Setting a New Pace:

How Punjab, Pakistan, achieved unprecedented improvements in public health outcomes

By: **Fenton Whelan** April 2018



Executive Summary

Between 2014 and 2017, Punjab achieved **unprecedented improvements in its health system**:

- Immunisation coverage increased by 35 percentage points,¹ a rate of improvement unheard of in a large health system. By 2017, almost one million more children were being fully immunised each year against a range of deadly childhood diseases, saving thousands of lives.²
- The proportion of women giving birth in the health system increased by 15 percentage points,³ meaning that 350,000 more children were born each year with medical care during their first moments of life, again saving thousands of lives.
- > A new ambulance service was launched handling roughly 25,000 patient transfers a month by December 2017.
- > Additional vaccines, including rotavirus, were rolled out.
- > A new referral system for complicated cases was established.
- The performance of primary health facilities rose, with substantial improvements in staffing, medicine availability, facility outlook and patient care.⁴
- > Behind the scenes, **new data systems, management routines and processes** were implemented.

The improvements targeted and disproportionately benefited the poorest communities in the province.⁵ Every indicator improved most among the poorest quarter of the population. The health service was extended to large numbers of previously unreached or underserved communities.

The improvements were **the result of a simple set of techniques and pro-cesses that could be applied elsewhere**. The Punjab Health Reforms Roadmap focused on improving management and implementing simple but effective solutions to problems on the ground. The strategy focused on:

- > Agreeing priorities based on what would make the most difference.
- > Using cost-effective and innovative new technologies.
- > Getting good data to understand what works and to manage performance.
- > Building capacity throughout the system.
- > Creating routines to solve problems and drive progress.
- > Engaging political leadership.

Punjab's success demonstrates that the key to saving lives in the developing world lies not in complex development theories or massive injections of funding, but rather in the application of good management and innovative technology to improve the delivery of services on the frontline.

This report is the story of that **transformation**.





* Fully immunized children aged 12-23 months old

 ** Estimate based on coverage data for a younger cohort Source: Independent household surveys (Nielsen/PHS)





/ **Skilled Birth Attendant (SBA)** A health worker trained to provide care during deliveries

Source: Independent household surveys (Nielsen/PHS) * April-September 2017





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| 2015 | 2016 | 2017 |
|------|------|------|
| | | |

/ Basic Health Unit (BHU) A small health clinic located in a rural area serving a cluster of villages

Source: Data collected by independent monitoring team (MEAs)





Availability of 18 critical medicines at BHUs (one month supply) Source: Data collected by independent monitoring team (MEAs)

Po

SKILLED BIRTH ATTENDANCE BY WEALTH QUINTILE (%)

LOWEST

HIGHEST

2014

2016



93

93



/ Community Midwife (CMW) Trained skilled birth attendants equipped to conduct a normal home delivery under safe conditions

/ Lady Health Visitor (LHV)

A medical professional trained to undertake nursing and midwifery duties

/Lady Health Worker (LHW)

A community health worker trained to dispense basic health advice and treat very common conditions in the community

/ Traditional Birth Attendant (TBA)

A person, generally without medical training, trusted by the community to support women during deliveries

Unskilled attendant Skilled attendant Skilled attendant includes doctor, nurse, CMW, or LHV. Unskilled attendant includes TBA/dai, LHW, relative, friend, or others

Source: Independent household surveys (Nielsen/PHS)



1) Children aged 12-23mo fully immunized

Source: Independent household surveys (Nielsen/PHS)

Achievements

Vaccination

- Increased vaccination coverage from 49% to 84% (fully immunized age 12-23 months)
- Introduced rotavirus vaccine for 2.5 million children each year
- Increased coverage of polio vaccine (OPV3) from 68% to 91%
- > Increased on-time measles-1 coverage from 48% to 81%
- Ensured that 95% of communities in Punjab are visited by a vaccinator each month
- Introduced digital child-level monitoring of immunization, collecting data on 200,000 new children each month
- > Hired 550 new vaccinators and supervisors

Safe Deliveries

- Increased skilled birth attendance from 68% to 83%
- Increased the number of public sector deliveries by 500,000 each year
- Increased skilled birth attendance among the bottom three wealth quintiles by 16%, 18% and 15% respectively
- Increased the number of BHUs offering 24/7 maternal health services from 77 to 1,000
- Procured 60 ultrasound machines for use in primary facilities, with 1,000 more on the way
- Introduced new systems to improve management of delivery complications
- Ensured consistent provision of supplies to community midwives

