TB Reach Grantee meeting

Addis-Ababa (Ethiopia)

24-28/02/2013

South-Kivu Province

Democratic Republic of Congo

CPLT-SK (NTP) & UCLouvain (Belgium)

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Objectives of the project:

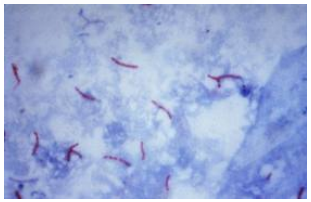
1. Increase TB detection in a province with historical low detection rate (30-40%)
2. Evaluate innovative and sustainable strategies that could be extended at a national level

List of interventions:

Intervention	Label(s)
1. Introduction of active case finding through former TB patients	1. "Club des Amis Damien" is an existing national organisation of former TB patients spreading general education messages and supporting DOTs at local level. A group of 50 former TB patients existed before the start of project, but did not perform screening activities.
	2. Through this project, we formed 540 former TB patients to active case finding strategies (door-to-door in locally identified high-risk groups). ACF activities started at Q3.
	3. Monitoring of their activities is performed at the BMU level through a SMS-based reporting system developed locally
2. Introduction of Genexpert MTB/Rif for SS- TB suspects	1. A network of 78 BMUs performed ZN microscopy tests before the start of the project.
	2. Through this project, we introduced 8 Genexpert machines for SS- suspects
	3. In order to increase referral of samples by peripheral labs, we validated an alcohol-based system for conservation of samples
	4. Monitoring of their activities is performed through a WEB-based reporting system developed locally with the support of IRD
3. Capacity reinforcement of local and provincial staff through a network or international experts, including from other TB Reach projects (IRD)	

Strategies (2)

Involve former TB patients that would screen their communities for TB suspects. Expected yield : 10%

