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Evaluation externe réalisée avec l'appui du F3E pour INTER-AIDE

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Titre du rapport : Evaluation externe du projet de contrôle de la tuberculose dans les provinces du sud éthiopien

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Auteurs : Dr Guido Groenen
Dr Assefa Amenu

Coordonnées

Dr Guido Groenen
Achilles Musschestraat 55
9000 Gent, Belgique
+32-9-2241922 (résidence)
+32-472-465164 (portable)
guido.groenen@skynet.be

Dr Assefa Amenu
P.O.Box 43422
Addis Ababa, Ethiopia
+251-113-212255 (résidence)
+251-911-654156 (portable)
assafaam@yahoo.com

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External evaluation of the Inter Aide France support to the Tuberculosis Control Programme in Welayta and Dawro Zones in the Southern Nations, Nationalities and Peoples Regional State in Ethiopia during the period 2003 – 2009

Evaluation mission
from 27 July to 10 August 2009 (preliminary data collection)
and
from 22 August to 8 September 2009 (field visit by consultants)

Dr Guido Groenen
Dr Assefa Amenu

The points of view expressed in this document are those of the consultants. They do not necessarily reflect the opinions of the local authorities nor those of Inter Aide or F3E.

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List of abbreviations

ACSM	Advocacy, Communications and Social Mobilisation
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
BCC	Behavioural Change Communication
BCG	Bacille Calmette-Guérin
CRDA	Christian Relief and Development Association
DOT	Directly Observed Therapy
EC	Ethiopian Calendar
EP	Extra-pulmonary tuberculosis
EQA	External Quality Assessment
FGD	Focus Group Discussion
GC	Gregorian calendar
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
GLRA	German Leprosy Relief Association
HC	Health Centre
HEW	Health Extension Worker
HF	Health Facility
HIV	Human Immune deficiency Virus
HP	Health Post
HPDP	Health Promotion and Disease Prevention
IA	Inter Aide
INH	Isoniazide
MOH	Ministry of Health
MDR	Multidrug Resistant
NGO	Non-Governmental Organisation
OPD	Out-Patient Department
P+	Sputum Smear Positive Pulmonary Tuberculosis
P-	Sputum Smear Negative Pulmonary Tuberculosis
PIHCT	Provider Initiated HIV Counselling and Testing
SNNPRS	Southern Nations, Nationalities and Peoples Regional State
SWOT	Strengths, Weaknesses, Opportunities and Threats
TB	Tuberculosis
TOR	Terms of Reference
WHO	World Health Organisation

Executive summary

Following the successful implementation of a TB control project in Kindo Koysha woreda, Welayta zone, southern Ethiopia from 1992 to 2002, Inter Aide expanded its support to11 woredas in Welayta zone and 1 woreda in Dawro zone. This "second generation" project focused on bridging the gap between patients and health system by acting on the demand side through social mobilisation and facilitating access to care (by disseminating appropriate information about TB and the availability of free medical care and referring suspect cases) and by acting on the supply side through improving the health system performance in the fields of diagnosis, patient follow-up and data collection. Inter Aide posted 45 field facilitators at the community level, to act as links between the community and the health services and 5 supervisors with a motor cycle at woreda level, to support the woreda health office, supervise the field facilitators and provide assistance in coordinating all TB control activities in the woreda. Inter Aide also provided microscopes, organised training sessions and set up a pilot project to collect sputum in the field.

As the "second generation" project is scheduled to phase out by the end of 2009, Inter Aide commissioned an external evaluation in order to

- evaluate the impact of the implemented measures on case finding, assessing the relative effectiveness of each of the intervention components,
- contribute to the definition of a "third generation" strategy on the basis of the observations made during the evaluation,
- find out the operational modalities for a larger scale intervention

The external evaluators collected information through the analysis of documents, focus group discussions (which took place from 27 July to 10 August), key informant interviews and a field visit to the project area (from 22 August to 8 September). The findings of the evaluators have been organised according to the specific questions that had been formulated in the Terms of Reference. Unfortunately, Inter Aide provided no precisely defined project objectives that could be translated into well circumscribed targets. Only qualitative objectives or quite broad and vague statements of intention that are not quantified were mentioned. The absence of objectively verifiable indicators has made it difficult for the evaluators to assess if the project's achievements are in line with the expectations.

The evaluation shows that Inter Aide provides highly appreciated and effective support to the woredas. The project staff is well integrated and there is excellent collaboration with the government health services. All staff members, both project and government staff, are highly motivated. The Inter Aide field facilitators, together with the HEWs, ensure effective coverage of the community. They work closely with the numerous community volunteers, who are very committed.

An important change in the perception of the community related to TB has taken place, and in the project areas, the community members themselves clearly attribute this change to the impact of the IA project. From 2006 to 2009, the patient delay was brought down by half, and more than 50% of the suspects presented themselves at the health facility within 1 month after the first appearance of symptoms. The efforts by the IA staff to identify TB suspects and stimulate them to go to the health facility are highly appreciated.

All informants at all levels agree that the IA support has meant a real added value to TB control in Welayta. Especially the contribution of the project to awareness raising in the community, case detection, treatment success and quality of data processing was praised. Most patients attribute the fact that they were diagnosed with TB, received proper treatment and were cured to

the efforts of the IA project staff. Even if the IA project were to phase out, the impact of the project on raising awareness in the community will be a lasting asset.

The patients are satisfied with the level of service being provided by the health service. Once a patient is picked up by the health services, diagnosis, treatment and patient care are well taken care of. Health service delay is minimal (around 3 days on average) and the issue of HIV in the context of TB is receiving due attention. TB drugs are widely available. There are no shortages or interruptions in the supply. Complaints regarding the health services are not related to the quality of care, but to accessibility. Practically all suggestions made by the patients to improve the service have to do with decentralisation. In order to bring the diagnosis closer to the community, IA has developed a system to collect sputum smears peripherally. This system works well and is appreciated by staff and patients alike, although the procedures can be made more efficient. The next logical step would be the decentralisation of DOT to the health post level.

Treatment outcome in the project area is excellent. The treatment success rate is well over 90% and the default rate is incredibly low. This may well be one of the biggest achievements of the project, especially taking into consideration the difficult geographical and climatological situation, the road conditions and the prevailing poverty. The equally low failure rate suggests that there is little or no drug resistance in the area, which means that TB treatment has been given correctly and regularly to all the patients. The death rate is quite low at 3.6% for the New P+ and 6.8% for the retreatment cases, indicating that diagnosis is made fairly early on. Moreover, the number of deaths seems to be decreasing.

In spite of these obvious achievements, a number of weaknesses can be pointed out as well:

- Lack of training is mentioned by all informants, and could be observed at every level during the field visit.
- One of the main objectives of the project has been to improve case finding. While the case notification rate (the number of new P+ detected during the year over the total population) in the project area did increased by 6% only from 2003 to 2008, it is considerably better than the result for the whole of Ethiopia (71/100,00 against 46/100,000 in 2007). Compared to the WHO estimate for the country (163/100,000 in 2007), there is still room for improvement, however. During the same period, case detection of P- increased by 59% and EP by 62%. This implies that the project had a much more notable effect on the detection of P- and EP than on the detection of P+. This is corroborated by the decrease of the proportion of P+ patients from around 60% in 2003-2005 to 46% in 2008.
- The proportion of suspects who are diagnosed with TB is very high: more than half of the suspects who are screened end up with a diagnosis of TB. This raises questions regarding the selection criteria for suspect referral and the quality of diagnosis. In several woredas, over 30% of the screened suspects are found to have P+. The question can be raised whether the lab results are reliable. On-site visits show labs of uneven quality with considerable differences in staff knowledge and competences. External Quality Assurance (EQA) is done but is insufficiently rigorous. Also, 26% of all the suspects screened for TB are diagnosed with either P- or EP. The correctness of this diagnosis is not verified. Clinical experience in the health centres is limited, regular medical-technical supervision is lacking and technical expertise is insufficient, not only at all levels of the general health services, but also within the project.

It must be borne in mind, however, that all TB control data are generated as a result of the activities of the general health services, not of the project. Indirectly, such data might be considered to be a reflection of the input of the project, but it has been impossible to filter out the specific contribution of the Inter Aide support. The TB data are outcome data, while the

input of the project is related to the process of improving the quality of the TB control work of the health services. This means that the data generated by the general health services are inappropriate to show any added value, or the absence thereof, following Inter Aide's intervention. To properly assess the contribution of Inter Aide, it is necessary to focus on the specific activities of the project. Appropriate indicators should therefore be process indicators. This is a very important recommendation to be taken into consideration when planning a "third generation" project. Such a project will not be generating its own outcomes. It is therefore important to define, right from the inception of the new project, appropriate process indicators, preferably including a number of clearly quantified targets. This will avoid possible disappointment in the future.

A "third generation" project could include a scaling up of the intervention, covering more woredas in more zones. This is in line with suggestions made both by the regional and zonal health authorities. In line with the findings of the evaluation, the new project should include a strong capacity building component at woreda, health centre, health post and community level, focusing on proper suspect identification, laboratory proceedings, diagnosis of P- and EP, data management, drug management and supervision methodology. This capacity building needs to be complemented by technical back-up.

The "third generation" project can provide additional support in the fields of sputum examination (strengthening the laboratory infrastructure, decentralizing diagnostic services), decentralisation of DOT (intensive phase to be administered at health post level) and health education materials (posters in the local language, leaflets for volunteers and patients, health promotion materials). The new project should also create an interfacee between the project and the government services, get in touch with the Global Fund, and improve visibility of Inter Aide at the national level.

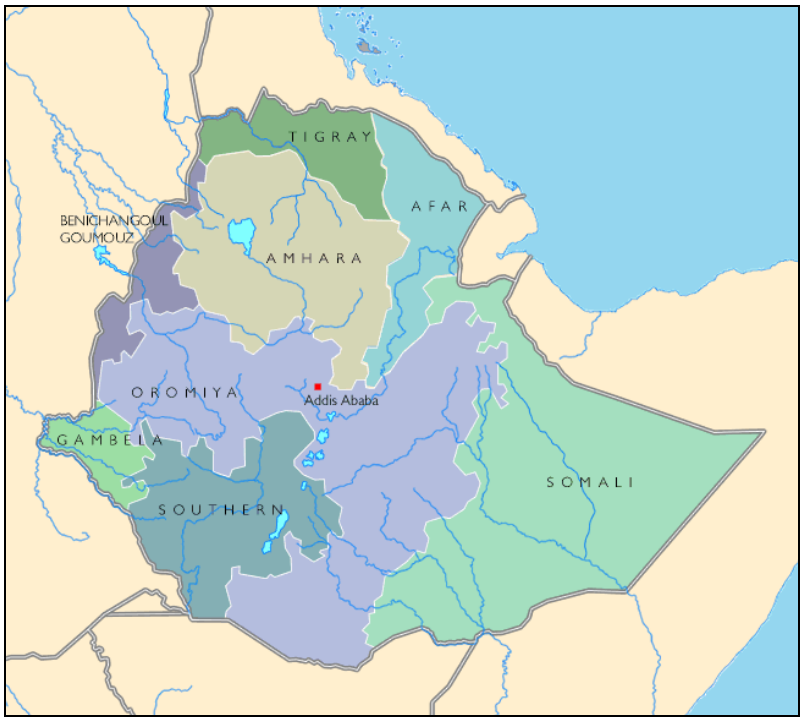
When planning the geographical scope, Inter Aide should take its capacity into account, in order to avoid spreading itself too thin. In a first step, the "third generation" project could start with an initial phase in Dawro Zone in 2010-2011 (while continuing in Welayta Zone to assess if the level of achievement can be maintained). During the initial phase, it will be possible to compare Loma (already a project woreda during the "second generation" project) with the other woredas, which at present generate TB control outcomes clearly inferior to Loma.

1. Introduction

1.1. Ethiopia: geographical and demographical background information

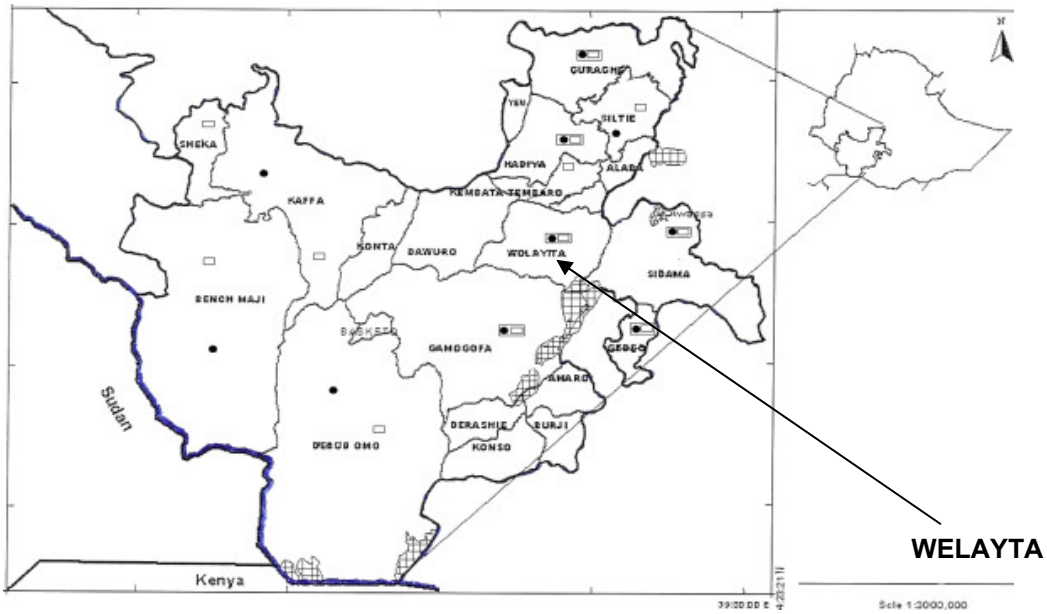
1.1.1. Administrative organisation

Ethiopia is a landlocked country in the Horn of Africa, with a surface of 1,104,300 km^2 and a 2007 population of 73,918,505 inhabitants (2007 Population and Housing Census – Central Statistics Authority (CSA) of Federal Democratic Republic of Ethiopia). The country is divided into 9 regional states and 2 chartered cities: see map 1.1.



Map 1.1 Ethiopia: administrative division

The regions are divided into zones (with an average population of 1,500,000). In the Southern Nations, Nationalities and Peoples Regional State (SNNPRS), there are 21 Zones: see map 1.2.



Map 1.2. SNNPRS: administrative division

The Zones are divided into Woredas (or districts) and the woreda is divided into kebeles (or neighbourhoods). Welayta Zone in the SNNPRS has 1,527,908 inhabitants (according to the 2007 census) and is divided into 15 woredas, 4 urban and 11 rural. The average population in these rural woredas is 120,000. The 11 rural woredas in Welayta Zone, together with the adjacent Loma woreda in Dawro zone, constitute the Inter Aide project area. Prior to 2007, the project area in Welayta was counting only 6 woredas, with a bigger surface and a higher population. This makes woreda based comparisons over time quite difficult.

The average population of a kebele is 5,000. The kebele boundaries were also reorganised in 2007. The administrative organisation in Ethiopia is summarised in figure 1.1.

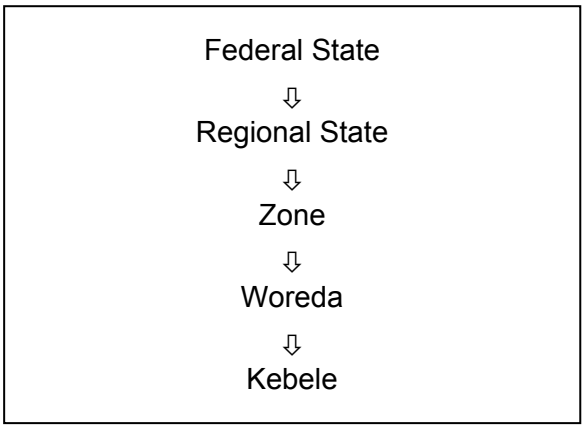


Figure 1.1. Administrative organisation in Ethiopia

1.1.2. Selected demographic information

Some selected demographical information is summarised in table 1.1. It compares the national data with the data for the SNNPRS and Welayta Zone.

Table 1.1. Selected demographical data (from Central Statistical Agency 2005)

	Ethiopia	SNNPRS	Welayta
Total surface in km^2	1,104,300 km^2	112,343 km^2	4537 km^2
Total population	73 million	15,042,531	1,675,147
Population density	77.2/ km^2	134/km^2	369/km^2
Urbanisation	17%	10%	9.2%
Average area of arable land per rural household[(1)]	1.0 ha	0.89 ha	0.4 ha

(1) World Bank Memorandum May 24, 2004

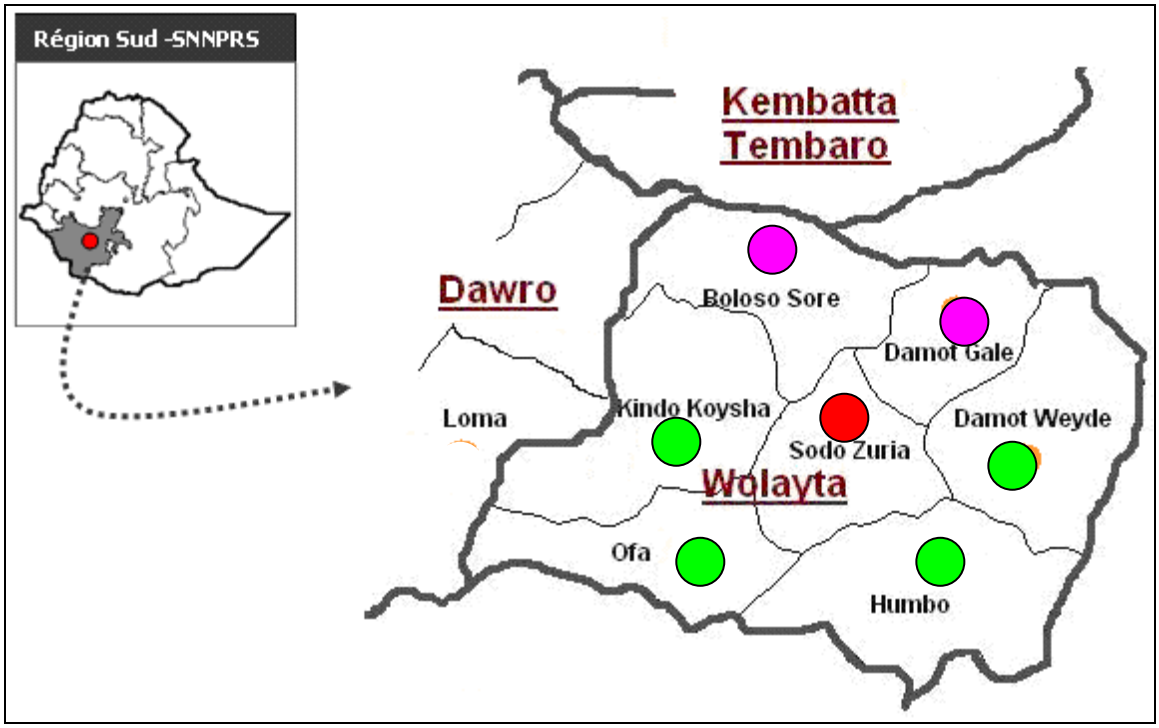
The population density in Welayta Zone is higher than the regional average, which in turn is higher than the national average. The urbanisation rate on the other hand is higher nationwide than in the SNNPRS. Within Welayta Zone, there are considerable differences between the woredas. The zone can be divided into 3 demographic areas (see table 1.2 and map 1.3) :

- High density rural: former woredas Boloso Sore and Damot Gale
- High density urban: former woreda Sodo Zuria
- Low density rural: former woredas Damot Woyde, Humbo, Ofa and Kindo Koysha

42% of all the urban dwellers in Welayta Zone live in Sodo town. Loma woreda in Dawro zone (also included in the project area) is also a low density rural woreda, but both population density and urbanisation rate are considerably lower than in Welayta Zone.

