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Improving TB Case Detection through Strengthening of the Health System in Ethiopia: From pilot to scale up

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Presentation Outline

- Background information
- TB CARE I supported TB case detection intervention
 - Approaches
 - Pilot project results
 - TB suspect identification
 - Case notification rates
- Scale up approaches and results to date
- Challenges and lessons learned
- Conclusion

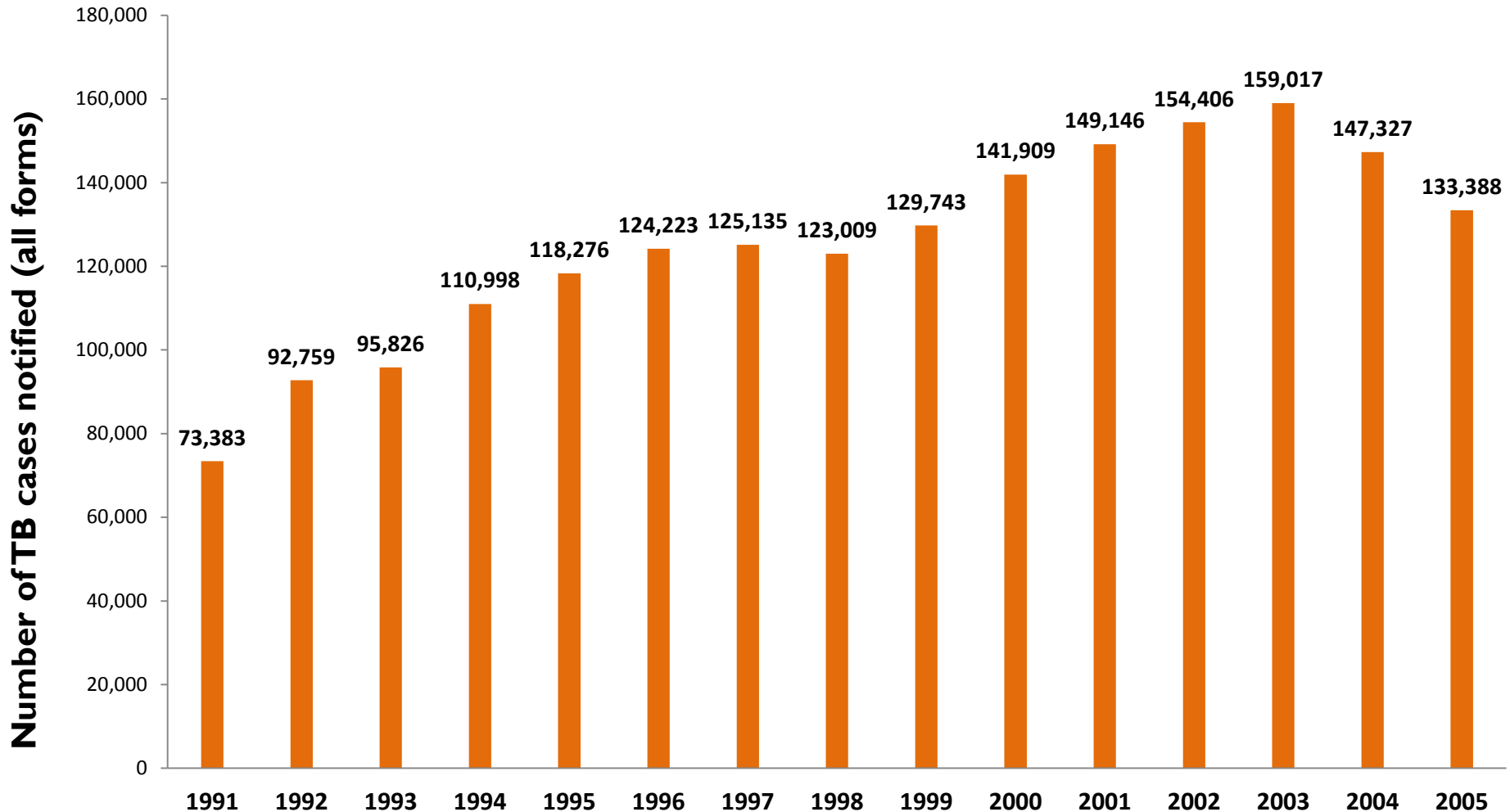
Presentation Objective

- To share TB CARE I and HEAL TB's TB case detection intervention implementation approach in Ethiopia
- To highlight the results of this intervention implementation approach
- To review the challenges faced in implementing these interventions

TB Burden in Ethiopia

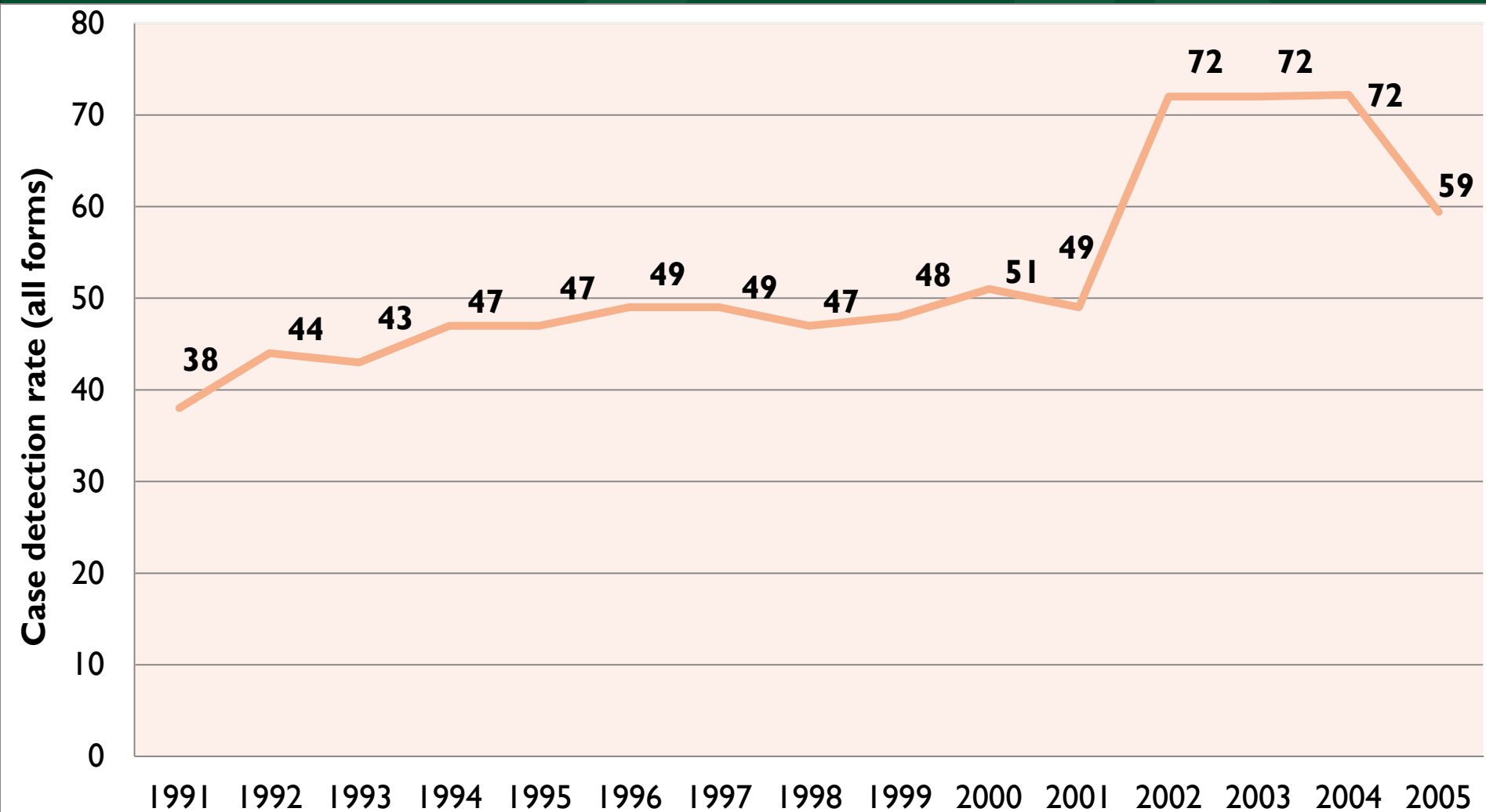
- TB is a major public health problem in Ethiopia.
 - Ethiopia is among the world's 22 high-TB burden countries:
 - TB annual incidence = 258/100,000 population/year
 - TB prevalence (all forms) = 237/100,000 population
 - TB mortality rate = 18/100,000/year
- (WHO Global TB Report 2012)
- 2013 TB case detection for all forms: 59%

