1. Background demographic and epidemiological data

Mozambique’s population is about 20 million (2007 census data). According to the 2004 sentinel surveillance among pregnant women, Mozambique’s **HIV prevalence** was 16.2%\(^1\) in 2004; up from 13.6% in 2002 (the data from the 2007 sentinel surveillance round are expected by end November 2007). This prevalence translates into about 1.7 million people in 2007\(^2\). It is estimated that almost 105,000 of these are children under 15 years of age. Around 60% of people living with HIV in Mozambique are women.

It is estimated that 294,983\(^3\) adults are in need of Antiretroviral Treatment (ART). The number of children who are eligible for ART had been estimated at 75% of all HIV+ children in Mozambique. For 2007, this number would be around 78,000 children. The Ministry of Health is currently reviewing the calculation of children eligible for ART based on the 2007 epidemiological surveillance round and applying the updated Spectrum software which has a module for estimating eligible children.

As of end September 2007, 78,236 people received ART (27% of those estimated to be in need of ART), of which about 60% ART are women (this is commensurate with the percentage of women among PLWH) and 6,068 are children under the age of 15 (8% of the total number of people receiving ART and 8% of children estimated to be eligible; it is assumed that the updated estimates, due to be finalized in early 2008, will be significantly lower, and thus the coverage of paediatric ART will be higher). The increase in people receiving ART is shown in Figure 1 and the increase in children under 15 receiving ART is shown in Figure 2.

\[\text{Figure 1. Number of people (adults and children) who received ART from 2004 to September 2007}\]

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\(^1\) Ronda epidemiologica 2004, Grupo Multisectorial xxx  
\(^2\) All estimates from: Impacto Demográfico do HIV/SIDA em Moçambique, INE, May 2004  
\(^3\) Impacto Demográfico do HIV/SIDA em Moçambique, INE, May 2004
2. Brief summary on the status of implementation of PMTCT and Paediatric HIV CST

The estimated numbers of HIV-positive women giving birth\(^4\) were: 132,551 in 2004, 140,072 in 2005, 146,245 in 2006 and 150,995 in 2007. The HIV prevalence among pregnant women is 16.2 (up from 13.6% in 2002), as per the Sentinel Surveillance round of 2004 referred to above\(^5\). Access to health services is estimated at around 40% (MOH). The percentage of women who has at least one antenatal visit is relatively high (83\(^6\)) in Mozambique, but only 53% of women have more than four visits. The Ministry of Health considers that a complete package of antenatal care consists of five visits. Only 18% of women have the first antenatal visit in the first trimester of pregnancy. The percentage of institutional deliveries is just under 50\(^7\). A similar percentage of deliveries is assisted by a skilled attendant. Coverage of postnatal care is low at about 12% in the first two days.

In 2006, the total estimated number of births in Mozambique was 773,478, and 34% of these women (269,084) attended an antenatal clinic with PMTCT services. Figure 3 shows the data for 2002 – June 2007. The number of pregnant women receiving counselling and testing in PMTCT sites has increased from 4,641 in 2002 (82% of women attending antenatal clinics with PMTCT services) to 194,117 in 2006 (72%) and 186,806 (69%) in the first half of 2007. At the national level, the figures for counselling and testing are not always disaggregated, so in this report, only information about testing is presented. In many sites, the acceptance of testing is over 90% since the roll out of provider-initiated counselling and testing in November 2006.

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\(^4\) Impacto Demográfico do HIV/SIDA em Moçambique, INE, May 2004

\(^5\) Ronda epidemiológica 2004, Grupo Técnico Multisectorial de Apoio á Luta Contra o HIV/SIDA, MISAU/INE 2004

\(^6\) DHS 2003 / Moçambique Inquérito Demográfico e de Saúde 2003, INE, MISAU, USAID 2003

\(^7\) All figures from DHS 2003 / Moçambique Inquérito Demográfico e de Saúde 2003
Figure 3. Annual number of estimated births, numbers of pregnant women with at least one ANC check up in a PMTCT site (MoH PMTCT programme data), and numbers of pregnant women counselled and tested, from 2002 – 2007.

*For 2007, the numbers of pregnant women with at least one ANC check up in a PMTCT site numbers of pregnant women counselled and tested, are up to June 2007.