Facilities

- Doubled the number of medical officers in primary facilities from 1,445 to 2,995
- Increased availability of medical officers at BHUs from 34% to 74%
- Increased patient visits per quarter to primary health facilities from 2.67m to 3.62m
- Increased dispensation of free medicine from 13.4m to 29.5m units per quarter
- Introduced a range of diagnostic tests in all BHUs
- > Increased the proportion of BHUs and RHCs with:
 - > a medical officer posted from 62% to 90%
 - > a medical officer present from 55% to 82%
 - > critical medicines available from 72% to 95%
 - > electricity from 64% to 99%
 - > water systems from 58% to 98%
 - > sewage systems from 58% to 97%
 - > supplies available from 69% to 98%
 - > contraceptives available from 42% to 98%
 - Inctional equipment from 64% to 93%
 - > a facility sign from 85% to 97%
 - > adequate lighting from 22% to 72%
 - > working fans from 34% to 80%
 - > drinking water available from 17% to 92%
 - > a separate female toilet from 84% to 98%

- > good whitewash condition from 72% to 96%
- > good waiting area condition from 91% to 98%
- > good toilet condition from 60% to 91%
- > good labour room condition from 66% to 95%

Ambulances

- Established a new free, outsourced maternal ambulance fleet with 454 ambulances
- Increased successful transfers to more than 27,000 per month
- Reduced average transfer time from 150 minutes to 83 minutes
- Increased emergency calls being answered from 48% to 100%
- Reduced average call waiting time from 140 seconds to 3 seconds
- Reduced average emergency call duration time from 251 seconds to 114 seconds

Quality of care

- Introduced patient care checklists in facilities
- Increased patient temperature checks from 31% to 48%
- > Increased patient pulse checks

from 51% to 69%

- Increased patient blood pressure checks from 43% to 72%
- Trained 45,000 Community Health Workers

Leadership and management

- Established a routine of stocktakes to review progress at the highest levels
- Established a routine of monthly meetings of all district health officials
- Introduced mobile applications for monitoring facilities by district staff
- Created an independent monitoring force of 170 monitors to collect data on health facilities
- Established a routine of annual household surveys to track health outcomes

The Starting Point

Punjab is the largest province in Pakistan, home to 111 million people,⁶ more than half of the population of Pakistan and four times the population of Australia. A province of wide, fertile plains along the banks of the large rivers that descend from the Himalayas, it takes its name from the Persian words *panj* and *ab*, 'five waters,' or perhaps, 'five rivers'.

In 2012, a major survey of families in Punjab was conducted,⁷ in which thousands of mothers and fathers were asked more than 100 questions about their families. The survey found that one in 11 children died before their fifth birthday, compared with one in 24 in India,⁸ one in 30 in Bangladesh⁹ and one in 125 in Sri Lanka.¹⁰ Worse, since 1990, the number had improved only marginally, from one in 10 to one in 11.¹¹ Roughly half of all children who died before the age of five died within the first week of life.¹² Almost all died of preventable causes.

There were three main opportunities to reduce child and maternal mortality. The first was improving care around the time of delivery. The survey showed that roughly one third of births occurred at home.¹³ Childbirth is inherently a risky moment. A complication that can lead to the death of the child or mother develops in around 15% of deliveries. These complications are well understood, and there are clear treatment protocols. In a good hospital, the risk of maternal death is close to zero. But at home in a village, far from the nearest road, the chances of obtaining care in time to ensure the survival of both mother and child are severely compromised.

The second was improving immunisation coverage. Pakistan's routine immunisation program was established in 1978.¹⁴ By 1996, coverage in Punjab province had increased to 49%.¹⁵ From 1996, the data is noisy, with surveys in the same year in the same province often having different results. Coverage rates improved in some years and fell in others. In 2012, the survey showed that coverage was the same as it had been in 1996.¹⁶ The low coverage meant that thousands of children died each year from preventable diseaes.

The third was transforming primary care facilities, the main source of healthcare for anyone unable to afford or access private care.¹⁷ Punjab had a network of around 2,780 government health clinics in rural areas. In 2014, these were poorly resourced and poorly performing. Only 27 of them had all of the essential medicines they were supposed to.¹⁸ The chances of finding a doctor present in one on any given day were just one on three. Critical supplies were missing, equipment broken, and the condition of the facilities poor. Thousands of children suffered or died each year from illnesses which could be cured or prevented if the health facilities were in better condition.