Ethiopia's TB Case Notification, 1991-2005, Ethiopian Fiscal Year (EFY)



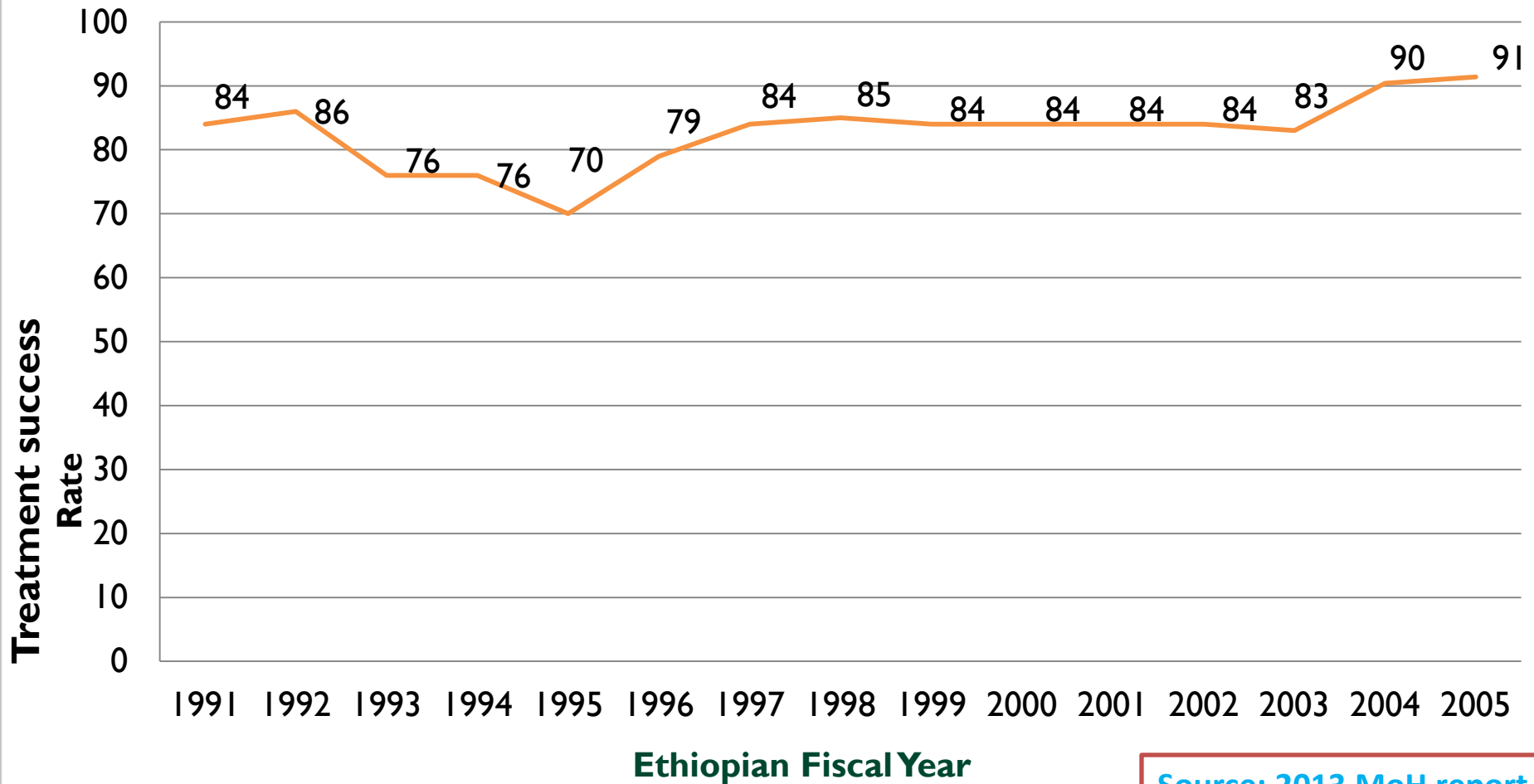
Source: 2013 MoH report

Ethiopia's TB Case Detection Rate (all forms) : 1991-2005, EFY



Source: 2013 MoH report

Ethiopia's Treatment Success Rate: 1991-2005, EFY



Source: 2013 MoH report

USAID-funded TB Projects

	TB CARE I- Ethiopia	Help Ethiopia Address Low TB Performance (HEAL TB)
Duration	4-years	5-years
Years	2011-2014	2011-2016
Funders	USAID and PEPFAR	USAID and PEPFAR
Location	Global	2 regions of Ethiopia
Goal	To halve TB prevalence and death rates, consistent with the World Health Organization's Global Plan to STOP TB	Help regional TB programs increase case detection rate, treatment success & cure rates and enroll MDR TB patients on treatment
Lead implementer	KNCV Tuberculosis Foundation	Management Sciences for Health (MSH)
Collaborating partners	MSH,WHO	PATH,ALERT, KAPTLD

TB CARE I TB Case Detection Interventions

TB CARE I and Oromia Regional Health Bureau piloted the following **package of interventions** in **West Arsi Zone** to improve TB case detection through:

- Improving health facilities' operations **along the TB patient pathway**,
- Providing staff with standard operating procedures (**SOP**) **posters and booklets to use them during the day to day service provision**,
- Establishing/strengthening **multi- disciplinary team (MDT)** in all health facilities,
- **Following up** of the interventions through supportive supervision, mentoring & reviews,
- Improving staff TB knowledge and skills
- Developing clear **joint indicators and targets**



SOP booklet

TB CARE I Interventions...(2)

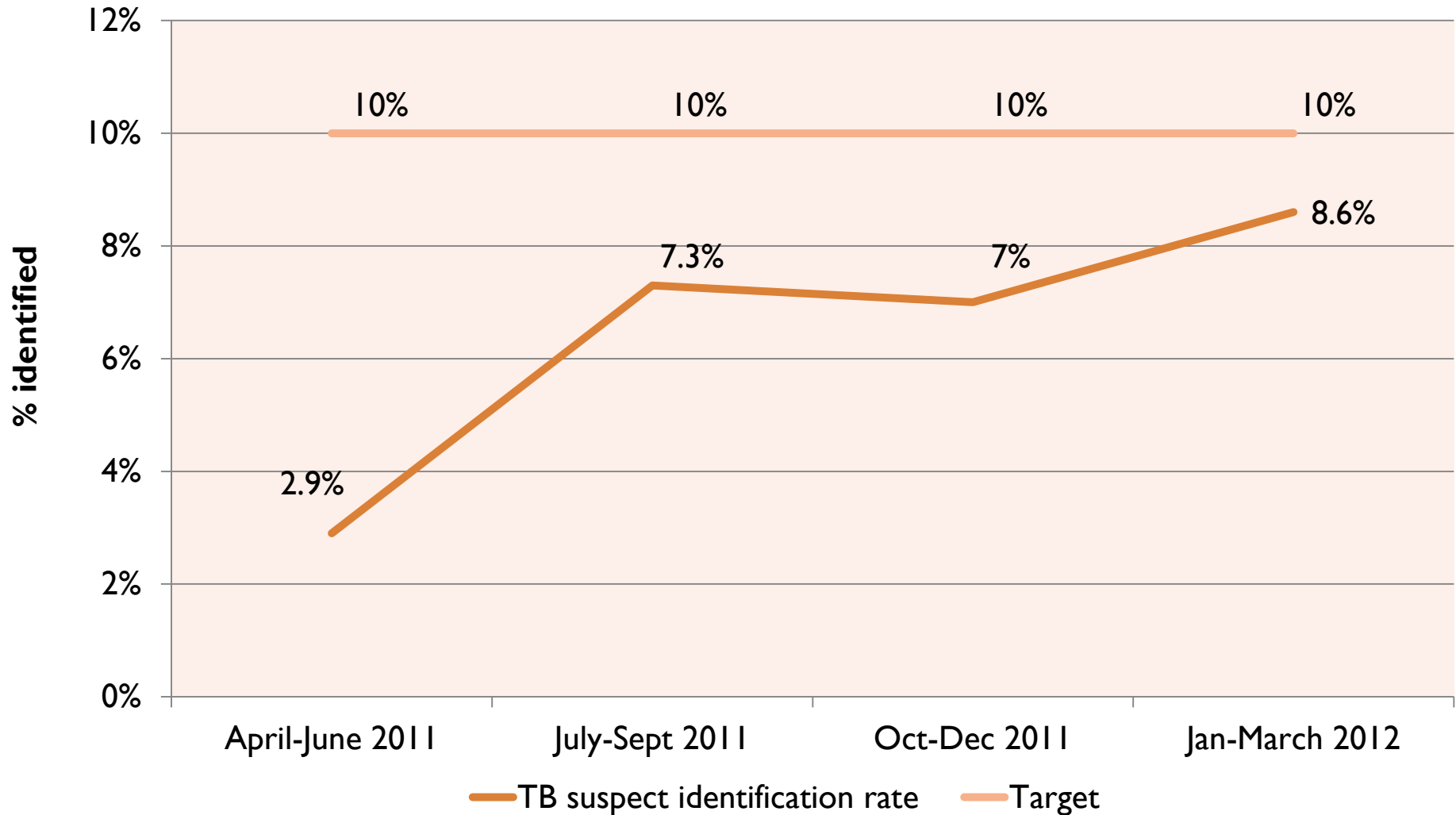
One SOP Booklet & 7 Posters were developed

