exchange rate between the ZAR and CHF over the two year period from 2004-2006 which was 0.19252 (high: 0.219; low: 0.158), from URL: www.oanda.com.

areas through the MOH 'Emergency Hiring' scheme; compulsory one year MOHCW internships for junior doctors in rural districts in Zimbabwe; attachments of student nurses to rural clinics (as in Zaka). In this regard, the persistence of Musiso Hospital with support from SolidarMed to re-open its nursing school is to be encouraged.

Additional mechanisms to promote skill shifting exist. Tanzania's national guidelines stipulate that counsellors ought to be health professionals but state that in situations where there are limited human resources, lay counsellors can be trained ant utilised. In Zimbabwe, the government has introduced a new cadre of health staff, Primary Care Counsellors (PCCs), who need 5 'O' levels and are trained specifically in HIV counselling for 12 months (6 months theory, 6 month practical placement). Each district is entitled to 4 PCCs. These are aspects of the national programme that SMART has not yet exploited and that would free skilled nurses and COs to undertake more skilled tasks.

Patient contributions

With the inclusion of drugs for OIs in the national guidelines, HIV-drugs are provided free in Tanzania, although previously they were supplied to the project sites by the SMART project. While antiretrovirals are provided free, patients at all three mission hospitals are required to pay user fees to for consultation and laboratory tests. Patients attending Lugala hospital who live outside the immediate vicinity of the facility are admitted for the first two weeks for initiation of ART to ensure close observation and to provide tuition on adherence. Patients incur an admission fee for this stay. While this is done with good intention, it was apparent that some patients had been struggling to access the funds that would enable them to present for treatment. That relatives are required to supply food poses an additional constraint for some patients.

While SolidarMed do subsidise some of these costs (subsidised lab tests for all and cost-sharing for admission fees in Lugala when applied for on an individual basis), this is in juxtaposition to government hospitals who do not charge such fees. The hospitals all rely upon the income generated though user fees to cover running costs, such as water bills. None of the hospitals, in other words, can afford to provide services for free.

The issue of making exceptions for HIV/AIDS patients over individuals with other chronic infections is morally complex. On the one hand, there is the concern of how 'AIDS exceptionalism' may contribute to worsening stigma and isolation of HIV-positive individuals to the exclusion of people with, say, cancer, hypertension or diabetes. On the other hand, one cannot ignore the unique public health and societal implications of HIV/AIDS in that it affects micro and macro level productivity; contributes to situations that affect whole communities and not just individuals (for example the pressure on communities through increasing numbers of orphans). Importantly, there are public health implications of non-treatment or sub-standard treatment including the continued transmission of HIV, development of drug resistance and subsequent costs incurred in treatment on second line therapies. There is no easy response for this, but these issues do support more concerted efforts to promote decentralisation and stringent follow up of losses to follow up from ART, OI and PMTCT.

1.4 Process and Structural context

'Embedding'

As indicated before the concept of 'a project' that needs to be 'embedded' is not wholly appropriate for SMART, and has moreover changed in the course of SMART's activities, given developments in the project context.

In Tanzania, a Memorandum of Understanding[14] (MoU) took far longer than desired to negotiate, not least because the original project concept needed adjustment to fit with the wider context of the national ART roll out. The text of the MoU still reflects a hybrid delineation of responsibilities between the parties in phrases such as, '*Organise the seamless transfer of patients that had been in the initial phase under treatment of SolidarMed to the next phase under the Ministry of Health.'* At the time of signing, however, it had already become clear that all activities were fairly and squarely under the flag of the Ministry of Health, with SolidarMed acting as a catalyst if and where needed.

[14] Memorandum of Understanding between SolidarMed, Switzerland and Ministry of Health, Tanzania on Provision of Antiretroviral Treatment to two rural hospitals in Tanzania. Signed November 2005.

This was possible because of the rapid expansion of ART provision starting from 4 referral hospitals and scaling up to cover 15 regional hospitals by the end of 2004; to all regional hospitals and selected district, private and voluntary agent hospitals by the end of 2006; to an aimed for situation of 500 ART sites, including selected health centres, where identification and referral as well as refill and monitoring can be done. In view of an equitable distribution the expansion emphatically should include areas where geographical access is problematic as it is acknowledged that most rural districts currently have only one functional ART site[15].

Embedding of Musiso's ART programme in the national ART programme
Dr C.C.Chakanyuka, National ART Coordinator, MoHCW, Harare

The Government of Zimbabwe in line with the 3 by 5 Initiative (WHO/UNAIDS) scaled up access to ART. It was in the plans of the Ministry to have at least one facility offering ART per every district. In Zimbabwe, Faith based hospitals are considered public and fall under the government structures. Some of the FBO hospitals are designated district hospitals. Based on the target to be reached, district population based targets for ART were set. When SolidarMed started working with Musiso a project type of arrangement was envisaged. However, due to the set up and working environment in the country, the SolidarMed project was viewed as complementing the government efforts. Therefore it was absorbed into the existing system and hence was not viewed as a project per se. SolidarMed complements the efforts of the government. For example, the government provides ARVs and human resource capacity, while SolidarMed provides laboratory equipment, reagents and so on. The presence of SolidarMed at Musiso has made a difference in the above, specific ways, as SolidarMed in its local presence was able to quickly identify the gaps and help to address them.

In Zimbabwe as well, Musiso Hospital was part of the national roll out from the very beginning The Ministry of Health sent its national assessment team to conduct an initial capacity readiness assessment at the request of the SMART team leader at the mission hospital. The government has since been providing all ART requirements, including HIV test kits, OI and other essential medicines and M & E tools as part of its support for the ART programme. As in Tanzania the MOH has also conducted supportive supervision visits to the site on a regular basis (two weeks before the evaluation a team from MOH head quarters had been to the site). The Provincial, district and local authorities have in return actively supported Musiso in implementing the OI/ART programme. The provincial office has continuously supported the training of health workers by providing the trainers. So far, 44 health workers in Zaka district have been trained by the provincial trainers. The District Health Executive (DHE) has been instrumental in the decentralisation of OI services to the clinics within the district and this will be followed by decentralisation of the ART services in the remainder of 2007. Follow up support after decentralisation is also being offered by the DHE. Local authorities, for example, have contributed to the development of the original eligibility criteria for ART. They have also participated in the follow up of patients on OI prophylaxis and ART by appointing focal persons at the ward and village level who closely liaise with the care facilitators.

The provision of ART requires accessories ranging from laboratory equipment, to test reagents, to locum arrangements and new skills. The evaluation found that such accessories are largely to the benefit of the entire service and not just to the HIV/AIDS activities. Having said this, there still are some odd exceptions, such as in Jerera Dispensary in Zaka, where only the half of the building that housed SMART activities was repainted with project funding.

While the incorporation of ART provision into the health system, and all that this entails, is proving to be a challenge, all procedures have been in full compliance with the national guidelines, with two exceptions that aim to do better. One being the domain of data collection, where the project has been striving to do more than was required by government regulations (section 1.6 elaborates). The second is the provision of tri-therapy for PMTCT in Lugala hospital, ahead of the government's pending amendment.

[15] NACP (2006), Scaling up towards Universal Access to Prevention, Treatment, Care and Support for HIV and AIDS in Tanzania; Setting national targets for 2008 and 2010 (power point presentation)

The evolving context of HIV/AIDS

The future context of ART provision in both countries visited is a concern, depending on the future time frame one applies. This is one of the reasons why the SMART project has been a balancing act: one doesn't know for sure if the certainties of today will apply tomorrow, or next year, or in ten years time. The example of Tanzania demonstrates the difficulties of extrapolating from the current situation.

In Tanzania about 59% of the funds for HIV/AIDS is currently provided by the American Government (PEPFAR), other main donors being the Global Fund and the World Bank[16]. The country is in a dilemma on funding beyond 2008, where most of current commitments end. The Government from its part has been allocating resources which are not matching expectation, allocating 2.67% and 2.19% of its discretionally expenditure for 2005/6 and 2006/7 financial year respectively[17]. The current review of the National Multisectoral Strategic Framework to develop a document for 2008-2012 is intended to mobilise development partners in HIV/AIDS. Beyond donor support, there are no agreed national priorities on emergency arrangements in case external funding would become insufficient.

At the same time the Government of Tanzania has prioritised providing ARV at no user fee. As narrated above the Government is planning to decentralise services to the level of health centres, either for initiating or refilling, dependent on the judgement of the national assessment team. Predictably, the rural facilities generally are less endowed in terms of infrastructure and personnel to satisfy the requirements, propelling the urban-rural disparity. The urban-rural disparity - where both services and infrastructure are better in urban than in rural areas - has constrained equitable distribution of the services. Of importance to note is that voluntary services are by and large addressing rural areas.

SMART's efforts should be seen in this context: of, on the one hand a national drive to establish equitable services in the face of an acknowledged urban-rural disparity; and, on the other hand, a justified reluctance on the part of SMART to do more or better than the current context allows, particularly in view of future uncertainties.

Phasing Out

With the exception of Dareda where a full time SMART Site Coordinator is active, SolidarMed has kept a (very) low profile. In Musiso, for example, the hospital has managed to cope with the introduction of ART provision by training and by task shifting and sharing with some topping up (e.g. the locum system in Musiso) through the project. In fact, it appears that SMART has deliberately refrained from 'phasing in' when there were reasonable doubts regarding the continuity of the services thus initiated. Whilst the concept of phasing out thus does not apply as it would do for a conventional project, phasing out would still 'hurt' in cushioning of future events - especially unforeseen ones - and in a more structured support, over time, to decentralise tasks and so get clients to access services nearer to their homes.

Regional dimensions and south-to-south exchange

The regional dimensions of the project have been modest in the sense of direct exchange of experiences between the project sites. Most of the exchange has occurred during annual regional workshops of partners and experts, such as the 2006 SMART Pemba workshop, and also in opportunities to attend regional conferences such as the 2006 meeting for Southern African HIV clinicians, in Botswana. The Reproductive Health and HIV Research Unit (RHRU) of Witwatersrand University in Johannesburg has become the focal training centre for SMART partners. The RHRU courses were unanimously praised as 'excellent and very useful', by all participants interviewed by the evaluation team.

With the benefit of hindsight, it is fair to say that the project's regional dimensions have been less than was foreseen because mainstream national and sub-national contexts in practice offered sufficient relevant opportunities for learning and feedback. The evaluation team interviewed numerous staff in SMART-supported facilities who said they had benefited from SMART sponsorship to attend courses offered through national programmes. SMART options for learning and exchange were in addition, and selectively, tapped for specific courses for key personnel, notably medical doctors who would be heading ART teams, and were supported to attend courses at the RHRU. Of note, staff-to-staff learning and sharing, particularly in Dareda Hospital, have been structured through requiring each member of staff who attends a course or conference to present the key points to other members of staff in a teaching environment.

[16] HIV/AIDS Public Expenditure Review Report, December 2006. Prepared by TACAIDS

[17] HIV/AIDS a national emergency; what does the budget say? Policy brief for 2006/7 HIV budget analysis. Dar es Salaam, September 2006. Human Development Trust, on behalf of HIV working group of Policy Forum.

At the time of completing this report, SolidarMed no longer had the ambition to profile SMART as a regional project. It rather sees ART provision as a cross-cutting issue in all its project areas, to which it aims to contribute in the best possible way, given the efforts of other actors and given its own comparative strengths[18].

1.5 Medical

A page constraint for this report limits elaboration regarding each individual 'medical' component of the project's Logical Framework. The report therefore only addresses the specific questions raised in the Terms of Reference. The recommendations in the last chapter do follow the logical framework, to address a request by the commissioning body (SDC).

Infrastructure: training, space, laboratory

Training: SMART has employed Site Coordinators and provides expatriate clinicians in Dareda and Musiso. They have supported clinicians in specialist training, and provide contract expertise backstopping. With only the odd exception, all staff interviewed who were involved in SMART activities demonstrated remarkable commitment. Training, knowledge transfer and experiential learning is one of the strengths of the project in Dareda, and has led to direct establishment of testing services in particular. This former aspect is one that Zaka needs to develop. Lugala has its own in-house training schedule, established independently of SMART.

Space: Private rooms in each satellite have been identified to enable privacy in which to conduct counselling for VCT. In Musiso Hospital, Zimbabwe the provision of a new outpatient building that houses the VCT, OI consulting and phlebotomy rooms has helped to avoid congesting the general OPD. In the hospitals, rooms are comfortable and adequately decorated and furnished. Visits to the satellite clinics in Ulanga and Zaka however, revealed that attention is required in some counselling rooms – some remain unfurnished and undecorated and others require more attention to cleanliness. Efforts to provide a more comfortable environment with the provision of appropriate furniture, facilities for storage and decoration (minimal painting and educative posters) will fully prepare the sites at little cost.

