

# Diagnostic of the immunization system in Punjab, Pakistan

Report on progress in key indicators against the initial diagnostic, 2014-2016

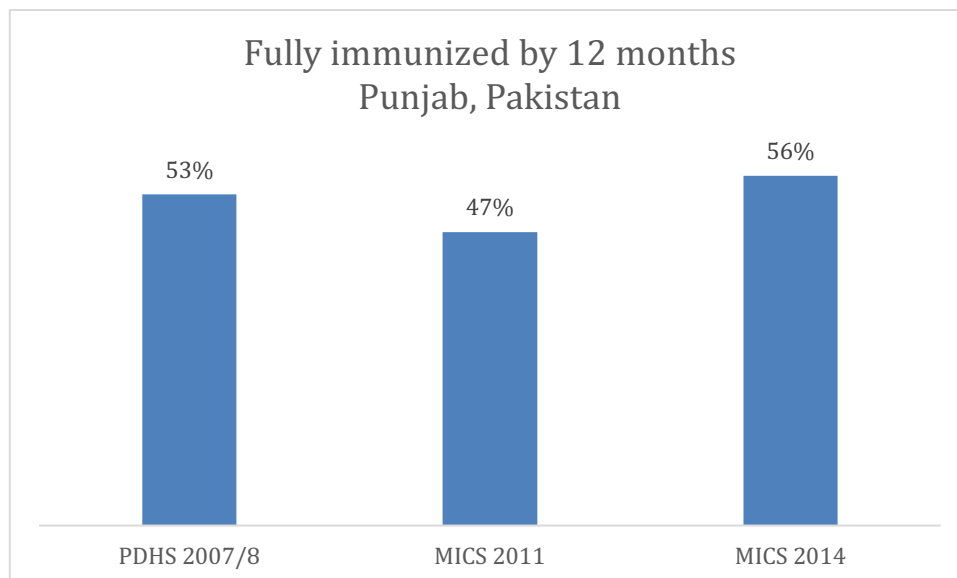
Acasus

## Introduction

### Pre-intervention context in Punjab

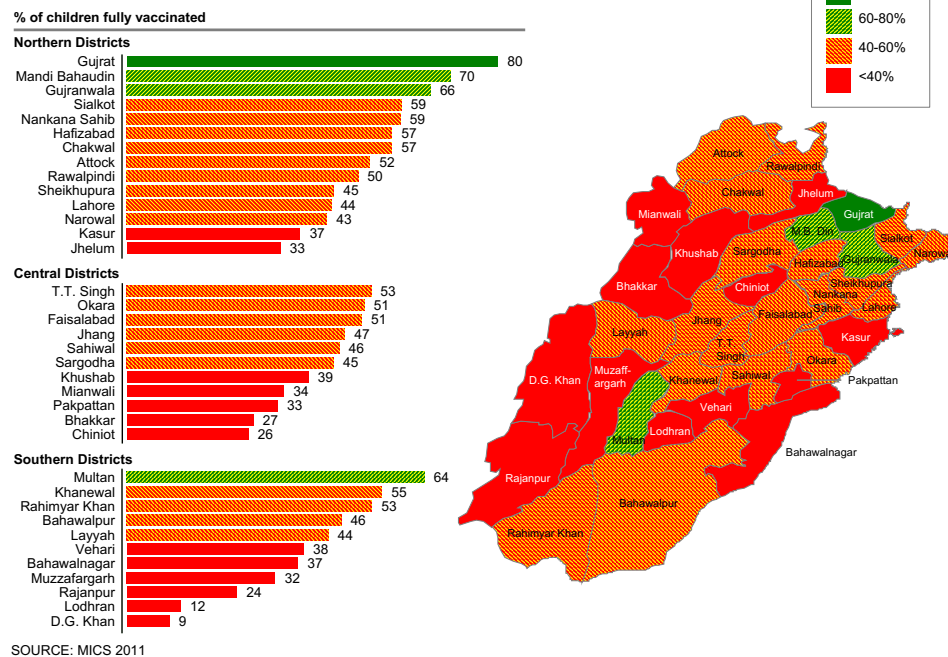
Pakistan is home to one of the largest populations of un- and under-vaccinated children in the world<sup>1</sup>. Routine immunization coverage in Pakistan has been historically stagnant, despite increasing financial resources for immunization<sup>2</sup>. The province of Punjab has performed relatively better in EPI coverage than other provinces. However, coverage has been low compared to other global comparators. Because of Punjab's large size - with a population of approximately 100 million and a birth cohort of 2.1 million each year<sup>3</sup> - it has been home to the largest number of un-vaccinated children in Pakistan

