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# STRONG SYSTEMS SAVE LIVES

Health Systems Strengthening Component  
USAID Maternal and Child Health Program

**PAKISTAN** | August 2017







Competency and skills play a vital role in improving quality of care. Here, excellent counseling skills ensure client satisfaction.



## Strong Systems Save Lives

Health Systems Strengthening Component  
USAID Maternal and Child Health Program  
Pakistan

IMPLEMENTED IN PARTNERSHIP WITH:



Heartfile



Continuum of care: Communities are an integral part of health systems.

## Health Systems Strengthening Component of USAID's Maternal and Child Health Program

The Health Systems Strengthening (HSS) Component of USAID's Maternal and Child Health Program is a five-year cooperative agreement (2013-2018) to develop and support cost-effective, high-quality, and integrated reproductive, maternal, newborn, and child health (RMNCH) programs and services in Pakistan.

The HSS Component supported the Federal Ministry of National Health Services, Regulation & Coordination and Sindh Province's Department of Health to develop management systems, access to data, and human resource capacity for improved health services. Special attention was paid to the quality and equity of services.

The Sindh Department of Health is now better able to manage the equitable provision of health services to a rapidly growing population. More resources are now available and clear roles and responsibilities have been delineated for federal, provincial, and district levels.

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The HSS Component strengthened systems to support cost-effective, high-quality, and integrated reproductive, maternal, newborn, and child health services.

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Acronyms



**Where the  
HSS Component  
worked:**



**The HSS Component had three objectives:**



Strengthen systems to improve reproductive, maternal, newborn, and child health (RMNCH) service delivery and outcomes, including accountability and transparency



Strengthen management capacity at provincial and district levels



Strengthen private sector service delivery for the poor

## Strong Systems Save Lives

### WHY HEALTH SYSTEMS STRENGTHENING?

What is a health system and what does it mean to strengthen one? A health system is the organization of people, institutions, and resources that deliver health services to people. The World Health Organization (WHO) identifies six building blocks that make up a health system: 1) human resources for health; 2) health financing; 3) health governance; 4) health information; 5) medical products, vaccines, and technologies; and 6) service delivery. Strengthening a health system means strengthening any (or all) of these six areas with the aim of improving the health services delivered to people, and ultimately, their health outcomes.

The Health Systems Strengthening Component of USAID's Maternal and Child Health Program (the HSS Component) worked to strengthen the Government of Pakistan's health system, with a particular focus on reproductive, maternal, newborn, and child health (RMNCH) services in Sindh province. In 2010, Pakistan's 18th constitutional amendment decentralized the country's health system, giving provinces a much greater role in setting health sector strategies, policies, and financing. Decentralization was a major paradigm shift for Pakistan, and required provincial health systems to make substantial structural and fiscal adjustments to be in line with the new legislation.

USAID's Maternal and Child Health Program was developed to support the Pakistani government and Sindh province, in particular, through the initial process of decentralization. The HSS Component worked at all levels of government to make critical human and financial resources available at federal, provincial, and district levels. In Sindh, the HSS Component worked with the Department of Health to improve its ability to manage how RMNCH services are provided to citizens.

## COORDINATION AND PARTNERSHIP

Only with the help and collaboration of numerous stakeholders was it possible to put in place health systems strengthening measures that are truly sustainable. A key approach was to ensure that USAID's assistance dovetailed with short- and long-term government plans, at both the federal and provincial levels, in support of strengthening Pakistan's health system in a continuous and sustainable manner.

By contributing and mobilizing significant resources across key components of the health system, the HSS Component was able to leverage synergies of the various interventions. For example, making sure that government policies support expanding access to actionable data, while giving health managers the training needed to generate and use that data, enabled districts to make sound financial and programmatic decisions to improve care.

With simultaneous improvements in policies, infrastructure, training, and community engagement, USAID, in partnership with the federal Ministry of National Health Services, Regulation, and Coordination (MNHSR&C), the Sindh Department of Health (DOH), and other stakeholders, has built a foundation that enables better quality health services and sets national and provincial standards in the wake of decentralization. To complete such a comprehensive program, the HSS Component worked with stakeholders from all levels of the country's health system, including government agencies, faith-based and nongovernmental organizations, international donors and implementers, local communities, and the private sector.

