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Maternal and Child Health Integrated Program

Tajikistan

Final Program Report

(FY 2011-2013)

MCHIP

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health's flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria, nutrition, and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening.

MCHIP is implemented by Jhpiego in partnership with John Snow, Inc. (JSI); Save the Children; Johns Hopkins University/Institute of International Programs; ICF Macro; Program for Appropriate Technology in Health (PATH); Broad Branch Associates; and Populations Services International (PSI). MCHIP/Tajikistan was managed and administered by JSI, the lead organization for immunization program implementation.

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ABBREVIATIONS AND ACRONYMS

AEFI	Adverse Events Following Immunization
cMYP	Comprehensive Multi-Year Plan
DHS	Demographic Health Survey
GHI	Global Health Initiative
HepB	Hepatitis B vaccine
Hib	<i>Haemophilus influenzae</i> type b vaccine
HW	Health worker
ICC	Inter-agency Coordinating Committee
IEC	Information, Education and Communication
IIP	Immunization in Practice
I-NGO	International Non-Governmental Organization
IST	Inter-country Support Team
GAVI	Global Alliance for Vaccines and Immunization
GTZ	German Agency for International Cooperation
JICA	Japan International Coordinating Agency
JSI	John Snow, Inc.
LSS	Living Standards Survey
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MCHIP	Maternal and Child Health Integrated Program
MICS	Multiple Indicator Cluster Survey
MOH	Ministry of Health
MOU	Memorandum of Understanding
NIP	National Immunization Program
NUVI	New and Under-utilized Vaccine Introduction
NVS	New and underused vaccines support
OPV	Oral Polio Vaccine
OPV3	Third Dose of Oral Polio Vaccine
PIE	Post Introduction Evaluation
PCV	Pneumococcal conjugate vaccine
PHC	Primary health care
QHCP	Quality Health Care Project
RCIP	Republican Center for Immunoprophylaxis (MOH sub-unit)
RHAC	Reproductive Health Advisory Council
RI	Routine immunization
Rota	Rotavirus vaccine
SC	Save the Children
SES	Sanitary and Epidemiologic Services
SIDA	Swiss International Development Agency

TLSS	Tajikistan Living Standards Survey
TMoJ	Tajikistan Ministry of Justice
VPD	Vaccine Preventable Disease
WPV	Wild Polio Virus
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USG	United States Government
WB	World Bank
WHO	World Health Organization

COUNTRY SUMMARY: TAJIKISTAN



Selected Health and Demographic Data for Tajikistan

GDP per capita (USD)	872.00
Total Population	8,009,000
Maternal Mortality Ratio (deaths/100,000 live births)	65
Skilled birth attendant coverage	87
Antenatal care, 4+ visits	53
Neonatal mortality rate (deaths/1,000 live births)	19
Infant mortality rate (deaths/1,000 live births)	34
Under-five mortality (deaths/1,000 live births)	43
Treatment for acute respiratory infection	63
Oral rehydration therapy for treatment of diarrhea	72
Diphtheria-pertussis-tetanus vaccine coverage (third dose)	93
Modern contraceptive prevalence rate	26
Total fertility rate	3.8
Total Health Expenditure per capita (USD)	54.00

Sources: World Bank, WHO, UNICEF, DHS
 *UNICEF <5 mortality ranking (1=highest mortality rate)

Achievements

- Participated in and provided technical assistance to two rounds of nationwide diphtheria vaccination campaigns in 2012
- Played a key technical role in the 2012 National Immunization Program Review, providing recommendations to the MoH
- Forged relationships with national level partners as a member of the Inter-agency Coordinating Committee (ICC) and the Maternal and Child Health and Reproductive Health Advisory Council (MCH & RHAC)
- Provided financial and technical assistance for the 2013 World Immunization Week
- Identified key areas of district level support through the completion of a baseline survey



EXECUTIVE SUMMARY

Background

Despite Tajikistan being certified polio free in 2002, and consistently reporting immunization coverage above 90%, the country experienced the world's largest polio outbreak in 2010, with 458 laboratory confirmed cases of paralytic poliomyelitis, or one half of all cases reported in that year. UNICEF's Tajikistan Living Standards Survey (TLSS) in 2007 had given a clear warning that such an outbreak was imminent when it revealed that only 50% of Tajik infants nationwide had received a third dose of oral polio vaccine (OPV3). Unfortunately, this warning was not heeded in time, the outbreak occurred, and a very expensive mass polio campaign was required to control it.

USAID/Central Asia provided MCHIP with funding beginning in late 2011 to strengthen routine immunization in both Tajikistan and Kyrgyzstan. The goal was to assist the ministries of health to prevent future outbreaks of polio and other vaccine preventable diseases. MCHIP conducted an assessment and planning mission in September 2011; this was followed by a series of external technical assistance visits and the hiring, in January 2012, of a national coordinator who worked under the direction of MCHIP's regional and US-based immunization technical officers and was an active participant on the national Inter-Agency Coordination Committee and other Ministry of Health and Republican Center for Immunoprophylaxis (RCIP) working groups.

Upon the resignation of the national coordinator in September 2013 after challenges with the registration, instead of attempting to recruit a new coordinator **and continue with registration for a short period**, USAID/Tajikistan made the decision to suspend the work and approved MCHIP's proposal to shift all remaining funding to the MCHIP program in Kyrgyzstan.

Accomplishments

From January 2012 through September 2013, MCHIP/Tajikistan:

- Participated in and provided technical assistance during the planning for the first and second rounds of Tajikistan's nationwide diphtheria vaccination campaign;
- Played a key technical role, in collaboration with the MoH other international partners, in Tajikistan's National Immunization Program Review, which produced recommendations to the MoH for further strengthening routine immunization and maintaining high levels of coverage;
- As a member of the Inter-agency Coordinating Committee (ICC) and the Maternal and Child Health and Reproductive Health Advisory Council (MCH & RHAC), forged relationships with national level partners and contributed to National Immunization Program decision making;

- Completed a baseline assessment in two villages across two districts and identified key areas for district-level support; and
- Provided financial and technical assistance for the 2013 World Immunization Week.

Challenges and lessons learned

PROGRAMMATIC

MCHIP/Tajikistan faced a challenging startup, both administratively and programmatically. The unexpected departure from the project of MCHIP's Bishkek-based regional immunization consultant in January 2013 (the same month the Letter of Implementation with the MOH was signed) made it difficult for MCHIP to provide the continuous guidance and support needed by the national coordinator during the year. The delayed decision to register John Snow, Inc. (JSI), the MCHIP lead organization in Central Asia, and subsequent delays in securing the registration itself, resulted in an insecure situation for the national coordinator, in particular, and it also limited the support that MCHIP was able to provide at district level. These challenges resulted in the resignation of the national coordinator. With only three months left in program implementation and in light of these challenges, it was decided that moving forward with registration would not be possible. Unfortunately, without registration in place, MCHIP was not able to achieve full program implementation. In the future, whether working under a bilateral agreement between the USG and the Republic of Tajikistan or not, registration of USAID implementing partner organizations should be given the highest priority.