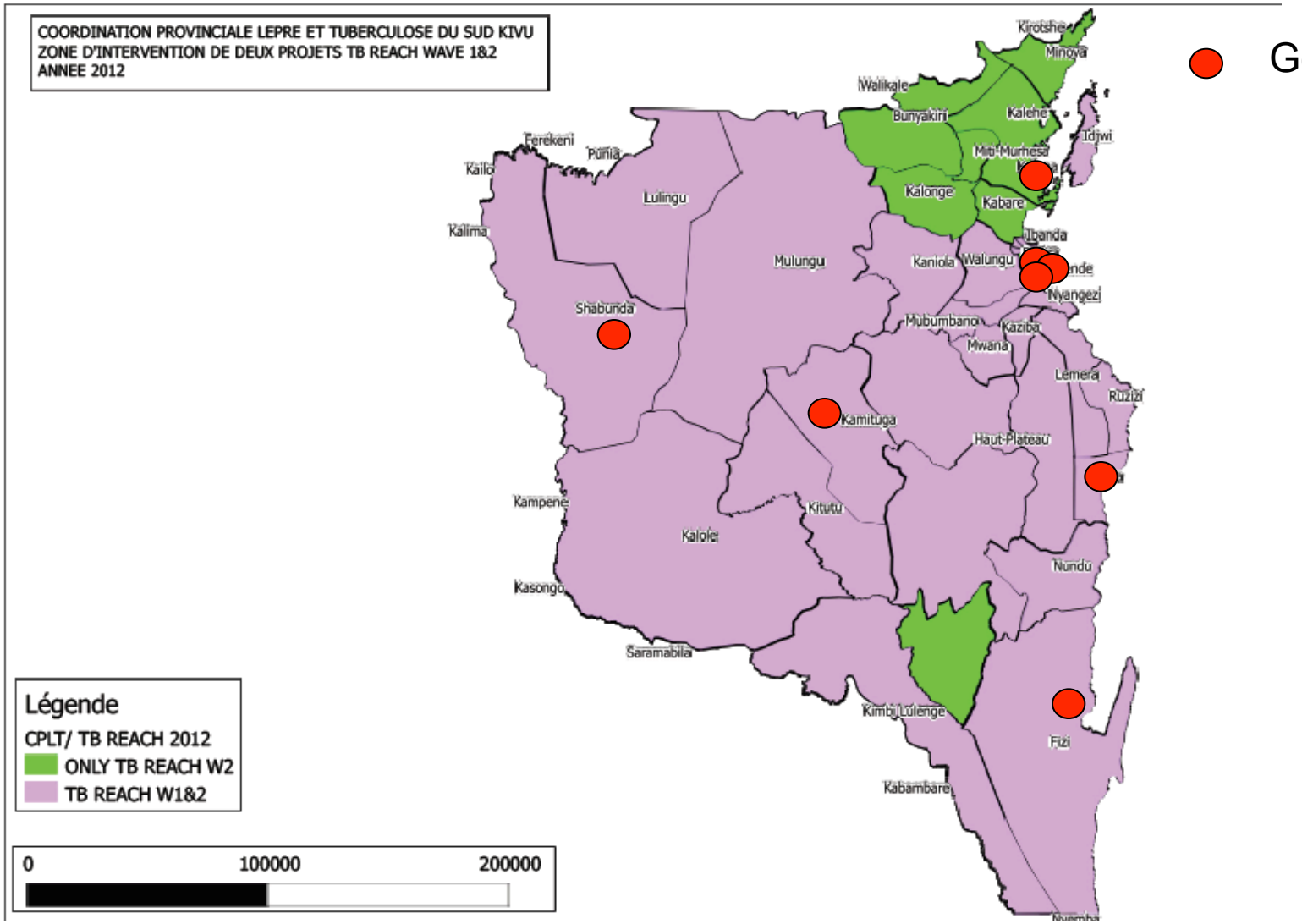


TB suspects would be tested with ZNM. Expected yield : 10%

SS- TB suspects would be tested with Xpert MTB/Rif. Expected yield : 10%

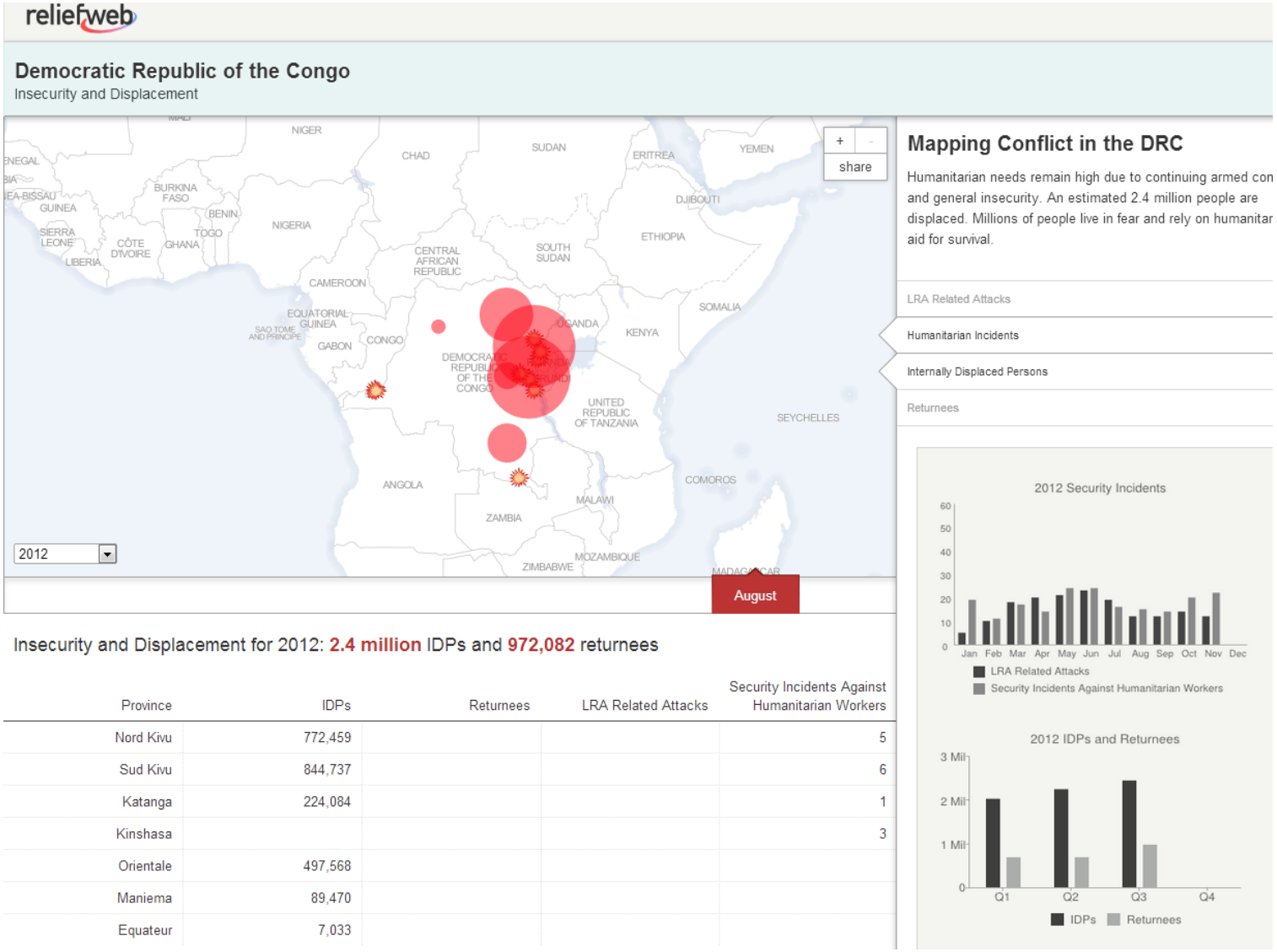
For 1.000 individuals screened, we would get 10 SS+ and 9 SS-/Xpert+.