Laboratory: In terms of provision of laboratory supplies, decisions were once again considered contextually at each site. Dareda hospital has decided not to purchase a Partech CD4 machine while it has access to CD4 tests elsewhere, and until the government decision to allow institutions to purchase this cheaper and more reliable equipment (with technical maintenance readily available from the capital), than the brand currently recommended by the MOH (which necessitates purchase of expensive reagents). In Lugala, the MO decided to go ahead with the purchase of the Partech CD4 machine and is able now to monitor patients who would likely not be able to afford to travel to Ifakara hospital (150 km away) or would not be well enough to. Lugala is the only hospital in the district that has a functional CD4 machine.

Musiso hospital laboratory, like many other mission hospitals in Zimbabwe at its level, was experiencing problems with the provision of laboratory services due to the lack of foreign exchange to replace the obsolete machines. The choice of a hi-specification machine by SMART for CD4 counts is questionable given the delays due to maintenance and the training requirements for one laboratory technician that ensued The upgrading of the laboratory has, however, now enabled the initiation of ART and has been essential for the follow up of patients.

A question remains regarding the reliability of CD4 test results in Dareda: having noticed discrepancies in patient condition and CD4 results obtained from a hospital a four hour bus ride away[19], the Dareda team is re-considering where and how to obtain CD4 cell count services from. They are innovative in addressing this before considering the purchase of laboratory equipment, through conducting comparisons of results from different laboratories and by manual CD4 counting at the hospital.

[18] Thomas Gass, SolidarMed, personal communication, April 2007.

[19] Currently, Dareda hospital send CD4 blood samples with a member of staff once a month to a hospital that is a 4 hour bus ride away. At the time of the evaluation visit, they had not confirmed whether it was the transport of blood samples that was causing deterioration of the sample, or whether it was poor quality of testing, and so were conducting the comparisons.

Across all sites, and as evidenced by the evaluation team, the scope of laboratory investigations has widened while the quality of services they provide has improved through the ability now to conduct CD4 cell counts and biochemistry tests. Biochemistry for example is not solely used for HIV, but also for assessing other metabolic conditions. The laboratory practice and processes in caring for ART patients is in harmony with the national guidelines – for example ALT to determine any liver damage, FBC for patients on AZT, and so on.

ART adherence and management of drug resistance

Adherence is important to promote individual treatment outcomes and to avoid treatment failure and possible development of drug resistance. At the time of the evaluation, some second line drugs were available in Zimbabwe, but only recyclable first-line therapies in Tanzania. With the lack of availability in the public sector, and the expense of second line drugs where available, promotion of adherence is pivotal in the management of ART patients.

Antiretroviral therapy through SMART has only been available for less than a year in Tanzania and 18 months in Zimbabwe. Based on the assumption that the poor people served in these rural areas are, on the whole, most likely to have been treatment naive prior to joining SMART, drug resistance is unlikely to be a significant cause of treatment failure at present. Currently, all patients remain on first line regimens. Resistance assays are currently beyond the scope of this project in terms of cost and availability of services. However, as time passes and more people inevitably start to fail their treatment, SMART will need to consider how they will manage such patients once they are beyond the expertise of clinicians or have exhausted government antiretroviral drug options.

With the exception of Lugala, where ART patients are admitted for an initial period of 2 weeks, patients undergo two or three formal pre-initiation counselling sessions before being initiated on ART, with at least 2 weeks between the first and last session. These sessions include advice about adherence, although what advice is given is not elaborated in any SMART guidelines and no supportive materials for patient information and education were available during the evaluation visits. In Tanzania, patients are encouraged to disclose to one person (who can then act as an adherence partner), but in Zaka, disclosure to partner is stated as a requirement for entry to the ART programme.

Adherence is recorded as a dichotomous indicator for each individual and is measured differently in Tanzania and Zimbabwe. In Tanzania, a patient is considered adherent if they have attended on time for a follow up appointment (as is entered by the data entry clerks into the SMART access data base). In Zimbabwe, the SMART Site Coordinators who consult ART patients count the pills remaining and deem a patient adherent if they have returned with as few pills as expected. Measuring adherence is fraught with difficulties and each measure is open to bias. However, pill counts have been shown to correlate to virologic indicators, and enable a quick, quantifiable assessment of adherence.

Losses to follow up, referrals and mortality

All sites had significant numbers of patients defaulting from the ART and OIP programmes.

Table 5: Number of OIP and ART losses to follow-up among registered patients at three SMART sites at end of 2006

	ART			OIP		
	Lugala	Musiso	Dareda	Lugala	Musiso	Dareda
No living patients registered	52	238	30	65	1203	62
No. lost to follow up	6	20	1	65	581	31
Proportion of patients lost to follow up	11.5%	8%	3%	100%	48%	50%

Reviews available from other programmes in Southern Africa have found rates of defaulting among patients who started ART to be as high as 14-20% in urban and rural settings[20][21], and 21% among other lower-income countries[22] while in other settings, the default rate is much lower (between 1.3-7.2% among adults in

[20] Dalal, R. et al (2007) *Characteristics and reasons of adult patients not returning for antiretroviral treatment at a clinic in Johannesburg, South Africa* (pending publication).
[21] *File Review Report Tshepong Wellness Clinic Klerksdorp, North West Province.* Prepared by HIV Management Directorate Reproductive Health & HIV Research Unit February 8, 2007 Unpublished.
[22] IeDEA – The ART-LINC Collaboration of the International Databases to Evaluate AIDS (2007) Early loss to program in individuals starting potent antiretroviral therapy in low-income countries. (submitted to PLoS)

the Western Cape province)[23]. Importantly, while OIP defaulting rate is extremely high, other settings have found similarly high rates of defaulters among HIV positive patients who are not started on antiretrovirals. For example in a rural/urban clinic in South Africa, among those patients who visited the clinic at some time in the past to receive adherence counselling but were not started on antiretrovirals, 75% defaulted and did not return for treatment[24].

Clearly there is a need to address the information provided to patients regarding the implications of defaulting from OIP in particular, and ART, especially at Lugala, where it is possible that transport may be an important contributing factor to the high loss of follow up. A more concerted effort is required to follow-up patients who are being seen at the central hospital and satellite clinics. The retention of patients on both OIs and ART in Zaka has some facets that offer improved monitoring for defaulters, attributable to the decentralisation of the OIP follow-up in satellite clinics and a well-functioning and collaborative CBC programme implemented by CARE International.

Lastly, a word on mortality among patients initiated on antiretroviral treatment: in general, this measure can be expected to change over time as patients report earlier and the health system is better equipped to identify them in time, although once the programme reaches a certain time point, mortality will once again rise as the duration that patients have been on ART will increase. Table 6 below gives data for the two hospitals where the team were able to access correct data.

Table 6: Mortality while on ARV, cumulative since start of programme, at two SMART sites at end of 2006

	Adults	Children
Lugala Hospital	28/80 (35%)	3/3 (100%)
Musiso Hospital	27/296 (9%)	

Other sites in Africa (rural Kenya and Malawi) have experienced mortality in the range of 13-19%, respectively, among patients after a mean duration of 8 and 30 months, respectively, on antiretrovirals after treatment[2526], rising as time on antiretrovirals goes on. However, mortality among patients at Lugala hospital was particularly high. Among adults initiated on ART, this is attributable to the very late stage in their HIV status that patients attended as demonstrated by the data below, from a record review of 27 records (one file was missing and the records of 3 children are hard to analyse due to lack of detail). Unfortunately, data was not collected to enable a comparison of the indicators used to assess HIV disease progression among patients who died at Musiso.

Table 7: Analysis of mortality in Lugala, from 27 clinical records

Mean weight on admission and at time of HIV diagnosis:	38.5 Kg	(Range: 27-71.5kg; median: 35.3Kg)
Mean CD4 on admission and at time of HIV diagnosis*:	76 cells/mcg ^{3}	(Range: 9-213; median: 54 cells/mcg ^{3})
Mean Hb on admission and at time of HIV diagnosis:	8.4 g/dl	(Range: 6-12; median: 8.2 g/dl)
Patients presenting with stage 3 disease:	23	
Patients presenting with stage 4 disease:	2	
Patients presenting with stage of disease not known:	2	(assumed stage 3-4 from record)
Mean Age of death:	26y	(Range: 20-54y)
Mean no. days from initiation to death:	23.6	(Range: 4-92)
* 5 CD4s not known		

[23] Western Cape Department of Health. *The Western Cape Antiretroviral Programme: Monitoring Report, June 2006.* Cape Town: Provincial Government of the Western Cape; 2006

[24] *File Review Report Tshepong Wellness Clinic Klerksdorp, North West Province.* Prepared by HIV Management Directorate Reproductive Health & HIV Research Unit February 8, 2007 Unpublished.

[25] Mayanja-Kizza H et al. *Very low CD4 T cell counts and low total lymphocyte counts at initiation of HAART are associated with a poor outcome in the first 6 months of antiretroviral treatment.* Sixteenth International AIDS Conference, Toronto, Canada, abstract MoPdb06, 2006.

[26] Feradini,L. et al for MSF: Scaling up of highly active antiretroviral therapy in a rural district of Malawi: an effectiveness assessment.
Lancet. 2006 Apr 22; 367(9519):1335-42.

In comparison, the entry criteria set in Musiso excluded patients who were so late in their disease progress, where patients with a Karnofsky score below 60%[27] were excluded from initiation of therapy. The mortality rate has been shown in many settings to be higher among those starting therapy with a lower CD4 cell count, as well as severe anaemia, low body mass weight and active TB[28], all of which are reflected in the Lugala data shown above. Additionally, a study from Kenya has also found that death among antiretroviral patients was significantly more likely in rural patients than urban[29].

A suggested single piece of data that has been shown to provide an indication of the impact of antiretroviral therapy is the age at mortality, and would be a relatively simple figure for each hospital to calculate[30].

Voluntary Counselling and Testing (VCT) and Prevention of Mother to Child Transmission (PMTCT)

The SMART project has identified satellite sites to establish VCT that now have trained personnel ready to provide VCT services. In addition to the hospital in each of the three districts, this includes 7 satellites in Ulanga, 2 in Babati and 7 in Zaka. These personnel include nurses or COs conducting VCT but no lay counsellors.

Where satellites currently provide services in Ulanga, referral systems exist but are poorly implemented. Whether this is due to lack of clinician questioning or record keeping is not clear although anecdotally, clinicians at Lugala hospital reported rarely receiving referral letters, and clinicians making referrals from satellites reported completing referral forms but rarely receiving the completed referral response when patients return to them from the hospital.

In Ulanga West district, Malinyi satellite HC reported that among 27 individuals testing positive and referred to Lugala hospital only a few kilometres away, 6 individuals attended the hospital, 4 of whom reported not being able to find the appropriate medic at the hospital and so not being seen. Two had subsequently been initiated on antiretrovirals and what happened to the other 21 is unknown. The referring CO postulated that they were 'not ready' to go.

Patient readiness to attend for further treatment is likely to contribute for part of the disparity between the number of people testing positive through VCT and the number of people attending for consultation at the OI / CTC clinics. (Fear of negative consequences as a consequence of disclosure was discussed in section 1.1.) The discrepancy is further explained by the availability of alternative options for treatment, and/or by a preference to test in a distant place where one is not easily recognised, as may be the case for Babati, but less so for Ulanga and Zaka, as Table 8 below illustrates.

Table 8: Number of clients ever seen 2005-2006 in the three districts

	Ulanga*	Babati‡	Zaka
All HIV tests done (inc. VCT & PMTCT)	1850	4550	5370
HIV positive‡	203 (11%)	320 (7%)	1790 (33%)
HIV positive patients registered	205	91	1613
Proportion of HIV positives registered~	101%	28%	90%

Source: SolidarMed; data base and core indicator lists

* Ulanga: Includes Lugala Hospital and 2 Health Units (6 other VCT centres are supported by a separate project)

‡ Babati includes Dareda Hospital only

‡ This figure is not an indication of overall prevalence as it includes high risk clients

~ This is of course just an indication as there is no direct relation between the figures

A review of the current VCT register at Musiso hospital in Zaka revealed that since June 2006 until the 24th February 2007, more than 70 individuals had not returned for their results. Other sites do not report such drop outs from obtaining VCT results. Due to the voluntary nature of the testing, no follow up is possible, but is worthy of exploration. Plans to initiate VCT in satellite clinics will help overcome these barriers and must be made in conjunction with prevention activities. They must also take into consideration the ability of OI and

[27] An international scale from 1-100 to assess the effect of disease on an individual's daily activity, where 100 = normal, no complaints; 60 = requires occasional assistance, but is able to care for most needs; 50 = requires considerable assistance and frequent medical care, 10 = moribund and 0 = dead.

