The report was printed in September 2013. The financial report had been certified by the Expert Accountants at the Auditors Price Waterhouse Coopers and General Assembly.

The use of photos in this report does should not be interpreted as an indication of the health status of any of the people in them. Solthis’ activity report is protected by copyright laws. The use of all or a part of this document is only permitted with an appropriate source citation. Solthis would like to thank all who have participated in the production of this activity report.
Foreword

In 2012, the fight against HIV was severely impacted by the global financial crisis. Although funding has been steady for the past ten years and there have been spectacular results regarding access to healthcare, the commitments of the international community have stalled for the first time, jeopardizing achievements in the field.

Africa continues to be a land of dichotomies. Although it is one of the only continents where the economy shows signs of sustained growth, certain regions—such as the Sahel—remain particularly affected by political instability and extreme poverty. These issues are heightened by food and environmental crises.

Today, Solthis’ programs operate within the most vulnerable populations. Solthis partners with healthcare professionals in difficult conditions to work towards providing the population with access to healthcare in a dignified setting. In this activity report, you will find the most striking components of our 2012 programs, which we hope will further your optimism concerning our future developments.

In the span of a few months, Mali was afflicted by an armed conflict that resulted in the seizure of the North by Tuareg rebels and a consequent coup d’état. The heightened instability was a detriment to the healthcare system and the fight against AIDS, which had suffered setbacks due to the suspension of financial resources from the Global Fund. In this context, Solthis has had to reorganize its onsite human resources division in order to continue its activities and contribute to its on-going efforts in Segou and Mopti.

In Niger, the government increased security measures in response to kidnappings of Westerners and the crisis in Mali. Despite these issues, the new government has displayed a significant willingness to improve and strengthen the healthcare system. Solthis has cooperated with the government to develop a new initiative named the Tridel Project, which allows midwives to prescribe antiretroviral (ARV) drugs to pregnant women. With this project, we hope to show that it is possible to improve the management of HIV in non-medical centers and simplify the prevention of mother-to-child transmission systems in order to reduce the number of women lost to follow-up. Primary results have been positive and should encourage the government to expand these practices.

2012 marked the first anniversary of Guinean “democracy” since inde-
pendence. However, tensions with the opposition and the international community remain as the government has not yet been successful in bringing about the long-awaited elections. Solthis has continued to provide substantial work on quality procedures in treatment centers; participatory diagnosis was implemented in nine partner institutions in Conakry and Boké. Action plans (or “roadmaps”) were established for each site, with the addition of annual monitoring indicators. We hope to improve patient care and increase the responsibilities assumed by local players with this holistic approach.

In Niger and Guinea, Solthis—in partnership with CNLS (the National Council for the Fight Against AIDS), the National Ministries of Health, and UNAIDS—obtained a major 5% funding initiative in 2012 from the French Ministry of Foreign and European Affairs. This initiative will support a project to train healthcare professionals in decentralized areas and strengthen the health information system. The 1.5 million euros “CASSIS” program will run for the duration of three years, and is a prime example of our successful long-term partnerships with national colleagues and UNAIDS.

2012 was the first full year of Solthis’ programs in Sierra Leone. This English-speaking country that is emerging from a devastating civil war remains a major challenge for Solthis; we must adapt our response to a context entirely different from that of French-speaking countries in the region. We work to develop innovative strategies, especially concerning the training of local human resources and the improvement of quality care with limited resources. There is a crucial shortage of doctors committed to HIV care in Sierra Leone; there are less than a dozen in the capital. The viral load is almost non-existent in the country, and opportunistic infections are poorly managed. Solthis has contributed to new task delegation guidelines and has launched a study to improve diagnostic algorithms and treatment of neurological infections, in partnership with CNLS and the Ministry of Health.

Finally, Solthis has been able to continue its activities in Madagascar thanks to remote support from its teams and support from members of the scientific working group. Collaboration between the National Reference Laboratory and the CHU Necker allowed for continued training of local personnel and established a viro-epidemiological database to monitor resistance to ARVs. Thanks to these results, our teams were able to work on-site with the Madagascan professionals on adjustments to patient treatment and future supply planning.
Our success in Madagascar serves to highlight the extensive variety of teams that support Solthis. In addition to our partnerships with Parisian teaching hospitals and the Pasteur Institute, we are closely involved with our partners at training and research centers in both Europe and Africa. Keeping one foot in the field and another in academia is a key to our future success, and guarantees that strategies applied in the field will be based on the results of rigorous operational research.

Likewise, Solthis’ international advocacy is based on the premise that a combined effort in the fight against HIV will yield greater results. Whether through the Coordination Sud Health Commission or in connection with an NGO Committee against HIV, we aim to defend our values of solidarity between people and fight for the right to access for healthcare for all.

Thanks to our approach which combines «capacity building for healthcare systems», «operational research» and «advocacy», we hope to strengthen the foundations of our association and celebrate our 10 years of work in the field in 2013.

Dr Louis Pizarro, Director General
Solthis mission
Therapeutic Solidarity and Initiatives against HIV/AIDS (Solthis) was created in 2003 with the goal of providing capacity building for healthcare systems in the countries where it has programs in order to facilitate high quality, accessible and sustainable treatment for people living with HIV/AIDS.

- For Solthis making treatment accessible means facilitating decentralization into isolated areas, increasing the number of patients receiving HAART and providing treatment free-of-charge.
- For Solthis, high quality disease management is defined by a decrease in the number of deaths and lost to follow-up patients receiving antiretroviral therapy (HAART).
- To reach the goal of permanent access to treatment in the field Solthis supports existing structures and provides capacity building for local healthcare professionals.

**Give the developing countries access to scientific expertise**
Solthis is an international medical association founded in 2003 by four specialists in HIV/AIDS. Solthis is unique in defining its programs in consultation with Hospital Physicians and specialists in HIV/AIDS and Development.

**Work in the field based on the principle of non-substitution**
Solthis teams work directly in the field while respecting the principle of non-substitution. They provide support to local actors without replacing them. Solthis responds to requests from national authorities and develops concerted action programs with them.
3 methods of intervention

**Capacity building**
- Institutional support for operational policies related to HIV/AIDS care
- Participatory analysis of capacity needs of HIV/AIDS healthcare structures
- Training of institutional partners’ trainers in needs analysis, facilitation, active teaching methods and evaluation of practices
- Lifelong learning of medical staff in HIV/AIDS care and health systems strengthening, in accordance with adult education principles
- Organizational advice for healthcare structures in order to ensure functional circuits for patients care, input supply and biological samples
- Daily formative support for medical staff to strengthen quality care
- Exceptional support for equipment purchase and structure rehabilitation.

**Operational research**
Solthis promotes operational research to design solutions that are scientifically validated in response to problems faced in the field:
- Connecting local research teams with western universities and research centers for project management in quality research
- Collaboration with local research centers to support scientific research with western universities and research centers
- Contribution to the thinking of players in the ground in order to transform operational problems into research questions.
- Promotion of research projects dealing with operational problems met on the ground in the fight against HIV/AIDS programs.
- Support and promote the results of research projects to peers, and apply the benefits to patients

**Lobbying activities**
- Develop practices and policies in HIV/AIDS care
- Collaborate in drafting funding applications to international donors
- Contribute to the resolution of difficult situations (warning in case of treatment cessation, sustainability of funding)
- Participate in inter-associative committees and support campaigns to adjust international financial and technical plans to fit the realities of the ground
- Conduct multidisciplinary research
Solthis has built its program strategy around 5 priority functions in the healthcare system.

1. Healthcare providers
These are the clinical physicians, nurses, midwives and other paramedicals in the diagnostic and healthcare centers who follow patients throughout their illness. Solthis medical teams provide direct support in daily practice: training in the classroom or on site, purchasing equipment, advice on the organisation of treatment and task shifting.

2. Technical platforms
Laboratories must be able to perform biochemical and hematological tests and specific HIV tests such as diagnostic screening, CD4 count, viral load and monitoring of drug resistance. Solthis provides technical and material support to teams to perform the tests and interpret the results. Partnerships with French hospital laboratories have also been developed to strengthen these scientific collaborations.

3. Pharmacy (supply chain management, dispensing)
Solthis provides technical assistance to improve the expertise of the managers along the different steps in the supply chain: quantification, supply procurement, stock management and distribution to outlying centers. The quality of dispensing is also important. Solthis supports all institutional (national and regional) and local actors: coordination of participants, drafting recommendations and training professionals.

4. Health information systems
Collecting data is essential for patient follow-up, analysis of the epidemic and to evaluate programs. Solthis assists its partners with the technical choice of computer equipment and statistical software, with integrating a process of follow-up/evaluation into the healthcare system and by training users.

5. Healthcare policies
Solthis shares its expertise with national partners by participating in technical medical committees and by helping draft national policies on the fight against AIDS: guides and protocols. Solthis helps draft funding proposals, in particular for the Global Fund for the fight against AIDS, tuberculosis and malaria.
The Board of Directors

Professor Christine KATLAMA, Chairman
Responsible for the Day Hospital and the AIDS Clinical Research Unit of the Department of Infectious and Tropical Diseases Hospital Pitie Salpetriere.

Professor Brigitte AUTRAN, Treasurer
Professor of Immunology at Paris VI, Department of Immunology Laboratory of Cell and Tissue Hopital Pitie Salpetriere.

Professor Gilles BRÜCKER, General Secretary
Professor of Public Health at the University of Paris XI, Kremlin Bicetre

Armand DE BOISSIERE
Secretary General of the Bettencourt-Schueller.

Dr. Guillaume BRETON
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Professor Pierre-Marie GIRARD*
Head of Department of Infectious Diseases Saint Antoine Hospital.

Professor Christine ROUZIOUX
Head of department of Virology of Hospital Necker, Paris.

Dr. Roland TUBIANA
Practitioner hostpialier Service of Infectious Diseases at Pitié-Salpêtrière, Paris.

Jean-Pierre VALERIOLA
Former Director of Communication and Development of the Bettencourt Schueller.

Mr. Philippe VILLIN
CEO «Philippe Villin Conseil».

In 2012, Pr Pierre-Marie Girard left his seat as Solthis administrator.

The Committee

The Committee, composed of the Chairman, the Treasurer and the General Secretary, meets weekly with the team at the Head Office to discuss and validate important decisions on the life of the association.
Governance

Composed of international experts in HIV/AIDS, public health and development, the Working Group provides advice and expertise for Solthis programs and actions at Solthis. The members meet regularly in scientific working sessions and may also participate in temporary missions in the field to provide support and training.

The Working Group

Dr Eric ADEHOSSI, Department of Internal Medicine, National Hospital, Niamey (Niger)

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Dr Florence HUBER, dermatologist and infectious disease specialist, former medical director for Solthis 2009-2011

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Activity report 2012
Programs
HIV/AIDS in Mali

In Mali, HIV/AIDS prevalence is 1.1%, or 110,000 people living with HIV/AIDS. HIV infection is the highest among women (1.4% versus 0.9% among men). In terms of distribution of the epidemic in the country, the most recent study, conducted in 2006, shows large disparities across regions: 1.9% in Bamako, 1.4% in Mopti, 1.3% in Ségou, 1.2% in Koulikoro, 1.1% in Gao, 0.7% in Kayes, 0.6% in Kidal, 0.6% in Sikasso et 0.5% in Timbuktu.

The 2012 report on the global AIDS epidemic by the UNAIDS shows that, end of 2011, of the 55,000 people needed ARV treatment, 29,237 are on treatment.

Context and objectives of the Solthis intervention in Mali

Solthis has been working in Mali since 2003, initially within the framework of a 5 years partnership with the Ministry of Health. The objective of the partnership was to facilitate access to quality patient management in the Ségou region. In 2009, at the end of the 5 years, an evaluation provided an assessment of the first phase of the Solthis intervention, and defined objectives for a second intervention phase that began in 2010. As the external evaluation demonstrated a satisfactory level of healthcare provision in the Ségou region (in terms of the number of sites and the quality of the healthcare provided), this second intervention phase consisted of a progressive disengagement of medical support in Ségou, and the expansion of activities in the Mopti region to support the decentralization of patient management.

For 2012, the objectives were as follows:

- Expand activities to the two remaining cercles in the Mopti region that have not previously received Solthis support: Bankass and Djenné.
- Develop a “health education” component in the Ségou region to create a dynamic facilitating an increase in the coverage of needs
- Launch patient management support for two decentralized sites in Bamako

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**National actors**

**High Council for the Fight against HIV/AIDS (HCNLS):** directly attached to the Presidency of the Republic, it is responsible for coordinating the development, the dissemination and the monitoring of the national policy for the fight against HIV/AIDS, as well as the establishment of the strategic framework of the fight against HIV/AIDS. The HCNLS is the primary recipient of the Global Fund grant.

**Ministry of Health Unit for the Fight against HIV/AIDS (CSLS-MS):** support unit attached to the Secretary General of the Ministry of Health, it is responsible for the management, coordination, and orientation of the fight against HIV/AIDS in the health sector.

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**Population (millions)** | 16.3  
**Life expectancy at birth (years)** | 51.9  
**HDI ranking (out of 187 countries)** | 182  
**Total fertility rate** | 6.2  
**Infant mortality rate per 1000 live births (2009)** | 178  
**Number of doctors per 10,000 people** | 0.5  
**Adult literacy rate (2005-2010)** | 31.1%  
**Urban population** | 35.6%  
**Total expenditure allocated to health (% of GDP in 2009)** | 2.3%  

UNDP, Human Development Report 2013
Evolution of the context in Mali

In February 2012, the Touaregs and Islamic rebels occupied the North of the country (Gao, Timbuktu, Kidal, and the north of the Mopti region), leading to the depart of many healthcare workers. At the same time, a military coup occurred in Bamako March 21st. The consequent degradation of the security situation forced Solthis to modify the organization of its field team with the evacuation of all western expatriates and a restriction on the remaining team’s movements, which further complicated the implementation of our activities in the Mopti region.