Location of the project



Genexpert

Location of the project (2)



Insecurity and Displacement for 2012: **2.4 million** IDPs and **972,082** returnees

Province	IDPs	Returnees	LRA Related Attacks	Security Incidents Against Humanitarian Workers
Nord Kivu	772,459			5
Sud Kivu	844,737			6
Katanga	224,084			1
Kinshasa				3
Orientale	497,568			
Maniema	89,470			
Equateur	7,033			

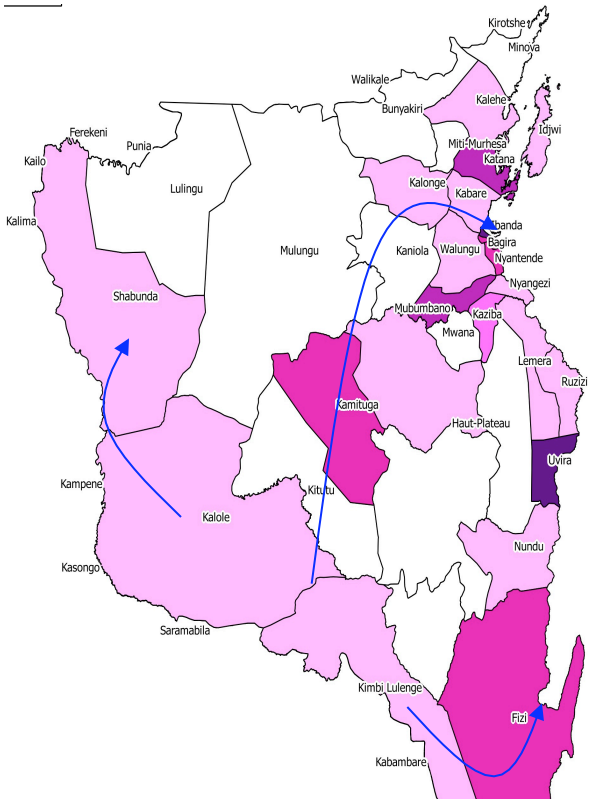
Active Case Finding activities

- 540 former patients involved (54 groups)
- ACF started at Q3

Results:

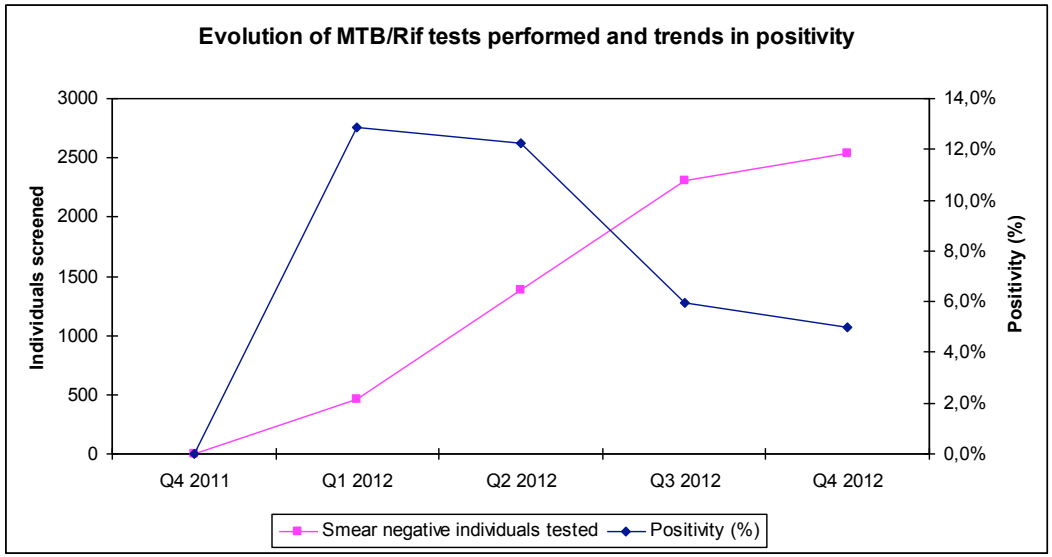
- 44.000 individuals screened (80/former TB patient)
- 6.400 TB suspects identified (15%)
- 1.003 new B+ cases notified (16% positivity)