[28] Moore D et al. *Determinants of mortality among HIV-infected individuals receiving home-based ART in rural Uganda.* Fourteenth Conference on Retroviruses and Opportunistic Infections, Los Angeles, abstract 34, February 2007

[29] Siika AM et al. *Predictors of mortality in HIV-infected adult African patients receiving highly active antiretroviral therapy.* Sixteenth International AIDS Conference, Toronto, Canada, abstract MoPdb04, 2006.

[30] Personal communication with Dr F.Venter, RHRU, Johannesburg.

ART services to meet the demand that will be created from more people discovering their status and requiring treatment. Of course in order to be able to ensure a consistent and reliable service, the supply of VCT test kits must be secured. It is difficult for HCPs to advertise such services while they are short of kits. Links with AMREF and PSI as providers of outreach VCT in the two districts that currently do not have satellite clinics providing VCT could be explored - it is not clear to what extent their services are available and there are no reporting mechanisms directly with SMART.

All SMART sites have made Prevention of Mother to Child Transmission a priority, not only for the hospitals but also for the satellite units. In Dareda the training was initiated and conducted by SMART, and both staff of government facilities and other SMART sites participated. Shortly after the training testing started to be offered to all women reporting for antenatal clients, and was successful in reporting only a small proportion of women who declined to test. However, follow through of women testing positive has posed a large problem, as it has elsewhere in the world (Section 1.1 expands).

Some of the challenges facing staff in these new activities were illustrated, at Malinyi Satellite HC, Tanzania where 27 clients had tested positive. Of these, eleven clients were antenatal clients. Two husbands were tested and proved to be discordant with their partner. The remaining nine were not officially married and could not bring their partners in fear of negative consequences. Both these scenarios posed challenges to the counsellors - in dealing with relationship counselling in the former and in terms of risk-reduction and addressing stigma in the latter:

'There is stigma with breast feeding – if you don't breast feed, then people will know [your status]. My husband's relatives might ask why I don't breast feed. As my partner doesn't know [my status], I don't think I can afford not to breast feed.' *(Adult female ART patient, Musiso)*

The PMTCT record reviews highlighted that not only must there be supply of coordinated services over time, but also clients and their partners ought to be prepared to *demand* such services and *act* on the results. The positive start in antenatal testing must be followed through with a range of consecutive steps, including public awareness. By the start of this year, the SMART hospitals had taken the initial steps of providing the range of services that will help to make this happen.

However, there is certainly a need to pay closer attention to the follow up of pregnant women and exposed babies (up to 18 months old), and to ensure the referral of such babies to the ART team for appropriate subsequent care. To date, not many babies have reached this stage in the Tanzanian sites but mechanisms for follow up will need to be put in place.

Very few children are treated across all sites. At the time of the evaluation field visits, 3 were ART patients in Zaka (with 1 loss to follow up), 6 in Ulanga (although 3 have died, it is not clear from the data whether these are 3 of the 6 on their access database) and 4 (?) in Dareda. With higher overall prevalence of HIV in Zaka, it is probable that as the VCT scales up, more children will be enrolled. SMART paediatric expertise currently resides in Dareda, Tanzania, and the opportunity to enable cross-site visiting paediatric expert advice and teaching could be considered. In Zimbabwe there is the possibility of experiential learning at local centres of excellence such as the Connaught Clinic in Harare.

1.6 Data management, utility & confidentiality

All sites currently capture clinical details on the SMART Access data base as well as through the nationally required health information systems. In both countries visited, Government data collection systems are in the process of improving their forms and registers to more easily capture adherence and losses to follow-up over time (refer to Annex 4 for an excerpt from Musiso, as an example). The Zimbabwe MOCHW encourages implementing partners not to have parallel data collection systems: here, the government's HIV/ART health information system requires the capture of comprehensive information that will enable appropriate and valuable cohort analysis.

A thorough record review of the patient record data entry in Dareda revealed several areas that led to incomplete or incorrect data capture with limited mechanisms to identify gaps. The evaluation team also compared the official data collection forms with those generated for the SMART project, and found considerable discrepancies in the figures recorded. This is understandable (and common) as there are numerous opportunities for different interpretation in the forms used, particularly when clinical records are not complete and where data is entered by non-clinicians. Also some official government forms are easily misinterpreted and are bound to lead to mistakes; the PMTCT (Maternity) and PMTCT (Labour & Delivery) monthly summary forms in Tanzania are an example.

Clinical data capture is inherently problematic: quality of data will depend on the number of users and their ability to understand clinical issues. In deciding what information to capture, the purpose of the data is first to be identified, then what information will be required to serve this purpose can be established. SMART requires data to plan for drug and reagent procurement; to prepare donor reports; to monitor progress of the programme in terms of achieving targets and identifying whether these targets need to be amended (if HIV prevalence appears to be lower than estimated, for example). In addition, as decentralisation of services takes place at all sites and in the absence of a computerised network, the continuation of SMART data recording for all patients will become infeasible as patient data will no longer be held at one site.

Under-utilisation of the database was noted. For example, the appointment list created by the SMART Access programme (if the data entry is concurrent and up-to-date) could be utilised as a tool to plan the daily work load and to ensure people who miss appointments are identified and can be followed up. In addition, clinical data is extremely valuable as a tool with which to: monitor individual patient progress; monitor the programme progress; identify areas of weaknesses; teach and inform health staff as well as individual patients about their disease (if graphical illustrations of CD4, for example, are possible). It appears, however, that the system is not exploited for these purposes.

The summary overviews presented in the bi-annual reports are potentially useful as overviews. However, we would advise that the data capture focuses on those indicators that are useful and removal of those that are not[31]. This may help to reduce the inconsistencies in the summary reports. Whilst appreciating the desire to capture such data to enable prospective epidemiological analysis, this seems at present to be beyond the scope of the project as it stands. At the time of the evaluation visit, the evaluation team felt that such a project would need to be taken up as a distinct activity managed by one specialised and dedicated individual.

For SolidarMed, simplification and improvement of data quality and management requires attention. Since the evaluation visit, SolidarMed has introduced a revised and simplified version of the SMART data base, which reputedly also attempts to include patient follow up in satellite clinics. It is further planned to improve the data management (and data quality) in collaboration with the Department of Infectiology of the University of Berne, enabling applied research on treatment progress[32].

[31] For example, while average CD4 prior to start of ARV is useful, average latest CD4 is meaningless as a summary measure without being dis-aggregated by number of months on antiretrovirals,.
[32] Thomas Gass, SolidarMed, personal communication, April 2007.

2. LESSONS LEARNED AND CONCLUSIONS

The TORs pose a number of key questions which form the frame for the conclusions, presented in a narrative below. The questions whether, '[Is] such a micro-project further needed in the present context of harmonisation versus vertical funds and initiatives?' and whether 'scaling up with the given results of this evaluation is reasonable?' are answered implicitly.

2.1 Lessons learned

Non-provision of ART is not an option, particularly if the SMART host hospitals are to maintain progress in line with other mission hospitals. For example, at the time of the evaluation visit in Zimbabwe, seventy hospitals had been accredited as ART initiators, of which twenty were mission hospitals such as Musiso, that features among the forerunners that have lived up to the challenge of ART. However, some accredited centres such as the Father O'Hea Mission Hospital, are far in advance in terms of numbers of clients reached (some1500 clients on ART, as compared to Musiso's 269; Table 3 refers). The two hospitals in Tanzania likewise appear to be in step with other hospitals[33] but are not yet in a position to serve as models.

A main lesson of this evaluation is that implementation of ART roll-out is a continuous balancing act, with decisions made and at times adapted depending on the continually evolving experience. An example is the initial emphasis on numbers – of clients tested, on OIP, on ART – with increasing numbers as the overriding indicator of success. The valuable lesson learned here, that has only recently being addressed even at national level, is that a concerted effort is required to retain patients and clients once they have tested positive[34]. This raises uncomfortable questions: are there reasonable limits to a health system's absorptive capacity? Should predictions be made regarding clients' future ability to adhere to treatment regimens, excluding them from initiating ART? Should new clients be denied access in order to safeguard continuity of service for existing ones? And if so, who is to decide? On such questions there are no unequivocal answers; in the hospitals visited these types of decisions were generally taken by the medical doctors in charge, in consultation with their staff.

Without the SMART project, the health facilities in both Tanzania and Zimbabwe are unlikely to have established testing and treatment activities as soon. The real test, in the opinion of the evaluation team, comes through decentralisation - what SMART describes as Phase Two. Assuming continued fulfilment of critical preconditions – consistent and reliable supply of reagents and drugs, functioning equipment, transport, communications, and trained and motivated human resources, among others – projects such as SMART can be largely invisible, as the project has been to date, for the most part.

Where SMART can make a significant difference, is in the intelligence of the choices made to decentralise services without unacceptable quality loss. This has so far demanded, and will continue to demand, exceptional dedication, competence and organisational skills to identify alternative mechanisms in the system (such as through skill shifting) to ensure that patients access services in time and adhere to the prevention, prophylaxis and treatment regimens. For some components of ART, notably follow-up of ART, PMTCT and OIP clients, SMART must continue to strive towards more sustained impact.

The SMART strength lies in being there where and when needed, and offering the support required to keep the system going or makes it move again. This may mean revising plans to the extent of changing or even dropping some elements and gracefully relying on other actors, as has been the case for the CBC component in Zaka District, Zimbabwe. However, the hospitals visited have differed in their readiness to seek the types of cooperation that would bring out the strength of different actors at different levels, such that the system as a whole would benefit. It is in this respect that the hospitals particularly in Tanzania still have a distance to go as it is here that partnerships at times need to be created with organisations that do not, as yet, exist, or that need help to redirect their current focus, or that simply need to be made aware of the potential for cooperation that would exist if the partners would get to know each other. It is noteworthy, in this

[33] Dr Eric van Praag, FHI, Dar Es Salaam, personal communication, March 2007

[34] As noted in HIV and AIDS Treatment in Practice #83, 22nd March 2007, "Now that the rollout has been demonstrated as quite possible, the focus has shifted to the challenges, some of which have only emerged as programmes begin to reach the limits of their infrastructural capacity, to providing ongoing high quality care."

respect, that inadequate linkages with community Home Based Care providers are identified as a critical shortcoming throughout the country[35].

There is scope for the project to become more alert and innovative in the above sense: in filling the gaps as and when they occur, and in foreseeing opportunities for cooperation. Obvious opportunities lie in the continuum of care itself and in using current experience to draw in new users, notably men. The registers of ART clients demonstrate a preponderance of widows, while partners of women testing positive in ANC services fail to come, to an extent that these women dare not disclose their test results to their partners. A continued SMART project could therefore work on reversing this trend in a more poignant way than is currently the case, for example by exhibiting graphs of (own) data, developing suitable IEC materials, and men-focused campaigns on occasions such as World AIDS Day. The 'opt-out' or routine approach of provider initiated testing, which will be adopted in Tanzania and enhanced in Zimbabwe, from 2007, will also contribute to reversing this trend.

In a broader sense, there is room for the project to further adapt the services such that the flow along the continuum of care, over time, captures eligible clients without them being lost to follow-up at any point in time. Again, this is not easy to achieve particularly where it concerns clients who are as yet without symptoms, as is often the case for pregnant women testing positive. The risk of losses to follow-up exist even within an hospital - for example, the lack of a systematic tracking system to follow-up on TB in-patients who are offered an HIV-test in the OPD in Musiso hospital. As the numbers of patients increase there is a risk that services will become slower and there will be more omissions in care. For example, in Musiso HIV-rapid test results for the OI/ART- and ANC Clinic could not be provided immediately or sometimes even on the same day. The risk of loss is all the greater when clients are referred to and from the periphery. The team wants to emphasize, again, that *all* health services in the countries visited are reputedly struggling with these issues, for which there are no ready-made solutions at hand[36,37,38].

