

Update on polio eradication in Pakistan

Poliovirus circulation continues in Pakistan but is restricted to only a few areas

- In 2009, there were 89 cases from 32 districts within the three towns of Karachi – Baldia, Gadap and Gulshan-e-Iqbal). The highest number of cases was detected in North West Frontier Province (NWFP) (29), followed by Federally Administered Tribal Areas (FATA) (24), Punjab (17), Sindh (12) and Balochistan (11).
- In 2010, eight cases (three from Quetta, two from Bajour and one each from Karachi, Peshawar and Swat) – from five districts out of a total number of 138.

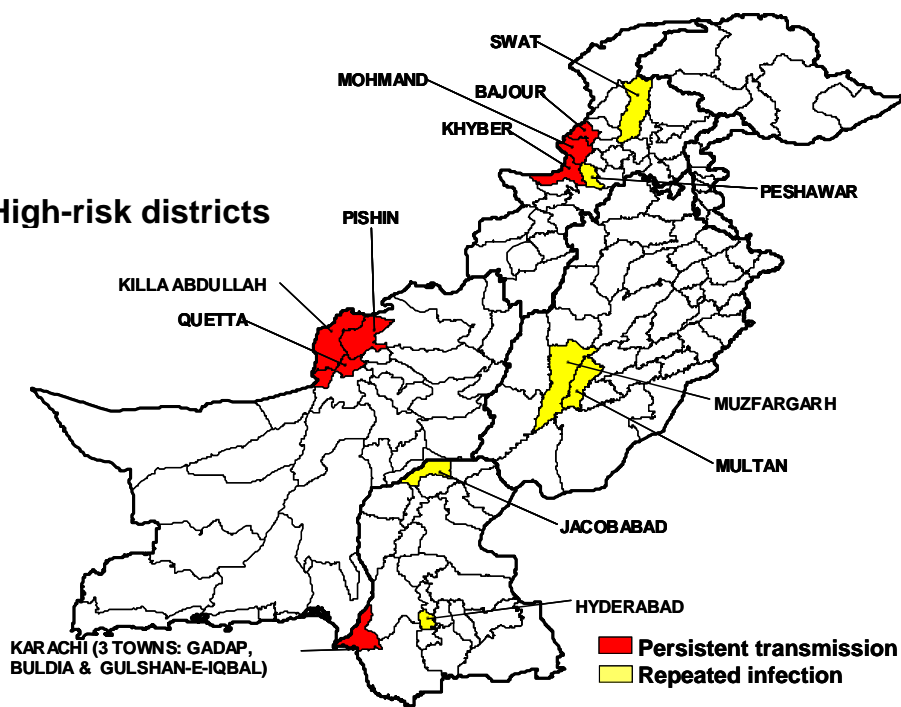
February. The Interministerial Inter-provincial Committee on Polio (IPCP), headed by the Federal Minister for Health, in its last meeting endorsed implementation of district-specific plans and regular monitoring.

- District- (area) specific plans for 15 high-risk districts** have been developed with emphasis on locally appropriate strategies.
- Innovative strategies for social mobilization under the Prime Minister's Action Plan for Polio Eradication for enhanced intersectoral collaboration** has resulted in stronger and broader partnership in public and private sectors.

polio cases in 2009. AJK has been polio-free for over nine years and Gilgit-Baltistan for 12 years.

- The Prime Minister's Action Plan for Polio Eradication**, which focuses on intersectoral collaboration, has shown good results and needs to be replicated at the provincial and district levels and engage all levels of civil society.
- Progressively improving access in NWFP and FATA** – Armed forces, special support group and all levels of civil societies, and most importantly, communities are supporting vaccination activities.
- New powerful tools and innovative interventions** – bi-valent oral polio vaccine and district-specific plans to address community level issues, improved accessibility in different areas and community-based initiatives in insecure areas (piloted in Bajour and Kurram).