Xpert activities

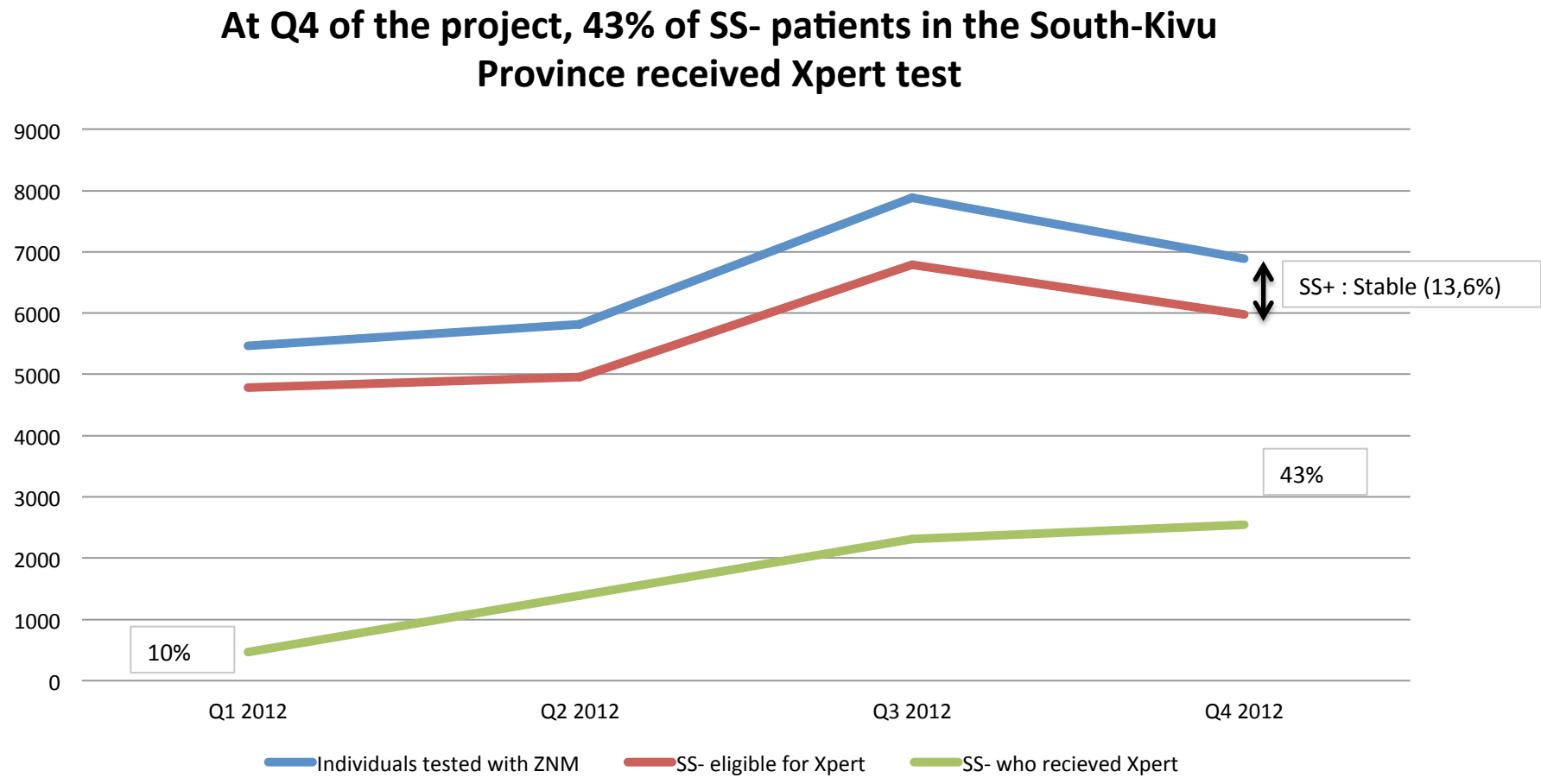


Over 6.700 SS- indivduals tested

494 SS-/Xpert+



Xpert activities (2)



Xpert activities (3)

Referral of samples:

In order to increase referal of samples, we validated a conservation method of sputum based on 1/1 dilution in 95°C ethanol.

This permitted to reach remote rural areas where the quality of ZNM is lower than in urban hospitals.

