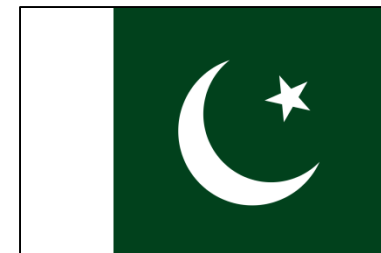# Tuberculosis Surveillance Review
4th Quarter, 2017

Inter-Provincial Quarterly Review Meeting
25-26 June, 2018

Dr. Raja Muhammad Ayub
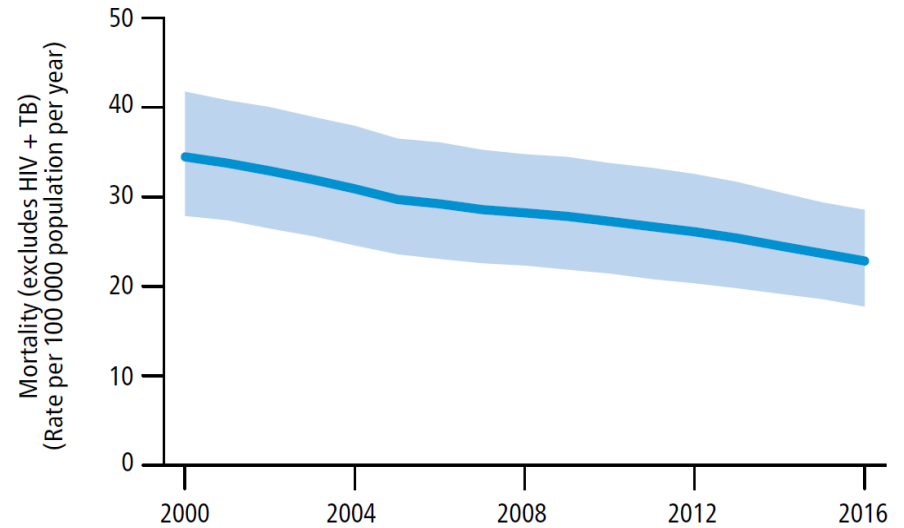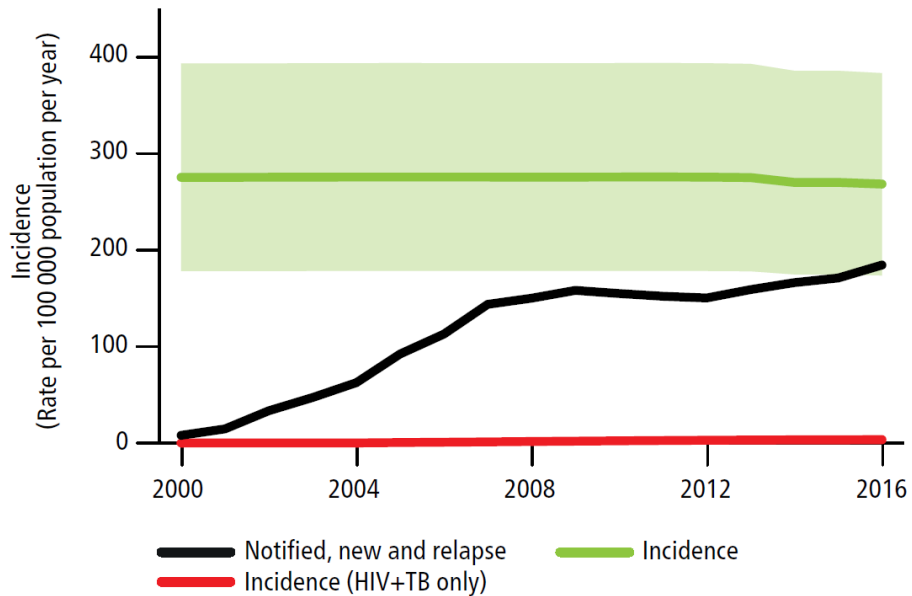M&E and Surveillance Specialist
CMU – GF Grant

PAKISTAN

Population	**193 M**
Disease Burden	
Incidence Rate	**268 per 100,000 (174-383)**
Estimated Incident TB cases	**518,000 (335,000–741,000)**
Estimated incident RR/MDR cases	**15000 (12000–18000)**
% of TB cases with MDR/RR-TB	**New cases: 4.2% Previously Tx: 16%**

Reference:

1. WHO Global TB Report 2017
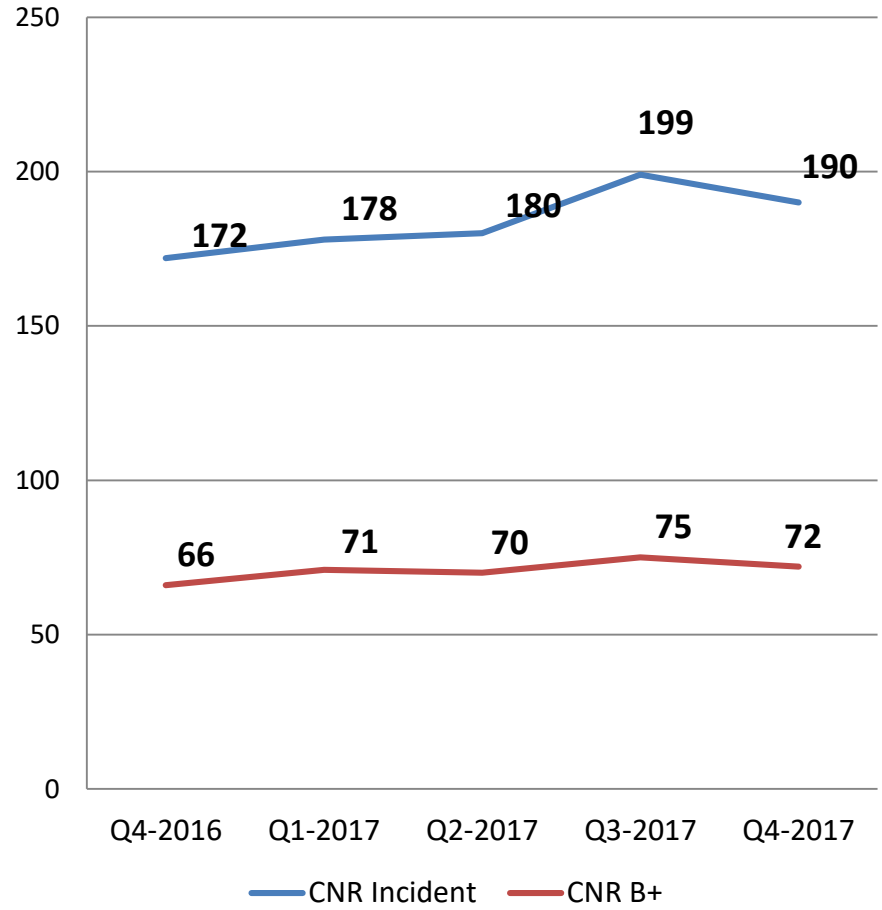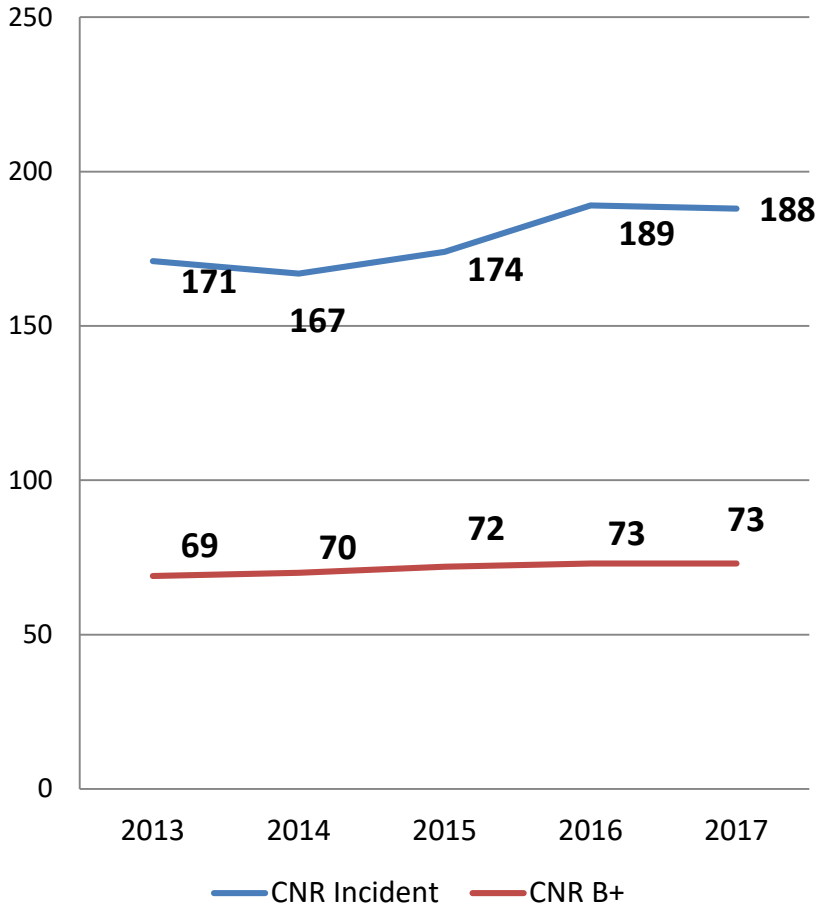
Incidence & Mortality : Global TB report 2017