The number of HIV+ pregnant women receiving ARV prophylaxis has increased from 253 in 2002 (27% of pregnant women who tested positive) to 12,150 in 2006 (43%) and 8,947 (35%) by mid 2007. In relation to the total estimated number of HIV+ pregnant women, the numbers translate into 0.2% in 2002 to 8.3% in 2006. The number of HIV+ pregnant women who receive ART for their own health has increased from 53 in 2003 (1.2% of pregnant women who tested positive) HIV+ to 1,541 by September 2007 (6.2%; data included in Figure 4).

The numbers and percentages are reflected in Figures 4 and 5. An explanation for the fact that the percentage of eligible women receiving either counselling and testing or ARV prophylaxis decreases with an increase in the number of PMTCT sites, could be due to the fact that recently established sites are not yet fully capable of providing all PMTCT services, and because of the time lapse between identification of HIV+ pregnant women through testing and the provision of ARV prophylaxis. So when there is a relatively large number of new sites, this can impact significantly on the overall figures for ARV prophylaxis.

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Impacto Demográfico do HIV/SIDA em Moçambique, INE, May 2004
In line with the policy of the Ministry of Health all exposed children must be provided with **co-trimoxazole**. However, this is not registered systematically at all levels. The number of children tested at 18 months increased from 14 in 2003 to 1,026 in 2006 (3.6% of pregnant women identified as HIV+) and 1,102 by mid 2007 (4.4% of pregnant women identified as HIV+). In 2007, the Ministry of Health recommended that all HIV exposed children should be tested by **DNA PCR** at 4 weeks of age. This is currently being rolled out, but there have been many delays in processing the tests since there is only one PCR machine operational in the country. A second one is expected to become operational shortly.
3. Demonstrated political leadership, commitment, and accountability which have guided and accelerated scale-up efforts

The Ministry of Health initiated PMTCT activities in April 2002, after a period devoted to conducting feasibility studies and drafting strategy documents. In 2004, the Ministry of Health decided to implement the PMTCT component nation-wide, and it was included in the National Strategic Plan on HIV/AIDS for the Health Sector (PENSAUDE 2004-2008) as well as in the National Strategic Plan on HIV/AIDS (PEN II 2005-2009).

Antiretroviral treatment (ART) was introduced in the public health services in Mozambique in 2003. In 2004, ART became a part of the Ministry of Health’s HIV and AIDS Programme and of the National Strategic Plan on HIV/AIDS for the Health Sector 2004-2008 (PEN Saúde). Paediatric treatment was not incorporated in the PEN Saúde, but it became an integral part of the Ministry of Health’s HIV/AIDS Programme in 2005.

PMTCT as well as paediatric treatment with specific targets are included in the Poverty Reduction Strategy 2006-2009 (PARPA II). PMTCT and paediatric treatment are two of the 36 monitoring indicators which are reviewed twice a year by the Government and the Programme Aid Partners, who jointly review the progress made in the implementation of the PARPA II. As such, these areas are crucial for monitoring the progress of the HIV and AIDS response.

In 2006 and 2007, the Ministry of Health issued several policy guidelines which created a significant momentum for the expansion and strengthening of quality PMTCT and paediatric CST.

Initially PMTCT and paediatric ART programmes were provided at the premises of the health facility, but often some components of the intervention e.g. counselling and testing were offered in separate consultation rooms or in adjacent buildings. Since early 2006, in line with the Ministry of Health’s policy on integrated networks for service delivery, an increasing number of health facilities has been offering PMTCT and paediatric ART services within the health facilities as an integral part of the maternal and child health services. Functional integration has been occurring in other services.

In addition to the integrated networks, other policies were introduced to facilitate the expansion of PMTCT and paediatric CST services and strengthen the quality of services. In November 2006, the Ministry of Health issued a guidance note introducing several key policies. Provincial health authorities were given the authority to approve PMTCT protocols of implementing partners, when they meet the requirements set by the Ministry of Health. Provider initiated (“opt out”) testing was recommended in both antenatal care and maternity settings. The guidance note recommends that blood samples for CD4 count are drawn in the antenatal care facility (and the sample transported to a centre with a CD4 count facilities), avoiding the need for women to visit a different department within the same facility or a different health facility for this purpose. DNA PCR testing was introduced for HIV exposed children under 18 months of age.