It should also be highlighted that the funding freeze in the Global Fund’s Round 8 – HIV negatively impacted the continued supply of health products, most notably biological reagents and screening tests. Moreover, the implementation of additional financial control measures, while the investigation report by the OIG (Office of the Inspector General) has still not been finalized, two years after the audit, has led to the progressive stoppage of activities. This caused systemic damage to health care delivery in the country. The association health facilities, which care for more than 50% of patients in Mali, have been particularly impacted; many health personnel have been laid off and screening centers have closed.

Testing

Solthis’s proposals in favor of integrating provider-initiated testing in the national screening strategy have been accepted, and are now a part of the National Strategic Framework 2013-2017, and the Health and Social Development Plan. In particular, after PMTCT and tuberculosis, malnutrition has become a screening target at healthcare settings.

Regarding the operational application of provider-initiated testing, several results should be highlighted:

- A thematic workshop on the targeted tested of malnourished patients was organized in Mopti with institutions working on malnutrition (MSF, MDM, UNICEF). This workshop allowed the formation of several healthcare teams in the cercles and sites in Mopti, the definition of implementation strategies, and the identification of project monitoring tools.
- Training for Nutritional Recuperation Unit personnel (URENI and URENA) in Mopti; in collaboration with UNICEF.
• The integration of provider-initiated testing objectives in the roadmaps for sites supported by Solthis in Bamako and Mopti. The Referral Health Centers (CS Ref) in Bamako communes I and III accepted the proposal of systematic HIV screening for all tuberculosis patients, malnourished children, and patients receiving care for STIs (sexually transmitted infections), in addition to the diagnostic testing that is already in place. The high prevalence of malnutrition and the critical situation in Mopti led the centers in this region to limit targeting to “malnourished children”. 
• Training, upon request from Action contre la Faim (ACF) and the National Department of Health, of personnel from the CS Ref in Bamako commune VI on HIV and the testing of malnourished children. 
• Work to sensitize and train testing agents on substandard practices yielded results. The prevalence of these practices (for example, the use of physiologic saline in the absence of diluents) is diminishing.

Support to healthcare teams

• Bamako

In Bamako, an assessment of the Referral Health Centers in Communes II and III was conducted and roadmaps were developed with these two sites to define the methods and objectives of working with Solthis. Due to the difficult situation in 2012, the support will begin in 2013. The areas targeted by the quality improvement process are, for example, biological follow-up, adherence and the diagnosis of exposed children. A performance analysis was conducted at the two sites in order to set realistic objectives.

In addition, participation in staffs and scientific committee meetings allowed Solthis to provide opinions on clinical cases and issue recommendations to prescribers in the event of 1st and 2nd line treatment failure.

• Mopti: support for healthcare decentralization

Solthis continued its work supporting decentralization, despite difficulties related to late payments from the Global Fund, during the transition from phase 1 to phase 2 of Round 8.

In the Mopti region, Solthis supported 10 of 12 healthcare sites and 17 of 33 PMTCT sites.

As planned, Solthis extended support to the last two cercles in the region:
Bankass and Djenné, with the development of roadmaps defining the terms of support from Solthis. The security situation limited travel in the region, thus limiting visits to sites in Mopti city.

Faced with these constraints, Solthis supported the establishment of a crisis center at the Regional Department of Health (DRS) in Mopti to address a health crisis related to the departure of qualified personnel from health structures in the occupied zone, and the arrival in Mopti of displaced populations from the North. Solthis collaborated with the DRS to monitor activities in the inaccessible cercles (funding for telephonic communication and supervisory missions by the DRS) in order to maintain healthcare provision (via the renewal of prescriptions by nurses still working). Solthis also helped the DRS in the monitoring of stocks and orders in order to avoid stock outs in these difficult to access areas.

Moreover, a regional therapeutic committee was organized, gathering 50 participants from all of the cercles; in addition to clinical cases, subjects such as data collection and biomedical waste management were discussed.

In terms of PMTCT, the year was marked by a difficult in country context due to the security crisis and a national stock out of screening tests that severely hindered the implementation of PMTCT activities. In this difficult context, two initial PMTCT trainings were conducted for the Bankass, Djenné and Mopti cercles (the first for 15 doctors, midwives and nurses, and the second for 14 matrons).

In addition, workshops on the filling out of data collection tools at PMTCT sites in Mopti city were organized in collaboration with the DRS to correct the insufficiencies identified during site visits. These workshops could not be organized in the cercles due to the security context.

**Prevention of Mother to Child Transmission (PMTCT)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimation of the number of HIV+ pregnant women needing ARV treatment for the PMTCT*</td>
<td>Between 3600 and 7600</td>
</tr>
<tr>
<td>Number of HIV+ pregnant women that received ARV for the PMTCT during the year*</td>
<td>1,523</td>
</tr>
<tr>
<td>Percentage of HIV+ pregnant women receiving ARV treatment*</td>
<td>Between 10 and 42%</td>
</tr>
<tr>
<td>Estimation of the number of children needing ARV treatment**</td>
<td>Between 6,600 and 11,000</td>
</tr>
<tr>
<td>Total number of children on ARVs (0-14 years old)*</td>
<td>1,732</td>
</tr>
<tr>
<td>Coverage rate for pediatric ARV treatment needs</td>
<td>Between 15.7% et 26.2%</td>
</tr>
</tbody>
</table>

● Ségou

In 2012, as planned, Solthis withdrew individual support to healthcare sites, while maintaining support in the areas of biology and the organization of regional therapeutic committees.

A regional therapeutic committee was organized with 19 participants from all cercles in the region to discuss clinical cases, therapeutic regimens used in Mali, and biological follow-up. Solthis also financed the repair of two CD4 counters in the region, even though a stock out of reagents has prevented their use.

Health Education

Solthis developed a new intervention axis in the Ségou region: Health Education. Considering that the coverage rate of healthcare needs in the region had plateaued, despite sufficient and quality healthcare provision, Solthis financed a study with Miséli, a socio-anthropological research association, to determine the barriers to healthcare access in the region. This study identified as barriers: a lack of adequate information in the community and a negative environment surrounding HIV/AIDS patients. Solthis then developed a health education project, cofinanced by the Intervida Foundation to increase access to testing and treatment and to create a regional dynamic of social change vis-à-vis HIV/AIDS.

This project is cofinanced by Intervida

Awareness sessions on HIV, Tominian
FOCUS on the Health Education project in Ségou

The project, which began at the end of 2012 and will continue in 2013, already implemented several activities targeting several populations:

- **The general population**: development of a radio program and report on the PMTCT and testing; distribution of 600 posters and brochures promoting HIV sensitization and information on testing and treatment centers. An article was also published in a regional newspaper.

- **Schools**: in partnership with the NGO Walé, a training module for HIV sensitization targeting secondary school teachers was specifically developed. It was used during five training sessions totaling 120 teachers in the Ségou and Macina cercles. The trained teachers can now organize sensitization days in their classes in 2013.

- **Opinion leaders**: two training sessions on the importance of testing and access to treatment were organized with religious leaders and journalists in the area.

- **High risk groups**: training sessions for leaders representing three risk groups (sex workers, men who have sex with men, and tourist guides). These trainings allowed leaders to then organize sensitization activities for the identified groups.

- **People living with HIV/AIDS**: establishment of monthly adherence clubs at three sites (Walé, the Ségou CS Ref and the Ségou Regional Hospital) in order to keep patients in the continuum of care. The five club facilitators were trained in advance, and they were then able to form 6 clubs with a total of 136 people.

Health Information System

Solthis organized a refresher training for data entry operators working with the ESOPE database in the Ségou and Mopti regions and participated in efforts to clean incoherent data at four sites.
Operations research

Solthis provided support for the reflection and analysis of the pediatric database at the Gabriel Touré CHU (teaching hospital). This led to the drafting of an abstract and the presentation of a poster at the francophone conference in Geneva: “The difficulty of following-up with HIV-positive children at the Gabriel Touré CHU in Bamako (Mali)”, by Dr Mariam Sylla, pediatrician at Gabriel Touré CHU.

Summary of trainings conducted in 2012

<table>
<thead>
<tr>
<th>Training</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider-initiated testing</td>
<td>23 personnel from renutrition units (URENI et URENA) in Mopti</td>
</tr>
<tr>
<td>HIV testing for malnourished children</td>
<td>60 personnel from Action contre la Faim (ACF) malnutrition centers in Bamako</td>
</tr>
<tr>
<td>PMTCT (2 sessions)</td>
<td>- 2 doctors, 8 midwives, et 5 obstetric nurses in the Mopti region</td>
</tr>
<tr>
<td>Use and entry into the ESOPE database (refresher training)</td>
<td>4 data entry operators in the Segou and Mopti regions</td>
</tr>
<tr>
<td>Preparation day for high risk group leaders (two sessions)</td>
<td>9 sex workers, 3 men who have sex with men, 3 tourist guides, 6 soldiers</td>
</tr>
<tr>
<td>Initial training for facilitators of adherence clubs in Ségou</td>
<td>1 pharmacist, 3 association workers and 1 psychologist</td>
</tr>
<tr>
<td>Access to HIV treatment and patient management (2 sessions) for opinion leaders</td>
<td>- 12 journalists and local radio show hosts 3 traditional communicators - 15 religious leaders</td>
</tr>
<tr>
<td>HIV sensitization for secondary school teachers in Ségou and Macina (5 sessions)</td>
<td>120 teachers</td>
</tr>
</tbody>
</table>
2013 Prospects

Taking into consideration the continuing difficult context in 2013, with the launch of a military offensive to regain control of the North, the following objectives will depend on the evolution of the situation in country. Solthis aims to maintain a certain flexibility in its intervention in order to allow adaptation to changing conditions.

The planned prospects are as follows:
- The launch of Solthis support to decentralized sites in Bamako
- Continuing support for decentralization in the Mopti region
- The extension of our health education project in Ségou to address discrimination in healthcare settings

Mali team in 2012

**Dr Alain Akondé**, Medical Coordinator and then Head of Mission to replace Stéphanie Tchiombiano (starting June 2012)
**Dr Emmanuel Ouedraogo**, Mopti Medical Officer (until April 2012)
**Mariam Kanté**, PMTCT Officer, Mopti
**Dramane Keita**, Health Education Officer, Ségou
**Ousmane Cissé**, Administrative and Financial Coordinator in replacement of Christophe Chambonnet (starting June 2012)
**Mary Sissoko**, Assistant Logistician Bamako
HIV/AIDS in Niger

The HIV/AIDS prevalence rate among 15-49 year olds is estimated at 0.8% in Niger, representing approximately 65,000 HIV-positive people. Among them, 28,000 need antiretroviral treatment (ART), but only 34% of them were on treatment at the end of 2011, according to the UNAIDS Report on the Global AIDS Epidemic (2012). In addition, regional disparities in ART access have persisted with an overload of patients from neighboring regions at Niamey centers.

HIV in Niger is a concentrated epidemic with a relatively low prevalence rate in the general population but high in certain risk groups such as sex workers, defense and security forces, and workers from mining sites. The prevalence is 3 times higher in urban areas than rural areas.

With the aim of universal access to ARV treatment, Niger implemented the Nigerien Initiative for Universal Access to Antiretrovirals (INAARV) in 2003 that led to the progressive opening of 15 prescription centers in the country. The Office for Intersectoral Coordination of the Fight against HIV/AIDS (CISLS) set, in the 2008-2012 national strategic framework, the ambitious objective of access to ART for 80% of HIV-positive patients by 2012, thanks to the launching of HIV patient care in all 42 health districts. This decentralization of healthcare to health districts, meant to begin in 2009, actually commenced in 2012.

Context and objectives of the Solthsis intervention in Niger

Since 2004, Solthis has implemented a program to facilitate access to quality health care for all people living with HIV/AIDS in Niger. This program is conducted in cooperation with the Ministry of Health and the CISLS. In 2010, an external evaluation allowed for the reorientation of the Solthis program towards a strategy to ensure the sustainability of patient management results. By the end of 2012, Solthis was supporting 6 healthcare sites in Niamey and 6 regional sites (Zinder, Maradi, Diffa, Dosso, Galmi, Téra) and 13 PMTCT sites (7 in Niamey and 6 in Zinder).
Support to coordinating bodies

In 2012, Solthis continued its collaboration with all coordinating bodies:

- **ULSS (Unit for the Health Sector fight against STI/HIV/AIDS):**
  - Technical support for the development of national Guidelines for task delegation regarding care for PLWHA, in collaboration with GIP ESTHER.
  - Development and validation of data collection tools.

- **CISLS (Office for Intersectoral Coordination of the Fight against HIV/AIDS):**
  - Solthis coordinated the technical group for the development of the 2013-2016 National Strategic Plan.
  - Regular participation in the Monitoring Committee for the 2nd project in the Fight against HIV/AIDS financed by the World Bank

- **CMT (Technical Medical Committee):** Support for the adaptation of ARV and PMTCT therapeutic protocols to the 2012 WHO recommendations.