Notified New + Relapse (N+R) & Bacteriologically Confirmed Cases
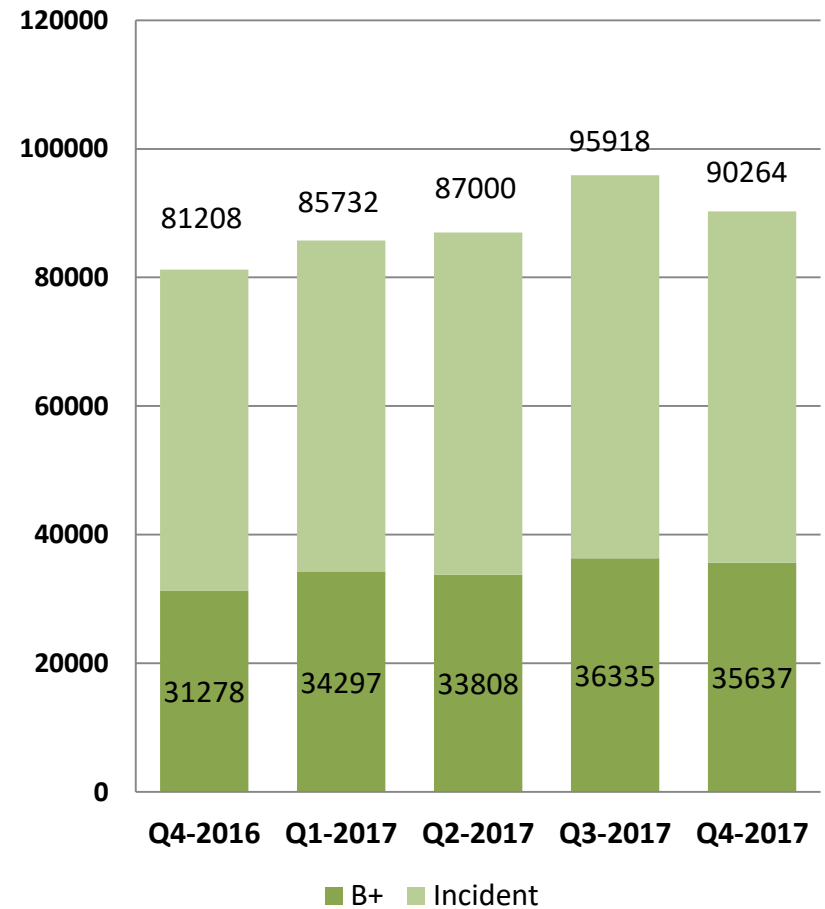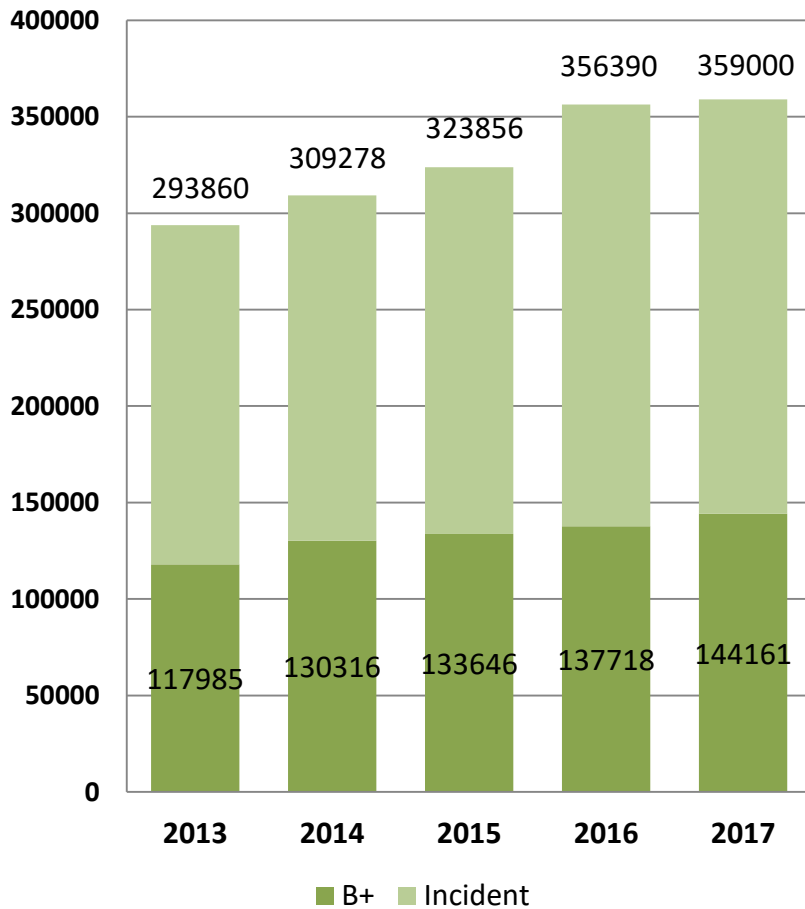
Case notification

Type	2016	2017
Total new cases	344,233	344,784
Relapse	12,157	14,511
N+R (incident)	356,390	359,295
Treatment after failuare	1,414	1,482
Treatment after default	1,494	1,708
Others	6,366	6,494
Total	366,061	368,979

CNR Incident (N+R) and CNR B+

Sub-National CNR N+R & B+

Q4-2016

Q4-2017
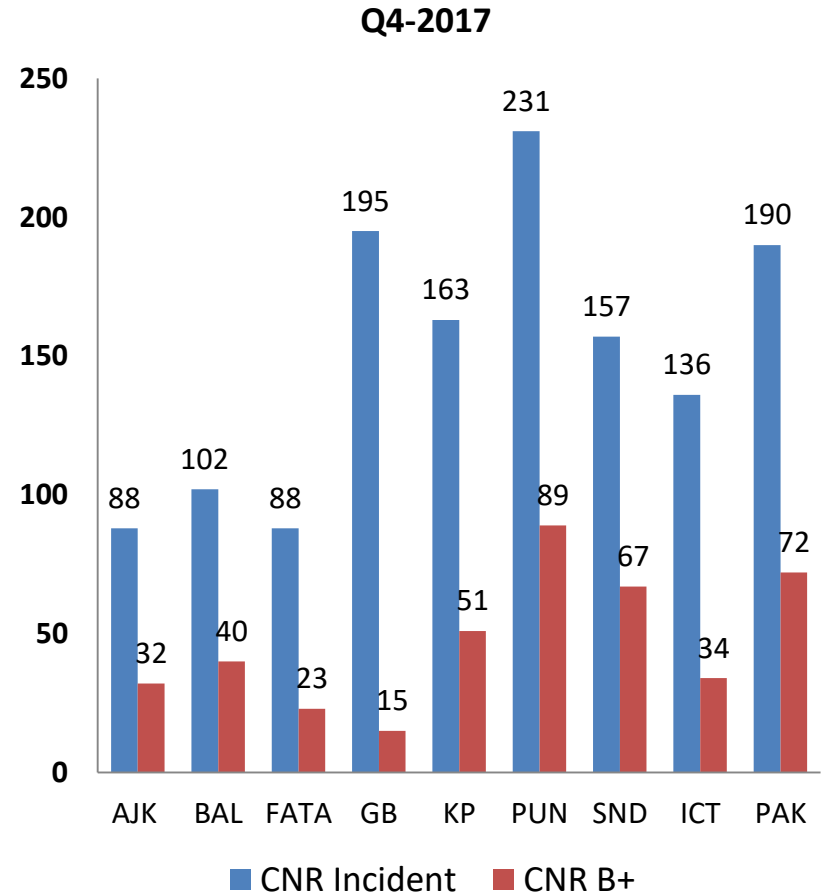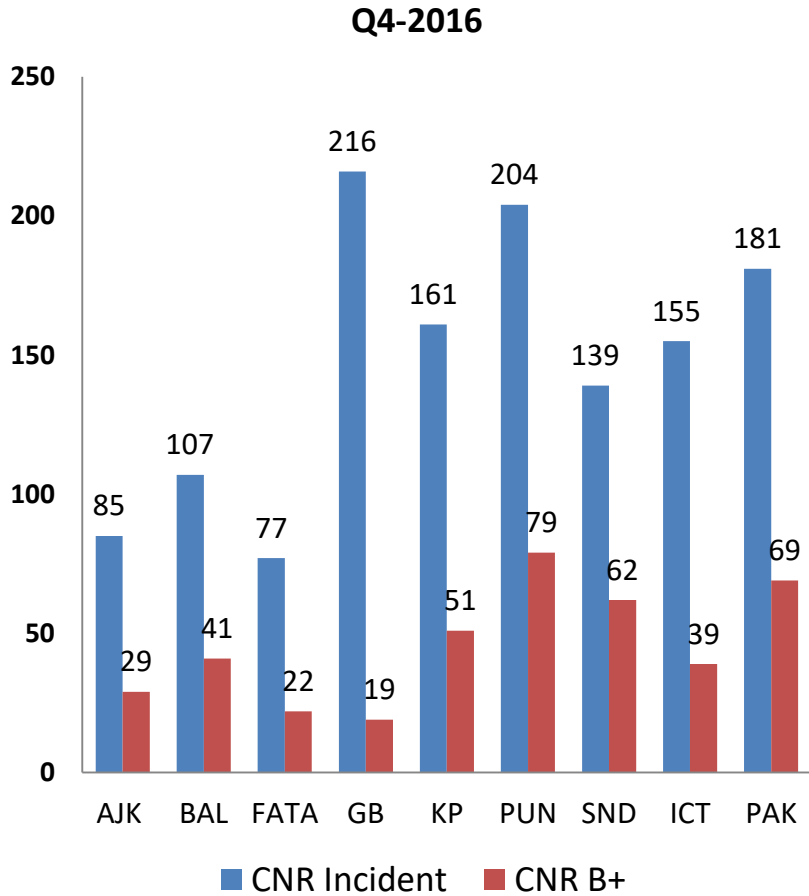
Percentage breakup of Incident Cases (B+, C-Dx, EP)
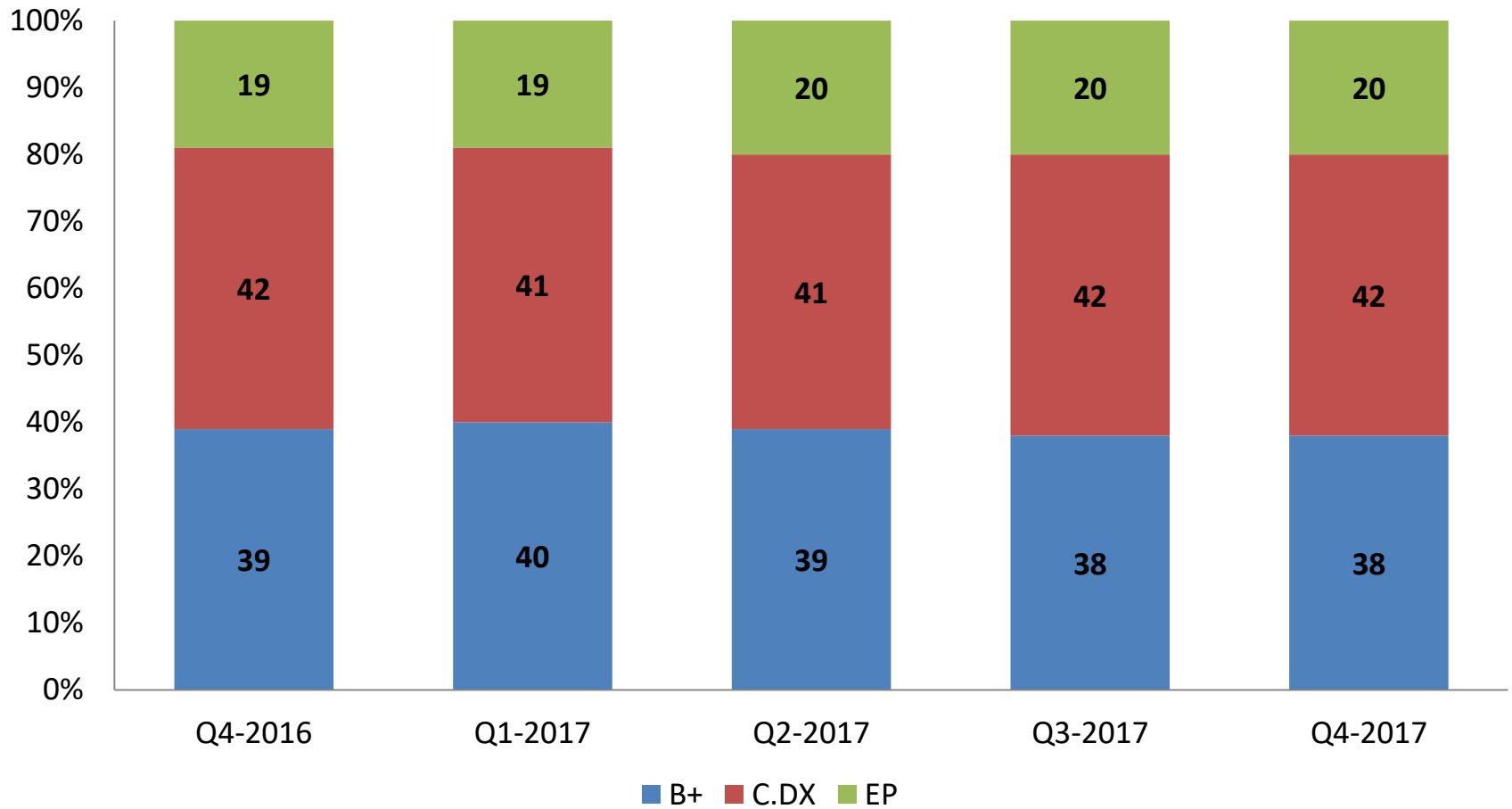
Contact Screening of B+ TB Cases