Table 1.2 Demographic areas in Welayta Zone and Loma woreda

	Population density per km^2	Urbanisation rate
High density rural	631	8.4%
High density urban	619	22%
Low density rural	236	4.5%
Loma	66	1%



Map 1.3. Demographic areas in Welayta Zone: ● High density rural; ● High density urban; ● Low density rural

Ethiopia used to be ranked as one of the poorest countries in the world. In the UNDP Human Development Report 2009 it is still classified among the countries with the lowest human development index, but its ranking is improving. It is now 171st out of 182 countries. The CIA World Factbook (September 29, 2009 Update) ranks Ethiopia 217th out of 229 in terms of Gross Domestic Product per capita on a Purchasing Power Parity basis. Some indicators related to poverty and development, taken from the last reference, are summarised in table 1.3.

The food security situation in Ethiopia is unstable, and this is particularly true in Welayta Zone, which is confronted by acute rural poverty. Although the area looks lush and fertile (see picture 1.1) there are regular food shortages, the so called "green" famine. This is mainly due to the population pressure, as can be seen in table 1.1: there is a high population density and little arable land per household.

Table 1.3. Indicators of poverty and development for Ethiopia (from CIA World Factbook (September 29, 2009 Update)

Indicator	**Data**	**World ranking**
Birth rate	43.66 births/1,000 population	9
Death rate	11.55 deaths/1,000 population	42
Population growth	3.208%	9
Infant mortality rate	80.8 deaths/1,000 live births	20
Life expectancy at birth	55.41 years	192
Fertility rate	6.12 children/woman	11
People living with HIV/AIDS (estimate)	980,000	12
Literacy (men)	50.3%	
Literacy (women)	35.1%	
Percentage of population below 15 years	46.1%	
Median age	16.9 years	
Percentage of the population living below the poverty line	38.7%	

Picture 1.1. Mount Damot near Sodo in Welayta Zone (Several of the woredas bordering this mountain are named after it)

1.2. Ethiopia: background information on health care and TB control

1.2.1. Organisation of the health care delivery system

Ethiopia used to adhere to a programmatic approach of health care delivery. There was a National TB and leprosy control Programme, a National HIV/AIDS programme, a National Malaria Programme etc. In early 2009, the system was reorganised into an integrated approach. In the MOH, several Directorates were created, including a Directorate General of Health Promotion and Disease Prevention, which integrates all infectious disease control and prevention programmes: see Figure 1.2.

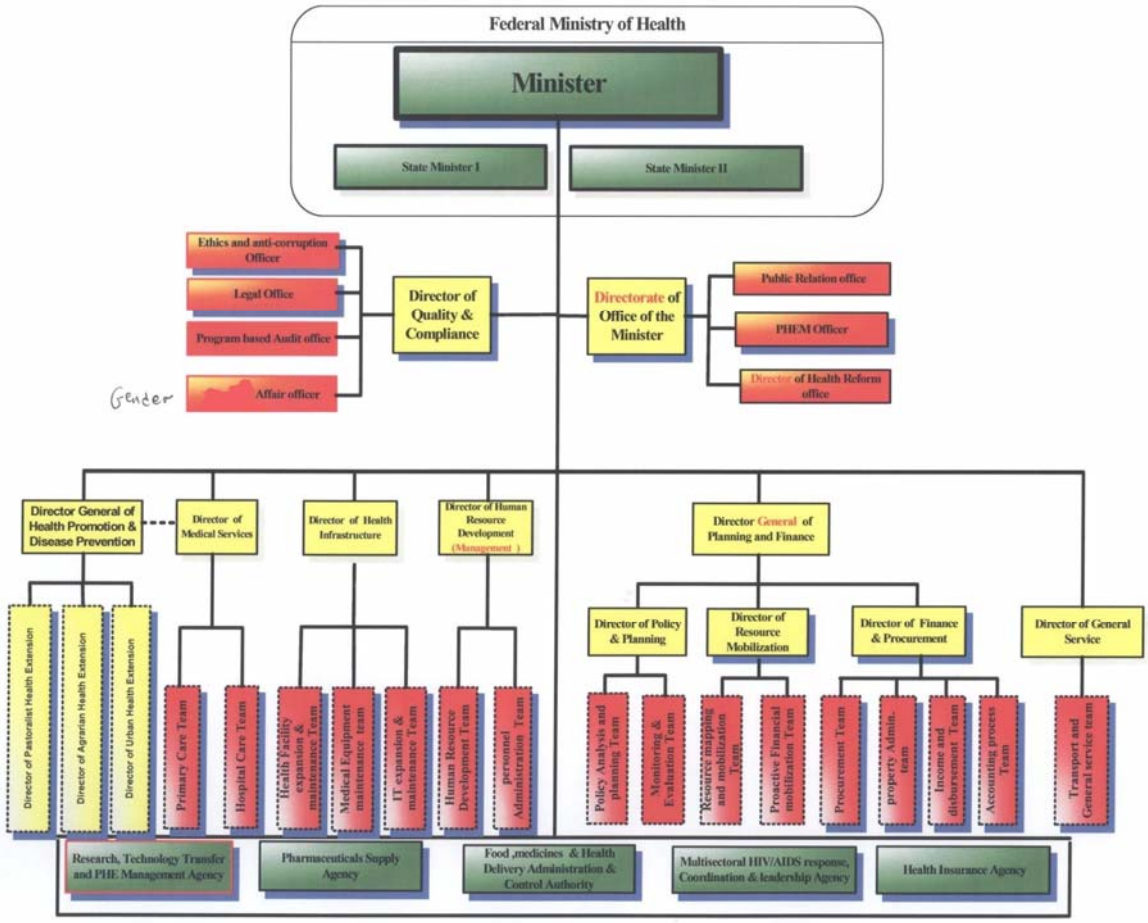


Figure 1.2. New structure of the Ministry of Health

The principle of the integrated approach has been decentralised from the Ministry down to the region down to the zone down to the woreda. At each level, an integrated Health Promotion and Disease Prevention (HPDP) team has been created. All former experts or focal points for one specific disease have been integrated into this new structure, where all experts will be generalists without a specific specialisation.

At the woreda level, the HPDP team is situated at the woreda health office. The members of this integrated team ensure that all disease control and prevention activities are executed properly at the woreda level by providing training, supervision and data analysis. The activities (including TB control) are executed by the clinical staff at the Health Centres and, since 2005, by the Health Extension Workers (HEW) at the health posts. There are 2 to 4 health centres in a woreda, and one health post with 2 HEW per kebele. In most health centres, there are no medical doctors. If the advise of a physician is needed, for instance to diagnose smear negative pulmonary TB, the patient is referred to a hospital. There may be 2 to 4 hospitals in a zone.

1.2.2. The tuberculosis burden in Ethiopia

WHO has identified 22 high-burden TB countries, based on the estimated incidence of new TB cases (in absolute numbers) per year. India and China, with their very high population sizes, are number 1 and 2 on this list, but Ethiopia has also been figuring in the top ten since many years. In the WHO Global Tuberculosis Control Report 2009 (covering the year 2007), Ethiopia is listed as the 7th most endemic TB country in the world. The WHO estimates for Ethiopia in 2007 are summarised in table 1.4.

Table 1.4. WHO estimate of the TB burden in Ethiopia in 2007

	Number of cases	Rate per 100,000
Prevalence (all forms of TB)	481,000	579
Incidence (all forms of TB)	314,000	378
Incidence (New P+)	135,000	163

In the past, WHO has regularly updated its estimates. Figure 1.3 shows the evolution of the estimated incidence rate for New P+ since 1995.

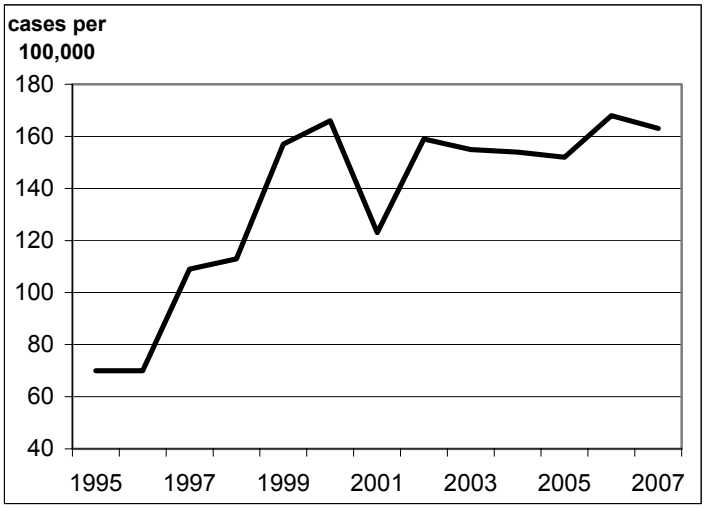


Figure 1.3. Estimated incidence rate of New P+ (expressed as number of New P+ cases per 100,000 population) in Ethiopia (Source: WHO Global Tuberculosis Control Reports 1997 to 2009)

These estimates are used to calculate the case detection rate, this is the number of cases found over the number of cases estimated, expressed as a percentage. It can also be calculated by dividing the case notification rate by the estimated incidence rate. The TB case notification in Ethiopia 2003-2007 is shown in table 1.5.

Table 1.5. TB case notification in Ethiopia 2003-2007 (Source: WHO Global Tuberculosis Control Reports 2005 to 2009)

		New P+					
	Population[1]	number	CNR[2]	Relapse P+	Other Retreatment P+	New P-	New EP
2003	70,678,000	39,698	56	1,878	676	35,141	40,883
2004	75,600,000	41,430	55	2,081	1096	37,119	42,477
2005	77,431,000	38,525	50	2,246	873	39,816	43,675
2006	81,021,000	36,774	45	1,935	811	40,234	43,255
2007	83,099,000	38,040	46	2,035	899	43,500	45,269

[1] Figures cited by WHO. They do not correlate with census data cited in 1.1.1.

[2] Case notification rate per 100,000

When dividing the case notification rate in table 1.5 by the estimated incidence rate illustrated in figure 1.3, it is possible to calculate the annual case detection rate. This is done in table 1.6 to calculate the case detection rate for the New P+..

Table 1.6. Case detection rate of New P+ in Ethiopia 2003-2007

	Case notification rate per 100,000 (see table 1.5)	Estimated incidence rate per 100,000 (see figure 1.3)	Case detection rate
2003	56	155	36%
2004	55	154	36%
2005	50	152	33%
2006	45	168	27%
2007	46	163	28%

As can be seen in table 1.6, the case detection rate in Ethiopia is quite low. It might well be possible, however, that the most recent estimates for Ethiopia put forward by WHO are too high. In 2010, Ethiopia will organise a nationwide TB prevalence survey which will allow to adjust the estimates. It is generally expected that the estimates will be adjusted downwards, which would result in improved case detection rates. A key informant at WHO cited the example of Eritrea, where a similar survey has resulted in a downsizing of the estimates by half. The same remark must be borne in mind when looking at the case notification data of the project woredas in the Findings chapter.

Table 1.5 also allows to calculate the respective percentages of P+, P- and EP among the new cases: see table 1.7. These figures will be useful for comparison purposes when looking at the case finding data in the project woredas in the Findings chapter. Compared to the 2007 case finding data worldwide (New P+: 48.8%, New P-: 36.6%, New EP: 14.6%), Ethiopia detects many more EP but considerably less P+. WHO suggests in the Global Tuberculosis Report 2009 that the percentage of New P+ in Ethiopia should be 43%.

Table 1.7. Proportional distribution of the New TB cases in Ethiopia 2003-2007 according to type of TB (Source: WHO Global Tuberculosis Control Reports 2005 to 2009)

	New P+	New P-	New EP
2003	34,3%	30,4%	35,3%
2004	34,2%	30,7%	35,1%
2005	31,6%	32,6%	35,8%
2006	30,6%	33,5%	36,0%
2007	30,0%	34,3%	35,7%

The annual number of deaths as a result of TB in Ethiopia is estimated at 76,000 (which corresponds to 92 deaths due to TB per 100,000 population), with 23,000 of these deaths occurring in TB patients who are HIV+. WHO estimates that 19% of all new TB cases in Ethiopia are HIV+. In 2007, 16% of the newly detected TB patients were tested for HIV and 31% among them were HIV+. Of these, 42% were put on ART and 71% on cotrimoxazole preventive therapy.

WHO has also advanced an estimate of MDR TB in Ethiopia: 1.2% of all new TB cases and 12% of previously treated cases might have MDR TB. Fortunately, treatment failures are not very common. Table 1.8 gives the treatment outcome of the New P+ and table 1.9 of the Retreatment P+. These tables will be useful for comparison with the treatment outcome obtained in the project woredas in the Findings chapter.

Table 1.8. Treatment outcome rates of the New P+ TB cases in Ethiopia 2002-2006 (Source: WHO Global Tuberculosis Control Reports 2005 to 2009)

	Cured	Treatment completed	Treatment success	Death	Default	Failure	Transfer out	Unknown
2002	59	17	76	6,6	5,0	0,7	9,8	1,7
2003	54	10	70	6,0	4,6	0,7	4,0	1,5
2004	64	15	79	6,2	4,7	0,7	5,0	4,0
2005	64	14	78	5,4	4,3	0,6	4,6	7,1
2006	69	15	84	4,8	4,5	0,5	5,1	1,0

Table 1.9. Treatment outcome rates of the Retreatment P+ TB cases in Ethiopia 2003-2006 (Source: WHO Global Tuberculosis Control Reports 2005 to 2009)

	Cured	Treatment completed	Treatment success	Death	Default	Failure	Transfer out	Unknown
2002	52	8	60	6.8	5.3	2.8	2.4	2.2
2003	Not available							
2004	38	10	54	8.8	4.6	2.2	3.3	2.7
2005	41	15	56	8.7	4.8	1.8	4.2	2.4
2006	54	16	69	8.0	4.3	2.1	4.9	11

1.2.3. The Tuberculosis Control Programme in Ethiopia

The prevention and control of communicable diseases, including TB, has been a priority in Ethiopia since 1993. The National TB and Leprosy Control Programme (NTLCP) was established in 1994, and TB control activities according to the WHO recommended DOTS strategy (see box 1 in 2.2) were integrated in the general health care delivery system. The basic health care unit is the health centre (ideally covering a population of 25,000) with its satellite health posts (ideally 5 per HC, each covering a population of 5000). Since 2005, these HP have gradually been staffed by 2 Health Extension Workers (HEW). Diagnosis of TB is limited to HC with a functional laboratory, and Directly Observed Treatment (DOT), which is required during the intensive phase, is delivered only at the HC. As the network of HC and health posts expands, the TB programme is increasingly decentralised, but the role of the health posts remains limited to suspect identification and referral and follow-up during the continuation phase. Diagnosis and treatment of TB are free of charge to the patient.

Nurse in charge of TB treatment at a health centre

1.3. Inter Aide and the TB control project in Southern Ethiopia

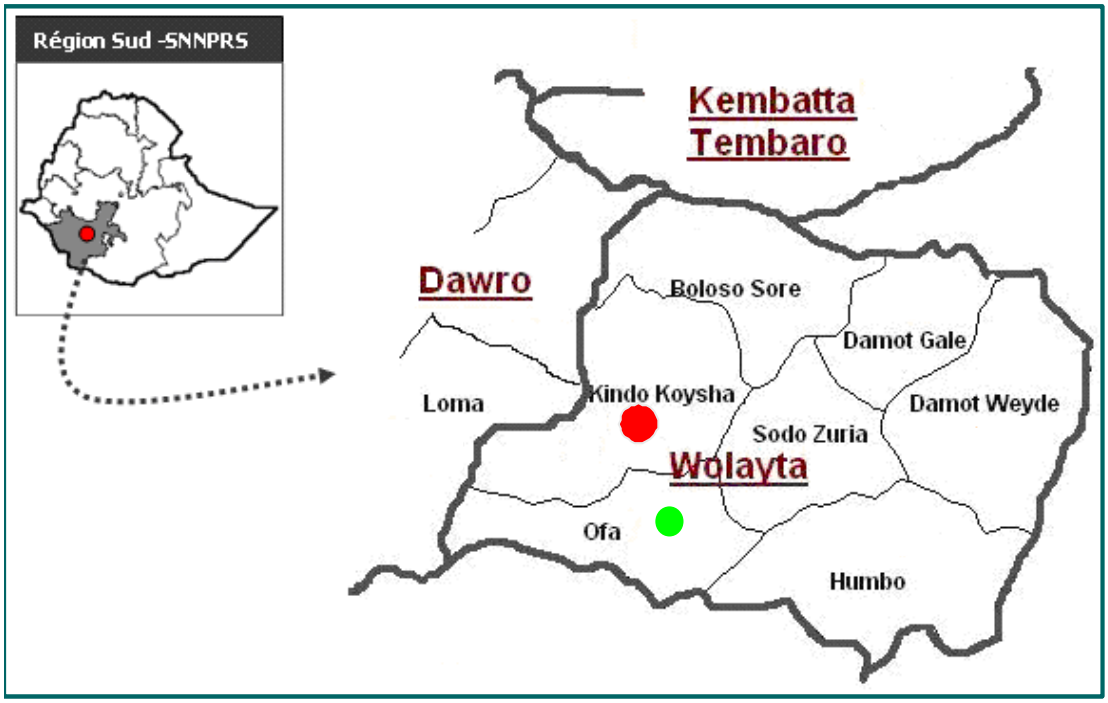
1.3.1. Inter Aide

Inter Aide, a French NGO, is a not-for-profit humanitarian organisation that implements development programmes at the community level, focusing on the most disadvantaged families and helping them to build the capacities to fulfill their fundamental needs. Currently, Inter Aide is implementing 60 programmes in 8 countries. More detailed information can be found in Section I.A of the TOR in Annex 1.

In Ethiopia, Inter Aide is active in the Southern Nations, Nationalities and Peoples Regional State (SNNPRS) since 1987 in the fields of water supply and sanitation, food security, agricultural support to families, reproductive health and tuberculosis control.

1.3.2. The first TB project (1992-2002)

The first Inter Aide TB project was started up in Kindo Koysha woreda (see map 1.4) in Welayta zone in 1992. A TB centre was built in Bele and the project encompassed all aspects of TB control: case finding, diagnosis, treatment, case holding and follow-up. This strategy was fully supported by the local health authorities who provided the TB drugs. In 2001, a satellite project was started in Ofa woreda.