- **National Unit for the PMTCT and the Department of Maternal and Child Health (DSME):**
  - Participation in the validation of the National Plan to Eliminate Transmission from Mother to Child and PMTCT training modules,
  - Technical support for the revision of the Guide for the Pediatric Management of HIV and the development of corresponding training modules,
  - Support for the validation of protocols for the management of acute malnutrition in Niger integrating systematic Provider-Initiated Testing in all CRENIs.

- **CCM (Country Coordination Mechanism):** support for the development of a request for the Global Fund’s Transitional Funding Mechanism. In response to a request from the partners, and with funding from the 5% Initiative, Solthis coordinated the drafting of a proposal and provided expertise on quantification and development of supply and target projection plans.

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Estimated prevalence of HIV (15-49 years) | 0.8%
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Estimated number of PLWHA | 65,000
Estimated number of PLWHA needing treatment | 28,000
Number of people on ART | 9,420
Coverage rate of ARV needs | 34%

Support to healthcare personnel

- **Continued support to prescription centers in Niamey and sounding areas**
  Onsite support from a multidisciplinary team continued in 2012 in Niamey and surrounding areas via long-distance support and missions, depending on requests from healthcare teams. These activities were however impacted by a lack of funds related to difficulties with Global Fund payments. In addition, a training for 15 national mentors was organized to allow coaching for physicians newly assigned to each region.

- **Grands staffs**
  Solthis contributed to the organization and facilitation of seminars in Niamey (27 participants), in Maradi (27 participants) and in Zinder (41 participants from Zinder and Diffa regions), and a pediatric seminar in Niamey (18 participants). These seminars provided an opportunity to discuss clinical cases and update healthcare workers’ knowledge on certain aspects of patient management, such as HIV/TB coinfection and the management of treatment failures.

- **Decentralization in the Maradi region**
  Within the framework of a pilot project for healthcare decentralization in four district hospitals in the Maradi region, financed by the United Nations system, Solthis participated in a joint assessment mission with the ULSS to propose a decentralization strategy and prepare a training session. At the end of this mission, Solthis conducted a series of trainings:
  - 2 training sessions on HIV patient management for 42 physicians
  - Training for 19 association members on basic knowledge on HIV infection and psychosocial support
  - Refresher PMTCT training for 20 participants
  - Training for 20 paramedical staff on dispensation, therapeutic education, and psychological patient management
  - Training of 8 Epidemiological Surveillance Managers on the use of FUCHIA software

Solthis then organized internships at the Maradi Regional Hospital for new prescribing physicians. At the regional hospital, 4 of the most experienced physicians in ARV prescription became regional mentors and conducted a post-training monitoring mission of district physicians.
**Pediatric patient management**

<table>
<thead>
<tr>
<th>Estimation of the number of children needing ARV treatment*</th>
<th>Between 4,600 and 6,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of children on ARVs (0-14 years old)**</td>
<td>496</td>
</tr>
<tr>
<td>Estimated coverage rate for pediatric ARV treatment needs</td>
<td>Between 7.6% and 10.8%</td>
</tr>
</tbody>
</table>


The year 2012 saw several advances in pediatric patient management: the guide for pediatric patient management was revised, training modules were developed, and HIV testing for malnourished children was integrated into the national protocol for the management of acute malnutrition. According to the latest national data (ULSS), by the end of December 2012, 684 children were on ART, indicating a doubling of the patient registry since 2010. However, this still represents less than 15% of the need.

Solthis provided regular support (clinical tutoring, seminars, onsite training) to 4 hospitals in Niamey, and two six month missions were conducted at regional hospitals in Dosso, Maradi and Zinder. The onsite support from Solthis enabled the implementation of 4 of the national roadmap objectives regarding pediatric patient management:

- Adoption of provider-initiated testing at all CRENI (Intensive Nutritional Rehabilitation Centers)
- Implementation of WHO recommendations (notably treatment for infected infants less than two years old)
- Promotion of early diagnosis
- Update of data collection tools

In addition, pediatric seminars were organized every two week in Niamey, and allowed personnel from all sites managing exposed and infected children to discuss clinical cases and organizational problems.
Testing

Even though testing has seen a very weak progression in quantitative terms, the promotion of testing in healthcare settings was approved at the national level. Solthis participated in the validation process of the WHO Generic Guidance on Provider Initiated Testing and Counseling.

The National Program for the Fight against Tuberculosis systematically offers HIV testing to patients with Tuberculosis. At the six main sites supported by Solthis, 75% of tuberculosis patients were tested, and results indicate an HIV-positive rate of 14%. The proportion of TB patients tested varies from one hospital to another (from 51% to 100%), indicating uneven implementation of national recommendations.

Regarding the testing of malnourished children, the available data from 8 CRENI located across the country indicates that out of 7,835 children admitted, 3,235 (41%) were tested and 145 (4.5%) were HIV-positive. The proportion of children tested varies considerably across sites (from 5% to 100%); it is particularly low at the CRENI in Zinder, which cares for almost half of all malnourished children in the country.

Prevention of Mother to Child Transmission

<table>
<thead>
<tr>
<th>Estimation of the number of HIV+ pregnant women needing ARV treatment</th>
<th>3700 to 5800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of HIV+ pregnant women that received ARV for the PMTCT</td>
<td>1571</td>
</tr>
<tr>
<td>Estimation of percentage of HIV+ pregnant women who received ARVs for the PMTCT</td>
<td>27%-42%</td>
</tr>
</tbody>
</table>


With the launch of the TRIDEL project that aims to delegate triple therapy prescription to midwives for pregnant women testing positive in PMTCT centers, considerable progress has been made in centers supported by Solthis in Niamey:

- all women who came in for prenatal consultation were offered testing services (except in two new sites),
- all women who tested positive for HIV received triple therapy.

In addition, training on stock management provided to midwives in 2011 seems to have produced results because none of the PMTCT sites supported by Solthis had stock outs of screening tests in 2012.

In 2012, Solthis focused on the identification of all exposed children with the aim of determining their status, and contributed to the implementation of a national PCR circuit for the early diagnosis of exposed children (for PMTCT sites as well as prescribing centers).
Psychological care and therapeutic education
Solthis conducted an assessment of sites in Niamey with a psychologist. This allowed the ULSS to form a group of 9 national experts on psychological care. Solthis worked with this pool of experts to develop and validate a training module on psychological care, and develop a psychological follow-up form. In addition, sensitization modules on psychological care were integrated into the global training targeting prescribing physicians. The ULSS, the RENIP+, ESTHER and Solthis worked together on the clarification of roles for psychosocial supports (APS), psychosocial counselors (CPS), and therapeutic educators. The APS and CPS positions were harmonized, with the definition of a single position: “Community Health Mediator”.

Support to professionals responsible for medical data collection and analysis
The principal objective for 2012 was quality improvement for databases at the sites. To this end, Solthis, in collaboration with the epidemiological unit at the ULSS, provided significant support for the establishment of data circuits at healthcare sites, data entry into FUCHIA software, and their communication at the national level. Solthis also provided weekly support to Niamey sites, and three missions were conducted in the surrounding regions. Two supervisory visits per month at Niamey sites were conducted by the ULSS data manager with technical support from Solthis. Joint ULSS/Solthis regional supervision was organized to follow-up the training of Epidemiological Monitoring Managers (CSE), conducted in November 2011. During this supervisory mission, 8 CSEs from the Maradi district were trained, within the framework of decentralization. Support to the ULSS also focused on the organization of data feedback, with the creation of a scoreboard for FUCHIA and pharmacy data, as well as a scoreboard to monitor training data.

In terms of results, there was an improvement in the availability and quality of data in the FUCHIA software (in particular, good concordance with pharmacy data – when they are available).
In addition, Solthis worked with the ULSS and the WHO to revise the dispensation and consultation registries in order to integrate the collection of Early Warning Indicators for ARV resistance. After the validation of these new registries, Solthis and the ULSS trained healthcare agents across the country.
in their use and calculation methods for the quarterly report (116 people trained).

**Support to professionals responsible for technical platforms**

Solthis participated in the development and validation of a circuit for samples from sites to the National Reference Laboratory for viral load measurements. Solthis also financed maintenance of the viral load equipment after the expiration of Global Fund maintenance contracts and before the continuation of payments from phase 2 of Round 7.

**Support to professionals responsible for pharmacy issues**

In an uncertain context due to delays in Global Fund payments, Solthis played a warning role, in collaboration with national partners, in order to avoid stock outs of antiretrovirals and reagents. Technical support provided to pharmacists at the CISLS and the UGS focused mainly on the analysis of gaps between forecasts and actual consumption to improve ordering adjustments, particularly in phase 2 of the Global Fund’s Round 7.

Nonetheless, the incompleteness and irregularity of pharmacy data feedback from healthcare sites remains a barrier to improved management of consumption and stocks at the national level. The Excel monitoring tool introduce by Solthis in 2012 continues to be used, but it only responds to a portion of the management problems in health facilities and of the issues related to data compilation and analysis at the national level. An assessment of pharmacy management software showed that no existing software would be able to respond to the identified needs. With support from Solthis, the national partners began to draft the technical specifications for the development of a new software package.

In addition, significant support for the development of the Supply and Stock Management Plan was provided for the Transitional Funding Mechanism proposal submitted to the Global Fund in March 2012.

Finally, in order to better measure supply system performance, Solthis led the first working session on the definition and implementation of monitoring and evaluation indicators with central authorities and certain pilot sites.
At the health facility level, the turnover in pharmacy management personnel negatively impacted their operation. In addition, the planned training could not be carried out due to delays in Global Fund payments. Training for pharmacists and stock managers is therefore a priority in 2013.

**Operations research**

- **Study on Tuberculosis diagnosis in PLWHA**
  The general objective of this study is to determine the most cost effective tuberculosis screening algorithm for PLWHA in the Nigerien context. It is an open multi-center cohort study including a before/after intervention comparison in two phases: one observational and one interventional. The concerned sites are the principal healthcare sites for HIV positive people in Niamey city: National Hospital of Niamey, National Lamordé Hospital, CTA, Regional Hospital Center in Poudrière, MVS.
  The intervention phase began in November 2012, and recruitment ended in October 2012. The data analysis will allow the distinction between the various diagnostic methods (Ziehl Nielsen, immunofluorescence, chest x-ray, and ultrasound) in the systematic TB screening for PLWHA. The final data analysis and the application of the results will occur in 2013 to integrate the most efficient diagnostic methods into the free healthcare package for PLWHA.

**TRIDEL Study**

TRIDEL is a multi-center pilot study on the dispensation of tri-prophylactic antiretroviral therapy with protected breastfeeding and task delegation, in the framework of PMTCT in Niger. The principal objective of the study is the increase in access to ARV triple therapy among HIV-positive pregnant women, by demonstrating the feasibility of delegating the prescription of ARV triple therapy to midwives, and the effectiveness of this delegation in preventing HIV positive pregnant women from being lost to follow-up of.

After training all the healthcare teams in the concerned sites by the implementation of protocol, the study began in 8 PMTCT sites in Niamey and Zinder. By the end of the year, 33 HIV positive women had been recruited.
HIV prevalence among children with drepanocytosis

The development of a protocol for a study on HIV prevalence among children with drepanocytosis began in 2012. The study will be carried out in collaboration with the National Drepanocytosis Reference Center of Niger (CNRDN) in 2013.

Summary of trainings conducted in 2012

<table>
<thead>
<tr>
<th>Trainings</th>
<th>Personnel trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training in HIV management (4 sessions)</td>
<td>80 physicians</td>
</tr>
<tr>
<td>Training for regional mentors in clinical tutoring</td>
<td>15 physicians</td>
</tr>
<tr>
<td>Training in dispensation, therapeutic education, and the basics of psychosocial care</td>
<td>20 paramedical staff</td>
</tr>
<tr>
<td>Training in PMTCT and follow-up of exposed newborns based on the TRIDEL study protocol (3 sessions)</td>
<td>61 midwives</td>
</tr>
<tr>
<td>Training in PMTCT and follow-up of exposed newborns</td>
<td>43 midwives</td>
</tr>
<tr>
<td>Seminar on adult patient management (3 sessions)</td>
<td>95 physicians and paramedical staff</td>
</tr>
<tr>
<td>Pediatric seminar</td>
<td>18 pediatricians</td>
</tr>
<tr>
<td>Training in basic knowledge of HIV and psychosocial support</td>
<td>19 association staff</td>
</tr>
<tr>
<td>Training on the use of pharmacy data collection and management tools</td>
<td>4 pharmacists and dispensers</td>
</tr>
<tr>
<td>Training on the use of FUCHIA software (5 sessions)</td>
<td>17 CSE</td>
</tr>
<tr>
<td>Training on the use of onsite data collection tools (2 sessions)</td>
<td>76 healthcare agents</td>
</tr>
</tbody>
</table>
2013 Prospects

In 2013, the intervention priorities are as follows:

● promotion of provider-initiated testing, particularly for malnourished children,

● implementation of the CASSIS project, with two main objectives:
  ○ support for the decentralization of care in the Dosso and Tillabery regions,
  ○ improvement in the collection, supervision, and analysis of HIV data throughout the country,

● computerization of pharmacies via the introduction of management software, and

● Continuation of the TRIDEL study, the finalization of the TB/HIV study data analysis and the dissemination of results.