New challenges will continue to present themselves in the domain of HIV/AIDS. For example, in Zimbabwe, national training on the treatment of children is currently being initiated and now that the medical stores have ordered sufficient paediatric antiretroviral formulations, this will be pertinent. Projects such as SMART can make a difference locally in continuing to being alert to have staff access such appropriate training and making sure that newly acquired skills can be put to use right away. The evaluation team noted that in most cases, the time-gap between training and start of implementation has been remarkably short, which speaks well for the project, the PMTCT activities in Ulanga being an example.

While HIV presents enormous challenges to health systems, it can at the same time also prove to be a stimulus for health systems in living up to this challenge. This is an important lesson that may be somewhat surprising to those who have come to regard HIV/AIDS as nothing but a disaster. Visits to all three SMART hospitals and their associated satellite units found that HCPs were rising to this challenge, as has been found in other parts of Sub-Saharan Africa[39]. Staff interviewed by the evaluation team attributed this new energy both to new, professional satisfaction and to more personal experiences – as their own inner circles had also been affected by HIV/AIDS.

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[35] Dr. B. Bwijo, Care and Treatment Unit, National AIDS Control Programme, Positive Prevention; Retreat to Develop Health Sector Plan for Accelerating HIV/AIDS Prevention in Tanzania Mainland, *White Sands Hotel, Dar es Salaam, 5th – 7th April 2006*

[36] From personal communication with Dr Eric van Praag, FHI, Tanzania, March 2007

[37] See, for example, Evaluation of WHO's contribution to "3 by 5", Main Report, WHO 2006 which states, "In these early phases of scaling up, treatment has been provided chiefly through hospital based facilities or outreach clinics with existent infrastructural and staffing capacity. Since these facilities are now becoming "saturated" and since many people cannot reach them, coverage needs to be expanded by decentralizing treatment access to first-level primary care providers (in both the public and private sectors). Where this is starting to be done, new challenges are being introduced in both scale and complexity, since peripheral treatment sites are even more vulnerable to the underlying weaknesses of health systems.

[38] From HIV and AIDS Treatment in Practice #83, 22nd March 2007, ".. Researchers from some of the vanguard ART programmes in resource limited settings described that barriers to care remain in many settings, such as paying for treatment, and the need to take time off work to travel what are sometimes great distances to clinics only to wait whole day for service. And with increasing numbers of people joining programmes, it becomes increasingly difficult to give them the sort of individualized attention each patient needs for appropriate symptom and opportunistic infection diagnosis and management. There is a serious risk that many will 'fall through the cracks' or not receive the adequate support to keep them in care - partly because human resource constraints limit a clinic's ability to actively follow up their patients."

[39] Stein, J. et al. (2007) Hope is the pillar of the universe: Health-care providers' experiences of delivering anti-retroviral therapy in primary health-care clinics in the Free State province of South Africa, Social Social Science & Medicine 64 (2007) 954–964.

Another related lesson is that, whilst coordination mechanisms at district, provincial and national level are important, the most logical and direct mechanism is that of the hospital directly with its satellites; it is this system that has to provide the services package in a coordinated way. This 'continuum of care service system' can at its periphery interface with other systems - such as arrangements for home based care, food aid, micro-credit schemes, and so on, as is the case in Zaka District.

The evaluation team is wholly positive with regard to the performance of SolidarMed in particular because of its supportive and complementary role. With this in mind, the SMART Logical Framework could be re-drafted to redress the current conventional 'project mode', that presents SolidarMed as the implementer.

2.2 Approach

For the discussion of SMART's approach, it is perhaps relevant to restate the obvious: that it is unethical to discontinue the provision of ART. Further, it would be causing harm through the potential for development of drug resistance which then becomes a public health and cost concern.

The evaluation team surmises that in focusing on bio-medical interventions and outcomes, the SMART project has addressed the appropriate issues and was initiated in a timely manner, in-step with mainstream efforts of the national programmes. It was thus able to contribute to and benefit from the national roll out programmes. Additionally, the sites selected serve marginalised beneficiaries that live in remote and rural regions. Equitable distribution of ART services has in recent years also become a priority at the policy level, in both countries visited (section 1.4 refers).

The implementation of SMART activities has required re-allocation of resources originally foreseen in the 2004 Project Document: planned expenditure proved redundant (such as for antiretrovirals) while previously unplanned expenditures were warranted (such as drugs for OIP).

Each SMART site has differed in how the components of the logical framework have been implemented based on the local context and the intricacies of the relationships with other stakeholders and collaborators within each district. In making decisions, a delicate balancing act has taken place where appropriate provision of services and the desire to promote integration or dependency have been taken into consideration. In Dareda Hospital, for example, a decision not to purchase VCT kits arguably compromised the scale up of activities, but this decision was carefully considered and made in order to avoid risking continued non-supply from the government. In Lugala, the decision to support the extension of VCT services at satellite centres was made in light of the good cooperation between the DAC and the SMART Site Coordinator, and in view of the fact that Lugala hospital had severe shortage of trained counsellors. In Zaka, SMART has not pursued HBC activities as other NGOs are doing this, and has relied on the efforts of a specialised NGO (Zvitambo) in its PMTCT programme.

2.3 Integration

In all settings, SMART has aimed to implement VCT, ART and PMTCT activities in line with the national, regional, district and local level health delivery systems. In concordance with the 'Three Ones' (UNAIDS, 2004[40]), SMART adheres to national policies and protocols[41] and national health information system forms are completed. In Zaka and Ulanga the close collaborative relationships with district and local level authorities has facilitated the broader reach of activities to include supervision and provision of services in satellite centres and within the community.

In Babati, although SMART activities are well integrated within Dareda hospital, the stilted relationship with district authorities has hampered some activities, notably the development of collaborative relationships with neighbouring health facilities. While SMART in Babati needs to persist in developing improved communication and collaboration with the district level authorities (which they have been making concerted efforts to do), SolidarMed would have benefited from support and guidance from stakeholders with knowledge of government systems - for example, from SDC - in how to navigate such bureaucracy.

[40] ONE agreed AIDS action framework that provides the basis for coordinating the work of all partners; ONE national AIDS coordinating authority, with a broad-based multisectoral mandate; and ONE agreed country-level monitoring and evaluation system.

[41] With one exception, where Lugala Hospital Medical Officer has taken a decision to initiate tri-therapy for PMTCT based on sound evidence, and in advance of the planned government change in protocol.

Local ownership of the SMART project (one of the principles of the Zimbabwean national programme) is evident at Musiso Hospital, and indeed, in Dareda Hospital of the SMART project. In contrast, Lugala Hospital has a strongly independent identity: while SMART's contribution is appreciated, the HIV activities are subsumed into the running of the hospital and integration of the daily activities of the SMART Coordinator has not taken place as envisaged by the hospital management. In Lugala's satellites, however, SMART activities have been integrated into the daily running of the clinic and activities of the staff.

2.4 Human resources

Being well integrated into the health care delivery system, SMART is not a stand alone project. With the exception of the expatriate doctors, one SMART Site Coordinator and the data entry clerks, health care providers are employees of the missions or government and deliver SMART services as only a part of their day to day duties.

The implementation of SMART has increased the work load of staff and requires staff and managers to be creative and flexible in skill shifting and task sharing. This increasingly has meant taking on responsibilities that used to be with higher level staff, as is the case for prescription of OIP, and will be the case for prescription of ART re-fills and possibly ART initiation. Further, the work load for staff who are not trained in SMART-related activities has also increased as they take on tasks to enable SMART-related staff to conduct counselling and testing activities.

Despite the additional work load, HCPs have adapted to the requirements that care of HIV-infected individuals require. Staff demonstrated motivation through the challenge that the multi-tasking brings to them in providing them with an opportunity to implement new skills and better meet the needs of their clients and patients. This admittedly raises the question whether there is a tipping point where an increased work load no longer matches with increased satisfaction from staff, and staff becomes structurally overworked and tired. This phenomenon is increasingly reported by 'monster clinics' that have been forerunners in ART in low-income settings, as in Khayelitsha, South Africa[42].

Human resources undeniably are a limitation for the SMART project: there is a scarcity of trained personnel and difficulty in attracting and retaining staff to work in remote areas, especially at Lugala Hospital. This is not unique to the SMART project - it is a country and continent wide problem, which needs to be addressed by maximising on existing mechanisms adopted by government and mission hospitals, particularly in the recruitment of lay counsellors in Tanzania and Primary Care Counsellors in Zimbabwe.

2.5 Sustainability

No project can guarantee truly sustainable antiretroviral provisions in countries that depend on time-restricted external funding for continued drug and laboratory supplies. Further, the shortage of skilled personnel has affected all sites. With reliable supplies, projects could support the design and continued functioning of HIV/AIDS treatments such that individual clients do not discontinue their therapy and remain well on first-line ART. This further contributes to the balancing act managed by health care providers having to coordinate their actions within the system and extending their services into the community, to include follow-up of defaulters by volunteers prompted by the system, as in Zaka District, Zimbabwe.

However, at present, the sustainability of the SMART activities is restricted until each partner hospital is able to secure continued and reliable supplies of OI drugs and test kits, and until they are able to attract and pay for adequately skilled personnel (particularly Clinical Officers and doctors), to ensure the continued provision of appropriate medical care and coordination of activities. Sustainability of SMART activities also depends on other critical conditions being fulfilled. For example in Lugala Hospital the expatriate Medical Officer (and only doctor) will leave in 2008 after 7 years, with no certainty that the organisation funding him will provide a replacement.

2.6 Replication

The 2004 Project Document states that the 'SMART approach' is one that: '*...introduces ART in 'regular' district health care settings with minimal external inputs and without creating any parallel structures, thus aiming from the beginning at working under conditions which foster long term sustainability.*' It emphasises

[42] Van Cutsem G. et al. Clinical outcomes and emerging challenges after 5 years of ART in a South African township. Fourteenth Conference on Retroviruses and Opportunistic Infections, Los Angeles, abstract 535, 2007.

that '*in contexts with no previous SolidarMed interventions this would be very difficult to achieve. The project will be integrated as an additional component into existing SolidarMed support programmes and will share resources with them, including expatriate field staff already on duty*.' The project thus aimed to piggyback on existing assistance to complement mainstream government efforts and provide additional support only where needed, which it has achieved to date. In this sense it provides a cost-effective model for the donor's use of funding.

Replication is therefore limited to programmes embedded within national systems and the related bureaucracy. The evaluation team supports the concept of replication in so far that SMART should continue to balance the provision of support to each specific context and aim to be complementary in its approach.

For this to occur there must be potential for such complementarity and this prospect is more natural with some partners and requires more effort with others. Good examples include that as seen between two neighbouring districts in Zimbabwe (Zaka and Bikita District) where Musiso Hospital in Zaka shared its resources in all possible ways, to the benefit of the partner hospital in Bikita. Another example facilitated by proximity is the hands-on cooperation between the District Nursing Officer and other members of the DAAC, Care International and the health care system in the same district. This cooperation was part of an approach that suited all parties, utilising each stakeholder's strengths to the full.

2.7 Access to funds

With a three year project budget of CHF 3,940,000 (USD 3,225,000) for all four countries, the SMART project has received modest financial resources, and has used these sparingly. The cumulative financial overview of 2006 for direct programme costs indicates under-expenditure on all project components, apart from coordination. In Zimbabwe a full 76% remained unspent two years after project take-off, with one more year to go; in Tanzania 56% of the three-year budget was yet to be spent at that point in time.

Under-expenditure in Tanzania and Zimbabwe has occurred mostly because of the treatment component: a budget for provisions of antiretrovirals was eventually almost entirely covered by Government. (The same seems to apply In Lesotho and in Mozambique where 73% and 69% respectively of the treatment budget was unspent by mid-2006.) In Tanzania, under-expenditure has occurred because the HBC component has not yet been implemented, and in Zimbabwe, other actors have taken on project components (home based care by CARE International; PMTCT by Zvitambo, both in Zaka).

Under-expenditure has not been a strategy on the part of the project but has been a result of hospitals becoming part of the mainstream thrust for ART roll-out and other actors taking on unforeseen roles. Once included in the mainstream SMART hospitals also had access to provincial and national resources such as training and monitoring by government institutions. This has, amongst other things, had the effect of decreasing the pressure to find alternative sources of funding for continuation of the SMART project after its pilot phase.