High-risk districts



There are only 15 high-risk districts/towns/agencies in the country

These include nine with persistent transmission and six repeatedly infected districts. All polio cases in 2010 are from these areas. Ongoing transmission in these areas poses the risk of the spread of virus to other areas.

Positive recent developments

- Unprecedented support from the highest leadership** - never before were two successive vaccination campaigns launched by the two highest leaders in the country – the President in January and the Prime Minister in

- The armed forces are joining hands with the health authorities and civil society to support vaccination of children in conflict-affected areas.
- Engagement of community level leadership on a non-partisan basis to support polio eradication in Karachi.
- Improving the quality of life of polio victims through physical and social rehabilitation. 176 persons have received the support since 2008.

Strong opportunities to stop polio in Pakistan

- Large populations live in areas with no polio cases** - 77% of the districts/towns/agencies did not have

Clear targets

At least 90% coverage verified by finger-marking through independent monitoring in every district in every campaign.

Major challenges and operational risks

- Commitment at the district level for polio eradication does not match the commitment at the national and provincial level.
- Performance gaps in few high-risk areas of Sindh and Balochsitan mostly due to lack of accountability.
- Insecurity in NWFP and FATA.
- Inequities in routine immunization coverage between provinces and districts.

International implications

Polio eradication receives international support. An investment of more than US\$ 7 billion worldwide will be jeopardized if poliovirus transmission is not stopped soon in Pakistan.



Way forward

- Ensure trickle-down of high political commitment and the Prime Minister's Action Plan up to the district levels.
- Regular provincial level monitoring of the progress in implementation of the district-specific plans by the Chief Secretary. Commissioners and DCOs should take full accountability to programme support and monitoring.
- Close monitoring of the implementation of specific plans for 15 high-risk districts/towns/agencies.
- Establish a fixed functional Expanded Programme on Immunization (EPI) centre in every public sector health facility.
- Improving the skills of lady health workers to deliver routine immunization services.



Polio eradication and the EPI in Punjab

Overall situation

Punjab has demonstrated capacity to interrupt indigenous poliovirus circulation and maintain it for almost 2 years. Due to a convergence of factors, including insufficient EPI coverage, a reduction in the number of vaccination campaigns and influx of population from insecure areas with low immunity, results were favourable for importation-associated outbreak of type-1 polio in 2008 linked with circulation in NWFP, FATA and Sindh. Circulation in Punjab continued in 2009 with a maximum number of cases from Multan and Muzaffargarh, with reverse transmission to NWFP. No polio case has been reported yet in 2010.

Wild polio cases 2009

District	Wild Cases
Sialkot	1 P3
T T Singh	1 P1
Multan	5 P1
Rajanpur	1 P1
Bahawalpur	1 P1
Lahore	1 P1
Khanewal	1 P1
Muzaffargarh	4 P1
Rawalpindi	1 P1
D G Khan	1 P1
Punjab	16P1,1P3

Successful implementation of all polio eradication strategies could soon make Punjab polio-free

1. Acute flaccid paralysis surveillance:

Performance is consistently reaching certification standards through an established AFP surveillance system, which can serve as a model for a communicable disease surveillance system in future.

2. Supplementary immunization activities:

Since 2008, 10 vaccination campaigns as part of the national or subnational campaigns are being implemented annually in the province. In the latest vaccination campaign, February 2010, overall finger-marking coverage evaluated by independent monitors is above 95%. All districts had more than 90% finger-marking coverage in this evaluation. The same has been the pattern in several successive campaigns.

3. Removing inequities in the routine EPI: There has been a recent improvement in the EPI although it remains the weakest and most fragile component. Assessment of the recent immunization month in October 2009 showed that the percentage of fully immunized children was 85% or above in all districts except Lahore, Nankana Sahib, Jhang, Lodhran, Multan and Rajanpur, which represent 21% of the total population in Punjab.

4. District-specific plans: A district-specific plan has been developed for each district (since April 2009) addressing the specific issues in the district, actions taken, responsible persons and the outcome. A monthly progress report is being submitted to the provincial level, to follow the implementation of the plan (with special emphasis on high-risk districts). Recently these plans have been further refined to include detailed tracking of each task.