Political leadership is essential, but is as much the product of a successful delivery effort as an ingredient for it. Except in the most fragile political environments, most political leaders will support successful reforms. Prioritization is the single most important factor determining the success of delivery. Reforms which exceed the system's capacity to implement them are doomed. The best reforms start small and grow as the system builds confidence and monumentum.



Data and other measures of progress are **essential so that the system knows whether it is making progress, can understand what works, and can tackle underperformance**. Building good data systems requires investment and constant refinement.



A meeting to review progress of the reforms conducted at regular intervals

/ Stocktake

/ Punjab Health Reform Roadmap

The reform programme for improving health in Punjab, consisting of a strategy, a structure for implementation, and a dedicated team The speed and effectiveness of the delivery effort depends on the extent to which it can **create and spread learning about what works**. In most systems, the answers are already out there somewhere, the challenge is to find and Routines and stocktakes are essential to **drive progress and unblock problems as they emerge**. A stocktake with the President or Prime Minister on every priority area once every three months can drive the system forward.

In 2014, the Punjab Health Roadmap was launched with the objective of implementing all three of these priorities. The aim of the Roadmap was simple – make it happen. By 2018, all three goals had been achieved. Punjab had achieved the fastest ever increase in immunisation coverage, the fastest ever increase in skilled birth attendance, and a radical transformation of its primary facilities.

Engaging the Chief Minister

Shahbaz Sharif became Chief Minister of Punjab in June 2008, having returned to Pakistan seven months earlier. A highly experienced politician and administrator, he is known for his strong work ethic, commitment to transforming his province, fast-paced management style and occasional severity when dealing with officials who are not performing.

Sharif had always shown a strong interest in the health sector. However, he also was sceptical about the chances of dramatically improving the government system. Every presentation given to him about the state of the system described a wide range of deep challenges and problems. Thousands of pages had been written on problems and deficiencies in the system. Many pilots and reforms had been launched without a discernible impact. Donors and experts counselled that improvement would require decades of determined efforts and funding, which, even then, might prove ineffective. He needed to be convinced that the system was worth the effort.

On the 15th of April 2014, Sharif convened the first meeting of the Health Roadmap. The presentation included comparisons with the Indian state of Punjab, a region with the same name just across the border. Immunisation coverage was 82% in the Indian state of Punjab compared to 47% in the Pakistani province of Punjab.¹⁹ The number of deliveries occurring in the presence of a medical professional was 85% compared to 68%.²⁰ Children on the Pakistani side of the border were more than twice as likely to die before their fifth birthday as those on the Indian side of the border.²¹ If Punjab, Pakistan, had the same child survival rate as Punjab, India, 100,000 lives a year would be saved.

The comparison illustrated both that it could be done and that it had to be done. Visibly moved, the Chief Minister approved a raft of actions for immediate implementation, and set targets for improvement on every indicator. He committed to chairing a routine of stocktakes to review progress.

/ Punjab Information

Technology Board (PITB) An autonomous body of the Government of Punjab dedicated to using technology to improve government in Punjab and beyond

/ Expanded Programme on Immunization (EPI)

The Health Department office responsible for vaccination

/ Integrated Reproductive Maternal Newborn Child Health & Nutrition Programme (IRMNCH)

Health Department programme to reduce maternal and newborn child morbidity and mortality, promote family planning and improve the nutritional status of women and children

/ Department for

International Development (DFID) British Government Department managing the UK aid programme

/ World Health Organisation (WHO)

An organisation whose goal is to build a better, healthier future for people all over the world. Their primary role is to direct and coordinate international health within the United Nations systems

/ United Nations Children's Fund (UNICEF)

A fund mandated by the United Nations General Assembly to advocate for the protection of children's rights, to help meet their basic needs and to expand their opportunities to reach their full potential

/ United Nations Population Fund (UNFPA)

The United Nations reproductive health and rights agency which aims to deliver a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled

/ Special Monitoring Unit (SMU)

A unit of the Chief Minister's office in Punjab charged with overseeing reforms across several priority sectors

TYPICAL LAYOUT OF STOCKTAKES WITH THE CHIEF MINISTER



The stocktakes became one of the key drivers of progress. Every two to three months, everyone involved would gather for a meeting to review progress. A dedicated independent Roadmap team staffed by Acasus collected evidence and produced a candid assessment of progress in each area. A set of up to 100 'traffic lights' showed the status of every agreed action and a collection of heatmaps showed progress in each of the 36 districts. Additional pages highlighted achievements, flagged problems, or suggested additional actions for approval.