Map 1.4 Welayta zone in SNNPRS and the localization of Kindo Koysha woreda (●) and Ofa woreda (●)

The Kindo Koysha project obtained very good results, both for case detection (see table 1.10) and treatment outcome (see table 1.11). In 1996, the case notification rate of new P+ reached 151/100,000. Compared to the WHO estimate for Ethiopia which was put at 70/100,000 in 1995, this would suggest that the project did an excellent job flushing out the back log cases. The case notification rate then gradually decreased to 81/100,000 in 2003, suggesting that the project had a real impact on the TB burden in the area. Compared to the WHO estimate for 2003 of 147/100,000 this would amount to a case detection rate of 55%, but as already mentioned in section 1.1, it is possible that the estimated figure is too high.

Treatment outcome was excellent:

- The cure rate increased from 54% in 1995 to 82% in 2002
- By 2002, the treatment success rate was up to 94%, the death rate was below 4% and the defaulter rate below 2%

Table 1.10. Case finding in Kindo Koysha woreda 1995-2003

	Population	Total case detection			Among cases detected, those living in woreda			
		P+	P- and EP	All	All TB cases		P+	
					Number	CNR*	Number[(1)]	CNR*
		A		B	C		D	
1995	148000	226	90	316	305	206	218	147
1996	153000	241	86	327	313	205	231	151
1997	158000	175	83	258	257	163	174	110
1998	163000	232	97	329	317	194	224	137
1999	168000	255	113	368	321	191	222	132
2000	173000	245	134	379	295	171	191	110
2001	180220	193	84	277	220	122	153	85
2002	185709	219	71	290	193	104	146	78
2003	191365	214	44	258	187	98	155	81

* CNR = case notification rate per 100,000 population

(1) estimate calculated by: D = C * (A/B)

Table 1.11. Treatment outcome of the P+ TB cases in Kindo Koysha 1995-2002

	Cured	Treatment completed	Treatment success	Death	Default	Failure	Transfer out	Total
1995	122	66	188	16	21	1	0	226
	54,0%	29,2%	83,2%	7,1%	9,3%	0,4%	0,0%	
1996	144	52	196	16	11	18	0	241
	59,8%	21,6%	81,3%	6,6%	4,6%	7,5%	0,0%	
1997	121	16	137	24	8	6	0	175
	69,1%	9,1%	78,3%	13,7%	4,6%	3,4%	0,0%	
1998	177	11	188	23	10	10	1	232
	76,3%	4,7%	81,0%	9,9%	4,3%	4,3%	0,4%	
1999	197	10	207	17	17	14	0	255
	77,3%	3,9%	81,2%	6,7%	6,7%	5,5%	0,0%	
2000	197	5	202	14	11	17	1	245
	80,4%	2,0%	82,4%	5,7%	4,5%	6,9%	0,4%	
2001	165	2	167	14	2	10	0	193
	85,5%	1,0%	86,5%	7,3%	1,0%	5,2%	0,0%	
2002	179	26	205	8	4	2	0	219
	81,7%	11,9%	93,6%	3,7%	1,8%	0,9%	0,0%	

In order to confirm that the TB patients who had been treated by the project had indeed been cured, the project staff conducted a survey of 635 former patients out of a total of 803 patients put on treatment in Ofa woreda. Interpreting the data requires some adjustments, but from table 1.12 it can be derived that, while the death rate among patients on treatment in the period 2001-

2003 amounted to 5.3%, it was as low as 1.8% during that same period for the patients who were surveyed after the end of their TB treatment.

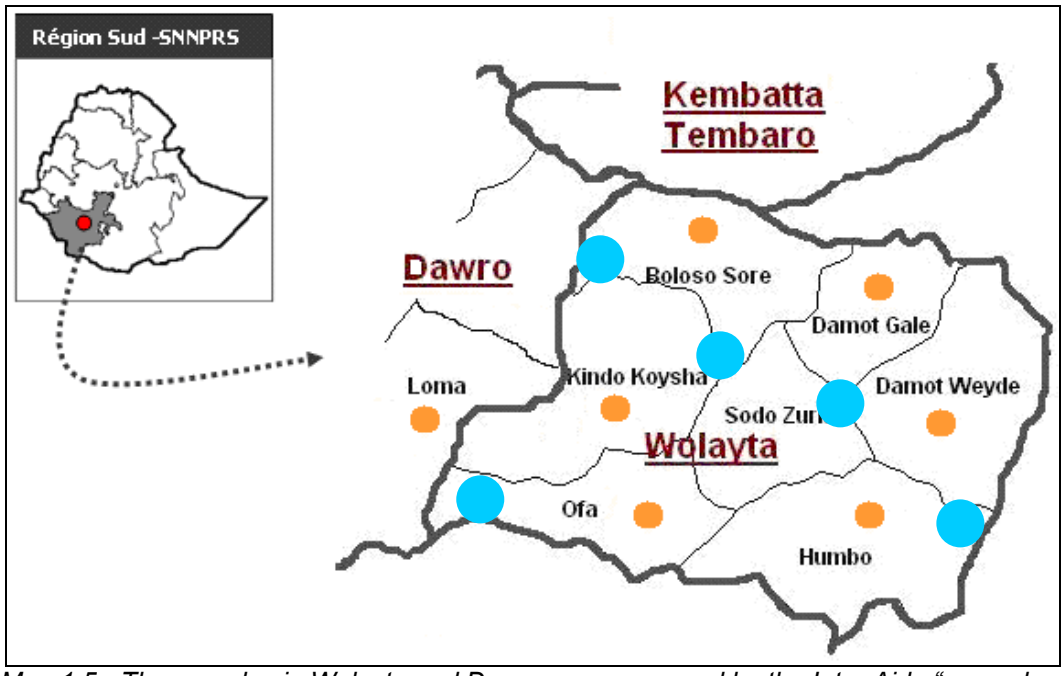
Table 1.12. Follow-up of the TB patients in Ofa woreda registered from 2001 up to end of March 2005 for whom a treatment outcome was already known in April 2005

	Patients regis-tered	Patients whose treatment result is known on 31/3/05			Number surveyed among A	Propor-tional redistri-bution[1]	Died since end of therapy	mean F.U. in years	annual mortality since end therapy
		Total	Died	Did not die					
2001	165	165	5	160		158	10	3	2.1%
2002	191	191	11	180		178	5	2	1.4%
2003	225	225	15	210		207	4	1	1.9%
2004	192	107	14	93		92			
2005	30	0		0		0			
Total	**803**	**688**	**45**	**643**	**635**	**635**			**1.8%**
				A	B	C			

[1] calculation: C200x = (A200x)*(total B/total A)

1.3.3. The "second generation" project (2003-2009): rationale

Following the success of the Kindo Koysha project, and at the request of the zonal health authorities, a new project, the "second generation" project, was launched in 2003, covering 6 woredas in Welayta zone and 1 woreda in Dawro zone. In 2007, the 6 woredas in Welayta were split into 11 woredas: see map 1.5.



Map 1.5 The woredas in Welayta and Dawro zones covered by the Inter Aide "second generation" project: ● initial woredas 2003; ● additional woredas 2007

The "second generation" project started from the premise that there was an inadequacy between the demand for care and the health supply. In 2003, only 10 out of the 30 available HC were engaged in TB control. There was a lack of trained staff, a scarcity of lab technicians and considerable underutilisation of resources due to acute problems of service delivery and access to care. The case notification (all TB cases) in 2001 was as low as 70/100,000 against 141/100,000 nationally. As the Kindo Koysha experience had shown, the incidence of TB was expected to be

high as result of high population density, chronic food shortage, poor access to health information and poor access to health care.

The NTLCP was considered to constitute a relevant TB control tool as it resulted in effectively ensuring TB diagnosis in suspects presenting themselves at the HF, treatment prescription and administration, patient follow-up and case holding. But there was a problem with case finding: few suspects were identified and those identified did not present themselves at the HF. A number of deficiencies in the health system were identified:

- Lack of awareness in the community, especially in the most vulnerable and isolated populations
- Service delivery insufficiently decentralised
- Inefficient diagnostic chain
- Inconsistent coordination resulting in low priority of TB, shortages of drugs and reagents, and lack of reliable data.

In addition, civil society in the project area is scarce or dormant, resulting in the absence of mobilised intermediate actors mediating between the health services and the community. This was identified as another factor contributing to the access problem.

Inter Aide decided that the "second generation" project, which aimed at reaching the most vulnerable strata in the population in a context characterized by geographical isolation, illiteracy and poor accessibility, should focus on bridging the gap between patients and health system through a two-pronged approach:

1. Acting on the demand side through social mobilisation and facilitating access to care by:
   - conveying appropriate information about TB and the availability of free medical care
   - referring suspect cases
2. Acting on the supply side through improving the health system performance in the fields of diagnosis, patient follow-up and data collection by:
   - improving the attitude of the health staff
   - shortening the diagnostic procedure through a coaching strategy (accompanying the patient throughout the course of diagnosis and treatment)
   - making the reporting system more effective
   - developing supportive mechanisms to improve diagnosis by providing equipment and reinforcing the skills of the technical staff

1.3.4. The "second generation" project (2003-2009): objectives

The objectives of the "second generation" project are summarised in the TOR, section I.B.3 (see Annex 1). The overall aim has been defined as follows: *the project intends to facilitate a decentralised early access to free anti-tuberculosis treatment delivered by Government Health Facilities with the support of social mediators from the civil society. This is to be realised by organising the project around 3 priorities: access to information, access to care and treatment, and improvement of the health facilities performance, while relying upon the mobilisation of all Government health facilities and the setting up of an efficient referral system between care seekers and service providers. The project is thus aiming to empower the target groups' own development capacities in order to generate an increase in case detection and successful treatment of patients by the health system, which should lead to a sustainable reduction in deaths and economic losses as a result of TB, and eventually in the transmission of TB.*

Inter Aide defined the specific objective of the project as follows: **The capacities of community based and institutional actors to control the tuberculosis epidemic among vulnerable families are durably reinforced.**

1.3.5. The "second generation" project (2003-2009): set-up

Inter Aide posted 45 field facilitators at the community level, to act as links between the community and the health services. They visit patients at home and collaborate closely with the TB services at the Health Centres. Since 2006, they also work with the Health Extension Workers (HEW) and the community volunteers. In addition, Inter Aide posted 5 supervisors with a motor cycle at woreda level, to support the woreda health office, supervise the field facilitators and provide assistance in coordinating all TB control activities in the woreda. Inter Aide also provided microscopes, organised training sessions and set up a pilot project to collect sputum in the field. This "second generation project" is scheduled to phase out by the end of 2009.

Reaching out to the community

1.4. Rationale of the evaluation mission

A detailed justification of the evaluation is provided in the TOR, section II.A (see Annex 1). As the "second generation" project is nearing its completion, Inter Aide wants to evaluate its intervention from the angle of the effects produced and the perspectives offered, notably in terms of designing a new, more selective form of support allowing broader sanitary coverage. This has been translated into 3 specific evaluation objectives:

1. To evaluate the impact of the implemented measures on case finding within the partnership established with the health care structures and the health care system as a whole.

   The evaluators should try to assess the relative effectiveness of each of the intervention components, by trying to isolate the methods and options having the greatest measurable impact on the core indicators, specifically those related to case finding.

2. To contribute in defining the outline of a "third generation" strategy on the basis of the preceding questions.

   Inter Aide has designed some possible scenarios on the shape such future action could take. The evaluators should try to confirm or refute the perspectives taken into consideration and to provide a logical opinion on the anticipated outlines.

3. Find out the operational modalities for a larger scale intervention.

   The expertise acquired by the project points towards extending the intervention to less heavy and more precise forms of action, involving a larger number of health structures that are offered flexible strategies fully concentrating on improving case finding efficacy. The evaluators should try to provide suggestions that will allow to arrive at a proper balance between a strategy favouring flexibility and selectivity (focusing the resources of the system on methods selected for their potential to find new cases) and an administrative and health care apparatus heavily inclined towards normative attitudes (favouring equality of access and uniformity of mobilized means).

The evaluation is thus to extract from the ongoing experience those elements that would be most helpful to provide the theoretical basis for a new operational model that would allow an additional level of selectivity of the project activities (selected on the basis of their potential to improve the results of the health system) while covering a larger intervention area.

1.5. Limitations of the evaluation

When evaluating the Inter Aide project, the consultants were confronted with a number of limitations. These have to be taken into consideration when interpreting the present report.

In order to address the evaluation objectives, it would have been helpful if the TOR would have provided precisely defined project objectives developed according to the SMART principle (see box).

SMART objectives

Specific

Measurable

Agreed /accepted by all stakeholders

Relevant

Time bound

SMART objectives allow to define objectively verifiable indicators that permit to assess the performance of a project in a precise and objective way because they indicate exactly what is going to be done, in a quantified manner and with a precise time frame. Unfortunately, the project objectives in section 1.3.4 are not translated into well circumscribed targets that can be monitored through objectively verifiable indicators. Instead, the TOR mention either qualitative targets or else quite broad and vague statements of intention that are not quantified, such as:

- To improve the ability of the health care system to respond to the requirements of an effective epidemiological control programme;
- To use the invested resources more effectively;
- To identify possible complementarities with the health system;
- To reduce the number of tasks directly managed by the project; etc.

This absence of quantified criteria makes it difficult for the evaluators to assess if the project has achieved what it set out to achieve. SMART objectives would also have resulted in the availability of pre-project baseline data, which were lacking for the present evaluation.

The fact finding by the consultants was limited in scope due to insufficient variety in the selection of woredas to be visited. At the end of the field visit, the consultants were of the opinion that the 4 woredas visited in the project area were too similar, while the non-project woreda visited was not representative. It would have been better to include at least Loma and a non-project woreda in Dawro zone. The non-project woreda should have been similar to the project woreda in terms of a number of criteria such as population density, urbanisation, laboratories per population etc.

Another limitation is presented by the very nature of the project itself. The project is aimed at facilitating and improving the TB control activities of the general health services. All data related to TB control, which are cited by Inter Aide in the TOR and which are collected in the field during the evaluation mission, are generated as a result of the activities of the general health services, not of the project. Indirectly they can be considered to be a reflection of the input of the project, but whatever conclusions can be drawn from the data will first of all relate to the TB control work of the general health services. It must be pointed out that the brief of the evaluators did not include any evaluation of the government health services. The TB data can therefore only be used in as much as they allow to get a better idea about the performance of the project.

To properly evaluate the contribution of the project, the evaluation should focus on the specific activities of the project. The TB data are outcome data generated by the general health services, while the input of the project is related to the process of improving the quality of the TB control work of the health services (see also figure A1 in Annex 5). Appropriate indicators should therefore be process indicators, such as: number of health workers trained, number of home visits performed, etc. But such information has not been included in the TOR. The only process related quantified information (in section I.B.4 of the TOR) relates to the beneficiaries: the contribution of the project to TB control is to benefit 10,000 rural families, 60% of which belong to the highly vulnerable segment that is facing an acute decapitalisation process, while the health promotion activities should reach 100,000 families. These statements are however not included in the questions to be addressed by the evaluation (see section 2.2) and would be very difficult to check in the context of an evaluation mission anyhow.

2. Methodology

2.1. Data collection and information gathering methodologies

The evaluation made use of 4 basic methods to collect data and gather information, both quantitative and qualitative: focus group discussions, analysis of documents, key informant interviews and observations in the field.

2.1.1. Focus group discussions

It is often difficult to assess what impacts a project implementation has brought to the community based on quantitative aspects only. As the name indicates, qualitative assessment is required to see the level of the quality of the changes the project has brought to the lives of the community members. One of the best methods or tools used worldwide for qualitative assessment of any program or project is Focus Group Discussion (FGD). This methodology is widely used to get the impression of community members and direct beneficiaries.

The dynamics in focus groups often bring out richer data than a series of individual interviews. This has made the technique a favourite among professionals in public opinion studies. Individuals who participate in focus group sessions are not restricted by the "A, B, C" choices provided by the traditional survey methodologies. The data collectors listen not only for the content of focus group discussions, but for emotions, ironies, contradictions, and tensions. This enables the professionals to learn or confirm not just the facts (as in traditional survey methods), but the meaning behind the facts. Although this sounds quite simple, it conveys a major advantage of focus group methodology.

To get a cross-section of views from a diverse population using the focus group method, it is necessary to conduct multiple sessions**.** To understand the perspectives of a different group of people, it is important to compose multiple focus groups on the same topic. More reliable reports can be obtained from a series of sessions rather than from a single focus group session. The number of participants in each group is limited to provide each participant the chance of expressing one self of and to allow proper time management during the discussion.

Focus Group Discussion was used in this evaluation to find out the qualitative aspects of the impact of the project created over the course of its implementation. The Ethiopian consultant hired an experienced interviewer (the Principal Data Collector) speaking the local language and 2 assistants. He briefed the FGD team on the background of the exercise, the target groups and the questions to be asked (see Annex 4.1). These guiding questions were prepared by the consultants for the FGD and thoroughly discussed with the principal data collector to ensure that the questions as well as the objectives of the evaluation were clearly understood.

The FGD was conducted from 27 July to 10 August 2009, in a total of 6 woredas, four within the project area (Damot Woyde, Damot Pulasa, Damot Sore and Boloso Sore in Welayta Zone) and two in a non project area (Kachabira and Hadero in Kembata Zone, which is adjacent to Welayta in the same SNNPRS region). The latter two woredas were selected merely because they were near.

Three target groups were interviewed in both the project and non-project woredas:

- Current TB patients and ex-patients
- Community leaders and other influential people in the community
- Health professionals involved in TB diagnosis, treatment and follow up

In the project woredas, a fourth group was added:

- Field facilitators (IA project staff) and community volunteers. For the sake of convenience, the participants in this group will be referred to as Community Workers.

Each focus group counted between 10 and 12 selected individuals who were believed either to be knowledgeable regarding the TB project activities in Welayta or to have benefited from it directly or indirectly. The participants were a mixture of men, women, the young and the elderly. The selection and invitation of the participants were done by the local project staff in collaboration with the local government health office and the health facilities. They all came on voluntarily basis for their time to participate and contribute in the discussion. Each group had a total discussion time of about two hours.

Upon starting each discussion sessions, all participants were thanked for their willingness to join and briefed on the objectives of the focus group discussion. Further explanations were given regarding the free expression of ideas and the sharing of experiences. The confidentiality of the information and of the participants' identity was stressed (no names were recorded). As all the data collectors spoke the local language, Welayitigna was the medium of the discussions in all the woredas in Welayta. The data collectors took notes and recorded the discussions.

The principal data collector reviewed the notes, listened to the recorded tapes and reported the key findings. The detailed reports of each group in each woreda are shown in Annex 4.2. The two consultants reviewed these reports and compared the answers, looking for agreements and distinctions between groups and between woredas. The FGD outcomes were checked for consistency with the findings from the project reports, the key informant interviews and the field observation.

A summary of the relevant outcomes is included in the Findings section (chapter 3) under each of the appropriate headings.

A meeting of community volunteers

2.1.2. Analysis of documents

Following the preparatory meeting in Versailles on 2 July 2009, Inter Aide provided the consultants with a number of background documents related to the project in electronic format. The consultants familiarised themselves with the content of these documents prior to the mission. Relevant information from these documents is included in the Findings section (chapter 3) under each of the appropriate headings.