Key challenges

- Sustaining attainable achievements and maintaining polio-free status after interruption of circulation.

Key milestones

- To ensure stopping of transmission of wild polio virus by mid 2010.
- To reduce the chances of the re-establishment of wild polio virus circulation in the province, if the virus is re-introduced.

Way forward

- Ensuring uniformly high routine immunization coverage in every union council and sustaining high quality campaigns. In this regard, the DCOs may be directed to personally follow the progress in implementation of the district-specific plans, and ensuring availability of local resources for outreach vaccination and supervision. The EPI is designed to cover most of the populations through outreach and mobile vaccination.
- Further enhancing multisectoral approaches, including strong political commitment at all levels, advocacy of the campaign among all sections, involvement of all line departments, e.g. education, local government, interior (police), religious affairs, information, etc. and involvement of nongovernmental organizations and the media as part of programme implementation.
- Creating public demand for vaccination and community ownership - motivating parents to vaccinate their children and to consider it a right for their children.
- Community-based health vaccinators and health workers need effective training and skills building to enable them to provide immunization services at a vaccination centre close to home.



Polio eradication and the EPI in NWFP and FATA

Overall situation

NWFP and FATA continue to be at risk: Several areas of NWFP and FATA have been inaccessible for vaccination due to ongoing conflict leaving too many children insufficiently protected against polio. NWFP and FATA together reported a total of 49 polio cases in 2009 (54% of cases in the whole country) and four cases in 2010 to date. All cases of 2009 and 2010 are from areas that have been insecure for a considerable period, except a case from Kohistan in 2009 and case from Peshawar in 2010. Circulation is shared frequently between areas in NWFP and FATA, as well as neighbouring areas of Afghanistan due to very dynamic population movement, especially from unsafe areas with inadequately immunized children. The last independent evaluation of the EPI in the Pakistan Demographic and Health Survey 2007 reported 56% coverage for DPT3 and the percentage of fully immunized children at 47%, indicating much below the optimal performance rate of at least 80%.

Strong opportunities to be exploited

- There is strong political will to eradicate polio and improve routine EPI.
 - The recent meeting of the Chief Secretary with the District Coordination Officers (DCOs) on polio is a solid step to ensure uniformly high-quality vaccination activities through routine vaccination and campaigns in all areas.
 - Decision of making DCOs and political agents responsible for implementation of their area-specific plans is much appreciated and should ensure success.
- Polio cases have been restricted to very few areas in the last 14 months – eight districts and three tribal agencies. The most densely populated areas in the central NWFP such as Mardan, Nowshera and accessible areas of Charsadda and Swabi did not report polio

indicating good impact of well-conducted vaccination activities.

- Significant improvements in the security situation, especially in Swat and most recently Bajour and available support from all sections of civil society and the leadership of the armed forces. The successful experience of Swat provides an excellent model to be replicated elsewhere.
- Community-based initiatives have been piloted in the insecure areas of Bajour and Kurram agencies to support polio eradication activities. The same approach has given good results in similar situations elsewhere.
- Many international and national nongovernmental organizations are supporting populations affected by insecurity, especially internally displaced persons. They can efficiently support vaccination activities for delivery and monitoring. Health clusters provide an effective forum to collaborate in this regard.

Key challenges

- Maintaining accessible populations free of polio. There are some performance gaps in the accessible populations in campaigns and routine vaccination such as Peshawar, Nowshera, Karak and Chitral. Case from Peshawar is from an under-performing area due to inefficient supervision.
- Maintaining motivation of staff and community to ensure vaccination of children in areas in conflict against polio and other vaccine-preventable diseases, especially measles and neonatal tetanus.

Key milestones for NWFP and FATA provinces

- NWFP
 - Stopping poliovirus transmission by the end of 2010
 - Reducing the chances of the re-establishment of poliovirus circulation in the province, if the virus is re-introduced.

