REACH EVERY DISTRICT (RED)/
REACH EVERY COMMUNITY (REC)
STRATEGY EVALUATION PAKISTAN (2014-18)

(LRPS-2019-9149241)

EVALUATION REPORT

DECEMBER 2019

Commissioned by UNICEF Pakistan
Implemented by Contech International in collaboration with Department of Public Health
Institute of Social and Cultural Studies, University of Punjab
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<td>September 2019 – December 2019</td>
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<td>30th December 2019</td>
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| Evaluators | Prof. Dr. Rubeena Zakar  
Ms. Mariam Zahid Malik  
Prof. Dr. Ashraf Majrooh  
Dr. Rabia Suljuk  
Ms. Sarosh Iqbal  
Dr. Farooq Umer |

*Backstopping & Advisory team*

Dr. Naeem uddin Mian  
Dr. Imran Ravji |
| Name of Organization | Contech International, Lahore, Pakistan |
| Name of the Organization Commissioning the Evaluation | UNICEF Pakistan |
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RED/REC Strategy is an intervention that has been implemented across all the provinces and regions of Pakistan by UNICEF with the support from the Government and WHO, to increase routine immunization services in districts with low coverage, focusing on marginalized and vulnerable communities. This evaluation was implemented by Contech International in collaboration with the Department of Public Health, Institute of Social and Cultural Studies, University of Punjab. Contech International highly values the support extended by MoNHSR&C, Federal and provincial EPI cells, Provincial Health Departments, IRMNCH & N Programme, LHW Programme, WHO, Civil Society Organizations and other development partners in enhancing the quality and scientific rigor of the evaluation as well as the report. We are also grateful to the Federal, Provincial and District Health Managers, EPI Coordinators, and District Superintendent Vaccinators (DSVs), who provided us with their invaluable insights about RED/REC implementation and to all those who were involved in and facilitated the data collection exercise. We would like to thank our technical & backstopping team under the leadership of Dr. Naeem uddin Mian for their expert inputs and critique, instrumental in refining the report quality. Special thanks is extended to the data collection teams including field teams and support staff who facilitated timely completion of the field work and gathered relevant/reliable information for this report. We would like to convey our gratitude to members of the community, especially community health workers (Lady Health Workers and Vaccinators) and caregivers (mothers and fathers of girls and boys aged less than five years), whose participation allowed us to explore their perceptions and awareness regarding immunization services.

Last but not the least, we would like to express our gratefulness to UNICEF’s national and provincial Health and Immunization teams and UNICEF Evaluation & Research Unit for their continuous support and invaluable feedback provided during the process of this evaluation. We hope that the findings of this report, proposed recommendations and defined change pathway (Theory of Change) will make a valuable contribution in enhancing immunization coverage, especially for the neglected, marginalized and underserved populations.
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<tr>
<td>AJK</td>
<td>Azad Jammu &amp; Kashmir</td>
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<td>BCG</td>
<td>Bacillus Calmette–Guérin</td>
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<td>CBAWs</td>
<td>Child Birth Aged Women</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CMYP</td>
<td>Comprehensive Multi-Year Plan</td>
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<td>CRC</td>
<td>Committee on the Rights of the Child</td>
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<td>CSO</td>
<td>Civil Society Organizations</td>
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<td>DFID</td>
<td>Department for International Development</td>
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<td>DGHS</td>
<td>Directorate General Health Services</td>
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<td>DHIS</td>
<td>District Health Information System</td>
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<td>DoH</td>
<td>Department of Health</td>
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<td>DRR</td>
<td>Disaster Risk Reduction</td>
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<td>DSVs</td>
<td>District Supervisor Vaccination</td>
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<td>DTP3</td>
<td>Diphtheria, Tetanus and Pertussis vaccine</td>
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<td>EDO</td>
<td>Executive District Officer</td>
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<td>EMR</td>
<td>Eastern Mediterranean Region (WHO)</td>
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<td>EPI</td>
<td>Expanded Programme on Immunization</td>
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<td>EPI-MIS</td>
<td>EPI-Management Information System</td>
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<td>ERB</td>
<td>Ethical Review Board</td>
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<td>EUR</td>
<td>European Region</td>
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<tr>
<td>FATA/NMD</td>
<td>Federally Administered Tribal Areas/Newly Merged Districts</td>
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<td>FGDs</td>
<td>Focus Group Discussions</td>
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<td>FLCF</td>
<td>First Level Care Facility</td>
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<td>GAVI</td>
<td>Global Alliance for Vaccines and Immunizations</td>
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<td>GB</td>
<td>Gilgit Baltistan</td>
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<td>GEROS</td>
<td>Global Evaluation Report Oversight System</td>
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<td>GIVS</td>
<td>Global Immunization Vision and Strategy</td>
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<td>GVAP</td>
<td>Global Vaccine Action Plan</td>
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<tr>
<td>HepB</td>
<td>hepatitis B</td>
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<tr>
<td>Hib</td>
<td>Hemophilus influenzae type b</td>
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<td>HRBA</td>
<td>Human Rights Based Approach</td>
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<td>HRH</td>
<td>Human resources for health</td>
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<td>IPV</td>
<td>Inactivated polio vaccine</td>
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<td>IRMNMCHN</td>
<td>Integrated Reproductive Maternal Newborn, Child Health &amp; Nutrition programme</td>
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<td>KII</td>
<td>Key Informant Interviews</td>
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<td>KP</td>
<td>Khyber Pakhtunkhwa</td>
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<td>Acronym</td>
<td>Description</td>
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<td>LFO</td>
<td>Legal Framework Order</td>
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<td>Local government areas</td>
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<td>Lady Health Supervisors</td>
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<td>Lady Health Workers</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring &amp; Evaluation</td>
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<tr>
<td>M/o NHSR&amp;C</td>
<td>Ministry of National Health Services, Regulation and Coordination</td>
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<td>MCSP</td>
<td>Maternal and Child Survival Programme</td>
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<td>MICS</td>
<td>Multiple Indicators Clusters Surveys</td>
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<td>MNCH</td>
<td>Maternal Neonatal Child Health</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>NFC</td>
<td>National Finance Commission Award</td>
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<td>NIDs/SNIDs</td>
<td>National Immunization Days/Sub-national Immunization Days</td>
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<td>NIH</td>
<td>National Institution of Health</td>
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<td>NISP</td>
<td>National Immunization Support Project</td>
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<td>NNS</td>
<td>National Nutrition Survey</td>
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<td>PCV</td>
<td>pneumococcal vaccine</td>
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<td>PDHS</td>
<td>Pakistan Demographic &amp; Health Survey</td>
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<td>Pent</td>
<td>Pentavalent</td>
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<td>PHC</td>
<td>Primary Healthcare</td>
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<td>REC</td>
<td>Reaching Every Community</td>
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<td>RED</td>
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<td>Rew</td>
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<td>RHCs</td>
<td>Rural Healthcare Units</td>
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<td>RI</td>
<td>Routine Immunization</td>
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<td>Rotavirus</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SEAR</td>
<td>South East Asian Region</td>
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<td>SOPs</td>
<td>Standard Operating Procedures</td>
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<td>ToC</td>
<td>Theory of Change</td>
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<td>TORs</td>
<td>Terms of Reference</td>
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<td>TT</td>
<td>Tetanus Toxoid</td>
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<tr>
<td>U5</td>
<td>Under-five</td>
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<tr>
<td>UCs</td>
<td>Union Councils</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNEG</td>
<td>United Nations Evaluation Group</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>VPDs</td>
<td>Vaccine Preventable Diseases</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WPR</td>
<td>Western Pacific Region</td>
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Executive Summary

Context
The Expanded Programme on Immunization (EPI) Pakistan was established in 1974 with high-level commitment to improve routine immunization services in Pakistan. To date concerted efforts have resulted in increased immunization coverage, however, inequities by gender and circumstance continue. These often stem from harmful taboos and norms, including beliefs that girls face reproductive risks from vaccinations or preference to vaccinate sons over daughters. To combat inequities, national priorities have been set to target marginalized populations. The Reaching Every District/Community (RED/REC) Strategy was launched in African countries by the World Health Organization, UNICEF and other partners in the GAVI Alliance in 2002 – after its success, the strategy was introduced to Pakistan in 2010. It is designed to improve and strengthen immunization systems in areas with low coverage through application of five operational strategies, including (1) re-establishing health outreach service delivery, (2) supportive supervision, (3) linking services with communities, (4) monitoring and use of data for action, and (5) planning and management of resources. Nearly a decade later, the time has come to conduct an in-depth evaluation of progress made and lessons to be learned.

Evaluation Purpose & Objectives
UNICEF commissioned a third-party evaluation to assess the extent to which RED/REC strategy fulfilled its intended objectives of strengthening the delivery of routine immunization services to marginalized populations. The OECD/DAC evaluation criteria was used, which explored the strategy’s relevance, effectiveness, efficiency, long-term impact and sustainability across cross-cutting areas - including gender, equity, human rights and disaster risk reduction (DRR). It is key to note that long-term impact was difficult to measure due to the absence of counterfactuals and any baseline or evaluability study. The scope of evaluation covered period from 2014-18, focusing on the planning and implementation of the strategy at the provincial, district and sub-district levels. The specific objectives were:
• To assess the extent to which RED/REC strategy was implemented in the identified districts
• To assess the extent to which the RED/REC strategy achieved its stated objectives
• To assess the effectiveness and efficiency of the five pillars of the RED/REC strategy, i.e. reestablishment of regular outreach services; supportive supervision; linking community with service delivery, monitoring and use of gender-disaggregated data for action; planning and management of human and financial resources
• To determine how well gender, equity, human rights and DRR were taken into consideration
• To determine to what extent the strategy reached the most vulnerable people and communities
• To identify lessons learned and develop a set of recommendations

Methodology
Total 56 intervention districts across Pakistan were identified across Punjab, Sindh, Balochistan, Khyber Pakhtunkhwa (KP) provinces, and the Newly Merged Districts (NMD), Azad Jammu & Kashmir (AJK) and Gilgit Baltistan (GB) within RED/REC Strategy. Contech, the third-party evaluator, adopted a representative sample size, i.e. at approximately 20% of the intervention districts – thereby selecting 12 districts for evaluation. These 12 were selected to assess the extent
immunization coverage and level of improvement in performance after introduction of RED/REC Strategy. A formative evaluation, using mixed method design was conducted, primarily employing qualitative techniques and supported by the collection of quantitative data. Both primary and secondary data collection methods were used, comprising desk reviews, key informant interviews (KII) and Focus Group Discussions (FGD), immunization checklists and secondary information on key indicators, including administrative data. A total of 47 KIIs were conducted with the relevant stakeholders, including representatives of federal and provincial EPI cells, provincial departments of health, UNICEF health and immunization focal points, district health managers, donors and development partners and local civil society organizations. Furthermore, 36 FGDs were conducted with the local service providers (vaccinators), community health workers and parents/caregivers of children under 5 years. This mixed-methods approach was critical to generating representative and accurate findings.