The stocktakes became infamous for their sometimes harsh accountability. In one where progress was lagging, several people were fired during the course of the meeting. More often, however, they were a forum for solving problems, making decisions and congratulating those working hard to reform the system. During one meeting, three midwives from remote regions who had delivered more than 100 babies each during the previous month were honoured. In another, the team responsible for turning around a previously failing district was congratulated. As the Roadmap became more established, the discussion on primary care reduced to roughly 30 minutes every three months. The routines of pre-meetings, careful preparation by officials, and the stocktakes' reputation for brutal honesty on progress and the consequences that sometimes accompanied a lack of it meant that almost every problem was solved or action implemented in advance. The Roadmap converted a small amount of political leadership time focused on primary health - in later stages, only two or three hours a year – into a powerful and constant force for reform across the entire system.

4,000 Phones

One of the key priorities was improving immunization coverage. For the most part, Punjab had the staff, vaccines and equipment to immunise every child.²² However, to vaccinate children on time, the government had to ensure that a health worker actually visited every community, every month, to immunise children. It was in this final step that the challenge lay.

Arfa Tower is a modern glass office block in the east of Lahore, a building that would not be out of place in Dubai or Singapore. It is home to the Punjab Information Technology Board (PITB). Under the leadership of the charismatic and highly effective Dr Umar Saif, PITB has become a leader in the application of technology to support and drive reforms in government. When the Roadmap was launched, PITB assigned some of its top developers and managers to work with the Department and the Acasus team.

During the second half of 2014, each of the 4,000 health workers responsible for vaccination was given a low-cost smartphone by PITB (initially funded by the World Bank). The phones included an application that enabled vaccinators to report their exact location every time they vaccinated a child. Within months, they were submitting hundreds of thousands of reports every month.²³ The data from the phones meant that the government knew in real time exactly which communities were being visited and which were not.

The way in which the data were used evolved over time, but ultimately, the team designed an online map in which 17,700 regions – each representing a small village or cluster of hamlets – were shaded either green or red, depending on whether the community had been visited by a vaccinator that month.²⁴ The map was based on automated analysis of recent satellite imagery, ensuring that no community – official or unofficial – was missed. Separate pages showed the performance of individual vaccinators and data on the individual vaccination status of the two million children completing a course of vaccinations at any one time. Monthly performance reports were created for individual uals, districts and the province as a whole.

VACCINATOR COVERAGE IN FAISALABAD DISTRICT









The map was used to identify missed communities, and then the Health Department, district staff and the Acasus team developed solutions to address the coverage gaps. The Chief Minister approved the hiring of 550 new vaccinators and supervisors to fill empty posts, including a large number of posts that became vacant after the new system revealed that some vaccinators were not visiting any communities at all.

Transport allowances were consistently released every month once it became clear that some vaccinators were not travelling to communities because the allowances that they needed to pay for petrol had not been provided. A new approach to managing special campaigns was developed to ensure that vaccinators could focus on routine immunisation. Missed villages were assigned to vaccinators, and the maps allowed district staff to develop more efficient coverage plans. New plans were developed to ensure that communities did not get missed because of holidays or special events. Best practices for managing immunisation were created based on investigations of top-performing districts and disseminated across the province.

Within two years, immunisation coverage improved dramatically. A November 2016 survey of 30,000 households found that coverage was 82%, 35 percentage points higher than in December 2014.²⁵ The results were so strong that the government and donors commissioned four separate independent household surveys to check that the improvement was real, all of which confirmed the same results. Vaccination of children against polio reached an all-time high, as a result of the process of systematically covering every community in the province, rather than undertaking ad hoc campaigns. With the vaccination delivery system performing, in 2017, Punjab began introducing new vaccines, including Rotavirus, a vaccine to address one of the main causes of infant mortality. The higher coverage put Punjab well on the path to transforming health outcomes.