FATA

- Localizing ongoing poliovirus circulation to only three tribal agencies in the central region, namely Khyber and Mohmand Bajour by the end of 2010.
- Stopping all poliovirus transmission by the end of 2011.

Way forward

- Zero-tolerance for performance gaps in routine vaccination or campaign in areas with no access issues through regular follow-up of the district and agency-specific plans for polio eradication.
 - DCOs and political agents may be directed to personally follow the progress in implementation of these plans and guide the local health leadership in resolving issues, if any. A monthly report on the progress endorsed by DCOs may be sent to the provincial leadership – Secretary of Health in NWFP and Secretary Administration in FATA to support district and agency level administration in addressing the system issues, if any.
 - A quarterly meeting chaired by the Chief Secretary may be convened to monitor performance and progress in districts and agencies and frontier region areas.
- Build on experience of piloting community-based initiatives to enhance community ownership for vaccination activities in insecure areas.
- Engaging all levels of civil society, including the armed forces, in the districts and tribal areas with access issues. Collaboration with special support groups and nongovernmental organizations supporting social sector development in NWFP and FATA is needed to develop a broader coalition in ensuring vaccination of children against polio and other vaccine-preventable diseases.



Polio eradication in Sindh

Overall situation

The Sindh programme has demonstrated its capacity to interrupt poliovirus transmission, however, the achievements could not be sustained. One type-3 polio case has been reported in 2010 to date from Gulshan-e-Iqbal town of the Karachi district. There has been isolation of both sero-types of polioviruses (type 1 and 3) from the sewage water samples. In 2009, Sindh reported 12 polio cases. Epidemiological data complemented by genetic analysis of polioviruses confirms ongoing circulation of type-3 poliovirus in Karachi. This has also resulted in the spread of the virus to other areas, e.g., type-3 outbreak in joint transmission zone comprising north-western Balochistan (Quetta-Pishin-Kila Abdullah) and southern Afghanistan. Routine immunization coverage is generally low and uneven. The Pakistan Demographic and Health Survey Report 2008 showed DPT3 coverage of 48% and only 37% of children were fully immunized. Consequently, in addition to ongoing poliovirus circulation in Karachi, there is an explosive outbreak of measles in the district's multiple towns. The outbreak started in 2009 with 77% of samples testing positive for measles and continuing into 2010. The Health Department was informed in a meeting by the partners, WHO and UNICEF, that the quality of vaccination activities was suboptimal in a measles vaccination campaign in a district in Karachi.

It is important to highlight that there are additional resources available to support the vaccination programme in addition to ongoing GAVI (Global Alliance for Vaccines and Immunization) support. Ten districts are receiving extensive support to the health care system under the Norwegian Pakistan Partnership Project. This project is to provide support to improve maternal, newborn and child health, which includes routine immunization. UNICEF also provides support to 12 districts of Sindh to improve routine immunization.

The February 2010 vaccination campaign was re-energized in Karachi due to the engagement of community level leadership; however, there is continued uneven coverage in several key areas.

- Enthusiasm was rejuvenated for the vaccination campaign in several areas of Karachi. There were two key factors for this: a) mainly, issuance of instructions from the top leadership of the Muttahida Quami Movement; and b) Governor of Sindh directions in a meeting to engage community level leadership to overcome bottlenecks in the programme. However, significant changes could not be made in operations since the main support came too close to the start of the campaigns.
- **Independent post-campaign assessment highlights** were as following:
 - There is slow improvement - overall finger-marking coverage in the province improved from 86% in December 2009 to 90% in January 2010 and 91% in February.
 - All of the five highest risk areas, except Hyderabad had at least 90% finger-marking coverage (Hyderabad – 87%).
 - 7 of 18 towns of Karachi and overall 6 of 23 districts have finger-marking coverage below 90% indicating uneven performance and quality of vaccination campaign.
 - Towns: Kemari, Orangi, Layari, Saddar, North Nazimabad, Gulberg and Liaqatabad
 - Districts: Karachi, Hyderabad, Tando Allah Yar, Thatta, Kambar and Kashmir
- **Post-campaign spot (market surveys) conducted by the UN supported staff** highlight: -
 - Overall finger-marking coverage is below 90%, that is, 88%.
 - **All of the five highest risk areas had below 90% finger-marking coverage** --> Baldia town - 73%, Gulshan-e-Iqbal – 86% and Gaddap – 87%, Hyderabad – 81% and Jacobabad – 88%