Historical immunization trend in Punjab<sup>4</sup>



Immunization coverage across regions within Punjab is highly variable. While immunization coverage is typically higher in northern regions, there is considerable variation within each region which pointed to causes of low immunization coverage beyond socioeconomic factors, particularly variance in district management effectiveness.

## Full Immunization Coverage by region in Punjab



## The immunization system in Punjab

In Punjab, immunization primarily occurs through an outreach model. Punjab has 3870 vaccinator positions, with vaccinators assigned a Union Council with an average population of 25-30,000. Vaccinators typically follow a monthly microplan for outreach visits, visiting 16-22 communities throughout the month. Vaccinator community visits occur at a 'kit station' which is often the house of a community health worker (Lady Health Worker or LHW) or village leader. Communities are notified of vaccinator visits through a combination of community health worker outreach and mosque announcements. To undertake outreach, vaccinators are given a motorbike and travel allowance.

Initial immunizations may also be given by primary care centre staff during post-natal checkups. In some urban areas, there are also a limited number of fixed centres for immunization.

## Context of the diagnostic

In early 2014, the Government of Punjab launched a primary care intervention called the Chief Minister's Health Reforms Roadmap. As part of development of the priority areas for the Roadmap, Acasus worked with the EPI department to undertake a diagnostic of the EPI system, which was shared at the first Stocktake with the Chief Minister in April 2014. In total, the priority areas of the Roadmap were: improving routine immunization, improving the rate of skilled birth attendance and strengthening primary care facilities. Specific activities for the routine immunization priority area were determined through this diagnostic of the immunization delivery chain.

## Summary of findings

This diagnostic of the EPI system was conducted in early 2014 using a mixed methods approach relying on interviews of health workers at all levels of the system, and analysis of existing routine data sources. This diagnostic revealed the drivers of low routine immunization coverage are concentrated in the last mile of delivery. These challenges are mostly due to poor management of vaccinators:

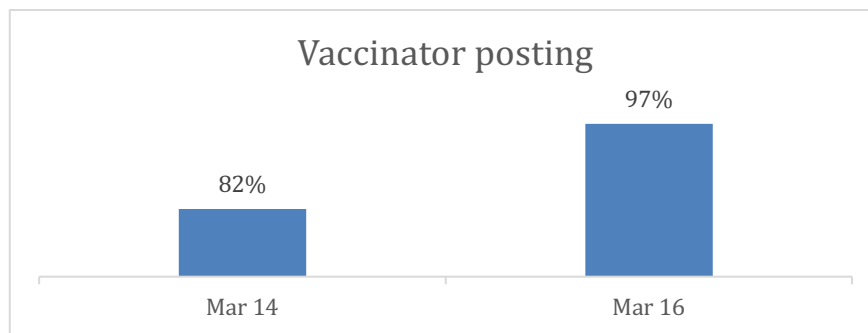
- Limited supervision and oversight: many field supervisor posts were vacant, and there are limited mechanisms to ensure vaccinators attended work each day
- Limited data on performance of the system: there were few reliable and timely data sources available to help drive management decisions
- No consequences for poor performance: there was low identification of poor performance and limited to no consequences for vaccinators for chronic absenteeism

This report summarizes findings from the diagnostic in 2014, and progress made against key inputs by 2016.