The establishment of mother support groups by health facilities is included in the recommendations of the November 2006 guidance note, as well as the recommendation to revitalize consultations for at-risk children. The use of combination therapy for prophylaxis (Single dose NVP during delivery (to be handed out at 28 weeks of pregnancy) plus AZT from 28 weeks) was introduced officially and the provision of NVP to pregnant women shifted from 36 to 28 weeks. It is felt that all these policies have greatly facilitated the scale up of PMTCT services.

In 2007, the Ministry of Health developed targets for each province, for the number of women and children receiving PMTCT services (including ART for pregnant women), and for the number of adults and children receiving ART. The provincial authorities were expected to develop and share district level targets. Achievements against these targets can be discussed during progress meetings and supervision visits.

In April 2007, the Ministry of Health introduced the triple drug prophylactic PMTCT regime including a 3TC-AZT combination during delivery in addition to single dose NVP and for 7 days postpartum. In September 2007, maternal and child health nurses and health technicians were authorized to prescribe

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**ART for pregnant women.** This is a major facilitating factor for all health centres since it reduces the need for yet another consultation, and it is particularly relevant for health centres without a physician or Técnico de Medicina. The implementation of this policy requires a clear operational plan to ensure that the quality of antenatal care as well as ART is guaranteed. The 2005 MoH manual for the treatment of children with AIDS is currently being updated and specific **training modules on paediatric ART for lower level staff** (Técnicos de Medicina) are being developed.

A **consolidated acceleration plan** for PMTCT is currently being drafted. The different policy documents described above are components of this plan. A **national scale up plan** for Paediatric CST was finalized in 2006. Neither the consolidated acceleration plan nor the national scale up plan include a costing, but the Ministry of Health has various planning documents in place, including the Health Sector Strategic Plan (PESS) for 2007-2012 and the Health Sector Medium Term Expenditure Framework 2008-2010 (MTEF), in which PMTCT and Paediatric CST are incorporated.

The Ministry of Health manages a common fund, consisting of three parts (PROSAÚDE), the Provincial Common Fund (FCP) and the Common Fund for Drugs (FCM)). The common fund includes contributions from 16 donors, including the Global Fund for AIDS, TB and Malaria. Most donors make commitments for one or two years in advance.

The PMTCT target as described in the PARPA II is 22% by 2009 (which translates into 34,480 women according to the projections made in 2004\(^{12}\)) and the Paediatric treatment target for 2009 is 30,000 children.

Resource mobilisation and allocation is pursued through the Ministry of Health’s annual Operating Plans (POA), which are based on the PESS. The POA is funded through the common fund, as well as by vertical funds from some organisations like the UN agencies and others. In addition, Mozambique receives funds from various initiatives and organisations like USAID/PEPFAR and others.

The **coordination** between the Ministry of Health at central, provincial and district levels takes place via the Provincial Health Authorities and the District Health Authorities, who each coordinate interventions in the area under their responsibility. The MoH Reproductive Health programme coordinates a **PMTCT Task Force** in which all relevant MoH departments as well all implementing partners, technical support partners and many donors participate. Similarly a **Paediatric Treatment Task Force** exists under the coordination of the Paediatric Day Hospital in Maputo.

### 4. Brief description of supportive policies to set enabling operational basis for implementation

The PMTCT Programme is coordinated by the Ministry of Health’s Reproductive Health Programme, which is based in the Directorate for Health Promotion and Protection. The child health, EPI and nutrition programmes are also based in this Directorate, so that linkages are made automatically. The Paediatric CST programme is coordinated by the Paediatric Day Hospital in Maputo, which maintains linkages with the relevant Health Departments of the Ministry.

It is the Ministry of Health’s policy to provide antenatal and delivery care, immunisation as well as ART services for all PLWH, **free of cost**. Curative health care for children under the age of 5 is also free. The Ministry of Health is currently reviewing the possibility to abolish selected user fees in the health system.

To address the health workforce shortage, the Ministry of Health has adopted a **Human Resource Development Plan** 2006-2010, as well as an Accelerated Training Plan covering June 2006 – June 2009.