In order to be able to properly evaluate the quality of the services in the project area, the consultants had asked Inter Aide in their project proposal to provide them with a number of quantitative data per year and per woreda. The consultants had proposed a specific format for the data collection in the Annexes 1 to 4 of their proposal:

- Annex 1: table for the evaluation of patient delay
- Annex 2: table for the evaluation of diagnostic delay
- Annex 3: table for the collection of epidemiological data to be provided by the project prior to the evaluation
- Annex 4: Format for the evaluation of the involvement of the social mediators

The project staff in Ethiopia did an excellent job collecting the information. The fully completed tables were handed over to the consultants in hard copy at the time of the first visit to the project office in Sodo on 26 August 2009. It was thus not possible to take this information into consideration during the preparation phase prior to the mission. Analysis took place on 29 and 30 August 2009. All relevant data and their analysis are included in the Findings section (chapter 3) under each of the appropriate headings.

2.1.3. Key informant interviews

The consultants interviewed a number of key informants at all levels of the health delivery system: national and international institutions and organisations, regional health bureau, zonal and woreda health offices, health centres (clinicians, TB staff, lab technicians, pharmacists), health posts (HEW) and the community (community volunteers). The consultants also talked to the project officers in the project office, the project supervisors and the field facilitators. They also visited a number of patients on treatment at home. A detailed list of all the people talked to during the evaluation mission is included in Annex 3. All relevant comments given by the informants are included in the Findings section (chapter 3) under each of the appropriate headings.

Meeting with the woreda health office staff

2.1.4. Observations in the field

The two consultants visited the project area from 26 August to 4 September 2009. The schedule of the evaluation mission is included in Annex 2. The consultants visited 4 project woredas in Welayta Zone: Damot Woyde, Damot Sore, Boloso Soro and Damot Pulasa. In each woreda, all levels of the health services were visited: the woreda health office, 1 or 2 health centres, 1 or 2 health posts and the community (including patients). In Damot Sore, the visit also included a mission hospital. All these visits allowed to observe the complete diagnostic and therapeutic process, from identification of suspects, referral, initial consultation, sputum collection, smear examination, clinical examination including radiography if applicable, diagnostic decision making, treatment prescription, treatment administration including DOT and defaulter tracing, PIHCT, recording, reporting and supervision. The role of the project staff, both project supervisors and field facilitators, was looked at as well. The observations made during the field visit are included in the Findings section (chapter 3) under each of the appropriate headings.

In addition to the 4 project woredas, one non-project woreda was visited: Kachabira in Kembata Zone (adjacent to Welayta Zone). This allowed the consultants to get an idea about the work being done in a woreda not assisted by the project. The observations made in the non-project woreda are included in the Findings section (chapter 3) under each of the appropriate headings, but it must be borne in mind that only one non-project woreda was visited and that the findings may not be representative.

A grateful patient

2.2. Methodology followed for the organisation of the findings

The findings in an evaluation report are usually organised under 3 headings:

1. Observations
2. Analysis and discussion
3. Recommendations

Many consultants, in order to provide a clear and strong internal framework around which to construct the report, will use the 5 points of the "DOTS" strategy recommended by WHO, or more recently the 10 points of the Stop TB strategy of WHO: see box 1.

Box 1. The WHO TB control strategies

The 5 components of the WHO "DOTS" strategy

1. Political commitment
2. Accurate diagnosis using direct sputum-smear microscopy
3. Standardised short-course treatment for all patients, with at least 4 drugs taken together under direct supervision by a treatment supporter for at least the first 2 months
4. Regular and uninterrupted supply of anti-tuberculosis drugs
5. Standardised recording and reporting system.

The more comprehensive 10-point Stop TB Strategy of WHO

1-5. Expand and enhance the 5 components of the "DOTS" strategy

6. Address specific challenges:
   - The increasing problem of TB/HIV co-infection: combined TB/HIV activities are essential.
   - Prevention and control of multidrug-resistant TB (even if it is not yet a major problem. The best way to prevent drug resistant TB is proper TB control.
   - High risk groups (prisoners, refugees, etc.)
7. Strengthen the health system
8. Engage all care providers, including private practitioners
9. Work with the community: social mobilization, community participation in TB care
10. Promote programme-based operational research.

This approach works well when looking at national TB control programmes but may be less appropriate when evaluating a project with a more limited scope. Nevertheless, even in the latter case it will still be necessary to systematically look at all aspects of TB control:

- Identification of suspects (including health promotion in the community and referral)
- Diagnosis (including laboratory aspects, X-rays and clinical procedures)
- Treatment and patient care
- Case holding (including defaulter tracing)
- Recording and reporting
- Drug management
- Training
- Supervision

During the field visit, the consultants systematically looked at the points mentioned above, and the initial mission notes were organised according to this scheme. In the present report, all the aspects of TB control have been covered as well, but in a less systematic way. When Inter Aide formulated the TOR for the evaluation mission, a number of specific questions were formulated

for the consultants to answer. These questions were included in the consultants' proposal and given clearly numbered titles. The findings section of the present report has been organised according to these titles (see box 2), and the information gathered regarding each of the aspects of TB control mentioned above has been redistributed among the sections in accordance with the question asked. All the information gathered by the consultants has been included, but regular cross-referrals to other sections of the text were required, and some overlap and repetitions could not be avoided. In spite of these drawbacks, the questions formulated by Inter Aide allowed to produce a complete overview of all aspects of TB control.

Box 2. Questions formulated by Inter Aide in the TOR and addressed in chapter 3 (Findings) of the evaluation report

3.1. Assess the relevance of the fundamental postulates

3.2. Assess the acting on demand component, aimed at facilitating access to health information

- 3.2.1. Does the decline in patient delay represent a real change in the perceptions about TB?
- 3.2.2. What is the economic impact of the decline in patient delay?
- 3.2.3. How to strengthen the educational impact of the action?

3.3. Assess the acting on supply component, aimed at facilitating access to care

- 3.3.1. Has there been an impact on the diagnostic delay?
- 3.3.2. How to assess the impact of the project on the quality of service at the DU level?
- 3.3.3. Which aspects of the diagnostic services require further improvement?
- 3.3.4. How well did the project articulate with the Government Health Services, paying special attention to the compatibility between the project options and the national TB guidelines?

3.4. Assess the acting on supply component, aimed at decentralizing sputum collection

- 3.4.1. What is the added value of on-site sputum collection? How can on-site sputum collection be optimised?

3.5. Assess the effectiveness of the referral system

- 3.5.1. How valid are the conclusions concerning the referral system mentioned in the TOR?
- 3.5.2. What is the impact of the project on case finding?
- 3.5.3. What is the relevance of possible future case finding approaches (site pre-selection, suspect tracing by government staff, sputum collection at field level)?

3.6. Assess the involvement of the social mediators

3.7. Assess treatment outcome

3.8. Provide a global vision

- 3.8.1. What are the lessons drawn from phase 2 of the project?
- 3.8.2. How can the support of Inter Aide be scaled up to phase 3 of the project, starting in 2010?

Four additional questions had been proposed by the consultants in their proposal. The question related to age and gender will be included under 3.2.2. The other questions (related to the number of beneficiaries, the decentralisation of services and the budget) will not be addressed as it was found during the evaluation mission that these points were not relevant in the context of the evaluation or were dealt with in relation to other questions.

3. Findings (including observations, analysis & discussion and recommendations)

This chapter is organised according to the questions mentioned in the TOR. The information obtained through the various evaluation methods explained in chapter 2 is integrated under the relevant headings. The questions asked in the respective titles are addressed by describing the observations made and the information gathered, analyzing the findings, discussing the outcome of the analysis and formulating recommendations based on these outcomes.

3.1. Assess the relevance of the fundamental postulates

The TOR mention three postulates. The arguments needed to assess the relevance of these postulates are provided in the subsequent sections. They will thus not be repeated here. A summary answer is given hereunder.

Postulate 1. A consistent and appropriate national tuberculosis control programme is in existence, whose application can be promoted in remote and isolated geographical areas.

It would not have been appropriate for the consultants, within the TOR of the evaluation, to evaluate the national TB control programme. Nevertheless, the field visit allowed to make a number of observations that offer elements contributing to an answer to the question at hand. The national TB control programme is existing in all woredas; it is well organised, with a clear structure and well developed guidelines. The TB control activities are integrated into the general health services at all levels, and the recent strengthening of the general health care delivery system is benefiting TB control as well. A number of weak points remain, notably in the area of staff competence in the government health facilities and in the laboratory. Maybe Inter Aide did not pay sufficient attention to this. The assumption that the general health services would be able to deal with all aspects of TB diagnosis, treatment and patient care without any need for additional assistance, implied in the postulate, may have been a little too overoptimistic.

Postulate 2. The expertise acquired by Inter Aide during the first project cycle of nearly 8 years will allow the definition of a set of synergies and operational complementarities with the health care system.

There is no doubt that the experience gained during the first project cycle made Inter Aide well equipped to tackle the second project cycle. The plans that were made and the activities that were promoted were fully in line with the second postulate. If, at the end of the ride, the results are not as spectacular as was hoped for, this does not invalidate the postulate.

Postulate 3. The dominant necessity is to strengthen the case finding as compared to the other programme components.

This postulate was valid at the start of the second project cycle, it is still valid at the end.

3.2. Assess the acting on demand component, aimed at facilitating access to health information

3.2.1. Does the decline in patient delay represent a real change in the perceptions about TB?

Patient delay is the term used to indicate the time period between the first onset of symptoms of the disease and the first contact of the patient with the health services in relation to those symptoms. This is opposed to the health services delay, which is the period between the first contact of the patient with the health services and the moment the diagnosis is made and treatment is initiated. Together, the patient delay and the health services delay constitute the diagnostic delay: see figure 3.1.

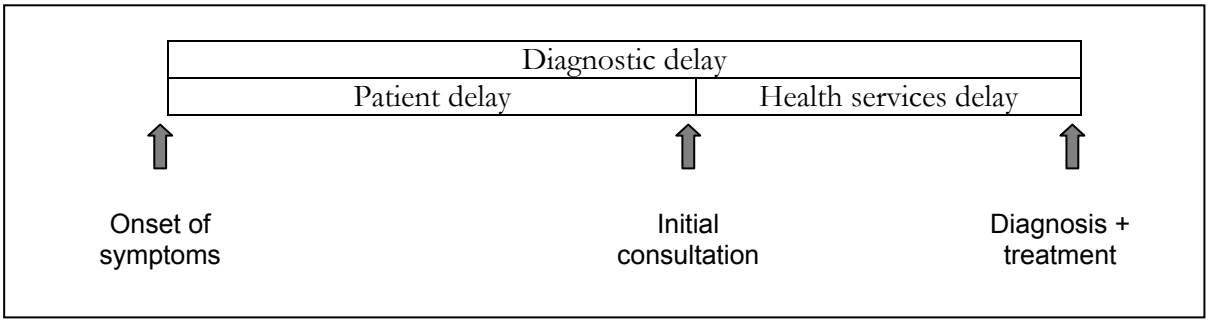


Figure 3.1. Diagnostic delay

In general, it is thought to be easier to reduce the health services delay, because it depends on factors within the health delivery system that can be influenced by managerial decisions, procedure improvements and the like (see section 3.3.1). Reducing the patient delay will be more difficult because it will depend on the patients' behaviour, their attitude, perception and motivation. These can be influenced through Advocacy, Communications and Social Mobilisation (ACSM). The project has made important efforts in the field of Behavioural Change Communication (BCC), raising awareness in the community to bring about behavioural change in order to reduce the patient delay. Table 3.2.1 indicates that these efforts were quite successful.

Table 3.2.1. Patient delay 2006-2009

Year	1M	2M	3M	4M	5M	6M	+6M	Total patients assessed
2006	328	295	241	146	93	90	85	**1,278**
	26%	*23%*	*19%*	*11%*	*7%*	*7%*	*7%*	*100%*
2007	737	584	282	96	30	17	3	**1,749**
	42%	*33%*	*16%*	*5%*	*2%*	*1%*	*0%*	*100%*
2008	994	804	302	74	33	16	17	**2,240**
	44%	*36%*	*13%*	*3%*	*1%*	*1%*	*1%*	*100%*
2009 (Q1)	303	169	74	15	7	4	6	**578**
	52%	*29%*	*13%*	*3%*	*1%*	*1%*	*1%*	*100%*

The average patient delay decreased from 3.1 months in 2006 to 1.8 months in 2009. By the first quarter of 2009, more than half the patients went to the health facility within 1 month of starting to have symptoms: see figure 3.2.

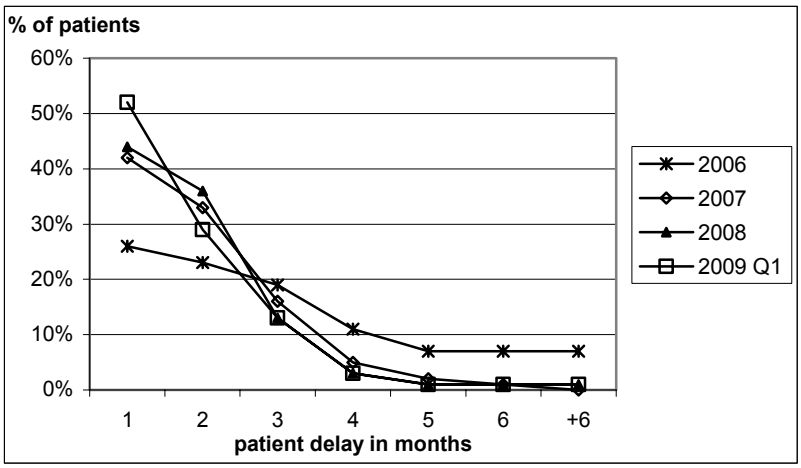


Figure 3.2. Patient delay prior to consultation for TB diagnosis

This is a very encouraging observation pointing towards a real benefit of the project for the community. The main actors in securing this success have been the IA field facilitators, who informed the community, paid house-to-house visits, encouraged people with symptoms to come forward, identified and referred suspects and actively sought the collaboration of the HEW and the Community Volunteers. The latter two groups have also been very active in awareness raising and trying to find suspects. Another factor contributing to changing the perception of the population has been the testimony of cured patients. Their role in motivating people with symptoms to seek medical care is specifically highlighted by the patients' and ex-patients' focus groups.

If the decrease in patient delay is mainly attributable to the referral of suspects by the field facilitators, one would expect the patients delay to be shorter for referred patients compared to patients who presented themselves to the health facility at their own initiative. This was looked at in 4 woredas in 2008: see table 3.2.2.

Table 3.2.2. Comparison of patient delay between patients referred by the field facilitators and patients who presented by themselves in 4 woredas in 2008

Woreda	Type of patient	<1M		1-3M		>3M		Total
Boloso Sore	Referred	56	*18%*	197	*63%*	61	*19%*	314
	Self-presenting	20	*34%*	30	*52%*	8	*14%*	58
Damot Sore	Referred	0	*0%*	87	*53%*	76	*47%*	163
	Self-presenting	0	*0%*	20	*63%*	12	*38%*	32
Damot Woyde	Referred	50	*50%*	43	*43%*	7	*7%*	100
	Self-presenting	2	*13%*	11	*69%*	3	*19%*	16
Damot Pulasa	Referred	111	*56%*	89	*45%*	0	*0%*	200
	Self-presenting	0	*0%*	14	*100%*	0	*0%*	14
Total	**Referred**	**217**	***28%***	**416**	***54%***	**144**	***19%***	**777**
	Self-presenting	**22**	***18%***	**75**	***63%***	**23**	***19%***	**120**

The table shows marked differences between the woredas. In Damot Woyde and Damot Pulasa, 54% of the referred patients present within 1 month against 7% of the self-presenting patients, but in Boloso Sore and Damot Sore, the referred patients come later than the self-presenting

patients, and in the latter woreda, a very substantial proportion of the patients present after more than 3 months. This might be related to the perceived poor service in Damot Sore, shown in table 3.5.6. The differences between woredas may be due to differences in the work being done, in staff efforts on in appropriateness of the approaches being used. But it should not be forgotten that patient delay is a subjective indicator. It is purely based on hearsay, on the recollection of the patients, and this recollection can be influenced by the way the health worker is asking the questions. These figures must therefore be interpreted with prudence.

On the other hand, the positive impact of the IA project on people's perception is emphasised by all the participants of the focus group discussions in the 4 project woredas. As recently as 10 years ago, people considered TB to be a hereditary disease. It was incurable and people did not seek medical help: they went to traditional healers, observed special diets or used herbal remedies. TB carried a strong stigma, and TB patients, and even suspects, were discriminated against. They were ostracized to the extent that marriage was not possible for the affected individuals and even their family. These perceptions have now changed. TB is said to be well known by all (although low awareness is cited as a reason for late reporting to the health facility), the stigma has all but disappeared and patients are willing to seek medical care. This positive change is attributed to the hard work of the IA project staff and to the testimony of cured patients. Whether this does result in a decreased patient delay is a matter of interpretation. The community workers, who look for suspects and refer them, state that the delay is short (around 1 month), but the patients themselves mention much longer delays, up to 4 years even. This is confirmed by the community leaders, while the health workers state that the delay is long for those who are not referred. Late reporting is due to distance, lack of transportation, financial constraints (cost of transportation, of days of labour lost, of X-rays) and the difficulty to find a person to accompany the patient.

It is not clear, however, whether the positive changes observed can be attributed solely to the activities of the IA project. It must not be forgotten that in recent years, the government health services (which the IA project is supporting) have been strengthened and now have a very important community outreach component.. Some people might argue that it is likely that the observed changes would have come along regardless, whether or not IA had implemented its project. Indeed, it can be observed that in the non-project woredas, the focus group participants have given the same answers as those in the project woredas, but instead of referring to the IA field facilitators, they refer to the HEW and community volunteers. In the non-project woreda visited by the consultants, the informants met mentioned that more suspects present themselves to the health facilities and they do so earlier but it was not possible to obtain any quantified information to substantiate the latter statement. Information about the number of suspects will be discussed further on (see section 3.5.1).

It would seem that the question posed above - whether the decrease in patient delay has been the result of a real change in the mental perceptions of the population - should rather be turned around: Has the change in the mental perceptions of the population resulted it a real decrease in patient delay? The interpretation of the data, both qualitative and quantitative, is not unequivocal. Nevertheless, it is clear that an important change in the perception of the community related to TB has taken place, and in the project areas, this change is clearly attributed to the impact of the IA project by the community members themselves.

3.2.2. What is the economic impact of the decline in patient delay?

TB is known for its negative economic impact, as it affects the economically most active groups in the population. The TOR state that the priority age group should be the 15-44 age group, which represents 76% of the population, and that there should be no gender bias.

The data from the project woredas show that the most affected age group are young adults between 15 and 34 years of age: 67% of the P+ and 59% of all TB cases combined belong to this age group: see figure 3.3. When considering the economically most active segment of the population (the 15 - 44 age group), 81% of the P+ and 74% of all TB cases combined belong to this group.

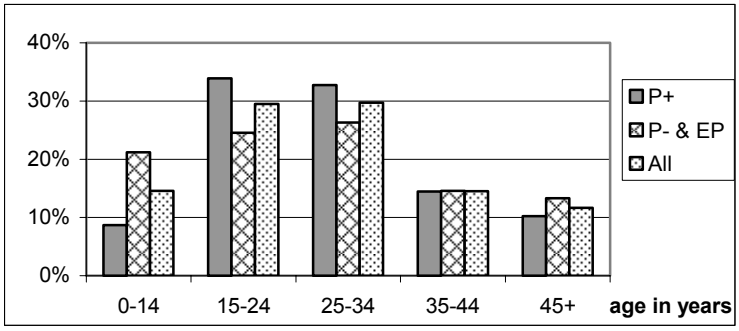


Figure 3.3. Age distribution of the TB patients in the project woredas 2003-2008

Gender wise, the sex ratio should be 1:1. As table 3.2.3 shows, TB case finding is almost equal in men and women. The project is thus clearly reaching its target population. This means that the project, by correctly focusing its TB control efforts, is contributing to the economic welfare of the individual and the community at large.