Poster presented at K-L Union meeting (November 2012)

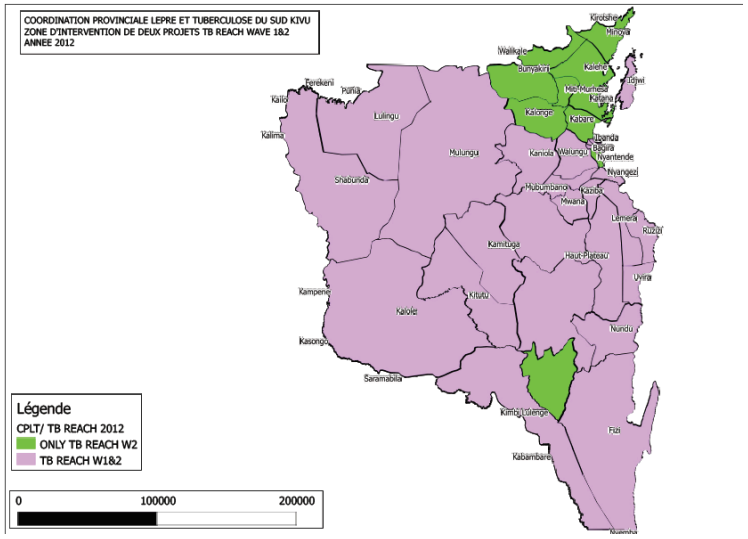
Errors:

Error rates were >10% during the first quarter (training period, human)
After that, some modules presented high error rates and had to be replaced
-> Monitor closely the error rates of each module

Bad indications for test:
The «Known Resistant « cases were tested by medical doctors during the first months (Rif Resistance 15%) then the problem was solved naturaly (Rif resistance among new SS- cases : 5-10%)

TARGET POPULATION, EVALUATION POPULATION and CONTROL POPULATION

Population	Size of the population
Evaluation Pop : South-Kivu Province	5.876.937
Target Pop : South-Kivu Province	5.876.937
Control Pop : Maniema Province	2.049.300