**Findings**

The evaluation revealed that the RED/REC strategy is certainly being implemented in the intervention districts of all provinces and regions. All major components of the strategy have been merged into Provincial EPIs. In the Sindh EPI programme, all activities are performed under one umbrella within both intervention and non-intervention districts as of 2016. Similarly, the Government of KP/NMD had merged the components of RED/REC strategy into the Provincial EPI, while providing requisite funds. In Punjab, Balochistan, AJK and GB, the RED/REC approach and its implementation have been more or less effective – these governments are in the process of roll-out in non-intervention districts. Quantitative data demonstrated that immunization coverage was as per the targets for the RED/REC strategy. Key findings per the OECD/DAC Criteria are shared below:

**A) Relevance** was assessed to determine the extent to which the RED/REC strategy aligned with the priorities of both recipient and donor. The evaluation found that strategy objectives were aligned with national and provincial priorities, particularly in addressing the needs of marginalized communities. Intervention districts were selected based on evidence of them being worst performing or hardest-to-reach. Micro-planning based on social mapping has ensured inclusion of most vulnerable populations. Overall, the RED/REC strategy has been able to maximize coverage of routine immunization in low performing districts.

**B) Effectiveness** was assessed to determine the extent to which the RED/REC strategy was able to attain its objectives. Findings of this evaluation showed that the strategy has promoted equity-based interventions, including reducing the gender gap. In this regard, the availability of updated micro-plans at the union council-level were beneficial in focusing on hard-to-reach areas. Data gathered through E-monitoring systems has been used for evidence-based decision-making and course correction, however, overall M&E mechanisms adopted by governments tend to lack uniformity. Critically, the strategy has strengthened the capacities of DSVs, ASVs, LHWs and vaccinators in reaching the most marginalized and vulnerable communities. The inclusion of LHWs as injectors has been instrumental in increasing outreach twofold – however, the initiative is facing resistance from the frontline workers and even from some communities. Non-intervention districts are losing out on strategies used in intervention districts, such as supervision support. Finally, a major gap is in the absence of social accountability in the strategy.

**C) Efficiency** was assessed to measure the outputs in relation to the inputs. Variance was observed in districts regarding availability of complete and computerized micro-plans and their updating. The process of micro-planning has been instrumental in prioritizing hard-to-
reach/high-risk populations for increased immunization coverage. The findings of this evaluation revealed that the RED/REC strategy has in fact enhanced outreach services and strengthened capacities and competencies for routine immunization.

D) **Impact** was assessed to determine the long-term changes resulting from the strategy, whether direct or indirect, intended or unintended. Though there was appreciable improvement in immunization coverage, the absolute goals of RED/REC are yet to be achieved at district and national levels. Significant cross-cutting effects were observed in non-intervention districts for ownership and implementation of RED/REC components as uniform policy to increase routine immunization. Some of the key shortcomings were also identified, including pervasive inequities in the provision of services that need to be rectified.

E) **Sustainability** was assessed to measure whether the strategy is likely to continue after donor funding has been withdrawn. The evaluation found that government ownership was evident as the RED/REC strategy is being institutionalized and scaled up by the provinces, as evident from the adoption of its components within non-intervention districts. The role of UNICEF was assessed to be supportive to government in the operationalization of the strategy. Multiple enabling factors and drivers that hinder sustainability were identified, such as the supportive supervision and e-monitoring for M&E. Consistent focus and financial support to supervisors remained a challenge for the government in sustaining the strategy.

**Conclusions & lessons learnt**

Political will and commitment were evident from the emphasis placed on vaccinating every child in Pakistan’s National Health Vision as well as provincial health policies and sector strategies. Willingness of government institutions, federal and provincial was evident from their incorporation of RED/REC strategy in planning. Social mapping and integrated micro-planning in the RED/REC implementing districts led to an increase in immunization coverage especially in hard-to-reach areas. RED/REC strategy helped to build monitoring and supervisory capacities of EPI health managers and other relevant staff, along with increased reporting through supervisory logbooks for efficient recording and reporting. However, trainings and managerial capacity gaps still existed due to staff turnover, transfers and inadequate supply of refresher trainings. The immunization service delivery component had been strengthened in RED/REC intervention districts through involvement of LHWs and other paramedical staff and community volunteers. Dearth of engagement of local CSOs and community influencers was observed, which can be instrumental in removing cultural, social and gender barriers to immunization. Results from the evaluation revealed that RED/REC approach, although effective, needs to be enhanced through its integration into existing systems. The lessons learnt from best practices in the intervention districts should be replicated in other districts within provinces and regions of Pakistan through knowledge sharing.

**Summary Recommendations**

Based on the key findings of this evaluation, following are the recommendations under each of the five components of RED/REC strategy to achieve universal coverage of immunization across country:

1) **Re-establishing outreach services**: The most critical aspect of RED/REC strategy is to ensure that more strategic target-setting is done for identification of high-risk communities and establishing extended health houses (EHH)/kit stations. Routine immunization coverage should be augmented through engagement of other cadres of workers, particularly female vaccinators. There is a need to improve methods and means to analyse progress and coverage
achieved - addressing challenges for resource allocation. Women and men in communities must be engaged through coordination platforms established for this purpose – this will enhance ownership within communities.

2) **Supportive Supervision:** Integrated supportive-supervision capitalizes on the existing supervisory structure of superintendent vaccination and must be enhanced. Constructive feedback should be promoted for improved performance and regularity.

3) **Linking services with community:** Augmenting social mobilization activities with a key focus on re-establishing linkages of communities with facility-based immunization services is recommended. The role of community-based organizations and Community Volunteers in improving immunization coverage both at the community and facility levels should be enhanced and strengthened.

4) **Monitoring and use of data for action:** Concerted evidence-based advocacy efforts with political leadership should be done at all levels for buy-in and political commitment. Monitoring platforms should be integrated for enhanced use of gender-segregated data for action. It is critical to improve the quality, availability and use of reliable immunization data at all levels.

5) **Planning & management of resources:** Immunization coverage with facility & community-based planning of available resources should be enhanced through integrated approach to avoid duplication of efforts. Availability of appropriate number of EPI staff especially female vaccinators and additional community-based vaccinators (e.g. LHWs) as per need of micro-plans should be ensured. Further, scaling up of RED/REC strategy as a standard in routine immunization programme intervention is recommended.
SECTION A: BACKGROUND AND RATIONALE

1. Introduction and Rationale

1.1. Immunization landscape

According to the World Health Organization (WHO) 2018 estimates, immunization prevents 2 to 3 million deaths every year globally worldwide. Moreover, 1.5 million deaths could be avoided if global vaccination coverage improves and reached to the unreached (WHO, 2018a). The overview of global immunization data highlights that world is closer than ever to eradicate polio, with only three remaining polio endemic countries, i.e. Afghanistan, Nigeria and Pakistan. The deaths from measles are declined by 80% worldwide between 2000 and 2017, preventing an estimated 21.1 million deaths, and as of March 2019, all but 13 countries have eliminated maternal and neonatal tetanus, a disease with a fatality rate of 70% to 100% among newborns (UNICEF, 2019). Moreover, global coverage rates for the third dose of the diphtheria, tetanus and pertussis vaccine (DTP3) reached to 86% in 2018, up from 72% in 2000 and 20% in 1980. Despite of these improvements, progress has stalled over the current decade, as 83 countries have yet to achieve the Global Vaccine Action Plan (GVAP) target of 90% or greater coverage of DTP3 (UNICEF, 2019). Statistics highlighted that 19.4 million children under 1 year of age worldwide did not receive the three recommended doses of DTP in 2018, and an estimated 13.5 million children in the same age group did not benefit from any vaccination (UNICEF, 2019), which is alarming. Multiple factors, including conflict, under-investment in national immunization programmes, vaccine stock-outs, and disease outbreaks, contribute to the disruption of health systems and prevent sustainable delivery of vaccination services (UNICEF, 2019). The latest report of Strategic Advisory Group of Experts (SAGE) on Immunization (2019) also revealed the various global challenges related to coverage and equity for immunization. Report found that there are only 10 countries, which account for 60% of unprotected children (SAGE, 2019). Regarding global DPT3 coverage, it stalled at 86%, however, more inequity was seen for measles vaccination coverage than for DPT3 coverage. Therefore, vaccine and programme innovations are essential to address the gaps in coverage and equity (SAGE, 2019).

In the context of Pakistan, WHO facilitated in establishing Expanded Programme on Immunization (EPI) in 1974 to improve routine immunization services. After the introduction of EPI, the global health community such as WHO, UNICEF, GAVI, the Vaccine Alliance has consistently shown serious commitment in realizing the full potential of vaccines, with efforts dedicated to ensuring widespread vaccine distribution, resulting in Immunization programme making strides in reaching populations at large (Hosseinpoor., et al., 2016).

Pakistan established a schedule for the administration of all basic childhood vaccines based on the World Health Organization (WHO) guidelines, however Pakistan still has one of the highest numbers of under-immunized children globally, highlighting gender gap (WHO, 2017a). Literature suggested that boys are immunized more as compared to girls in Pakistan, as evident from a results of a multi-logic regression, which demonstrated that girls has 0.92 less chances to be fully immunized in Pakistan than boys (Subhani, et al., 2015). A second, more critical, measure of vaccination coverage is the proportion of children age 12-23 months and 24-35 months who have received all age-appropriate vaccinations. According to PDHS 2017-18, 66% of children age 12-23 months were estimated to be fully immunized or had received all basic vaccinations, while 51% had received all age-appropriate vaccinations, whereas a significant 4%
of children failed to receive any vaccinations (PDHS, 2017-18). Although these figures have improved since the last survey in 2012-2013, there was a noteworthy gap in immunization coverage in Pakistan. This in effect, has indicated the need for significant programme interventions like the RED/REC strategy, for optimally improving and sustaining immunization coverage, considering the notion that vaccines may further avert up to 17% of childhood mortality in Pakistan (WHO-EPI, 2017a). Apart from gender, various other factors which multiply the inequity in Immunization in the country, such as rural-urban place of residence, education of parents especially mothers and socio-economic status (wealth quintiles) have shown to impact coverage. Pakistan with extensive provincial disparities in coverage of fully immunized children opted for RED/REC Strategy to maximize immunization coverage in hard to reach and underserved areas/regions.

1.2. Object of Evaluation – UNICEF RED/REC Strategy

The Reaching Every District (RED)/Reaching Every Community (REC) Strategy was launched by World Health Organization (WHO), United Nations Children’s Fund (UNICEF) and other partners in GAVI Alliance in 2002. It was designed to improve immunization systems in areas with low coverage through application of five operational strategies, including re-establishing health outreach, supportive supervision, linking services with women and men in communities, monitoring and use of data for action, and planning and management of resources (WHO, 2010). The RED/REC strategy aimed at ensuring equitable immunization coverage within communities, identifying the underserved populations, understanding of the barriers to access and use of immunization and reviewing the micro-plans at the district and community levels to ensure that these barriers were overcome (EPI, 2014). Pakistan was facing significant health inequity and disparities in vaccination coverage as well as morbidity/mortality within districts and across the provinces. The country witnessed variance in coverage rates by and between different geographical areas and socio-economic classes, hence, there was a need to address the national priorities and measure the progress in reaching these marginalized populations.

UNICEF provided technical and financial support to the selected low performing districts across four provinces, GB and AJK through RED/REC strategy. This was initiated in 2010 with the objective to reach the vulnerable and marginalized girls and boys. This strategy was considered to be well-suited for Pakistan’s context, particularly for emphasizing on improving immunization coverage in pockets of populations which are mostly excluded. The approach laid emphasis on children in poorest quintile (poverty), with least caregivers’ education, having low access to health infrastructure and living in difficult, hard-to-reach, and marginalized (ethnic minorities) areas and gender of children (UNICEF Pakistan, 2019). This approach was endorsed by the Ministry of Health at federal level. The federal EPI programme coordinated with provincial EPI programmes for selection of the districts and implementation of the RED/REC strategy, giving priority to the low coverage districts. In this regard, WHO and UNICEF provided technical support in the areas of capacity building, planning and implementation. Further, district health teams were responsible for direct implementation of the RED/REC strategy at all levels within districts (UNICEF Pakistan, 2019).