- SOP for identification of TB suspect at registration/Triage/
- SOP for Identification of TB suspects and Diagnosis of TB at OPDs
- SOPs for screening TB in HIV infected individuals (ART Clinic)
- SOP for Screening for TB in infants and children
- SOPs for TB case detection and TB/HIV activities in TB clinic
- SOPs for organizing TB case detection in the laboratory
- SOPs for collection of Sputum

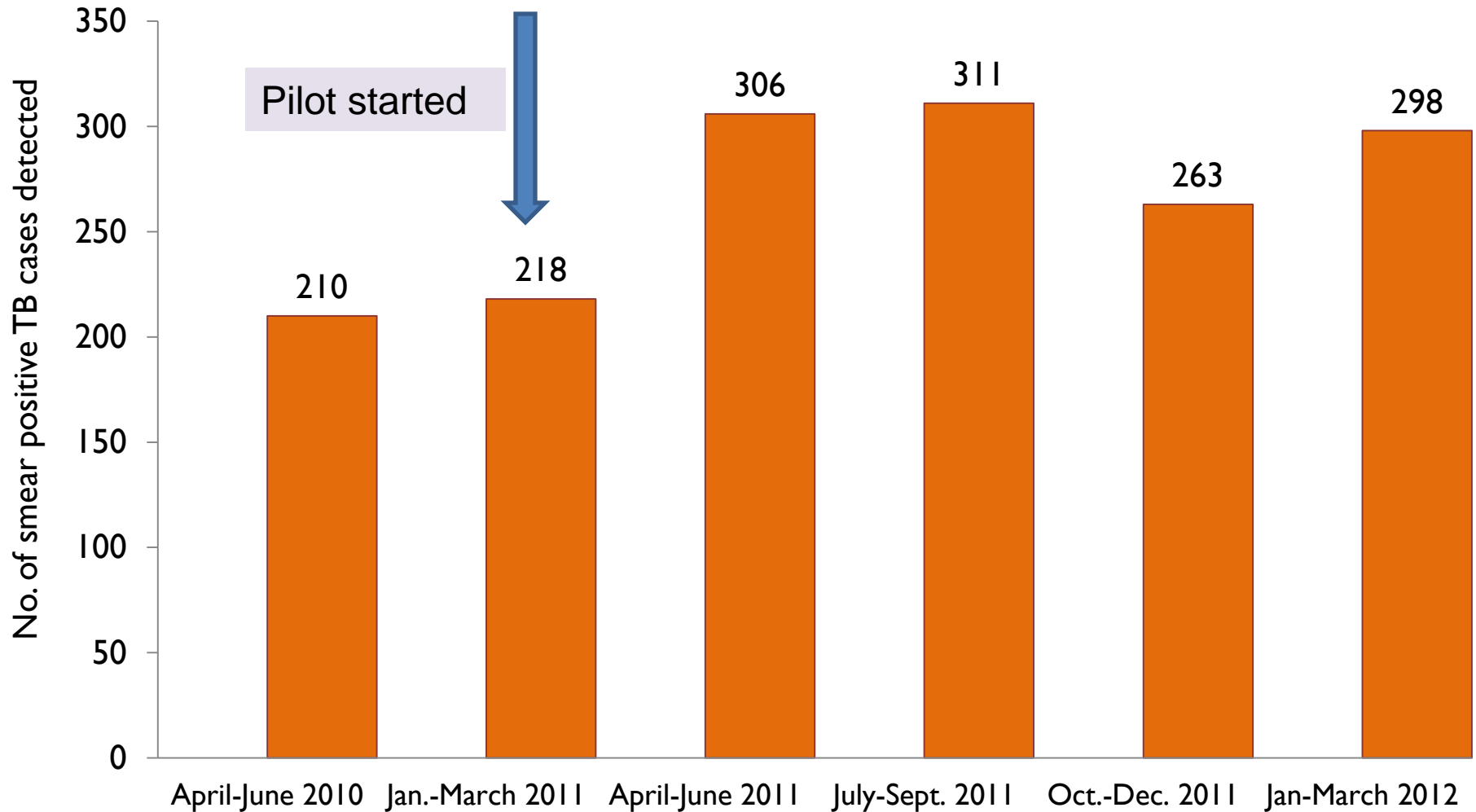
TB CARE I SOP Pilot intervention activities : January 2011-March 2012

- Distributed more than 1,000 SOPs posters & booklets to service delivery units of **3 hospitals and 25 health centers**
- Trained 98 health workers and 39 staff from outpatient departments (OPDs) in the 28 health facilities on the new SOPs and basic TB clinical skills
- Conducted quarterly supervisory and mentoring visits at all facilities to ensure SOP implementation
- Conducted biannual review meetings for pilot sites