	Q4-2016	Q1-2017	Q2-2017	Q3-2017	Q4-2017
UnScreened	117971	136465	128325	142596	132169
Screened	38419	35025	40715	39179	37806

Screened ■ UnScreened
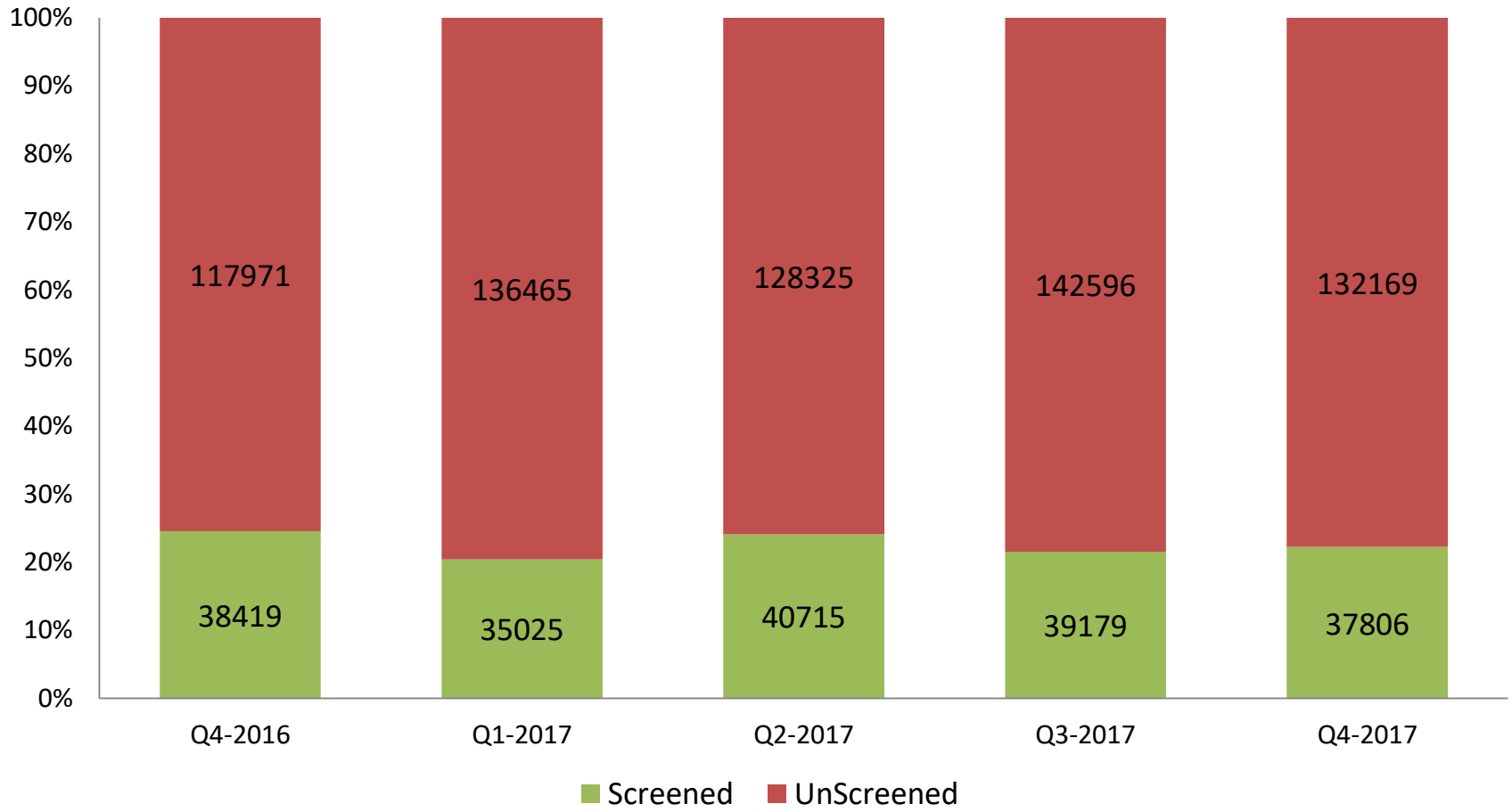
Gender Distribution among Incident Cases Quarter 4ᵗʰ, 2017

Percentage of Children among all Incident Cases
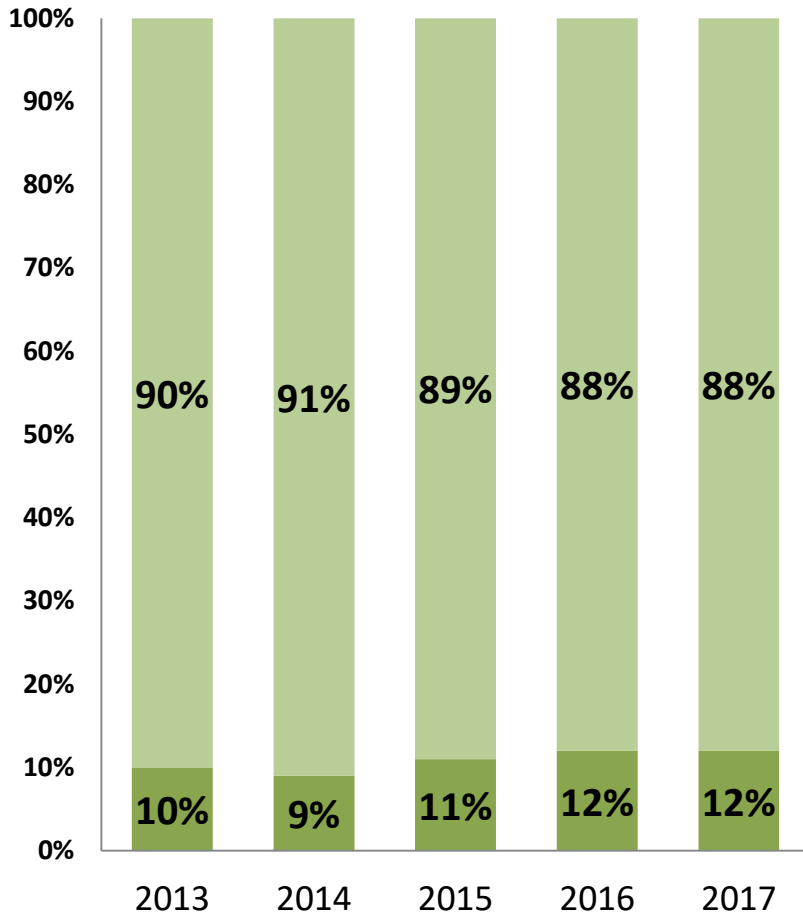
Childhood Incident TB (0-14) Notification
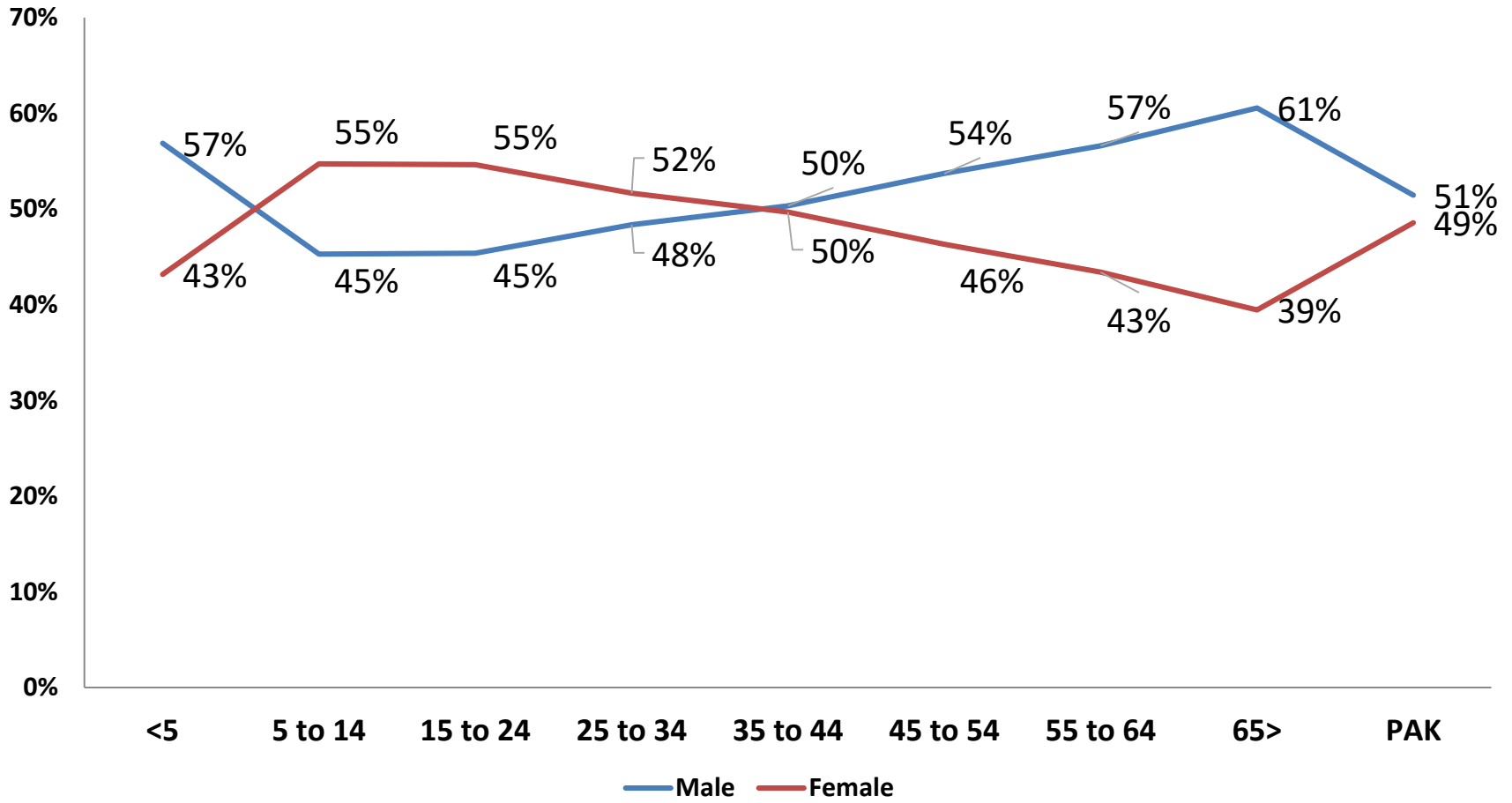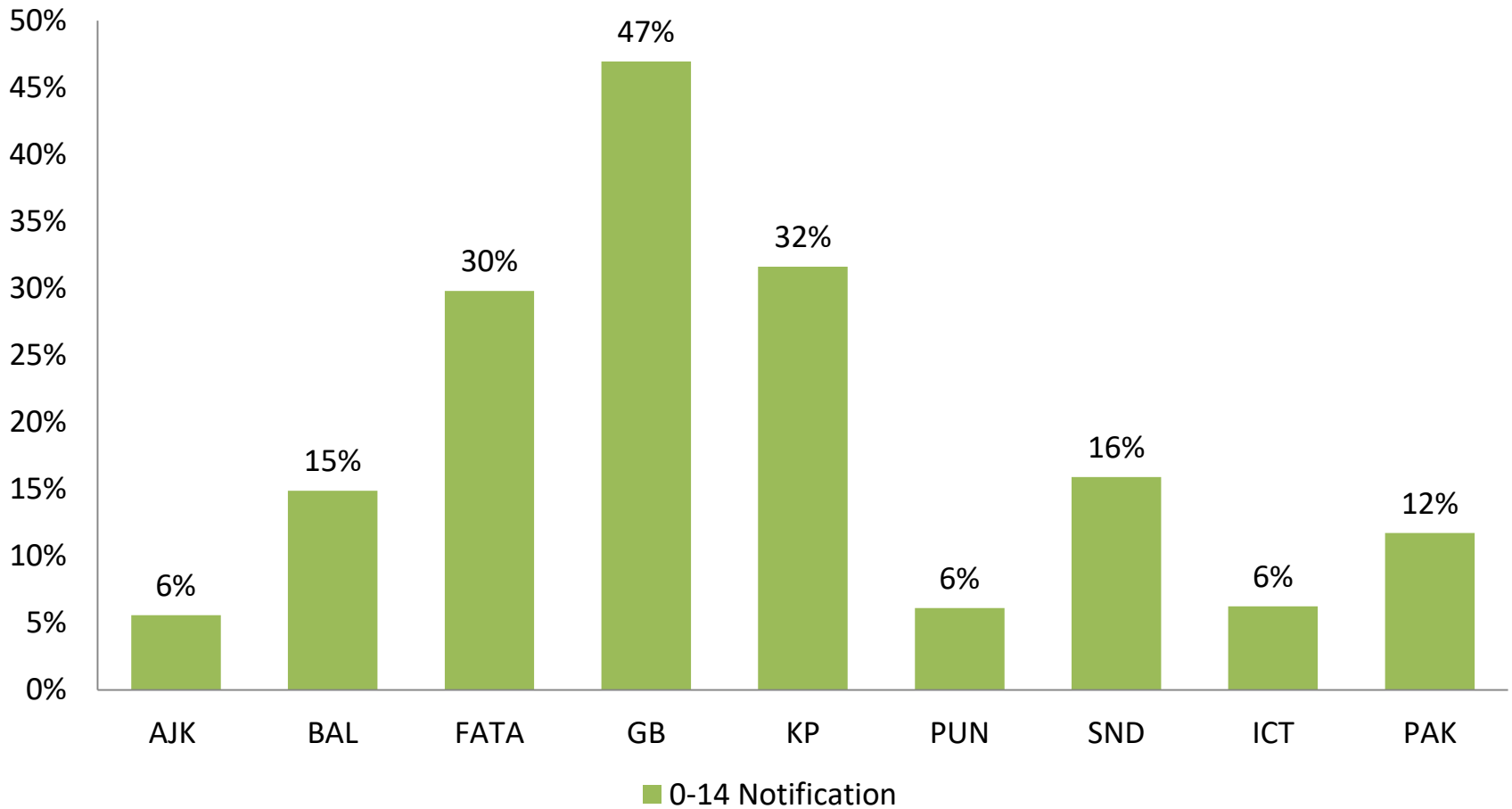## 4th Quarter, 2017