NATIONAL TECHNICAL

As Tajikistan looks ahead to plan for the introduction of new vaccines, there are a number of challenges that need to be addressed. Serious issues with data quality and the monitoring of immunization coverage persist; irregular training and problems with the retention of qualified health workers make it difficult to achieve quality immunization services; and vaccine management, injection safety, and an aging cold chain that is non-existent below the rayon level in many areas, are all problems that Tajikistan and its partners must continue to address. If investments and technical support to the National Immunization Program do not increase to address these fundamental weaknesses in the health system, the country will continue to be susceptible to outbreaks of vaccine preventable diseases and to require costly episodic vaccination campaigns.

INTRODUCTION

Goal

MCHIP's aim was to assist the Republic of Tajikistan's Ministry of Health (MoH) to ensure polio eradication and prevent future outbreaks of vaccine preventable diseases (VPDs) by demonstrating effective and sustainable approaches for strengthening immunization at district and community levels.

Toward achieving this goal, MCHIP had both a national and a sub-national focus. At national level, MCHIP established a presence as a collaborative partner with the MoH Republican Center for Immunoprophylaxis (RCIP) and USAID. At sub-national level, MCHIP identified two focus rayons (districts) for routine immunization strengthening activities: Vakhsh and Qabodiyon. The rayons in the Khatlon Oblast (region) that had reported the majority of polio cases during the 2010 outbreak were prioritized. MCHIP also selected rayons where other USAID-funded projects were working to optimize synergies and increase the likelihood of sustainability.

The objectives of the MCHIP/Tajikistan program were to:

- Objective 1:*** Build capacity at national and local (rayon) levels to improve immunization service delivery at the primary health care (PHC) level through improved health facility-community linkage
- Objective 2:*** Improve evidence-based program planning and prioritization at the district level, specifically the ability to identify and immunize targeted groups and areas with inadequate immunization coverage
- Objective 3:*** Strengthen national-level partner coordination on immunization to achieve a more integrated, public health approach

Guiding Principles of MCHIP's Engagement

Based on early discussions with USAID and resources available to MCHIP for its work in Tajikistan, MCHIP and USAID agreed that:

- Operational costs of project activities would be kept minimal and affordable to promote future expansion by the MoH
- Continuous involvement of MoH/RCIP staff in rayon and national level activities would be required
- All work would be carried out within the existing MoH structure, procedures and forms
- Capacity building would be centered on participatory, on-the-job learning that also focused on routine tasks performed with available resources
- An integrated approach for strengthening routine immunization would be promoted, both within and outside the health sector.

The MCHIP Central Asia Republic workplan was approved in August 2011. Country activities were initiated in September with the development of a preliminary strategy and initiation of local recruitment. The National Technical Coordinator was hired in January 2012, and MCHIP established its office within the USAID QHCP office at the same time. A total of seven external technical assistance missions were conducted from Kyrgyzstan and the U.S. during program implementation. The MCHIP/Tajikistan program closed in September 2013, upon the resignation of the National Technical Coordinator and MCHIP's agreement with USAID/Tajikistan that it would not be possible to refill this position for the six months remaining in the project.

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KEY ACCOMPLISHMENTS AND LESSONS LEARNED

Summary of accomplishments:

- Participated in and provided technical assistance during the planning for the first and second rounds of Tajikistan's nationwide diphtheria vaccination campaign;
- Played a key technical role, in collaboration with the MoH and other international partners, in Tajikistan's National Immunization Program Review, which produced recommendations to the MoH for further strengthening routine immunization and maintaining high levels of coverage;
- As a member of the Inter-agency Coordinating Committee (ICC) and the Maternal and Child Health and Reproductive Health Advisory Council (MCH & RHAC), forged relationships with national level partners and contributed to National Immunization Program decision making;
- Completed a baseline assessment in **two villages** and identified key areas for district-level support; and
- Provided financial and technical assistance for the 2013 World Immunization Week.

Participation in the first and second rounds of nationwide diphtheria vaccination campaigns (April 2012 and Sept 2012)

After the polio outbreak of 2010, low immunity to diphtheria was reported in 2011. At that time, almost half of the general population aged 1 to 24 years was not fully protected against diphtheria. This low immunity was likely attributable to a long-standing, poor-performing routine immunization (RI) program and frequent vaccine stock outs. In response, the MoH sought funding for a nationwide diphtheria vaccination campaign, which was conducted in two rounds in 2012. The first round was conducted in April, with 730,000 children 3 to 6 years of age vaccinated; the second round was conducted in September, targeting 2.5 million young people, ages 7 to 21.

- MCHIP collaborated with International partners (WHO, UNICEF, Save the Children, and Mercy Corps), providing technical input in the follow-up discussions after the first round in April 2012, and technical assistance in five districts during the second round in September 2012.
- MCHIP identified and reported key weaknesses in RI services at district and PHC level.
- Weaknesses in the RI structure were presented including: high health worker (HW) turnover and lack of skilled HWs, lack of supervision, insufficient linkages with communities, in addition to poor data quality and reporting.

National Immunization Program Review (November 2012)

After the world's largest polio outbreak in 2010, and the discovery of low population immunity to diphtheria, the MoH initiated plans to conduct a National Immunization Program (NIP) Review, which took place in November 2012. The objective was to review the management and performance of the national immunization program in the context of the health sector reform, and to provide recommendations to the MoH. Utilizing the standard WHO/UNICEF protocol and tools, the following components of the program at the national, sub-national and local levels were reviewed: 1) Management, Coordination and Service Delivery; 2) Immunisation Strategies, Policies and Schedules; 3) Immunisation Coverage and Monitoring; 4) Surveillance of Vaccine Preventable Diseases; 5) Immunisation Quality and Safety; 6) Advocacy and Communication; 7) Financing and Sustainability; 8) Vaccine Procurement and 9) Impact of Health Sector Reform.

- In collaboration with the MoH and partners, MCHIP provided technical support during implementation of the review at national and subnational level
- MCHIP provided technical analysis and writing on the Immunization Strategies, Policies, and Schedule and the Immunization Coverage and Monitoring sections of the final report (Annex II).
- MCHIP contributed to writing the final report and compilation of findings and recommendations. MCHIP provided more than 35 findings and recommendations to the NIP review board, addressed to the MoH (see Annex II for a full list of findings and recommendations and the final NIP Review report).
- During implementation, the review team observed:
 - Monitoring was not effective for detecting at risk groups for VPD outbreaks
 - Unreliable vaccination reporting and pressure on health workers to achieve high immunization coverage sometimes resulting in misreporting
 - Weak vaccine supply management, especially from national to subnational levels, in addition to lack of buffer stocks, resulting in nationwide stock outs
 - An aging cold chain in need of replacement, particularly at sub-national level
 - Lack of a communication strategy or plan for routine immunization
 - Shortfall of immunization program funding (though expected to increase)

Technical Assistance to World Immunization Week (April 2013)

MCHIP was an active participant and partner in the 2013 World Immunization Week which aimed to raise public awareness of the life-saving benefits of immunization. MCHIP disseminated messages that were developed by WHO and the RCIP to promote immunization as a cost-effective health intervention that prevents the spread of vaccine preventable diseases and outbreaks to communities in the MCHIP target rayons (Vahksh and Qabodiyon). MCHIP worked alongside health staff, speaking with communities and participating in public awareness campaigns; visiting families known to refuse vaccination; having open conversations with them and with others and answering questions about immunization.