SOPs Improved TB Suspect Case Identification at OPDs: April 2011-March 2012



SOPs Improved TB Case Notification in the pilot sites: April 2011-March 2012

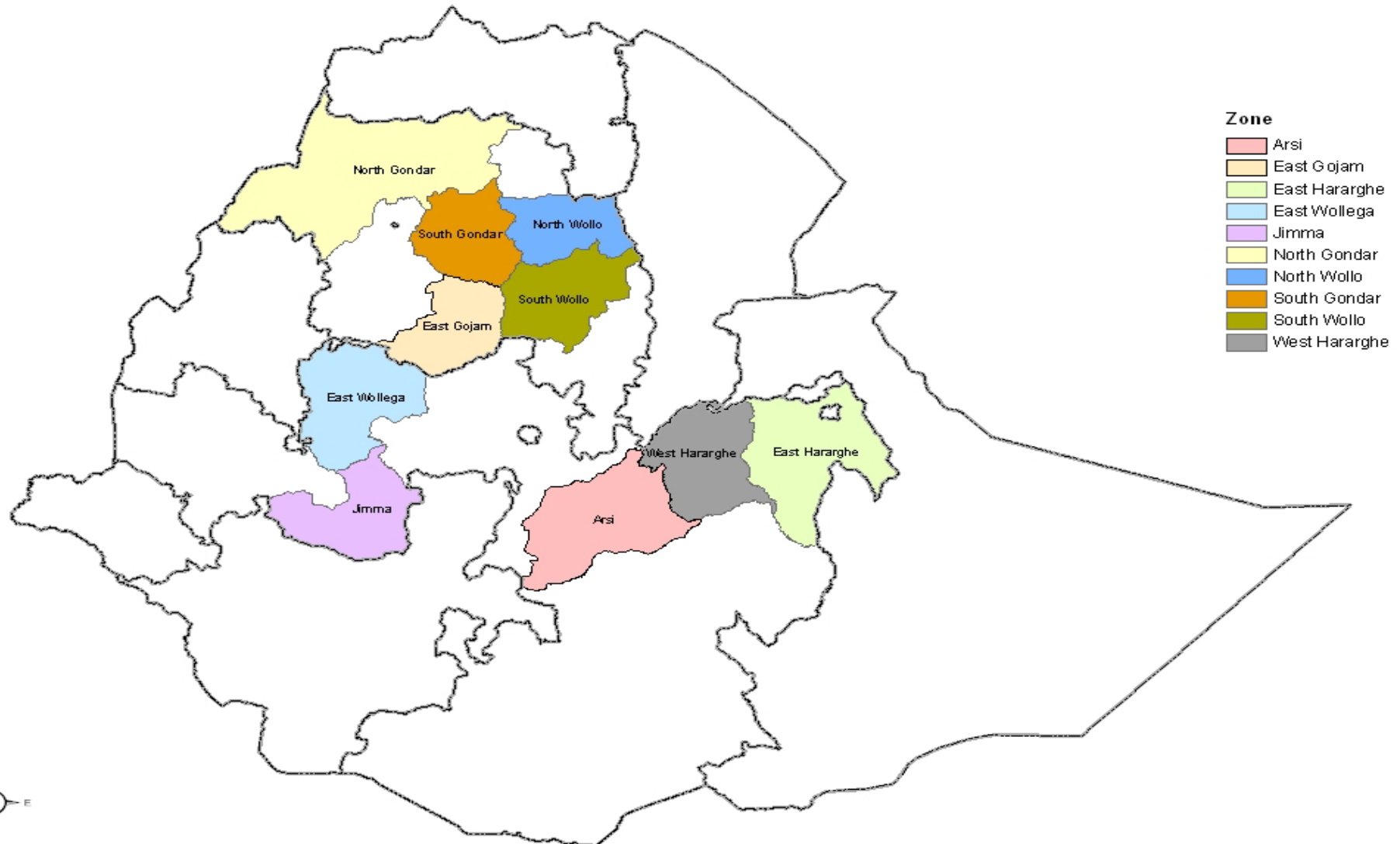


HEAL TB Scale-up of TB Control Interventions

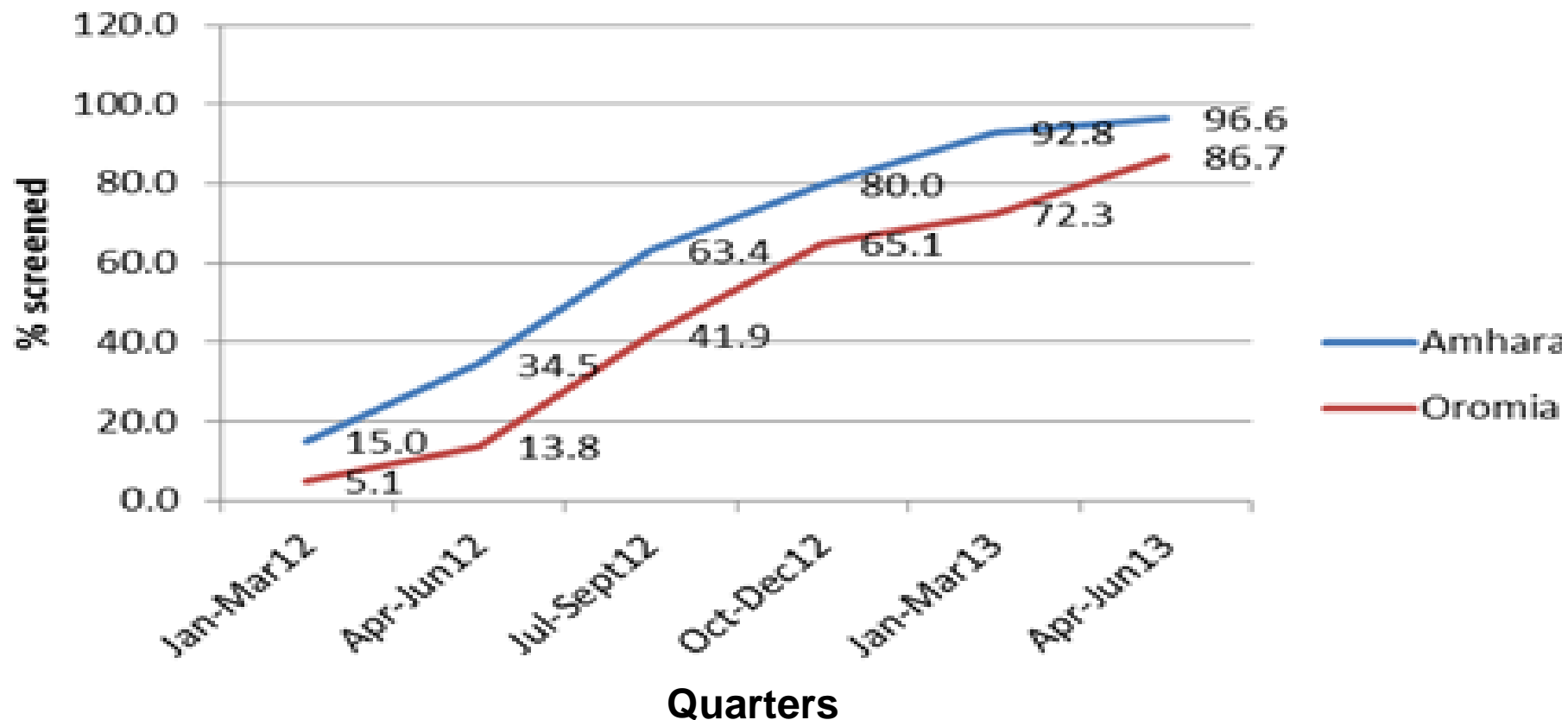
From July 2011 to June 2013 2012, HEAL TB worked with 691 health facilities and 3,400 health posts:

- Build the capacity of clinicians, laboratory professionals, and health extension workers (HEWs) in TB diagnosis and treatment;
- Implement SOPs at all health facilities;
- Decentralize external quality assurance (EQA) assessment tasks to hospitals;
- Orient health workers on contact screening;
- Develop recording and reporting systems for contact investigation;
- Provide microscope and reagents for AFB microscopy tests;
- Develop and implement standard of care measurements to improve service quality; and
- Provide mentoring and supportive supervision of health facility staff.

HEAL TB Intervention Zones (10 zones in Amhara and Oromia regions)

