

## 1. Achievements and Constraints

In its 2012 APR, São Tomé and Príncipe (STP) reported elevated coverage results of 97% for DTP3, compared with the targeted coverage of 98% for the 2012-15 cMYP. Coverage has been maintained at a high level, above 95%, for the last 10 years, and the dropout rate is currently low, at 3% (**IRC 2013**). DTP3 coverage for 2013 was 97% and the dropout rate was 2%. In addition, health services (insecticide-treated mosquito nets, vitamin A and deworming) are integrated at all levels (**cMYP**).

This excellent performance is attributed to the many EPI improvement activities undertaken by the country, which include:

- Staff training on DQS in all health districts;
- database roll out (STP Info) for the EPI program;
- Increasing vaccine storage capacity.

The 2012-15 cMYP includes plans for continued efforts to control vaccine-preventable diseases within the country. The yellow fever vaccine was introduced in 2003, the pentavalent vaccine in 2009 (**cMYP**), the new pneumococcal vaccine in November 2012, and the second dose of the measles vaccine in November 2013.

District performance throughout the country is consistent (**cMYP**). Immunization data for 2013 have already been disaggregated by gender, but there the totals recorded are still too low because the total number of children immunized (girls and boys) is 5,558, which corresponds to 97% DTP3 coverage. In 2013, the number of immunized girls recorded is 2,637 and the number of immunized boys recorded is 2,616.

## 2. Governance

The coordination of activities at the national level is the responsibility of the Inter-agency coordinating committee (ICC), chaired by the Minister of Health, and made up of most of the partners that support EPI (**cMYP**). Participants represent bilateral and multilateral institutions (WHO, UNICEF, Portuguese Cooperation, etc.) and 3 NGOs (The Red Cross, Instituto Marquês Valle Flor, Rotary Club, etc.) (**ICC minutes from May 2013**). The ICC meets regularly (twice in 2013) to validate, monitor and evaluate the program's annual action plan. However, civil society commitment needs to be increased and the ICC members proposed during the May 2013 meeting that their meetings take place more frequently so as to be able to more closely follow the program's progress.

Coordination of the program remains inadequate with regards to the number of meetings that took place in 2013 (one meeting in March 2013) with those in charge of the health districts and the participation of all technical and financial partners.

The ICC meetings are not sufficiently frequent, even if urgent questions are addressed in good faith. The last ICC meeting was in May 2013. The defined meeting schedule must be met, with the main goal being to assess the EPI situation and the diseases targeted for immunization and required measures to be taken.

Coordination remains controlled by the technical group within the Program for Reproductive Health with little influence from the surveillance service with regard to its systematic involvement in EPI activities. Surveillance of EPI-targeted diseases, with the main disease being polio, depends on this and the country has not reported a case of polio for a very long time. (**External EPI Review Report, August 2013**)

The ICC is supported by the Technical Committee made up of senior technical personnel from the EPI, UNICEF and the WHO. They prepare technical dossiers about various technical, communication, financial and logistical issues (**cMYP**).

The points of order discussed during the last ICC meetings were, among others, financing immunization, immunization coverage, waste management and the ICC requested that it meet more frequently.

### 3. Program management

Immunization activities are identified as priorities within the National Health Development Plan (NHDP). The country has a comprehensive multi-year plan (cMYP) for the EPI for the 2012-15 period.

Programming planning is too centralized for the Program for Reproductive Health.

The EPI activities are diluted within the overall Program of which it is a part (the National Reproductive Health Plan 2012-2016), without an in-depth, separate analysis to identify/prioritize specific problems to set objectives and define sufficient strategies/activities.

The health districts do not have written directives for planning or budgeting their activities. The Annual Action Plans (AAPs) that were viewed (4 out of 6 districts visited) do not always include immunization activities (3 out of 4 district plans and only 1 health facility).

Operational facilities, specifically health outposts, do not have demographic data to make estimates based on the population served. (**External EPI Review Report**)

### 4. Program implementation

The last EVM survey was conducted in June 2011. The 2012 APR noted that the cold chain had been strengthened, specifically with the creation of a 10 m<sup>3</sup> cold room at the national level, allowing the country to successfully introduce new immunizations in 2012 and 2013.

STP has implemented an injection safety policy as well as waste disposal via incineration. However, the central incinerator is not operational and practices at the health centers do not always follow standard operating procedure (**ICC minutes from May 2013 and External EPI Review Report**).

The country has used auto-disable syringes since 2002. A national policy document regarding injection safety has existed since 2002. Its content was revised and integrated into the standards and norms document that was finalized in 2012. In any case, the use of AD syringes is practiced in 100% of all health facilities.