Table 3.2.3. Gender distribution of the TB patients in the project woredas 2003-2008

	Male	Female
P+	52%	48%
P- & EP	56%	44%
All cases	54%	46%

In the focus group discussions, the patients and ex-patients affirm that TB devastates their working capacity. Within a short time period, a few months only, the negative impact of the disease on the earning capacity of the family will be felt. Once treatment is started, weight will be regained, pain will diminish and working capacity will gradually return. For many, the end of the intensive phase of treatment was considered a turning point. Nevertheless, most patients stress that they do not regain their previous working capacity, even after finishing the treatment. This results in a permanent decrease of their earning capacity. The discussion groups also pointed out that this negative impact on working and earning capacity is not limited to the patients and their families, but to those who are close to the patients and try to help them, such as relatives and neighbours. The community workers' focus groups stated that ex-patients with permanently diminished working capacity were those who were diagnosed late. They gave several examples of patients who were diagnosed early and got cured completely, allowing them to take up their work as before. The example of such patients is a very strong motivating factor for people to report to the health facility early.

From these comments, it is clear that early diagnosis and adequate treatment will limit the subsequent disability as a result of TB. This effect will be direct, for the patients who will be

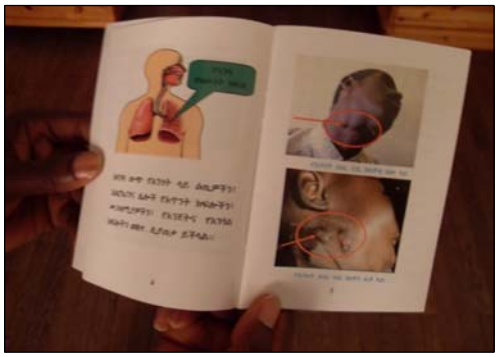
completely cured, and indirect, as these cured patients will in turn stimulate other TB suspects to come forward in time.

Data to quantify the economic gains as a result of early diagnosis and treatment of TB are not readily available. A scientifically valid approach of this question would require a special study by a health economist. This would be an expensive endeavour that most likely would lead to a predictable and obvious conclusion: if patients are well informed and motivated to report to the health facilities without delay, diagnosis will be made early and treatment will be initiated on time. As a result, the patients will recover from the disease more rapidly, they will be able to get back to routine work sooner and this will make a difference in their economic gains.

3.2.3. How to strengthen the educational impact of the action?

- The TB programme in Welayta is not very visible. When visiting a health centre or a health post; there are plenty of posters on the wall related to HIV/AIDS, malaria, reproductive health or sanitation, but there is nothing on display in relation to TB control. This is a lacuna in the programme. Widely distributed posters in the local language would help to disseminate the message about curable TB and the availability of free TB care.

- At the Regional Health Bureau the consultants were given a small (A6) booklet of 62 pages in Amharic, with many colourful illustrations (see picture to the right), that explains everything a HEW needs to know about TB. A similar, but thinner, booklet, or even a brochure, would be useful for the community volunteers. The text needs to be in the local language.



- The IA field facilitators have a set of flash cards at their disposal, developed by IA, to use as illustrations during their health promotion campaigns. It might be useful to give a similar set to the community volunteers. The explanatory text (for the card user) will have to be in the local language. The community volunteers could also profit from other reading and reference materials, since many are literate, some even having completed high school.

3. 3. Assess the acting on supply component, aimed at facilitating access to care

3.3.1. Has there been an impact on the diagnostic delay?

In section 3.2.1 above, figure 3.1 illustrated the 2 components of the diagnostic delay: the patient delay and the health service delay. In the context of the diagnosis of TB, the latter can be broken down into 3 stages: see figure 3.4. The names given to these 3 stages in the present document are for convenience only.

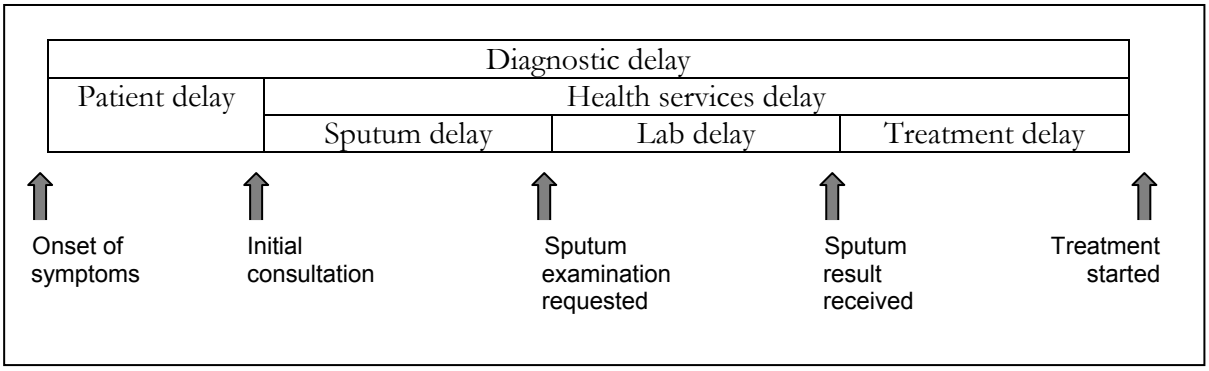


Figure 3.4. Diagnostic delay with breakdown of the health services delay

While the main initiatives to try to influence patient delay will be in the field of BCC, the health service delay can be influenced by improving the quality of the health services. If the clinicians doing the out-patient consultations are aware of the possibility of TB and are able to correctly identify suspects, if the correct diagnostic pathway is followed, if the laboratory is well organised, if sputum is collected on time and examined right away, if the results (especially the positive ones) are communicated immediately and treatment is prescribed without delay, the health services delay could be as short as 2 days. The duration of the 3 stages was calculated from the lab register and the health centre TB register for a random sample of patients in 4 project woredas in 2004 and in 2008: see table 3.3.1. The delay was calculated as the difference between 2 dates (e.g. if the sputum examination was requested on May 24 and the result was available on May 25, this was entered as: 1 day).

Table 3.3.1. Health service delay in a random sample of patients in 4 project woredas: average delay in days (number of patients counted)

	Sputum delay	Lab delay	Treatment delay
2004	1.6 (40)	1.0 (43)	0.2 (47)
2008	2.1 (35)	1.1 (38)	0.9 (42)
Total	**1.8 (75)**	**1.0 (81)**	**0.5 (89)**

The table shows that the diagnostic delay is very short, and this was already the case in 2004. In fact, the average delay was even slightly shorter in 2004 (2.8 days) than in 2008 (3.3 days). These figures suggest that the health services are doing a good job receiving and processing TB suspects and that little or no additional input from the project is required.

3.3.2. How to assess the impact of the project on the quality of service at the Diagnostic Unit level?

3.3.2.1. General approach

In their proposal, the consultants did include an approach to assess the quality of the TB services. This approach is attached as annex 5 for easy reference. It looks at a number of quality criteria in

relation to effectiveness, efficiency, access, sustainability and relevance. These quality criteria can be translated into a number of indicators (see A5.3). It should be repeated once again that an evaluation of the government health services was not included in the brief of the consultants. All information collection regarding the performance of the health services was done in order to assess the impact of the project on TB control.

Many of the indicators are based on quantitative data that are readily available or can be easily obtained, either from the routine reports or from the routine patient files and programme records. The quantitative information provided by Inter Aide to the consultants has been very helpful to calculate many of the quality indicators. All relevant quantitative information and the quality indicators that can be derived from it are included under the appropriate headings in the Findings Chapter of the present report, with an analysis and discussion. Therefore they are not repeated here.

Other quality indicators require a qualitative assessment. The focus group discussions provide very useful information in this regard. Additional observations were made by the consultants during the field visit. Similar to the quantitative information, the relevant qualitative data and their interpretation are included under the appropriate headings in the Findings Chapter of the present report, with an analysis and discussion.

3.2.2.2. Additional questions not specifically dealt with elsewhere

Two questions relate to the quality of the health services and two deal specifically with the support provided by the project.

What is the overall appreciation of the quality of the services?

Visiting consultants passing through will only glimpse some limited aspects of the performance of the services. The users are the ones best placed to give their appreciation. Their opinion can be learned from the FGD. Overall, they seem quite happy with the level of service being provided. The patients are generally very satisfied with the heath workers' attitude (friendly, caring, cooperative, concerned, interested are some of the adjectives used). The fact that the health workers greet them by traditional hugging, a manifest example of destigmatization, is highly appreciated by the patients.

Complaints regarding the health services are not related to the quality of care as such, but to accessibility. Distance, time lost, transportation cost, need to pay for food and accommodation are some of the problems mentioned. Practically all suggestions made by the patients to improve the service have to do with decentralisation. The comments of the patients are echoed in the community leaders' FGD. The Community workers also stress the need for decentralisation. In addition, they emphasise the importance of training for HEWs and community volunteers. Training is also the main concern of the health workers themselves.

Is sufficient attention being paid to HIV?

This was looked at during the field visit and included in the FGD. The association of TB and HIV is well known to the patients and the community leaders. They agree that it is important that all TB patients should get a HIV test. A number of patients confirmed that they were offered the test, but some (from Damot Sore and Damot Woyde) said they were not. This could not be confirmed during the field visit: in both woredas, the TB register indicated that all TB patients were offered the test and the majority has accepted it. The community workers insisted they needed training on HIV in relation to TB. The health workers as well requested additional training, mainly related to PIHCT.

Overall, the issue of HIV in the context of TB was well taken care of as far as could be ascertained from the records and the key informant interviews. In most woredas, PIHCT is done by a number of staff in the outpatient department, the TB unit and sometimes in the laboratory. All TB patients are receiving PIHCT and the majority of TB patients (80-90%) accept the test according to the TB unit register. Reporting is not yet systematised but around 10% of the TB patients tested are HIV+. This is considerably lower than the 2007 national figure of 31% (from: Global tuberculosis control, WHO 2009). This may be related to the low HIV seropositivity in the general population: in the rural areas of Welayta – which is where the project is operating – it is estimated at 1.5% (AIDS in Ethiopia, 6th edition, MOH 2005) . The fact that a certain percentage of the TB patients is HIV+ does not seem to have a negative impact on the treatment outcome (see 3.7).

Patients suffering from the dual TB/HIV infection are put on anti-retroviral therapy (ART) according to the national guidelines (which take into account the CD4 cell counts). ART is available in selected health facilities. All HIV positive persons receive isoniazid (INH) preventive therapy, which is provided by the AIDS programme. The AIDS programme also provides cotrimoxazole preventive therapy to TB patients who are HIV+.

How sustainable is the support provided by the IA project?

The consultants put this question before the project staff and to the staff in the woreda offices and health facilities visited. It was also included in the FGD. If the IA project were to phase out, the community volunteers fear that the number of suspects consulting at the health facilities will decline and the defaulter rate might increase. This fear is shared by the health workers. On the other hand, the impact of the project on raising awareness in the community will be a lasting asset, and the volunteers will continue their activities, but they should be properly trained before the project withdraws so they can take over the role of the field facilitators. Other suggestions made to ensure that the achievements of the project won't be lost are an incentive mechanism for the community volunteers and a well organised supervision framework.

At times, it was difficult for the consultants to discern the difference between the tasks of the IA project supervisor and the woreda health office TB expert, or between the IA field facilitator and the HEW or the community volunteer. Most of the tasks covered by the project staff seem to be part of the TB tasks assigned to the government health staff. The project staff have more time to dedicate to their TB work, since they have few other responsibilities, and also have more means at their disposal (the project supervisors have a motor cycle), while the government staff are multi-purpose and have many other things to deal with. Hence, they are happy to let the project staff take care of the TB work. This is done in full transparency, everybody closely working together, communicating well and sharing information. But this creates the risk of substitution. The project staff is doing the work the government staff should be doing, which would be problematic if the project would no longer be there.

IA is well aware of this problem of substitution. The idea is to transfer competences to the government staff so that the benefits gained from the input of the project staff will result in sustainable benefits even after the project phases out.

What is the added value of the IA contribution?

This is a crucial question, it is also the real issue behind the question in the title of this section. It should be realised that all the information provided in the present report about the quality of the performance of the health services is no direct indication of the impact of the contribution of the project. Receiving suspects, considering the possibility of the diagnosis of TB, requesting the sputum examination, examining the sputum, referring sputum negative suspects, performing the

X-ray examination, interpreting the X-ray image, examining EP suspects, diagnosing EP, prescribing the treatment, monitoring the patient bacteriologically and clinically during therapy and managing the drugs all are TB control activities that are the responsibility of the government health services. Their quality may be influenced by the support of Inter Aide, but the exact extent of this influence cannot be measured from the available data. Measuring the added value of the project is therefore not really possible. In theory, it could be attempted to compare a project and a non-project woreda that are similar in demographical and socio-economic terms and that presented a comparable level of performance prior to the start of the project. Such comparison would have to be built into the project planning right from its inception, and would require explicit administrative approval from the local authorities.

In the various sections of the Findings Chapter, an attempt is made to indirectly get an idea of the impact of the project on the quality of the health services performance. Some data are suggestive, but the results are never unequivocal. It is not possible to exclude that the positive evolution observed has come along as a result of a spontaneous process and that the good outcomes would have been realised even in the absence of the project. It also has to borne in mind that the redrawing of the woredas with the resulting changes in population coverage makes a reliable interpretation of the epidemiological indicators extremely difficult. The fluctuating denominators seriously compromise a proper sequential analysis of the data. It cannot be excluded that certain important trends remain hidden.

Fortunately, it has been possible to obtain qualitative information from the key informants and from the FGD. There is unanimous agreement that the IA support has meant a real added value to TB control in Welayta. This was mentioned specifically during the meetings with the WHO and GLRA experts in Addis Ababa, who had visited the project and were in a position to make comparisons with the situation elsewhere in the country. Especially the importance of the project for case finding and case holding was stressed. At the regional level, the contribution of the project to awareness raising in the community, case detection, treatment success and quality of data processing was praised, and it was suggested that IA should expand its support to cover more woredas in more zones in the region. This was echoed at the zonal level, where a request was formulated that IA should support all 15 woredas in Welayta zone.

Most patients attribute the fact that they were diagnosed with TB, received proper treatment and were cured to the efforts of the IA project staff. The community workers attribute the changing perceptions about TB in the community to the intervention of IA. They see a behavioural change, resulting in earlier diagnosis, no defaulting and fewer deaths due to TB. The health workers have the most to say about the IA project. They stress the importance of a dedicated TB focal person working at the community level. Such a person (the IA field facilitator) has a much bigger impact on TB control at the community level than the regular community volunteers because the former is specifically concentrating on and dedicated to TB. The field facilitators are credited with improved awareness in the community, increased suspect referral, reduced defaulting, improved patient follow-up and increased cure.

3.3.3. Which aspects of the diagnostic services require further improvement?

As pointed out in section 3.3.1, the health services manage the TB suspects well once they have arrived at the health facility. The main contribution of the IA project is getting the suspects to go to the health facility. The diagnosis as such is fully the responsibility of the government health services and does not reflect the efforts of the project. IA has tried to help the government health services by providing microscopes and training the lab technicians, while sputum examination is being stimulated through sputum collection in the field. The latter will be looked at separately in section 3.4.1.

When diagnosing TB, the health services apply the algorithm for the diagnosis of pulmonary TB specified in the national guidelines. Three sputum samples are examined. P+ is diagnosed if 2 samples are positive. If the sputum result is not positive, a broad-spectrum antibiotic is given for 10 days. If no improvement after that, a second set of 3 sputum samples is examined. If these are still negative, the suspect is sent to the nearest hospital for radiological investigations. EP is often diagnosed at the health centre on clinical grounds only. Mostly, the diagnosis is glandular TB based on the presence of enlarged cervical lymph nodes. Other types of EP are usually diagnosed in the hospital only.

Table 3.3.2 shows the number of suspects identified, how many were referred to the health centre for sputum examination, and how many were diagnosed with TB.

Table 3.3.2. Diagnosis of TB among identified suspects and referred suspects in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2008

	Identified suspects	Referred suspects		TB diagnosis (All TB)		
		n	%	n	% of identified	% of referred
2003	3.345	2.121	63,4%	797	23,8%	37,6%
2004	3.128	2.221	71,0%	1.026	32,8%	46,2%
2005	2.565	2.075	80,9%	1.032	40,2%	49,7%
2006	4.068	3.355	82,5%	1.391	34,2%	41,5%
2007	4.526	3.781	83,5%	1.499	33,1%	39,6%
2008	4.670	4.270	91,4%	1.819	39,0%	42,6%
Total	**22.302**	**17.823**	**79,9%**	**7.564**	**33,9%**	**42,4%**

As can be seen from this table, the proportion of suspects who are diagnosed with TB is very high: 34% of the identified suspects and 42% of the referred suspects end up being diagnosed as TB patients. These proportions are even more striking when the number of suspects who were actually screened is being considered. This information is available for 2007 and 2008: see table 3.3.3.

Table 3.3.3. Diagnosis of TB among screened suspects in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2007-2008

	Identified suspects	Referred suspects	Screened suspects			TB diagnosis (All TB)	
			n	% of identified	% of referred	n	% of screened
2007	4.526	3.781	2.921	64,5%	77,3%	1.499	51,3%
2008	4.670	4.270	3.443	73,7%	80,6%	1.819	52,8%
Total	**9.196**	**8.051**	**6.364**	**69,2%**	**79,0%**	**3.318**	**52,1%**

More than half of the suspects who are screened end up with a diagnosis of TB. This may be due to the selection criteria for identifying suspects that might be too restrictive. It may also be, however, that the staff responsible for the diagnosis of TB is biased in favour of making the diagnosis because TB is first and foremost on their mind as a result of training or contact with the IA and the fact that person was referred to them as a TB suspect will make them positively inclined to favour a diagnosis of TB. Another factor that may enter into the equation is the low case detection rate that is found all over Ethiopia (see section 1.1), which may push the staff to make as many TB diagnoses as possible in order to improve the results.

In the non-project woreda visited, the consultants interviewed 3 HEW who had referred 37 suspects to the health facility. 32 were effectively screened (86%, comparable to the 79% in table 3.3.3) and out of the 32 screened, 6 had TB (21%, fairly high but considerably less than the 52% in table 3.3.3).

One might easily suppose that the high proportion of TB diagnoses is mainly due to an overdiagnosis of P- and EP, but as table 3.3.4 illustrates, there is an equally high diagnosis of P+. In several woredas, over 30% of the screened suspects are found to have P+, with extremes of 45% (Damot Pulasa 2007), 54% (Damot Sore 2007) and even 73% (Boloso Bombe 2008). Assuming that the lab results are reliable, this raises serious questions about the selection criteria for identifying TB suspects. By comparison, in the non-project woreda visited, out of 360 suspects examined in the lab register, 10.5% were found to be positive, which is similar to the proportion usually proposed in the literature.