All three project sites have been extremely busy with organising their own ART services and those of satellite units. This has to some extent been at the expense of outward contacts, especially when first attempts to establish contact were unsuccessful. For example Dareda hospital in Tanzania could have been more pro-active and perseverant in prompting district level institutions to take up their role as coordinator of HIV/AIDS related activities, such that the hospital would have taken its legitimate role as representative of Faith Based Organisations, and could have benefited from access to new resources. The same applies to regional level funding coordination mechanisms, for example where FHI were selected as regional coordinators for accessing central level funding, in Morogoro, as part of the Tanzanian MOH's regionalisation process. With the COOF in Dar Es Salaam, this is an aspect of the project that could have benefited greatly in terms of support from SDC, as previously mentioned in Section 2.3.

At another level the evaluation team is aware of debates that ponder the relative merits of donor aid in the form of financial support, support to 'basket funds', and project support, or combinations thereof. The evidence is that a number of components need to be in place for the funds provided by donors to achieve their intended purpose. This is so for any endeavour, but HIV/AIDS is a special case as it requires health systems to gear up and fine-tune both their internal and external coordination mechanisms, on a continuous basis. This does require financial inputs, but is by no means guaranteed by them. An example is the situation in Babati District, which has qualified for Global Fund support, and as such has received over 9 million TSh per quarter, since March 2006, to initiate and nurture partnerships in the District. The Acting DMO told the evaluation team that none of this money had been spent, thus far. Also no communications have existed between the two hospitals on the issue of ART provision, even though both were in the start-up phase and

are only one hour's drive apart. (The same was the case for Ulanga District, although here the District AIDS Coordinator was a go-between, to some extent.)

2.8 Treatment quality

Overall, the quality of care given at the point of delivery was assessed as acceptable and at least comparable to government run hospitals (if not higher). In Tanzania, much credit was given by officials from NACP who conduct regular supervisory visits of SMART sites. In Zimbabwe, the same applies for support from the MoHCW at provincial level, based in Masvingo. Supervision of activities at the satellite clinics are conducted jointly through SMART and district authorities in Zaka and Ulanga West: an activity that would not occur (at least as frequently) without SMART transport.

All sites adhere to guidelines (already discussed) and follow good practice with use and safe disposal of equipment. Reports from patients revealed satisfaction and no complaints other than having to wait in queues, and this is partly a result of staff taking time in counselling patients.

There are several areas that need attention. Referral systems are not functioning adequately: referrals are not recorded and the number of people who manage to make the referral is questionable, particularly in Tanzania. Whilst recognising that the reasons for this are most likely extraneous to SMART (due firstly to non-disclosure / denial of HIV-status and secondly to transport costs), it is an issue that needs to be addressed firstly through systematic quantification of the problem.

Follow up of patients needs to be strengthened particularly of non-attenders initiated on ART, in Tanzania where services are not yet (fully) decentralised and also of PMTCT women testing positive and of their babies in Zimbabwe. The number of drop outs from the OI-P programme is particularly high with many people not re-attending after a first consultation. Follow up mechanisms could be strengthened through the proposed HBC programme in Dareda, and is still under consideration in Ulanga. How follow up is conducted, must be sensitive to the risk of involuntary disclosure. CBC can help further with sensitising CTC patients regarding the importance of maintenance of adhering to treatment. In Zaka, where satellite clinics are providing follow-up services for OI, the patient retention is better but still requires attention.

2.9 Equal access

During a visit to the NACP in Tanzania, the evaluation team noted the ART provider map of the country still has large areas unserved. At present there are some 200 ART provider facilities while another 300 are planned for accreditation before the end of 2007[43]. In Zimbabwe there are 62 districts and the MOH aims to have at least one facility per district offering antiretroviral therapy by end of 2007. Currently 45 of the 62 districts have at least one facility initiating ART where all clinics will offer follow up services.

The SMART intervention has enabled access to HIV testing, PMTCT and treatment of HIV where it did not previously exist. The provision of laboratory and testing equipment and specialist training amongst other infrastructure support has been pivotal in this. However, interruptions in supply of VCT test kits and OIP drugs have hindered access for some. Now SMART need to maintain their momentum to aim for greater decentralisation and scale-up to allow even more people to access their services. First, supplies of test kits and drugs need to be secured, possibly through lobbying government and also through maintaining a buffer stock. Crucially, all sites need to consolidate follow-up and referral procedures and reduce the number of patients lost to follow up. In order to achieve the continued roll out of antiretrovirals, the SMART teams will need to re-consider targets, train new cadres of staff to delegate counselling tasks to, and revise eligibility criteria.

The cost of transport as a barrier to accessing HIV-related services is the prime barrier for individuals and provides strong evidence to encourage the continued decentralisation of services. SolidarMed have been considering a transport voucher system, but this is not to be initiated lightly in consideration of sufferers of other chronic diseases. The same applies to reduction in fees: any schemes to promote access or adherence to HIV treatments should be done in consultation not only with people infected and affected by HIV, but also with other members from communities that can represent alternative perspectives. While acknowledging the specific facets of HIV treatment and the importance of long-term follow up, care should be taken to avoid making AIDS and HIV-positive individuals special cases and possibly contributing further to stigmatising attitudes. A practical (though partial) solution to the problem of transport costs is enhanced

[43] Dr B..Bwijo, NACP, personal communication.

capacity at the decentralised service levels. This would require, among other things, improved communication channels for clinical mentoring by referral centres, in the form of operational telephone lines, radio, or internet.

While recognising the positive effects of ART and community sensitisation in reducing discrimination reported by beneficiaries and HCPs, continued efforts to reduce stigmatising attitudes could be more structured. For example, by considering how to reduce the barriers to access related to women's fear of disclosing to their partners and the fear of ostracisation. Thus, promoting acceptance, family support and promoting partner testing could be included as key messages.

2.10 Main challenges

The domain of HIV/AIDS is in constant flux requiring an unusual level of alertness and pro-activity at all levels. For example, stock-outs can happen any time, and are not easily cushioned. A major future problem will be the handling of data, as ART and OIP clients will continue to increase, and their records need to be maintained, as the clients themselves move between service levels. This is also acknowledged as a problem at the national level, in both countries visited[44].

In summary the following are key challenges:

- Default / loss to follow up rates, the challenge being developing or improving follow up mechanisms;
- Retention of human resources in remote rural areas and country-wide shortage of skilled personnel;
- Sustainability of reliable supplies of drugs and test kits;
- Transport costs for patients;
- Involving men.

Only when the above are addressed can the challenge of increasing roll out be addressed. It is noteworthy that many of these challenges are not unique to the SMART project, and, likewise, that innovative solutions would help ART providers in other settings. It is here that SMART could try to establish and convey added value, and perhaps has not done so sufficiently thus far.

At the same time we should not forget that non-HIV related problems will continue to arise and require attention, as is illustrated in Musiso's 2005 Annual Report: '*Often we didn't even have enough money to pay for our water and electricity. The water supply was disconnected twice and this gave us big problems. However, we always managed to get enough money to get it opened again.'*

[44] Dr Eric van Praag, FHI, Dar Es Salaam, personal communication, March 2007

3. RECOMMENDATIONS

Given the fact that SDC had decided to discontinue funding, the recommendations are largely directed at SolidarMed, in an effort to support the organisation's intention to continue SMART projects with alternative funding.

The recommendations are based on the following principles: firstly that SolidarMed is ethically bound to ensure continued access to ART for those patients who have initiated therapy *as a minimum*. Secondly, the project needs to address the increasing backlog of patients eligible to start ART. Until government or mission hospitals have the capacity to do this and to continue the scale up of ART services, SolidarMed will be required to continue its support. Smart activities now need to focus on improving follow-up mechanisms to identify patients lost to follow up among those on ART. Only once mechanisms exist to ensure acceptable patient retention can SMART then aim to scale up its activities. In this sense, decentralisation of services offers a symbiotic relationship between reducing losses to follow up (and promoting patient retention) and scaling up. Thirdly, as brought out by SDC in its comments on the draft report, the project should better identify the niches in which it has comparative added value, with a view to sharing lessons learned with others and so to generate wider benefits, beyond the project boundaries.

With these priorities in mind, the recommendations below reflect the lessons learned and are listed according to the project's Logical Framework. In view of the identified shortfall at the demand side of the services –defined here in a particular sense: of demand along the continuum of care, for individual clients, including treatment adherence – the recommendations moreover distinguish two dimensions, of supply and demand, with a third dimension for another identified project weakness: networking and coordination, with a focus on wider sharing of lessons learned.

3.1 Policy Environment and Sustainability of ART

Networking and coordination

3.1.1 SolidarMed to become more pro-active in-country in seeking and accessing funding through grants they are eligible for in support of the national roll out of ART, in addition to HQ identifying suitable funds. For example, identifying mechanisms to access GFATM monies. This will require coordinators investing time at national (or regional) level in meeting with coordination bodies to identify funding mechanisms, particularly when district level governmental coordinating bodies may also need support (as in Babati District).

3.1.2 SolidarMed to use the above opportunities to also identify in what specific ways the SMART project could have others benefit from lessons learned in SMART supported institutions.

Demand

3.1.3 The project and beneficiaries may benefit from establishing formal links with the health facilities to ensure that the needs of beneficiaries are heard. For example, through ensuring appropriate representation in steering committees and in programme planning (the HBC proposal for Hanang_Babati refers) and establishing self-help treatment support mechanisms.

3.1.4 Across all sites, the project needs to improve male uptake of the services, and we would encourage the project to be innovative in how it uses its current beneficiaries to take part in this (e.g. using women and men who test negative as well as positive in 'publicity' about the benefits of knowing your status or accessing treatment and preventing transmission to infants).

3.2 Voluntary Counselling & Testing

Supply

In order to provide constant availability and improved access to testing:

3.2.1 In the event that tests kits from government are in short supply, SMART needs to make sure that it procures kits to fill in the gap.

3.2.2 In all new testing centres, aim to provide results of HIV tests on the same day to reduce the number of individuals who do not return for test results (particularly in the VCT – OPD and ANC clinic at Musiso Hospital).

3.2.3 In line with government guidelines, we encourage Tanzanian sites to train lay counsellors and the Zimbabwean site to identify the district entitlement to 4 Primary Care Counsellors. This will enable more effective use of HCPs skills and time.

3.2.4 Improve links between various access points and testing to ensure that patients who are recommended to test by HCPs are followed up (e.g. in Musiso Hospital where TB in-patients are advised to test for HIV but are not systematically followed up). With reference to this, aim to capture where referrals are made to and from for testing (currently, all patients who are tested outside of ANC or PMTCT are entered into the VCT registers). Such extrapolation of data will help identify whether more effort is required at various entry points.

Demand

3.2.5 Develop opportunities to utilise existing beneficiaries from the programmes to 'publicise' the benefits of testing, e.g. male partners of PMTCT clients who have tested as well as male clients from the VCT and ART programmes.

3.2.6 Similarly, seek opportunities to publicise examples of positive living, in collaborative relationships (e.g. training as lay counsellors, peer education, public speaking or project management, of people living with HIV/AIDS).

3.3 Prevention of Mother-to-Child Transmission

In addition to the above, and with a focus on knowing one's status and preventing harm to the next generation:

Supply

3.3.1 In Zaka, ensure continuity of Zvitambo efforts in PMTCT (now that this NGO has withdrawn) to focus on capturing losses to follow up of women and infants born to HIV-positive mothers through considered use of allocated funds; and in provision of test results on the same day as ANC appointments to reduce risk of women going into labour without access to antiretroviral therapy.

Demand

3.3.2 While encouraging delivery at health centres, recognise the role of TBAs as they can contribute not only in improving access to SMART services, but also in addressing stigma and supporting women in feeding choices and follow up of infants born to HIV-positive women.

3.4 Prophylaxis of Opportunistic Infections and Antiretroviral Therapy

Supply/Demand

3.4.1 Consolidate follow up of patients who miss appointments to improve ART patient retention.

3.4.2 Adherence: develop structured guidelines for adherence advice-giving; provide patients with appropriate IEC materials to guide them in pill taking (pictures of pills with information about side effects and storage); measure adherence through pill count and record at each visit for each individual. Encourage but do not insist upon an adherence partner. Clearly state the definition of adherence for project and reporting purposes, as distinct from appointment attendance (e.g. as a dichotomous indicator: 'pill count demonstrates adherence of ≥ 95%, where the patient has taken at least 95% of their medication', or quantify it as a % for each patient by pill count – this would be preferable).

3.4.3 Revise Zaka entry criteria (e.g. encourage adherence partner, but do not insist upon disclosure, upper age limit of 60 years).

Supply

3.4.4 Particularly at Musiso, provide training for a second Laboratory Technician in use of the CD4 machine to avoid a scenario where, if the current expertise is not able to work, there is no back up.

3.4.5 Consider and draft a plan of action for patients who, in the future, fail treatment and exhaust free government drug options.