## HSS Component Timeline

2013

- DHIS assessment completed; findings used to strengthen routine health data system
- First DHPMT meetings held in 21 districts
- First districts trained in district action planning

2014

- Partnerships with Health Services Academy and Aga Khan University created for short- and long-term courses for Sindh mid-level managers
- Capacity development (CD) assessment completed; findings used to develop CD strategy for Sindh
- First 21 districts complete district action plans (DAPs) and medium-term budgetary frameworks
- M&E cells created

2015

- Online integrated dashboard developed
- DHPMT meetings held in all districts
- Monitoring and supervision manual developed for Sindh DOH

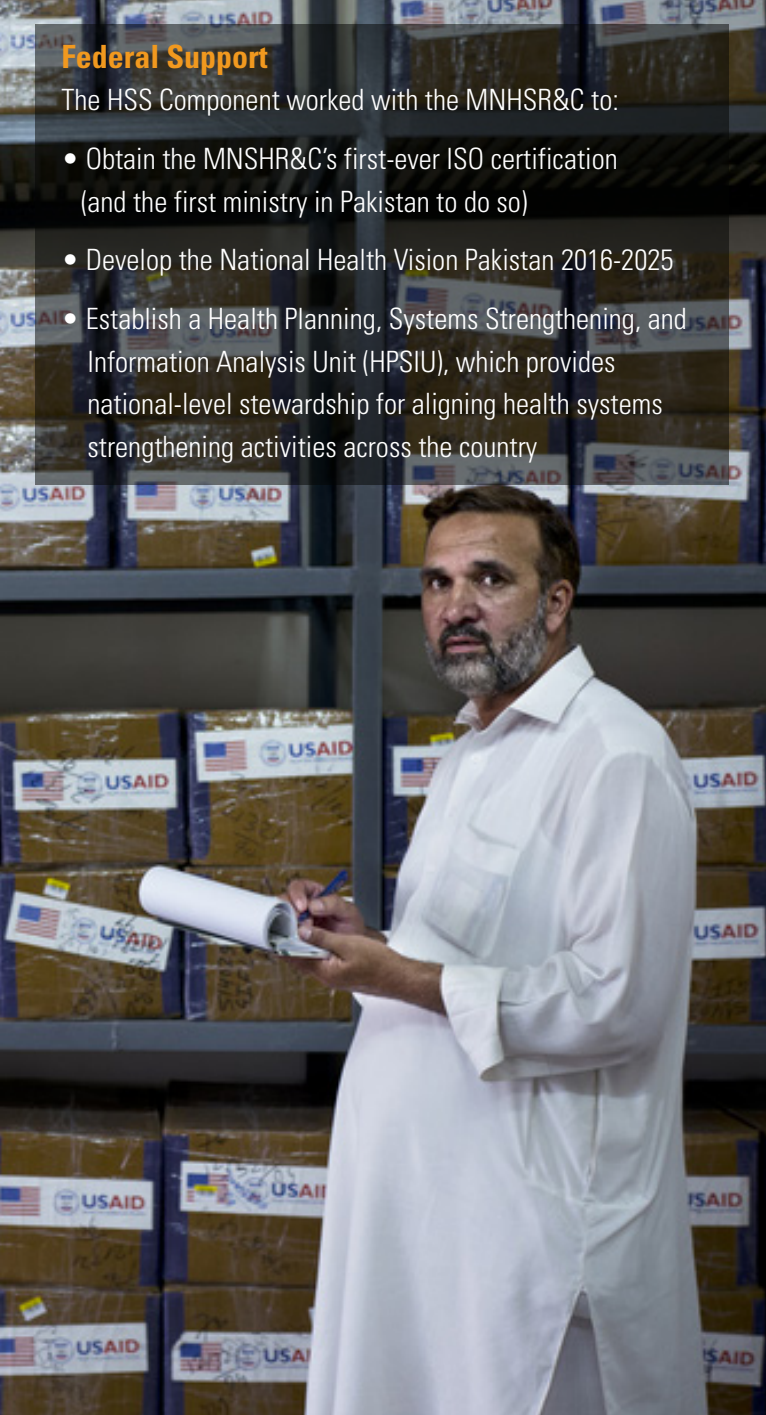
2016

- SOPs developed for DHPMT meetings
- Ownership of DHPMT meetings transferred to Sindh DOH
- Sindh DOH and Department of Finance release PKR 165 million for DAP activities
- Health facility assessment completed and results disseminated to districts