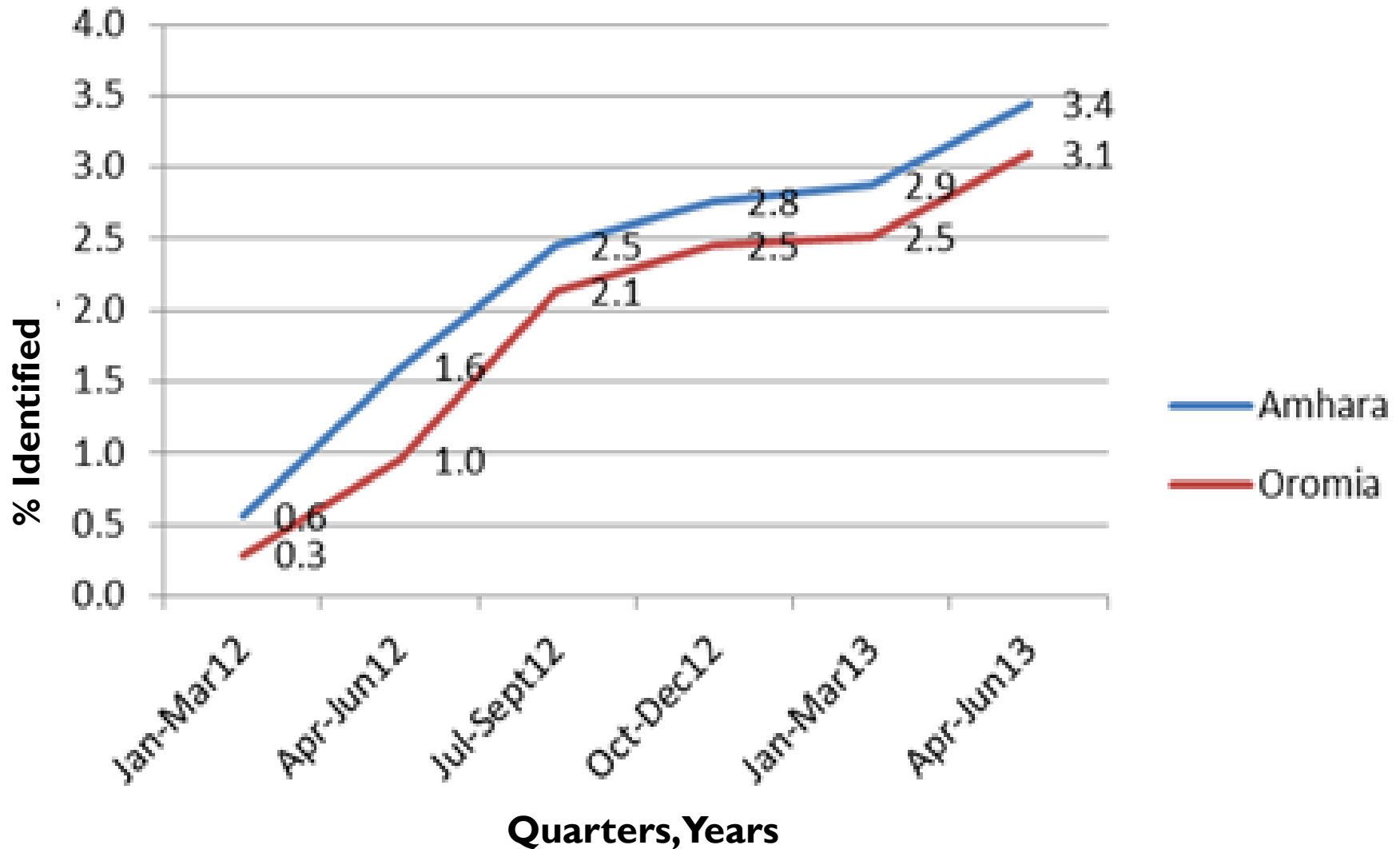


Percent of OPD Clients Screened for TB in Project Zones: January 2012-June 2013

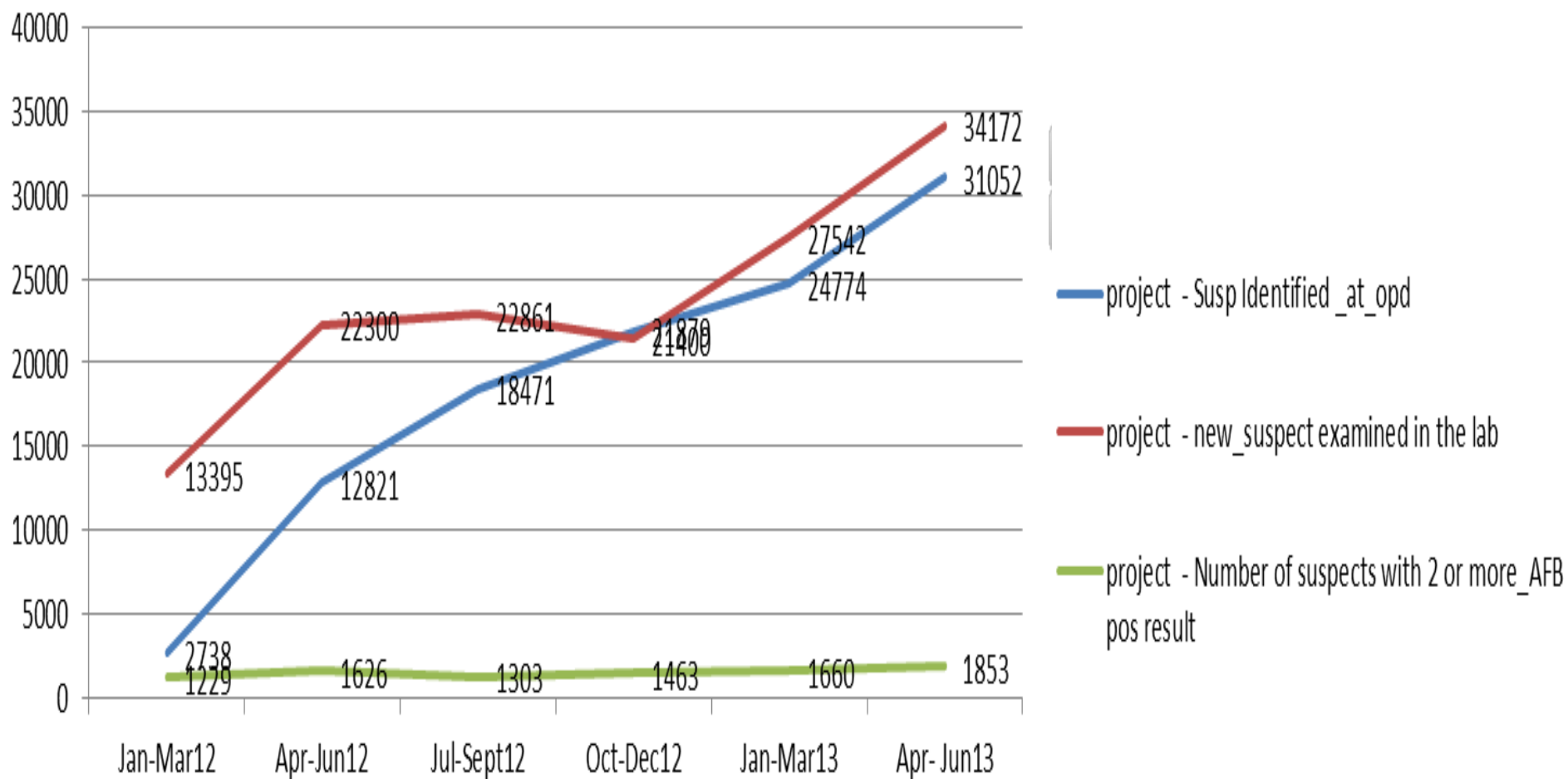


Out of 938,962 OPD clients, 870,390 (92.7%) were screened (96.6% in the Amhara Region, and 86.7% in the Oromia Region)