Relationships with key immunization partners in Tajikistan

MCHIP was recognized as a partner in immunization at national and sub-national level through its participation in established planning and coordination mechanisms:

- In March 2012, MCHIP was invited by the Head of the RCIP to be an active member of the Inter-agency Coordinating Committee (ICC) for immunization, which holds three to four meetings annually. Under the leadership of the RCIP, the ICC platform is used to discuss issues among partners and as a joint decision-making mechanism in which all projects implementing activities to strengthen RI participate (i.e., WHO, GAVI, JICA, UNICEF).
- MCHIP established working relationships with partners (Mercy Corps, DAI, Aga Khan Foundation, Project SINO, WHO, UNICEF, etc) toward a complementary and resource-sharing approach for strengthening routine immunization. MCHIP had planned to build on existing efforts with NGO's (e.g., Mercy Corps) in its final months to ensure the continuation of program activities beyond the life of MCHIP.
- MCHIP was a member of the Maternal Child Health (MCH) & Reproductive Health Advisory Council (RHAC), led by the MoH. The Council is a coordinating mechanism between all projects in country implementing activities that seek to improve the health of children and mothers and has more than 15 active member organizations (e.g., WHO, UNICEF, JICA, USAID, QHCP, SIDA, WB, GTZ, SC, etc). MCHIP presented the program and strategy at this Council meeting in May 2013 and the NIP Review findings in April 2013.

Baseline survey in MCHIP focus districts (February 2013)

MCHIP conducted a baseline survey in two villages of Vakhsh and Qabodiyon rayons to assess and understand the level of awareness, acceptability, challenges, opportunities, and use of vaccination services among community decision-makers, HWs, mothers-in-law, and mothers with children between 6 months and two years of age. The findings were to establish a basis for the MCHIP/Tajikistan district-level strengthening of RI services.

Findings revealed a high acceptance of immunization among survey respondents in both communities. While health workers are highly regarded and respected within their communities, there was an identified need for improved linkages with communities to better communicate when vaccination sessions were taking place (specifically in Vakhsh), reinforce immunization messages during other health interventions (e.g., antenatal care), explain what side effects to expect following vaccination, and educate about what diseases vaccines protect against. There were families that refused vaccination in each community, most commonly for religious reasons. The baseline assessment found that the Imams are committed to communicating the benefits of vaccination and encouraging communities to vaccinate their children, reinforcing this with messages from the Koran. Please see Annex I for the full baseline survey report and findings.

RECOMMENDATIONS AND WAY FORWARD

Programmatic results not achieved and lessons learned

MCHIP/Tajikistan faced a challenging startup, both administratively and programmatically. From the beginning of the program, there were challenges with obtaining buy-in from the RCIP Director after his request for more investment in equipment and infrastructure although MCHIP was designed as a capacity building program. While negotiating the Letter of Implementation between MCHIP and the RCIP, the Memorandum of Understanding (MOU) between USAID and the Tajikistan Ministry of Health (MoH) expired, further delaying implementation since JSI could not be registered without a signed Letter of Implementation. While the MoH and USAID negotiated their MOU, MCHIP could only implement a few activities. After almost a year's delay in full program implementation, USAID encouraged MCHIP to obtain its own MOU with the MoH, which was finally signed and approved in February 2013.

In November 2011, MCHIP identified focus rayons that overlapped with the work of the Swiss Tropical and Public Health Institute's Project SINO, USAID's QHCP, other NGO's. Unfortunately, the RCIP changed one of the proposed districts in February 2012, with no explanation, and then again in January 2013, during MCHIP's presentation to the MoH, the Minister of Health requested that MCHIP change its focus rayons to Vakhsh and Qabodiyon. At that point, effort had already been put into preparing for implementation in the previously selected rayons and collaboration with other NGOs had been established. In the new focus rayons, Mercy Corps was just beginning start-up, but its work did not get off the ground quickly enough for MCHIP and Mercy Corps to benefit from the overlap.

The signing of the MOU with the MoH allowed JSI to move forward with registration; unfortunately, the process of getting the paperwork together at the corporate office was delayed and this was a further set back in the registration process. During this period, MCHIP began implementation in focus districts, but was advised by the local lawyer to work at a reduced capacity until the registration was finalized. Five months after the process started, in August 2013, JSI's registration was ready to move forward. Just one month later, the National Technical Coordinator resigned and USAID and MCHIP determined that the program would not have sufficient time to replace this key staff person and resubmit registration documents in the name of the new coordinator before the program was to close. As a result, MCHIP's work in Tajikistan came to a close without reaching full implementation.

The program should have had more technical backstopping and management support than it received. While an international consultant based in Bishkek was committed to managing and guiding the program and its local staff, he unfortunately terminated his contract in early 2013 for personal reasons, before the project's end. While the original

program design was well conceived, it was also one that could not be easily implemented without focused technical mentoring and guidance. Successful implementation required committed and consistent technical support and management that could not be effectively provided from the U.S.

While there continues to be a significant need for technical support to the NIP in Tajikistan, it would have required significantly more time and funding than remained in MCHIP's budget to finish the work and achieve the full complement of expected results.

Health system weaknesses

Tajikistan has a fragile immunization program, as evidenced by the 2010 polio outbreak and documented in the 2012 NIP Review. As Tajikistan looks ahead to plan for the introduction of new vaccines, there are a number of challenges that need to be addressed to sustain routine services and maximize investments, while saving lives against vaccine preventable diseases.

There are serious issues with data quality and monitoring, training and retention of qualified health workers, vaccine management, injection safety, and an aging cold chain that is non-existent in many areas below the rayon level. **These issues are known by partners, and were discussed between MCHIP and partners during the implementation period. At the close of MCHIP, WHO did not have a dedicated staff to support immunization in Tajikistan; however, there were plans to bring in a specialist to assist with addressing some gaps.**

Data quality and monitoring

While many rayons report high immunization coverage, it is acknowledged by international organizations and NGOs that routine immunization reporting is unreliable and this is also demonstrated by the polio outbreak and the low level of diphtheria immunity detected prior to the 2012 campaign. While rayon and PHC level health workers develop coverage graphs, there is significant pressure to report high coverage, and a very real fear of punishment otherwise. This self-damaging practice needs to be addressed by the MoH/RCIP with its major immunization partners (WHO and UNICEF).

Cold chain and vaccine management

The cold chain in Tajikistan is insufficient and aging, especially at health facilities below the rayon level where there is infrequent or no electricity. This was documented in the UNICEF Effective Vaccine Management assessment in 2012, which was conducted primarily at the rayon level. It can be assumed that the situation is no better at the lower PHC level. Because of high HW turnover, refresher training in vaccine management is required, as documented in the 2012 NIP Review. Strategies should be considered for the hot summer and cold winter months when electricity at all levels is unreliable (especially between December to April when electricity is largely unavailable). Because of cold chain issues, many health facilities conduct vaccination sessions only once a month for 2 to 3 days

utilizing vaccines that are collected by a HW from the rayon level and stored in cold boxes until fully utilized, or discarded.