1,300 Delivery Centres

Roughly 2.5 million children are born in Punjab each year.²⁶ In 2014, there was almost no effective government provision for deliveries in rural areas.²⁷ Expectant mothers either had to travel to a town with a government hospital (many of which were in poor condition), use a private clinic or deliver at home. Among the poorest 20% of the population, two-thirds chose to deliver at home.²⁸ This, in turn, led to some of the worst neonatal and maternal mortality figures in the region.²⁹ Every community could tell stories of newborns and mothers dying during failed deliveries.

Punjab had 305 Rural Health Centres – small rural hospitals that could, in theory, handle deliveries. However, most lacked the equipment and resources to do so,³⁰ and the 305 facilities were not nearly enough to cover a rural population of 70 million people. The province also had 2,470 Basic Health

Units, smaller facilities that were only open in the morning, but which could be upgraded to provide round-the-clock care. In a pilot program, 77 of these had been converted to 24/7 operations, and despite significant resource gaps, the results were promising.³¹

Between 2014 and 2018, the number of Basic Health Units offering 24/7 maternal health services increased from 77 to almost 1,000.³² Data from the vaccinator-tracking application was used to create a geo-tagged map of home deliveries that, in turn, was used to identify optimal locations for the 1,000 upgraded facilities.³³ In parallel, the 305 Rural Health Centres were made fully operational, creating a network of 1,300 rural facilities where deliveries could take place. A multi-year effort aimed to ensure 100% uptime of these facilities – that regardless of when a patient arrived, each facility would always have the staff, equipment, medicine and electricity to conduct a delivery. If a single item on the critical list was missing, the facility failed the readiness test. Initially, only 50% of facilities passed the test.³⁴ By 2019, results were close to 100%.³⁵





GEO-TAGGED MAPS OF DELIVERIES CREATED USING VACCINATOR APP DATA WERE USED TO INFORM DECISIONS



Creating functioning facilities was not enough to increase utilisation without a complementary set of efforts to convince women to use them and overcome decades of scepticism about the government system. Early on, Sarghoda, a district in the northern part of the province, proved to be a leader in increasing utilisation.³⁶ Best practices from Sarghoda were documented and rolled out across the province. These practices included good communication with community health workers, clustering facilities, launching media campaigns, accommodating traditional birth attendants and holding monthly health camps to raise awareness.

By 2017, this network of facilities was undertaking more than 50,000 deliveries monthly,³⁷ roughly the same as the National Health Service in England.³⁸ Skilled birth attendance reached 83% in the second half of 2017³⁹ and continues to rise. However, just getting people to deliver in facilities was not enough. Medical staff could monitor deliveries, identify as early as possible whether a complication was developing, and provide the essential first stages of care in the event of a complication. However, they were not equipped to handle complex problems, particularly those requiring surgery. Ensuring that deliveries were safe and successful depended on the system's capacity to effectively refer women with complications to larger facilities as and when they occurred.

450 Ambulances

With the new network of rural facilities handling more than 50,000 deliveries a month,⁴⁰ the system generated demand for 3,200 emergency referrals a month⁴¹ — cases in which a new mother requiredimmediate transfer to a larger facility to provide more advanced care. This was more than enough to overwhelm the pre-existing referral networks. In addition, the data from the vaccinators showed that many of the 20% of mothers still delivering outside the health system lived a significant distance away from the newly upgraded rural facilities.⁴² They needed reliable transportation, often on short notice in the middle of the night, to convince them to deliver at a facility, rather than at home.

During a stocktake in February 2017, the Chief Minister approved implementation of a new rural ambulance service that would register expectant mothers (via SMS), pick them up when they went into labour, transport them to a larger facility in an emergency, and take them home after delivery. The idea was to reach more of the families who lived far from the facilities at the same time as improving the quality of care needed in the event of complications.



AMBULANCE SERVICE DASHBOARD

Source: IRMNCH Rural Ambulance Service dashboard, October 2017

The first ambulances went live in May 2017. The service was fully outsourced – both the ambulances and the call centre that coordinated them were supplied under a public-private partnership with strict performance standards managed by the Health Department with support from the Roadmap team.

While the ambulances immediately started providing benefits, there were clear performance challenges. Some calls to the call centre went unanswered and response times were slow. Some drivers struggled to find homes and some facilities were not ready when patients arrived. During shift changes and tea breaks, performance plummeted.