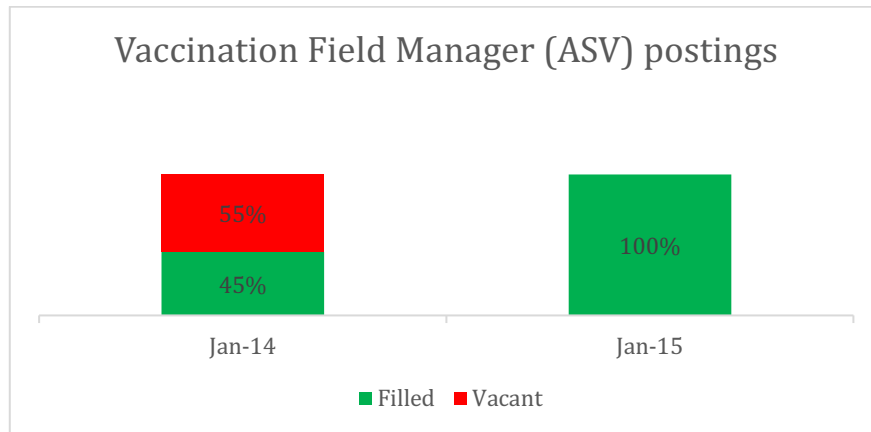
## Diagnostic findings and progress

### *Human resources for immunization*

18% of vaccinator posts were vacant during Q1 2014. These were filled through a combination of hiring and new vaccinator training. By March 2016, vaccinator posting was at 97%.

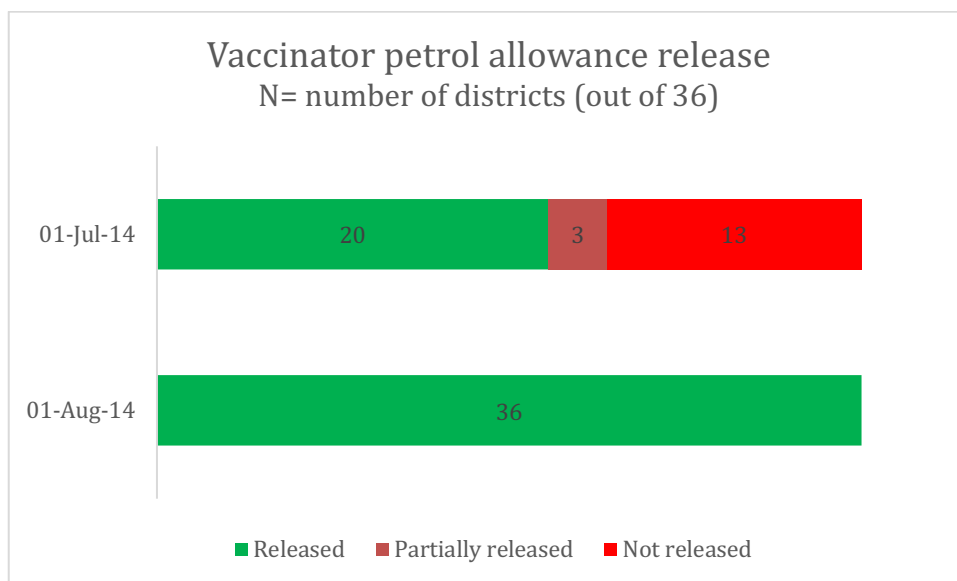


Vacancies in field supervisors for vaccination was high, at 45% in 2014. Field supervisor positions were filled rapidly by through granting a one-time exception to the training course requirement for the role, and expediting the establishment of the training scheme.



**Critical inputs for outreach**

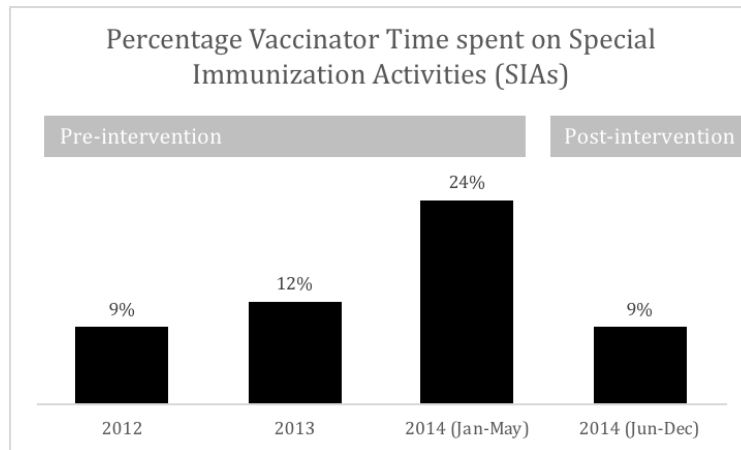
Travel allowances for vaccinators to cover petrol for motorbikes was included in district budgets but often not released to vaccinators. The Chief Minister issued an order to ensure travel allowance release in July 2014. Petrol allowance was released rapidly following an order from the Chief Minister, as measured through spot calls to vaccinators.