Waste disposal is accomplished through the collection of used materials in receptacles and the materials are then burned or buried. These requirements are not followed by those leading the health districts or at the national level due (most likely) to inadequate training for these individuals. The construction of incinerators recommended in the 2003-2007 plan has not occurred, due to a lack of financing, and no sustainability measures have been planned (procurement of injection supplies and injection safety).

With WHO's support, the first incinerator in the Agua Grande district (where the country's capital is located) was built in 2011 at the central hospital. Unfortunately, this incinerator is not currently operational and the problem of waste elimination remains an urgent one, when compared to compliance with WHO recommendations. The long-term plan is to build 3 incinerators in separate districts, which are: Lemba, Caué and the autonomous region of Príncipe. The basic mobilization strategies that apply here will be part of the ICC's priorities. The Government and partners will spare no effort to implement this plan as soon as possible. (**External EPI Review Report**)

## 5. Monitoring, surveillance and data quality

Monitoring ensures that a series of indicators are collected on a monthly basis from 100% of the districts. Data management at the operational level is acceptable. Despite several delays, the rate of monthly immunization reports produced is excellent (100%).

The Multiple Indicator Cluster surveys (MICs) carried out have allowed for a comparison between data from these surveys and data from the information system. This comparison has shown that there is no significant difference between these two sources of information. This was confirmed by the results of the immunization coverage survey carried out in October/November 2007, which proves the reliability of the data from the system that is currently in place. **(External EPI Review Report, August 2013)** There is no discrepancy between country and WHO/UNICEF estimates for DTP3 coverage. Administrative coverage figures were confirmed by the most recent DHS (2009) **(2012 APR)**.

With regards to surveillance, the last case of measles goes back to 1994 and the last case of neonatal tetanus goes back to 1997. The country has, up to the present time, no recorded case of yellow fever. Surveillance of these diseases is case based, with confirmation at the reference laboratory if necessary. With regards to MNT, activities were particularly strengthened at the community level, targeting women of childbearing age.

With regards to surveillance for other diseases, the trend remains the same for the surveillance of AFP and the same concerns remain. Considering both the regional and global stakes, strengthening the surveillance of targeted EPI diseases must be a priority. However, it is important to note that MNT was eliminated in the country in 2005, and, with the performance of the measles immunization, the country is well placed to pre-eliminate the measles. **(External EPI Review Report, August 2013)**

The country has implemented several key activities to strengthen the data management systems **(APR 2012)**:

- Both training on DQS and its use, as well as support for using specified tools during training, in all districts;
- Updated EPI data collection tools at the national and district levels and monitoring via supportive supervision;
- Implementation of a national database (STP Info) which includes health data and specifically EPI data.

There is no specific pharmaco-vigilance program, but there is a risk communication plan to address adverse events.

In addition, the 2012 APR states that the country conducts studies in rotavirus diarrhea.

Note: the study has just been finalized and you can read the summary of it below, but it should not yet be disseminated because it has not yet been officially disseminated by the Government!

Study summary:

**Objective:** estimate the prevalence and genotype of the rotavirus circulating among children under five suffering from acute diarrhea in São Tomé and Príncipe.

**Outcomes:** From August 2011 to November 2012, 464 fecal samples were collected. When they were analyzed using an immunological test (Imunoensaio) to detect viral antigens, 36.9% (172/464) of the samples were positive for the rotavirus and 7.5% (35 samples) for the adenovirus. Using molecular biology methods, 34.5% (160 samples) were confirmed as positive for the rotavirus. The results of the genotyping indicated 36.9% of the rotaviruses as belonging to genotype G8P (6), 44.4% as belonging

to G2P (4) and only 4.3 % as belonging to G1P (8) which is the genotype considered to be the most prevalent in the world and which is included in the two immunizations recommended by the WHO. In the stool samples analyzed for adenovirus, a great diversity of genotypes were observed, the most of which are not associated with gastrointestinal diseases.

Conclusions: STP has a strong prevalence of rotavirus infection among children under 5 suffering from acute diarrhea. At one time one of the most common rotavirus genotypes within the country, G8P (6) is considered rare; G2 and other G2P (4) which are not common in Western countries, none of these genotypes are included in the immunizations currently on the market. Therefore, surveillance of these viruses within the country is urgent. Considering the results described and WHO's recommendation for the introduction of the rotavirus immunization into the national system, we think that it is important to rapidly introduce this immunization into the routine schedule, as well as control for its efficacy in the prevention of rotavirus infection in this country.

## 6. Global polio eradication initiative

The last case of polio was reported in 1983 (**2012-15 cMYP**). In 2002, the AFP surveillance was restructured and strengthened through the recruitment of focal points within the framework of the global polio eradication initiative. Following the implementation of this initiative, various committees, and in particular the Certification Committee (CNC), the National Polio Expert Committee (CPP) and the Containment Group (GC) were created to ensure monitoring. When there are suspected cases, stool samples are expedited to a WHO reference laboratory (the Pasteur Center in Yaoundé, Cameroun), unless the country has its own laboratory equipped for this purpose (**External EPI Review Report**).