Team in 2012

Dr Sanata Diallo, Head of mission
Dr Souleymanou Mohamadou, Medical Coordinator
Dr Emmanuel Ouedraogo, Adult Medical Officer
Dr Roubanatou Maiga, Maternal/Child Health Officer
Aïchatou Barke, PMTCT Officer, Niamey
Hadizatou Ibrahim, PMTCT Officer, Zinder
Hadiza Albadé, Adherence Officer
Mamane Harouna, Psychological Care Officer
Ibrahim Diallo, Data Manager
Amina Abdoulaye, Administrative and Financial Coordinator
Moussa Ado Bagida, Administrative Assistant
### Guinea

<table>
<thead>
<tr>
<th>Population (millions)</th>
<th>15.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth (years)</td>
<td>54.5</td>
</tr>
<tr>
<td>HDI ranking (out of 187 countries)</td>
<td>178</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>5.1</td>
</tr>
<tr>
<td>Infant mortality rate per 1000 live births (2009)</td>
<td>81</td>
</tr>
<tr>
<td>Number of doctors per 10,000 people</td>
<td>1.0</td>
</tr>
<tr>
<td>Adult literacy rate (2005-2010)</td>
<td>41%</td>
</tr>
<tr>
<td>Urban population</td>
<td>35.9%</td>
</tr>
<tr>
<td>Total expenditure allocated to health (% of GDP in 2009)</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

*UNDP, Human Development Report, 2013*

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### HIV/AIDS in Guinea

In Guinea, the HIV epidemic is stable, with a prevalence rate among the adult population estimated at 1.4%. Women, with a prevalence rate of 1.9%, are more affected than men (0.9%). The epidemic is particularly female-centered in urban areas, where more than 6 women are infected to every one man. In 2011, the UNAIDS Report on the Global AIDS Epidemic estimates that 85,000 people in Guinea are living with HIV/AIDS, including 40,000 needing treatment. Among them, only 26,668 patients were on ARV treatment in the country and the coverage rate of antiretroviral needs was estimated at 64.6%, still below the 70% rate objective defined in the National Strategic Framework (2008-2012). Guinea has 46 patient management sites across the entire country, and the expansion plan includes opening 10 new sites within the framework of the Global Fund’s Round 10.

### Context and objectives of the Solthis intervention

Since 2008, Solthis has been working in Guinea in collaboration with the Ministry of Public Health and Hygiene and the National Committee for the Fight against HIV/AIDS, with the aim of contributing to quality and accessible healthcare available to all HIV-positive patients through capacity building for national actors and a decentralization of care in the city of Conakry and in the Boké region.

The early years were marked by the opening of eight new sites of care in two areas of intervention, improved care at existing sites (National Hospitals Donka and Ignace Deen Hospital and Regional Boke) and a technical assistance in health information system.

### Support to coordinating bodies

Solthis mobilized technical support and expertise for the following subjects in 2012:

- **PNPCSP (National Program for the Health Management and Prevention of STI/HIV/AIDS)**: Regarding the expansion of patient management, Solthis led, with the PNCSP, a mission to assess sites in Gaoual, Koundara, Boffa and Kamsar. Solthis also contributed to the

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**National Actors**

**National Committee for the Fight against HIV/AIDS (CNLS):** attached to the Prime Minister’s Office, it is responsible for initiating and coordinating the development and implementation of the National Multi-Sector Strategy for the Fight against HIV/AIDS. It is led by the Executive Secretariat (SE/CNLS), which will be one of the two beneficiaries of the Global Fund’s Round 10.

**National Program for the Health Management and Prevention of STI/HIV/AIDS (PNPCSP):** attached to the National Department of Public Health (DNSP), at the Ministry of Public Health and Hygiene, which is the principal beneficiary of the Global Fund’s R6-HIV, and of the “Health Systems Strengthening” grant from Round 10.

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**Established:** 2008  
**Partners:** PNPCSP (Ministry of Health), CNLS  
**Team:** 6 International pers. – 15 National pers. (at the end of 2012)  
**Intervention areas:** Conakry, Boké region
revision of the Screening Norms and Procedures guide to integrate testing in healthcare settings (the document is in the PNPCSP validation process).

In addition, Solthis financed the participation in the IMEA DU focused on HIV and other STIs in resource limited settings for the assistant coordinator of the PNPCSP. Three joint supervisory missions were also conducted, with the involvement of periphery authorities (DPS and DCS).

**Appui aux équipes soignantes**

Training activities were very intense in 2012, between responding to initial training needs for newly assigned personnel and needs for refresher and

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**Focus on quality improvement at patient management sites**

In 2012, Solthis supported the launch of quality improvement procedures in 9 partner healthcare facilities, in collaboration with the health authorities in Conakry and the Boké region. It consisted of several steps:

- The organization of participative diagnostic meetings at each site where the representatives of all of the services involved in the fight against HIV/AODS could exchange on their practices and challenges in order to identify ways to improve.

- The development of roadmaps establishing an action plan approved by site teams and Solthis, defining the responsibilities of different actors involved, and including key indicators to be measured regularly to evaluate the evolution of site performance.

- The implementation of these action plans, either directly by site healthcare teams (for example, monthly meeting to improve communication between departments) or by Solthis (training, clinical tutoring, supply of small equipment, organizational aid).

Greatly appreciated by partners, this process has already begun and allowed the launch of a dynamic of evaluation and quality improvement at the concerned sites and will continue in 2013.

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*Estimated prevalence of HIV (15-49 years)* | 1.4%  
*Estimated number of PLWHA* | 85,000  
*Estimated number of PLWHA needing treatment* | 40,000  
*Number of people on ART* | 23,135  
*Estimated coverage rate of ARV needs* | 58%

knowledge enhancing trainings for personnel that had previously been trained.

- **Adult patient management**

Several classroom training sessions were conducted:
- Initial training on ARV prescription for 22 physicians
- Refresher training on ARV prescription for 17 physicians (expanded on topics such as management of treatment failures, management of TB/HIV coinfections, adherence)
- Refresher training for 37 nurses (counseling and testing, ARV treatment eligibility, management of opportunistic infections, management of side effects)

Post-training follow-up of personnel by the Solthis team, within the framework of regular on-site support, facilitated the implementation of topics addressed during training.

Solthis also financed the participation in the AFRAVIH francophone conference in Geneva in March 2012 for a physician from the CAT Carrière and a pediatrician from the Hospital in Donka, as well as the participation in the DU of l’IMEA for a physician from the Health Center in Matoto.

- **Testing**

At the national level, testing activities slowed due to funding delays, principally the Global Fund’s Round 10 grant and national stock outs of testing supplies. In the 3rd quarter, increased availability of testing supplies facilitated the recommencement of activities.

In addition to stock availability, the issue of test reliability is extremely important. Solthis led an advocacy campaign to promote the establishment of a Biology Committee, responsible for choosing screening tests and updating the national testing algorithm. Also, a quality control process for test results at the sites was developed by INSP/LNR (with funding from the WHO); a session on quality control of test results was introduced during the final training on testing organized in collaboration with INSP/LNR. It was the result of monitoring throughout the year of HIV2 and HIV1+2 prevalence and the analysis of quality control results organized by INSP/LNR. At the health facility level, the trainings allowed individual capacity building for the laboratory agents responsible for HIV testing.
The promotion of provider-initiated testing was integrated into initial and refresher trainings for prescribers and healthcare workers. Within the framework of on-site support, particular attention was paid to testing during out-patient treatment for tuberculosis and prenatal consultations: the monitoring indicators developed in 2012 include these aspects and allow the identification of health facilities that are under performing. Finally, it will be important to ensure that the rise in testing is coupled with proper quantification of testing supplies so that this strategy does not lead to stock outs.

**PMTCT**

The year 2012 was dedicated to updating PMTCT data collection tools in order to highlight the inadequacies and challenges faced across care levels (prenatal consultation, testing, patient management at birth and follow-up of exposed children). These tools were approved by national authorities and will enter the testing phase in 10 PMTCT sites in the first quarter of 2013. Solthis also organized an initial PMTCT training for 15 midwives from PMTCT sites in Conakry and Boké.

**Pediatric patient management**


**Prise en charge de la coinfection TB/VIH**

The approval of the national patient management protocol at the end of 2011 allowed for the dissemination of standards to healthcare sites, with the production of posters presenting the new pediatric standards. The pediatric departments at the sites supported by Solthis include personnel that were trained at the end of 2011. Strengthening post-training follow-up of trained personnel, sensitization of other healthcare workers on HIV warning signs, and the follow-up of exposed children are some of the challenges to pediatric patient management improvements.
Management of TB/HIV coinfection
The selection of TB/HIV coinfection monitoring indicators allowed for the identification of healthcare structures that Solthis should target for support. TB/HIV coinfection issues were taken into account in the preparation of classroom trainings. Solthis also financed a certificate program (DU of Ouagadougou) for one of the physicians from the CAT Carrière involved in the management of TB/HIV coinfection.
The production of posters at the end of the year, in collaboration with the PNPCSP, related to the management of TB/HIV coinfection should facilitate the dissemination of national norms in the country’s healthcare facilities.

Support to health information system management professionals
Solthis continued its support for the implementation of new data collection tools, by financing the production of several tools (general register, follow-up register, adult and pediatric patient files, prescription books, etc.), and by providing regular support at healthcare sites in order to facilitate the introduction and optimal use of the new registers. Training sessions focused on the registers were offered to healthcare workers within the framework of classroom trainings (prescribers, healthcare workers, dispensing agents). After the national Hospital in Donka, the patient register of the hospital in Boké was computerized: supply of equipment, training for three nurses in charge of ensuring data entry into Fuchia, and training for a medical consultant on supervision.

At the health authority level, training for management teams, focused on data collection tools, was organized to promote their inclusion in the monitoring of HIV activities. In order to facilitate the use of aspects addressed during the training sessions, the participants were linked to a joint supervision with the PNPCSP in the city of Conakry.

Support to professionals responsible for technical platforms
At the national level, the year 2012 was focused on the strengthening of the NRL in its role as reference laboratory:
- establishment of joint supervision with the NRL at 17 sites in Conakry, guided by the laboratory evaluation matrix developed by Solthis
- technical support for the development of the national selection matrix for rapid screening tests
- development of a national map of all CD4 counters in the country in order to identify maintenance needs

**At healthcare facility laboratories**
Solthis trained 20 people, lab technicians or biologists, on optimal use of screening tests. In terms of supplies, Solthis contributed to the purchase of consumables, lab equipment and maintenance in addition to the renovation of certain healthcare sites. The laboratory at the CMC in Coléah was also divided into four areas for the reception, sampling, manipulations, and office in order to increase security and respect the confidentiality and dignity of patients.

At the end of the year, the measurement of laboratory activity quality indicated that 5 labs out of 8 achieved the targeted minimum score of 60%, showing progress since 2011, but indicating that there are still essential aspects that need improvement.

**Support to professionals responsible for pharmacy issues**

**Purchasing**
The year was marked by management challenges from the transition between the Global Fund’s Round 6 and Round 10. This situation caused continuous stress on supplies.

In addition to a permanent warning role, Solthis provided continuous support to national authorities involved in purchasing:

- The SE/CNLS, within the framework of negotiations with the Global Fund (revision of the Supply and Stock Management plan from Round 10, and collaboration for the drafting of a purchasing management manual for R10); as well as in advocacy activities with the National Forum of Partners to lobby the government for the purchase of ARVs.
- The PNPCSP, through continuous support to the pharmacist to conduct the quantifications necessary to forecast medical supply needs in the interim before the launch of Round 10, and the establishment of a Supply Monitoring Committee (in process).
- The DNPL, during the revision of the “Management Mechanism for HIV medical products” document and the revision of the National List of

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![Training of laboratory technicians](image)
Essential Medicines (LNME) to integrate existing ARVs.

Finally, an assessment workshop on the supply situation was organized to follow-up on suggested recommendations from a similar workshop conducted in 2011.

- **Management of stocks and dispensing**

  The creation of a new pharmacist position at Solthis dedicated to on-site support allowed for the achievement of encouraging result. The pharmacy performance analysis of (based on the table shown here) provided a basis on which to target areas for improvement. Regular visits provided the opportunity for on-site training of active agents on dispensing and ARV management.

  Regarding the composite indicator to measure the quality of pharmacy activities, there was a 10 point gain from 2011, increasing from 47% to the targeted 57% this year. In further analyzing the data, it shows that at the end of 2012, three sites received 60 points, defined as the minimum score required for high quality. At the end of 2011, there was only one.