Table 3.3.4. Diagnosis of P+, P- and EP among the screened suspects in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2007-2008

		Suspects screened	TB diagnosis					
			P+		P- and EP		All TB	
			n	%	n	%	n	%
Damot Woyde	2007	120	36	30,0%	36	30,0%	72	60,0%
	2008	207	46	22,2%	53	25,6%	99	47,8%
Duguna Fango	2007	199	52	26,1%	48	24,1%	100	50,3%
	2008	383	48	12,5%	131	34,2%	179	46,7%
Boloso Sore	2007	397	145	36,5%	155	39,0%	300	75,6%
	2008	425	135	31,8%	170	40,0%	305	71,8%
Damot Sore	2007	185	100	54,1%	38	20,5%	138	74,6%
	2008	286	96	33,6%	60	21,0%	156	54,5%
Boloso Bombe	2007	172	64	37,2%	33	19,2%	97	56,4%
	2008	97	71	73,2%	25	25,8%	96	99,0%
Damot Gale	2007	455	123	27,0%	115	25,3%	238	52,3%
	2008	422	119	28,2%	132	31,3%	251	59,5%
Damot Pulasa	2007	152	68	44,7%	46	30,3%	114	75,0%
	2008	305	90	29,5%	108	35,4%	198	64,9%
Kindo Koysha	2007	163	39	23,9%	11	6,7%	50	30,7%
	2008	203	56	27,6%	39	19,2%	95	46,8%
Kindo Didaye	2007	240	36	15,0%	25	10,4%	61	25,4%
	2008	174	49	28,2%	22	12,6%	71	40,8%
Ofa	2007	201	57	28,4%	26	12,9%	83	41,3%
	2008	286	56	19,6%	36	12,6%	92	32,2%
Humbo	2007	400	63	15,8%	63	15,8%	126	31,5%
	2008	423	35	8,3%	96	22,7%	131	31,0%
Loma	2007	237	42	17,7%	78	32,9%	120	50,6%
	2008	232	48	20,7%	98	42,2%	146	62,9%
Total		**6364**	**1674**	**26,3%**	**1644**	**25,8%**	**3318**	**52,1%**

One must of course raise the question whether the lab results are indeed reliable. The impression one gets when visiting the various health centre labs is highly varied. In the project woredas, the overall aspect of the laboratory was reasonable in 2 health centres, barely acceptable in 1 and totally unacceptable in 1 (Gununo HC). In the latter, the tables and cupboards were covered with hundreds of used slides, piles of papers were gathering dust everywhere, many boxes, empty or not, were heaped in the corners and the place was very dirty. This laboratory poses a real heath danger for all who enter the room.

When interviewing the lab technicians, it is clear that their knowledge and competences vary widely. They gave a good impression in 2 laboratories but it was considerably less favourable in the other 2. The poor aspect of some of the labs and the level of some of the technicians indicate that External Quality Assurance (EQA) is insufficient. In fact, the evaluators could find

no evidence of systematic, regular EQA. The only quality control measure seen is the rechecking of the slides by the regional reference laboratory in Arba Minch. Whenever feedback documentation was available, it indicated that there were no discrepancies in any of the slides checked.

It should be pointed out, however, that the procedures prevailing in Ethiopia are not conducive to reliable rechecking of the slides. To start, the results are entered in the lab register simply as positive or negative, there is no quantification of the bacilli according to the recommendations of the WHO and the International TB Union. Secondly, the lab technician stores the slides for rechecking in a slide box where the positive and negative slides are stored separately. In the control lab, the result is thus known beforehand and there is no blind rechecking.

In addition to the diagnosis of P+, table 3.4.4 may also generate questions about the high proportion of P- and EP diagnosed among the screened suspects in a number of woredas. Overall, 26% of all the suspects screened for TB are diagnosed with either P- or EP, and in 2008 this proportion even reaches 40% in Boloso Sore and 42% in Loma. When looking at the total number of TB cases diagnosed since 2003, more than half of them were P+ in 2003-2007, but in 2008 the proportion of P+ has decreased considerably : see table 3.3.5.

Table 3.3.5. TB cases diagnosed in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2008, according to type of TB

	New P+		New P-		New EP		
	n	%	n	%	n	%	All New
2003	836	57,9%	359	24,9%	248	17,2%	1443
2004	901	60,5%	271	18,2%	317	21,3%	1489
2005	803	61,3%	331	25,3%	175	13,4%	1309
2006	886	56,9%	386	24,8%	284	18,3%	1556
2007	959	54,9%	438	25,1%	351	20,1%	1748
2008	1016	46,5%	687	31,4%	483	22,1%	2186

When looking at individual woredas, the proportion of P- is often 40% and higher: 40% (Boloso Sore 2008), 41% (Humbo 2006 and Damot Woyde2007), 44% (Damot Woyde 2008) and even 65% in Humbo in 2008. The proportion of EP climbs to 30% (Kindo Didaye 2008, Damot Sore 2008), 34% (Duguna Fango 2008) and 40% (Kindo Didaye 2007), while Loma is presenting the most extreme results: see table 3.3.6.

Table 3.3.6. TB cases diagnosed in Loma Woreda in Dawro Zone 2003-2008, according to type of TB

	All New	New P+	New P-	New EP	
				n	%
2003	79	49	3	27	34.2%
2004	109	44	4	61	56.0%
2005	114	56	11	47	41.2%
2006	126	58	17	51	40.5%
2007	129	45	13	71	55.0%
2008	156	51	35	70	44.9%
Total	**713**	**303**	**83**	**327**	**45.9%**

As already pointed out, the diagnosis of TB is the responsibility of the government health services. The IA project plays no role in it, and the terms of reference of the consultants did not include an evaluation of the diagnostic competences of the government health staff.

Nevertheless, in the context of trying to answer the question how IA may help to improve diagnostic services, the quality of the diagnosis, both of P+ and P-/EP, needs to be considered.

All health staff interviewed mention lack of training. Many of the health workers in the health facilities are either newly graduated or have very few years of experience. They did not receive any additional training since their basic education. They do not have any reference materials and cannot call upon any senior person in the health facility to consult. From their observations, the consultants also noticed the absence of regular medical-technical supervision and a lack of technical expertise at all levels. Many staff are very competently applying the national guidelines but will have problems dealing with situations not covered by the guidelines. The problems observed in the laboratories have already been mentioned. The quality of the radiological examinations has not been looked at, but in view of the sometimes very high proportion of cases being diagnosed with P-, this would certainly deserve closer attention. Similar questions can be raised regarding the diagnosis of EP. Are all the cases of glandular TB, based on clinical assumptions only, really TB? What evidence is there to confirm the diagnoses of EP in the hospital? Both for P- and EP, no evidence of checking the correctness of the diagnosis by an expert supervisor could be found.

Apart from overdiagnosis, there is the risk of underdiagnosis. Inter Aide had organised a study to find out what had happened to those suspects who refused to go to the health facility (see section 3.5.1). At the same time, the field staff made use of the occasion to also pay a follow-up visit to a number of suspects who had been screened and who had been found not to have TB at the time of screening. The health status of these suspects without TB 6 months after having been screened is given in table 3.3.7.

Table 3.3.7. Health status of TB suspects who were found at screening not to have TB, 6 months after having been screened

+	++	+++	=	-	--	---	Died	total
146	174	87	38	11	6	5	1	**468**
31%	*37%*	*19%*	*8%*	*2%*	*1%*	*1%*	*0.2%*	
				5%				

+ slightly better, ++ much better, +++ good health, - worse, -- in bed, --- very severely ill

In 95% of the interviewees, their health had not deteriorated, it even had improved in 87%. Only 5 % presented a worsening of their health status, with a mortality rate as low as 0.2%. The fact that a TB suspect, after negative diagnostic investigations for TB, is getting worse does not mean that this worsening is due to TB. One might even argue that the likelihood that it is not TB would be higher since TB had already been excluded. Unless TB was missed during the diagnostic investigations. It would thus have been helpful to re-evaluate those 5% for TB, to see how many TB diagnoses had been missed. In any case, the figures do not indicate that there would be any underdiagnosis of TB.

3.3.4. How well did the project articulate with the Government Health Services, paying special attention to the compatibility between the project options and the national TB guidelines?

It can be stated unequivocally that the project articulated well with the government health services. This was clearly stated by the key informants interviewed at regional and zonal level and could be observed first-hand during the field visit. The interventions planned by the project are fully in line with the objectives of the national TB control programme, and the activities executed by the project staff are helping the government health staff to apply the national TB guidelines effectively. This was confirmed by the woreda health office staff as well as by the clinical staff in the health centres. It was mentioned by the HEW and also came up during the focus group

discussions with the health workers. They praise the project for its exemplary integration in the existing health services both at the community level and in the health facilities. They specifically single out the role of the project in building local capacity, monitoring the programme and supervision.

3.4. Assess the acting on supply component, aimed at decentralizing sputum collection

3.4.1. What is the added value of on-site sputum collection? How can on-site sputum collection be optimised?

In the focus group discussions, the difficulty of having to go to the health centre for several days in order to have the sputum examined was mentioned by many participants. Distance and the cost of transportation were the main problems mentioned by the patients' groups. In addition to the on-site sputum collection, the heath workers and the community workers mentioned the possibility of a mobile laboratory. Additional arguments in favour of the decentralisation of diagnostic services can be found in the result of the survey of suspects who did not present themselves at the health facility, cited in section 3.5.1.

In order to bring the diagnosis closer to the community, IA has developed a system to collect sputum smears peripherally. The sites chosen for this were mainly former health stations that were to be upgraded to health centre and where a laboratory was planned in the future. A total of 12 sites were established. Some of these have already been abandoned because there is now a laboratory at that site.

The local health staff and community volunteers are given the dates of the passages of the IA field supervisor. At those dates, the suspects are told to present themselves to the supervisor, who will collect the sputum samples, prepare the slides on the spot, fix them and transport them to the laboratory. This system works well and is appreciated by staff and patients alike. The sputum smears collected on-site result in a smear positivity rate of 14% (863 suspects from 12 collection sites). This is an excellent result. It compares favourably with the overall positivity rate of the screened suspects (26%) in table 3.3.4 above.

The consultants visited 3 peripheral sputum collection sites. The procedures followed were different at each site and not always efficient. The number of visits by the supervisor can be reduced, resulting in a decreased work load. The number of appointments by the suspect can also be reduced, resulting in less absence from work. A standardised procedure, requiring 2 visits by the suspect, on consecutive days, and only 1 visit by the supervisor could be as follows:

- On the day prior to the visit by the supervisor, the suspect comes to the health facility (this could be a health post). The health worker collects the first spot sample, gives a sputum cup to the suspect and explains about the early morning sputum collection.
- On the day of the visit by the supervisor, the suspect collects the early morning sample at home and goes to meet the supervisor at the health facility. The supervisor receives the early morning sample and collects the second spot sample from the suspect, and takes the first spot sample that was kept at the health facility. The supervisor prepares slides from all 3 samples and drops them off at the laboratory.

Whether on-site sputum collection needs to be continued in view of the increasing number of health centres being established should be determined by the effort required from the suspect to have the sputum examined. If the distance exceeds what is considered acceptable in that particular community, a peripheral sputum collection site should be taken into consideration. If, in future, there would be no more field supervisors, alternatives need to be sought for the collection and transportation of the sputum specimens. Another option, which was mentioned in the focus group discussions as well, could be the organisation of mobile laboratories. The possibility of satellite laboratories could also be looked at. This would require training of existing staff and providing some basic equipment and tools.

3.5. Assess the effectiveness of the referral system

3.5.1. How valid are the conclusions concerning the referral system mentioned in the TOR?

The conclusions in the TOR referred to in the title are the following:

- The intensification of the referral system since 2007 has resulted in more suspects being screened for TB, but the ratio confirmed cases/screened suspects did not change.
- Identified suspects lost prior to screening are less likely to have TB than those who do present themselves at the health facility.
- A strategy centred on suspect identification and referral would be more efficient than a strategy focusing on intensive counselling and follow-up.

The number of suspects referred by the field facilitators and community volunteers has already been mentioned earlier (see table 3.3.2 in section 3.3.3). The numbers have increased over the years, but not dramatically so. This is particularly evident when looking at the suspect identification rate: see table 3.5.1. WHO and the International TB Union suggest that this rate should reach at least 3 per 1000 population.

Table 3.5.1. Suspect identification rate in the project woredas in Welayta Zone 2003-2008 (Ofa 2006-2008 only) – Loma not included due to lack of population data

	Population	Suspects identified by field facilitators and community volunteers	Suspect identification rate per 1.000 population
2003	1.055.244	2.681	2,54
2004	1.085.846	2.734	2,52
2005	1.117.336	2.216	1,98
2006	1.251.076	3.410	2,73
2007	1.287.357	3.970	3,08
2008	1.324.691	4.109	3,10

However, table 3.5.1 does not show the whole picture. A number of suspects present themselves spontaneously to the health centre, without being referred. Out of these self-presenting suspects, a number of additional TB cases have been diagnosed. Data regarding self-presenting suspects were not available, but the number of self-presenting cases is known: see table 3.5.2.

Table 3.5.2. TB cases diagnosed as a result of referral by the field facilitators and community volunteers and as a result of self-presentation in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2008 (Ofa 2006-2008)

	Referred cases	Self-presenting cases		All TB cases
		n	%	
2003	797	665	45,5%	1462
2004	1.026	534	34,2%	1560
2005	1.032	312	23,2%	1344
2006	1.391	209	13,1%	1600
2007	1.499	315	17,4%	1814
2008	1.819	421	18,8%	2240

Although the percentage of self-presenting cases is below 20% since 3 years, it is clear that there must be a number of additional suspects besides those identified by the field facilitators and community volunteers. The suspect identification rate will thus be well above 3 per 1000 population.

A similar observation can be made in the non-project woreda, where there are no field facilitators. In this woreda of 124,000 inhabitants there are 2 laboratories. In the one lab visited by the consultants, there were around 360 suspects registered in the lab register in a year. The second lab in the woreda probably sees more suspects, as it is a mission health centre, but assuming they also have 360, this gives 720 suspects per year for a population of 124,000 or 5.8 per 1000, an excellent achievement. Independent confirmation of this figure was found when visiting a health post serving a kebele of >10,000 inhabitants. This health post has 4 HEW. The consultants could interview 3 of them. One had identified 15 suspects in 1 year, one 14 suspects, and one 8 suspects in ½ year. This suggests that the HEWs are fairly consistent in their suspect identification. Assuming that 4 HEW each identify 15 suspects in a kebele of 10,000 population, we arrive at 6 suspects per 1000 which is very similar to the 5.8 mentioned earlier.

In the TOR, it was suggested that the total number of suspects might be divided by the number of field facilitators (a number of 118 referrals per facilitator is cited for 2007), suggesting that these field facilitators are the sole responsible agents for getting the suspects to go to the health facility. This may be oversimplifying the situation. It is clear that the field facilitators make an important contribution, by raising awareness in the community, by visiting people at home, by working together with the community volunteers and liaising with the HEW, but the community volunteers and HEW also play an appreciable role in stimulating the referral of suspects. This is also confirmed in the focus group discussions, but it is pointed out that the contribution of the IA field facilitators, whose job is specifically focused on TB, is more important.

The fact that a suspect is identified does not necessarily mean that this suspect will be screened for TB. This has already been shown in table 3.3.2 and table 3.3.3 in section 3.3.3. For easy reference, these tables are summarised in table 3.5.3 below.

Table 3.5.3. Diagnosis of TB among identified suspects, referred suspects and screened suspects in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2008

		Referred suspects		Screened suspects			TB diagnosis (All TB)			
	Identified suspects	n	% of identified	n	% of identified	% of referred	n	% of identified	% of referred	% of screened
2003	3345	2121	63,4%				797	23,8%	37,6%	
2004	3128	2221	71,0%				1026	32,8%	46,2%	
2005	2565	2075	80,9%				1032	40,2%	49,7%	
2006	4068	3355	82,5%				1391	34,2%	41,5%	
2007	4526	3781	83,5%	2921	64,5%	77,3%	1499	33,1%	39,6%	51,3%
2008	4670	4270	91,4%	3443	73,7%	80,6%	1819	39,0%	42,6%	52,8%
	22302	**17823**	**79,9%**	**6364**	**69,2%**	**79,0%**	**7564**	**33,9%**	**42,4%**	**52,1%**

Table 3.5.3 suggests that the proportional TB case yield remains fairly constant, irrespective of the efforts made to make sure the suspects go to the health facility. For instance in 2005, the case yield, both as a proportion of identified suspects (40%) and as a proportion of referred suspects (50%), is higher than in 2008 (39% and 43% respectively) although the proportion of identified suspects who were referred was higher in 2008 (91%) than in 2005 (81%). Considering 2007 and 2008, when also the number screened is known, the additional efforts made in 2008 to ensure that the suspects are referred and screened resulted in a 9 % increase of identified suspects being screened (from 65% to 74%) but there was no corresponding increase in case yield (51% and 53% respectively).

A similar conclusion can be drawn from the suspect screening results in Loma Woreda: see table 3.5.4. The percentage of suspects referred is slightly lower compared to the other woredas (80% against 87%) and the percentage screened is considerably lower (42% against 69%). Nevertheless, the proportion of screened suspects found to have TB is not lower at all (57% compared to 52%).

Table 3.5.4. Diagnosis of TB among screened suspects in Loma Woreda in Dawro Zone 2007-2008

		Referred suspects		Screened suspects			TB diagnosis (All TB)	
	Identified suspects	n	% of identified	n	% of identified	% of referred	n	% of screened
2007	556	424	76.3%	237	42.6%	55.9%	120	50.6%
2008	561	469	83.6%	232	41.4%	49.5%	146	62.9%
Total	**1,117**	**893**	**79.9%**	**469**	**42.0%**	**52.5%**	**266**	**56.7%**

A similar observation could be made in the non-project woreda visited. Prior to the introduction of the HEW, during 4 subsequent quarters in EC 1998-1999 (corresponding more or less to GC 2006), a total of 241 TB cases (all TB cases combined) were detected in a population of 142,000, corresponding to a case notification rate of 170/100,000. Following a redrawing of the woreda borders and the introduction of the HEW, case finding was 206 (All TB) in EC 2000 and 207 in EC 2001 for a population of 124,435, corresponding to a case notification rate of 166/100,000. This suggests that the introduction of the HEW had no impact on case finding, although the consultants were told that suspect referral had intensified, resulting in many more suspects presenting earlier (no data were available).

The data presented above would suggest that the conclusions concerning the referral system mentioned in the TOR are indeed valid. This would imply that additional efforts to ensure that identified suspects present themselves at the health facility, such as intensive coaching to help the suspects complete the diagnostic process or tracing of lost suspects, are not very useful. Emphasis should be on identifying as many suspects as possible and referring them. It is thought that the awareness raising by the field facilitators is reinforcing the ideas already prevalent in the community. Since the health promotion messages given confirm the perceptions already present, persons aware that they might be suffering from TB will already be more willing to go to the health facility, and the urging by the facilitator, symbolised by the referral letter, will be the decisive stimulus to make them go.