Instead of a separate approach or project, RED/REC strategy was embedded in the health system in Pakistan, utilizing the existing network of EPI Programmes with a focus on the processes of planning and monitoring to ensure effective delivery of services. This strategy was initially started in 10 districts across Pakistan in 2010, followed by scale up in 23 districts in 2013 and then 56 districts in 2015, while increasing immunization coverage (Penta3) from 67% to
82%, reaching almost 1.7 million children (UNICEF, 2017). The initiative taken in 2014 was scaled up in 56 districts, all over the country, which included 7 districts in Punjab, 5 in Sindh, 6 in Balochistan, 25 districts in KP, 3 in GB, 7 in FATA and 3 in AJK (UNICEF Pakistan, 2019).

The RED/REC strategy laid the foundation to strengthen routine immunization, through reaching more children, while promoting human-rights, gender equality, and equity and women empowerment at the community levels through improving the accessibility for socially, economically and geographically marginalized populations. Further, the support of community outreach/female health workers (LHWs), who worked at the grass root level, helped to promote healthy behaviours and provide basic curative services for both female and male children, without any discrimination. The strategy helped in improving the quality, coverage and equity regarding routine immunization, ultimately empowering females (e.g. LHWs) to act as an agent of change through social mobilization and changing behaviours of parents/caregivers (mothers and fathers) at the community levels.

Reaching the most marginalized communities with life-saving vaccination services required a bold, collective vision and an unprecedented degree of coordination (Chan, Elias, Fauci, Lake, & Berkley, 2017; Hilber, et al, 2010). Literature from South Asian countries provided the evidence that gender differential in healthcare utilization is the main cause of greater survival of boys than girls (Booth, & Verma, 1992). RED/REC strategy has continuously provided support to provinces in decreasing immunization inequities, particularly in urban poor, remote rural and conflict-affected communities to ensure that they are fit for the purpose. As literature informed, this strategy had been substantially contributing to reduce childhood mortality and morbidity, framing gender equity and equality as one of the development objectives. The strategy particularly focussed on increasing child survival, equally for both female and male children, thus adhering to the principles of gender equality, equity and child rights.

Following were the main objectives of rolling out the RED/REC Strategy in Pakistan:

- To achieve the goal of 80% immunization coverage in all the UCs and > 80% at district level;
- To address the inequities in immunization and ensure coverage of neglected and marginalized communities;
- In the long run, to use immunization as an entry point or opportunity to provide other interventions e.g. Integrated PHC services (like vitamin A supplementation, administering deworming tablets, Zinc tablets/ORS with immunization services)

Following were the expected outcomes of the Strategy, which was designed to improve immunization systems in areas with low coverage through application of five operational key components (WHO, 2010):

- **Improved planning and management of resources** through better management of human and financial resources
- **Re-established health outreach** by improving access to immunization services by all
- **Enhanced supportive supervision** by regular on-site supervision, feedback and follow-up with health staff
  - Robust monitoring through use of data for action by using tools and providing feedback for continuous self-assessment and improvement
  - Engagement of communities in service delivery by partnering with communities to promote and deliver services
1.3. Rationale
Since the introduction of RED/REC strategy in Pakistan, the available country level data suggested that there had been lack of evidence of development or use of a Theory of Change (ToC) for the RED/REC strategy especially in the context of Pakistan. Further, there was no external baseline or process evaluation done for assessing the progress made by the strategy since it was originally piloted in 2010 or even after its scale up (UNICEF Pakistan, 2019). This provided a rationale for a third-party evaluation to determine the strengths and weaknesses of the strategy in redressing gender, equity and human rights gaps in vaccination coverage and to highlight opportunities for further scaling up at various strategic levels.

UNICEF commissioned this evaluation as part of the monitoring and evaluation activities to ascertain that the progress made were in the right direction in meeting its ultimate goals. It assessed the extent to which this strategy was successful in achieving its intended results and aided the beneficiaries, and whether the stakeholders were productively involved in the five components of RED/REC Strategy implementation. This evaluation determined the progress towards specified objectives and the extent to which they were achieved and contributed to increase in immunization coverage for both girls and boys. The evaluation documented the overall progress and lessons learned from the strategy with recommendations that would be used in improving the operationalization in accordance with the National Health Vision, Comprehensive Multi-Year Plans (cMYP) and National Immunization Policy, and formulating a pathway of change for future planning. The evidence would also help in scaling up the strategy in other geographical areas in Pakistan and other settings. The table below demonstrates the involvement of stakeholders in RED/REC strategy at various tiers.

Table 1: RED/REC Strategy Stakeholders - Roles and Responsibilities

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>STAKEHOLDERS</th>
<th>ROLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>M/o National Health Services Regulations and Coordination, Federal EPI Cell, UNICEF</td>
<td>Knowledge Management, Steering, Monitoring, Policy formulation roles</td>
</tr>
<tr>
<td>Provincial</td>
<td>Directorate General Health Services, Departments of Health, Expanded Programme on Immunization, UNICEF Health &amp; Immunization team, WHO focal points</td>
<td>Management and Implementation roles</td>
</tr>
<tr>
<td>District / Sub-district</td>
<td>District Health Offices/District Health Authorities, District EPI Officers, DSVs, Vaccinators, Lady Health Supervisors (LHSs) and Lady Health Workers (LHWs), CSO/CBO representatives involved in RED/REC strategy implementation in the selected districts</td>
<td>Coordination and Implementation roles</td>
</tr>
<tr>
<td>Community</td>
<td>Women and men in concerned population i.e. beneficiaries (i.e. parents/caregivers (mothers and fathers of children under 5 years).</td>
<td>Recipients/beneficiaries of immunizations services and decision makers for seeking healthcare and immunization for their children</td>
</tr>
<tr>
<td>Development Partners</td>
<td>UNICEF, WHO</td>
<td>Funding and Implementation Support</td>
</tr>
</tbody>
</table>

Government health institutions, more specifically the MoNHSR&C (Ministry of National Health Services, Regulation and Coordination) and the Provincial/Area Departments of Health (DoH), Directorate General Health Services (DGHS), Expanded Programme for Immunization (EPI), Lady
Health Worker Programme (LHWP), Integrated Reproductive Maternal Newborn, Child Health (IRMNCH) programme, along with United Nations Children’s Fund (UNICEF), World Health Organization (WHO) are the primary intended users of this evaluation, and benefit from the learnings relevant to their work. Women, children (especially girls), families (parents/caregivers including mothers and fathers), communities, health care providers, policy makers, opinion leaders and partners are the secondary audience who will also benefit from the learnings and findings of this evaluation.

The primary aim of this evaluation was to document the progress made so far and the lessons learnt from the strategy that will be used in improving the implementation of intervention. In addition, secondary aim of this evaluation was knowledge management and reviewing potential for scalability in rest of the districts and regions. In a nutshell, this evaluation report would be used to inform the strategy and intervention design. It would help in identifying and capitalizing on RED/REC Strategy’s strengths, amend weaknesses, set realistic goals, identify new areas of intervention, and provide guidance about best practices for replication and possible expansion.

Since the implementation of RED/REC Strategy was nearing a decade, this is the opportune time to conduct an external evaluation, covering the period of 2014-18, which would help to carve out the future course of action and course correction to achieve the goals of the strategy. Consequently, Theory of Change (TOC), prepared during the inception phase has been refined and updated based on the findings of the evaluation. The evaluation also upheld gender mainstreaming and human rights-based programming, as it gave a chance to mothers and fathers to raise issues about their child’s health and access to quality immunization service provision.

2. Literature Review

This review presents an overview of global, national and provincial level policies for improving the immunization services. The literature review was conducted to landscape the situation of immunization in the context to RED/REC strategy and its impact. The review was based on national and international published reports, articles and info-graphics.

2.1. Global Scenario

Vaccination is considered the most cost-effective, high impact health intervention, averting an estimated 2 to 3 million deaths every year. Vaccines not only prevent serious health conditions and deaths caused by vaccine preventable diseases (VPDs), but also prevent their long-term disabilities and impairments, resulting from some infectious diseases that may seriously impact on individuals, their families and ultimately society at large (Sabin, 1970). An estimated 10 million deaths were prevented globally from 2010 to 2015 and millions of more lives were protected from sufferings and disabilities associated with many infectious diseases (World Health Organization, 2017b). Latest statistics revealed that 116 million children were immunized against diphtheria, tetanus and pertussis (DTP) in 2018, however, millions of children are still not reached by potentially life-saving vaccines (UNICEF, 2019).

Vaccines are one of the most important tools for preventing outbreaks and ensuring safety. As a direct result of immunization, the world is closer than ever to eradicating polio, with only three remaining polio endemic countries, i.e. Afghanistan, Nigeria and Pakistan. Deaths from measles have also been declined by 80% worldwide between 2000 and 2017, preventing an estimated
21.1 million deaths (UNICEF Pakistan, 2019). As of March 2019, all but 13 countries had eliminated maternal and neonatal tetanus, a disease with a fatality rate of 70 to 100 percent among newborns (UNICEF Pakistan, 2019). The percentage of children receiving the DTP vaccine had been often used as an indicator of how well countries are providing routine immunization services. In 2018, global coverage rates for the third dose of the DTP reached 86%, up from 72% in 2000 and 20% in 1980. However, progress still stalled over the current decade, where 83 countries have yet to achieve the Global Vaccine Action Plan (GVAP) target of 90% or greater coverage of DTP3 (WUENIC, 2019). Data also revealed that 19.4 million children under 1 year of age worldwide did not receive three recommended doses of DTP in 2018, and an estimated 13.5 million children in same age group did not benefit from any vaccination, as in figure below:

**Figure 1: Global coverage**

![Global coverage chart](image1.png)

The gap between the best performer, the European Region, and the lowest performer, the African Region, was 18% points. The Western Pacific Region and especially the Region of the Americas dropped in coverage. The biggest gains had been made by the African Region (over a 20 year period), and South East Asian Region (over 10year period), as evident from figure below:

**Figure 2: Varying coverage across regions**

![Varying coverage chart](image2.png)
Multiple factors, including conflict, under-investment in national immunization programmes, vaccine stock-outs, and disease outbreaks, contributed to the disruption of health systems and prevented sustainable delivery of vaccination services. About 1 in 5 (nearly 4 million) of un/under-vaccinated infants live in fragile or humanitarian settings, including countries affected by conflict. These children remain the most vulnerable to disease outbreaks. In Yemen, for example, children accounted for over 58% of more than one million people affected by a cholera outbreak or watery diarrhoea in 2017 alone (UNICEF, 2019).

2.1.1. Global Initiatives to improve Immunization coverage
Massive resources in terms of global programmes and strategies had been dedicated to immunizing the children against an array of vaccine-preventable diseases. Following is the snapshot of these global initiatives:

2.1.1.1. EPI and Elusive Coverage Targets
The Expanded Programme on Immunization (EPI) of World Health Organization (WHO) remained the major contributor to this global success (Jamil, Bhuiya, Streatfield, & Chakrabarty, 1999). EPI is a routine activity within the public healthcare system including mass immunization campaigns and door-to-door activities across the country aiming to increase the routine vaccine uptake. EPI was formally established in 1974 targeting childhood immunization against six vaccine-preventable diseases, i.e., diphtheria, pertussis, tetanus, poliomyelitis, measles, and tuberculosis (Keja, Chan, Hayden, & Henderson, 1988). EPI was included as one of the components of Accelerated Health Programme in 1983. Subsequently, it was integrated into regular Health Services in 1985. The goal of the programme was to support provinces and districts to provide high quality immunization services to prevent morbidity, disability and mortality, mainly due to Vaccine Preventable Diseases (VPDs) and contribute to the strengthening of national health systems, particularly in attainment Sustainable Development Goals (SDGs). Priority interventions included expanding the implementation of “Reaching Every Union Council” approach, capacity building of staff, enhancing community participation, effective vaccine and logistics management, case-based surveillance, ensuring sufficient and sustainable funding, and strengthening partnerships for immunization. Implementation of EPI increased the vaccine coverage globally e.g. in 2017, EPI achieved around 85% DPT3 coverage worldwide with 123 countries having at least 90% coverage (WHO, 2018a).