Non-medical cadres are involved in the provision of Home Based Care. These service providers, called ‘activistas’, maintain a close linkage with health facilities. Many, but not all, ‘activistas’ are PLWHA. In some areas, ‘activistas’ are also working in close collaboration with health facilities to ensure follow up of people enrolled in PMTCT or ART programmes and who have not returned for follow-up visits.

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\(^{12}\) Impacto Demográfico do HIV/SIDA em Moçambique, INE, May 2004
Provider-initiated testing in antenatal care and maternities was introduced in November 2006, through a Ministry of Health Circular. Women maintain the right to opt out of testing, and counselling and testing is not recommended for women who arrive at a health facility in the final stages of labour. The Ministry is currently preparing for the nationwide introduction of provider-initiated counselling and testing in health facilities, which is expected to be launched on 1 December 2007.

To increase access of HIV positive pregnant women to ART, MoH recommends that CD4 blood samples be drawn in the antenatal visit in which a woman has tested positive, to avoid her having to visit another service point. However, CD4 count machines are only available in provincial and some district hospitals and it takes time to send the samples and receive the results. It is often a challenge to make sure that women return to their antenatal care service to receive the result of their CD4 count test.

Granting authority to maternal and child health nurses and health technicians to prescribe ART for pregnant women is a major facilitating factor for all health centres since it reduces the need for yet another consultation, and it is particularly relevant for health centres without a physician or Técnico de Medicina. The implementation of this policy requires a clear operational plan to ensure that the quality of antenatal care as well as ART is guaranteed.

To increase access of children to ART, DNA PCR with the use of Dried Blot Spots (DBS) is rolled out in the country. HIV exposed children are recommended to be tested at 4 weeks. The 2005 MoH manual for the treatment of children with AIDS is currently being updated and specific training modules on paediatric ART for lower level staff (Técnicos de Medicina) are being developed.

The PMTCT protocol recommends that all HIV+ pregnant women receive counselling on infant feeding options. The training manuals suggest that exclusive breastfeeding is likely to be the most feasible option for most women. A balance of risks assessment concluded that in virtually all circumstances, short duration (6 months) "safer" breastfeeding would result in fewest infections and deaths. With only 30% of children under six months being exclusively breastfed, it is a challenge to ensure exclusive breastfeeding by women living with HIV.

Mothers are recommended to wean their children abruptly at the age of 6 months. The Ministry of Health in collaboration with UNICEF and NGOs has introduced the use of RUTF for use as a replacement food for HIV exposed infants over 6 months of age, in three provinces. A study is being planned to evaluate the impact of this approach. The nutrition policy is currently being revised to recommend an evaluation of the AFASS criteria before deciding on breastfeeding cessation, and placing greater emphasis on individual circumstances and locally available foods to guide infant feeding recommendations.

5. Roles and responsibilities at sub-national levels in scaling up national PMTCT/Paediatric HIV CST programmes

In November 2006, the Ministry of Health issued a guidance note giving provincial health authorities the authority to approve PMTCT protocols of implementing partners, when they meet the requirements set by the Ministry of Health. In July 2007, the Ministry of Health sent out an official guidance note with annual provincial targets of 35% of the expected number of HIV+ pregnant women for 2007 and 2008. The provinces are expected to translate these targets into district targets, which can be monitored monthly.

The Ministry of Health has also developed, and shared with the provincial health authorities, monthly targets for the number of people to be receiving ART per province (including paediatric targets). These targets are also to be translated into district targets, which can be monitored.

The annual targets for PMTCT and Paediatric ART are reviewed bi-annually by the Government and the Programme Aid Partners.

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15 Balancing the risks, L. Fidalgo, K. Selvester, nutrition, September 2005
16 DHS 2003 / Moçambique Inquérito Demográfico e de Saúde 2003, INE, MISAU, USAID 2003
To address the health workforce shortage, the Ministry of Health has adopted a Human Resource Development Plan 2006-2010, as well as an Accelerated Training Plan covering June 2006 – June 2009.

6. Programmatic and operational approaches to scaling up PMTCT and Paediatric HIV CST

a. Institutionalization of provider initiated testing and counselling (PITC) in maternal, newborn and child health services

- Provider initiated (“opt out”) testing is recommended in both antenatal care and maternity settings, as per the Ministry of Health Circular of November 2006. Women maintain the right to opt out of testing and counselling, and testing is not recommended for women who arrive at a health facility in the final stages of labour. The Ministry is currently preparing for the nationwide introduction of provider-initiated counselling and testing in health facilities, which is expected to be launched on 1 December 2007.

b. Improving primary prevention and prevention with positives in the context of PMTCT

- The pre- and post test counselling in ANC settings includes primary prevention for women who test negative as well as ‘prevention with positives’ for women who test positive.