  In addition, two trainings (one initial training and one follow-up training) on dispensing and managing ARVs were conducted with 17 pharmacists and point of sale agents. In order to include regional authorities, the pharmacist of the DSVCo/DRS and the DCS/DPS participated in classroom training as well as in joint supervision with PNPCSP/Solthis. Solthis also continued with its collaboration with the university, via support to two doctoral students and coordinating specific HIV work.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical storage according to best practices</td>
<td>10</td>
</tr>
<tr>
<td>Inventory</td>
<td>6</td>
</tr>
<tr>
<td>Theoretical inventory management</td>
<td>16</td>
</tr>
<tr>
<td>Expired</td>
<td>10</td>
</tr>
<tr>
<td>Order</td>
<td>10</td>
</tr>
<tr>
<td>Dispensation according to best practices</td>
<td>28</td>
</tr>
<tr>
<td>Archiving/organization</td>
<td>6</td>
</tr>
<tr>
<td>Communication intra-pharmacies</td>
<td>6</td>
</tr>
<tr>
<td>Communication medical team</td>
<td>8</td>
</tr>
</tbody>
</table>

**Final Score** 100

*Formation des pharmaciens, novembre*
Summary of trainings conducted in 2012

<table>
<thead>
<tr>
<th>Trainings</th>
<th>Personnel trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial PMTCT training</td>
<td>15 midwives</td>
</tr>
<tr>
<td>Initial training for ARV prescribers</td>
<td>22 physicians</td>
</tr>
<tr>
<td>Refresher training on care for people living with HIV/AIDS (PLWHA)</td>
<td>37 nurses</td>
</tr>
<tr>
<td>Refresher training for prescribing physicians</td>
<td>17 physicians</td>
</tr>
<tr>
<td>Training on best practice for HIV rapid screening tests</td>
<td>16 lab technicians and 12 biologists</td>
</tr>
<tr>
<td>Training on dispensing and management of ARVs</td>
<td>6 pharmacists and 3 point of sale agents</td>
</tr>
<tr>
<td>Follow-up training on dispensing and management of ARVs</td>
<td>6 pharmacists and 2 point of sale agents</td>
</tr>
<tr>
<td>HIV training for regional and subregional supervisors</td>
<td>25 participants (DRS, DPS, DCS, DSVCO)</td>
</tr>
<tr>
<td>Hematology</td>
<td>7 biologists</td>
</tr>
<tr>
<td>Use of Immunocomb combifirm</td>
<td>12 biologists and lab technicians</td>
</tr>
</tbody>
</table>

2013 Prospects

For the year 2013, the priorities are as follows:

- the continuation of support for quality improvement at patient management sites in clinical, organizational, laboratory, pharmacy and data collection aspects,

- the implementation of the CASSIS project, with the double objective of:
  - support for healthcare decentralization to ten new patient management sites (across all the country’s regions),
  - improvement in the collection, supervision, and analysis of HIV data throughout the country

- Increase access to viral load measurements with the implementation of the OPP-ERA project (Open Polyvalent Platform): installation of two open and polyvalent machines, and training for concerned lab personnel.

2012 Team

Hélène Labrousse, Head of Mission
Dr Bassirou Diallo, Medical Coordinator
Dr Mouslihou Diallo, Pharmacy and Laboratory Manager
Saliou Diallo, Data Manager (since October 2012)
Dr Aimé Kourouma, Medical officer
Dr Hugues Traoré, Medical Officer (since October 2012)
Hannah Yous, Project Manager
Dr Astrid Lannuzel, Pharmacist
Julie Hirschpieler, Administrative and Finance Manager
HIV/AIDS in Madagascar

The prevalence of HIV in Madagascar is estimated at 0.3% with an epidemic concentrated in the coastal regions and in certain socio-behavioral risk groups, notably men who have sex with men (MSM). The profile of the epidemic remains relatively unknown.

Despite wide geographic coverage in terms of HIV patient management, with 49 sites, trained personnel, and relatively good access to biological follow-up, the coverage rate of ARV needs remains extremely low (383 patients on treatment out of 13,000 needing treatment at the end of 2011). In addition, although the number of patients on treatment is low, the high number of treatment regimens complicates needs estimations and supply management.

Context of the Solthis intervention

Since the closing of the field mission in October 2009, Solthis has collaborated with the national partners from a distance. Within the framework of its agreement with Madagascar’s National Reference Laboratory and the Virology Laboratory at the Necker CHU in Paris, Solthis leads viro-epidemiological studies to evaluate resistance to ARVs and contribute to a better understanding of the epidemic.

Virologic Studies

In 2012, two types of studies were conducted:

- analysis of 109 samples from the 2010 biological and behavioral surveillance survey of men who have sex with men
- analysis of 101 samples taken specifically between the end of 2011 and the beginning of 2012 to complete the national evaluation of primary resistance

These analyses were conducted by a biologist at the National Reference Laboratory during a training internship at the Necker CHU in Paris.

Also, a viro-epidemiological database was developed from the studies conducted with the two laboratories. Once it is finalized, this database will be an important element in the surveillance of antiretroviral resistance.
Support for improving therapeutic patient management

Solthis was solicited by its partners in Madagascar to provide technical assistance within the framework of the 5% Initiative to “support the CNLS to optimize therapeutic patient management and strengthen the management of purchasing and inventories for HIV/AIDS products”. The first mission was led by Solthis in October. In addition to the needs assessment, this mission allowed the organization of 3 workshop days to present the results of the virologic studies conducted between 2008 and 2012 and train physicians on the management of treatment failures, in collaboration with the CNLS and the Ministry of Health. The experts of Solthis’ scientific group, Dr. Marie-Laure Chaix (Necker Hospital – Paris) and Professor Jean-Paul Viard (Hôtel-Dieu Hospital) also presented at the workshop. In total, around fifty institution managers and physicians participated in the three workshop days. A mission in the Diego-Saurez region was also organized following the workshop to conduct an evaluation of the situation and for post-training follow-up.

Support for procurement management

From a distance, Solthis provided methodological support for the quantification of ARV needs though Phase 2 of the Global Fund’s Round 8 and the drafting of the PSM plan. This work required that Solthis develop a specific quantification tool adapted to the Madagascan context. Within the framework of the mission financed by the 5% Initiative, Solthis conducted an evaluation of the HIV/AIDS medical supply system to better understand the challenges faced by the partners and propose a capacity building plan. Solthis also worked on consolidating ARV quantifications for Phase 2 of Round 8 and building the capacity of some of the actors involved on the use of the tool developed by Solthis.

Scientific communication

The virologic studies have been included in several scientific communications. Also, Solthis financed the participation of the National Reference Laboratory biologist in the Francophone Conference in Geneva in March 2012 to present a poster on the primary resistance among MSM medically monitored in Madagascar. Solthis additionally contributed to the oral presentation by Professor Rado Adrianasolo on resistance among the MSM tested during the 2010 biological and behavioral surveillance survey (BBSS) at the Indian Ocean Commission Conference in the Comoros in November 2012.

2013 Prospects

In 2013, Solthis continued its support in Madagascar in three areas:

- supply management
- lance and the updating of national treatment recommendations
- capacity building for the National Reference Laboratory
**HIV/AIDS epidemic in Sierra Leone**

The prevalence of HIV among 15–49 year olds is estimated at 1.6% in Sierra Leone. The rate is slightly higher among women (1.6%) than men (1.5%). According to the UNAIDS Report on the Global AIDS Epidemic, in 2011 the number of people living with HIV/AIDS in the country was estimated at 49,000, including 20,000 needing treatment. Only 8,115 were on treatment at the end of 2011, with a 41% coverage rate of ARV needs.

**Context and objectives of the Solthis intervention**

After a long civil war from 1991 to 2002, Sierra Leone is in the process of a democratic transition, and the international community is heavily involved at its side, particularly regarding the health system, rehabilitating the health centers that were destroyed during the war and training health personnel. The year 2012 was marked by presidential, parliamentary and local elections that took place without violence and resulted in the reelection of the former president.

The Ministry of Health and the National HIV/AIDS Control Program (NACP) signed a three-year partnership agreement with Solthis in December 2011. For its first year in Sierra Leone, Solthis decided to concentrate on working in Freetown, with three main principles: improve the quality of HIV management in the city’s health centers, increase access to treatment, with a focus on pediatric care, and improve the integration of data collection tools.

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**National actors**

**The National AIDS/HIV Secretariat (NAS)** coordinates national policies in the fight against HIV/AIDS in Sierra Leone. Attached to the Prime Minister’s Office, it is responsible for coordinating and developing the national strategic plan based on prevention, treatment and care. The NAS is the principal beneficiary of the Global Fund in HIV.

**The National HIV/AIDS Control Program (NACP)** is responsible, at the Ministry of Hygiene and Health, for coordinating the implementation the health sector’s response regarding HIV.

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Support to coordinating bodies

After a year of intense collaboration, Solthis has become a key partner for national authorities in the fight against HIV/AIDS. Solthis contributed in the following areas:

- **NAS (National HIV/AIDS Secretariat):**
  - Negotiations with the Global Fund: Solthis provided technical assistance for needs quantification and the development of the list of pharmaceutical products for Phase 2 of the Global Fund’s Round 9. Within this framework, an update of the national guidelines was proposed, based on the selection and use of medication (new combinations for adult and pediatric care, introduction of an antibacterial panel for the treatment of OI) and biological follow-up (particularly the introduction of viral load measurements).
  - With support from the AIDS, Malaria, and Tuberculosis 5% Initiative, Solthis conducted an evaluation of the supply system and the health information system in order to identify needs and develop a capacity building plan, in collaboration with the “Logistics/Supply” and the “Monitoring and Evaluation” units at the NAS.

- **NACP (National HIV/AIDS control program):**
  - Solthis participated in the development of the national policy on the management of HIV/TB coinfection, resulting in the implementation of systematic testing and Isoniazide prophylaxis.
  - Regarding PMTCT, in addition to participation in the analysis of bottlenecks in the existing program in order to develop a strategic plan to eliminate mother-to-child transmission in 2013-2015, several advocacy campaigns were carried out with success:
    - the transition from option A to option B (triple therapy during pregnancy and for one year during breastfeeding), which was scheduled to start in 2014 for Phase 2 of Round 9,
    - the improvement of tools used for patient follow-up and reporting,
    - the taking of a CD4 count measurement immediately after beginning ART and after the birth.

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| Estimation of the number of HIV+ pregnant women needing ARV treatment for PMTCT | 3 100 |
| Number of HIV+ pregnant women that received ARV during the year | 2 338 |
| Estimation of percentage of HIV+ pregnant women who received ARVs for PMTCT | 74% |
| Estimation of the number of children (<15 years) needing ARV treatment | 2 500 |
| Total number of children on ARVs | 533 |
| Estimated coverage rate for ARV treatment needs for children | 21% |

Sierra Leone

- **CCM (Country Coordination Mechanism):**
  as an elected member representing international NGOs, as well as a member of the CCM management team, Solthis strongly supported the CCM:
  - on questions of CCM structuring and more effective functioning,
  - during negotiations with the Global Fund regarding Round 9. At the end of the negotiation, the Global Fund approved an additional grant for a total of 49 million dollars for the second phase.

**Support to healthcare personnel**

In 2012, Solthis provided support to healthcare teams at 6 health centers in Freetown (Connaught Hospital, Chest Clinic, Lumley Hospital, Rokupa Hospital, Murray Town Health Center, Ola During Hospital) through trainings, clinical mentoring visits, reorganizational advice for patient flow, and some layout changes.

- **Adult patient management**
  The NACP, on advice from Solthis, decided to expand the package of care delivered by HIV unit nurses, to the monitoring and management of antiretroviral side effects, testing for treatment failure though biological follow-up of CD4 counts, and systematic testing for tuberculosis.

Several trainings were conducted so that these new NACP recommendations could be implemented:

- Refresher training on ARV treatment and managing treatment failures for 19 nurses
- Refresher training on the diagnosis and the management of tuberculosis among HIV-positive patients for 11 nurses and 5 physicians.
- Refresher training on the management of HIV infection for 15 interns at the Connaught Hospital in-patient department.

On-site support was provided for healthcare workers in charge of HIV units for the implementation of the new recommendations, the development referral of complex cases to physicians, and the improvement of the use of patient registers and medical files. An HIV medical expert was also identified at each center to receive additional support from the Solthis team and facilitate the involvement of doctors in patient management.
- **Keeping patients in the healthcare system**

Solthis was associated with a study conducted at the Connaught hospital on patients lost to follow-up between testing and the start of treatment. The study showed that 76% of patients that tested positive, but were not eligible for antiretroviral treatment were lost to follow-up in the three months following their test. These results were the topic of a scientific communication that was presented during the 7th International Conference on HIV Treatment Adherence in Miami.

In order to improve patient follow-up before beginning treatment, Solthis supported the idea of opening a patient file at testing, without waiting for the start of ART, and this was implemented at most of the sites.

In addition, a study conducted by Solthis at the Lumley Hospital on the attitude of healthcare workers and the patient experience seems to indicate that the low quality of counseling during testing could contribute to the difficulty in keeping patients in the healthcare system.

Thanks to the better recommendations from the NACP and the on-site support provided by Solthis, the patients lost to follow-up will now be correctly identified at most of the healthcare sites, which could be considered a first step to keeping patient in the healthcare system.

These advances in understanding of the size and causes of the phenomenon will allow, in 2013, the proposal of interventions to improve this crucial aspect of patient management.
Strengthening HIV pediatric patient management was a priority of the Solthis program in 2012. This support was focused on the Ola During Hospital, which has the largest pediatric patient register in the country, with more than 200 children on ART by the end of 2012.

In order to improve testing and child patient management, intense support via several site visits per week produced results in the following areas:

- expansion of testing services at the in-patient department,
- respect of testing standards,
- improvement in the clinical evaluation of exposed or infected children,
- appropriate treatment dosage based on weight and age of patient,
- management of treatment failure; various aspects of the issue were addressed: evaluating adherence and the reasons for treatment failure, identifying the social obstacles, attempting to determine solutions to support patients and their families, choosing an appropriate second line treatment.
- Systematic evaluation of the nutritional status of HIV-positive children, in order to provide adapted nutritional support, in collaboration with the hospital’s nutrition unit, supported by UNICEF.

The nurses were trained in disease management while being encouraged to refer to physicians for more complex questions. A training session on testing and HIV pediatric management was also provided to the hospital’s interns.

Particular attention was given to the reorganization and archiving of patient files, as well as the redesigning of the patient appointment system, allowing improved patient follow-up and the identification of those lost to follow-up. The room dedicated to HIV patient care was also redone and equipped.