## Federal Support

The HSS Component worked with the MNHSR&C to:

- Obtain the MNHSR&C's first-ever ISO certification (and the first ministry in Pakistan to do so)
- Develop the National Health Vision Pakistan 2016-2025
- Establish a Health Planning, Systems Strengthening, and Information Analysis Unit (HPSIU), which provides national-level stewardship for aligning health systems strengthening activities across the country



## COLLABORATORS

### National Level

- Ministry of National Health Services, Regulation & Coordination (MNHSR&C)
- Drug Regulatory Authority of Pakistan (DRAP)

### Provincial Level

- Department of Health Sindh (DOH)
- Director General Health Services Sindh (DGHS)
- Population Welfare Department (PWD)
- People's Primary Healthcare Initiative (PPHI)
- Public private partnerships

### District Level

- District Health Office
- District Health and Population Management Teams (DHPMTs)
- PWD
- Department of Education
- PPHI

### Partners

- Contech International
- Rural Support Programmes Network (RSPN)
- Heartfile Health Financing

### Other International Donors

- UNICEF
- WHO
- UNFPA

### Other USAID Maternal and Child Health Program Components

- Family planning and reproductive health (Marie Stopes International)
- Maternal, newborn, and child health services (Jhpiego)
- Behavior change communications (Johns Hopkins Center for Communications Programs)
- Health commodities (John Snow, Inc., Chemonics)
- Health policy and advocacy (Palladium)

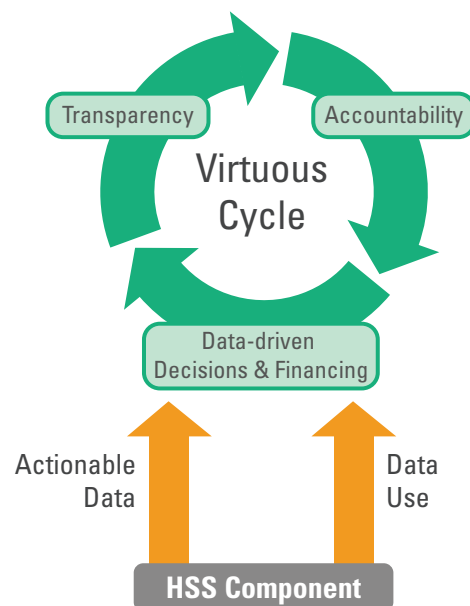


Strengthening a health system by improving transparency and accountability ultimately improves the way health services are delivered.

## Strengthen Systems for Improved Accountability and Transparency

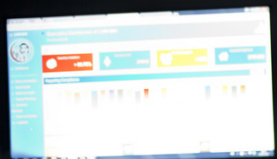
### EFFECTIVE HEALTH SYSTEMS STRENGTHENING CREATES A VIRTUOUS CYCLE

The lack of transparency, accountability, and evidence-based resource allocations were some of the most challenging issues facing the health system in Sindh. As evidenced in the following pages, the HSS Component worked across the Sindh health system to strengthen it, sustainably, from the inside out.

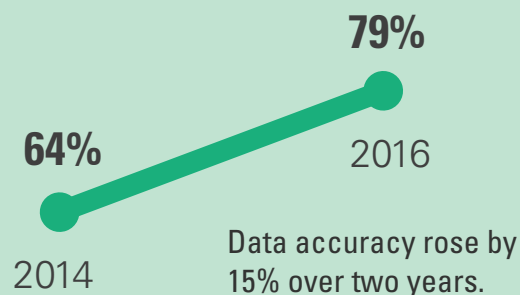


By strengthening the capacity of health managers and government institutions to ensure quality data and developing mechanisms to make sure that data is used, the HSS Component spurred a virtuous cycle, as shown in the diagram at left. Giving people access to quality, actionable data and inducing them to use that data to make sound financial and programmatic decisions results in increasing transparency, increasing accountability within the health system, and increasing evidence-based resource allocation.