- The Ministry of Health strongly recommends that the partners of women who attend antenatal care are tested for HIV. Some health facilities proactively invite the partners of women who test positive, other sites invite the partners of all women in antenatal care. In the former cases, and when the partner tests negative, specific emphasis is placed on prevention with positives.

- The provision of condoms is an integrated part of the MCH Programme and therefore of the PMTCT programme.

c. Institutionalization of long term HIV care management in maternal, newborn and child health settings

- The follow-up of HIV-infected women is still a challenge. The Ministry of Health recommends health facilities to establish mother support groups, which are established in a large number of facilities and meetings are usually convened once a week. It is felt that these groups increase ‘adherence’ by mothers to the PMTCT programme since mothers mutually support each other and reinforce the information received by the health workers. Some health facilities work with ‘activistas’, who are sometimes PLHW themselves, to follow up on ‘defaulting’ women and their children. Recently, some health facilities have started to set up an ART file for all pregnant women who test positive. The ART programme has a better developed follow-up system and this can then be used for HIV positive pregnant women.

- To improve the follow-up of HIV exposed infants, in addition to the interventions mentioned above, the child health card is currently being updated to include information about HIV exposure and ART.

- For the provision of follow-up care to HIV exposed infants, the existing ‘Consultation of At-Risk Children’ (CCR in Portuguese) was revitalised and strengthened. Refresher trainings are organised and health facilities are recommended to hold these consultations at least weekly. It is MoH policy to provide co-trimoxazole to all exposed children. Little data is available on the provision of co-trimoxazole; it is assumed that the coverage is low because of the high abandonment rates.

- To increase access of HIV positive pregnant women to ART, MoH recommends\(^\text{18}\) that CD4 blood samples be drawn in the antenatal visit in which a woman has tested positive, to avoid her having to visit another service point. However, CD4 count machines are only available in provincial and some district hospitals and it takes time to send the samples and receive the results. It is often a challenge to make sure that women return to their antenatal care service to receive the result of their CD4 count test.

\(^{18}\) Ministry of Health Circular No. 7820/GPS-3/DNS of 6 November 2006
Granting authority to maternal and child health nurses and health technicians to prescribe ART for pregnant women is a major facilitating factor for all health centres since it reduces the need for yet another consultation, and it is particularly relevant for health centres without a physician or Técnico de Medicina. The implementation of this policy requires a clear operational plan to ensure that the quality of antenatal care as well as ART is guaranteed.

- Mozambique is following a family-centred approach to HIV prevention, care, treatment and support. It is recommended that when pregnant women test HIV positive, they are asked about other children they might have and testing of these children is then recommended. Male partners are recommended to be counselled and tested, but it has shown very difficult to achieve male participation in PMTCT interventions. ART facilities are family focused. There are linkages with Home Based Care services, which target the entire family. Home Based Care workers recommend family members of PLWH to go for testing.

d. Increasing access to more efficacious ARV regimens, including ART, for pregnant women, mothers, their children and families

- The introduction of combination therapy for PMTCT prophylaxis was formalized in November 2006, when the Ministry of Health issued a guidance note on this regimen, consisting of single dose NVP during delivery (to be handed out at 28 weeks of pregnancy as opposed to the earlier practice of 36 weeks), plus AZT from 28 weeks, with a 7 days tail for newborns (4 weeks if the mother did not have antenatal prophylaxis). The triple drug prophylactic regime including a 3TC-AZT combination (Duovir) during delivery in addition to single dose NVP and for 7 days postpartum was introduced in April 2007. The Single dose NVP and antenatal AZT continue to be distributed starting at 28 weeks of pregnancy. The regimen for newborns remains the same.