The Roadmap process of collecting data, reviewing it with senior stakeholders, investigating problems on the frontline and developing solutions quickly led to improvement across the ambulance network. Calls answered improved to 100%,⁴³ ambulance-response time was cut in half⁴⁴ and a new system was introduced to ensure that facilities were ready to handle patients. By December 2017, the system was handling roughly 25,000 patient transfers a month.⁴⁵ In early 2018, the ambulance fleet was expanded from 193 to 454, more than doubling capacity and increasing coverage to the whole province. The system is on track to ensure that in 2018, 85% of deliveries occur in the health system (more than halving the number of unattended deliveries since the beginning of 2015)⁴⁶ and that once people are in the health system, they can get the care they need.





SUCCESSFUL AMBULANCE TRANSFERS

AVERAGE TIME TO COMPLETE SUCCESSFUL (MINUTES)







AVERAGE CALL WAITING TIME (SECONDS)



AVERAGE CALL DURATION TIME (SECONDS)



Source: IRMNCH RAS dashboard; 2017 Data

170 Independent Monitors

Punjab's network of 2,780 rural health facilities was the main health service available to many of the poorest people in the province. However, in 2014, in many cases, it was barely functioning. The chances of finding a doctor in a Basic Health Unit on any given day were just one-in-three.⁴⁷ Basic Health Units were supposed to stock only 18 medicines – a small range. Only 27 facilities had all 18 in stock,⁴⁸ and 44 facilities were found to have no staff at all.⁴⁹

In the first Roadmap meeting, the Chief Minister approved the creation of an independent monitoring force, modelled on a similar force that monitored schools. The 170 monitors were former army officers, charged with visiting every health facility in the province at least once a month and reporting objectively on its condition. The information they gathered was reported through a mobile application, giving the the Health Department and the Roadmap team real time information on the condition of the facilities.

Considerable effort was invested in ensuring that the data were accurate. The monitors, through their training, developed a strong sense of purpose around their work. They realised that accurate reporting would enable problems to be addressed and lives to be saved, and that false reporting put their fellow citizens' lives in danger. A third of facilities were re-inspected each month by a different monitor, then results were compared. Statistical analyses identified any anomalies in reporting. Independent evaluations confirmed that the data were highly reliable.⁵⁰

The monitors started their work in December 2014. Each week, data were uploaded late on Saturday afternoons. On Sunday, the Acasus team checked the data and undertook a wide range of analyses. They then produced individual reports for each of the 36 districts, with specific details on problems that were uncovered. The reports told districts which facilities needed medicines and the quantities to send. They indicated staff vacancies, unauthorised absences, broken toilets, failed electricity connections and a wide range of other problems. An algorithm prioritised issues to help districts focus on the items that would make the most difference first.

The team also produced a summary for the Minister and the Secretary, indicating overall provincial performance, specific problems, and a list of people to be called, either to congratulate them or to urge them to address particular problems. On Monday morning, 36 hours after the last data were collected, the minister and the secretary would start making phone calls.





MEDICINE CONSUMPTION (QUATERLY)



FUNCTIONING EQUIPMENT

| 100% | | | | | | | | | | | | <u> </u> |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| 80% | F | | | _ | | | | | | | | |
| 60% | _ | | | | | | | | | | | |
| 40% | | | | | | | | | | | | |
| 20% | | | | | | | | | | | | |
| 0% | Jan 15 | Apr 15 | Jul 15 | Oct 15 | Jan 16 | Apr 16 | Jul 16 | Oct 16 | Jan 17 | Apr 17 | Jul 17 | Oct 17 |





FUNCTIONING WATER SYSTEM





FUNCTIONING SEWAGE SYSTEM

| 100% | | | | | | | _ | | _ | | _ | • |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 80% | 7 | | | | | | _ | _ | | | | _ |
| 60% | 1 | | | | | | | | | | | |
| 40% | | | | | | | | | | | | |
| 20% | | | | | | | | | | | | |
| 0% | Jan 15 | Apr 15 | Jul 15 | Oct 15 | Jan 16 | Apr 16 | Jul 16 | Oct 16 | Jan 17 | Apr 17 | Jul 17 | Oct 17 |

ROAD-SIDE SIGN 100% 80% 60% 40% 20% 0% Mar 15 Jun 15 Sep 15 Dec 16 Mar 17 Dec 15 Mar 16 Jun 16 Sep 16 Jun 17 Sep 17 Dec 17





WORKING FANS



DRINKING WATER AVAILABLE



SEPARATE FEMALE TOILET



WHITEWASH CONDITION







GENERAL TOILET CONDITION



LABOR ROOM CONDITION



AVERAGE OUTLOOK SCORE



/ Average Outlook Score The average score of road-side sign, facility sign, adequate lighting, working fans, drinking water availability, separate female toilet, whitewash condition, general toilet condition and labor room condition.