3.4.6 Continue decentralisation of OI-Prophylaxis to satellite health facilities.

3.4.7 Improve communication structure set up between hospitals and satellites, for referrals and for clinical advice (clinical mentoring). This might include investments in radio, telephone or internet connections.

3.5 Community Based Care

Networking and coordination/Demand

3.5.1 Well functioning support groups for PLHA can help to attract and retain patients to antiretroviral and prophylaxis treatment through peer support. With this in mind, consider structured capacity building for people living with HIV/AIDS to facilitate a more appropriate collaborative relationship (as above, e.g. training in peer education, in counselling, in public speaking or project management). Use beneficiaries to publicise the ART programme.

3.5.2 Maintain links with village and ward HIV/AIDS committees and work with them to support and develop their roles. They can be useful sources of support with CBC activities and in follow up of patients lost to follow up and sensitisation / reduction of stigma.

3.5.3 Develop a closer (more formal) link with Care International in Zaka, primarily to enhance patient follow up including of clients currently waitlisted for ART. Other practical cooperation could include nutrition support – a need identified by CARE in relation specifically to chronically ill persons who require soft or liquid diets[45].

3.5.4 Community sensitisation has been reported to reduce stigmatising attitudes. New SolidarMed projects in Tanzania outside of the SMART project (Ulanga) could conceivably take the lead in doing this in a more structured way than has been the case thus far. Maximise collaborative links with these programmes and other community partners to conduct such activities, so as not to divert SMART activities from consolidating ART and follow-up mechanisms.

3.5.5 Broaden the activities of the proposed HBC project in Babati District to prioritise tracing losses to follow up and include HIV prevention activities (condom distribution, education), ART awareness and aim to improve male uptake of testing services through the HBC volunteers.

3.6 Project Management

3.6.1 SolidarMed to encourage the health facilities to demand their rightful place, and participate in the various coordination mechanisms, particularly in Tanzania, at district and regional level. This with a particular focus on accessing resources that would help to sustain and expand current service levels.

3.6.2 Re-consider role and revise activities of Site Coordinator in Ulanga – consider needs of the hospital in particular, and delegate tasks to free up more time to better serve the needs of the hospital, while not risking loss of support to community. Maybe use supervision time more efficiently, and ensure continued support in the development of village and ward committees, and in developing their strategic role in district level affairs.

3.6.3 Site coordinators to take a more active role in helping hospitals to access additional human resources. Examples are the allocation of newly qualified clinicians to rural areas; accessing government incentives for staff working in rural areas; advocating for student attachments; drawing in staff that are 'retired and yet not tired' (a MoH initiative in Tanzania); accessing new cadres such as Primary Care Counsellors (a MoHCW initiative in Zimbabwe); and so forth.

3.6.4 Given the opportunity cost and the fact that the official recording systems are under revision, the team recommend that SMART data collection is an add-on, rather than as a stand-alone, data collection system. As suggested in a recent report, relevant add-on indicators that can be studied at low cost would be mortality rate, weight gain and increase of CD4-count after a defined HIV-treatment period[46]. Given the structural problem of data collection on HIV/AIDS (section 1.6 refers) we encourage SolidarMed to give careful consideration to this important aspect of the project and consider allocating appropriate funds to

[45] CARE has an arrangement for food aid, with the World Food Programme.
[46] G. Waldegg, Report on the SMART project visit to Seboche Hospital, Butha Buthe, Paray Hospital, Thaba Tseka and St.Josephs Hospital, Roma, Lesotho, from 14.1.– 28.1.07.

recruitment of an HIS expert to develop this tool to one that is less time consuming to complete and more in line with proposed government data capture. (Possibly through having clinicians enter the data during the consultation). The aim would be to concentrate efforts on essential data without sacrificing loss of quality while maximising utility of the computer programme.

ANNEXES

ANNEX 1: TERMS OF REFERENCE

SOLIDARMED PILOT PROJECT – SDC

1. Background Information

Over the last two years, Southern Africa has gone through a humanitarian crisis unlike any other. As many as 14 million people, half of them children, have been at risk of starvation in six affected countries: Lesotho, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe.
Unlike the 1992 famine which was almost exclusively drought-related, the affected countries in this crisis have been stricken by a "triple threat" (a combination of different factors: 1. HIV/AIDS, 2. food insecurity, and 3. weak governance). This "triple threat" has had a tremendous impact on the population and on its possible copying mechanisms. In rural areas, one effect has been the reduction of agricultural productivity and so an increase of food insecurity.

An HIV/AIDS-affected household can see its income drop by up to 80 per cent. One in four people in the reproductive age group (15-49) in this region is living with HIV. This means that fewer adults must support more people, and the burden of care has shifted to society's weakest and most marginalized people, especially women and girls.
While the demand for treatment grows louder by the day, millions of Africans living with HIV/AIDS remain deprived of care both preventive and therapeutic. When medical care is well-integrated into prevention efforts in a country, the two elements of the response mutually reinforce each other. Prevention efforts reduce the number of people in need of care and reduce the demands on already strained health systems.

With the support of the Swiss Agency for Development and Cooperation (SDC), SolidarMed has started to incorporate AntiRetroviral Treatments (ART) in 7 selected rural districts of Tanzania, Mozambique, Lesotho, and Zimbabwe, where they already had working experience. The project, being a pilot experience for SolidarMed, has been planned for a 3 years period (from July 2004 to June 2007).

The start of SolidarMed's AntiRetroviral Treatment project (SMART) in 2004 coincided with the launch of global funding initiatives to scale-up care and treatment of HIV/AIDS, such as the WHO's "3by5" and the "Global Fund to Fight AIDS, Tuberculosis, and Malaria." The national ART roll-out programs have since made great efforts to establish treatment guidelines and distribute ARV drugs, but have not yet managed to meet the huge demand in care and treatment of HIV/AIDS. By the end of 2005, two million people had died of AIDS and only 17% of those in need of ART in sub-Saharan Africa had access to therapy, the majority of them in urban areas. The weak capacities of the health care system in rural areas - infrastructure, human resources, equipment - are the major constraints of scaling up ART. Today, 24.5 million people in sub-Saharan Africa are living with HIV/AIDS. In December 2005, the UN General Assembly adopted a resolution on universal access to treatment by 2010 for all those who need it.
In the course of 2005-06, the rural partner health facilities of SMART in Tanzania, Mozambique, Lesotho, and Zimbabwe have established HIV/AIDS comprehensive care and treatment services. All SMART partner hospitals have since obtained the official accreditation as ART clinics. On 30 June 2006, the six SMART hospitals had a total number of 2'700 registered HIV/Aids patients, of whom 547 are under antiretroviral treatment.
In their original working contract, SDC and SolidarMed had agreed to have an evaluation of this pilot experience.

2. Goals of Evaluation

The evaluation will analyze the process and the results of SolidarMed's AntiRetroviral Treatment project (SMART) in two countries. In Tanzania, where there is an SDC Cooperation Office (COOF), and in Zimbabwe (and eventually Lesotho if time permits) where there is no COOF. The evaluation aims to identify the strengths and the weaknesses of the project, thinking in terms of learning experience, sustainability and integration in the "local" structure" and to propose measures for improvement, comparing it with other experiences in the sector.

3. Scope and key questions

Scope:

The evaluation should provide evidence of the relevance, the effectiveness and efficiency of the pilot project in ensuring access to treatment in alignment with the national policies of the health sector. It should also demonstrate results and show what works and what makes a difference in order to learn from it for up-scaling and also to link evidence to policy.

Key questions:

- Approach: Did the project address the right issues? Were the choice of interventions and the allocation of resources appropriate with regards to establishing sustainable ART provisions in resource poor settings? Did the project contribute to capacity building and system strengthening?
- Integration: How is SMART integrated into the national and regional ART programs and policies? Is SMART integrated into the district health care system?
- Human resources: How has scarcity of human resources in the health sector affected SMART? And vice-versa, what was the impact of SMART on human resources and on the provision of health services other than HIV/AIDS?
- Sustainability: Does the project address and ensure sustainability of ART provisions in selected districts?
- Replication: Can the SMART approach be used as a model and be replicated for ART scaling up?
- Access to funds: What are the strategies of SMART to enable SolidarMed and its local partners to access other funds and resources? Have these strategies worked out?
- Treatment quality and equal access: From a medical point of view, does the project ensure good quality HIV/AIDS treatments and access for all?

4. Specific objectives:

4.1 Relevance

a) Are the affected beneficiaries, local, and national authorities satisfied with the achieved results? (Emphasis should be laid on beneficiaries). How has it contributed to the socio-economic wellbeing of the population?
b) How does SMART take into account and manage the different cultural aspects with regard to HIV/AIDS?
c) Did the project stimulate a holistic approach by integrating, for example, prevention aspects in their programming, etc.?
d) Assess the relevance of the project in terms of the contextual environment.
e) What are the effects of SMART on national ART programs?

4.2 Effectiveness and Appropriateness (outcome)

a) Has the project managed to deliver the expected results (refer to LogFrame and indicators)? How is the quality of the services delivered?
b) What has been learnt in the pilot project phase, and who has benefited from this knowledge? Is the project collecting any data for research or sharing its experiences with others?
c) Would the treated patients have had access to (equal quality) ART without SMART?
d) How does SMART manage the lack of human resource and what could be solutions?
e) Did the results (in terms of access and quality of the treatment services and responsiveness) correspond to the needs of the target group?

4.3 Efficiency

a) Assess efficiency in terms of value for money (Very important to assess as there are on-going national programs and this might look into the issue of whether SolidarMed needs to implement the project or if the money should be put into the national program budget?
b) Were there limited human resources for the project? If so, how has that affected the project's functioning? And how would that be affected by further expansion of the project? Are there enough resources to deal with resistance and second-line drugs, later on?
c) How did the laboratories and the medical supplies (drugs…) function? Did supplies ever run out? If so, what were the effects?
d) How have the financial contributions of patients (or absence of) contributed to the project? What are the main challenges the project has been facing?

4.4. Process and Structural Context

a) How is the project embedded in the health system of countries? (from policy and strategy level down to clinical procedures) => Sustainability (logistical, clinical, financial, organizational…)?
b) How has the phasing out of SolidarMed, as an "external" organization, been planed?
c) Has the regional dimension of the project brought any additional value (South-South exchanges and significant learning)?
d) What is the performance of SolidarMed as an implementing agency? What added value has SolidarMed brought? When did SolidarMed begin to treat people and how many men and women have they treated since then? How many people have dropped out? How did they mobilize the surrounding communities to go for testing and then for treatment when necessary?
e) Is such a micro-project further needed in the present context of harmonization versus vertical funds and initiatives?
f) Is scaling up with the given results of this evaluation reasonable?
g) How does SolidarMed interpret and implement a "do-no-harm" approach with its ART project?
h) How is "patient monitoring" organized?

4.5. Medical

a) Is the upgrading of laboratories an adequate intervention to improve diagnosis and treatment monitoring? How is the lab staff trained?
b) What is the role of standards in the running of labs and use of medications (government and local guidelines, WHO vs. NGO standards).
c) How adherent are patients to ART? What measure does SMART take to ensure adherence to ART?
d) What is the quality of treatment? How are side effects and drug resistances managed and monitored?
e) What is the outcome of the project component OIP (Opportunistic Infection Prophylaxis) for the potential beneficiary group? Does the ART clinic, which is usually a separate building, attend patients referred by other health posts/centers, clinics, churches, among others? How does SMART make sure, those other actors refer their patients to SMART Day Hospital?
f) How does SMART manage the challenge of HIV transition from mother to child?
g) What were the effects of delegating "simple tasks" (counseling, etc.) to less qualified staff?

4.6. Beneficiaries

a) How realistic were/are criteria for classification and beneficiary selection? Should there have been additional selection criteria (most vulnerable, family members, etc.).
b) How appropriate and how efficient were/are the processes of registration, selection and appraisal (selection categories), and monitoring of the patients?
c) How were the families of patients integrated? How are children treated?
d) What are the reasons and explanations for patients who "dropped out" of the project (including the gender issue)?
e) How is the monitoring/following of patients guarantied when there is limited staff capacity?
f) How does SMART manage patient data?
g) Is SMART gender sensitive?

4.7. Collaboration among International and National Stakeholders

a) Assess the collaboration of SolidarMed with local stakeholders (beneficiaries, authorities, government representatives and ministries, other NGOs, and SDC Coordination Offices). What worked well? What were the constraints? (Including collaboration on nutrition, psycho-social support and educational issues).
b) Are there any significant differences between the SolidarMed ART programs in countries with SDC offices when compared to countries without SDC offices? If so, what are the differences?