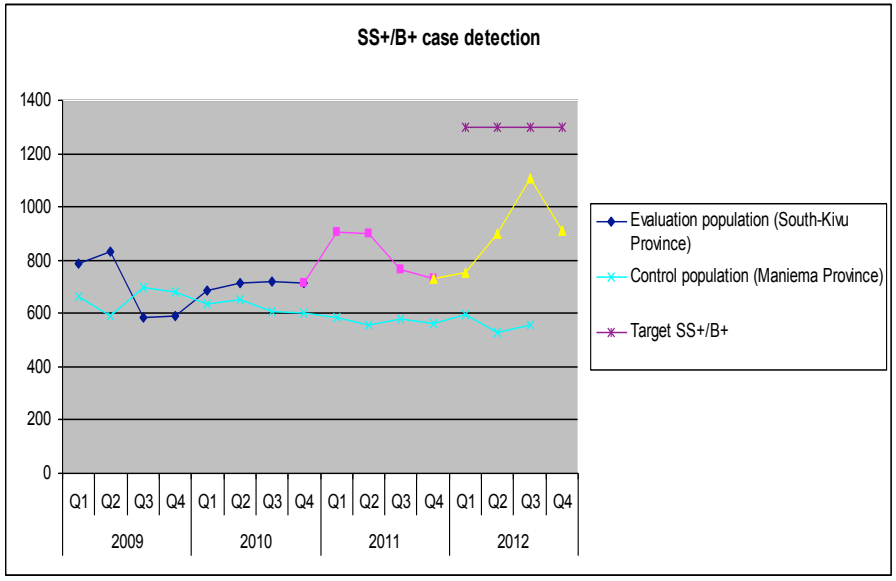


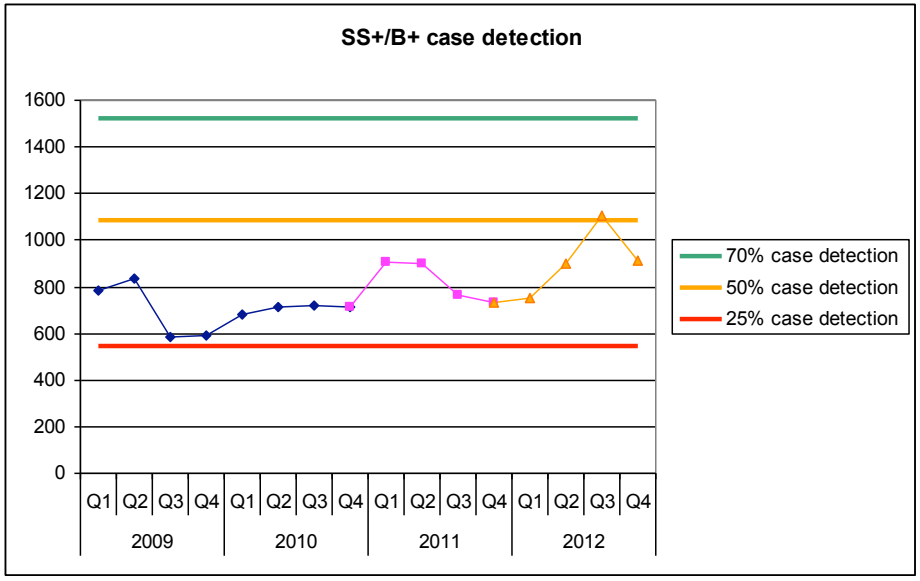
2 TB Reach projects active in the same province :

- 8 Health-Zones with Wave 2 only (22,4% of S-K population)
- 26 Health-Zones with Wave 1 + Wave 2 (62% of S-K population)

Results: evolution of SS+/B+ TB cases

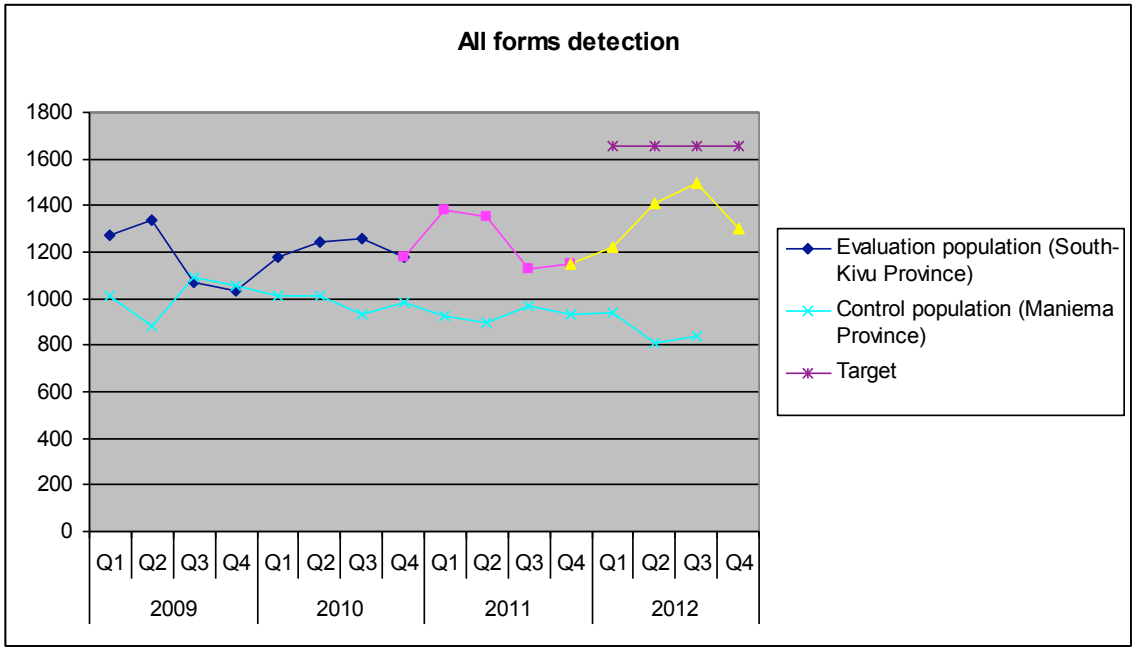
SS+/B+ notification	Total SS+/B+ notification target =								5189			Additionality =				2358
	2009				2010				2011				2012			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Evaluation population	787	834	586	592	684	715	720	712	904	900	767	730	753	899	1107	910
Control population	664	588	696	683	635	653	608	599	587	556	579	562	598	527	556	
Target SS+/B+													1297	1297	1297	1297





Results: evolution of all forms TB cases

All forms notification	Total SS+/B+ notification target =							6613			Additionality =				2129
	2009				2010				2011				2012			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Evaluation population	1270	1335	1068	1033	1181	1242	1257	1176	1383	1351	1128	1151	1221	1407	1498	1301
Control population	1010	879	1090	1057	1011	1010	932	981	924	893	968	931	941	813	839	
Target All forms													1653	1653	1653	1653