Source: MEA data

These routines and the fast cycles of action and measurement led to rapid improvement in most indicators. Within months, medicine availability was 99%.⁵¹ Availability of contraceptives, basic equipment, electricity, drinking water, and a whole range of other supplies and inputs increased.⁵² Staff attendance was up, and vacant posts were being filled.⁵³

Some indicators proved to be complicated. To meet the requirements of the new medicine-availability indicator, health facilities were required to have one month of stock available. However, in the first few months, as medicine availability increased, consumption doubled.⁵⁴ Not only was more medicine being consumed, but the amount of stock required to be kept to meet needs increased. The vast amount of data now available meant relationships could be quickly understood, and the team built new models to help predict the effects of increased supply and accurately convey to districts the quantities they would need to supply to each facility.

Other indicators took a long time to improve. Medical officer posting, in particular, improved as the result of a set of initial actions, then plateaued at around 70%. The fundamentals of supply and demand in the market made it difficult to fill positions in the remaining third of facilities. Potential recruits perceived these facilities as dysfunctional, and the incentives to serve in rural areas were weak. The Department and the team began implementing a more long-term plan, changing incentives and improving conditions. The Health Secretary personally visited every medical school in the province to explain the changes being made, candidly answer questions and encourage young doctors to serve. New processes were introduced to better advertise vacancies and match potential candidates to suitable positions. By the end of 2017, 90% of posts were filled.⁵⁵

Over time, the range of indicators expanded. An initial focus on inputs gave way to indicators on the condition of facilities. In 2017, the focus turned to the quality of care and patient satisfaction. The monitors started interviewing 6,000 patients a month,⁵⁶ ensuring they were getting good basic care and understanding what happened when they were treated in facilities. The quality of care slowly began to improve. Overall, the reforms transformed a system of failing clinics into one that consistently provides basic levels of care and has a system in place for future improvement.

Routines

Progress in all areas of the Roadmap was driven by routines. The routine of stocktakes with the Chief Minister in particular ensured a consistent focus on primary health during the first four years and provided a forum for setting direction and targets, checking progress, solving problems and increasing accountability.

Equally important were the monthly meetings of all 36 districts. On the first Sunday of every month, officials from all 36 districts travelled to Lahore to meet with the Secretary, Minister and provincial management teams. During each meeting progress was reviewd, top performers were congratulated and officials invited to share with their colleagues the techniques and practices that they used to boost performance. With more than 1,000 years of experience between them, the collective wisdom of the group helped solve many problems and challenges as implementation progressed. At the same time, the meetings helped maintain focus and ensured a strong sense of accountability.

The routines, the capacity being built through the monthly meetings, the spread of knowledge about what works and the raised expectations formed the foundation for ensuring that the reforms were sustainable. As the system improved, the officials responsible for it collectively changed their expectations of it.

For instance, previously, the lack of medicine had been accepted, by 2015, even a small dip in availability provoked concern and action. 'We know we can do better than this' the Secretary declared after several indicators dipped slightly from the previous month.



Source: Meetings with district officials

Impact

By late 2017, the health system in Punjab was improving rapidly. Each year, 300,000 more children were being born in the presence of medical professionals and almost one million additional children were being fully immunised.⁵⁷ Primary health facilities were being transformed, and parallel efforts were leading to substantial improvements in hospitals. All of these achievements were underpinned by improved management, new systems and routines, increased knowledge about what works, increased expectations and reliable data.

At the same time, the transformation was incomplete. The Chief Minister and the Health Department continued to set new goals for improvement. Immunisation rates and skilled-birth attendance needed to increase further. While facilities were improving, there were gaps in the quality and effectiveness of care, and in some areas, access remained poor. Paradoxically, the rapid improvements convinced many that the system needed to aim even higher. In early 2018, work began on a new and more ambitious phase of reforms.

The progress in Punjab began to be used as a model for others. In Pakistan, two other provinces – Baluchistan and Khyber Pakhtunkhwa – launched similar efforts modelled on the Punjab experience, which were already demonstrating success by the end of 2017. A number of other countries were beginning to launch new efforts based on the Punjab experience. Beyond learning from the specific interventions and systems which led to progress in Punjab, they embodied three more general lessons.