5. Management of the Evaluation

- SDC and SolidarMed jointly manage the evaluation; SDC finances the evaluation.
- Nathalie Vesco from SDC and Thomas Gass from SolidarMed have the lead. Christoph Jakob and Justin Veuthey assist the process.

6. Evaluation Methodology and Team Composition

The methodology has to be participative and must focus on lessons learnt.

a) The team should include a man and a woman with the following profiles:
   Requested from all team members
   - Experience in evaluation.
   - Independent from commissioning agencies (as according to ALNAP guidelines).
   - Excellent English.
   - Working experience in a developing country.
   - Strong social skills and sensitivity for a complex political and ethnic environment.

   Requested from at least one team member
   - Familiarity with this kind of project in the field and at management level (a).
   - Experience in technical treatment of HIV/AIDS (b.1).
   - Experience in managing an HIV/AIDS project (b.2).
   - Familiarity of working on policy level (governmental departments, IOs, NGOs) (c).
   - Knowledge of database management.
   - Familiarity with the region.
   - The team leader should also have one of the following backgrounds (a, b, or c).
b) The team will be composed of 2 international consultants who will both visit the two countries. The evaluation managers (Nathalie Vesco and Thomas Gass) will select the 2 consultants.
c) The 2 positions will be published through different channels (ALNAP, etc.). Consultants can apply individually or as a team. Applicants should send their CVs and a brief text on proposed evaluation methodology (both of which should be in Word format) to:
   - Christoph.Jakob@deza.admin.ch;
   - Justin.Veuthey@deza.admin.ch;

d) Working days

	Team Leader	2nd Consultant
Preparation	4	2
*Field Work	15 to 20	15 to 20
Writing Report, etc.	6	4
Max. Totals:	30	26

* Including travel time.

7. Time Schedule

a) ToR – finalized by 28 September 2006 and published for consultants.
b) Deadline for consultants to apply: 15 October 2006.
c) Field mission is possible between November-December 2006-January 2007.

8. Expected OUTPUT

Target audience: Key stakeholders such as: SDC, SolidarMed, and Partners.

a) Submission of an initial Draft Report to evaluation managers within 1 week of return to Switzerland. The Report will also be submitted to the district partners where the pilot project is being implemented, as well as other project stakeholders, including the COOF in the country where there's one.
b) Debriefing in the field.
c) Debriefing with evaluation managers and head of agencies (SolidarMed & SDC).
d) Final Draft (within 2 weeks after feed-back from evaluation managers).

The final report will have a maximum of 25 pages, including an executive summary of 2 pages.
The final report will have lessons learnt and general recommendations as well as recommendations for each specific stakeholder.
The report will be publicly available.

ANNEX 2: TRAVEL SCHEDULE AND PERSONS MET

Briefing-Schedule 2 February 2007, SDC-Humanitarian Aid (HA), Köniz (Einsatzraum)

Time	Issue	Participants
09.00-09.30	Internal preparation	-Hansjürg Ambühl (Head of Africa Division, SDC-HA) -Martin Jaggi (Programme Officer SDC-HA) -Justin Veuthey (Project Assistant SDC-HA) -Thomas Gass (Programme Manager, Solidarmed)
09.30-10.30	-Context of evaluation -ToRs	-Idem + Joanne Harnmeijer (Consultant ETC Crystal)
10.30-10.45	Coffee Break	
10.45-11.30	-Logistic issues (Travel Schedule, etc.)	-Martin Jaggi (Programme Officer SDC-HA) -Justin Veuthey (Project Assistant SDC-HA) -Thomas Gass (Programme Manager, Solidarmed) -Joanne Harnmeijer (Consultant ETC Crystal)
11.30-14.00	Lunch Break	
14.00-15.30	-Fine tuning Consultant- Solidarmed	-Thomas Gass (Programme Manager, Solidarmed) -Markus Frei (Medical Advisor, Solidarmed) -Clemens Truniger (Medical Advisor, Solidarmed) -Gabriel Waldegg (Medical Advisor, Solidarmed) -Joanne Harnmeijer (Consultant ETC Crystal)
15.30-16.00	-Fine tuning Consultant- SDC	-Sandra Bernasconi (Senior Advisor for Social Development, SDC) -Martin Jaggi (Programme Officer SDC-HA) -Justin Veuthey (Project Assistant SDC-HA) -Joanne Harnmeijer (Consultant ETC Crystal)
16.00-17.00	-Discussion of open questions -Conclusion	-Hansjürg Ambühl (Head of Arfica Division, SDC-HA) -Sandra Bernasconi (Senior Advisor for Social Development, SDC) -Jean-Pierre Stamm (Medical Advisor, SDC-HA) -Martin Jaggi (Programme Officer SDC-HA) -Justin Veuthey (Project Assistant SDC-HA) -Thomas Gass (Programme Manager, Solidarmed) -Joanne Harnmeijer (Consultant ETC Crystal)

Schedule and persons met during country visits, February 2007

Date	Location	Persons met
10th	Dar Es Salaam	Ms Jackie Matoro, Programme Officer, SDC
11th	Dar Es Salaam	Tz team meeting Flight to Arusha, overnight in Arusha
12th	Arusha Dareda Hospital	Transfer by car to Dareda Meeting with Dareda SMART Team: - Dr Abraham Laizer, AMO - Dr Reto Villager, SM Paediatrician - Ms Susan Mallya, SM Site Coordinator - Mrs Emma Mushi, Incoming ART-Site Coordinator - Dr Anton Mushi, MO - Ms Celine Adou, Administrator - Ms Mary Hhayuma, Matron Walter de Nijs, Executive Director, LISO (Local Initiatives Support Organisation) Mr Francis, LISO Ms Anna Margwe, NM / PMTCT counsellor

13th	Dareda Hospital Babati Hospital	Mr Sabiniani Baha, Pharmacy Assistant Laboratory staff: Sr. Theresa, Doreen, Mary Susan Mallya, NO / PMTCT Counsellor (Site Coordinator) Emma Mushi, NO / VCT Counsellor, incoming Site Coordinator Dr Reto Villager ART Patients x 4 Dr J.Gaare, Acting DMO Mr H.Kuria, DAC
14th	 Lugala Hospital	Flight to Lugala Meeting with MO and ART Team: - Dr J. Pönnighaus, MO - Ms Elisabeth Rotzetter, SM CC. - Mary Temu, SM Site Coordinator - Mr Lusikelo Mphomi, CO i/c CTC - Ms Leah Chogo, Matron - Mr Daudi Loth, RN, i/c ART Pharmacy - Mr Bumija John, Laboratory Technician, i/c Laboratory Dr William Range, Acting District Medical Officer Dr Jonathan Chitarula, District AIDS Coordinating Committee Br. Samwel Mparange, Director, St Joseph's Orphanage, Itete Elisabeth Rottzeter, SM Country Coordinator
15th		Mr Lusikelo Mphomi, CO i/c CTC ART Patient, female outpatient Dr Mary Temu, SM Site Coordinator Mr Daudi Loth, RN, i/c ART Pharmacy. Mr Bumija John, i/c laboratory, Laboratory Technician Mrs Leah Chogo, Matron Dr J. Pönnighaus, Elizabeth Rotzetter, Mary Temu
16th	Igawa Dispensary Malini Dispensary	Ms Anselmina Mueneni, NM / PMTCT Counsellor Mr Anastasi Mzera, CO i/c Ms Helen Sule, NM / PMTCT counsellor x4 ART in patients
17th	Mtimbira Health Centre Itete orphanage	Mr N Masembo, CO i/c Ms Anita Kalimangasi, NO PMTCT Counsellor ART patients, x2
18th	Ifakara Dar Es Salaam	Ms Elisabeth Rotzetter Brother Mikaila SM Accountant Evaluation Team Meeting
19th	Dar Es Salaam	Dr B. Bwijo, Head, Treatment and Care, NACP Mr Jaques Mader, Assistant Country Director, SDC, Tanzania Ms Jaqueline Mahon, Regional Health Advisor, SDC. Ms Jackie Matoro, National Programme Officer, Social & Physical Well-Being Division, SDC.
20th	Harare	Dr Christine Chakanyuka, Head of ART, MOHCW/WHO Professor Ruedi Lüthy, Director, Zimbabwe Swiss Aids Care Foundation, Connaught Clinic. Ambassador M. Stutz, Embassy of Switzerland Mr. Fabian Osterwalder Deputy Head of Mission, Embassy of Switzerland
21st	Musiso Mission Hospital, Zaka	Dr Renate Albrecht, MO, SolidarMed Country Coordinator. Mr S. Madondo, ART Co-Site Coordinator Sr Gwanyanya, ART Co-Site Coordinator Sr O.R. Chiwawa, i/c Maternity Sr Priscilla Makowa, Laboratory Scientist, i/c Laboratory Ms Modesta Mutombya, Matron, Musiso Hospital Matron Emmah Miti, Matron of Silvera Mission Hospital.

22nd	District Medical Office	Sr K.T. Madyauta, DNO Mr S. Madondo, RGN, ART-SC
	Musiso OPD	Sr Chipato Sr Mariwa
	Harava Rural Clinic	Ms Mavies Manwungwa, RGN i/c Female OI Patient Student nurses x3
	Bota Rural Clinic	Mr S. Chinokoro, RGN i/c Mr Enoch Munyenyiwa, Field Officer for CARE International HBC programme
23rd	Musiso	Sr E. Gwanyanya, Co-ART Site Coordinator Ms N.C. Chipato, SCMN, VCT Counsellor Ms Prisca Chikuna, NA, TB Ward Mr John Chipanga, Laboratory Technician Ms Masenda Me, Data Clerk Mr Jamnote Chagweda, NM i/c MCH Sr. Mutyiri, SCN, i/c Pharmacy Sr. Hambira, i/c OPD / STI
	Jerera	Mr A. Ndaa, District Supervisor, CARE International Mr, Eben Tombu M&E Supervisor, CARE International Mr. Magara, CHBC Officer, CARE International
24th	Harare	Ambassador M. Stutz, Swiss Embassy.
25th	Depart Harare	

ANNEX 3: SMART PERFORMANCE INDICATORS, CUMULATIVE, 2006

Performance indicators SMART programme as at 31.12.06 Overdue criterion for ART pats: 4 months Overdue criterion for OIP pats: 6 months

	Seboche		Roma		Musiso		Chiure		Dareda		Lugala		Paray	
All patients on record (as at 31.12.06)	817		527		1613		296		91		205		357	
ART														
		n		n		n		n		n		n		n
ART Rx Starts total	241		333		296		91		34		83		278	
ART Patients at 31.12.06	169		275		242		67		31		46		222	
Patients under ART >= 1 Year	22		20		85		0		0		2		5	
ART patients transferred out	6		4		1		14		0		0		2	
ART patients moved away	0		0		0		0		0		0		0	
ART patients died	31		30		3		9		2		31		7	
ART patients declared "Lost to follow-up"	27		12		6		1		0		6		21	
ART patients lost and unaccounted for	8		12		44		0		1		0		26	
Average CD 4 prior to StartRx	133.2	211	107.7	180	65.2	20	184.9	30	138.8	24	99.54	67	113.8	189
CD 4 Range prior to StartRx														
Min.	0		5		3		3		3		93		1	
Max.	1330		765		213		721		275		333		960	
Average latest CD4	259.7	72	235.9	19	238.4	18	274.3	4	227.4	7	268	6	440	7
Min.	13		22		12		193		105		58		66	
Max.	922		709		932		372		369		828		843	
Average weight at StartRx	51.91	226	56.55	328	54.54	275	46.06	42	49.77	34	44.73	89	51.66	253
Average weight at latest visit	55.76	78	62.09	35	63	144	50	9	56.18	11	57.08	13	55.17	70
Average weight gain	7.08	78	6.83	24	6.23	139	1.2	6	4.36	11	8.17	13	5.38	65
WHO stage at first visit	1	42	1	19	1	9	1	7	1	0	1	3	1	20
	2	48	2	99	2	23	2	11	2	6	2	5	2	57
	3	94	3	177	3	135	3	58	3	18	3	72	3	134
	4	43	4	25	4	123	4	15	4	10	4	8	4	99
	n.a.	9	n.a.	8	n.a.	3	n.a.	1	n.a.	0	n.a.	1	n.a.	24
ART patients acc. to age and sex		168		275		240		66		32		47		220
0-14 Years Males	9		0		4		2		0		1		9	
Females	13		0		4		0		2		0		6	
>= 15 Years Males	38		83		72		27		11		17		79	
Females	108		192		160		37		19		29		126	
ART patients with previous TB Rx	65		83		127		7		9		5		31	
ART patients with concurrent TB Rx	41		22		14		11		7		6		29	
Drug combinations at latest visit		169		271		255		62		32		42		238
NVP+3TC+AZT	80		102		13		3		5		0		15	
NVP+3TC+D4T	44		44		229		53		26		40		184	
EFV+3TC+AZT	31		65		3		0		0		0		1	
EFV+3TC+D4T	14		60		10		6		1		2		38	
ARTPats with reported side effects	37		0		5		0		0		0		20	
OIP														
All patients started on OIP	780		147		1497		286		87		17		96	
OIP patients currently under treatment	196		55		703		113		22		0		60	
Patients switched from OIP to ART	203		50		198		84		31		47		23	
OIP patients transferred out	7		1		10		11		0		0		0	
OIP patients moved away	0		0		6		0		0		0		4	
OIP patients died	36		4		5		7		3		5		0	
OIP patients declared "lost to follow-up"	121		30		81		61		0		12		0	
Undocumented OIP-"dropouts"	217		7		500		10		31		0		13	
OIP patients acc. to age and sex		195		55		696		113		21		0		58
0-14 Years Males	4		0		27		2		1		0		1	
Females	6		0		38		4		3		0		1	
>= 15 Years Males	62		9		468		45		2		0		25	
Females	123		46		163		62		15		0		31	