Health worker capacity

There is high health worker turnover in Tajikistan. Qualified and effective health workers are difficult to retain, and many health workers are poorly trained or under-qualified. Trainings are not regularly provided for health workers and supervision is not regularly occurring due to a lack of operational funds. RED and IIP training was last conducted in 2009. Health workers need training on microplanning and using data to identify groups that are being completely missed by vaccination services or are under-vaccinated. Training is also needed to reduce missed opportunities and address problems with false contraindications. While it is often thought that mothers do not return in a timely manner for vaccination services due to lack of awareness, the MCHIP baseline survey learned that, culturally, a mother waits for the invitation from the health worker to return because she considers the health worker to know better than she about when to return. Rayon level mid-level managers should also receive refresher training. There should also be training for health workers on interpersonal communication and increasing linkages with communities.

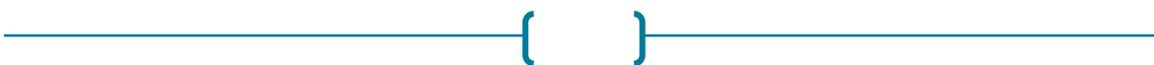
Long term, committed investment will be necessary to work with the MoH/RCIP to address these challenges and strengthen the immunization system beyond episodic campaigns. Future programs should capitalize on the current successes of NGOs at community level, and work alongside a bilateral project while providing focused technical assistance at the national and rayon levels to ensure greater success and sustainability. Clearly, program success is dependent on the full commitment and buy-in from the Ministry of Health beyond its stated preference for equipment and infrastructure. Future programs should work within the existing structure and be designed so that they are easily understood by and within the capability of program staff and local partners to implement with only periodic external technical support.

If investments and technical support to the Tajikistan National Immunization Program do not increase to address fundamental weaknesses in the health system, the country will continue to be susceptible to outbreaks of vaccine preventable diseases. As emphasized in the USAID IMMUNIZATION basics final report, “Vaccines are only as effective as the systems that deliver them.”



ANNEX I: BASELINE REPORT

Please see final report attached.



ANNEX II: MCHIP CONTRIBUTION TO NATIONAL IMMUNIZATION PROGRAM REVIEW REPORT AND DRAFT RECOMMENDATIONS

[Please see final report attached]

Summary of Tajikistan NIP Review, 2012 Strengths/Weaknesses/ Recommendations *Draft 08 - 28th Nov. 2012*

I. MANAGEMENT, COORDINATION AND SERVICE DELIVERY

Strengths

- High-level political commitment to immunisation in MoH and at the Government of Tajikistan.
- Immunisation legislative framework is available: National Law on Immunisation (2010), the National Immunisation Programme 2011-2015 (NIP) and country multi-year plan (cMYP).
- Experienced and well-trained immunisation programme managers and at central and Region levels. Strong existing infrastructure of immunisation programme at all levels: more than 2,500 vaccination points exists in the country.
- Immunisation is a priority programme in health sector plans and in the National Comprehensive Health Strategy for 2010-2020.
- Immunisation issues are now included on monthly MCH coordination council meetings in MoH.
- Tajikistan has established the Inter-agency Coordination Committee (ICC) and is receiving GAVI support for introduction of new vaccines, health system strengthening (HSS) and immunisation service strengthening (ISS).

Weaknesses

- Vertical management of the immunisation programme down to the region (region) level and weak coordination mechanism is not facilitating the integrated service provision at primary healthcare (PHC) level. Different programme functions are handled by different departments (CIP, MCH/PHC, sanitary epidemiological services (SES) with little coordination.
- Management responsibilities for immunisation services at district level are not yet clearly defined due to the health reform transition period.
- Failure to timely detect and report polio outbreak in 2010.
- Low motivation and commitment and poor technical capacity of some district centre of immunoprophylaxis (CIP) managers and PHC directors.
- Health staff and PHC facility shortages, especially in rural areas. Problems with retention of skilled staff.
- National Immunisation Technical Advisory Group (NITAG) does not exist, to provide independent technical advice to the programme management.
- Although ICC exists, its scope and functions are minimal.
- Fragmented immunisation guidelines and manuals for CIP and PHC health staff on various programme components and lack of standard immunisation operating procedures.

Recommendations

1. As recommended by the Health Strategy's Joint Annual Review (JAR), review the implementation of existing immunisation functions to ensure adequate implementation and coordination between MCH, RCIP and SES.
2. Use the ICC platform more effectively to plan for better utilisation of various funding sources for health system strengthening and improved integration at PHC level.
3. Identify gaps in knowledge and skills of District CIP, PHC and SES Directors and staff and provide relevant training, follow-up and supervision using WHO recommended EPI Mid-level management/Immunisation in practice modules.
4. Immunisation service delivery should ensure equitable access and utilization of services to ensure full protection of children through application of appropriate and affordable strategies.
5. Use every opportunity when child is in contact with health facility to immunize him/her (routine check ups, biannual vitamin A supplementation days, etc.).
6. Collaborate with WHO and other partners to establish a NITAG¹. Revive ICC regular meetings.
7. Develop comprehensive manuals for EPI managers and health staff on routine immunisation, including standard operating procedures for programme components. Once developed, this manual should be used for all type of training.

¹ NITAG: National Immunisation Technical Advisory Group (World Health Organization)

II. IMMUNISATION STRATEGIES, POLICIES AND SCHEDULES

Strengths

- The national immunisation strategies outlined in the NIP for 2011-2015 are generally in line with WHO recommendations.
- The national immunisation schedule supports disease control strategies.
- Multi doses vial and injection safety standards have been adopted at national level according to WHO standards.
- There is an interest and commitment on behalf of the MoH in learning and in addressing “hidden” challenges in planning, provision and monitoring of immunisation services.

Weaknesses

- Short-term strategies to address immunity gaps through campaigns are not cost-effective and sustainable in the long term for effective diseases control.
- Implementation of national strategies does not address key managerial and programmatic issues with routine immunisation which contributed to the polio outbreak in 2010 or the low immunity for diphtheria.
- National immunisation strategies do not adequately address equity issues (ethnic minorities, hard-to-reach population and other vulnerable groups).
- Some activities outlines in the comprehensive Multi Year Plan are not affordable and sustainable, and are well beyond the current capacity of the MoH.
- Despite of an order of the MoH, false contraindications remain to be a barrier for immunisation, especially in urban health facilities.
- Existing practices for not administrating pentavalent to children who are over 1 year of age.
- Immunisation schedule contains 2nd and the 3rd doses of BCG, and allows for spacing between Hep.B1 and BCG1 which does not comply with WHO recommendations.

Recommendations

8. National immunisation programme should encourage districts and PHCs to develop their own local strategies and plans for improving their immunisation services and address existing equity gaps if needed.
9. National immunisation strategies and policies should be periodically reviewed and revised to address issues such as timely vaccination, missed opportunities, dropouts and equity gaps.
10. A mapping exercise should be done to determine the optimal frequency for immunisation sessions based on size of target group, availability of adequate cold chain and other resources.
11. MOH should consider revising the national immunisation schedule to bring it in line with WHO recommendations.
12. The MOH should review its wastage policy for BCG to determine if the lower frequency of BCG immunisation in maternities is resulting in missed opportunities for either BCG.
13. The MoH should reinforce its policy on contraindications to immunisation and ensure that only PHC staff makes final decisions on contraindications.