2.1.1.2. Global Immunization Vision and Strategy (GIVS)
In 2005, the 58th World Health Assembly, recognizing the role that vaccines and immunization can contribute in reducing under-five mortality, welcomed the Global Immunization Vision and Strategy (GIVS) 2006-2015, developed by WHO and UNICEF as a framework for strengthening national immunization programmes, globally (WHO & UNICEF, 2005). Its goal was to protect as many people as possible against more diseases by expanding the reach of immunization to every eligible person and ensuring that immunization is high on every health agenda. The strategy aimed at increasing, or at least sustaining very high levels of vaccine coverage, not just for infants but for all age groups through introducing new vaccines and linking immunization with the delivery of other health interventions. This strategy was drawn up against a background of increasing demand for vaccines, rapid progress in developing new vaccines and technologies, continuing health-sector development, increasing vulnerability to pandemics and other health emergencies and exploring more potential opportunities for partnerships (Duclos, Okwo-Bele, Gacic-Dobo, & Cherian, 2009).
2.1.1.3. Global Vaccine Action Plan
The Global Vaccine Action Plan (GVAP) (2011-2020) built on the success of GIVS (2006–2015), which was launched in 2005 as the first 10-year strategic framework to realize the potential of immunization. The vision for the Decade of Vaccines (2011–2020) was of a world in which all individuals and communities enjoy lives free from vaccine-preventable diseases. The GVAP reiterated existing goals and set new goals for the decade. GVAP proposed six strategic objectives and the actions to support their achievement, providing an initial estimate of resource requirements and return on investment (WHO, 2013). Six principles of GVAP are as follows:

1. **Country ownership**: Countries have primary ownership and responsibility for establishing good governance and for providing effective and quality immunization services for all.
2. **Shared responsibility and partnership**: Immunization against VPDs is an individual, community and governmental responsibility that transcends borders and sectors.
3. **Equity**: Equitable access to immunization is a core component of the right to health.
4. **Integration**: Strong immunization systems, as part of broader health systems and closely coordinated with other primary healthcare delivery programmes, are essential for achieving immunization goals.
5. **Sustainability**: Informed decisions and implementation strategies, appropriate levels of financial investment, improved financial management and oversight are critical to ensuring the sustainability of immunization programmes.
6. **Innovation**: Full potential of immunization can only be realized through learning, continuous improvement and innovation in research and development, as well as innovation and quality improvement across all aspects of immunization.

2.1.1.4. Immunization Agenda 2030
Consolidating the gains made during the decade of vaccines and establishing a new direction for the next decade and beyond, the Immunization Agenda 2030 was designed to revitalize efforts in the battle against infectious diseases and setting a renewed Immunization Agenda 2030 focusing on 6 priorities of strategic importance to guide efforts forward (WHO, 2019). These included:

1. **Systems & Integration**: Bridging to stronger and more integrated immunization systems
2. **Equity & Access**: Achieving equitable vaccination access in all settings and eliminating gender gaps
3. **Fragility & Emergencies**: Ensuring vaccination services in acute and chronic emergencies
4. **Value & Ownership**: Strengthening public demand and strengthening political commitment
5. **Research & Innovation**: Accelerating research and innovation for continuous improvements
6. **Sustainability & Accountability**: Building sustainable systems

2.1.1.5. UNICEF Immunization Roadmap
The UNICEF Immunization Roadmap (2018-2030) set out organization’s priorities on immunization through 2030, with detailed focus on the period of UNICEF Strategic Plan (2018–2021). The Roadmap complemented UNICEF’s Strategy for Health (2016–2030), clearly articulating organizational priorities on immunization and explaining how these priorities contribute to overarching strategic goals on health systems strengthening. The Roadmap expressed UNICEF’s vision of fully realizing the right of every woman and child to immunization, with priority given to the most disadvantaged. In addition to addressing the unfinished business of reaching targets of the current Global Vaccine Action Plan and ongoing eradication and
elimination initiatives, UNICEF built on these priorities and addressed current and future challenges facing immunization programmes in a rapidly changing world. UNICEF supported the immunization-specific targets within SDGs’ indicators and post-2020 global immunization targets, both of which are under development, emphasizing on sub-national coverage (UNICEF Immunization Roadmap, 2018). This vision was underpinned by the following three key programming principles:

1. Advocating for the realization of the right of every woman and child to full immunization, holding stakeholders accountable;
2. Strengthening health and community systems to deliver immunization services, focusing on reaching and serving disadvantaged communities; and
3. Positioning immunization as a driver of equitable delivery of integrated, multi-sectoral interventions to improve child health outcomes.

2.1.1.6. Immunization coverage through RED/REC strategy

Reaching Every District (RED)/Reaching Every Community (REC) had been introduced as a strategy to achieve the goal of 80% immunization coverage in all districts and 90% nationally in the WHO member states. RED/REC Strategy aimed to fully immunize every infant with all vaccines included in the national immunization schedule of countries. In order to achieve this goal, the strategy focused on building national capacity from district level upward to maximize access to all vaccines, old and new. RED/REC Strategy was initiated by WHO and UNICEF to address common obstacles for increasing immunization coverage such as poor quality of district level planning, low quality and unreliable services, inadequate monitoring and supervision of health workers. The strategy was based on five RED/REC operational components (WHO, 2019):

1. **Re-establishing outreach services**: Under the RED/REC Strategy, a large proportion of the population had access to immunization through outreach sessions, especially through mobile teams and community health workers, providing opportunities to integrate other interventions along with immunization.

2. **Supportive supervision**: Under the strategy, supportive supervision component included ensuring supervisors made regular schedules for visits, helped to solve problems locally, followed up regularly with supply and resource issues, and provided on-site training to health workers during supervisory visits, or at regular district meetings.

3. **Linking services with communities**: This involved engaging the community with the planning and delivery of the service, thus encouraging community ownership and improving attendance.

4. **Monitoring and use of data for action**: Monitoring and use of data for action implied not only the timely collection of data at district/sub-district levels, but also use of data to solve problems. Some simple tools, including wall charts that displayed access and data on coverage and utilization, were promoted to be used for evidence-based decision making.

5. **Planning and management of resources**: The micro-plan was based upon a local situation analysis which involved every health facility and through them the community that they served. The district micro-plans had been the key to the RED/REC strategy, providing coverage and accessibility to most marginalized populations.

2.1.2. Key Challenges to Global Immunization Programmes

There remained many challenges involved in the global drive to save lives, as follows (Population Reference Bureau, 2019).
• **Competing Priorities, Global and Long-Term Commitment:** Public health leaders’ need to set strategies that helped them to choose among competing health priorities in order to achieve efficacy. Any public health priority required a constant commitment, however funding for these health priorities varied, depending on the disease outbreaks and funding available for dealing with them. These competing priorities pose a challenge in increasing commitment and resource allocation to help children in developing countries.

• **Logistics Management:** Main challenges faced with low immunization coverage had been related to difficult or no access of transportation facility, basic amenities and infrastructure. Capacity to keep certain vaccines in the proper temperature range is a continuous threat.

• **Social Stability:** Delivery of vaccines almost impossible in war-torn countries and many other countries who had been experiencing political discord also pose a negative influence on immunization.

• **Safety:** Safe immunizations remain a challenge and priority for all nations. There are three major elements of immunization safety including (1) health care providers’ safety in handling vaccines, (2) administration of the vaccination (handling, scheduling, and injections), and (3) surveillance and evaluation of the immunization programmes, including documentation of efficacy and adverse events.

• **Credibility:** Fears regarding safety and credibility had been almost impossible obstacles to overcome. Widespread reports of forced sterilization in the 1970s in India and DNA testing for Bin Laden arrest in Pakistan caused many to distrust the anti-polio campaign in those countries.

• **Resources to Handle Complexity:** Many vaccines require multiple doses over time. For convenience and efficiency, some vaccines are combined in a single injection (for example, MMR, DTP and PENTA-Valent Vaccines), requiring the infrastructure of each vaccine delivery system to be capable of successfully implementing an increasingly complex vaccination schedule. For the developing world, difficulty is multiplied by faster population growth, lack of infrastructure to provide appropriate schedule for each vaccine being administered, and dependence upon donated vaccines, which usually require differing schedules from dose-to-dose. Another problem, according to American Academy of Paediatrics policy statement, had been that chemical incompatibility or immunologic interference when different antigens are combined into one vaccine can be difficult to overcome. In addition, vaccine combinations that require different schedules might cause confusion and uncertainty when multiple vaccine providers use different products to treat children.

• **Surveillance:** While the surveillance needed for a safe and effective immunization programme is a drain on resources devoted to immunization; however, these data are essential for studies of vaccine safety, efficacy and coverage. Surveillance requires accurate record keeping regarding whom is given what vaccine at what time(s), and who gets which disease. In addition, Integrated Disease Surveillance Programmes are needed to spot any outbreaks so the high-risk population in the affected area can be safeguarded. Setting up reliable programmes, and paying for them, are major challenges. Record keeping is critical. Major studies have detected substantial rates of missing and erroneous data (>10%) in the recording of vaccine type and brand or lot number in the medical records of vaccine recipients (PRB, 2019). Low capacity of health care providers and resources required for their training and incentives for accurate and complete records is a serious challenge.

### 2.2. International experiences of RED/REC strategy implementation

During the last two decades, the RED/REC strategy was extensively exercised in developing countries mainly in Africa. The experiences of RED/REC approach were found extremely useful in
increasing the routine EPI coverage of vaccine preventable diseases. The approach has also synergized the polio eradication, tetanus elimination and reduction in morbidity of vaccine preventable diseases. Some of the successes of these interventions, particularly in the African countries were cited in literature including Ethiopia, Madagascar, Uganda, Democratic Republic of Congo, Sierra Leone, Cambodia, Kenya, Burkina Faso, Nigeria and Zimbabwe (Soeung, Grundy, Duncan, Thor, & Bilous, 2013; Shikuku, et al., 2019; MCSP, 2019; JSI, 2009b). In these countries, various components of RED/REC strategy were implemented and marked improvements were reported in immunization coverage.

A few incidences were also reviewed where RED/REC Strategy was used as criteria for assessing progress in immunization services, for instance in India, where an assessment of immunization services was done in 2 districts (Mehsana and Dahod) of Gujrat, based on RED/REC five components (Montgomery, Ganguly, Carlson, Shrivastwa, & Boulton, 2018).

### 2.3. Pakistan Context

Pakistan has a high burden of newborn and under five children mortality, which are preventable through appropriate routine immunization. The burden of disease decreased from life-threatening infectious diseases, which could be controlled by immunization. Globally, ten (10) countries account for 11.7 of the overall 19.4 million under and un-vaccinated children in the world. Pakistan ranks second in South Asia with 1.4 million unvaccinated and under-vaccinated children (WUENIC, 2019). Vaccines play a major role in eliminating and preventing diseases including diphtheria, hepatitis B, measles, mumps, pertussis (whooping cough), pneumonia, polio, rotavirus diarrhea, rubella and tetanus. Childhood immunization is considered to be one of the most important health indicators.