Provincial-level health managers use the online integrated dashboard to make programmatic and financial decisions.



Financial support for the integrated dashboard is now included in the DOH's annual budget.



## Improve Access to Actionable Health Data

### INTRODUCING THE ONLINE, INTEGRATED HEALTH INFORMATION DASHBOARD

When the HSS Component was launched in 2013, there was very little data available in Sindh, both in terms of disease burden and human resources for health. As a result of this, district-level health budgets were disbursed on a flat annual increase, there were inaccurate numbers on the type and distribution of health workers, and there were no mechanisms or standards to ensure that facilities were reporting quality data and providing the right health services.

To address the data gap, the HSS Component assessed Sindh's district health information system (DHIS) during the first year of the project and used the findings to propose interventions to improve Pakistan's routine health information system.

One of the most important interventions was an integrated, online, interactive health information dashboard. The HSS Component worked with federal, provincial, and district stakeholders to create the dashboard, which is online at [www.shis.sindhhealth.pk](http://www.shis.sindhhealth.pk).

The integrated dashboard allows health managers to monitor how Sindh is performing across three critical areas of its health system: 1) health service delivery, 2) planning and management, and 3) monitoring and supervision. Each area is measured through 17 key performance indicators (KPIs).

On the homepage of the integrated dashboard, users have one-click access to the Sindh DHIS, which currently houses data on all public health facilities in Sindh province; to the MIS for all vertical health programs, including immunization, community midwives, and lady health workers; to the monitoring and supervision system, which is a mechanism for validating the data and improving performance and the quality of services; and to the M&E dashboard, which uses the 17 KPIs to rank the performance of all 23 districts in Sindh. The homepage also contains links to national health surveys, such as the Multiple Indicator Cluster Survey (MICS) and others.

Health managers working in Sindh at the provincial and district levels can now review the performance of each and every health facility, lady health worker, and community midwife in the province and use this information to make evidence-based financial and programmatic decisions. The HSS Component not only played a role creating the integrated dashboard, but also in developing user guidelines and training health managers and others. These efforts improved data quality and use, which positively impacted transparency and accountability in Sindh.



## AN ONLINE MONITORING AND SUPERVISORY SYSTEM IMPROVES PERFORMANCE AND SERVICE QUALITY

The HSS Component worked with the Sindh DOH and other implementing partners to standardize and bring online the provincial monitoring and supervision (M&S) system. Before this innovation was introduced, there was no systematic way to oversee and evaluate M&S efforts, which are a critical part of a well-functioning health system.

The HSS Component provided technical assistance to the DOH to design the online M&S system. Vertical program staff worked with the HSS Component to develop standardized tools and checklists, which are available online to download before M&S visits. The Component also convened stakeholders to develop standard operation procedures (SOPs) for M&S visits. The SOPs are available online and on posters in all district health offices and facilities. The M&S system supports supervisors and program and health facility managers to monitor and supervise how health services are delivered.

The HSS Component provided a two-day training for more than 200 health managers, including district health officers, DHIS coordinators, and vertical program district focal persons, on how to plan for M&S field visits and upload the resulting reports online. All supervision checklists are completed electronically, and the system has built in data quality checks.

Similar to other components of the integrated dashboard, M&S data can be drilled down to the individual level (see photo). Supervisors and supervisees can verify whether supervisory visits are indeed occurring. For example, at each M&S visit, the supervisor must take a picture of him/herself at the supervisory site, which is geo-located. When supervisory visits are tied to remuneration, good supervisors are rewarded based on merit, which creates a virtuous cycle of effective supervision.



All districts in Sindh have an online M&S system.

More than **200** health managers trained to use the online M&S system.

Supervision checklists are being used by all vertical programs.



Health workers conduct a health awareness event with the Hindu Kolih tribe in Hyderabad, Sindh Province.