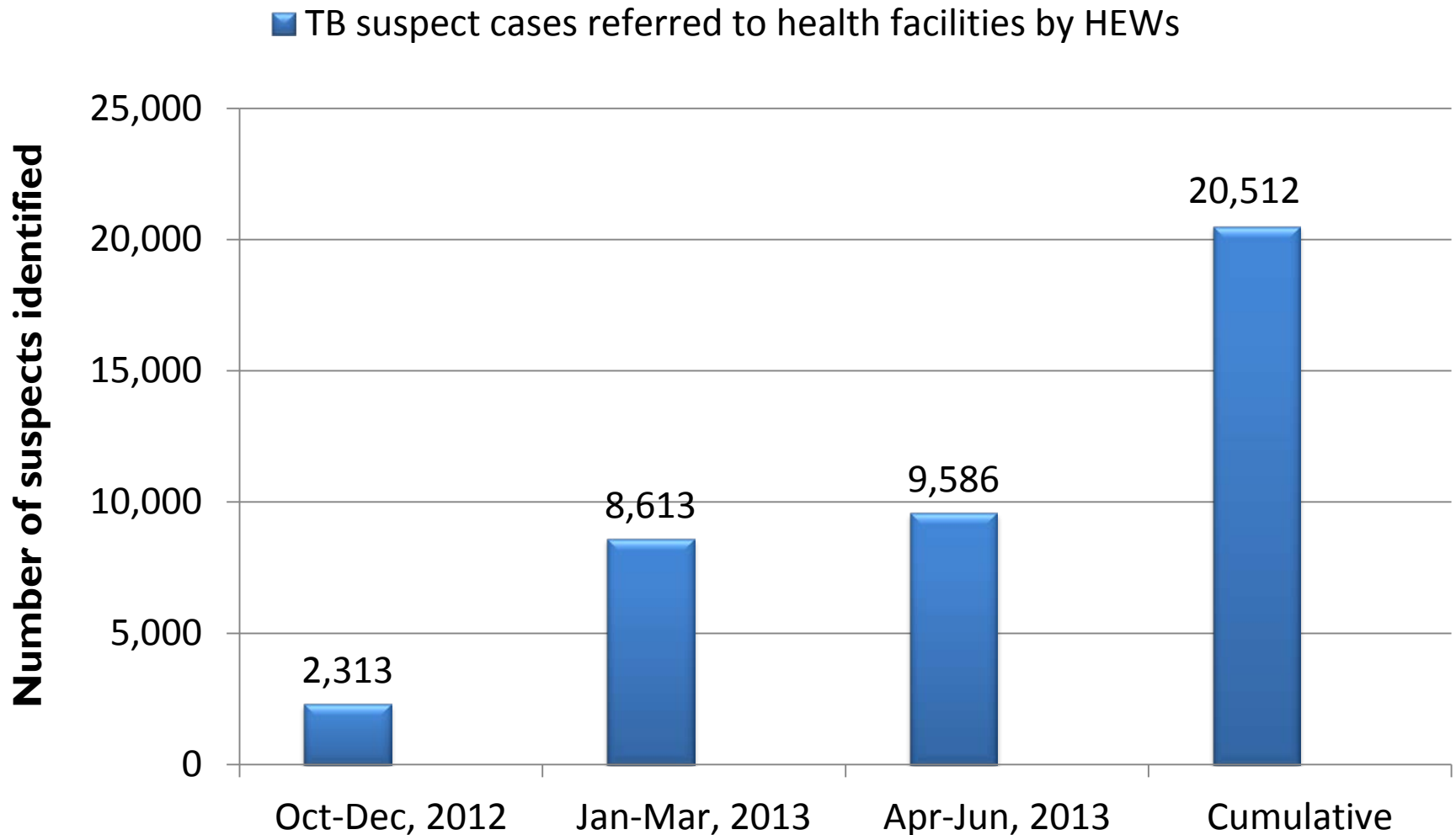
Percent of TB Suspect Cases Identified among OPD Screened for TB in Project Zones, January 2012-June 2013



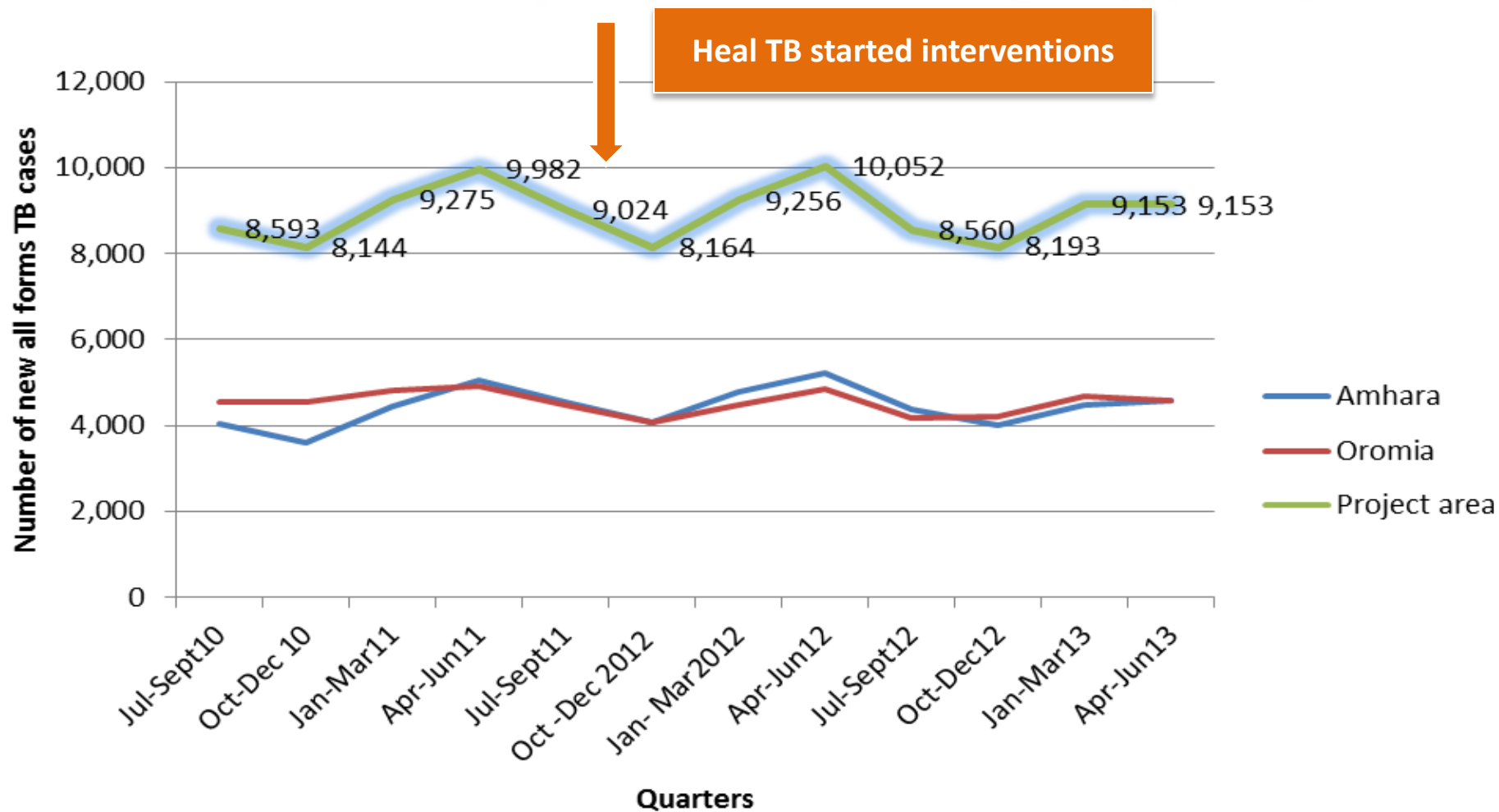
TB Suspect Cases Identified & Examined among OPD clients in project Zones: January 2012-June 2013



TB Suspect Cases Referred to Health Facilities by Health Extension Workers (HEWs) in project Zones