- To increase access immunological assessment for HIV-infected pregnant women, the Ministry of Health is recommending that CD4 blood samples be drawn in the antenatal visit, as described above.

e. Strengthening infant feeding and nutrition advice, counselling and support for women, their infants and families

- Nutrition counselling for pregnant women and their children is part of the PMTCT and paediatric treatment intervention packages. The World Food Programme (WFP) provides supplementary food to undernourished HIV+ pregnant women, as well as to undernourished people who receive ART in five provinces. The Council of Ministers approved a basic package of food support for people living with HIV in March 2007. The operational modalities of this are currently being discussed. Cash transfer schemes for vulnerable people (including chronically ill people) exist in Mozambique under the management of the National Institute for Social Action, but these are not yet used for people taking part in PMTCT or ART programmes. A Home Based Care system is established for people living with a chronic disease. Nutrition counselling is an integrated component of this care.

- The PMTCT protocol recommends that all HIV+ pregnant women receive counselling on infant feeding options. The training manuals suggest that exclusive breastfeeding is likely to be the most feasible option for most women. Mothers are recommended to wean their children abruptly at the age of 6 months. The Ministry of Health in collaboration with UNICEF and NGOs has introduced the use of RUTF for use as a replacement food for HIV exposed infants over 6 months of age, in three provinces. A study is being planned to evaluate the impact of this approach. The nutrition policy is currently being revised to recommend an evaluation of the AFASS criteria before deciding on breastfeeding cessation, and placing greater emphasis on individual circumstances and locally available foods to guide infant feeding recommendations.

- Mozambique adopted a National Code on the Marketing of Breastmilk Substitutes in November 2005. The related Government Regulation is currently being developed. A Code Monitoring system as well as a plan for the training of relevant staff is also under development.

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Baby Friendly Hospital Initiative activities were developed at a small scale in the early 1990s. In August 2007, the BFHI steering committee was re-instated, with the purpose of revitalising the BFHI interventions.

f. Operationalizing the link between the delivery of PMTCT and SRH care

In line with the concept of integrated networks, PMTCT services are integrated with sexual and reproductive health services. Sexual and reproductive health issues are included in counselling as well as in mother support group sessions. STI screening is recommended to take place in ANC settings. Family planning interventions are available for HIV+ women and their partners, as well as to people of unknown status.

g. Empowering and linking with families and communities

Knowledge of mother-to-child transmission and its prevention was quite low in 2003: Only 26% of women and 32% of men knew that HIV can be transmitted via breastfeeding and that the risk of transmission can be reduced if the mother takes medicines during pregnancy. In a recent large community survey in Manica and Sofala provinces, 81% of women identified breastfeeding as a form of transmission, and 68% knew about the existence of PMTCT services (up from 12% in 2002). Few specific communication activities are currently carried out. A communication strategy on PMTCT was developed in 2005 and it is being updated in 2007.

One component of PMTCT and Paediatric HIV CST that is delivered to the community level, is social communication. The Ministry of Health is finalising the PMTCT Communication Strategy and the Paediatric AIDS Communication Strategy. Both documents are closely linked. The work on Home Based Care and follow-up of ‘defaulting’ patients, both implemented by activists in close collaboration with health facilities, is another component of (particularly) ART, which links families with the health care system.

Key community actors involved in PMTCT and Paediatric HIV CST vary from site to site and can include traditional leaders, traditional birth attendants, CBOs, PLWH associations and individual activists.

The main male-friendly model of service delivery is the Health Counselling and Testing site (ATS in Portuguese). This is the low threshold counselling and testing service which is accessible to all. By end 2006, there were 277 ATS in the country. Mozambique also has a network of Youth Friendly Health Services (186 by September 2007, of which 42 with Counselling and Testing services), which are used by both young women and men.

Support to community-based service providers like Home Based Care providers, activists, members of PLWH associations and community health workers is provided in the form of a small stipend. Capacity building is provided by the Ministry of Health, and various national and international NGOs.

In some areas, male and female PLWH are involved in providing psychosocial support and ensuring follow up to the PMTCT/ART programmes by their peers.

21 DHS 2003 / Moçambique Inquérito Demográfico e de Saúde 2003, INE, MISAU, USAID 2003
22 Evaluation of knowledge, attitudes and practices on HIV/AIDS, malaria and maternal and child health among mothers with children under 2 years in Manica and Sofala, Mozambique, HAI/USAID, 2007.
23 VI Avaliação Conjunta Anual do Sector da Saúde, MISAU 2007