All districts in Sindh developed district action plans and medium-term budgetary frameworks



The government of Sindh allocated

**PKR 380 million**

to address issues related to training, M&S visits, printing health education materials, and conducting health awareness events

## Use Data to Transform a Health System

### WHEN DISTRICTS USE DATA TO PLAN AND BUDGET, HEALTH FUNDING IS BETTER ALLOCATED

When the HSS Component began in 2013, all districts received the same increase in funding every year, regardless of their individual circumstances and needs. In 2014, the HSS Component started working with all district health offices, including Karachi, to prepare district action plans (DAPs) and medium-term budgetary framework (MTBF) estimations.

Districts now use their own data (available online via the integrated dashboard) to plan for how to sustain and improve health services over the coming year. The DAPs are created in line with the Sindh DOH's budgetary framework, and this has enabled districts to develop realistic budgets and thus implement their plans successfully. DAPs and MBTFs are tracked online via the integrated dashboard, which has increased district transparency and accountability. The Sindh DOH now allocates district health funding based on the DAP and MTBF process. DAPs also provide a way to measure progress towards achieving district-specific RMNCH priorities.

The Sindh Department of Finance now requires the DOH to develop its budget using the medium-term budgetary framework, which means this process (action planning and budgeting) will continue after the HSS Component comes to an end.





DHPMT members conduct a quarterly review meeting. Here, they are reviewing decisions made in the previous meeting.

## DISTRICT HEALTH AND POPULATION MANAGEMENT TEAMS BUILD A CULTURE OF DATA USE

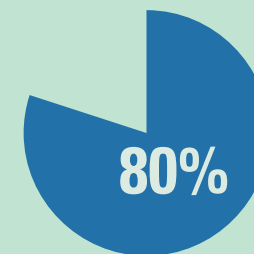
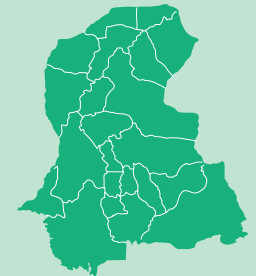
The process of decentralization prompted the need to establish provincial and district-level coordination mechanisms that promote participatory decision-making and accountability by engaging all stakeholders. In 2013, the HSS Component began working with the Government of Sindh to revitalize District Health and Population Management Teams (DHPMTs) in 23 districts of Sindh. DHPMTs are made up of a variety of professional stakeholders including representatives from district health offices (DHOs), the Population Welfare Department, the People's Primary Healthcare Initiative, the Department of Education, and others.

DHPMT meetings provide a platform for sharing and exchanging views, information, experiences, and resources to improve the health system at the district level. The HSS Component provided technical assistance (TA) to districts to hold routine, quarterly DHPMT meetings. At the provincial level, the HSS Component provided TA to the Director General Health Services (DGHS) to conduct DHPMT provincial review meetings, which monitor the performance of DHPMTs. The DGHS then provides feedback to districts as needed.

Establishing this management and coordination continuum between districts and the province has strengthened institutional capacity, improved the use of information for decision-making, and improved coordination among district-level stakeholders.

Since June 2016, DHPMT meetings have been conducted by DHOs and provincial review meetings by the Sindh DOH without technical assistance from the HSS Component.

All DHPMTs in Sindh's 23 districts are revitalized and hold quarterly review meetings.



More than 80% of the challenges identified at DHPMT meetings are resolved at the district level.

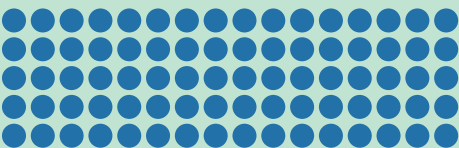
The HSS Component provided funds to establish a library at the Health Services Academy in Islamabad.



# Invest in Human Resources for Health

## SHORT- AND LONG-TERM CAPACITY BUILDING ARE IMPORTANT

The HSS Component conducted a capacity assessment of managers from the Sindh District Health Office, the Department of Population Welfare, and the People’s Primary Healthcare Initiative, which was based on the World Health Organization’s six health system building blocks. The results of the assessment informed a capacity building strategy for Sindh Province. Among other capacity development interventions, the HSS Component worked with Agha Khan University and the Health Services Academy to develop long- and short-term training courses for 160 health managers. Eighty health managers completed a two-year master’s degree in public health. Eighty-five managers completed short-term management courses in strategic planning and other areas. The newly-trained managers will fill human resource gaps throughout Sindh Province.