#### 2.3.1. EPI Pakistan

The Expanded Programme on Immunization (EPI) was launched in Pakistan in 1978 to protect children by immunizing them against childhood tuberculosis, poliomyelitis, diphtheria, pertussis, tetanus and measles. Later, with the support of development partners, a number of new vaccines e.g. hepatitis B, haemophilus influenzae type b (Hib) and pneumococcal vaccine (PCV10) were introduced in 2002, 2009 and 2012, and inactivated polio vaccine in 2015, respectively. It also aims to protect mothers and newborn against tetanus. Immunizing all girls and boys with these vaccines may avert up to 17% of childhood mortality in Pakistan, thus contributing towards achievement of SDG-3, regarding reducing child morbidity and mortality (WHO, 2017a). The programme also introduced rotavirus vaccine in 2018 to prevent one cause of fatal diarrhea due to rotavirus (WHO, 2019). The current immunization schedule is as below:

**Table 2: Schedule of Immunization in Pakistan**

<table>
<thead>
<tr>
<th>When</th>
<th>Age</th>
<th>Vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td>At birth</td>
<td>At birth</td>
<td>BCG   OPV-0 Hep B</td>
</tr>
<tr>
<td>2nd visit</td>
<td>6 weeks</td>
<td>OPV-I Pneumococcal-I Rotavirus-I Pentavalent-I</td>
</tr>
<tr>
<td>3rd visit</td>
<td>10 weeks</td>
<td>OPV-II Pneumococcal-II Rotavirus-II Pentavalent-II</td>
</tr>
<tr>
<td>4th visit</td>
<td>14 weeks</td>
<td>OPV-III Pneumococcal-III IPV Pentavalent-III</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5th visit</td>
<td>9 months</td>
<td>Measles-I</td>
</tr>
<tr>
<td>6th visit</td>
<td>15 months</td>
<td>Measles-II</td>
</tr>
</tbody>
</table>

*RI protects child against 10 vaccine preventable diseases (Childhood Tuberculosis, Polio, Diphtheria, Pneumonia, Pertussis (whooping cough), Hepatitis-B, Meningitis, Diarrhea, Tetanus, & Measles)*

The UNICEF Strategic Plan (2018-21) set a target for South Asia that 85% of children should be immunized with DTP-3 by 2021. Pakistan still lags behind with 75% target of DPT-3, showing significant variance among provinces and regions (UNICEF ROSA, 2018) and some gender gaps in favour of boys. Despite efforts of the Government and its partners, Pakistan’s immunization indicators have yet to reach the expected benchmarks. The key goals of polio eradication and measles have not been achieved. Before 2001, EPI programme in Pakistan was vertically managed with federal and provincial programme implementation units. After 2001, under Legal Framework Order (LFO), some of the powers were devolved to the district governments and EPI programme was integrated to district level preventive programmes, i.e. the financial allocations to EPI were not separately earmarked and were within the general pool of resources annually allocated for health at district level. EPI services for routine immunization were provided through government health facilities along with outreach services. In the meantime, polio eradication campaign was initiated by WHO through introduction of NIDs/SNIDs, and UN agencies (UNICEF, WHO) fully financed all activities related to polio eradication at all levels. The monitoring of routine immunization activities at national and provincial levels was reduced because of devolution of health to district governments. After 18th constitutional amendment in Pakistan, in April 2010, the federal administration of EPI was fully devolved and transferred to provinces, like other vertical programmes. Meanwhile, RED/REC strategy was introduced in 2010 during transition phase of provincial devolution of health services to improve the accessibility of routine immunization services in hard to reach areas and marginalized population.

### 2.3.2. Challenges and factors of low immunization in Pakistan

The UN Committee on the Rights of the Child published guidelines on how the right to health should be interpreted and implemented, in particular reference to immunization, where it emphasized that the governments “should ensure that benefits reach all children who need them”. Though the routine reporting from provinces and areas indicate an overall coverage of about 80%, however, recent Pakistan Demographic and Health Survey (PDHS) 2017-18 depicted 66% of fully immunized coverage of children at national level, with 63% girls and 68% boys (PDHS, 2017-18). Seeing through the lens of health system strengthening (HSS), major factors and challenges related to low immunization under ‘six core components or building blocks of WHO framework’: (i) leadership/governance, (ii) health workforce, (iii) service delivery, (iv) financing, (v) health information systems, and (vi) access to essential medicines are summarized in the forthcoming paras.

After 18th amendment to the constitution, Ministry of Health was abolished on 30th June, 2011 and health sector was devolved to the provinces with absolute administrative, planning and financial autonomy. Vertical programmes including EPI also devolved to the provinces, however, their funding was routed through federal government with National Finance Commission (NFC award). The provinces faced multiple challenges in adapting the new roles, particularly in implementation and allocation of budgets for these programmes in the long run, due to insufficient governance/managerial capacity for administrative and financial autonomy (EPI, 2014). Similarly, immunization programme faced variety of challenges related to human
resources for health (HRH), including political interference in staffing, shortage of skilled immunization staff mostly in rural areas, rural/urban mal-distribution of health workers and weak HR management system (EPI, 2014). Literature suggested that there remained inadequacy of physical infrastructure at the front line of service delivery in public sector, coupled with shortage of healthcare professionals both at the facility and community levels (Haq, Shaikh, Tran, Hafeez, & Ghaffar, 2019). Major challenges for low immunization have been higher reliance on outreach service delivery, suffering from inadequate transport, infrastructure and overburdened immunization staff. Further, majority of the population also experienced problems in accessing or using immunization services, due to rural-urban inequality in health care delivery. The EPI faced several challenges in delivering routine immunization to children, such as lack of clarity on whether to provide vaccination through fixed centers or mobile teams, on-ground logistic issues including outdated cold chain with poor maintenance capacity and weak vaccine management practices (Haq et al., 2019; EPI, 2014). Global pressure for polio and less priority to prevention by the policy coupled with lack of a separate budget line for EPI amplified the barriers to improved immunization coverage. Lack of accurate population data, weak monitoring and reporting system and quality of primary data was another concern undermining the reliability of reported statistics (Haq et al., 2019; EPI, 2014).

Furthermore, Pakistan’s immunization programme faces many demand side challenges with respect to immunization, for example: low awareness of the populations in the importance and benefits of immunization due to illiteracy (low education of caregivers/parents), poverty (socio-economic status of parents) and social and cultural barriers (perceived benefits of immunization, community misconceptions about vaccines, limited women’s household autonomy, limited mobility outside the household and decision making for healthcare utilization) (Haq et al, 2019; EPI, 2014). Myths and fallacies exist around vaccines and affect health seeking behaviours (Qureshi & Shaikh; 2006). Concerns and misconceptions regarding the safety and efficacy of vaccinations from communities affect their decisions to vaccinate their child or not particularly for male child (Qureshi & Shaikh, 2006). Gender of children plays a critical role in availing the immunization services. Systematic review of various studies and results of multi-logistic regression demonstrated that boys are more likely to be immunized than girls (Merten et al., 2015; Sohail, Mahmood, & Asim, 2015). Gender discrimination in children rearing, nutrition, health seeking behaviour and education make women highly vulnerable members of the society (Shaikh & Hatcher, 2005). A core set of gender bottlenecks and barriers prevent the achievement of preventive healthcare practices, particularly vaccination (UNICEF, 2014). Lack of economic control and social dependence undermines women independence and decision-making powers (Shaikh & Hatcher, 2005). This certainly has repercussions on health care practices, particularly in the case when they are the primary caregivers (Shaikh & Hatcher, 2005). Further, a non-cooperative (mostly male) spouse, who is against immunizations, was a commonly reported reason for non-vaccination of children in Pakistan or for mothers asking for their children to be vaccinated but not finger-marked as vaccinated (Sheikh et al. 2013). The importance of the parent’s decision-making is another key element to human rights and gender-linked barriers. A study in four districts of Sindh, Pakistan presented contradictory findings that the female children were getting more immunized than the male children in Pakistan (Horn, 2007). Moreover, natural disasters, conflicts, security risks for community-based activities, and poor law and order conditions particularly in some parts of KP, FATA and Balochistan are impending barriers (EPI, 2014).
3. Purpose of the Evaluation

The purpose of this evaluation was to assess the extent to which RED/REC strategy fulfilled its intended objective of strengthening the delivery of routine immunization services by improving access to the marginalized and underserved populations. The evaluation report documented the process, strengths, weaknesses, opportunities and challenges during this exercise. Therefore, in addition to primary data collection, multi-level stakeholder consultations across federal, provincial and district levels were critical to capturing an accurate picture of RED/REC implementation.

Evidence from this evaluation will be used to inform federal and provincial government decisions on further scaling up the RED/REC strategy. The target audience for the evaluation includes the federal ministries, provincial/regional directorates of health and senior programme managers of the EPI. This evaluation report will also help define UNICEF’s position and programming for the scale up of RED/REC strategy across the country. Moreover, the findings are expected to support development partners in determining their respective role in immunization related future programming. It is pertinent to mention that the team did not face any particular issue/challenge while developing this evaluation report; however, the consultative process brought clarity and facilitated in aligning the role of UNICEF and government in relation to RED/REC strategy implementation.

3.1. Evaluation objectives and scope

The evaluation in the context of OECD/DAC evaluation criteria explored RED/REC strategy’s relevance, effectiveness, efficiency, impact (in terms of long-term outcomes) and sustainability across cross-cutting areas (including gender, equity, human rights and DRR). This evaluation only focused on the outcome level and not on impact, assessing the long-term outcomes in terms of effectiveness of the RED/REC Strategy. Considering the various evaluation designs like counterfactual, the impact evaluation could not be designed as this would have required looking at change over time, where counterfactual measures are essential to determine what those outcomes would have been in the absence of the intervention. Since impact is at the level of ultimate beneficiaries, which is one step ahead in results chain, and with the counterfactuals and any baseline or evaluability study not being available, this was not assessed.

The scope of the evaluation covered the period from 2014-18. This was a national evaluation with provincial/regional and district differentiation. The evaluation focused on the planning and implementation of the strategy at the provincial, district and sub-district levels. All districts piloted in 2014 (22 districts) and extended to in 2016 (56 districts) were included, while 12 districts were selected as sample. Geographically, the RED/REC districts were spread over in all the 4 provinces (Sindh, Punjab, Balochistan and Khyber Pakhtunkhwa) and 3 Regions (AJK, GB and NMD) of Pakistan.

Specific objectives of this evaluation as per TORs (attached as Annex 1) were:

• To assess the extent to which the RED/REC strategy was implemented in the identified districts;

• To assess the extent to which the RED/REC strategy achieved its stated objectives in increasing routine immunization, and whether there were any unintended outcomes;
• To assess the effectiveness and efficiency of the five pillars of the RED/REC strategy, i.e.
  reestablishment of regular outreach services; supportive supervision; linking community
  with service delivery, monitoring and use of data for action; planning and management
  of human and financial resources;
• To determine how well gender, equity, human rights and disaster-risk reduction were
  taken into consideration in the design, implementation and monitoring of RED/REC;
• To determine, to what extent the strategy reached the most vulnerable communities
  and most vulnerable members of those communities; and
• To identify lessons learned, exploring what has worked well, what has not worked as
  well and make recommendations.