First, that big fast reforms are often easier to implement than small slow ones. The ambition and speed of the changes in Punjab energised and excited everyone involved. The pace of weekly meetings created a sense of urgency and immediacy. The visible changes occurring week on week encouraged people to put in the hours and hard work necessary to improve the system. Meetings occurred long into the evening and often past midnight as officials and the Roadmap team grappled with the challenges of improving the system. The momentum encouraged everyone to aim higher. None of the changes would have been possible if the system had settled for a less ambitious set of goals over a longer time period.

Second, that implementation matters more than strategy and planning. None of the plans produced over the course of the Roadmap survived more than a few months. The system was learning so much so quickly about what worked, that the plans had to be constantly rewritten to incorporate the latest insights about solutions and challenges. Instead of long meetings and discussions to debate what might work or could be done, the system focused on learning about what did work and getting it done. A more traditional approach of diagnostic analysis and planning could never have delivered the same result.



Immunization coverage 2016

~ 10m population _____ ~1m population _____ Finally, strong support from political leaders and other stakeholders was critical, but it had to be earned and re-earned. The Roadmap process ultimately had fantastic support from the Chief Minister, the senior politicians and officials, and most of the international donors. That support was as much a result of the success of the Roadmap as it was an input to it. Early sceptics became supporters as they saw the process begin to work and deliver results. The widening and deepening of support ultimately became the biggest guarantee that the results would be sustained.

Credits

The Roadmap involved tens of thousands of people. The real work of improving the health system was done by a huge workforce of frontline health workers who vaccinated children, delivered babies, and provided frontline care in difficult settings. The credit for the success of the Roadmap goes primarily to them.

The Roadmap was a government-led effort. The Chief Minister personally led implementation throughout. The Health Secretaries, particularly Ali Jan Khan and Jawad Rafique, led the day-to-day work of implementation. Both were exceptional in their dedication to improving the health system and their effectiveness in doing so. The Chief Minister's Advisor on Health, Khawaja Salman Rafique and the Minister of Health, Khawaja Imran Nazeer, were constantly engaged. A large number of officials in the Health Department made huge contributions. Among them, Dr Munir Ahmed led the immunisation program for the whole duration of the Roadmap and was responsible for some of the largest gains.

Many other parts of the government supported the Roadmap, particularly the Chief Secretary, the Finance Department and the Planning and Development Department. The Punjab Information Technology Board, led by Dr Umar Saif, played a role in almost every aspect of the Roadmap providing the technology to drive many of the reforms. The Special Monitoring Unit, led first by Aizaz Akhtar and then by Fatima Zaidi, were key players throughout and successfully replicated the Roadmap approach in a number of other areas.

The Roadmap was supported by the United Kingdom's Department for International Development (DFID) as part of a larger assistance program to Pakistan. Many DFID officials were deeply and personally involved in work. Sir Michael Barber, initially in his role as DFID Special Representative in Pakistan, advised the Chief Minister, DFID, and the Roadmap team throughout and was present at every stocktake guiding the proceedings and key decisions. His work to establish the Roadmap process in education was the foundation for the Health Roadmap.

Finally, much of the day-to-day work was undertaken by a small Roadmap team of dedicated young consultants from Acasus who worked day and night to support the government in implementation. Their dedication and hard work through four long years of reform was the catalyst for transformation as a whole.

About Acasus

Acasus is a consultancy dedicated to helping governments implement transformational reforms in health and education. We provide small teams of talented individuals who work alongside government officials to help them implement ambitious reforms in health and education systems. Our teams consist of consultants, sector experts, software engineers and designers who deliver results by combining intensive management support, innovative mobile applications, solid data, and regular engagement with senior politicians and officials.

More information is available at www.acasus.com



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- ⁵ Nielsen Survey, December 2014; PHS, November 2016/17
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- ²⁹ PDHS, 2012-13
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- ⁴⁵ Ibid.
- ⁴⁶ Ibid.
- ⁴⁷ Data from the Independent Monitoring Team (Government of Punjab)

- ⁴⁸ Ibid.
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- ⁵⁰ IPOR independent evaluation
- ⁵¹ Data from the Independent Monitoring Team (Government of Punjab)
- ⁵² Ibid.
- ⁵³ Ibid.
- ⁵⁴ Ibid.
- ⁵⁵ Ibid.
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- ⁵⁷ PHS, 2017

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