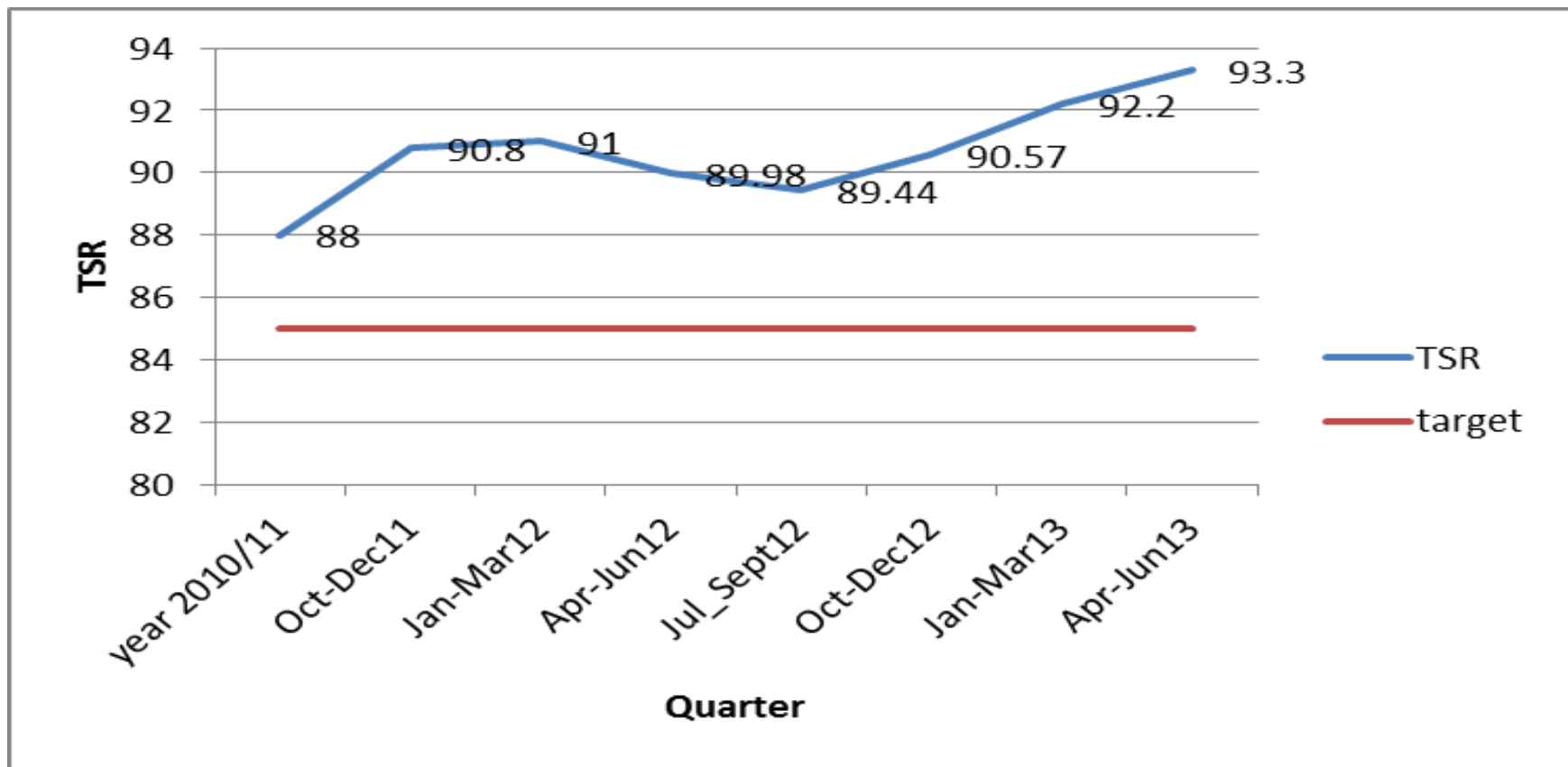


Number of TB Cases Notified (All Forms) in Project Zones: July 2010-June 2013



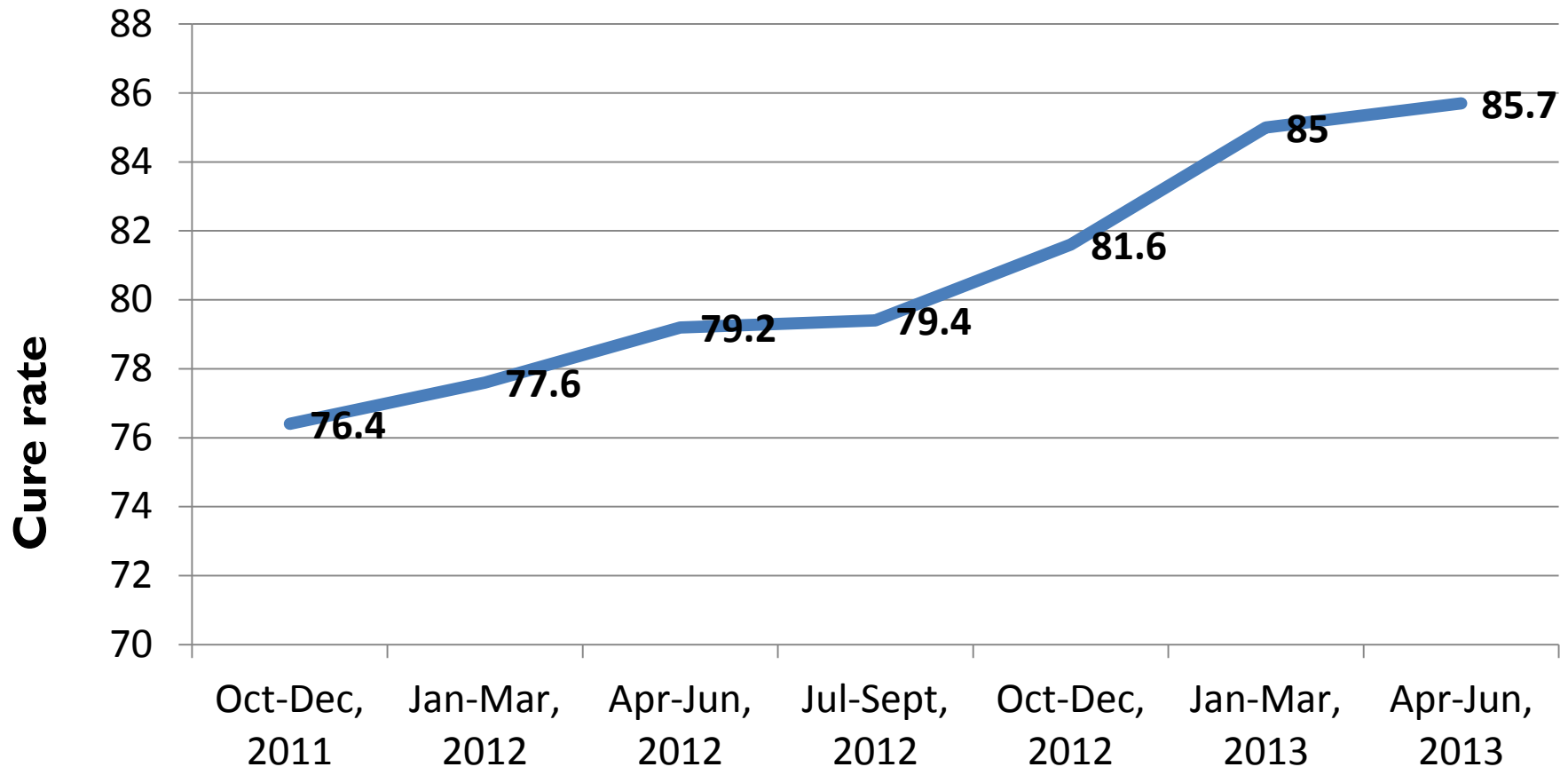
TB cases notified increased by 1.2%.

Trend of Treatment Success rate in Projects Zones : July 2011- June 2013



Comprehensive TB /HIV and leprosy training , SOP, mentorship and all lab support contributed to the high success rate

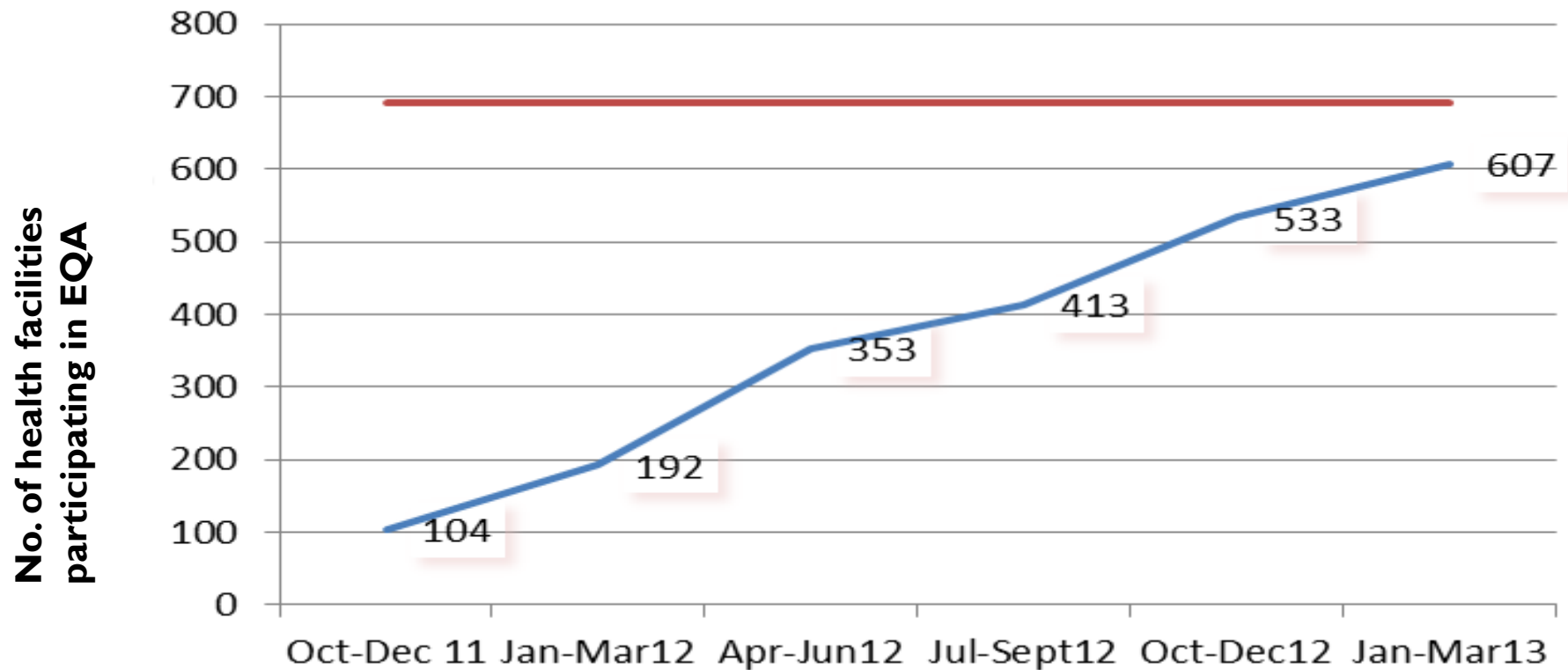
Trend of cure rate in Project Zones: July 2011-June 2013