III. IMMUNISATION COVERAGE AND MONITORING

Strengths

- Systems for immunisation, birth registration and for reporting vaccinations are well established.
- Monthly reporting to the national level from the 72 reporting units is complete and usually timely. 58 districts are now reporting by email.
- The MoH record system, such as forms 63 and 112, contains very useful information for evidence-based decision-making.
- Availability of internationally recognised data on immunisation coverage rates: MICS-2005, TLSS-2007 and DHS-2012 (in progress).

Weaknesses

- Monitoring and analysis of coverage are not adequate to ensure control of vaccine preventable diseases, especially at PHC and district level.
- The method used for determining the target population is too complex, inconsistent, not according to WHO guidelines, and not supportive of accurate reporting and monitoring.
- Data verification mechanisms and tools for routinely monitoring the quality of reported data are not in place and do not use available independent review data.
- Pressure on the health staff to achieve high coverage causes misreporting.
- Little awareness and action for identifying and immunizing ethnic minorities, hard-to-reach population and other vulnerable groups.

Recommendations

14. The MoH should adopt WHO-recommended immunisation coverage calculation methodology.
15. Monitoring and analysis of coverage and surveillance data should be improved at PHC and district level to timely detect, accurately report and take appropriate action.
16. Independent verification and data crosschecking mechanisms should be established and built-in into the NIP. Periodic coverage survey should be conducted and available internationally recognized data should be analysed and used.
17. Consider improvement of national immunisation management information system to bring it in line with WHO recommendations.

SURVEILLANCE OF VACCINE PREVENTABLE DISEASES

Strengths

- Strong focus on high quality acute flaccid paralysis (AFP) surveillance has been maintained following the 2010 polio outbreak. Ministry of Health has since updated surveillance guidelines and procedures.
- Training of trainers on polio surveillance was provided by WHO EURO with subsequent region level workshops.
- Country has demonstrated improvement in AFP surveillance in 2011 with 55 cases reported (non-polio AFP rate of 2.1/100 000 children under 15). This trend continues in 2012 with 59 AFP cases reported as of week 47 (non-polio AFP rate of 2.05/100 000 children under 15 with 10 cases pending classification). Surveillance performance indicators are high.
- MR surveillance has been improved in 2009 following the introduction of measles-rubella (MR) vaccine into the national immunisation schedule and large supplemental MR immunisation. Country sends an aggregated report to WHO, but has recently started sending case-based information to WHO EURO.
- Tajikistan is conducting sentinel rotavirus surveillance from 2006. These data are important for assessing disease burden and measuring impact of vaccination.

Weaknesses

- PHC staff had limited training on vaccine-preventable diseases (VPD) surveillance. Most of the trainings were conducted up to the level of district Centre of Immunoprophylaxis.
- Doctors were not demonstrating clear knowledge of the standard case definition although have been correctly describing clinical symptoms of diseases from the textbooks when prompted.
- Weekly reporting including zero reporting and active search for polio cases appear to be formal in some settings. Possible underreporting might be occurring.
- MR surveillance is not reaching the rate of 2-discarded cases/100 000 population.
- SES involvement in VPD surveillance was limited.

Recommendations

18. Strengthen coordination and oversight of VPD surveillance between RCIP and SES.
19. Strengthen capacity on data management and analysis in VPD surveillance including immunisation coverage monitoring.
20. Implement case-based measles and rubella surveillance including case data entry into CISID².
21. Conduct training for PHC staff on the standard case definitions.
22. Develop a job aid with standard case definitions on AFP, measles, rubella and AEFI to be posted on the wall at the doctor's offices.

² CISID: Centralized Information System for Infectious Diseases (World Health Organization)

IV. IMMUNISATION QUALITY AND SAFETY

Strengths

- High-quality vaccines bundled with AD syringes and safety boxes for immunisation are procured through UNICEF Supply Division.
- Vaccine management practices are generally followed, including vaccine/immunisation devices ledger keeping. Safe immunisation practices during immunisation session are known to the health staff and are generally observed. Almost no vaccines are reported to be discarded and vaccine vial monitor (VVM) status is observed.
- Cold chain capacities are improving, especially at central, Region and District levels (current provision of cold rooms and refrigerators).
- Country regularly conducts cold chain infrastructure and Effective Vaccine Management (EVM) assessments.
- National guidelines on adverse events following immunisation (AEFI) surveillance were approved in 2007. No death cases from AEFI related to the programme errors recorded since 2000.

Weaknesses

- There have been long periods of vaccine stock-outs at central, regional, district and primary health care levels.
- At district level storage capacity for syringes, safety boxes and supplies is limited.
- The available refrigerators in some places are aging and not meeting WHO standards.
- Frequent and long period of time electricity power cut-offs (electricity available 2-4 hours in morning and 2-4 hours in evening).
- There are no available continuous electronic temperature monitoring device and no prevention practices for freezing of vaccines.
- No standard operating procedures (SOP) for vaccine management.
- Lack of knowledge in some places concerning multi-dose vial policy.
- In some places recapping practice during immunisation observed.
- Limited knowledge of the health professionals on the type of AEFI that should be reported.
- Low sensitivity of the AEFI reporting system (no AEFI reported).
- The National Regulatory Authorities (NRA) functions are not in place (i.e. licensing and AEFI).

Recommendations

23. Ensure appropriate vaccine reserves/buffers during forecasting and consistent stock management to avoid vaccine stock-outs.
24. Implement recommendation of the 2012 cold chain infrastructure assessment and EVM: replace refrigerators that are aging, and provide WHO-approved refrigerators in places with long electricity cut-offs. Consider also alternative power source where feasible (e.g. solar). Provide voltage stabilizers.
25. Provide electronic temperature monitoring and 30-day temperature recording devices (e.g. FridgeTag).
26. Reinforce a continuous temperature monitoring system from vaccine arrival to the lower levels.
27. Include AEFI into the VPD surveillance sensitization and training for PHC staff.
28. Assess and strengthen the NRA capacity.

V. ADVOCACY AND COMMUNICATION

Strengths

- Dedicated network of Healthy Life Style Centres (HLSCs) exist for immunisation promotion and communication.
- The public values immunisation and accepts the services provided.
- KAP survey and polio post-campaign monitoring results provide baseline data about public attitude and sources of information.
- Face to face interaction with health workers including patronage nurses is by far the most trusted source of information.

Weaknesses

- Lack of communication strategy and plan for routine immunisation.
- Funding of the HLSC is limited and is not based on priorities of the MoH. The scope of work of HLSCs is largely driven by donor funding.
- Existing mechanism for free usage of mass media to broadcast social Public Service Announcement (PSA) is largely under-utilised.
- Capacity of journalists to report on immunisation and other child health/nutrition practices is limited.
- Printed materials are very limited in quantity, are not found in PHCs and do not adequately reach to the public.
- Electronic and online media are not adequately used to promote and communicate immunisation.
- Health workers are not trained in interpersonal communication.
- Objections to vaccination started to emerge on religious and other grounds or through Russian language anti-vaccination materials on the web.