Key challenges for the Sindh province in 2010

- Improving the performance in vaccination campaigns in the persistently under-performing and recently deteriorating towns in Karachi and other districts through ensuring accountability.
- Achieving uniformly high routine immunization and vaccination campaigns at the union council level.

Key milestones for 2010 - 2012

- The interruption of any re-established poliovirus circulation in Sindh outside Karachi by June 2010 and no secondary spread following importations.
- Indigenous wild poliovirus circulation interrupted in Karachi by the end of 2011.

Key areas of focus for Sindh province in 2010

- Ensure close and regular monthly follow-up of the district-specific plans for the five highest risk districts at the district and provincial level. A quarterly follow up for all districts and towns at the provincial level.
- Optimally capitalized on the current strong support of the leadership for polio eradication in ensuring the following in the provinces, especially Karachi
 - elementary issues such as proper micro-plans for house-to-house vaccination campaign and catch up activity are well addressed in all towns of Karachi;
 - local and appropriate vaccination team members are secured;
 - actions are taken against persistently under-performing staff; and
 - special plans for migratory and nomadic populations, especially in northern Sindh and the high-risk populations in Karachi are in place.
- Ensure follow up of the decisions made in the high-level meetings, the most important being the quarterly meeting of DCOs chaired by the Chief Secretary to discuss performance of the immunization programme and mechanisms for overcoming issues.



Polio eradication in Balochistan

Overall situation

In 2009, a total of 11 polio cases were reported from five districts. They included five cases from Kila Abdullah, two cases from each of Quetta and Sherani and one each from Pishin and Jafarabad. In 2010, three polio cases are reported so far, all from Quetta.

Polio eradication in Balochistan relies on performance in five districts, three of these had low performance persistently in 2009 and 2010

There are only five important districts for polio eradication in Balochistan namely Quetta, Pishin and Kila Abdullah making a triad and adjoining districts of Nasirabad and Jafarabad. The province has the natural advantage of very low population density. When quality of vaccination activities in these five districts is good, polio circulation was stopped for 13 months between October 2003 and December 2004, reiterating the possibility of success if the strategies are implemented properly.

Key challenges for Balochistan

- Rapidly improving performance in three epidemiologically important districts for polio eradication which have persistently inadequate performance, including Kila Abdullah, Pishin and Quetta. These districts have a pattern of low finger-marking coverage
- Over-dependency on the partners' support which is greatly influenced by the law and order situation.
- Overcoming chronic problems of paramedics association frequently hampering vaccination activities through different tactics.
- The Pakistan Demographic and Health Survey 2007 showed that the lowest coverage in any province was in Balochistan, i.e., 47% DPT3 coverage and fully vaccinated only 35%. Consequently, there is an outbreak of measles cases in the north-western Balochistan areas, incidentally the same areas have ongoing circulation of polioviruses.

Key milestone for Balochistan province

- Interrupt wild poliovirus circulation by end 2011.

Key areas of focus for Balochistan province in 2010

- Ensuring implementation of the district-specific plans for Quetta, Pishin and Kila Abdullah through making DCOs personally responsible.
- Improve routine EPI across the board with particular focus on five high priority districts.
- Urgently address chronic problems of Kila Abdullah, which are: optimal use of available financial and human resources (especially vaccinators and lady health workers); paramedics' strikes hampering operations, accountability and transparency.
- Surveillance quality in Pishin needs to be improved through ensuring free and liberal reporting of all AFP cases.
- Specific plans, including monitoring mechanism in place to ensure well-coordinated activities with Afghanistan.