To complement the support provided to the Ola During Hospital, several activities were conducted at the national level:

- proposal to revise national recommendations for antiretroviral treatment adapted to children. Once officially adopted, they will provide the basis for the decentralization of pediatric care in 2013.
- development of a plan with national partners for expanding pediatric testing to increase access to early diagnosis of infection among newborns and to HIV testing for malnourished children.
Support to health information system managers

An evaluation of HIV data collection and analysis was conducted in 2012. It led to the proposal, and beginning stages of implementation, of a plan to reinforce three areas:

- **Strengthen methods of routine data collection and analysis at the site level:** Revision of data collection and analysis tools, and revision of a PMTCT data collection plan with the development of a simplified PMTCT register and a follow-up form for mother-child pairs. Methodological support concerning the calculation of principal indicators was provided to monitoring and evaluation managers from the NAS and NACP. This method was applied during a study on the survival rate among patients who started ART between 2010 and 2011.

- **Integration of HIV data into the District Health Information System (DHIS2)**
  Solthis financed the participation of monitoring and evaluation managers from the NAS and NACP in the training for the DHIS2 software organized in Monrovia, Liberia in November 2012 by the University of Oslo, in order to facilitate this integration.
  Solthis also contributed to the revision of HIV data report forms used in hospitals to harmonize their contents with reports for the NACP, and to facilitate the integration of the two systems.

- **Improvement of patient register computer monitoring at the Connaught Hospital** with the debugging and updating of the Open MRS software used there.

Support to technical platform managers

Biological follow-up is one of the weaknesses of HIV patient care in Sierra Leone.

The package of free tests financed by phase 1 of the Global Fund grant (Round 9) was very limited. Solthis advocated for and obtained their inclusion in phase 2:
- introduction of viral load tests;
- inclusion of a screening test for hepatitis B (HBs antigen)
- screening test for the cryptococcal antigen

Due to financial constraints in the country, and despite the recommendation
from Solthis, it was not possible to include more than 500 viral load tests per year, lung x-rays to the package of free tests for tuberculosis diagnosis, or other free biological tests (hemoglobin level, etc).

In addition, Solthis joined with Brown University to design a research project where a Genexpert machine will be installed for tuberculosis diagnosis among HIV patients at Connaught. The project will begin in 2013.

For neurologic opportunistic infections, Solthis developed a research protocol using various diagnostic tools such as examination of the cerebro-spinal fluid (CSF) after lumbar puncture and detection of the cryptococcal antigen. This study, aiming to improve the diagnosis and treatment of neurological OI, will begin in 2013.

Also, Solthis helped the NRL develop a project to improve the diagnosis of intestinal parasitic infections (isosporidiosis, cryptosporidiosis) that obtained CDC funding.

**Support to professionals in charge of pharmacy issues**

Following the evaluation of the national HIV supply system, a reinforcement plan was developed with national partners and the first steps were implemented in 2012.

Solthis also organized, with the NAS, a workshop on the integration of HIV products in the national pharmacy system. Following this workshop, the HIV product management and dispensing plan was revised, with increased accountability for pharmacists at healthcare sites and an adaptation of dispensing and stock management tools.

In addition, the internal organization of the NAS logistics unit was improved and Solthis provided methodological support for site data analysis and stock availability monitoring.

Technical assistance was provided for the negotiations on the transition to Phase 2 of the Global Fund’s Round 9, with support for the quantification of needs for the Phase 2 request.

Facing the risk of stock outs due to the delay in the signing of Phase 2, an evaluation of antiretroviral availability was conducted, allowing the country to place an emergency order.
Operational research

In 2012, Solthis participated in several operational research projects in order to develop and support advocacy efforts for the evolution of certain practices:

- **Diagnosis and management of neurological opportunist infections including cryptococcus, toxoplasmosis, and other neurological meningitis infections in HIV-positive in-patients at the Connaught hospital:** and other the first phase of this study, aiming to describe the baseline situation of HIV-positive in-patient management at Connaught, began in June 2012. The second phase will begin in 2013 with the application of an intervention including:
  - Systematic testing for cryptococcus via the Cryptococcal antigen (CrAg) among the most immunocompromised patients.
  - Standardized (and adapted to the context) diagnosis and management of neurological OIs, using an algorithm including the systematic examination of CSF by lumbar puncture (unless contra-indicated) and the use of the CrAg.

- **Study on task sharing:** This study examining the roles and responsibilities of nurses and physicians in the management of HIV-positive patients was conducted by a consultant, in collaboration with the NACP and the NAS, in order to analyze the strengths and weaknesses of the existing system of task sharing, which relies mostly on nurses. The study will provide a basis for discussions in 2013 with the Ministry of Health, the NAS and the NACP to expand the involvement of physicians in HIV patient management, particularly in complex cases.

- **Study on the attitudes of healthcare workers and the experience of patients at HIV units.** Conducted at the Lumley Hospital, this study highlighted the difficulties in the relationship between healthcare providers and patients (particularly during counseling and testing), which contributes to the worrying number of patients lost to follow-up observed.

- **Solthis was also associated (as co-investigator) with three studies:**
  - **Efficacy of ARV treatment and resistance evaluation** (study financed by the Global Fund and coordinated by the NAS). Solthis provided technical support for the drafting of the protocol and will be involved in 2013 in the implementation at several intervention sites (including
Sierra Leone

Connaught and Rokupa).

- **Contribution of Genexpert in tuberculosis diagnosis:** Solthis participated in the development of the protocol and will contribute in 2013 with implementation at Connaught as well as data analysis.

- **Keeping patients in care and treatment observance at Connaught and Kono Hospitals.** Solthis contributed to data analysis and the drafting of communications and scientific publications.

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**Summary of trainings offered in 2012**

<table>
<thead>
<tr>
<th>Trainings</th>
<th>Personnel trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training on the pediatric management of HIV</td>
<td>4 physicians and 4 interns</td>
</tr>
<tr>
<td>Initial training on pediatric patient management</td>
<td>5 nurses et 2 physicians</td>
</tr>
<tr>
<td>Training on HIV patient management</td>
<td>1 physician and 15 interns</td>
</tr>
<tr>
<td>Refresher training on HIV patient care and treatment failure management</td>
<td>19 nurses</td>
</tr>
<tr>
<td>Refresher training on the management of HIV/TB coinfection</td>
<td>11 nurses and 5 physicians</td>
</tr>
</tbody>
</table>
2013 Prospects

For the year 2013, the priorities are as follows:

- Continue the improvement of clinical patient management through capacity building for healthcare providers and increased physician involvement (improve the management of opportunistic infections and treatment failures).
- Improve healthcare provider knowledge in therapeutic education and adherence support, and introduce appropriate tools.
- Continue the development of a pediatric training program, support for early diagnosis, the decentralization of healthcare, and the improvement of treatment quality.
- Continue support for the integration of HIV products in the national supply system, principally through training for pharmacists.
- Strengthen the collection, analysis and centralization of medical data and integrate HIV in the national system.

2012 Team

Nathalie Daries, Head of mission
Dr Franck Lamontagne, Medical Coordinator
Dr Vanessa Wolfman, Pediatric Care Manager (since September 2012)
Dr Lakkoh, Assistant On-site Medical Support (March- August 2012)
Mariama Fillie, Medical Assistant (since September 2012)
David Pelletier, Administrative and Financial Manager
Founded on the principle of non-substitution, Solthis activities focus on building local capacity at the individual, organizational, and general level through trainings, material support, organizational advice and aid in the development of national policies for the fight against HIV/AIDS.

The substantive work conducted by Solthis on the improvement of training methods highlighted the importance of post-training follow-up and continuous support between trainings to achieve lasting change in the practices of healthcare personnel.

**On-site support to improve the quality of patient management**

In order to improve results regarding support for managing change, Solthis adopted a structured support approach at healthcare sites. This approach was inspired by the quality improvement process used in hospital management in developed countries, which was adapted by Anglo-Saxon organizations to the developing country context.

Also, in 2012, Solthis supported the launch of a quality improvement process in 9 healthcare sites in Guinea, which was implemented in four stages:
**Phase 1: Analyze and Plan**

After having discussions on practices and challenges, methods for improvement were identified and presented to regional and national authorities. The commitments of the various stakeholders were included in the roadmaps and contracted in the form of protocol for a tripartite partnership. A matrix of indicators allowing for the evaluation of site performance was integrated into the protocol.

**Phase 2: Implementation**

In addition to their routine activities, the healthcare teams added « new » activities to the roadmap, related to the implementation of the identified solutions. In parallel, Solthis provided organizational and material support and strengthened the knowledge of health professionals. After their training, they benefitted from post-training follow-up based on their self-evaluation and regular monitoring, guaranteeing effective skills improvement.

**Phase 3: Monitor and study**

The visualization and analysis of patient management site performance was facilitated by the development of graphic tools and the use of routinely collected activity and results indicators. These data were then used as decision support tools.

**Phase 4: Evaluate and act**

Les données collectées sont analysées pour déterminer l’impact des changements opérés sur l’amélioration de la qualité. En fonction des résultats, les actions testées sont adoptées, adaptées ou abandonnées. Puis, un second cycle d’amélioration de la qualité est amorcé, avec de nouveaux objectifs et indicateurs de qualité.

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**Graphic tool example:**

Follow-up of patients in the active list under antiretroviral therapy

- Number of patients starting antiretroviral therapy
- Number of patients lost
- Number of patients transferred
- Number of patients deceased
- Number of patients followed
Capacity building tools for healthcare personnel

- **Educational training packages**
  Since 2009, Solthis has undertaken a professionalization of its training for healthcare personnel, and this year the training modules were improved. Solthis now uses interactive educational materials, adapted to partner country context, on the following subjects:
  - Provider-initiated testing and counseling
  - Prevention of mother-to-child transmission (initial and refresher training)
  - Medical management of adults living with HIV/AIDS (initial and refresher training)
  - Medical management of HIV-exposed and infected children
  - Psychological management of adults living with HIV/AIDS
  - Clinical mentoring
  - Formative supervision

With the objective of expanding the scope of its trainings, a process of knowledge maintenance and building from a distance was implemented for physicians at the regional hospitals in Niger supported by Solthis. These physicians regularly receive a clinical case to treat, then a standard answer key accompanied by a theoretical focus. The physicians responding to the case also receive individual feedback.

- **Focus on training videos**
  Counseling and supporting treatment adherence for HIV-positive patients involves a relational component that is difficult to teach with traditional training methods. Solthis participated in the development of training videos addressing social and relation skills to allow the personnel being trained on treatment adherence counseling and support to improve their attitude, their effective communication and the quality of information they are transmitting to patients.
Coordination
Coordination Team

The coordination team is responsible for program monitoring, scientific reflection, management of human and financial resources, leadership of the working group and representation of the organization at associative groups and national and international bodies.

Two « flying » expatriate positions respond to expertise needs across all Solthis programs: Health Information System Manager and the Capacity Building Manager. Their time is split between temporary assignments in each country and headquarters.
Academic Partners

Solthis is dedicated to developing multidisciplinary partnerships in order to take into account the many dimensions of HIV patient management: medicine, politics, economics, sociology, or anthropology. This academic anchorage linked to interventions in the field facilitates mutual knowledge enrichment.

- **University Hospital Centers of Pitié-Salpêtrière, Necker and Bichat in Paris, and in Bordeaux**: collaboration on operations research projects, internships
- **Pasteur Institute in Paris (Epidemiological Unit for Emerging Diseases)**: operations research project support
- **ISPED (Public Health, Epidemiology and Development Institute)**: interventions within the framework of the ISPED masters, student internships in the field
- **ANRS (National Agency for HIV and Viral Hepatitis Research)**: "PMTCT Observatory" project in Niger
- **RESAPSI (African Network ensuring the medical management of people living with HIV/AIDS)**: participation in RESAPSI workshops
- **Sciences Po. (Institute of Political Study in Paris)**: intervention within the framework of the Masters of International Affairs, student internships at headquarters and in the field
- **IMEA (Institute of Medicine and Applied Epidemiology)**: intervention in the IMEA DIUs, student management
- **RAF-VIH (African Network for HIV Training)**: interventions within the framework of DIUs of Ouagadougou on HIV management in sub-Saharan Africa on testing, PMTCT, information systems, and pharmacies.
- **EPICENTRE**: co-organization of symposiums
- **LASDEL (Laboratory of study and research on social dynamics and local development)**: socio-anthropologic research conducted using surveys
- **Faculté de Pharmacie de Chatenay-Malabry (Pharmacy College of Chatenay-Malabry)**: teaching for the Humanitarian Pharmacy module
- **Faculté de Caen (Caen College)**: intervention on the Humanitarian Pharmacy Diplome
Partners

- **Coordination sud**: Solthis participated in reflections and work with the Health Commission. Since December 2012, it is the leader of the Health Commission, which has become one of the most active at Coordination Sud.

- Sidaction, Solidarité Sida, la Plateforme Elsa, Aides, Mouvement pour le planning familial, Sida Info Service, Act-up, Médecins du Monde, Médecins sans Frontières, Remed, Vih.org/Crips

Institutional partners

- **Global Fund to Fight AIDS, Tuberculosis, and Malaria**: Solthis developed an original positioning vis-à-vis the Global Fund, which is the main donor in the fight against HIV/AIDS in developing countries: development of requests, sub-beneficiary of grants for training and technical assistance activities, and interface role between the field and the Global Fund team in Geneva.