Recommendations

29. Develop a comprehensive communication strategy and plan for routine immunisation at all levels in collaboration with HLSCs, focusing on interpersonal communication, engagement of traditional society leaders (elders and religious), journalist, and electronic media rather than printed materials.
30. HLSC should give priority to diseases prevention including VPD.
31. Train health staff on interpersonal communication skills.
32. Explore frequently asked questions by the public and media on immunisation, and develop Q&As in collaboration with technical experts for the use of health workers.
33. Introduce public education sessions in PHCs, and ensure enough consultation time is spent with families bringing their children for vaccination.
34. Identify and analyse anti-vaccination arguments to develop relevant information and messages, with the involvement of community and religious leaders.

VI. FINANCING AND SUSTAINABILITY

Strengths

- The Government will double its vaccine financing³ share in 2013 compare to 2012, reaching 1.1 million USD.
- Economic situation in Tajikistan is improving, opening the possibility for the Government to be further contributing to the NIP.
- The Government has an Emergency Fund that could be used for outbreak. 1 million USD was used for preventive diphtheria campaign.
- Donors (UNICEF, WHO, JICA, USAID, AKHS and others) have been supporting Tajikistan up to now, for routine and campaigns, contributing to the sustainability of the NIP.
- The Government introduced Medium-Term Expenditure Framework (MTEF) and the next cycle is for 2013-2015.

Weaknesses

- The funding of the immunisation programme is highly donor dependent. Various domestic and international funding sources available to the programme are not adequately coordinated to address the systemic weaknesses at PHC level.
- Although the Government is emphasizing that immunisation remains a priority, the current NIP financing² is only 550,000 USD, over a total planned cost of 4.6 million USD⁴. Doubling the Government share in 2013, although being a good step, will still be far from approaching sustainability.
- Concerning potential introduction of new vaccines (rotavirus, pneumococcal), commitment and sustainability from the Government is not yet fully ensured.
- Regional and District CIP budgets remain quite limited for immunisation supervision and operational costs (e.g. 200 litres of fuel for 3 months).
- Local budget (from Hukumat) for immunisation facility refurbishing and for operational costs (e.g. heating immunisation room in winter, field transport) remains almost negligible.

Recommendations

35. Steady increase of the immunisation financing should be included into the Mid-Term Funding Expenditure Framework (2013-2015). Special effort should be made with the introduction of new vaccines.
36. The MoH should initiate work with MoF, WHO, UNICEF and other partners on identification of strategies for post-2015 sustainability and achieving self-financing of immunisation services.
37. Budget should be secured in 2013 and 2014 for rebuilding reserve/buffer stocks for all vaccines, taken into consideration the widespread stock-outs of vaccines faced in 2012.
38. The budget for operational costs for the 6 region/zone/city CIPs should be increased by RCIP.
39. Local authorities (Hukumat) should be advocated to increase their financial participation to NIP (including equipment, maintenance, training, social mobilisation and operation costs). A detailed budget planning at District CIP level should be developed to mobilize more funding from the local government.
40. Explore opportunity to make synergies for sharing resources with SES (e.g. supervisory visits financing) and with PHC.

³ Salaries are not included in this analysis

⁴ cMYP source

VII. VACCINE PROCUREMENT

Strengths

- RCIP personnel is experienced and is regularly consulting with UNICEF during the forecasting process.
- Procurement based on agreement and existing reliable procurement process with UNICEF Supply Division.
- Vaccines are transferred within a short period of time (same day) from the arrival at airport to the central cold room.

Weaknesses

- Too many fragmented shipments, mainly due to limited transport options to country.
- Vaccine supply and delivery planning was not preventing many stock-outs of vaccines.
- Lack of central and region level budget for in-country transportation of vaccines/devices results in delays and stock-outs.

Recommendations

41. Strengthen the process for timely vaccine supply and delivery planning to avoid stock-out.
42. Explore transportation options with UNICEF Supply Division to deliver vaccines in less shipments and timely in country.
43. MoH should advocate the Government for taxes/fees exemption for vaccines and immunisation supplies.
44. Ensure sufficient allocation of budget for in-country transportation of vaccines/immunisation devices.

VIII. IMPACT OF HEALTH SECTOR REFORM

Strengths

- Up to date there is no major disruption of the immunisation programme by the health reforms.
- Free immunisation is a part of the Government Guaranteed Basic Benefit package.

Weaknesses

- No evidence is currently available on the impact of health reform on the immunisation programme, especially with the restructuring of health facilities (implementation of the Master Plan).
- Staff salaries remain very low at the field level, hampering their motivation and performances, and therefore NIP implementation.
- Unofficial out-of-pocket payments have become an integral part of immunisation service provision, putting at risk the poorest population.
- PHC training for immunisation is currently not fully updated.

Recommendations

45. The impact of Order #600 and BBP on the immunisation programme should be studied, including the scale of out-of-pocket payments, by MoH Health Policy Analysis Unit (HPAU).
46. Consider introducing incentive for service providers through Results Based Financing (RBF) mechanisms.
47. Reinforce policy on free vaccination to prevent unofficial out of pocket payments for immunisation and other MCH services by informing the public on these free services.
48. Review the training curricula of FMD post-graduate training to ensure update immunisation strategies and practices.

**National Immunization Program Review, Tajikistan, November 2012.
Key Findings and Recommendations
Presented to the MoH on 28 November 2012.**

Findings

I. Management, Coordination and Service Delivery

- ⇒ High-level political commitment to immunization in MoH and at the Government of Tajikistan.
 - Vertical management of the immunization programme down to the region (region) level and weak coordination mechanism is not facilitating the integrated service provision at PHC level. Different programme functions are handled by different departments (CIP, MCH/PHC, SES) with little coordination.
 - Low motivation and commitment and poor technical capacity of some district CIP managers, PHC directors and staff.

II. Immunization Strategies, Policies and Schedules

- ⇒ The national immunisation strategies outlined in the NIP for 2011-2015 are generally in line with WHO recommendations.
 - Implementation of national strategies does not address key managerial and programmatic issues with routine immunisation which contributed to the polio outbreak in 2010 or the low immunity for diphtheria.

III. Immunisation Coverage and Monitoring

- ⇒ Availability of internationally recognized data on immunisation coverage rates: MICS-2005, TLSS-2007 and DHS-2012 (in progress).
 - Monitoring and analysis of coverage are not adequate (including methodology) to ensure control of vaccine preventable diseases, especially at PHC and district level.

IV. Surveillance of Vaccine Preventable Diseases

- ⇒ Country has demonstrated improvement in AFP surveillance in 2011 with 55 cases reported (non-polio AFP rate of 2.1/100 000 children under 15).
 - PHC staff had limited training on VPD surveillance. Most of the trainings were conducted up to the level of district Centre of Immunoprophylaxis.
 - SES involvement in VPD surveillance was limited.

V. Immunisation Quality and Safety & VIII. Vaccine Procurement

- ⇒ Vaccine management and safe immunisation practices during immunisation session are generally observed.
 - There have been long periods of vaccine stock-outs at central, regional, district and primary health care levels.

- The available refrigerators in some places are aging and not meeting WHO standards.

VI. Advocacy and Communication

⇒ The public values immunisation and accepts the services provided.

- Lack of communication strategy and plan for routine immunisation. Underutilization of existing communication tools and channels.