Percentage of Previously Treated cases in Notified Cases (including Relapse)
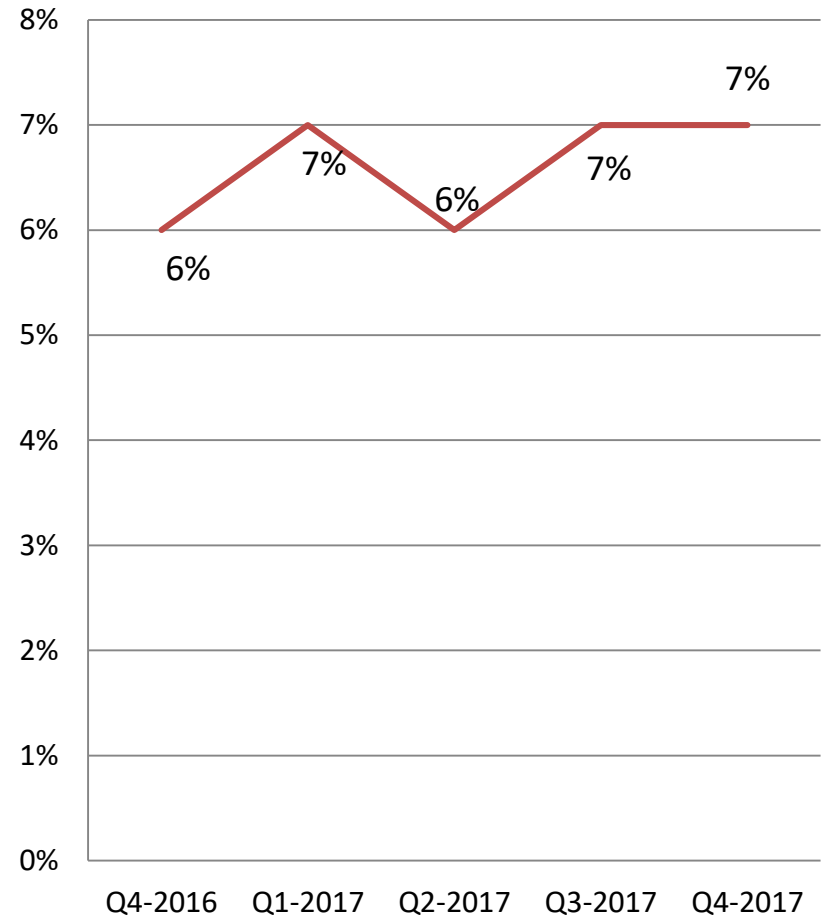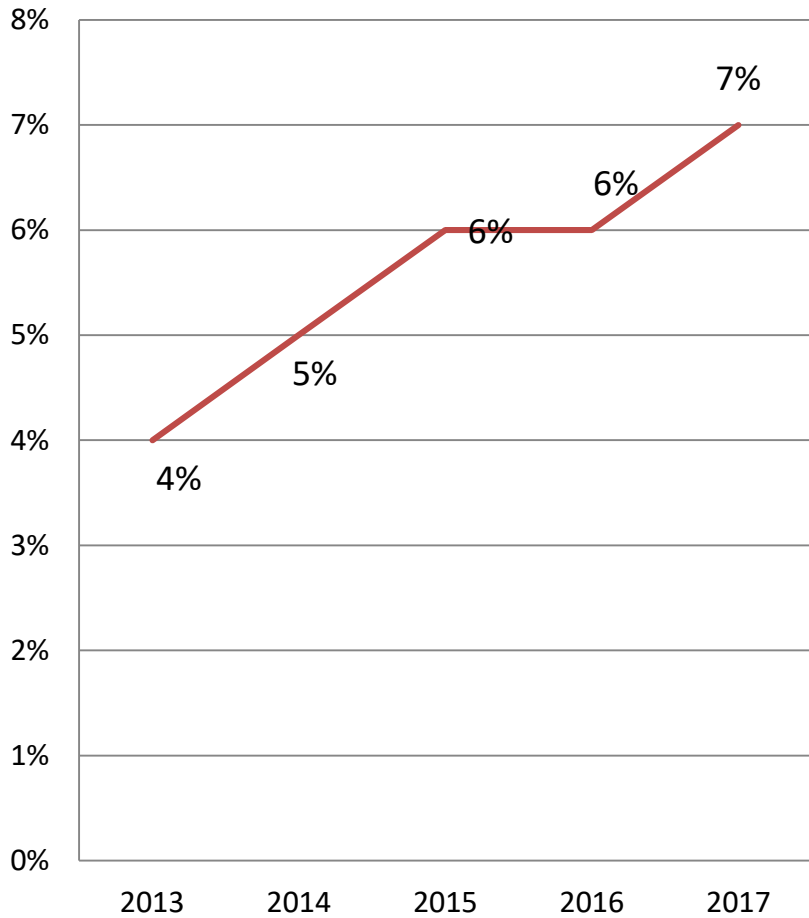
Percentage of Previously Treated cases in Notified Cases (including Relapse)
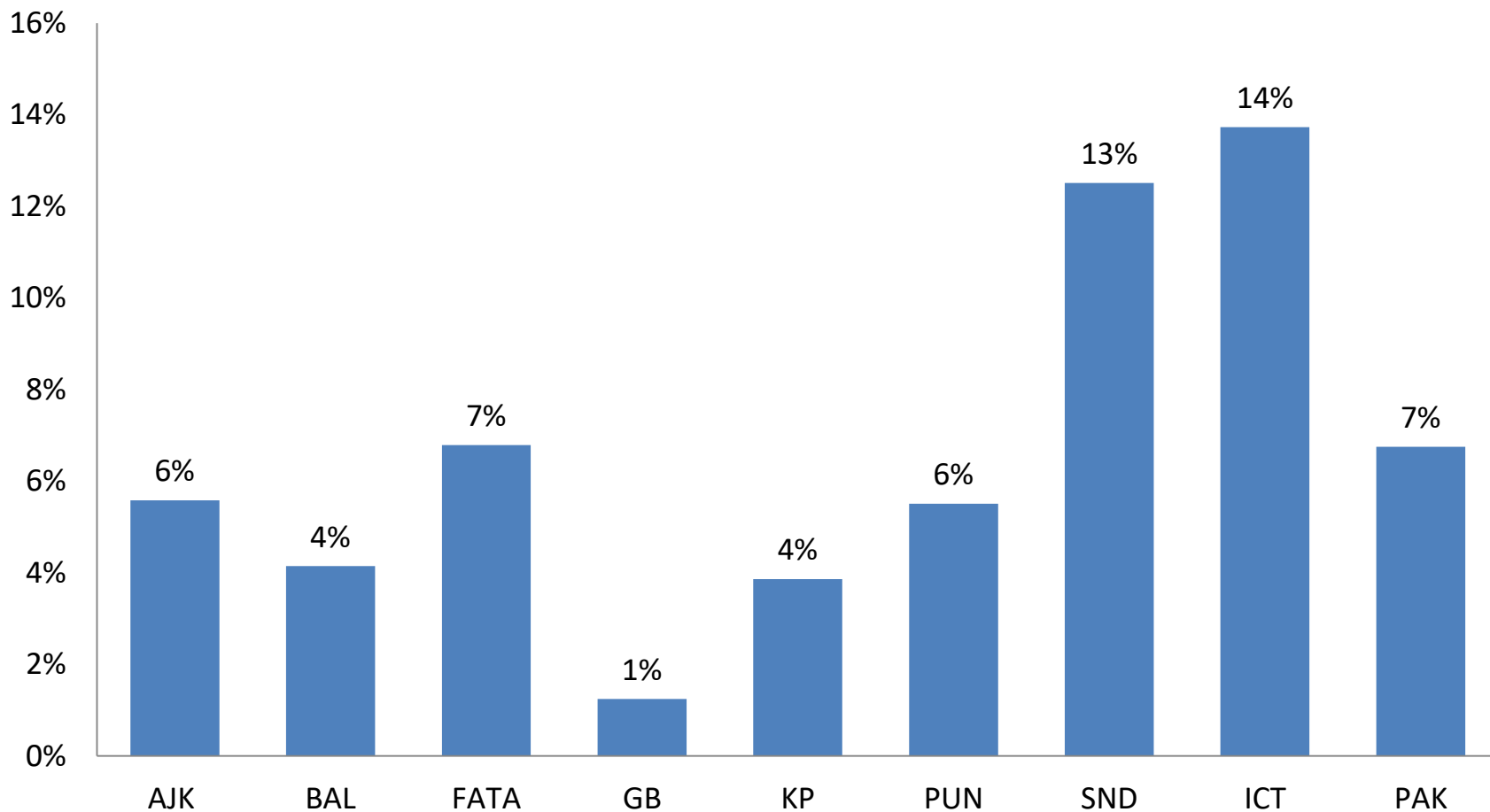
Percentage of PPM case Notification in Notified Cases
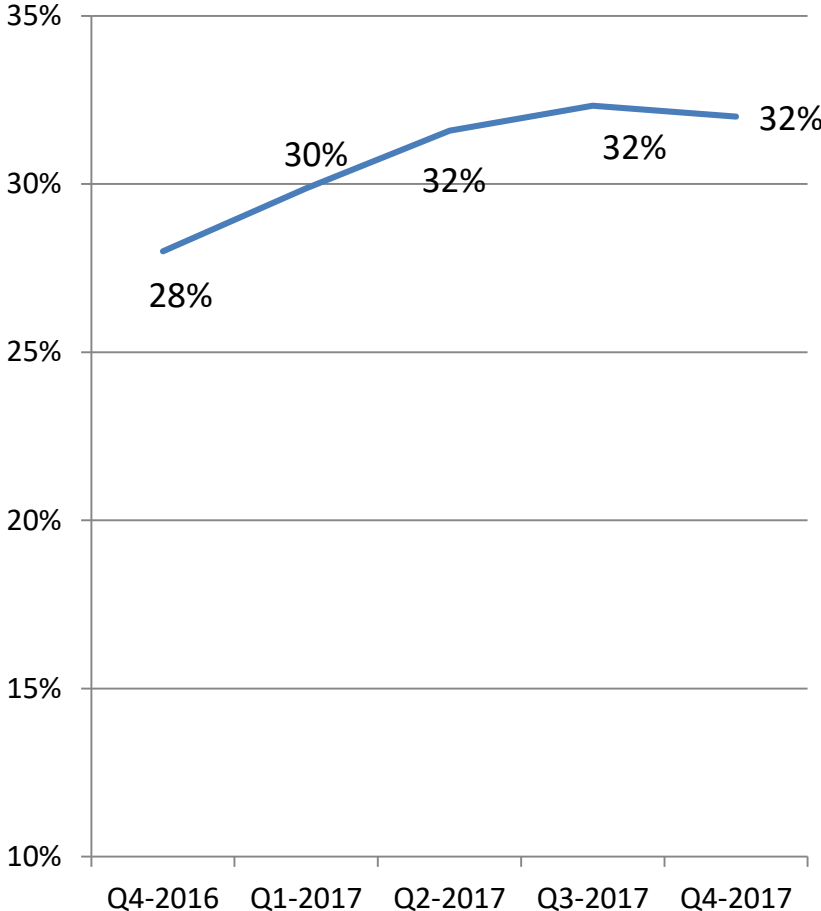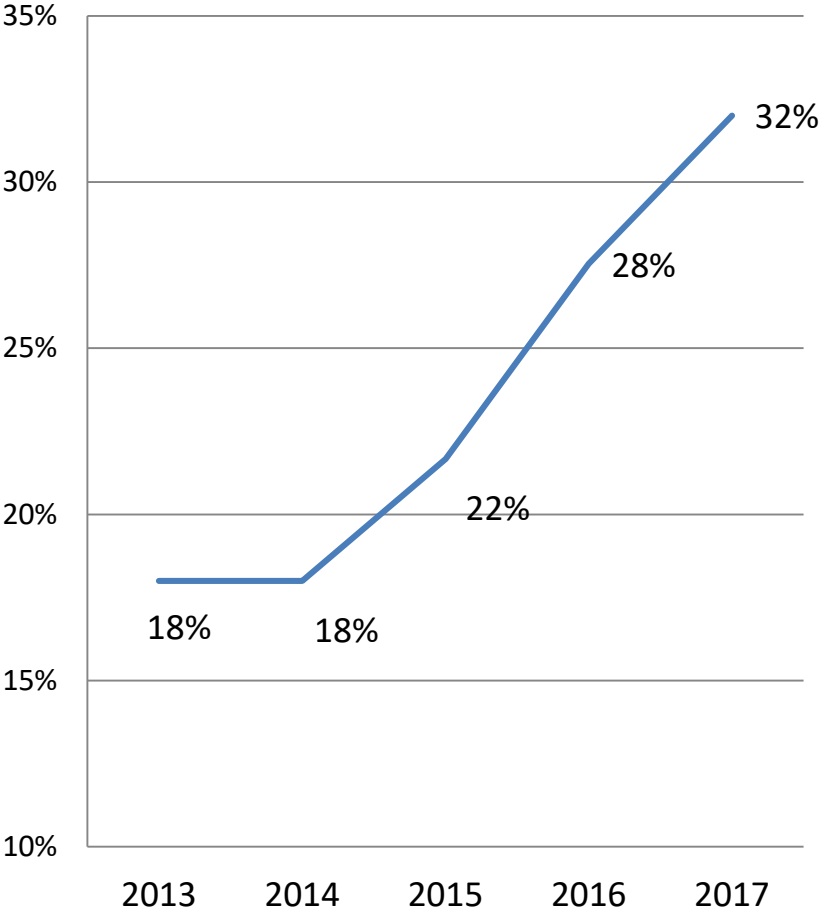
Model-wise contribution of Private sector