Inter Aide conducted a small study to check the validity of this assumption. From table 3.5.3 it can be seen that around 20% of the identified suspects are not referred. These are suspects who refuse the referral letter. Furthermore, out of those who accept to be referred, another 20% do not present themselves at the health facility. During a 6-month period, the field staff looked up those suspects who had refused the referral paper and those who had accepted the referral but never showed up at the health facility. The health status of the suspects 6 months after being identified as a suspect is given in table 3.5.5.

The health status of 94% of 431 TB suspects who were never screened for TB had not deteriorated 6 months after having been identified as a TB suspect. It cannot be said whether the 6% whose health status did deteriorate, including 1% who died, were suffering from TB. But it is unlikely that the 94% who did not get worse would have TB. This again would suggest that the self-selection process of the suspects is fairly adequate. Although there is insufficient evidence to validate this, it would imply that most of the suspects who decide not to go to the health facility probably do not have TB.

Table 3.5.5. Health status of TB suspects who were not screened, 6 months after having been identified as a suspect

	+	++	+++	=	-	--	---	Died	total
Suspects who refused the referral	22	39	32	17	7	1	3	3	**124**
	18%	*31%*	*26%*	*14%*	*6%*	*1%*	*2%*	*2%*	
					11%				
Suspects who had accepted the referral but never showed up at the health facility	55	98	96	44	4	2	6	2	**307**
	18%	*32%*	*31%*	*14%*	*1%*	*1%*	*2%*	*1%*	
					5%				
Total	**77**	**137**	**128**	61	**11**	**3**	**9**	**5**	**431**
	18%	*32%*	*30%*	*14%*	*3%*	*1%*	*2%*	*1%*	
					6%				

+ slightly better, ++ much better, +++ good health, - worse, -- in bed, --- very severely ill

On the other hand, some of the suspects not screened might have TB, and it is a pity their sputum was not examined. This might be addressed by initiatives aimed at bringing the diagnostic services closer to the community, such as on-site collection of sputum (see section 3.4.1). The IA field staff, when visiting the suspects at home, asked why they did not go to the health facility. Table 3.5.6 lists 6 reasons. At least 4 of them could be addressed by the decentralisation of the diagnostic services. Since 70% of the interviewees come from 3 woredas only (with 39% coming from Loma) the results from these 3 woredas are mentioned separately.

Tabel 3.5.6. Reasons for not going to the health facility given by suspects who were not screened

Reason for not presenting at the health facility	**% of the suspects who cited this reason**				
	Loma	**Damot Sore**	**Duguna Fango**	**Other 9 woredas**	**Total**
Distance	40%	10%	55%	36%	**35%**
Poor service	25%	63%	15%	9%	**26%**
High cost	14%	25%	26%	30%	**22%**
No one to accompany	11%	0%	2%	8%	**7%**
Physically unfit	7%	0%	0%	6%	**5%**
Social stigma	2%	0%	2%	3%	**2%**
Other	1%	1%	0%	8%	**3%**
Total number of interviewees	169	79	53	132	433

The most striking result in table 3.5.6 is the very high percentage of poor service in Damot Sore. This contrasts with the responses received during the FGD. Both the community leaders and the patients were asked 4 questions related to the quality of the health services. There were no complaints, except the fact that the patients have to go very far to have their sputum examined. So the complaint was in relation to distance, not poor service. Damot Sore was one of the woredas visited by the consultants. From the observations, it was not possible to ascertain that the quality of patient care provided in this woreda would be inferior to the other woredas visited. The only truly poor aspect in Damot Sore, contrasting heavily with the other woredas visited, was the laboratory. It seems highly unlikely, however, that this would be the reason why suspects would refuse to go to the health facility.

3.5.2. What is the impact of the project on case finding?

In the introductory section 1.3.3 it was mentioned that the case notification rate (all TB cases) in the project area was as low as 70/100,000 in 2001. This rate improved to 120/100,000 in 2003 and 157/100,000 in 2008. At first sight this looks like a very good achievement, but it will be useful to look at the case finding figures in more detail to get a more nuanced picture.

The total number of TB cases detected increased from 1,462 in 2003 to 2,241 in 2008, and the number of New P+ increased from 836 to 1016: see table 3.5.7.

Table 3.5.7. TB case notification in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2008 according to type of TB

	P+						
	New P+	Relapse	Return after default	Failure	New P-	New EP	All TB cases
2003	836	11	6	2	359	248	1,462
2004	901	30	10	3	271	317	1,532
2005	803	30	5	1	331	175	1,345
2006	886	36	3	3	386	284	1,598
2007	959	52	0	7	438	351	1,807
2008	1,016	47	2	6	687	483	2,241

Such absolute numbers give an idea about the workload in the TB control services, but in order to obtain a valid reflection of the evolution of the TB case finding in an area, case detection has to be looked at in relation to the population of that area. The most relevant rate is the case notification rate, this is the number of new P+ detected during the year over the total population: see table 3.5.8.

Table 3.5.8. Case notification rate in the project woredas in Welayta Zone 2003-2008 (Loma not included due to lack of population data)

	Population	New P+	Case notification rate per 100.000
2003	1.148.253	787	68,5
2004	1.181.552	857	72,5
2005	1.215.817	747	61,4
2006	1.251.076	828	66,2
2007	1.287.357	914	71,0
2008	1.324.691	965	72,8

Compared to the case notification rate for the whole of Ethiopia (46/100,000 in 2007)[1] the Welayta result is quite encouraging. When it is compared to the estimated case notification rate for the country (163/100,000 in 2007)[1], it suggests that there is still room for improvement as it implies a case detection rate for 2007 of 71/163 = 43.6%. It is likely, however, that the case detection rate should be higher, since the WHO estimates may be too high and could be adjusted downward in the future (see section 1.2.2).

While the case notification rate of the New P+ in Welayta is fairly acceptable overall, it has hardly improved over the years. From 2003 to 2008, it increased by 6% only. On the other hand, the

[1] Global TB Control 2009. Surveillance, Planning, Financing. WHO, Geneva, 2009

case notification of All TB cases taken together increased by 31% (see table 3.5.9) which is due to the increase in the detection of P- (by 59%) and EP (by 62%).

Table 3.5.9. Cases notified per 100,000 population (all cases, new P- and New EP) in the project woredas in Welayta Zone 2003-2008 (Loma not included due to lack of population data)

	all cases	New P-	New EP
2003	120,4	31,0	19,2
2004	120,4	22,6	21,7
2005	101,2	26,3	10,5
2006	117,7	29,5	18,6
2007	130,3	33,0	21,7
2008	157,2	49,2	31,2

This implies that the project had a much more notable effect on the detection of P- and EP than on the detection of P+. This was already suggested by the decrease of the proportion of P+ patients from around 60% in 2003-2005 to 46% in 2008 shown in table 3.3.5 in section 3.3.3.

While the diagnosis of P+ TB is highly specific (the sputum must be positive) the diagnosis of smear negative and EP TB can only be presumptive, and the possibility of overdiagnosis is very real. Possible reasons for the increased detection of P- and EP (bias towards favouring the diagnosis of TB as a result of the positive motivational effect of the IA project or maybe as a result of the need to boost the case finding figures, in the absence of regular medical-technical supervision to verify the correctness of the diagnoses) have already been mentioned in section 3.3.3.

One would have expected that the establishment of a health post with 2 HEW and a community volunteer network in most kebeles in 2005 would have resulted in increased case finding figures from 2006 onwards. This is not the case. A slight increase is noticeable in 2007, but it is only in 2008 that an important rise in the case notification rates of the New P- and the New EP (but not the New P+) can be seen (see figure 3.5).

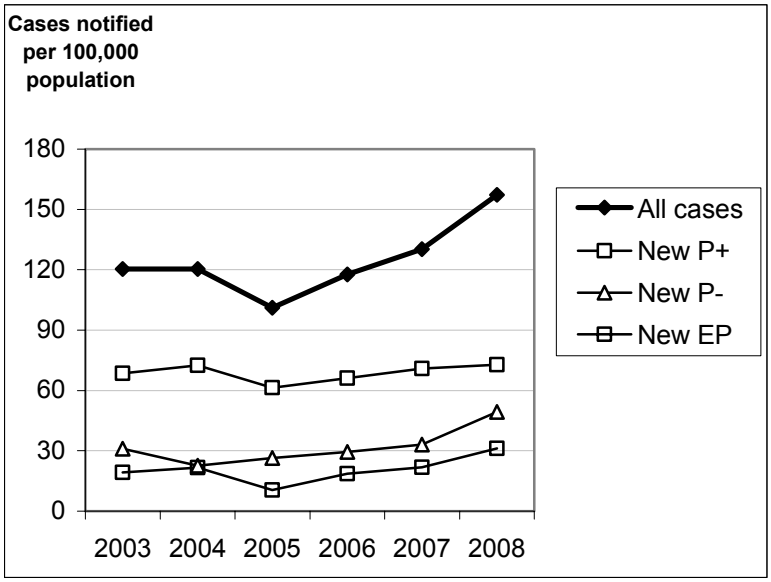


Figure 3.5. Cases notified per 100,000 population (all cases, new P- and New EP) in the project woredas in Welayta Zone 2003-2008 (Loma not included due to lack of population data)

The case finding data obtained in the non-project woreda visited are summarised in table 3.5.10. The figures are slightly higher than the project woredas, but, as explained earlier, Kachabira cannot be considered representative for the non-project woredas.

Table 3.5.10. Case notification rate (CNR) of New P+ and All TB cases combined in the non-project woreda Kachabira in Kembata Zone

Year	Population*	New P+		All cases	
		n	CNR/100,000	n	CNR/100,000
4 subsequent quarters EC 1998-1999	142,000			241	169.7
EC 2000	120,928			206	170.3
EC 2001	124,435	97	78,0	207	166.4
* At the end of EC 1999, the borders of the woreda were redrawn.					

3.5.3. What is the relevance of possible future case finding approaches (site pre-selection, suspect tracing by government staff, sputum collection at field level)?

Whatever future case finding strategies are adopted, good quality diagnostic services are a prerequisite. The stress should be on ensuring correct diagnosis.

The usefulness of on-site sputum collection has already been discussed at length in section 2.4.1. The possibility of a mobile laboratory, advanced by the focus groups of the health workers and the community workers, should be taken into consideration as well.

Suspect tracing by government staff is already taking place at present. There are health posts in every kebele, and TB tracing is part of the task package of the HEW. There are also many community volunteers in every kebele. Although they are not remunerated, they are integrated in the government health care delivery system and they participate actively in suspect tracing.

Site preselection would imply that the TB endemicity would be mapped, and the efforts should be directed towards those areas where the TB burden is heaviest. Inter Aide already has made an attempt at a geographical health information system in Kindo Koysha and Ofa woredas, where the number of cases detected, the case notification rate and the number of deaths were mapped on a kebele basis. Figure 3.6 shows an example of such a map.

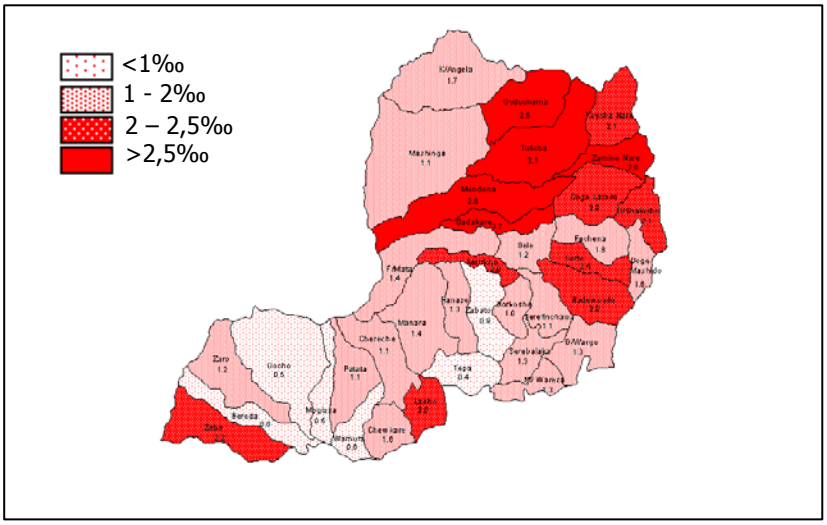


Figure 3.6. Kindo Koysha case notification rate 1995-2002

In the context of improving case finding in the area, the contribution of such mapping would be doubtful for the following reasons:

- The mapping is done on a kebele basis, but the kebele is not a fixed area. Its borders, and its numbers of inhabitants, have already changed several times in the past and are likely to change again in the future.
- Data collection will be very difficult and time consuming. It will require extra efforts from the staff, it may even require special data collection staff. And one may wonder if such a mapping exercise on a relatively large scale could even be possible without computer back-up down to the woreda level.
- Collecting reliable data on TB would imply that a good TB control programme is already in place. Data collection without providing service would be unethical. Thus, data will by necessity be collected in areas where the TB programme is already providing full coverage.
- Lastly, how would the mapping information be interpreted? What does it mean if a kebele has many TB cases? One possible answer could be that there is a serious TB problem in this kebele, so extra case finding efforts need to be concentrated in this kebele. But another interpretation could be: in this kebele, the TB services are doing a good job and are finding many cases, but in the other kebeles with few TB cases, the TB services are poor, and the case finding efforts should be concentrated in the kebeles with few TB cases.

In the context of TB control, in a hyperendemic area where TB is everywhere, mapping would be more of a gimmick than a serious decision making tool. Specifically considering the possible future involvement of Inter Aide in TB control in Southern Ethiopia, the information provided would be too detailed. If IA is going to continue to support the TB control services in the area, it is highly unlikely that the unit of its intervention would be the kebele. Epidemiological data (that will allow to make a map if one so desires) from the woreda level up are readily available through routine reporting.

3.6. Assess the involvement of the social mediators

The TOR defines social mediators as persons with an eminent social position (elders, teachers, women and/or peasant association leaders…) or with a specific status of peer (cured patient) able to influence attitudes and culturally mediated perceptions. Their role would be to act as an interlink between care seekers and service providers, ensuring patients' compliance and facilitating adequate care seeking for people suffering from chronic cough or other disabling symptoms, especially in the remote areas. The idea was that each of the IA field facilitators would mobilise a number of social mediators with sufficient legitimacy to influence psychosocial and cultural perceptions and attitudes. This would lead to a sustainable network of referral actors as well as DOT providers and counsellors for patients under treatment that would ensure continuous diffusion of messages and counselling support after the withdrawal of the project.

Based on this information, the consultants had requested the project to provide them with a list of all the field facilitators and the social mediators each of them had been able to mobilise. This list was given to the consultants on the first day of the field visit.

During the field visit, it soon became obvious that the notion "social mediator" was inexistent in the field. When the field facilitators were asked who among the volunteers in their area were social mediators, they were unable to answer. They stated that they worked on an equal base with all the community volunteers. When one field facilitator was confronted with the list of his social mediators, he said that he knew them well, but they were just 2 out of the 17 volunteers he worked with in that kebele. The volunteers themselves also do not feel that there are different kinds of volunteers. The consultants talked to a group of 7 volunteers, 2 of them being listed as social mediators, but all 7 said they had had the same training and were doing the same work. The 2 so-called social mediators had never noticed that their work would in any way be different or that they were treated differently by the field facilitator.

The idea of social mediators can thus be safely abandoned. There is an extensive network of numerous dedicated and motivated community volunteers, usually recruited by the kebele and trained through the government health system, who are doing an excellent job promoting health care in the community and assisting the HEW. TB control work is included in their tasks. There is no need for separate TB volunteers. Because of these observations, the term social mediator is not used anywhere else in this report. Instead, the generic title "community volunteer" is used.

3.7. Assess treatment outcome

According to internationally accepted standards, treatment outcome rates are calculated for smear positive patients only. Table 3.7.1 gives the treatment results for the New P+ in the project woredas in Welayta Zone. The results for the New P+ in Loma woreda (in Dawro Zone) are given separately in table 3.7.2.

Table 3.7.1. Treatment outcome of the New P+ in the project woredas in Welayta Zone 2003-2007

		Cure	Treatment completed	Treatment success	Died	Failure	Default	Transfer out	Total assessed	Total in cohort
2003	**n**	647	80	727	29	4	2	22	784	787
	%	82,5%	10,2%	92,7%	3,7%	0,5%	0,3%	2,8%		
2004	**n**	724	41	765	29	4	3	24	825	857
	%	87,8%	5,0%	92,7%	3,5%	0,5%	0,4%	2,9%		
2005	**n**	645	36	681	41	1	1	26	750	747
	%	86,0%	4,8%	90,8%	5,5%	0,1%	0,1%	3,5%		
2006	**n**	745	41	786	29	2	2	13	832	828
	%	89,5%	4,9%	94,5%	3,5%	0,2%	0,2%	1,6%		
2007	**n**	790	61	851	21	4	1	30	907	914
	%	87,1%	6,7%	93,8%	2,3%	0,4%	0,1%	3,3%		
Total	**n**	**3551**	**259**	**3810**	**149**	**15**	**9**	**115**	**4098**	**4133**
	%	**86,7%**	**6,3%**	**93,0%**	**3,6%**	**0,4%**	**0,2%**	**2,8%**		

Table 3.7.2. Treatment outcome of the New P+ in Loma Woreda in Dawro Zone 2003-2007

		Cure	Treatment completed	Treatment success	Died	Failure	Default	Transfer out	Total assessed	Total in cohort
2003	**n**	43	3	46	3	0	0	0	49	49
	%	87,8%	6,1%	93,9%	6,1%	0,0%	0,0%	0,0%		
2004	**n**	29	13	42	1	0	0	1	44	44
	%	65,9%	29,5%	95,5%	2,3%	0,0%	0,0%	2,3%		
2005	**n**	45	10	55	1	0	0	0	56	56
	%	80,4%	17,9%	98,2%	1,8%	0,0%	0,0%	0,0%		
2006	**n**	32	23	55	1	0	0	2	58	58
	%	55,2%	39,7%	94,8%	1,7%	0,0%	0,0%	3,4%		
2007	**n**	5	40	45	0	0	0	0	45	45
	%	11,1%	88,9%	100,0%	0,0%	0,0%	0,0%	0,0%		
Total	**n**	**154**	**89**	**243**	**6**	**0**	**0**	**3**	**252**	**252**
	%	**61,1%**	**35,3%**	**96,4%**	**2,4%**	**0,0%**	**0,0%**	**1,2%**		

The treatment results for the retreatment P+ are given in table 3.7.3

Table 3.7.3. Treatment outcome of the Retreatment P+ in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2007

		Cure	Treatment completed	Treatment success	Died	Failure	Default	Transfer out	Total assessed	Total in cohort
2003	**n**	17	0	17	0	0	0	0	17	19
	%	100,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%		
2004	**n**	31	0	31	6	0	0	4	41	43
	%	75,6%	0,0%	75,6%	14,6%	0,0%	0,0%	9,8%		
2005	**n**	32	1	33	1	0	0	0	34	36
	%	94,1%	2,9%	97,1%	2,9%	0,0%	0,0%	0,0%		
2006	**n**	36	2	38	3	0	0	2	43	42
	%	83,7%	4,7%	88,4%	7,0%	0,0%	0,0%	4,7%		
2007	**n**	51	3	54	3	0	0	0	57	59
	%	89,5%	5,3%	94,7%	5,3%	0,0%	0,0%	0,0%		
Total	**n**	**167**	**6**	**173**	**13**	**0**	**0**	**6**	**192**	**199**
	%	**87,0%**	**3,1%**	**90,1%**	**6,8%**	**0,0%**	**0,0%**	**3,1%**		

As far as could be ascertained, the correct criteria for determining cure (a negative smear at the end of therapy and at least one prior occasion) have been respected. This means that the treatment outcome in the project area is excellent. The treatment success rate is well over 90% for the New P+, and even for the retreatment cases it reaches 90%. The cure rate is equally impressive, being well over 85% for the New P+ in the project woredas in Welayta Zone but also for the retreatment cases in the whole project area. The only anomaly is the cure rate of the New P+ in Loma woreda: while the treatment success rate is very high, most of the cases are recorded as treatment completed, indicating a serious problem with sputum follow-up that has been getting worse in recent years.