VII. Financing and Sustainability

⇒ The Government will double its vaccine financing share in 2013 compare to 2012, reaching 1.1 million USD.

- Doubling the Government share in 2013, although being a good step, will still be far from approaching sustainability, especially with introduction of new vaccines.
- Local budget (from Hukumat) for immunisation facility refurbishing and for operational costs (e.g. heating immunisation room in winter, field transport) remains almost negligible.

IX. Impact of Health Sector Reform

⇒ Up to date there is no major disruption of the immunisation programme by the health reforms.

- No evidence is currently available on the impact of health reform on the immunisation programme, especially with the restructuring of health facilities (implementation of the Master Plan).

Recommendations

I. Management, Coordination and Service Delivery

1. As recommended by the Health Strategy's Joint Annual Review (JAR), review the implementation of existing immunisation functions to ensure adequate implementation and coordination between MCH, RCIP and SES
2. Identify gaps in knowledge and skills of District CIP, PHC and SES Directors and staff and provide relevant training, follow-up and supervision using WHO recommended MLM/IIP modules.

II. Immunisation Strategies, Policies and Schedules

3. National immunisation programme should encourage districts and PHCs to develop their own local strategies and plans for improving their immunisation services and address existing equity gaps if needed.

III. Immunisation Coverage and Monitoring

4. Introduce WHO-recommended immunisation coverage calculation methodology.



5. Independent verification and data crosschecking mechanisms should be established and built-in into the NIP. Periodic coverage survey should be conducted and available internationally recognized data should be analyzed and used.

IV. Surveillance of Vaccine Preventable Diseases

5. Strengthen coordination and oversight of VPD surveillance between RCIP and SES.

V. Immunisation Quality and Safety & VIII. Vaccine Procurement

6. Ensure appropriate vaccine reserves/buffers during forecasting and consistent stock management to avoid vaccine stock-outs.
7. Implement recommendation of the 2012 cold chain infrastructure assessment and EVM: replace refrigerators that are aging, and provide WHO-approved refrigerators in places with long electricity cut-offs.

VI. Advocacy and Communication

8. Develop a comprehensive communication strategy and plan for routine immunisation at all levels in collaboration with HLSCs, focusing on interpersonal communication, engagement of traditional society leaders (elders and religious), journalists, and electronic media rather than printed materials.

VII. Financing and Sustainability

9. Steady increase of the immunisation financing should be included into the Mid-Term Funding Expenditure Framework (2013-2015). Special effort should be made with the introduction of new vaccines.
10. Local authorities (Hukumat) should be advocated to increase their financial participation to NIP (including equipment, maintenance, training, social mobilization and operation costs). A detailed budget planning at District CIP level should be developed to mobilize more funding from the local government.

IX. Impact of Health Sector Reform

11. The impact of Decree 600 and BBP on the immunisation programme should be studied, including the scale of out-of-pocket payments, by MoH Health Policy Analysis Unit (HPAU).

**Appendix IV: MCHIP contribution to final report
Tajikistan 2012 EPI Programme Review Report
Immunization Strategies, Policies, and Schedule;
Immunization Coverage and Monitoring
*draft - 28 November 2012***

SECTION II. IMMUNISATION STRATEGIES, POLICIES AND SCHEDULE

The RCIP strategies, policies, and vaccination schedule conform to WHO standards for effective vaccine preventable disease control. However, the polio outbreak in 2010, measles outbreaks, and the inadequate levels of immunity for diphtheria documented by a serologic survey, indicate that these strategies and policies are not being effectively implemented, reviewed, or revised according to the current issues facing the immunization programme.

There were apparently no major problems with planning, policies, and strategies while introducing the pentavalent vaccine. In fact, medical workers commented that mothers were pleased about the reduction of injections because of the pentavalent vaccine. Studies and sentinel surveillance have been implemented for introducing rotavirus vaccine, planned for 2013.

There is a lack of evidence based decision making at all levels for planning effective vaccine preventable disease control strategies. Instead planning and strategies tend to be based on anecdotal impressions, rather than on systematically collected data. Perceived factors contributing to the polio outbreak and the low diphtheria immunity tend to centre on scientific issues or historical problems. The strategy being practiced for making up immunity gaps which have built up over the years still centres on mass immunization campaigns, rather than on routine immunization. It should be remembered that a mass diphtheria immunization campaign was conducted in 1996 in response to the diphtheria epidemic. While this mass campaign contributed to stopping the diphtheria epidemic, it did not strengthen the routine immunization programme or lead to sustained protection against diphtheria.

Decisions for planning and policy development seem to be based mostly on impressions and unverified vaccination statistics; not on programmatic or epidemiologic evidence. The managerial, operational, and programmatic factors in routine immunization which are contributing to inadequate protection for vaccine preventable diseases are still not adequately defined. In addition, independent sources of information, such as the UNICEF TLSS and MICS surveys, are not being fully utilized for more effective planning and strategy development. Other problems noted by the review team which are not adequately defined or being addressed include: missed opportunities, children left out of the registration system, drop outs, contraindications, migrant populations, and an increasing problem of disinformation about immunization. National strategies also do not adequately address equity issues, such as ethnic minorities, hard-to-reach populations and other vulnerable groups, which the TLSS and the diphtheria serologic survey revealed as risk groups for inadequate protection against vaccine preventable diseases. "Hard to reach" is generally perceived as only children living in remote mountainous areas. While in fact, there are hard to reach children in Dushanbe, such as: homeless children, ethnic minorities, and migrants, both in country and children coming from Russia.

Although the MOH issued a policy on contraindications in 2004, false contraindications remain as a barrier for immunization, especially in urban and peri urban areas. Again, there is no systematically collected evidence, through either routine monitoring or epidemiologic investigation, on the extent of the contraindication problem or the effectiveness of the MOH policy. The review team found that false contraindications are still widely practiced, especially in hospital settings. Contraindications can often extend for several months after the discharge of a child from the hospital. The review team also noted that, despite the MOH's policy, the practice of laboratory testing before immunization still occurs, especially in hospital settings.

There is an ICC, however it is not meeting regularly or being used effectively. The ICC could provide the much needed function of periodic policy and strategy review and updating. The following summarize the strengths and weaknesses observed by the review team concerning strategies, policies and the immunization schedule.

Strengths

- The national immunisation strategies outlined in the NIP for 2011-2015 are generally in line with WHO recommendations.
- The national immunisation schedule supports disease control strategies.
- Multi doses vial and injection safety standards have been adopted at national level according to WHO standards.
- There is an interest and commitment on behalf of the MoH in learning and in addressing “hidden” challenges in planning, provision and monitoring of immunisation services.

Weaknesses

- Short-term strategies to address immunity gaps through campaigns are not cost-effective or sustainable in the long term for effective diseases control.
- Implementation of national strategies does not address key managerial and programmatic issues with routine immunisation which contributed to the polio outbreak in 2010 or the low immunity for diphtheria.
- National immunisation strategies do not adequately address equity issues (ethnic minorities, hard-to-reach population and other vulnerable groups).
- Some activities outlines in the comprehensive Multi Year Plan are not affordable and sustainable, and are well beyond the current capacity of the MoH.
- Despite of an order of the MoH, false contraindications remain to be a barrier for immunisation, especially in urban health facilities.
- Existing practices for not administrating pentavalent to children who are over 1 year of age.
- Immunisation schedule contains 2nd and the 3rd doses of BCG, and allows for spacing between Hep.B1 and BCG1 which does not comply with WHO recommendations.