- **WHO, UNAIDS, JURTA**: Solthis is regularly invited to participate in JURTA (Joint UN Regional Team on AIDS for West and Central Africa) meetings on questions concerning technical assistance, capacity building, etc.

- **The French Cooperation**:
  - Ministry of Foreign and European Affairs
  - Ambassador for the fight against HIV/AIDS and communicable diseases
  - GIP ESTHER
Operations research: scientific communications

AFRAVIH Francophone Conference, March 25-28 in Geneva, Switzerland

3 oral communications:


7 posters:

- *Une prévalence préoccupante de résistances transmises aux antirétroviraux chez des hommes ayant des relations sexuelles avec des hommes à Madagascar* – F. Lamontagne, L. Pizarro and al.
- *La difficulté du suivi des enfants infectés par le VIH au CHU Gabriel Touré de Bamako (Mali)* – A. Akondé, G. Lurton and al.
- *Enjeu de la prévision des besoins avec des données faibles : expériences d’utilisation de projections par scénarios en Guinea* – G. Lurton, M. Diallo, E. Guillard
Presentation for MSF on HIV and malnutrition in children – June 18th, Geneva
Dr. Rémi Lefrançois presented Solthis’s experience in Niger with HIV testing for malnourished children in the CRENIs (Intensive Renutrition Centers) during an MSF reflection and orientation workshop.

Interventions

Classes at the Masters of International Affairs program at Sciences Po – Paris, January-June
Louis Pizarro, director general, taught a class on “Non-State actors and global health” to Master students.

Presentation at IMEA’s Inter-University Diploma on Tropical Diseases – Paris, January
Louis Pizarro presented to medical and pharmacy students at the Tropical Diseases IMEA IUD in Paris on “Health and Development Aid”.

Presentation for the Inter-University Diploma on Pharmaceutical Supply Management co-organized by the universities of Ouagadougou, Burkina Faso and Clermont Ferrand, France – Ouagadougou, February
M. Diallo, Pharmacy Manager in Guinea, presented on ARV quantification methods, with practice sessions, and basic stock management to 50 IUD students.

Presentation at the Disease Control Priorities Network Seminar of the Global Health department at the University of Washington – March 12th, Seattle
Presentation by G. Lurton (Health Information Systems Manager) on «Strengthening Health Information Systems for HIV/AIDS Care in Low Resource Countries - Experience of the French NGO Solthis» March 12th for the Global Health students at the University of Washington in the United States.

Class « Training on the global management of people living with HIV in sub-Saharan Africa » at the medical and paramedical IUD of the African Network of HIV/AIDS Training, at the University of Ouagadougou and the Pierre and Marie Curie University – Ouagadougou, June
G. Lurton (Health Information System Manager) and C. Dézé (Capacity Building Manager) taught classes on the HIV/AIDS information system and patient register monitoring, and on “HIV testing and counseling: focus on provider
initiated testing”. Approximately one hundred physicians participate in this IUD every year.

- **Presentation for the XVIIIème Actualités du PHARO – September 13th in Marseille**
  Presentation on « Dispensation training: Solthis’s approach » by E. Guillard during the Symposium on « Training on HIV/AIDS patient management in francophone Africa: building capacity to strengthen health systems » organized by the GISPE (Groupe d'intervention en santé publique & épidémiologie – Public Health and Epidemiology Intervention Group). At the Solthis stand the cards « thérapeutique en jeu » were demonstrated to highlight tools developed by Solthis.

- **Presentation at the ISPED Masters in Public Health - Bordeaux, November 19th**
  Every year Solthis presents for the ISPED Masters in Public Health. In 2012, E. Guillard led a class on HIV patient management in developing countries.

- **Presentation to the Humanitarian Pharmacy College in Caen – September 17th and 18th in Caen**
  Every year E. Guillard organizes, in collaboration with Jean Loup Rey, Public Health physician, the module « HIV patient management in developing countries and pharmacy problems relevant to the fight against HIV/AIDS ».

- **Presentation at the LASDEL Conference on PTMCT – October 16th – 18th in Niamey (Niger)**
  Louis Pizarro presented the Solthis interventions in Niger, particularly the project on the delegation of triple therapy prescription to midwives during an international conference dedicated to social science works on the PMTCT in Africa.

- **Participation in a debate on access to care organized by the AFD – Paris, December**
  Solthis was invited to contribute to the AFD’s public debate at the Bellevilloise in Paris on access to care within the framework of the “Debating Developing” series.

- **Revue Transcriptases (fall 2012)**
  Comment financer le Fonds mondial ?
  article by Louis Pizarro, Transcriptases n°149
Scientific reflection

Editorial collaborations

Special issue of the Transcriptases journal (spring 2012)
Solthis collaborated on the creation of this issue, dedicated to the 2012 ICASA conference in Addis Abbaba December 4th – 8th, 2011. Solthis members published several articles:

- **Tests de dépistage rapide : Améliorer les pratiques de laboratoires** – Florence Huber (member of scientific working group), Emmanuel Ouedrago (Mali Medical Officer), Mouslihou Diallo (Pharmacy and Laboratory Officer – Guinea)
- **Utilisation de critères immuno-cliniques comme stratégie de dépistage de l’échec au traitement ARV en zone décentralisée** – Alain Akondé (Medical Coordinator in Mali), Souleymanou Mohamadou (Medical Coordinator in Niger), Rémi Lefrançois (Scientific Manager)
- **L’atazanavir et les nouvelles stratégies thérapeutiques antirétrovirales dans les pays à ressources limitées** – Etienne Guillard (Pharmacy Manager), Aimé Kourouma (Medical Officer in Guinea), Alain Akondé (Medical Coordinator in Mali)
- **La coinfection tuberculose/VIH à la conférence ICASA 2011** – Bassirou Diallo (Medical Coordinator in Guinea), Franck Lamontagne (Medical Coordinator in Sierra Leone)
- **L’analyse des coûts dans les décisions politiques de la lutte contre le VIH** – Grégoire Lurton (Health Information System Manager)
- **Vers l’accès universel : une dynamique menacée si l’offre de soins VIH n’est pas repensée** – Sophie Calmettes (Operations Director), Caroline Gallais (Donor Relations Manager)
- **PTME : L’intégration d’une planification familiale adaptée aux besoins des couples vivant avec le VIH** – Charlotte Dézé (Capacity Building Manager), Sanata Diallo (Head of Mission in Niger)
- **Stigmatisation, l’épidémie cachée** – Stéphanie Tchiombiano (Head of Mission in Mali), Nathalie Daries (Head of Mission in Sierra Leone)
- **La délégation des tâches pour améliorer la prise en charge pédiatrique du VIH** – Roubanatou Abdoulaye-Mamadou (Maternal and Child Health Manager in Niger), Charlotte Dézé
Special issue of ALTERMONDES in partnership with Solthis – December

Altermondes is an international solidarity journal that gives a voice to activists, mainly from developing countries. Following the International AIDS Conference in Washington in July 2012, which publicized the idea of an “end to AIDS”, Altermondes wanted to know more. If the organizations, the activists, and the experts confirm that, yes, the end of AIDS is possible; it can only be done under certain conditions. An issue was created with Act Up Paris, AIDES, Arcat/Journal du Sida, Coalition Plus, Médecins du Monde, One, Oxfam France, Sidaction, Solidarité Sida and Solthis.

Meetings with Solthis

AFRAVIH Francophone Conference, March 25th – 28th Geneva, Switzerland

The francophone conference on the fight against HIV supported by the AFRAVIH organization was held March 25th-28th in Geneva. Almost 2,000 physicians, health professionals, association and institution members were present. The Solthis field and headquarters teams were heavily involved with 7 posters, 3 oral presentations, two sessions (Sophie Calmettes on “VIH en situation de crise” and Sanata Diallo on “PTME: transmission verticale du VIH, de l’essai à la population »), 1 intervention outside the Conference (satellite on the « Expériences indépendantes de gestion, des ruptures des stocks en ARV, réactifs et accès aux soins (outil TAW) et actions dynamiques face à de telles situations» organized by UNAIDS with Sophie Ouvrard), and one stand. The Mali team, grounded in Bamako due to the March 22nd coup d’état, unfortunately could not attend the conference.

Salons de solidarités, June 1st – 3rd in Paris

Solthis was present at the Salon des Solidarités in Paris-Porte de Versailles, the largest meeting of international solidarity actors in France with 20,000 visitors. It is a great opportunity for Solthis to make itself known among donors, the general public, and future human resources.
Solthis’s Scientific Day

Every year, Solthis assembles its field teams in Paris before a panel of experts, scientific working group members, and actors in the fight against HIV/AIDS. This year, the Scientific Day was held June 28th at the Pitié-Salpêtrière Hospital in the Adicare Amphitheater. The large audience was able to participate in the debates addressing:

- Issues related to pediatric patient management in Africa
- Management of Hepatitis C in developing countries
- Biological follow-up (viral load and treatment line changes)
- The Global Fund: after the crisis
- Monitoring and evaluation: data quality at the heart of program success

Solthis Newsletter

In 2012, two issues (n°13 and n°14) were published:
Advocacy

Through advocacy efforts, Solthis pursues three objectives: defending equitable access to care for all, pushing for the evolution of policies and practices in HIV/AIDS patient management, improving the adaptation of international aide to realities in the field. In 2012, Solthis led advocacy efforts targeting the Global Fund, with the NGOs in the Health Commission at Coordination Sud or with French NGOs involved in the fight against HIV/AIDS. Within this framework, Solthis mobilized on the following subjects:

**Access to affordable treatment and health products**

**ACTA.** Since 2007, the European Union and India have been negotiating bilateral free-trade agreements that would reinforce intellectual property rights and hinder access to low-cost health products, such as vaccines and essential medicines. Worried by the consequences of the reinforcement of intellectual property rights, organizations have been mobilized since 2011 to demand that the European Union and India reject the agreements. In 2012, under pressure, the agreements were rejected.

**Novartis Trial.** Among the largest producers of generic medicines in the world, India has become the main "pharmacy" for developing countries. Today, generics represent 80% of treatments bought by international donors in 115 low and middle income countries. Within the framework of the trial between India and Novartis concerning patients, organizations involved in the fight against HIV/AIDS, including Solthis, support India so that it can maintain its system promoting the production of generics and guaranteeing access to affordable treatment to patients in developing countries.

**Hepatitis C.** The number of patients co-infected with HIV and Hepatitis C (VHC) continues to grow. Hepatitis C, however, remains under diagnosed in developing countries, leading to a large number of deaths, while the disease can be treated and cured. This year, Solthis joined the organizations mobilized to reinforce access to diagnostics, treatment and management of Hepatitis C. A letter was addressed to the WHO demanding to include Hepatitis C treatment in its list of essential medicines, considering that this treatment is essential and should no longer be sold at prohibitive prices: a first step towards increasing access in developing countries.
**Advocacy**

**Towards universal healthcare coverage**

The right to “protection against exorbitant healthcare costs” is far from being a reality for all. More than 100 million people fall into poverty every year following healthcare spending, and hundreds of millions go without treatment due to a lack of money. Investing in the health sector by guaranteeing access to basic healthcare for all is essential, not only to fight against poverty and social inequities in health, but also to enable economic development in the long term. This is why Solthis signed a joint declaration of NGOs including Action for Global Health, Oxfam, Médecins du Monde or Save the Children, as well as a letter to the President of the World Bank favoring the implementation of universal health coverage in developing countries.

**Women’s Health.** Access to healthcare for women is still extremely low in developing countries. The commission focused on this subject in 2012 and will continue to ensure that this right becomes a reality in the post-2015 agenda. A specific workshop was organized focused on this theme October 4th.

**Support to Cameroonian activists**

Solthis supported the combat of Cameroonian association members charged with illegal organization of a protest. In reality, these militants are being reproached for highlighting the failings of the Cameroonian government in terms of health financing. Solthis provided visibility to the leader, Fugué Foguito, by interviewing him for its newsletter, and signed several official letters asking for support from French authorities.
**Human Resources**

**Distribution of Solthis Teams**

- In Mali, the security situation led to the evacuation of most expatriate personnel and their families and the reduction in national personnel teams. The Medical Coordinator took over the Head of Mission position, and the national team was reorganized. The Medical Officer based in Mopti was moved to Niger to fill the Adult Patient Management Officer position that had been vacant since September 2011.
- After launching the program in Sierra Leone at the end of 2011, the team was expanded in 2012. Positions for a Pediatric Patient Management Officer and a Medical Assistant were created and the administrative and logistic team was recruited.