Q4-2017

- PPM-4, 2%
- PPM-3, 13%
- PPM -2, 29%
- PPM-1, 56%

Q4-2016

- PPM-4, 3%
- PPM-3, 13%
- PPM -2, 27%
- PPM-1, 58%
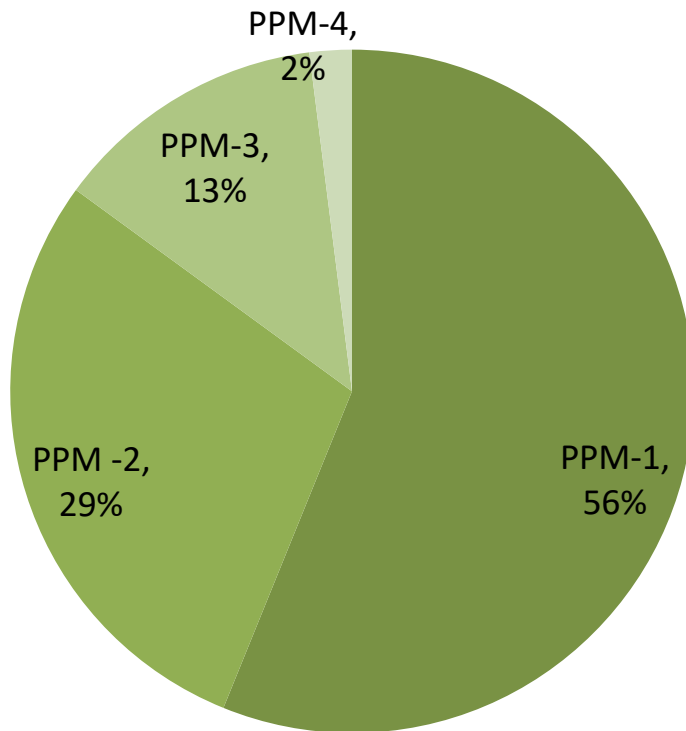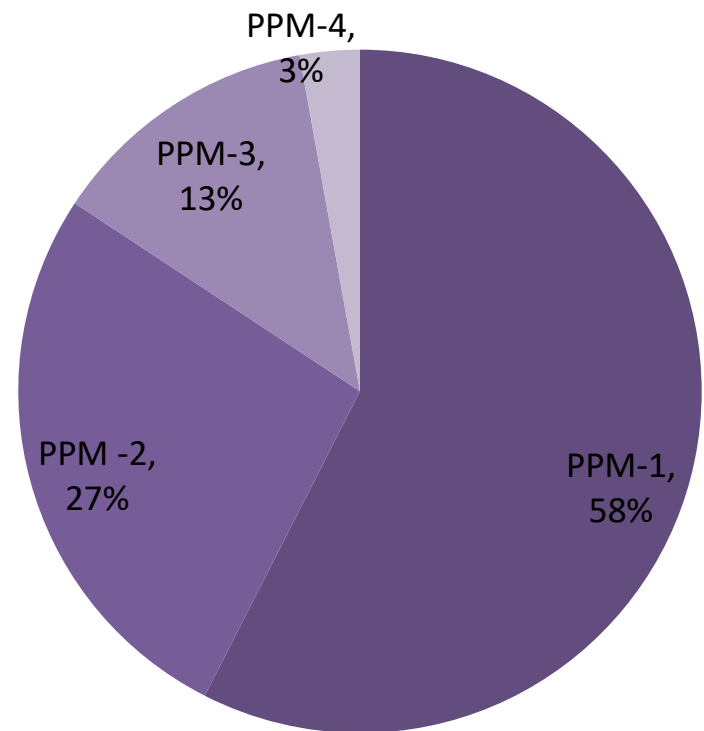
Sub-National Private Sector Contribution
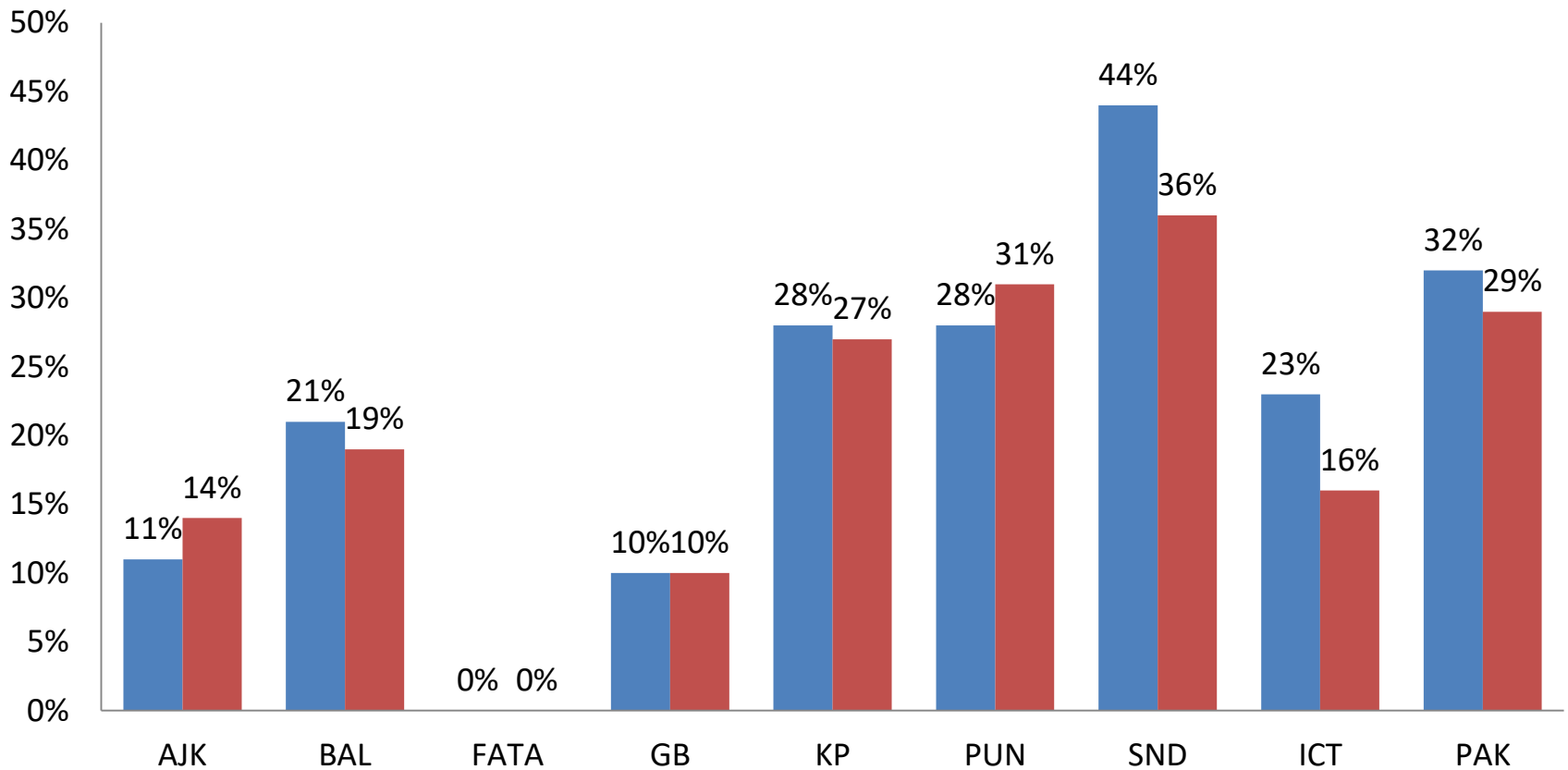
Treatment Outcomes of Incident TB Cases