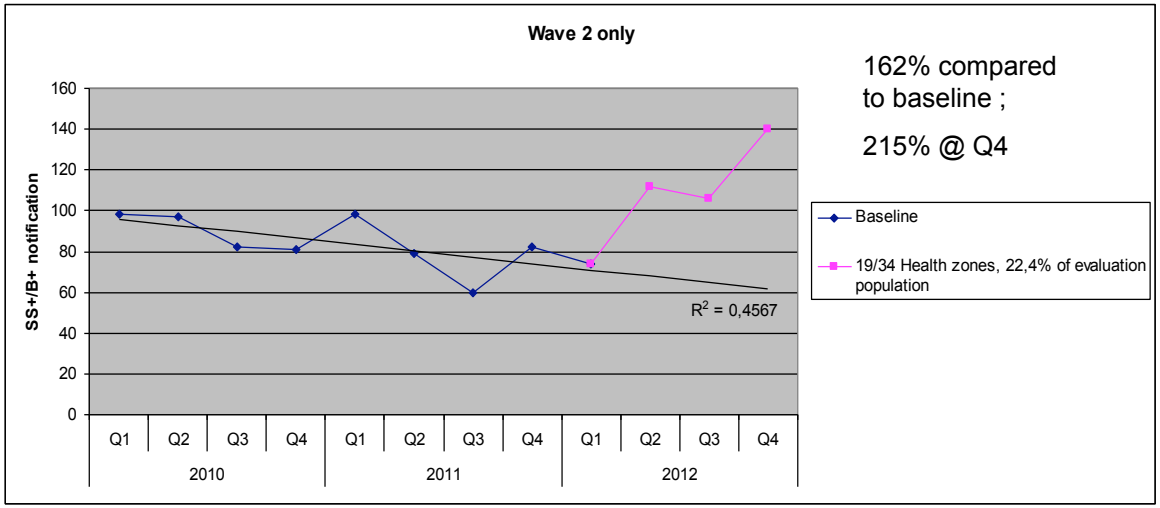


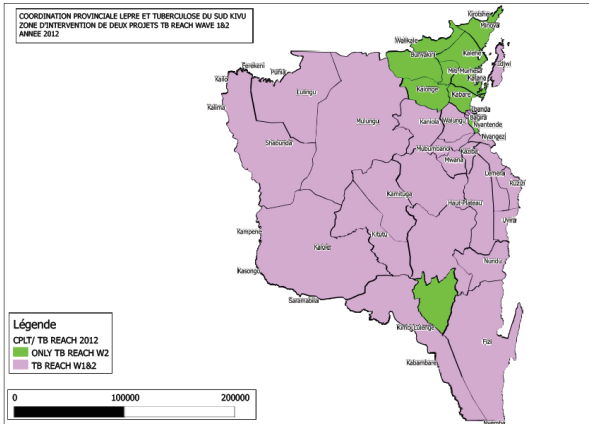
Results: additionality

Latest review (Q3) : 430 cases

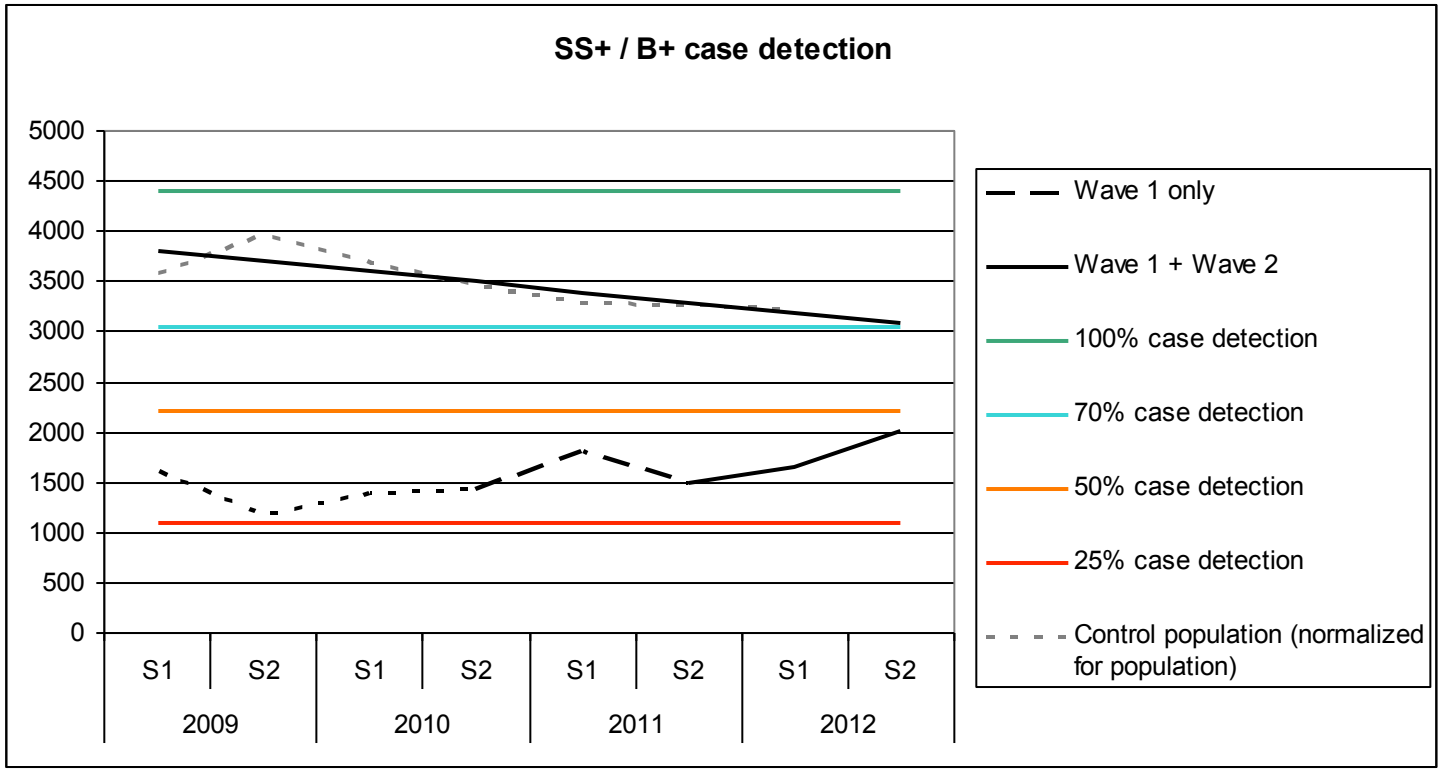
			Q1	Q2	Q3	Q4	TOTAL
Additionality calculations:	Wave 1	Difference from trend for 27 BMUs	69	100	173		342
SS+/B+ only		50% of additionality (after subtraction of Xpert cases) of 32 BMUs	-13	-25	26		-13
		TOTAL	56	75	199		329
	Wave 2	Difference from trend for 19 BMUs (includes Katana Xpert machine)	6	40	15		61
		Xpert cases (7 machines, except Katana)	64	179	138		381
		50% of additionality (after subtraction of Xpert cases) of 32 BMUs	-13	-25	26		-13
		TOTAL	57	194	179		430
				Proportion Wave 1			43%
				Proportion Wave 2			57%

Wave 2 health zones only





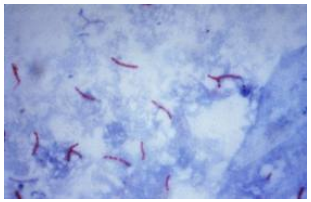
Results : Control population



Considering the evolution in the control population (Maniema Province), the number of additional cases linked to this project is in fact greater than the increase observed.

Results

Involve former TB patients that would screen their communities for TB suspects. Yield : 15% of individuals were TB suspects



TB suspects would be tested with ZNM. Yield: 13,6%% (15,6% among patients referred by former TB patients)

SS- TB suspects would be tested with Xpert MTB/Rif. Yield : 5,5%

We found 1.003 SS+ or Xpert + new patients through this strategy.

Discussion (1)

- Insecurity & instability have had a daily impact on implementation of the project, but were not imposible to overcome.
- Quality of data is ensured by using only NTP-validated reports. But close follow-up of activities is done through e-Health tools.
- Involving former TB patients for ACF activities can be highly cost-effective

Discussion (2)

- Is Xpert cost-effective in our setting?
  - Xpert without « first line microscopy » would yield 15-20% of TB suspects
  - But : Maintenance issues (heavier than expected), short shelf life
  - Solution?
    - Centralize TB labs and thus facilitate monitoring/ maintenance
    - Increase reference systems (conservation/transport/ communication of results)

Year 2: next steps

- Why?
  - We consider that the experience did not show its maximal potential
  - Teams on the field are highly motivated by encouraging results
  - Cost-effectiveness will decrease as major investments have been done during Year 1
- Strategy :
  - 1.000 *vs* 540 Former TB patients involved
  - 10 *vs* 8 Xpert machines
  - 12 *vs* 8 Months of full activity

Tips for new TB REACH grantees

- Start case-finding activities as soon as possible
- Implement a close Monitoring system for all sites involved
- Consider collaboration between projects and collaborate with TB Reach secretariat (they often have inspiring ideas!)
- Never give-up!

Thanks!

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