**Statutes of Solthis personnel**

Solthis employees are mainly personnel working in the field (89% of total)

Operational Human Resources (social mission) includes field personnel and operational positions in the Coordination Team.
Financial report
## Income statements (€)

### Income Statements

<table>
<thead>
<tr>
<th>ORIGIN OF FUNDS</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant from the Bettencourt Schueller Foundation</td>
<td>2 476 000</td>
<td>2 637 800</td>
</tr>
<tr>
<td>Other grants (Global Fund, Mairie de Paris, Frio...)</td>
<td>236 885</td>
<td>430 878</td>
</tr>
<tr>
<td>Carryover of unused resources</td>
<td>325 170</td>
<td>421 693</td>
</tr>
<tr>
<td>Others</td>
<td>14 461</td>
<td>66 986</td>
</tr>
<tr>
<td><strong>TOTAL RESOURCES</strong></td>
<td><strong>3 052 516</strong></td>
<td><strong>3 557 357</strong></td>
</tr>
</tbody>
</table>

### USE OF FUNDS

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating costs</td>
<td>2 748 545</td>
<td>3 192 826</td>
</tr>
<tr>
<td>Investment costs</td>
<td>7 082</td>
<td>4 650</td>
</tr>
<tr>
<td>Exceptional depenses</td>
<td>174 009</td>
<td>16 047</td>
</tr>
<tr>
<td>Dedicated funds 2012</td>
<td>126 041</td>
<td>325 170</td>
</tr>
<tr>
<td><strong>TOTAL USE</strong></td>
<td><strong>3 055 676</strong></td>
<td><strong>3 538 693</strong></td>
</tr>
</tbody>
</table>

### NET INCOME

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NET INCOME</strong></td>
<td><strong>-3 161</strong></td>
<td><strong>18 664</strong></td>
</tr>
</tbody>
</table>

## Balance Sheet (€)

### ASSETS

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed asset</td>
<td>24 683</td>
<td>194 254</td>
</tr>
<tr>
<td>Receivables</td>
<td>33 450</td>
<td>305 900</td>
</tr>
<tr>
<td>Investment</td>
<td>54 998</td>
<td>54 998</td>
</tr>
<tr>
<td>Cash</td>
<td>482 198</td>
<td>232 438</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>75 438</td>
<td>66 718</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td><strong>670 766</strong></td>
<td><strong>854 308</strong></td>
</tr>
</tbody>
</table>

### LIABILITIES

<table>
<thead>
<tr>
<th>LIABILITIES</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserves</td>
<td>319 133</td>
<td>300 469</td>
</tr>
<tr>
<td>Dedicated funds</td>
<td>126 041</td>
<td>325 170</td>
</tr>
<tr>
<td>Result of the exercise</td>
<td>-3 161</td>
<td>18 664</td>
</tr>
<tr>
<td>Other Indebtedness</td>
<td>97 192</td>
<td>140 218</td>
</tr>
<tr>
<td>Outstanding bills</td>
<td>64 669</td>
<td>17 787</td>
</tr>
<tr>
<td>Income Post In Advance</td>
<td>66 892</td>
<td>52 000</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td><strong>670 766</strong></td>
<td><strong>854 308</strong></td>
</tr>
</tbody>
</table>
Analysis and comments 2012

- 83% of the initial budget was spent, € 2,929,637, all countries confused. This represents a decrease of 9% compared to 2011. This is mainly due to the deteriorating security on the ground that have impacted projects funded by the Global Fund.
- In 2012, 78% of funds were spent directly on the field.
- According to the distribution of total expenditure, staff positions (head, international and national staff) remained 60% of overall spending. This reflects the specificity and the heart of the Solthis mission, which is to provide expertise and technical assistance to national control programs against HIV.
- Since 2003, the budget spent reached € 20,632,085.

Results 2012 by country and by activity

<table>
<thead>
<tr>
<th>Sections</th>
<th>France</th>
<th>Guinea</th>
<th>Mali</th>
<th>Niger</th>
<th>Sierra Léone</th>
<th>Madagascar</th>
<th>Burundi</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>21 580</td>
<td>16 648</td>
<td>33 893</td>
<td>28 543</td>
<td>18 041</td>
<td>118 704</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Expenses</td>
<td>106 019</td>
<td>159 978</td>
<td>77 232</td>
<td>46 613</td>
<td>57 317</td>
<td>447 902</td>
<td>15%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>40 113</td>
<td>80 113</td>
<td>49 060</td>
<td>47 695</td>
<td>38 094</td>
<td>763 6</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>17 084</td>
<td>12 790</td>
<td>17 645</td>
<td>12 180</td>
<td>11 729</td>
<td>71 682</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical</td>
<td>17 244</td>
<td>31 760</td>
<td>7 559</td>
<td>15 477</td>
<td>1 174</td>
<td>73 213</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Personnel</td>
<td>216 315</td>
<td>226 532</td>
<td>231 158</td>
<td>236 361</td>
<td></td>
<td>910 366</td>
<td>31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Personnel</td>
<td>67 961</td>
<td>61 875</td>
<td>101 525</td>
<td>7 812</td>
<td></td>
<td>239 173</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head office Personnel</td>
<td>421 932</td>
<td>46 111</td>
<td>46 111</td>
<td>46 111</td>
<td>46 111</td>
<td>606 375</td>
<td>21%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transports</td>
<td>1 285</td>
<td>24 396</td>
<td>23 581</td>
<td>64 663</td>
<td>85 520</td>
<td>199 511</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>586 433</td>
<td>646 487</td>
<td>550 442</td>
<td>591 397</td>
<td>526 964</td>
<td>2 929 637</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% 20% 22% 19% 20% 17.99% 0.93% 0.03% 100%

*The difference between the total achievements in 2012 and the total expenses in the income statement is the amount of dedicated funds 2012 or 126 041 euros
Changes in resources

- In 2012, Solthis has developed new sources of funding (including Intervida and Initiative 5%).
- The percentage of other funding is increased from 13 to 17%

<table>
<thead>
<tr>
<th>Source of funding</th>
<th>Achievements 2012</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fondation Bettencourt Schueller</td>
<td>2 476 000 €</td>
<td>81,50%</td>
</tr>
<tr>
<td>Dedicated funds 2011 (Bettencourt Schueller Foundation funding report 2011)</td>
<td>34 290 €</td>
<td>1,13%</td>
</tr>
<tr>
<td>Dedicated funds 2011 FBS (refunds Global Fund Mali 2011)</td>
<td>290 880 €</td>
<td>9,57%</td>
</tr>
<tr>
<td>Mayor of Paris (Guinea)</td>
<td>52 000 €</td>
<td>1,71%</td>
</tr>
<tr>
<td>FRIO (Coordination Sud - Ministry of Foreign and European Affairs)</td>
<td>6 000 €</td>
<td>0,20%</td>
</tr>
<tr>
<td>Sidaction</td>
<td>8 622 €</td>
<td>0,28%</td>
</tr>
<tr>
<td>Intervida (Mali)</td>
<td>10 676 €</td>
<td>0,35%</td>
</tr>
<tr>
<td>The Global Fund (Mali)</td>
<td>95 155 €</td>
<td>3,13%</td>
</tr>
<tr>
<td>The Global Fund (Niger)</td>
<td>-629 €</td>
<td>-0,02%</td>
</tr>
<tr>
<td>Initiative 5% / FEI (Sierra Leone)</td>
<td>25 580 €</td>
<td>0,84%</td>
</tr>
<tr>
<td>Initiative 5% / FEI (Niger)</td>
<td>11 885 €</td>
<td>0,39%</td>
</tr>
<tr>
<td>Initiative 5% / FEI (Madagascar)</td>
<td>27 596 €</td>
<td>0,91%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3 038 055 €</strong></td>
<td><strong>100%</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Source of funding</th>
<th>Resources Bettencourt Schueller Foundation</th>
<th>Other resources</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Euros</td>
<td>%</td>
<td>Euros</td>
</tr>
<tr>
<td>2003</td>
<td>106 769 €</td>
<td>100%</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>645 154 €</td>
<td>99%</td>
<td>4 731 €</td>
</tr>
<tr>
<td>2005</td>
<td>1 375 475 €</td>
<td>97%</td>
<td>45 807 €</td>
</tr>
<tr>
<td>2006</td>
<td>1 642 011 €</td>
<td>98%</td>
<td>26 194 €</td>
</tr>
<tr>
<td>2007</td>
<td>1 966 622 €</td>
<td>99%</td>
<td>18 042 €</td>
</tr>
<tr>
<td>2008</td>
<td>2 387 403 €</td>
<td>98%</td>
<td>43 704 €</td>
</tr>
<tr>
<td>2009</td>
<td>2 478 220 €</td>
<td>91%</td>
<td>248 370 €</td>
</tr>
<tr>
<td>2010</td>
<td>2 586 688 €</td>
<td>83%</td>
<td>528 470 €</td>
</tr>
<tr>
<td>2011</td>
<td>3 046 491 €</td>
<td>87%</td>
<td>443 880 €</td>
</tr>
<tr>
<td>2012</td>
<td>2 510 290 €</td>
<td>83%</td>
<td>527 765 €</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18 745 122 €</strong></td>
<td><strong>91%</strong></td>
<td><strong>1 886 963 €</strong></td>
</tr>
</tbody>
</table>

* The difference of € 14,461 with the total resources in the income statement is consistent with other products (account 756 +758 +766 +768 +791).

More information in the Notes to the annual accounts are available on www.solthis.org

Budget 2013

- The 2013 budget includes an increase of 28% compared to 2012 due in part to the CASSIS project.
- In 2013, diversification of funding will be even greater in 2012, with funding from the Bettencourt Schueller Foundation 75% in 2013 versus 83% in 2012.

<table>
<thead>
<tr>
<th>Country</th>
<th>2013</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mali</td>
<td>538 868 €</td>
<td>14,32%</td>
</tr>
<tr>
<td>Niger</td>
<td>907 747 €</td>
<td>24,12%</td>
</tr>
<tr>
<td>Guinea</td>
<td>1 076 561 €</td>
<td>28,60%</td>
</tr>
<tr>
<td>Sierra Léone</td>
<td>732 234 €</td>
<td>19,45%</td>
</tr>
<tr>
<td>France</td>
<td>501 678 €</td>
<td>13,33%</td>
</tr>
<tr>
<td>Madagascar</td>
<td>6 702 €</td>
<td>0,18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3 763 790 €</strong></td>
<td><strong>100%</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Source of funding</th>
<th>2013</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bettencourt Schueller Foundation (annual allocation)</td>
<td>2 637 500 €</td>
<td>70,08%</td>
</tr>
<tr>
<td>Fondation Bettencourt Schueller (dedicated funds)</td>
<td>186 500 €</td>
<td>4,96%</td>
</tr>
<tr>
<td>The Global Fund (Mali)</td>
<td>168 490 €</td>
<td>4,48%</td>
</tr>
<tr>
<td>The Global Fund (Niger)</td>
<td>69 320 €</td>
<td>1,84%</td>
</tr>
<tr>
<td>Mayor of Paris (Guinea)</td>
<td>50 000 €</td>
<td>1,33%</td>
</tr>
<tr>
<td>FEI (OPP ERA Guinea)</td>
<td>64 230 €</td>
<td>1,71%</td>
</tr>
<tr>
<td>Initiative 5% / FEI (Projet CASSIS)</td>
<td>548 750 €</td>
<td>14,58%</td>
</tr>
<tr>
<td>Initiative 5% / FEI (Madagascar)</td>
<td>9 000 €</td>
<td>0,24%</td>
</tr>
<tr>
<td>Intervida (Mali)</td>
<td>18 000 €</td>
<td>0,48%</td>
</tr>
<tr>
<td>Sidaction</td>
<td>12 000 €</td>
<td>0,32%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3 763 790 €</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Financial partners

In 2012, the following partners provided financial support for Solthis activities:

- **Bettencourt Schueller Foundation:** Since its establishment in 2003, Solthis has received essential support from the Bettencourt Schueller Foundation. The foundation once again provided decisive support to all Solthis activities in 2012.

- **City of Paris:** The City of Paris has been a Solthis partner since 2009, supporting the medical management of people living with HIV/AIDS in Conakry, Guinea.

- **Global Fund:** In 2012, Solthis was designated as a sub-beneficiary for the transition between phase 1 and 2 of Round 8 in Mali for technical assistance in the decentralization of healthcare. Solthis is also a Global Fund sub-beneficiary in Niger for an operations research project on TB/HIV coinfection.

- **Sidaction:** Under the framework of Sidaction’s call for “Training” projects, Solthis received support for its project to improve HIV/AIDS patient management decentralization in the Mopti region of Mali. This project provided funding for training on healthcare setting testing and PMTCT.

- **France Expertise Internationale (FEI):** Solthis experts were chosen for three technical assistance projects by its national partners using funding from the 5% AIDS, Malaria and Tuberculosis Initiative of the French Ministry of Foreign and European Affairs: support for the drafting of a funding request to the Global Fund in Niger, evaluation of medical and supply information systems in Sierra Leone, and support for the optimization of patient management and strengthening of the supply chain in Madagascar.

- **Fonds de Renforcement Institutionnel et Organisationnel (FRIO):** The FRIO aided in the professionalization of financial management. The FRIO, managed by Coordination Sud, is supported by the Ministry of Foreign and European Affairs and the French Development Agency.

- **Intervida:** The Spanish international cooperation NGO, Intervida, co-financed the “Health Education” project implemented in the Ségou region.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ARV</td>
<td>antiretroviral</td>
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<tr>
<td>CPN</td>
<td>Prenatal consultation</td>
</tr>
<tr>
<td>CV</td>
<td>Viral load</td>
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<tr>
<td>CS réf</td>
<td>Reference Health Center</td>
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<tr>
<td>GIP ESTHER</td>
<td>Public Interest Group - Together for Therapeutic Solidarity in Hospital Network</td>
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<tr>
<td>ET</td>
<td>Therapeutic Patient Education</td>
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<tr>
<td>DIU</td>
<td>Inter-University diploma</td>
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<tr>
<td>IO</td>
<td>Opportunistic Infections</td>
</tr>
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<td>MAEE</td>
<td>Ministry of Foreign and European Affairs</td>
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<td>ONUSIDA</td>
<td>UNAIDS</td>
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<td>OMS</td>
<td>WHO</td>
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<td>PTME</td>
<td>Transmission Prevention of Mother to Child</td>
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<tr>
<td>PVVIH</td>
<td>People Living with HIV</td>
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