Recommendations

49. The national immunisation programme should encourage districts and PHCs to develop their own local strategies and plans for improving their immunisation services and address existing equity gaps if needed.
50. National immunisation strategies and policies should be periodically reviewed and revised to address issues such as timely vaccination, missed opportunities, dropouts and equity gaps.
51. A mapping exercise should be done to determine the optimal frequency for immunisation sessions based on size of target group, availability of adequate cold chain and other resources.
52. MOH should consider revising the national immunisation schedule to bring it in line with WHO recommendations.
53. The MOH should review its wastage policy for BCG to determine if the lower frequency of BCG immunisation in maternities is resulting in missed opportunities for either BCG.
54. The MoH should reinforce its policy on contraindications to immunisation and ensure that only PHC staff makes final decisions on contraindications.

SECTION III. IMMUNISATION COVERAGE AND MONITORING

Nearly 3000 health facilities in 65 rayons are providing immunization services through out the country. From 3% to 5% of all immunizations are provided by mobile teams. Vaccinations given are tallied monthly and reported to the rayon Center for Immunoprophylaxis using Form 63. Form 63 also includes information on vaccine usage. Rayons forward their monthly summaries to the district/oblast Center for Immunoprophylaxis, who send reports by rayon to the RCIP. Monthly reports are due in Dushanbe by the 20th of the following month. Reporting is generally complete, although there are problems with timeliness. Timeliness and completeness of reporting are not routinely monitored.

Each child immunized is recorded in the child's health record book (Form 112) and in the health facility's immunization registration book. The immunization registration book records the child's vaccination, residence, and the vaccine lot number. In addition, each child immunized receives an immunization passport, documenting his or her immunizations. All births are reportedly registered, although a significant number of births still occur at home. Health facilities are supposed to conduct house to house census in their catchment areas twice per year.

All facilities are supposed to have an immunization plan. These plans provide numeric data on population and vaccine needs, but generally do not describe strategies or resources for routine immunization. Facilities in rural areas are supposed to provide immunizations at least once per month. Urban centres may provide immunization services 5 to 6 days per week. However, maternity centers provide BCG only 2 days per week to prevent vaccine wastage.

At the central level coverage data by rayon are readily available in spread sheet format. National coverage and disease incidence graphs are maintained. Poor performing districts are informed by letter. The district responds with a written report. The RCIP conducts an annual review on district performance.

Reported national immunization coverage has been quite high. All antigens reached >95% in 2011. Over the past 8 years, OPV3 reported coverage has been >93%, except in 2007 when 85% was reported. However the UNICEF MICS and TLSS surveys provide a different view of immunization coverage. In 2005 the MICS survey showed only 79% national OPV3 coverage. According to MOH reporting to WHO, national coverage was 95% in 2005 and 97% in 2006. The TLSS in 2007 survey revealed only 50% national coverage for OPV3 and 57% for measles vaccine. Some oblasts were found to have only 23% OPV3 coverage. According to the RCIP statistics reported to WHO, the national OPV3 coverage was 95% in 2006 and 85% in 2007. The following table summarizes the national immunization coverage for children < 1 year, by year and by antigen for the years 2008 through October 2012.

Table x.
National Immunization Coverage, children < 1 year, by year and by antigen,
2008 – 2012 (Oct.), Tajikistan.

Year	BCG	HepB-1	Penta-1 or DPT-1	Penta-3 or DPT-3	OPV-1	OPV-3	Measles-1 or MR-1
2008	97%	88%*	n/r	95%	n/r	94%	97%
2009	95%	95%*	96%	93%	96%	93%	97%
2010	97,1%	93,8%	n/r	92,7%	n/r	95,5%	96,2%
2011	95,1%	96,3%	98%	96,2%	98,8%	97,1%	97,9%
2012 (Jan.-Oct)	96,9%	97,1%	70,1%	63,7%	80,7%	77,7%	80,8%

Sources: MoH RCIP annual reports; *cMYP 2011 - 2015.
n/r - not retrieved during the time of the review.

Constraints for monitoring and reporting mentioned during interviews included: lack of transport and fuel at sub national and district levels; lack of qualified staff at the district level, and transferring of trained staff who are then

replaced by untrained staff. In addition central level staff have limited opportunity to make field visits to monitor the quality of reporting or to investigate problems.

Overall, medical workers at subnational and health facility levels perform their assigned tasks of recording and reporting immunizations very well. In most places visited tables showing coverage by health facility are maintained. Rayon coverage graphs are also usually available. However, the RCIP is not following WHO's recommended method for determining the target population (denominator) for calculating coverage. In addition other factors, such as migration, are not considered for estimating target populations. The accuracy of vaccination reporting and monitoring is also affected by limited supervision, which does not provide opportunities for cross checking to look for inconsistencies and ensure reliability of reporting.

Monitoring and analysis is very weak, especially at rayon and PHC levels. Reports are compiled and sent to the next level, but not analysed. While considerable information is recorded in health facility records, the information is not being analysed for detecting problems or for comparing performance with previous years or with other health facilities. This lack of use of data by those collecting the data, does not support improving the reliability of overall RCIP reporting system.

Improving the reliability of immunization reporting and making monitoring more effective will require a long term capacity building effort for medical workers at sub national and health facility levels. It will also involve developing more effective monitoring tools, improving analysis skills, and implementing the practice of taking local action to detect and correct problems. Training alone on calculating coverage and making graphs will not be sufficient. The following summarizes the strengths and weaknesses observed by the review team in the monitoring of the immunization services.

Strengths

- Systems for immunisation, birth registration and for reporting vaccinations are well established.
- Monthly reporting to the national level from the 72 reporting units is complete and usually timely. 58 districts are now reporting by email.
- The MoH record system, such as forms 63 and 112, contains very useful information for evidence-based decision-making.
- Availability of internationally recognised data on immunisation coverage rates: MICS-2005, TLSS-2007 and DHS-2012 (in progress).

Weaknesses

- Monitoring and analysis of coverage are not adequate to ensure control of vaccine preventable diseases, especially at PHC and district level.
- The method used for determining the target population is too complex, inconsistent, not according to WHO guidelines, and not supportive of accurate reporting and monitoring.
- Data verification mechanisms and tools for routinely monitoring the quality of reported data are not in place and do not use available independent review data.
- Pressure on the health staff to achieve high coverage causes misreporting.
- Little awareness and action for identifying and immunizing ethnic minorities, hard-to-reach population and other vulnerable groups.

Recommendations

55. The MoH should adopt WHO-recommended immunisation coverage calculation methodology.
56. Monitoring and analysis of coverage and surveillance data should be improved at PHC and district level to timely detect, accurately report and take appropriate action.
57. Independent verification and data crosschecking mechanisms should be established and built-in into the NIP. Periodic coverage survey should be conducted and available internationally recognized data should be analysed and used.



Consider improvement of national immunisation management information system to bring it in line with WHO recommendations.