The default rates in the project area are incredibly low, even reaching 0% throughout for the retreatment cases. This may well be one of the biggest achievements of the project, especially taking into consideration the difficult geographical and climatological situation, the road conditions and the prevailing poverty. The failure rates are very low as well, again reaching 0% for the retreatment cases. This suggests that there is little or no drug resistance in the area, which means that TB treatment has been given correctly and regularly to all the patients. The death rate is quite low at 3.6% for the New P+ and 6.8% for the retreatment cases, indicating that diagnosis is made fairly early on. Moreover, the number of deaths seems to be decreasing. In 2007, only 24 out of a total of 1018 P+ cases have died (2.4%).

It should also be remarked that the excellent treatment results were obtained right from year 1 of the project. The cure rate of the New P+ has improved slightly from 2003 to 2007, and so has the death rate, but the treatment success rate has been very high throughout, and failure rate and default rate were very low from year 1 as well. This seems to suggest that the project, after the initial impact of its introduction, had no cumulative effect during the following years.

The treatment results of the P- and EP are very good as well. Table 3.7.4 shows the cumulative treatment outcome rates according to type of TB. The higher death rate among P- and EP is probably due either to the fact that these types of TB occur more frequently among HIV+ persons or to diagnostic error: instead of TB, it is another, not recognised and hence not treated, serious disease.

Table 3.7.4. Treatment outcome according to type of TB in the project woredas in Welayta Zone and Loma Woreda in Dawro Zone 2003-2007

	P+	P-	EP
Treatment completed	3810	1597	1302
	93,0%	87,4%	91,3%
Death	149	139	73
	3,6%	7,6%	5,1%
Default	9	12	11
	0,2%	0,7%	0,8%
Failure	15	0	0
	0,4%	0,0%	0,0%
Transfer out	115	79	40
	2,8%	4,3%	2,8%
Total	4098	1827	1426

In spite of the excellent treatment results and the almost inexistent default, the patients themselves are not very happy with the way treatment is given out. During the intensive phase, daily DOT is obligatory, but the only place allowed to give DOT is the health centre. This means that the patients have to present themselves to the health centre daily, necessitating either very long daily walks to and from the health centre or staying somewhere close by. But the latter option requires money to pay for food and rent. Moreover, both options represent a huge time loss for the patients and their families, while many patients complain that they have nobody to accompany them either during their daily treks or during their stay near the health centre.

In the focus group discussions, all groups mentioned this problem. Patients and social leaders advanced the idea of a "waiting space" for the patients during the intensive phase, a kind of free boarding house with free food as well. . More importantly, all groups insisted on the need to decentralise treatment. This was also told to the consultants on numerous occasions during the field visit. This seems a much better option than building special structures for TB, which goes against the principle of integration. From the observations in the health posts it is clear that the HEW are capable and willing to take on DOT once the prescription is made at the health centre. Since the HEWs are part of the health system, DOT remains in the realm of medical practice. Moreover, the possibility of decentralising DOT is included in the national guidelines. A pilot project to decentralize DOT to the health post is urgently needed. IA could play an important role in setting this up.

In the non-project woreda visited, it was possible to look at the treatment outcome of a 12-month cohort of patients registered in quarters 3 and 4 of EC 2000 and quarters 1 and 2 of EC 2001: see table 3.7.5. Here as well, the results were excellent. The cure rate of the New P+ arrives at 93%, with a treatment success rate of 94%, a death rate of 3% and a default rate of 1%.

Table 3.7.5. Treatment outcome in the non-project woreda Kachabira in Kembata Zone, quarters 3 and 4 of EC 2000 and quarters 1 and 2 of EC 2001

	Cure	Treatment completed	Died	Failure	Default	Transfer out	Total assessed
New P+	94	1	3		1	2	101
Retreatment P+	7						7
New P-		56	4			5	65
New EP		29			1	1	31

3.8. Provide a global vision

3.8.1. What are the lessons drawn from phase 2 of the project?

A SWOT analysis could provide a useful summary of the lessons drawn from phase 2 of the project. SWOT stands for:

Strengths
Weaknesses
Opportunities
Threats

While the strengths and weaknesses are proper to the project and can be influenced by it, the opportunities and threats are conditions outside the project but that the project has to take into account. The 4 parts of the SWOT analysis are usually organised in a 2X2 table:

Strengths	**W**eaknesses
Opportunities	**T**hreats

Since the points to be listed in each of the quadrants of the table are quite lengthy and sometimes require further explanations, the 4 parts of the SWOT analysis will be presented as normal text for easier readability.

Strengths

- The staff members are highly committed. This is true both of the project and the government staff.
- There are many volunteers in all kebeles, and they are very motivated.
- Inter Aide staff is well integrated; there is excellent collaboration with the government health services.
- Inter Aide provides highly appreciated and effective support to the woredas.
- The Inter Aide field facilitators, the HEWs and the volunteers ensure effective coverage of the community;
- The referral system is well functioning and effective.
- Patient delay is reduced.
- Sputum collection is decentralized.
- Sufficient attention is paid to HIV in relation to TB.
- The treatment results are excellent.
- The patient follow-up procedures are very effective at reducing default.
- The project generates a number of additional qualitative benefits that do not show up in the data collected, such as an increased awareness about TB in the community and improved skills of the staff.

Weaknesses

- Lack of training is mentioned by all informants, including in the FGD. It can also be observed at every level
- The case detection, while considerably improved compared to the pre-project period, is still too low.
- The suspect identification is too restrictive. The suspects that present themselves to the HF already have a very high likelihood of being diagnosed with TB.
- The quality of diagnosis is uneven: some laboratories are quite poor, the EQA system that is in place does not guarantee adequate checking of laboratory quality, and the correctness of the diagnosis of P- and EP is not verified.
- There is insufficient medical-technical expertise, not only in the general health services, but also within the project. As a result, supervision is inadequate, and the project is not able to recognise clinical, technical or epidemiological aberrations.
- Incentives or other motivational factors for the village volunteers (such as organising events recognizing their contribution, providing training sessions, handing out certificates or distributing T-shirts) are lacking.
- The patients need to present themselves at the heath centre daily during the intensive phase. This places a heavy burden on them.
- Compared to other health programmes such as HIV, malaria or sanitation, TB is not very visible at either health centre or health post.
- Inter Aide is not visible at the national level and relatively unknown (especially at the MOH and with other NGO's).

Opportunities

- There is a strong health services structure, with a clear commitment to an integrated approach, which has the potential to create synergy when having to deal with a wide variety of diseases.
- The woreda health team, the health centre staff, the HEW and the community volunteers are committed to TB control.
- Once a patient is picked up by the health services, diagnosis, treatment and patient care are well taken care of.
- TB drugs are widely available. There are no shortages or interruptions in the supply.
- The health services are brought closer to the community:
  - The woredas have been made smaller;
  - The number of health centres is increasing;
  - Health posts with committed HEWs have been installed in all kebeles;
  - There are many volunteers in the community that provide adequate coverage of the population.
- These opportunities are present both in the project and the non-project woredas
- The experience of Inter Aide with involving the community in TB control is unique in Ethiopia and would be very useful to other organizations working in the health field. They would however require an idea about the cost-effectiveness of the intervention.

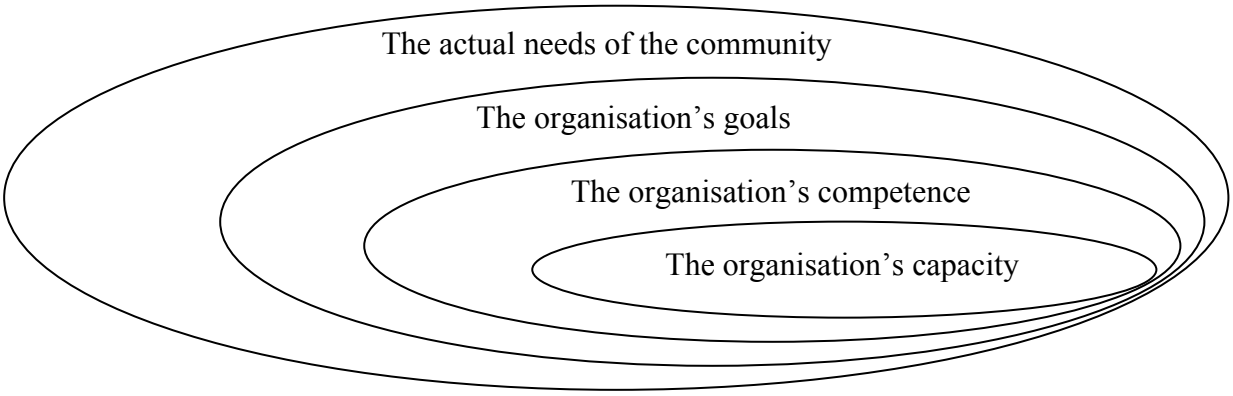
Threats

- The health systems shift from a programmatic to an integrated approach may create some confusion during the transition period;
- In the new integrated approach, there could be a risk that the specific disease expertise will be diluted;
- The government health staff may rely too much on the Inter Aide staff, with the risk of substitution of the government staff by the Inter Aide staff;

3.8.2. How can the support of Inter Aide be scaled up to phase 3 of the project, starting in 2010?

3.8.2.1. Planning future interventions: general principles

When an organisation is planning a future intervention, it will have to decide on its priorities. The following diagram illustrates one possible approach to help doing this.



⇨ The first, outer circle: no single organisation can aspire to meet all the needs of the community, but whatever issues an organisation wants to work on should be within the identified community needs.

⇨ The second circle: each organisation has a specific vocation, a specific mandate. Community needs that do not fit in with the organisation's goals should be left to others to deal with.

⇨ The third circle: an organisation should be realistic about its competence. Does it have the ability to perform its tasks properly? Does its staff have the required experience and expertise?

⇨ The fourth circle: even if experience and expertise are available, no organisation cannot take on everything at once. Taking into consideration the size of the tasks, it has to carefully consider its capacity, the human, financial, organisational and physical resources it has at its disposal.

This diagram can be applied to Inter Aide's TB control support and the planning of a "third generation" project. TB control is a need clearly felt by the community and perceived by the authorities and donor agencies. It also fits in with the organisation's goals as TB is a poverty disease touching the most vulnerable strata in the population, which are the target group of Inter Aide. It will then need to be seen what kind of a "third generation" project can fit in with the organisation's competence and capacity.

3.8.2.2. The lines of force of a "third generation" project

In the TOR, Inter Aide indicates it would hope to scale up its intervention along the following lines of force:

- Enlarged geographical scope;
- Increased quality of service;
- Increased productivity (in terms of cases detected in relation to the means employed);
- Selective intervention strategies focusing on those programme aspects where the highest yield might be expected;
- No substantial increase of the financial input.

Based on the experience Inter Aide has gained during the "second generation" project and the needs that are present in the field, it would be a logical next step for the organisation to scale up its intervention, covering more woredas in more zones. This is in line with suggestions made both by the regional and zonal health authorities. At the Zone, it was suggested to cover all 15 woredas of Welayta Zone, at the Region, the neighbouring zones of Dawro, Gamo Gofa, Kembata and Hadiya were singled out for possible future Inter Aide support.

In line with the findings of the evaluation, this "third generation" project should include a strong capacity building component at woreda, health centre, health post and community level. This capacity building should focus on:

- Proper suspect identification;
- Laboratory proceedings;
- Diagnosis of P- and EP;
- Data management;
- Drug management;
- Supervision methodology.

Capacity building needs to be complemented by technical back-up. TB expertise needs to be available at zonal and woreda level, and the persons in charge of supervising these levels must be able to deal with medical-technical matters. The present evaluation clearly shows that the absence of medical-technical expertise during the "second generation" project has unfavourably impacted on the programme's performance. The present restructuring of the government health services may compound this situation, because the drive to integrate all programmatic approaches at all levels may, at least initially, result in a dilution of the expertise that was already available. If the "third generation" project would be able to address this issue, it would play an important role bridging the gap likely to be created during the transition period of the restructuring.

In addition, the "third generation" project could provide extra support in the following fields:

- ⇨ Sputum examination: the available labs must be strengthened (e.g. staining equipment, mirror for microscope in places without reliable electricity supply), new labs need to be established, and in areas with insufficient lab coverage, diagnostic services as close as possible to the community are to be promoted, either through a mobile lab service or field sputum collection.
- ⇨ Decentralisation of DOT: the project can promote and facilitate the decentralization of TB treatment, also during the intensive phase, at least to health post level.
- ⇨ Health education materials: the project can make materials in the local language available:
  - Posters for health centres and health posts;
  - Leaflets for volunteers and patients;

- Laminated sheets with health promotion images and messages for use by all volunteers.

Lastly, for its "third generation" project Inter Aide may want to take the following suggestions into consideration:

- ⇨ Create an interface between the project and the government services, e.g. a TB forum that meets regularly, in order to avoid overlap and substitution and create complementarity and synergy.
- ⇨ Get in touch with the Global Fund. Applications for the 9th round are already closed, but Ethiopia might apply for the 10th round. The Global Fund encourages Civil Society Organisations to enter proposals aimed at involving the community in TB control. As Inter Aide already has a lot of experience in this field, they would seem a suitable candidate for funding.
- ⇨ Improve visibility of Inter Aide at the national level: intensify the contacts with the MOH, with CRDA and other NGOs, with WHO etc.

3.8.2.3. A "third generation" project within Inter Aide's competence and capacity

The specific competence of Inter Aide lies in working with the community. The organization has shown in many of its projects, not only in Ethiopia or in relation to tuberculosis, that it is very good at working at the grass root level. Inter Aide has manifested this same competence in its support to the TB control programme in Welayta, and the organisation can be proud of its achievements. As pointed out by several key informants, Inter Aide is the only NGO in Ethiopia working with the community in relation to TB control. This specificity should not be lost. It will benefit the population, the National TB Control Programme and other NGO's interested in community health.

Most of the points of intervention outlined in 3.8.2.2 should pose no problem to be included in the "third generation" project. Inter Aide already has acquired a lot of experience, during its "second generation" project, in working with the Regional, Zonal and woreda Health Offices, the health centre staff, the HEW and the community volunteers, as well as in training of the government health staff, providing assistance to decentralize the sputum examination and DOT and ensuring quality performance in the government health structures.

The "third generation" project cannot be a simple geographical expansion of the "second generation" project, however. First of all, the geographical scope must be adapted to the capacity of the organization. Inter Aide should avoid spreading itself too thin. Secondly, the manner in which the woredas will be supported needs to be rethought, as the "second generation" set-up carried a substantial risk of substitution of the government staff by the project staff. And thirdly, before launching the new project, it will be essential to define appropriate process indicators, preferably including a number of clearly quantified targets.

The project as being proposed here will not be generating its own outcomes. It will be providing support to the government health services, and all outcomes related to case detection and case management will be generated by the government services, not by the project. This was also the case in the "second generation" project,. Due to the absence of well chosen, pre-defined indicators, some of the Inter Aide staff gave the impression to be somewhat disappointed that the "second generation" project has not achieved all that much, and that the added value of the Inter Aide intervention is not that big. Indeed, as the government health services have been improving and expanding, the impact of the project on the TB data will become less and less. But this does not mean that the project is not having any impact in other areas such as

community awareness, staff motivation, staff skills and competences, client satisfaction, commitment of the authorities to address the TB problem etc. This was certainly the impression of the consultants and was also pointed out by a number of key informants. Proper planning will allow to highlight the achievements specific to the input of Inter Aide and avoid possible future disappointment when evaluating the "third generation" project.

One way to maximize the impact of the "third generation" project would be to start with an initial phase of limited geographical scope. It could have 2 arms:

- Continuing support of the woredas in Welayta Zone at a low level, in order to check whether the level of achievement can be maintained;
- Introducing the project in a new, well circumscribed area, where good baseline data prior to the start of the project are available, and where woredas that were non-project during the "second generation" produced outcomes that were inferior to those in the project woredas. A suitable area would be Dawro zone, where Loma, a project woreda, has been generating outcomes that were clearly superior to those in the other woredas.

To allow proper comparisons (many indicators will be calculated on an annual base), the initial phase should be implemented for a minimum of 12 months. Taking into consideration the need for a preparatory period (preparing an activity plan, obtaining the green light from the authorities, recruiting and training the project staff and training the government staff), it seems reasonable to assume that the remainder of 2010 and the whole of 2011 will be needed for this.

Based on the results of the initial phase, it will then be possible to decide whether further geographical extension is worthwhile and feasible taking into consideration Inter Aide's capacity.

Inter Aide will also have to think about ways to address the issue of medical-technical expertise raised in 3.8.2.2. This kind of expertise is not a specific forte of the organisation. Its competence lies in strengthening the community, not in sending medical doctors or dealing with clinical aspects. It would be logical for the Government Health Services to provide the TB experts, but this might turn out to be a hard sell in the context of the shift towards a fully integrated approach at all levels. Integration does not mean "no more specialists", however. Maybe the role of Inter Aide will be to lobby the authorities at regional and national level to ensure that the TB programme gets the required technical back-up. This would fit in with the suggestion that the organisation should improve its visibility in the country.

4. Conclusion

The Inter Aide "second generation" project has been planned and executed in an appropriate manner. Its aims were relevant and its objectives were valid. The project answered to a real need and it has been implemented while keeping the principles of effectiveness and efficiency in mind. The project targeted the most vulnerable population groups, providing improved health care access in a sustainable way.

Unfortunately, the available information does not allow to quantify the added value of the project. No process indicators were defined during the planning stage, although the contribution of the project to TB control is mainly a matter of process, not outcome. The outcome data are generated by the general health services and cannot be more than an indirect reflection of the project impact.

Qualitative information collected during the focus group discussions and the evaluation field visit clearly indicates, however, that the project has an important added value to offer in the fields of community awareness, community mobilisation, quality of diagnosis, quality of patient care, case holding and data gathering. This added value will not show up in the epidemiological TB data routinely reported because, since the time of the start of the "second generation" project in 2003, the government health services have been growing and expanding and have been providing adequate basic TB control since several years.

In a way, this is a good thing for Inter Aide. The organisation has certainly contributed a lot to the positive evolution in the general health services, and this is fully appreciated by the zonal and regional authorities. Now, the project in its present set-up has more or less played out its role, so it is a good time to rethink the Inter Aide support.

There is sufficient scope for the organisation to scale up its intervention covering more woredas in more zones, emphasising capacity building and technical expertise and assisting in the decentralisation of diagnostic and therapeutic services. In a first step, an initial phase (in Dawro Zone 2010-2011) could be envisaged. When planning the "third generation project", it is important to define suitable process indicators that will allow to measure the project performance in an appropriate way.