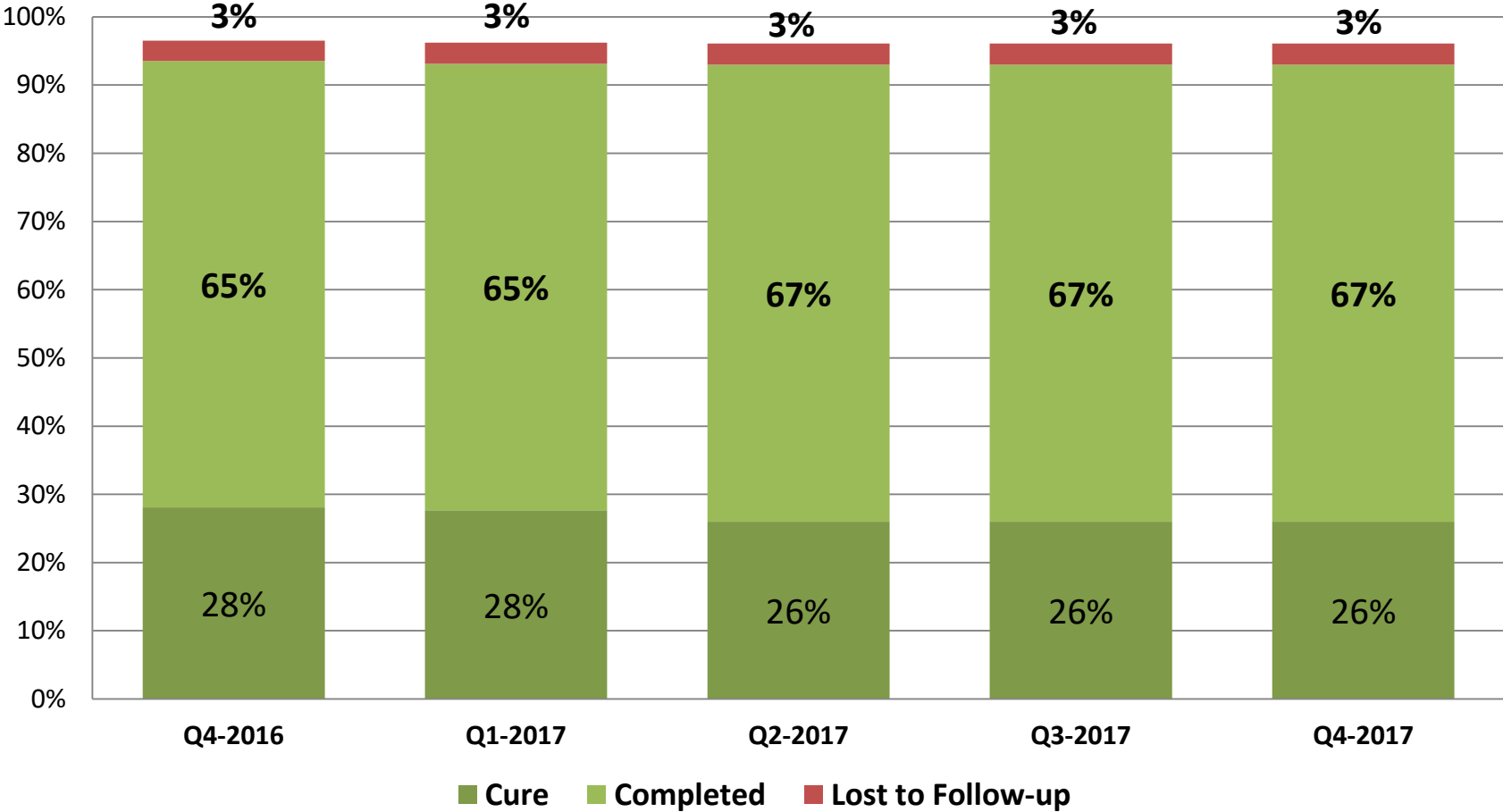
Treatment Outcomes of B+ Incident TB Cases
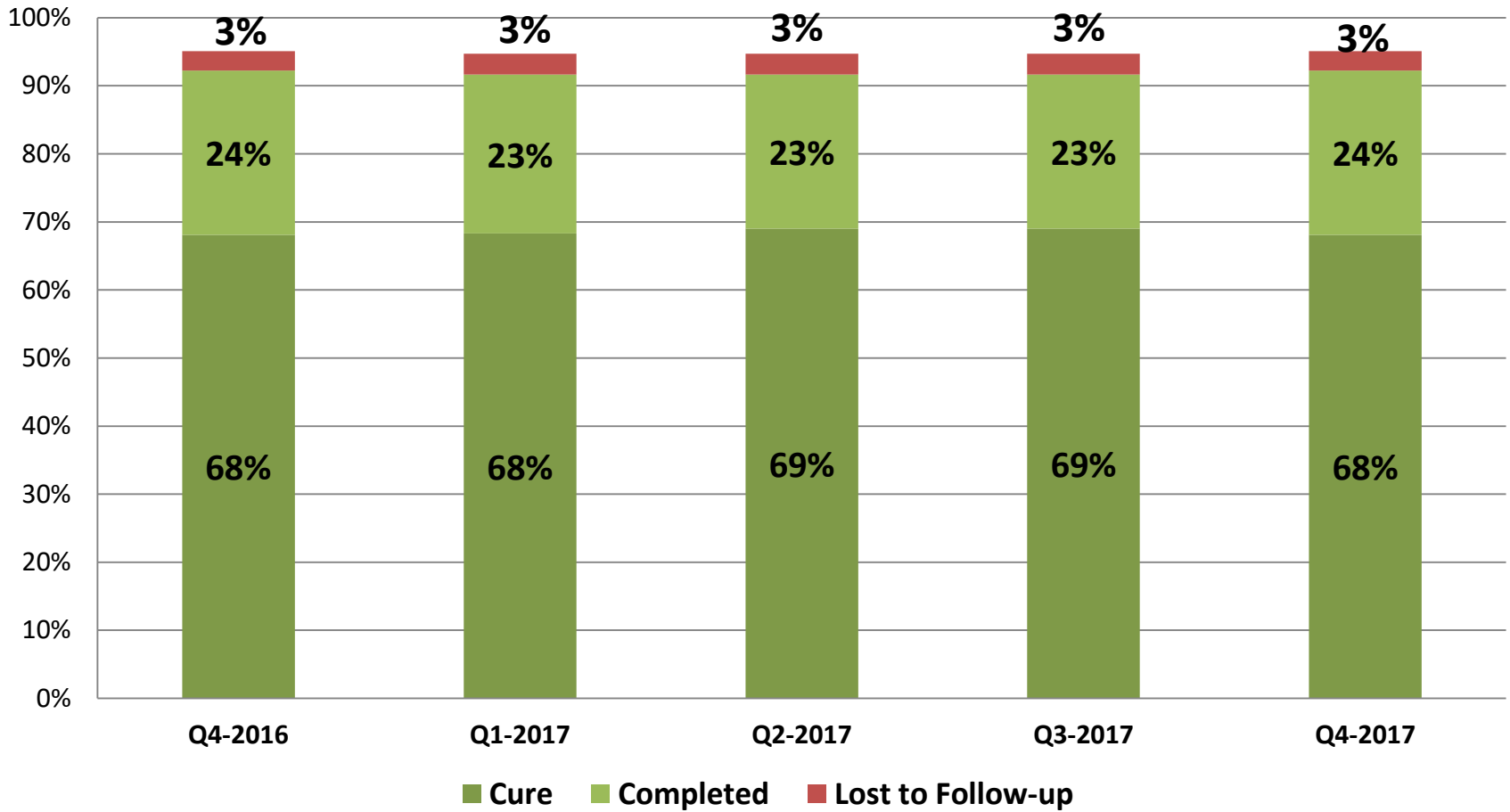
Treatment Outcomes of Previously Treated TB Cases (excluding Relapse)
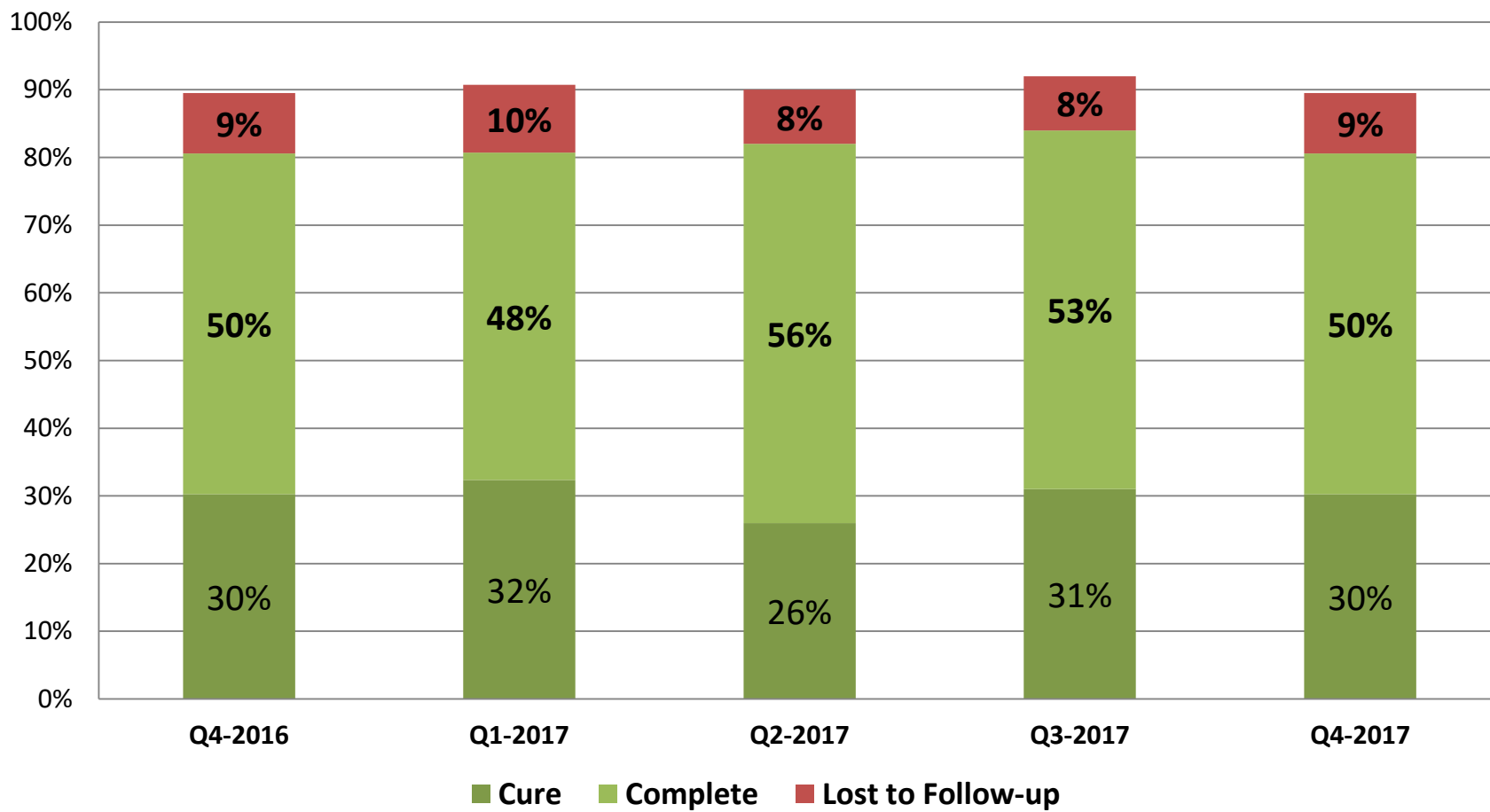
RR-TB Enrollment
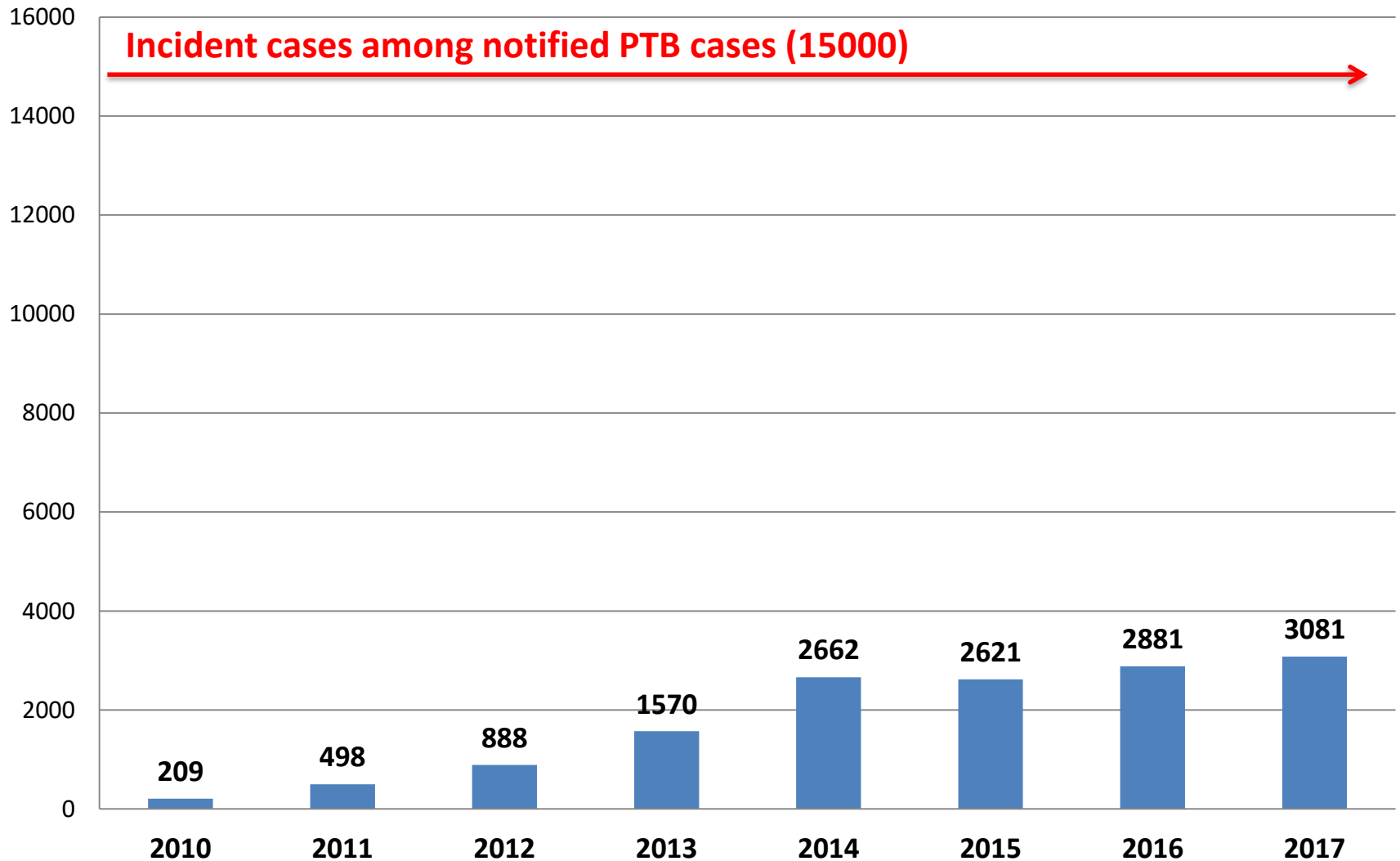
National Disease Burden & Enrolment 2017