The RED/REC evaluation mainly focused on the implementation and programmatic dimensions
of the strategy, while it did not include any impact evaluation regarding childhood morbidity and
mortality, which was beyond the scope of this evaluation. Furthermore, this evaluation also
upheld human rights and gender mainstreaming as it provided a chance to the
beneficiaries/parents or caregivers (mothers and fathers) to raise issues about their child’s
health and routine immunization service provision. Priority was given to include voice of
parents, especially mothers, who are not heard in their own households due to lack of
autonomy, over-burden in domestic chores and patriarchal structure of society. This evaluation
provided them with a platform to raise their voices and concerns, which would ultimately
contribute in further improving the RED/REC strategy in the near future.

3.2. Intervention logic and Theory of Change (ToC)

To fully understand the relevance, effectiveness and efficiency of the RED/REC Strategy, this
evaluation employed a theory of change (ToC) model. There was no evidence for development
or use of ToC for RED/REC Strategy within Pakistan context when originally implemented in 2014
(UNICEF Pakistan, 2019). Contech adopted a participatory and consultative approach to
construct ToC at the inception stage. Contech Evaluation team conceptualized a TOC
retrospectively after reviewing and analysing RED/REC Strategy documents coupled with
international literature and best practices. Intervention logic was established and goals, purpose
and outcome of RED/REC strategy were determined. The ToC was constructed to form a causal
link of interventions with the desired change. Through a participatory process, all concerned
stakeholders, who were involved in RED/REC Strategy in Pakistan and its implementation, were
consulted for ToC modelling. Emphasis was given to pull together the assumptions, pre-
conditions, goals, targets, outputs, and outcomes which guided the rest of the evaluation
process. As indicated above, Contech team also conducted consultative meetings with relevant
UNICEF staff at Punjab, Sindh, Balochistan, KP & NMD (FATA), AJK and GB to develop a deeper
understanding of RED/REC Strategy. Recommendations to revise the Theory of Change (ToC)
were also part of these consultative meetings. The draft ToC was further refined in view of
findings after thorough consultations with federal and provincial health managers and relevant
key stakeholders.

Theory of Change encompassed the potential processes, policy options and approaches leading
to desired change for improving immunization coverage. Broadly, ToC provided clarity in roles &
responsibilities of key implementing stakeholders through drafting of accountability framework
for RED/REC Strategy. During the course of evaluation, the TOC was used to analyse the causal
relations between key actors, critical contributing factors, interventions and preliminary activity outcomes.

In view of the key evaluation findings and recommendations, the indicative TOC provided a guide to substantiate the choice of interventions to achieve the desired UNICEF RED/REC Strategy outcomes of attaining full immunization of children under one year of age with at least 80% district coverage and 90% national coverage. The support of UNICEF within the existing context set the foundations of engagement assumptions for target population and determined the change pathway to pave way for outcomes and ultimately impact, leading to reduction of childhood morbidity and mortality and increase in immunization coverage. Based on the RED/REC strategy documentation, consultations and evaluation findings, the constructed TOC analysed the RED/REC outcomes along the ToC. It was recognized that some of the outcomes were of impact level requiring a broader effort and longer timeframe to materialize and bring change, with heavy reliance on multiple stakeholders and their contributions. However, some of the outcomes provided a short-term perspective, directly linked with systems interventions with close interaction between rights holders and duty bearers. These aspects of the indicative ToC were tested during the evaluation and were critically considered in the development of lessons learnt and recommendations.

Following is the Theory of Change for RED/REC strategy, describing the proposed change pathways for effective implementation in Pakistan:
Figure 3: Indicative Theory of Change for RED/REC Strategy Pakistan

<table>
<thead>
<tr>
<th>Achieving full immunization of children under one year of age with at least 80% coverage in every district and 90% coverage at national level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact</strong></td>
</tr>
<tr>
<td>Position immunization as a driver of equitable delivery of integrated, multi-sectoral interventions to improve child health outcomes</td>
</tr>
<tr>
<td>Strength health and community systems to deliver immunization services, focusing on reaching and serving disadvantaged communities</td>
</tr>
<tr>
<td>Advocate for the realization of the right of every woman and child to full immunization, holding stakeholders accountable</td>
</tr>
<tr>
<td><strong>RED/REC Strategy</strong></td>
</tr>
<tr>
<td>Re-establishing outreach vaccination services</td>
</tr>
<tr>
<td>Supportive supervision</td>
</tr>
<tr>
<td>Linking services with communities</td>
</tr>
<tr>
<td>Monitoring and use of data for action</td>
</tr>
<tr>
<td>Planning and management of resources</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
</tr>
<tr>
<td>Enhanced country ownership and responsibility for effective/quality immunization services for all</td>
</tr>
<tr>
<td>Equitable access to immunization as a right to health</td>
</tr>
<tr>
<td>Strong and integrated immunization system for achieving immunization goals</td>
</tr>
<tr>
<td>Improved planning and implementation through informed decision making</td>
</tr>
<tr>
<td>Raised community awareness for increased public demand</td>
</tr>
<tr>
<td>Accelerated research and innovation for continuous improvements</td>
</tr>
</tbody>
</table>

**Technical, Economic, Social, Gender, Equity**

**Change Pathways**

- **Target Setting**
  - Social Mapping and Integrated Micro-Planning
  - Priority and focus on reaching marginalized population
  - Augmenting RI coverage through strengthened outreach

- **Building M&E Capacities**
  - Integrated EPI Supervisory Planning and efficient recording/reporting
  - Constructive feedback for improved performance and regularity
  - Building local capacities for M&E, planning and management of resources

- **Strengthened Immunization service delivery system**
  - Exploring mechanisms for sustainable incentivization of RI staff
  - Ensuring availability of appropriate number of EPI staff
  - Engagement of other cadres in RI service provision
  - Leveraging resources through advocacy

- **Community engagement**
  - Establishing linkage of community with services
  - Strengthening role of CBOs/CSOs in improving coverage, community education/mobilization
  - Engaging communities for enhanced ownership and outreach

- **Data use and communication**
  - Concerted advocacy efforts for sustained will and commitment
  - Integrating monitoring platforms to analyse progress and coverage
  - Improving quality, availability and use of reliable immunization data

**Target Populations**

- M/o NHSR&C, provincial governments, provincial health departments (EPI Cells)
- District managers and supervisors
- Service providers, vaccinators, LHVs, Community Volunteers
- Civil society and community-based organizations
- Most marginalized and vulnerable communities, including women
- Print and electronic media

**Engagement Assumptions**

- Political leadership and M/o NHSR&C engagement, provincial governments and provincial health departments (EPI Cells)’s commitment and readiness to ensure equitable immunization coverage, availability of community based outreach and service providers and engagement of vulnerable populations

**Support**

- UNICEF Reaching Every District and Reaching Every Community Strategy

**Context**

- Lack of political will and commitment towards equitable immunization
- Disparity in vaccination coverage between and within districts
- Disparity in morbidity & mortality
- Deficient Immunization service delivery
- Substantial variance in immunization coverage by geographic area and between different socio-economic classes
- Weak monitoring and use of data
SECTION C: EVALUATION METHODOLOGY

4. Methodology

A formative evaluation design (intended to improve performance), was adopted to conduct the evaluation due to the learning approach preferred by the managers and key counterparts during inception discussion. This evaluation employed mixed method approach with both qualitative and quantitative components with more weightage to qualitative method aiming to have an in-depth understanding of the RED/REC strategy process, strengths and weaknesses. Qualitative data was collected through key informant interviews and focus group discussions with the relevant stakeholders to review and assess the key dimensions of RED/REC Strategy. Whereas, the quantitative data included secondary analysis of key indicators of immunization coverage, using latest rounds of Pakistan Demographics and Health Surveys (PDHS 2017-18), Pakistan Social and Living Standards Measurement (PSLM 14-15), Multiple Indicators Clusters Surveys (MICS 10-18) and district EPI administrative data and quantitative checklists regarding immunization status from mothers and fathers of children less than 5 years of age. Meetings were held with the stakeholders and implementers to elicit information related to the achievements made as per plan, ultimately leading to conclusions and recommendations. The team worked in close collaboration with all stakeholders during various stages of the evaluation. This report benefitted immensely from the insight gained during varied consultative sessions/meetings held with key stakeholders. The stakeholders included representatives of the Ministry, federal and provincial EPI cells, provincial departments of health, UNICEF health and immunization focal points, district health managers, outreach workers, donors and development partners and the ultimate beneficiaries. These consultations provided clarity to the evaluation team on RED/REC implementation strategies, achievements made, faced challenges and reporting mechanisms. The RED/REC evaluation mainly focused on the implementation and programmatic dimensions of the strategy and it did not include any impact assessment regarding childhood morbidity and mortality. As decided in consultation with stakeholders, this was considered beyond the scope of this evaluation.

Gender mainstreaming was kept in consideration while devising the data collection process and tools. Gender equality was incorporated in the approach of the evaluation methodology to include gender segregated data in the interview guides. Varied factors including economic, social, gender and other barriers such as women’s household decision-making powers and access to immunization services, particularly for less educated mothers and mothers from low socio-economic status was further explored.

4.1. Conceptual Framework

An evaluation framework was developed at the time of Inception to understand the context of the evaluation and the cause and effect relationships of various elements of RED/REC approach and their linkages with each other. In order to address the needs of the TORs, relevant methodologies were chosen for tracking usefulness of different components of RED/REC Strategy and inferring out their long-term outcomes and their relative effect on the beneficiaries (See Figure 3 on conceptual framework).

The core of the conceptual framework consisted of the 5 key components that included re-establishing outreach services, supportive supervision, better planning and management, linking community with the services and monitoring and use of data for action. These components
were assessed in process and strategic level to find the strengths and weakness for future planning. The conceptual framework provided the opportunity to understand the underlying factors (technical, economic, social, gender and equity), contributing as challenges and driving forces in strengthening of immunization in selected districts. **Evaluation framework** is as follows:

**Figure 4: Evaluation Framework**

This evaluation helped to document the process, strengths, weaknesses, opportunities and challenges observed out of the implementation of the strategy (Figure 4). The evaluation looked at relevance of RED/REC strategy with EPI policy, Health Sector Strategies and how it is being institutionalized to adapt to varying contexts, inclusive of high risk urban, remote rural or in conflict hit areas. The effectiveness and efficiency of the strategy was determined through understanding the extent to which the processes were followed and how planned role of key stakeholders in operationalization affected the efficacy of support provided under five key components. Critical elements of RED/REC implementation including micro-planning, reporting and data collection were also reviewed to track the progress of the strategy. This evaluation recommended ways for its continuation and also suggested actions for its improvement, taking the learnings from best practices across the provinces.

**4.2. Evaluation Criteria and Questions**

Building on the objectives of the evaluation as per TORs, following evaluation questions were part of the evaluation matrix (Annex 2) for addressing the OECD/DAC criteria including relevance, effectiveness, efficiency, sustainability and impact (long-term outcomes). In addition to DAC Criterias, cross-cutting areas of equity and gender equality and human rights-based approach were taken into consideration while designing this evaluation. Since it was not designed as an impact evaluation, the long-term outcomes have been taken to assess the positive and negative changes produced by RED/REC intervention under the impact criterion. It is pertinent to mention that this evaluation was not designed to measure impact by using counterfactual design or quasi experimental due to several reasons, including lack of baseline data, absence of uniform household data at community or district level and weak monitoring data.
Following are the major evaluation questions under the OECD/DC criteria for this evaluation:

4.2.1. Relevance
It is the extent to which the RED/REC Strategy suited to the priorities and policies of the target group, recipient and donor. Relevance was evaluated through the following questions:

- How relevant and meaningful are the RED/REC strategy objectives and activities in terms of addressing the needs and priorities of marginalized and vulnerable girls and boys in the intervention areas?
- How relevant is the selection and targeting of intervention areas (districts and villages) with regards to objectives?
- To what extent the strategies used by RED/REC are relevant to national (Government of Pakistan) priorities and policies related to Routine Immunization issues addressed under the programme?