## 7. Health system strengthening

STP has not applied for HSS funding being that the funds available (around \$20,000) were not sufficient for the effort required to develop a proposal. GAVI's new approach to HSS support opens the possibility for the country to benefit from a pool of funding of up to \$3.10 million (**country notes**). São Tomé and Príncipe plans to submit the proposal for HSS support in October 2014.

## 8. Use of cash funds other than for HSS GAVI funds

The country is eligible for an ISS. However, no reward was earned in 2012 since fewer children were vaccinated than the previous highest DTP3 achieved in 2007.

## 9. Financial management

STP started mandatory co-financing of the pentavalent and yellow fever vaccines in 2009. The country is high performer with timely payment of new vaccine co-financing. The financial report regarding 2011 financing for the introduction of new immunizations was submitted in August 2013.

## 10. NVS objectives

Maintaining immunization coverages above 80% for the measles vaccine since 2006 (**APR 2012**) allowed the country to introduce the new pneumococcal vaccine in November 2012 and the country introduced the second dose of the measles vaccine in November 2013 in compliance with the 2012-15 cMYP requirements.

The country plans to apply for GAVI funding for the introduction of the rotavirus immunization as well as for an HPV demonstration project in the fourth quarter of 2014.

### 11. EPI funding and viability

There are three types of funding for EPI activities: contributions from the state, from the community and from development partners.

Through 2006, a large part of EPI funding was ensured by Government's partners. Since 2008, the Ministry of Health has begun to invest in procuring traditional immunizations and the co-financing of new and under-used immunizations. It is important to note that within expenditures related to conventional immunizations used in the routine EPI, the State's funding went from USD 334,199 in 2006 to USD 453,710 in 2010. However, it must be noted that there have been delays in the release of funds from the State that were to be used for the purchase of traditional immunizations in 2012. For 2013, \$20,000 was included in the State budget (**ICC May 2013 Report**).

A line item devoted exclusively to the purchase of immunizations and immunization supplies was created. EPI's dependence on partner aid has the following consequences:

- The lack of financial independence for immunization;
- The incomplete implementation of a strategic plan and an EPI AAP;
- Delays in funding and in the implementation of activities;
- A reduction in the EPI's efficiency.

Other state contributions to EPI funding are linked to shared expenditures for personnel, repairs and maintenance and expenditures for facility operations for the program. The Government's commitment to immunization independence is evident. (**External EPI Review Report**)

In summary, the country remains reliant on foreign aid for overall EPI financing.

Specifically, the purchase of traditional immunizations and the cost of routine campaigns is always mostly funded by the partners (UNICEF, WHO and Taiwan). Therefore, financial sustainability is a risk for the country because of the increasing pace of co-financing.

The country is requesting TA that support the development of sustainable funding strategies, an updated cMYP and capacity building for health care workers (**APR 2012**).

### 12. Brief description of the process

Using available GAVI documents and those submitted to countries and partners in March 2014, consultant Dr. Isabelle de Zoysa prepared a proposal on the main themes to be discussed during the joint appraisal. The in-country and regional partners have completed and finalized the report.

### 13. Summary of proposed measures Summary of proposed priority measures

Theme	Measure	Responsible Entity	Timeline
Planning	• Strengthen planning at the district level	MoH and partners	2014
	• Submit a proposal for HSS funding to GAVI on time (third quarter of 2014).		Quarter 4, 2014
	• Submit application for the HPV immunization demonstration program		Quarter 2, 2014

	<ul style="list-style-type: none"> <li>• Submit application for rotavirus vaccine.</li> </ul>		Quarter 2, 2014
Management/ supervision	<ul style="list-style-type: none"> <li>• Organize external audit of activities.</li> <li>• Conduct quarterly supportive supervision visits by teams representing EPI, surveillance and partners</li> <li>• Train personnel in management and database for surveillance of vaccine-preventable diseases</li> </ul>	MoH/GAVI  MoH and partners	Quarter II 2015  All year  IV Quarter 2014
Monitoring-Evaluation	<ul style="list-style-type: none"> <li>• Complete framework for performance, monitoring and evaluation to submit to GAVI in 2014 within the HSS framework</li> <li>• Ensure data analysis for action and provide regular feedback to districts and health facilities</li> </ul>	DAF/DSS/MoH	Quarter III 2014  Every quarter
Cold Chain	<ul style="list-style-type: none"> <li>• Build 4 incinerators that comply with standards in health district.</li> </ul>	EPI DSS/MoH	2014-2015