	TB Notification	MDR Incidence New: 4.2% Re-Tx: 16%	Enrolment	% of Enrolment against Incidence
New PTB	274,834	11,499		
Re-Tx PTB	22,102	3,090	3081	20%
Total	**296,936**	**15,079**		

Province-wise Disease Burden & Enrolment 2017

Province/Region	New Cases Notified A	Est. RR-TB in New Cases B = A x 4.2%	Re-Tx Cases Notified C	Est. RR-TB in Re-Tx Cases D = C x 16%	Est. Total RR-TB Cases RR = B + D	Total Enrolment EN	Percentage Enrolment EN / RR x 100
Punjab	175519	7372	10956	1753	9125	1319	14%
Azad Kashmir	3826	161	316	51	211	10	5%
Islamabad	1149	48	123	20	68	50	74%
Khyber-Pakhtunkhwa & FATA	28127	1181	1893	303	1484	271	18%
Gilgit Baltistan	2023	85	27	4	89	2	2%
Sindh	56557	2375	8345	1335	3711	1357	37%
Balochistan	7633	321	442	71	391	72	18%
PAKISTAN	274834	11543	22102	3536	15079	3081	20%

Province-wise RR-TB Target vs Enrolment Quarter 4, 2017
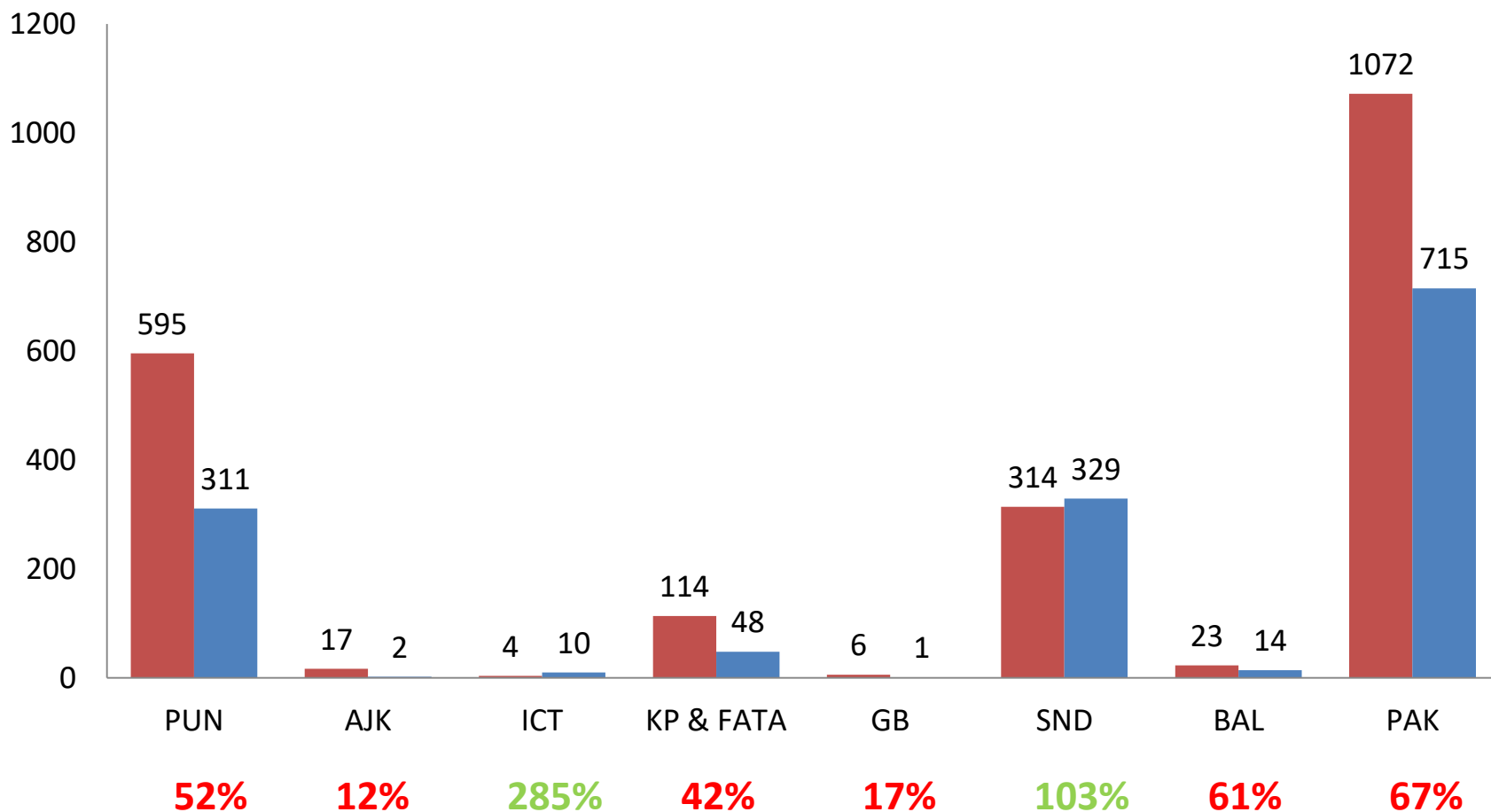
Treatment Outcome of RR-TB 2015 Cohort
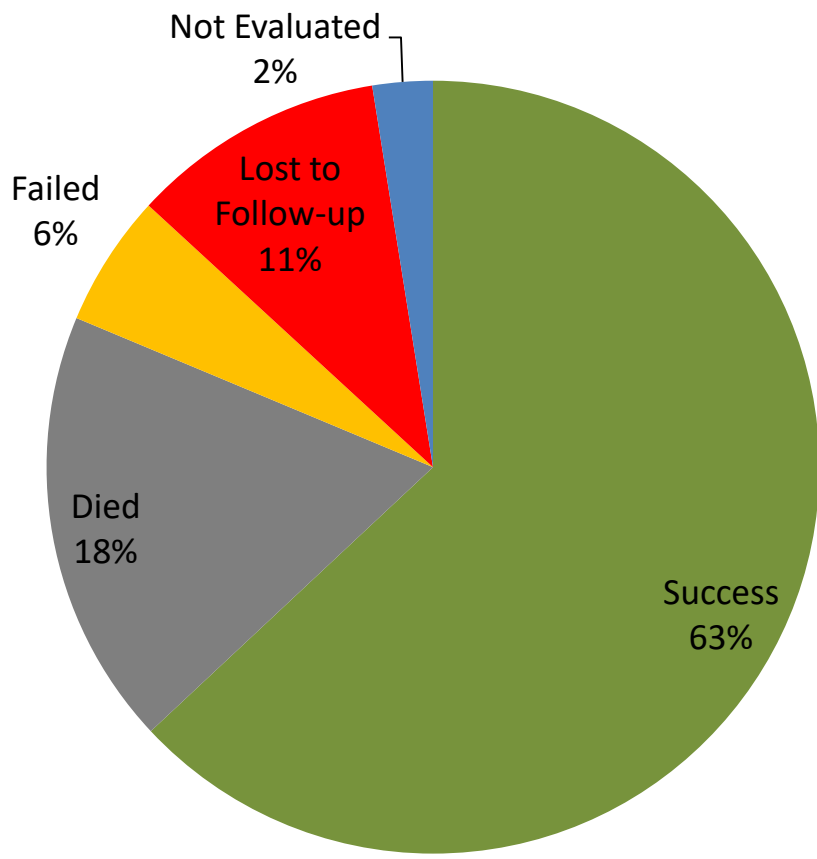
Treatment Outcome of RR-TB 2010-15 Cohorts