Contact Investigation of Smear Positive TB Cases in Project Zones: April-June 2013

Indicators	Amhara	Oromia	Total
Number of health facilities	111	84	195
Sputum smear positive TB index cases	440	296	736
Number of contact family members registered	1,232	681	1,913
Number screened for TB	11,71	609	1780 (93%)
Number of TB suspects identified	96	70	166 (9%)
Number of TB cases diagnosed out of the suspects	21	22	43
TB cases among suspects (%)	21.9	31.4	26%
Smear positive TB cases (%)	13 (61)	14 (63)	27 (62%)
% yield out of all contacts screened	1.8	3.6	2.4

EQA Coverage among Diagnostic Health Facilities in Project Zones, Oct. 2011-March 2013

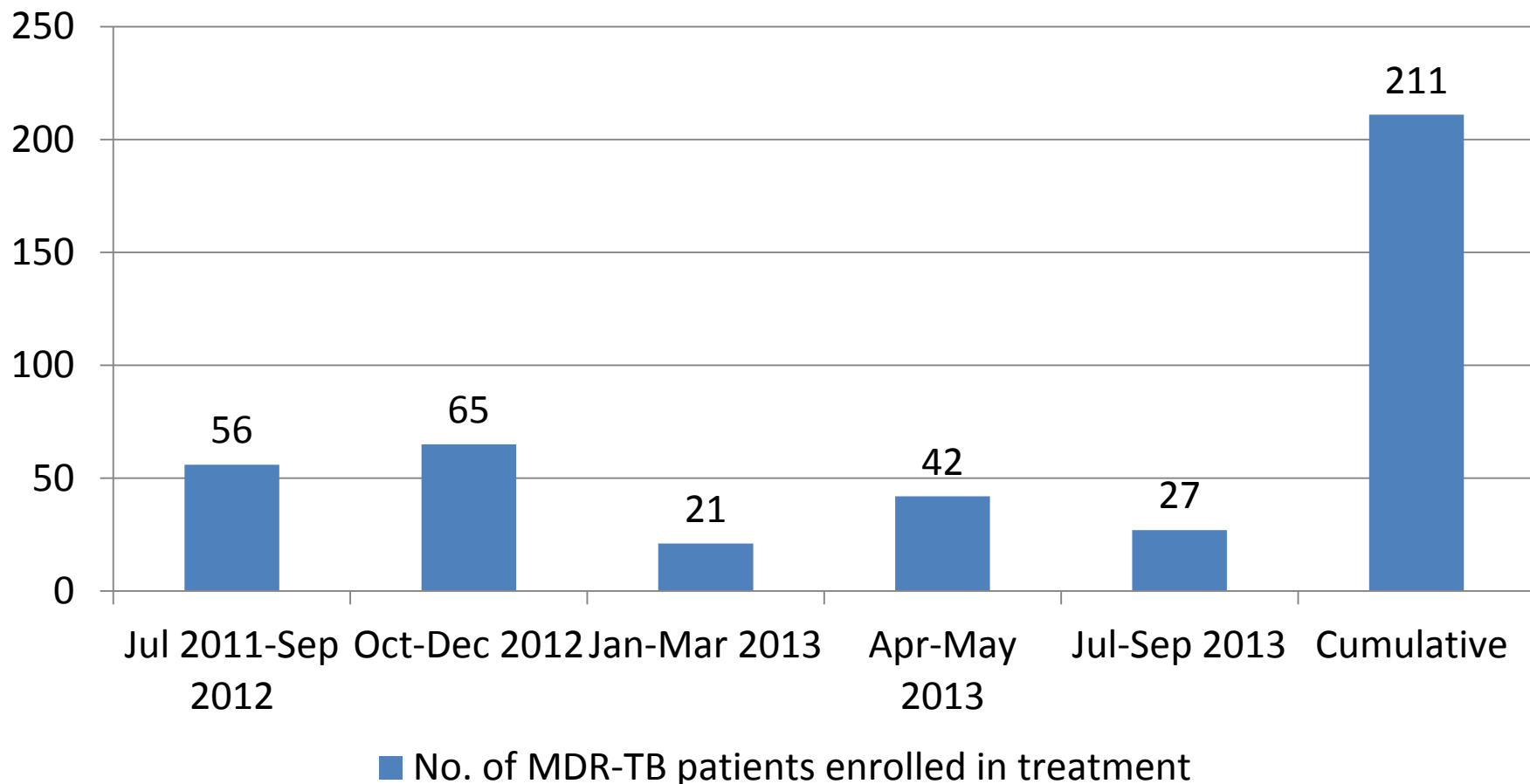


External quality assurance (EQA) coverage increased by **five fold**
Decentralization of EQA centers, slide collection by woreda TB focal staff and a strong leadership from the regional health bureaus contributed to this success.

EQA performance in the project zones: April 2012-March 2013

Indicators	April-June 12	July-Sept 12	Oct-Dec 12	Jan-Mar 13
Total number of slides collected for EQA	13,354	16,184	21,682	27,450
Number of positive slides collected	912	994	1189	1,308
% agreement of positive slides	92.4%	91.1%	93.4%	96%
Number of negative slides collected	12,442	15,190	20,493	26,142
% agreement of negative slides	99.5%	99.4%	99.7%	99.8%
Health facilities with >95% slide concordant result	319 (90.4%)	387 (94.2%)	508 (95.3%)	589 (97%)

MDR-TB case Finding and treatment through Project support: July 2012- September 2013



To date, 211 patients have been put on MDR-TB treatment with HEAL TB project support.

Challenges and Lessons Learned

Challenges

- Limited diagnostic capacity for extra pulmonary and childhood TB
- Competing priorities of the health workers at all levels
- High attrition among trained health workers
- Low TB prevalence among TB suspect cases identified at OPD

Lessons Learned

- Close collaboration and strong partnerships between project and government staff showed positive results in TB control
- It is possible to improve TB case detection and service quality using package of interventions in resource-limited settings
- A MDR-TB treatment program can be implemented and scaled up easily by using a mixed model of care (ambulatory and hospitalized)

Conclusion

- Piloting new interventions, documenting results, and scaling up successful interventions led to positive results
- A comprehensive package of interventions showed positive results in the project's intervention areas
 - SOP implementation was a central component of the achievements
- Operational research is needed to determine the real yield and cost-effectiveness of screening all OPD visitors Vs high risk groups such as contacts

Acknowledgements

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- Ethiopia Ministry of Health/National TB Program
- Oromia Regional Health Bureau
- Amhara Regional Health Bureau
- West Arsi Zone Health Depart/Pilot zone
- All Other Zonal Departments working with Heal TB project



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