**80** health managers completed a master’s degree in public health.



**85** health managers completed short-term management courses.



A health worker records immunization data while visiting and providing services to a family. Better record keeping helps validate data for improved coverage.



# Health Systems Strengthening in Focus

## IMPROVED SERVICES AND SUSTAINABILITY RESULT FROM A SYSTEMS-BASED APPROACH

### Routine Immunization

The HSS Component supported the Sindh DOH to explore how to improve the coverage of routine immunization using a health systems approach. With the goal to reach every child under two years of age and all pregnant women, this small pilot was implemented in four districts. After two years, the coverage of children under two who had received all three doses of the diphtheria, pertussis, and tetanus toxoid (DPT3) vaccine improved from 13 to 87 percent.

The systems-based approach to improve RI coverage included improving actionable RI data by building the capacity of health workers to register every child under two years of age and record and report RI data appropriately. The pilot also used the monitoring and supervision (M&S) (see page 11) to ensure health workers and managers improved their performance as needed. Working with districts to create RI micro-plans to improve planning and budgeting for RI was also important. When it became clear that health workers needed a reliable mode of transportation to reach far-away communities, the HSS Component procured 550 motorcycles to address the issue. To educate communities about the benefits of immunization, the HSS Component engaged Pakistan's lady health workers and community leaders.

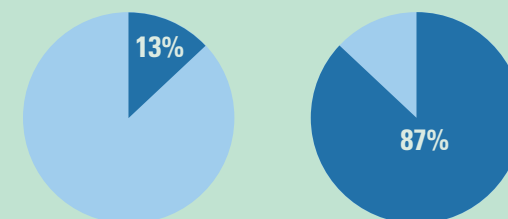
The Sindh DOH has since implemented the systems-based methodology used in the pilot to increase RI coverage in 15 additional districts.

An external evaluation of the pilot found it to be extremely cost effective. For the amount of money invested in the pilot, the cost savings to the DOH was found to be more than USD 10 million, due to fewer cases of vaccine preventable diseases that would otherwise need to be covered by public funds.

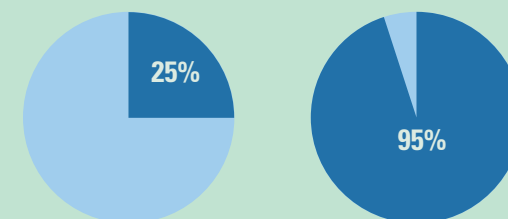


Fathers' engagement boosts immunization coverage.

Immunization coverage of children under 2 years increased from **13 percent** to **87 percent**.



Immunization coverage of pregnant women increased from **25 percent** to **95 percent**.



The pilot's cost savings to the government of Sindh is more than

**USD 10 million.**



With little orientation, family members can apply CHX at home.

A national CHX protocol has been standardized and the percentage of the health workforce trained in CHX application has risen.

CHX is included in the Essential Medicines List and is soon to be produced locally in Pakistan.



## Chlorhexidine

Pakistan has the second-highest newborn mortality rate in the world,<sup>1</sup> and umbilical cord infections are the third-leading cause of these deaths.<sup>2</sup> Over the last two decades, the newborn mortality rate has remained stagnant.

Research published in *The Lancet* in 2012 pointed to a low-cost, high-impact intervention that, if taken to scale, could lower Pakistan's newborn mortality rate. The research, conducted by Pakistan's Aga Khan University, JSI, and funded by USAID, showed that applying chlorhexidine (CHX) antiseptic gel to a newborn's umbilical stump within 24 hours after birth reduced severe infection by 78 percent and death by 38 percent.<sup>2</sup>

Pakistan's Ministry of National Health Services, Regulation and Coordination (MNHSR&C) requested assistance from the HSS Component to introduce and scale-up the use of CHX. The HSS Component's approach, which used health system levers, was successful in setting the stage for CHX scale up nationwide. The HSS Component worked with leadership and governance at all levels to use the evidence base to standardize CHX protocol and ensure the inclusion of CHX as the drug of choice for preventing umbilical cord infection. In parallel, the HSS Component and partners worked together to develop messaging and information to increase the acceptability and use of CHX, and increase the health care workforce trained in CHX application. Local production of CHX is expected to start with registration of four local pharmaceutical companies for manufacturing. USAID donated 2.1 million CHX tubes to the MNHSR&C through JSI to distribute across all provincial health departments until the locally-produced CHX is available.