4.2.2. Effectiveness
Effectiveness is the measure of extent to which the RED/REC Strategy attained its objectives. It was evaluated by the following questions:

- To what extent have the implementation of strategies and approaches worked as intended, particularly for girls?
- How effective was the development and quality of micro-planning in ensuring coverage of all targeted children (especially those hard to reach) at the Union Council level, including girls?
- How effectively UNICEF engaged with the Government and partners to strengthen coordination among partners and how effectively it advocated with the government leadership for achievement of results?
- To what extent the government accountability mechanisms exist and are ensured at the district level for equitable delivery of immunization services? To what extent their existence or lack thereof affect the achievement of targets?
- To what extent has the strategy contributed to the strengthened capacity of duty bearers /service providers?
- What other changes (positive/negative, direct/indirect, intended/unintended) have occurred as a result of RED/REC strategy?

4.2.3. Efficiency
Efficiency measures the outputs – qualitative and quantitative – in relation to the inputs. This was evaluated to determine whether the most efficient process was adopted. Efficiency was evaluated by the following questions:

- In the selected districts, to what extent Union Councils have complete and computerized micro-plans? To what extent planning, budgeting, monitoring and evaluation, supervision, coordination, logistics and financial management systems are functioning well in support of the programme objectives through quality micro-planning?
- To what extent has the RED/REC Strategy leveraged additional resources to address identified gaps?

4.2.4. Impact (Long-term outcomes)
Long-term outcomes have been assessed as the positive and negative changes produced by RED/REC intervention, directly or indirectly, intended or unintended. This involved the effects
resulting from the intervention on the local social, economic, environmental and other such indicators. Long term outcomes were evaluated by the following questions:

- To what extent has the RED/REC Strategy achieved its objectives and what were the major factors influencing the achievement or non-achievement of the objectives/outcomes?
- How successful was UNICEF in reaching the most marginalized groups, particularly girls and women in the target areas in order to contribute toward the national/provincial objectives on immunization?

4.2.5. Sustainability

Sustainability is concerned with measuring whether the benefits of RED/REC Strategy were likely to continue after donor funding will be withdrawn. In order to evaluate sustainability, the following questions were framed:

- To what extent the government is willing to support the continuation of RED/REC activities if and when UNICEF funding stopped?
- What internal/external factors and drivers contribute to or constrain the sustainability of the Strategy?

4.2.6. Cross-cutting areas

Cross-cutting areas including gender, equity, social exclusion were evaluated through the following evaluation question:

- To what extent the cross-cutting issues such as gender, equity, HRBA and DRR incorporated at various levels of planning and implementation of RED/REC Strategy? How equitable are the results?

4.3. Geographical Coverage

Geographically, the scope of this evaluation was 56 intervention districts across Pakistan in Punjab, Sindh, Balochistan, Khyber Pakhtunkhwa (KP), Newly Merged Districts (NMD), Azad Jammu & Kashmir (AJK) and Gilgit Baltistan (GB), where the RED/REC Strategy was being implemented. Regarding selection criteria of the districts, Contech adopted representative sample size i.e. ~20% of the intervention districts to ensure representation from all provinces and regions, which made selection of 12 districts. Selection of the districts was based on the immunization coverage and improvement in performance of the districts after introduction of RED/REC Strategy, based upon available MICS data. In case of Punjab, Sindh and Balochistan, two districts from each province were selected amongst intervention districts. Within Khyber Pakhtunkhwa and Newly Merged Districts, 04 districts were selected. Random selection of districts from Gilgit Baltistan and AJK was done on the basis of consultations.

District wise availability of data for some provinces and regions was a key limitation while selecting the districts, considering secondary baseline (2014) and recent (2018) data on immunization coverage and performance. However, this was mitigated through consultations with UNICEF. The sampled districts are illustrated in table 3 below:

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Province</th>
<th>Total no. of selected districts</th>
<th>Sampled districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Punjab</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Sindh</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 4: RED/REC Strategy Implementation and Selection of Districts*

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Intervention Districts</th>
<th>Selected Districts</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUNJAB</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total intervention districts</td>
<td>07</td>
<td>07</td>
<td>D.G. Khan Rajanpur</td>
</tr>
<tr>
<td>Multan</td>
<td>Lodhran</td>
<td>D.G.Khan, Rajanpur</td>
<td>Muzaffargarh, Bahawalpur, Bahawalnagar</td>
</tr>
<tr>
<td><strong>SINDH</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total intervention districts</td>
<td>05</td>
<td>02</td>
<td>Hyderabad Jacobabad</td>
</tr>
<tr>
<td>Hyderabad</td>
<td>Tando Muhammad Khan</td>
<td>Badin, Jacobabad, Karachi West,</td>
<td></td>
</tr>
<tr>
<td><strong>BALOCHISTAN</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total intervention districts</td>
<td>06</td>
<td>02</td>
<td>Lasbela</td>
</tr>
<tr>
<td>Killa Abdullah</td>
<td>Killa Saifullah</td>
<td>Lasbela Nasirabad, Pishin, Quetta</td>
<td></td>
</tr>
<tr>
<td><strong>KHYBER PAKHTUNKHWA + NMD</strong></td>
<td></td>
<td></td>
<td>Chitral</td>
</tr>
<tr>
<td>Total intervention districts</td>
<td>25 (entire province) and 07 Newly Merged Districts (FATA))</td>
<td>04</td>
<td>Haripur</td>
</tr>
<tr>
<td>Abbatabad, Bannu</td>
<td>Batagram, Buner, Charsada, Chitral, D.I.Khan, Dir Lower</td>
<td>Haripur, Karak, Kohat Kohistan, Lakki Marwat, Malakand Manshena, Mardan, Naushera, Peshawar Shangla, Swabi, Swat, Tank, Torghar Newly Merged Districts (FATA) Bajour, Khyber, Kurram (Upper), Mohmand, Orakzai, North Waziristan, South Waziristan</td>
<td>Chitral Haripur Lakki Marwat Mohmand</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
For the qualitative part, Contech adopted purposive sampling to recruit the participants for KIIs as persons of interest, mainly by designations only were selected to explore their perspective, while participants for FGDs were selected on the basis of criteria, including Vaccinators and LHWs serving in the area and mothers/care-givers with a child under the age of 5 years.

4.4. Evaluation Technique – Mixed Method

Contech utilized Participatory Approach through identifying and involving all key stakeholders throughout the assignment. This evaluation employed mixed method approach with both qualitative and quantitative components. Priority was given to the qualitative data collection, aiming to have in-depth understanding of the RED/REC strategy process, strengths and weaknesses. Being a formative evaluation, it relied heavily on qualitative component as compared to quantitative, which was limited to the data on immunization coverage and status. This was discussed and agreed upon during the inception phase. These evaluation techniques were adopted to identify and capitalize on RED/REC Strategy strengths, correct weaknesses and set realistic goals, identify new areas of intervention, and provide guidance about best practices for replication and possible expansion.

4.5. Primary Data

The data was collected through primary and secondary sources. The following techniques were used to collect the primary data to get in-depth information regarding the evaluated strategy:

- **Key informant interviews** with federal, provincial, and district stakeholders (including from Ministry, Government Departments of Health, UNICEF health & immunization officers, WHO representatives, District Health Managers, RED consultants, EPI staff and CSOs) *A total of 47 KIIs were conducted at federal, provincial and selected districts level to gauge the relevant information.* Contech team consulted and worked with stakeholders at the national, province and district levels through all available means (email, teleconference, in-person meetings, etc.) to gather primary information/data and corroborate other information provided by stakeholders at other levels.

- **Focus Group Discussions (FGDs)** were conducted with Local Service Providers (Vaccinators), Community health workers (LHWs) and service users/mothers or fathers/care-givers of children under 5 years (with 8-12 participants each). Gender diversity was ensured among focus group members. The FGDs with LHWs and mothers (above 18 years) all had female participants. FGDs with parents/caregivers had representation from marginalized and vulnerable population with diverse backgrounds, considering prime focus of RED/REC strategy. *In total of 36 district level FGDs were conducted.*

- **Checklists with** beneficiaries (parents/caregivers of children under 5 years) were filled. They were part of the FGDs, where checklists for assessing immunization status were
filled with each respondent for their children under 5 years of age, followed by FGD. The qualitative sampling matrix is given in the tables below, separately for Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs). A thorough analysis representation was given to stakeholders from concerned departments and institutions at federal, provincial/regional and selected districts level, as well as to development partners and community levels.

Table 5: Qualitative Sampling Matrix for Key Informant Interviews

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Key Stakeholders</th>
<th>Targeted Officials</th>
<th>No. of KIIs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Federal level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Federal Expanded Programme on Immunization</td>
<td>National Programme Manager</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Provincial level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Directorates General of Health Services (Punjab, Sindh, Balochistan, KP &amp; NMD, GB, AJK)</td>
<td>DG Health</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>UNICEF Program Staff</td>
<td>Director EPI</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Federal Staff (Program/Operations)</td>
<td>Focal Persons</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Provincial Staff (Program/Operations)</td>
<td>Focal Persons</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>UNICEF RED Consultant</td>
<td>Consultant</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Development Partners</td>
<td>Focal Person</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>District level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>District Health Department</td>
<td>CEO/DHO Health</td>
<td>12*</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>EPI Coordinators/DSVs</td>
<td>12*</td>
</tr>
<tr>
<td>10</td>
<td>CSO representatives</td>
<td>Focal Persons</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td><strong>47 KIIs</strong></td>
</tr>
</tbody>
</table>

* selected 12 districts across Pakistan

**Note:** In KIIs, team gave special emphasis to gender balance, so that both female and male voices could be heard. However, it is pertinent to mention here that these participants are designated officials irrespective of gender therefore, information-rich and relevant designated officials were interviewed to have emic perspectives. List of interviewees is given as Annex 3.

Table 6: Qualitative Sampling Matrix for Focus Group Discussions

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Key Stakeholders</th>
<th>No. of FGDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Local Service Providers (Vaccinators)</td>
<td>12 district level FGDs</td>
</tr>
<tr>
<td>2</td>
<td>Lady Health Workers (LHWs)</td>
<td>12 district level FGDs</td>
</tr>
<tr>
<td>3</td>
<td>Parents/caregivers of children under 5 years* (primarily with mothers while one-fourth of FGDs were conducted with fathers)</td>
<td>12 district level FGDs</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td><strong>36 FGDs</strong></td>
</tr>
</tbody>
</table>

*Checklists were filled to assess immunization status.
4.6. Secondary Data

Desk search of all the relevant RED/REC Strategy data available at the federal, provincial and district level was conducted to inform the scope of evaluation and to develop a better insight of the current scenario. A comprehensive list of documents, not limited to RED/REC strategy was reviewed including project documents, progress reviews, monitoring reports and national/provincial level health sector vision, policies and strategies. Latest rounds of available data-sets like Punjab and KP Health Surveys, MICS, PSLM, and PDHS with necessary information were taken into account at the analysis stage. Administrative data from provinces, districts and sub-district levels, where available, was also collected and reviewed during the analysis phase. EPI policy and comprehensive & national multiyear plans for EPI, Monthly EPI bulletins and other such documents were also included in the review. The following documents were also retrieved from UNICEF and EPI cells, where available:

- Reports of reviews of the monthly (district level) and quarterly reviews (provincial level);
- Provincial health sector stocktaking reports;
- Previous assessments of RED/REC approach
- Progress reports of the RED/REC consultants
- National Immunization Support Project (NISP)- DLI framework
- Trip reports of personnel participated in monitoring and review of immunization activities in RED/REC districts;
- EPI records (Micro-plans at different levels, Temporary and permanent registers, outreach plan, defaulters list maintenance at the facility level etc.)
- Federal and Provincial Programmes and operational plans

Moreover, provincial and district offices were also visited to get relevant data as indicated in ‘evaluation matrix’ (attached as Annex 2).