Backlog of potential ART Patients	**Seboche**	**Roma**	**Musiso**	**Chiure**	**Dareda**	**Lugala**	**Paray**
WHO stages 3 or 4 at first visit							
All patients with WHO stage 3 or 4	283	225	792	56	38	120	91
Of which under ARVs after < 3 months	114	118	146	18	17	56	73
Of which under ARVs after > 3 months	47	31	90	6	10	8	4
Of which never put on ARVs	122	76	556	32	11	56	14
CD4 count <200 at first visit							
All patients with initial CD4<200	324	260	69	29	36	60	88
Of which under ARVs after < 3 months	90	178	52	21	17	53	84
Of which under ARVs after > 3 months	73	21	4	0	6	0	3
Of which never put on ARVs	161	61	13	8	13	7	1

Remarks:

Dareda The (low) number of OIP patients under treatment considers OIP patients who had a consultation between 01.07.06 and 31.12.06 and who had not switched to ART before 31.12.06. (This is the rule applied to all sites for "OIP patients under treatment")

Lugala The 49 current ART patients are those who - by definition - had a consultation between 01.09.06 and 31.12.06.
No OIP visits were recorded between 01.07.06 and 31.12.06.
Out of the 300 patients with a patient recrod in the database, only 166 are recorded as having had a first visit.

Roma CD-4 range at StartRx: Out of the 180 values, only 4 were above 200.

Chiure CD-4 range at StartRx: Out of the 30 values, 10 were above 200.
Average weight at latest visit is influenced negatively by the fact that a child with a body weight of 8 kgs. is included in the average while the child is not in the starting average because it's weight was not recorded at the start of therapy. Without that child, the average for the "latest visit" would be 50.00 kgs (for the remaining 8 patients). We can decide to show that figure in the table. (I did so.)
Chiure has 26 patients in the database who have no visit, or, rather, an OIP-1 visit without date. This falsifies some of the results.
For this same reason, the "all patients on record" number is overrated by this same figure. The 26 patients are actually in the database but they have never had a visit. So we could say that the figure should be 296 instead of 322.

Paray Out of the 189 initial CD-4 counts 33 were >200.

Seboche Out of the 77 initial CD-4 counts 5 were >200.

Musiso The count of drug combinations (255) does not tally with the count of current ART patients (242). This is due to the fact that 13 patients switched treatment regimes during the period. The current automatic query cannot eliminate those who have two "latest" drug combinations during the priod under consideration. (Switch was from NVP to EFV.)

ANNEX 4: AN EXCERPT OF MOHCW FORMS, ZIMBABWE

Table A4: MoHCW ART/OI Programme monthly progress report, January 2007, Musiso Mission Hospital

	Age and Sex distribution							
	0-4		5-14		15-24		25+	
	M	F	M	F	M	F	M	F
▪ Total number of patients on CTX prophylaxis to date	21	20	47	51	16	63	501	1106
▪ Number of new patients in WHO stage 1 this month	0	0	0	0	0	0	0	4
▪ Idem stage 2	0	0	0	2	1	0	4	12
▪ Idem stage 3	0	0	0	0	0	2	11	27
▪ Idem stage 4	0	0	0	0	0	0	4	2
▪ Number of patients newly eligible for ART this month	0	0	0	0	0	2	15	29
▪ Number of patients eligible for ART to date	3	5	24	19	16	16	296	567
▪ Number of patients newly starting on first line ART this month	0	0	0	0	0	1	2	4
▪ Total number of patients continuing on first line to date	0	0	4	6	2	6	91	168
▪ Number of patients on ART known to have died to date	0	0	0	0	4	2	9	12
▪ Number of patients on ART lost to follow up to date	0	0	0	1	0	0	8	12

ANNEX 5: EVALUATION METHODOLOGY

Background to the evaluation

This external and independent evaluation was commissioned by SDC as the donor to the SolidarMed project; selection of the two international consultants was conducted by both the donor and implementing agency. The Team Leader negotiated to recruit one local consultant with relevant HIV/AIDS expertise in each country. Both international consultants are women, and local consultants were both intended to be men. However, at the last minute, the Zimbabwean male consultant was not able to participate due to a personal emergency, so the team in Zimbabwe comprised all women. The bio's of each consultant are provided below and demonstrate appropriate expertise to conduct this evaluation.

The recruitment of local consultants aimed to ensure local knowledge and to counteract the biases of external consultant neither of whom had operational HIV experience in the countries visited. Conversely, the external consultants were able to provide comparisons between countries to counteract the local biases of the resident consultants.

Clarification of the Terms of Reference

In a one day briefing session at SDC-HA's headquarters in Bern the team leader met with representatives of both SolidarMed and SDC. The pilot nature of the project was re-emphasised by SDC while SolidarMed stressed its intention to continue the project. This would have to be with alternative funding as SDC had indicated it would not provide funds for continuation beyond the pilot phase, given its preference for national level funding mechanisms. This discussion did not so much change the Terms of Reference, but rather emphasised SolidarMed's expectation of an evaluation that would bring out lessons learned – to the benefit of a future project. SDC, on the other hand, expressed a desire to get tangible evidence of added value of the project, in comparison with alternative and possibly more strategic ways to support ART roll out.

Methodology

The evaluation team adopted methodologies to suit the setting and time limitations in order to achieve the objectives set in the TORs and aimed to ensure triangulation of data from multiple sources, including:

1. Briefings by:
   - SolidarMed's head office and regional offices (COOFs);
   - field programme managers.

2. Policy, and managerial document review:
   - Review of SolidarMed's policy and programme documents (including proposals, planned and actual budget expenditure, progress reports and visit reports).
   - National clinical guidelines and related policies in each country;
   - Reports to or by donors.

3. Clinical and laboratory record review:
   - Review of national and local HIV/AIDS surveillance reports including stratified HIV prevalence data and associated KABP studies.
   - National or other programme data / achievements by which to measure the SolidarMeds' progress.
   - Programme documentation / guidelines including eligibility criteria, clinical and laboratory records, reports and database.
   - Assessment of clinical data including: monitoring mechanisms (HISs), follow-up plans, losses to follow up, mortality, age and gender breakdown of ARV patients and HIV patients no yet enrolled, TB and prophylaxis management and figures, clinical records and filing systems.

4. Observation and tours of the facilities including hospitals, clinics, laboratories and localities.

5. Key informant interviews adopted a grounded theory type approach based on a topic guide for each interviewee that was adapted with new information that surfaced at each interview. Interviews with primary stakeholders were conducted informally, when patients were asked if they would like to participate in a confidential interview while attending facilities (6 patients at 3 facilities). Appointments were set to meet with 4 patients and members of a PLHA group in one setting and with 2 patients at another. Other key informants were usually interviewed by appointment and included HCPs, SolidarMed staff, collaborating partners – both NGO and GO at local, district and national level as well as donor and implementing agencies at country and HQ level. (Participants are listed in Annex 2.) Interviews were

conducted in private, in the presence of the evaluation team only and in the absence of programme personnel to ensure confidentiality.

In addition to the expertise and experience of the consultants, the strengths of the evaluation included the recruitment of local consultants not only for their ability to contextualise the project activities within the country, but also in their ability to navigate local bureaucracies and common courtesies and in particular in their ability to speak local languages with primary beneficiaries. In addition, they were able to provide support with some logistics and in provision of relevant national documents and guidelines.

In hindsight and with some transport delays, the evaluation might have benefited from additional time in the field sites. This would have enabled a more thorough collation of clinical data. While the evaluation team was able to identify some inconsistencies in the data, it would have been interesting to have been able to collate complete patient / client data, although this is not pivotal to the findings. An additional limitation to the evaluation is that there was no possibility to visit government facilities as comparisons that did not have SMART support. We relied upon the local consultants as well as information provided by the Distrtict AIDS Coordinators, District Nursing Officers and other NGOs for this information.

The TORs specify that "The evaluation will analyse the process and the results of SolidarMed's Antiretroviral Treatment project (SMART) in two countries. In Tanzania, where there is an SDC Cooperation Office (COOF), and in Zimbabwe (and eventually Lesotho if time permits)". Despite the Evaluation Team ensuring that there would have been time to visit Lesotho, SolidarMed were insistent that this would not occur with no clarification why. To what extent this is a limitation is not clear, and Lesotho is therefore only very minimally incorporated in the findings of this evaluation. Mozambique, the fourth country with project activities, has not been addressed at all.

Consultant Biographies

Dr Joanne Harnmeijer has over 25 years of living and working experience in developing countries and holds an MSc in 'Community Health in Developing Countries' (LSHTM, 1989). Joanne has been team leader of numerous evaluations both in the health sector and beyond; during the last decade many of these evaluations concerned HIV/AIDS in its various aspects, ranging from HIV/AIDS workplace policies, to external mainstreaming of HIV/AIDS, to HIV/AIDS related capacity building, to evaluations of harm reduction projects. In 2001/2002 Joanne was one of four core team members of the Five-year global UNAIDS evaluation, where she focused on UNAIDS' advocacy.

Ms Sara L Nam has over 8 years of experience in developing countries and holds an MSc in 'Reproductive & Sexual Health Research' and still works clinically as a Midwife Practitioner. Currently working towards a PhD in Epidemiology, her research in Botswana is directly relevant for this evaluation (includes a qualitative study examining barriers to antiretroviral adherence and a case-control study examining psycho-social risk factors for viraemia among HAART patients). Sara has technical and managerial experience of running health (infectious diseases, maternal & child health) programmes with NGOs in Africa and Central Asia, and has worked with DFID and UNAIDS in Cambodia in health policy and strategic planning at bilateral, multi-lateral and national level. Sara also has evaluation experience for NGOs and ECHO, and of working in multiple complex political emergency settings in remote regions in a variety of countries.

Dr Peter Bujari is a medical doctor specialised in public health aspects of development and business administration. He has over six years experience in HIV/AIDS programming including project design, research, monitoring and evaluation. His knowledge and skills extend also to policy development, analysis and advocacy. He has both national and international experience (as Regional Project coordinator for UNESCO and IFMSA HIV/AIDS and Human rights project) and has worked with international organtions in Tanzania, in all cases holding senior posts - as HIV/AIDS Advisor for Action Aid and as Tanzania HIV Officer for Oxfam Ireland - before moving and managing a dynamic NGO engaging in HIV programming and HIV governance in Tanzania.

Dr Christine Chakanyuka is a medical doctor with an MSc in Public Health. She has 16 years of working experience in Zimbabwe's public sector. Of those 16 years four have been as a manager at the national level. She has been working in the field of HIV/AIDS for the past 10 years. She assisted, for example, in the establishment of Zimbabwe's first public sector VCT centre, in 1999. Dr Chakanyuka has extensive experience in programme planning and development. She has spearheaded the setting up of the ART programme in Zimbabwe and has worked hard in decentralizing the ART services to more than a hundred centres in the past three years. She has experience in evaluating HIV/AIDS programmes in developing countries – both in the public sector and in NGO settings. She currently holds the post of National ART Coordinator.