Year	Successful	UnSuccessful	Not Evaluated
2010	151	57	2
2011	387	114	3
2012	670	235	25
2013	1122	430	18
2014	1731	838	93
2015	1652	903	66
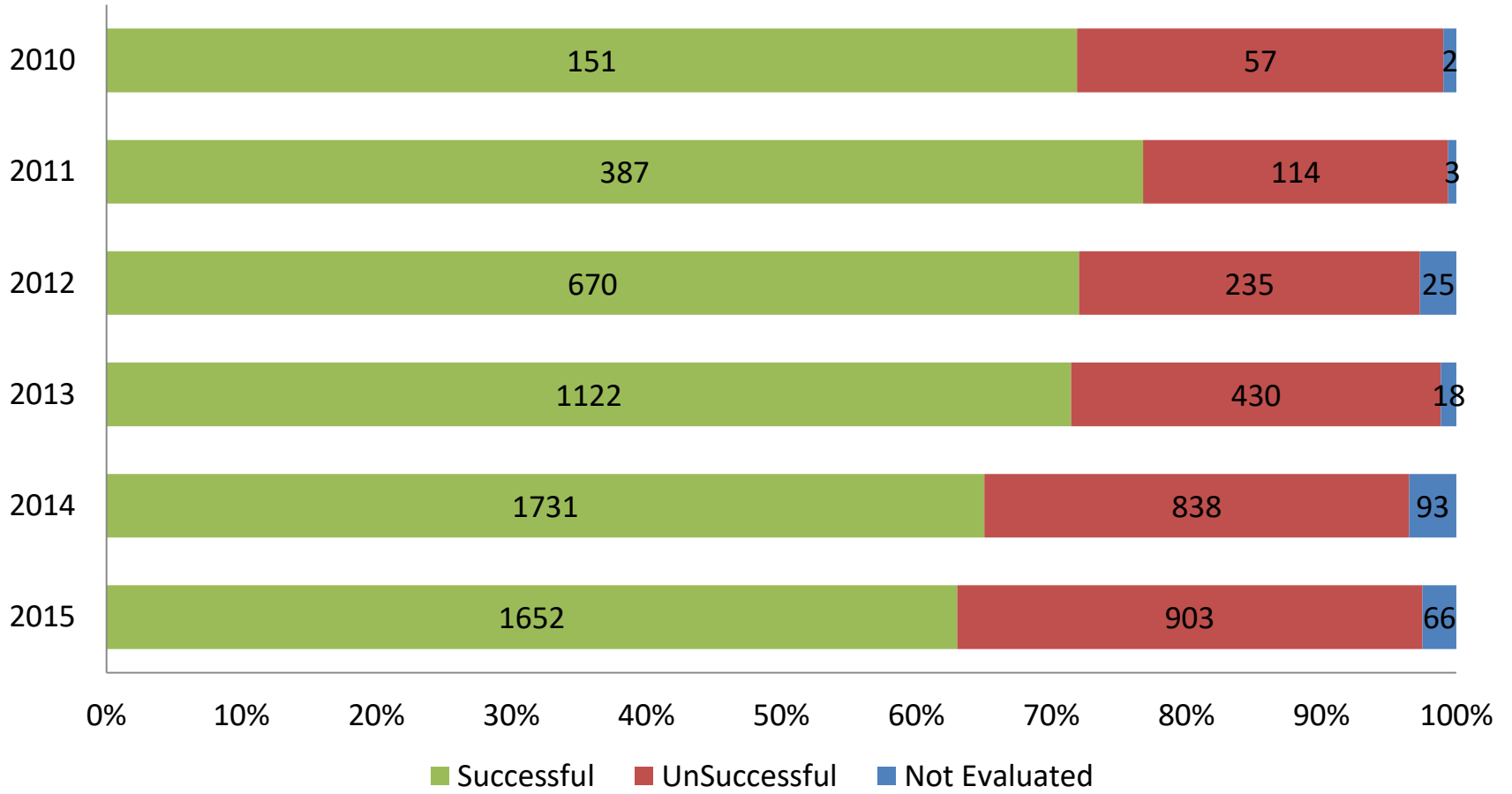
Screening of HIV in Notified TB Cases

All Notified

Year	Value
2012	285396
2013	298980
2014	316577
2015	331780
2016	366061
2017	368979

Screened for HIV

Year	Value	%
2012	10423	4%
2013	8306	3%
2014	10715	3%
2015	12162	8%
2016	13092	4%
2017	26150	7%

Reactive cases

Year	Value
2012	17
2013	49
2014	90
2015	59
2016	71
2017	127
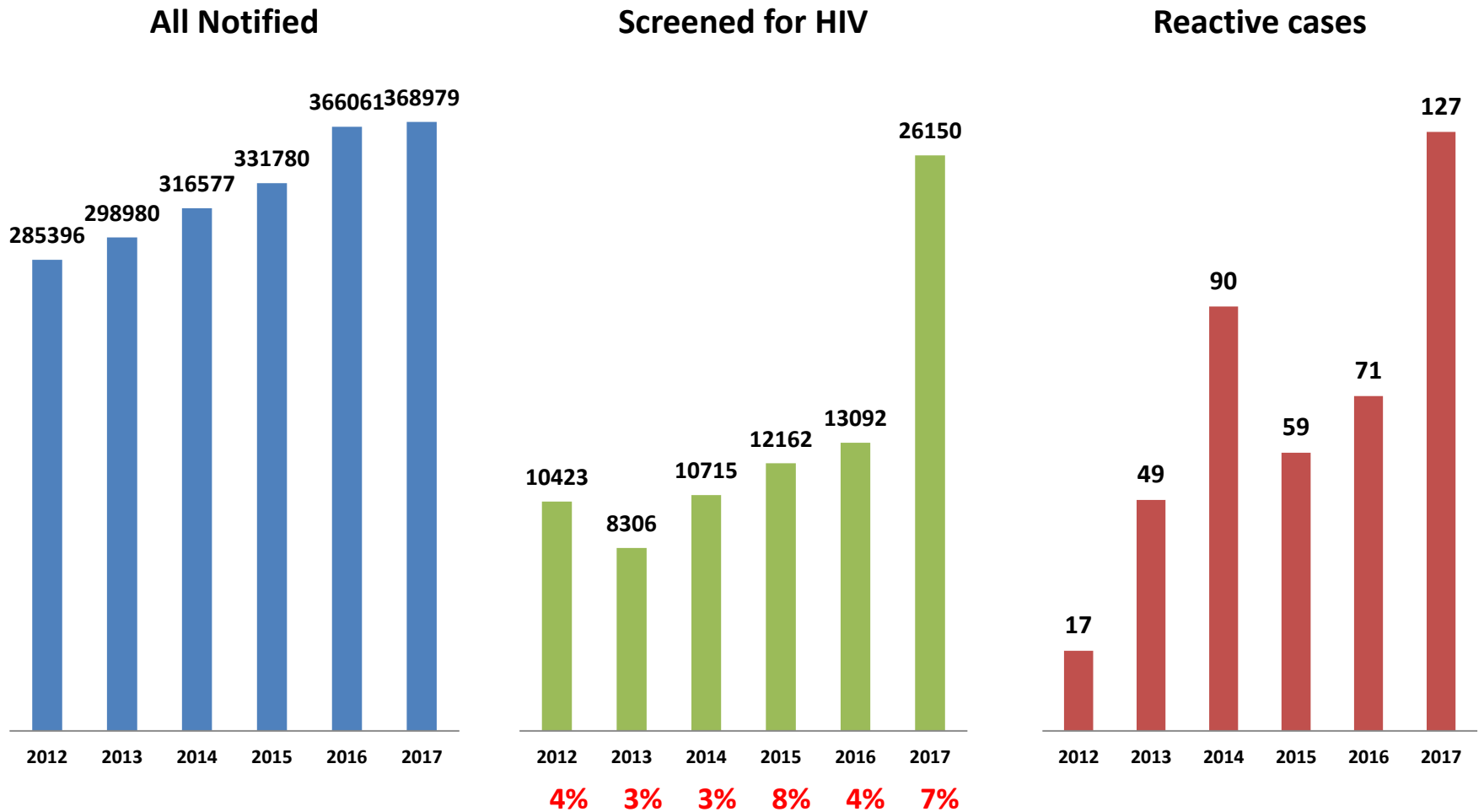
Interpretations

- Slow decline in TB incidence
- Static case notification (2016 Vs 2017)
- Low % of contact investigation
- Low case detection of DS & DR-TB cases
  - 160000 missing DS-TB cases
  - 12000 missing DR-TB cases
  - Low Childhood TB case notification (AJK, Punjab, ICT) , while very high in GB, FATA and KP
  - Low previously treated case notification in all country except Sindh and ICT
- Low bacteriological confirmation among notified DS-TB cases
- High death and lost to follow-up in DR-TB patients
- HIV screening low in DS-TB cases

Surveillance, Data & M&E Issues

- Late conduction of quarterly surveillance meetings
- Timeliness
  - By the 30th day to CCM, By the 45th day to GF
- Incomplete Information
  - Presumptive and contact information
- Late submission of Hard copies and mismatch
  - Required for Data validation and LFA review
- In the post devolution scenario, weak M&E coordination at national and provincial interface

Progress Update

- DHIS2
  - Core team training Round 1 & 2 conducted
  - Server configuration for TB in process
  - Malaria DHIS2 instance moving to NTP server
  - TOT and end user training planned from June onwards
- Revised R&R tools used from Quarter 1, 2018 onwards.

Thank you for your attention