<sup>1</sup> UNICEF. Neonatal Mortality Estimates. <https://data.unicef.org/topic/child-survival/neonatal-mortality/>.

<sup>2</sup> Soofi S, Cousens S, Imdad A, Bhutto N, Ali N, Bhutta, ZA. Topical application of chlorhexidine to neonatal umbilical cords for prevention of omphalitis and neonatal mortality in a rural district of Pakistan: a community-based, cluster-randomised trial. *Lancet*. 2012;379(9820):1029–1036. doi: 10.1016/S0140- 6736(11)61877-1.

# Forward Together

## IMPACT AND SUSTAINABILITY

The HSS Component worked to strengthen the Sindh health system sustainably, so that the Department of Health Sindh would be ready to effectively manage the equitable provision of health services to the province's rapidly growing population. The HSS Component advocated for health in general, and RMNCH in particular, at all levels of the government so that critical resources (e.g., financial, human) are available with clear roles and responsibilities at provincial and district levels.

The HSS Component developed a health systems strengthening package and adopted a three-phased approach for implementing the package to ensure continuity and sustainability.

### Three-phased Approach for Strengthening the Health System:

1

Diagnose health system strengths and weaknesses by conducting assessments.

2

Prioritize key constraints and areas for interventions.

3

Identify potential solutions through consensus.



**Local problems, local solutions.**

**80%** of district challenges can be resolved by district health and population management teams





Pregnant women line up to receive the tetanus toxoid immunization in rural Sindh.

## THE LEGACY AND SUSTAINABILITY OF THE HSS COMPONENT IS IMPRESSIVE



Health budgets have risen in response to DHPMTs engaging in district action planning and creating medium-term budgetary frameworks. This allowed managers to effectively advocate for larger budgets where needed, using data to substantiate their requests.

# 80%

Districts are able to address most (80 percent) of their health-sector challenges on their own, again thanks to DHPMTs using quality data to identify and solve problems.



The “culture of data use” in Sindh improved. Data accuracy improved from 64 to 79 percent in just two years (2014 to 2016) and DHPMTs hold quarterly meetings (on their own, with no funding or help from the HSS Component), where they meet to review health data and use it for planning, budgeting, and problem-solving.



The online, integrated dashboard Sindh has been handed over to the government of Sindh and is now fully funded by the province.



Routine immunization has been shown to be cost effective and sustainable, if health system levers are used to improve coverage rates among pregnant mothers and children.



CHX is poised to be scaled up nation-wide, thanks to a new national protocol, a standardized health provider training curriculum, local production on the horizon, and other systems-level interventions. This is potentially a game changer for improving newborn mortality.

# Acronyms

CHX	Chlorhexidine
DAP	District action plan
DGHS	Director General Health Services
DHIS	District health information system
DHPMT	District health and population management team
DHO	District health office
DOH	Department of Health
DPT3	Third dose of diphtheria, pertussis, and tetanus toxoid vaccine
EPI	Expanded Programme on Immunization
HSS	Health systems strengthening
JSI	JSI Research & Training Institute, Inc.
M&S	Monitoring and supervision
MICS	Multiple Indicator Cluster Survey



Midwife school: Competent human resources are a cornerstone of health systems strengthening.



A lady health worker records health data (e.g., number of children and pregnant women, immunizations, and illnesses) on the wall of a house in rural Sindh so the information can be checked anytime by a field officer.

MIS	Management information system
MNHSR&C	Ministry of National Health Services, Regulation, and Coordination
MTBF	Medium-term budgetary framework
PKR	Pakistani rupee
PPHI	People's Primary Healthcare Initiative
PWD	Population Welfare Department
RI	Routine immunization
RMNCH	Reproductive, maternal, newborn, and child health
SOP	Standard operating procedure
TA	Technical assistance
WHO	The World Health Organization
USAID	United States Agency for International Development
USD	United States dollar





A health worker applies life-saving CHX to a newborn's umbilical cord within 48 hours after birth.



**Health Systems Strengthening Component  
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