Full petrol allowance release has been maintained since 2014, as measured through periodic spot calls to vaccinators.

**Vaccinator time on immunization activities**

Vaccinators were spending an increasing amount of time on activities other than routine immunization. This includes Special Immunization Activities focused on polio elimination which were taking up to 25% of vaccinator time province-wide during peak months. Vaccinators were swapped for alternative health staff in districts, based on availability of alternative health staff.



### ***Using data and technology for stronger performance management***

The Roadmap focused heavily on the use of data for management, including the tactical use of technology for monitoring and closing feedback loops to strengthen accountability for results.

Vaccinators were provided android phones with a tailor-made application to track vaccination activity, developed by the Punjab Information Technology Board. Initially, tracking focused on ensuring communities were covered in outreach activities. This later progressed to collecting child level immunization data. Summary reports on vaccinator activity were available in real-time through a dashboard and circulated as a simple PDF report to district health managers every month. The vaccinator activity reports were the base for coaching of district managers. Vaccinator community visit coverage was reviewed on a monthly basis with the Secretary of Health and on a quarterly basis with the Chief Minister.

Best practice district management guidelines were developed, covering aspects such as identifying areas of low performance, how to review routine data and management actions to be taken to address performance gaps. Guidelines were distributed to all district managers and follow up from the Roadmap team helped coach managers on following the guidelines.

Monthly district meetings on immunization were strengthened. District managers were provided simple reports from the android app to guide discussion with the immunization team, guidelines on immunization system management were shared (as described above) and templates for meetings with district executive officers on immunization were developed. Support and coaching to district managers was provided where gaps in performance were identified at the provincial level.

### **Implementation timeline**

Activities were initially launched and scaled rapidly between June - October 2014 and continue as of mid 2016. Most activities were launched and scaled rapidly based on the high political expectations of a turn-around in system performance. This is illustrated in the implementation timeline below.

	2014				
	June	July	August	September	October
<b>Addressing gaps in key inputs</b>					
Initial hiring of 300 vaccinators					
Travel allowance release order issued					
<b>Optimizing system quality</b>					
Vaccinators separated from SIA activities					
Field Supervisor posting through internal promotion					
<b>Using data for performance management</b>					
<b>Android tracking</b>					
Pilot in 4 districts					
Scaled to ~18 districts					
Scaled to all 36 districts					
Reports circulated to districts					
<b>Strengthening use of data</b>					
Best practice guidelines disseminated					
Coaching visits to 36 districts (with android tracking coverage maps)					

Interventions were implemented by the EPI department with the support of PITB and a full-time external Roadmap team. Activities were agreed in formal stocktake meetings, held every 2-3 months. These stocktake meetings were chaired by the Chief Minister and were used to monitor progress and address any issues or roadblocks arising. Progress was measured through a 6-monthly household survey of approximately 15,000 households with a child < 1 year of age across all 36 districts.

<sup>1</sup> WHO. Global Vaccine Action Plan Secretariat Annual Report 2016. Geneva: World Health Organization, 2016.

<sup>2</sup> Masud T, Navaratne KV. The Expanded Program on Immunization in Pakistan. The World Bank, 2012.

<sup>3</sup> Punjab Bureau of Statistics. Punjab Development Statistics 2015. Lahore: Government of Punjab. 2015

<sup>4</sup> Pakistan Demographic and Health Survey. Final Report 2006-07; Punjab Multi Indicator Cluster Survey 2011. Final Report; Punjab Multi Indicator Cluster Survey 2014. Final Report;