4.7. Evaluation Team

A multi-skilled team of consultants conducted the evaluation with a network of field teams. The team was balanced to be responsive to all aspects of the Assignment. The organogram of evaluation team is given in Figure 5 while details of individual member are given in Annex 4.

4.7.1 Roles and Responsibilities

The technical team was led by the team lead, with the support from public health, qualitative and quantitative experts, M&E and finance experts and data manager. The technical team worked in close collaboration for developing tools, data collection and data analysis. Research associates as well as transcribers were engaged after the data collection phase to further support the technical team. The field team comprised of a field manager who supervised the field teams. The technical team members participated in data collection at the federal and provincial levels along with interactions with UNICEF, Government counterparts and the development partners. M&E Expert also visited the districts to monitor the field work. The field teams were responsible for gathering information at the district and community level. The members of the technical team with at least two members in each team conducted the key informant interviews at the federal and provincial levels. For the district level KIs and FGDs, 4 teams of Sociologists (1 Moderator & 1 Note taker in each team) were formed. A total of 14 team members (10 females and 4 males) accomplished the data collection within three weeks-time. During the team recruitment it was ensured that all field team members are fluent in native language and well versed in local customs. Teams were identified, recruited, organized,
trained and supervised along with their logistics management and their subsequent payments. Guidance and support was sought throughout the evaluation process from backstopping team comprising of health policy and systems experts. The organogram is as follows:

**Figure 6: Organogram of Evaluation Team**

4.8. Evaluation – Implementation activities

The chart below portrays the flow of activities to conduct evaluation of RED/REC Strategy:

**Figure 7: Evaluation Work Flow**

4.8.1 Inception Phase

Varied preparatory and consultative meetings were held with the relevant UNICEF staff to develop a deeper understanding of the RED/REC strategy, its implementation approaches, activities and guidance on evaluation framework and to draft the theory of change. These initial meetings were aimed to gain a consensus on evaluation design, methodology/implementation strategies and work plan. During these pre-inception meetings and informal consultations, many relevant documents and pieces of information were shared with Contech to facilitate the team in informing the scope of the evaluation. Consultative meetings with Directors EPI of varied provinces also took place. An extensive desk review was carried out. A formal Evaluation
Management Team comprised of evaluation teams from both UNICEF and Contech was formed. This facilitated close coordination and collaboration with UNICEF.

Representatives from Federal Ministry, provincial departments, donors, development partners and UNICEF health & immunization team participated in the inception meeting and gave comprehensive feedback. Based on the feedback received during the meeting, the Inception Report was revised and a comments compliance matrix was prepared to apprise the reviewers about the revisions. Valuable feedback on the report was also received from ROSA, Gender Specialist UNICEF Pakistan and Regional Advisors including Dr. Samuel Bickel and Dr. Saadia Farrukh. The final inception report was agreed and finalized after incorporating all comments from the key stakeholders.

4.8.2 Development and Finalization of Data Collection Tools
A deductive approach was adopted in developing the data collection tools, which was guided by evaluation matrix along with desk review, documents and information received during the consultations with the relevant stakeholders. The drafted tools were shared during the inception phase and approval was sought. Approved tools (annexed as Annex 5) were further tested during the field simulation in similar settings, followed by adjustments and corrections. The tools were altered on the basis of a) any problem faced in language of guides, b) completion of interview in a given time; and c) clarity of moderators on guides and checklists.

4.8.3 Recruitment of the Field Teams
Qualified field staff members having previous similar experience for evaluation were hired keeping in view gender balance. Following was the structure and composition of the teams:

Key Informant Interviews
- 4 Teams with Technical team members conducted Federal and Provincial level KIlps
- District level KIlps, FGDs and Checklist (In total 14 persons) for 17 days
  - District level KIlps was done by a team of Moderators and Note-takers (male and female)

<table>
<thead>
<tr>
<th>Table 7: Field Teams</th>
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<tbody>
<tr>
<td>Sr. #</td>
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<tr>
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<tr>
<td></td>
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<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

* Each field team consisted of 2 members including 1 male and 1 female.

4.8.4 Training of Field Staff
The data collection teams were trained in order to achieve uniform standards while ensuring quality. In this regard, a day long training was conducted for the technical team to conduct the KIlps and consultations at the federal and provincial level. While, a 3-day training was conducted for the field teams comprising of fifteen (11 females and 4 males) participants
(moderators/note-takers) to conduct the district specific KIIs, FGDs and districts’ offices visits. The first day was dedicated to provide an orientation on RED/REC Strategy and KII guides. Second day, mainly focused on FGDs guides along with mock exercises for both FGDs and KIIs, while on the third day, field simulation was conducted in a similar setting with KIIs with DHO, DSV, and FGDs with LHWs and mothers of children less than 5 years of age. This session was followed by debriefing and post-training evaluation. A representative from UNICEF Evaluation & Research Unit attended all three days of the training.

The training also included finalization of the field plans, availability of printed material, training guide and name tags etc., Specific attention was paid to ensure that the training environment was conducive, without disturbance, with sufficient seating arrangements, keeping participants, trainers and field monitors in consideration. A team of trainers consisting of 5 females and 2 males conducted training sessions. A training manual for field teams was prepared with clear instructions and guidelines, which was distributed among data collectors. This training guide covered the topics including evaluation protocols, how to approach the concerned participants, how and when to probe, ethical requirements, filling of tools and recording necessary information while ensuring completeness and quality. This document acted as ready reference in the field. Ethical considerations including confidentiality, informed consent, privacy and anonymity was also incorporated in the training sessions. Specific attention was paid to ensure that data collectors had a clear understanding of the evaluation objectives so that they can easily elicit information. Training schedule was shared with the UNICEF Evaluation and Research Team beforehand for their participation, while a detailed training report (Annex 6) was submitted after conclusion.

4.8.5. Field Micro-planning
Followed by the field simulation, a detailed micro-plan (Annex 7) was developed entailing the day-to-day data collection activities of each field team. The micro-plans facilitated monitoring of data collection and addressing any issues arising during the process. The training agenda and field micro-plan were further shared with UNICEF for feedback before finalization.

4.8.6. Monitoring of field data collection
A thorough monitoring mechanism at both macro and micro levels was employed for assuring quality and gender disaggregation of the collected data. A participatory M&E approach was adopted, involving stakeholders and beneficiaries in the process of data collection. Specific measures were established to ensure proper accountability and transparency throughout the evaluation. Senior technical team was responsible for quality assurance through:

1. **Accompanying Calls and Conducting Spot Checks**: observing some of the KIIs and FGDs to ensure that field teams are conducting KIIs and FGDs well, asking the questions in right manner and interpreting answers correctly.

2. **Tools Completion Reviews**: reviewing a proportion of tools to ensure that they were completed and internally consistent.

3. **Micro-plan based data collection**: A day-wise field micro plan was prepared and shared with the UNICEF for joint supervision.

4. **WhatsApp group**: An internal WhatsApp group was formed consisting of technical team members, field team manager and supervisors to follow up on daily targets and any issues arising in the field.
4.8.7. Fieldwork and Data Collection
The course of data collection took place as per the detailed micro-plan. The entire evaluation fieldwork was completed within a span of 4 weeks (documentary evidence attached as Annex 8). However, the technical team reconnected with certain key informants to elaborate further on their discussion during the report-writing phase. Consultations were held with relevant key stakeholders as a means to provide an opportunity for building consensus on evaluation methodology, scope and development of ToC through participatory and consultative approach during consultative meetings. Extensive consultations were conducted by technical team members for constructing Theory of Change retrospectively to facilitate desired change.

4.8.8. Data Management and Analysis
4.8.8.1. Data Handling and Record Keeping
The data gathered through KIIs and FGDs was transcribed by the field team for analysis. The technical team reviewed the collected data to assure quality standards. All completed tools were kept confidential after transcription, analysis, and report writing. It was ensured that only authorized personnel had access to the filled tools or recording. Physical validation of sample data was conducted during routine monitoring visits and it was ensured that the collected data was gender disaggregated. Electronic soft data was stored in password protected files while hard data was kept in folders and backup for safety purposes.

4.8.8.2. Data Analysis
The technical team carried out the coding and thematic analysis of the qualitative data. The transcripts were read several times to identify themes using thematic content analysis. This analysis was conducted manually, exploring the complex phenomena hidden in the data to manage, extract, compare, explore, and reassemble meaningful pieces from the large amounts of data in creative, flexible, yet systematic ways. An index framework based on the themes given in the interview guides was designed. Quantitative data analysis was processed by using SPSS, based on analysis plan entailing draft dummy tables. The quantitative data was presented in the form of graphs and descriptions for inclusion. At the end, triangulation was applied to both qualitative and quantitative findings to present the evaluation findings and recommendations.

4.8.9. Report compilation and submission of final report
A draft report entailing details of evaluation scope and objectives, methodology, evaluation matrix, key findings and recommendations was submitted to UNICEF for feedback. A draft ‘Theory of Change’ providing a ‘Pathway of Change’ developed at inception phase was refined during final report writing phase. This formed an integral part of the final report that entailed pathway for the continuity of this intervention. At the end, the ToC was finalized in the view of key findings, proposing actions and solutions for improving RED/REC Strategy in Pakistan. The final report followed the UNICEF Evaluation Report Standards and reported on UNICEF’s global reporting system known as GEROS provided by UNICEF.

4.9. Quality Assurance Mechanisms
4.9.1. Ethical Considerations
Ethical considerations for this evaluation were built on UNICEF Procedure for Ethical Standards in Research, Evaluation, Data Collection and Analysis and UNICEF Strategic Guidance Note on Institutionalizing Ethical Practice for UNICEF Research. Both field and technical teams
maintained the highest standards of integrity, sensitivity, and confidentiality in dealing with informants, to ensure that the dignity, human, and civil rights of people involved, are respected. Overall, ‘do no harm’ principle was applied throughout the process, especially when working in the field. UNICEF’s protocol on Ethical Standards in Research and Data Collection and UNEG’s ethical standards for data collection and evaluation were incorporated in the trainings and it was ensured that they were strictly observed. Ethical clearance (Annex 9) was taken from UNICEF’s Ethical Review Board (ERB). Additionally, the following ethical considerations were imparted for data collection:

- **Informed Consent**: The interviewers respected the rights of the individuals engaged in the evaluation. Every individual had the right to refuse to participate, or refuse to answer specific questions. Verbal and written consent was sought after explaining the objectives of the evaluation, data collection procedures, along with risks and benefits (Informed consent forms – attached as Annex 10). Field staff read out the contents of the consent forms and clarified any apprehensions of respondent/participants and interviewed only after getting a formal approval.

- **Privacy**: It is important that the data collection process be conducted in a manner, comfortable for each respondent, and in which the individual is able to speak openly and honestly. The enumerators and facilitators make sure that the place of interview provided privacy for the interviews and FGDs.

- **Confidentiality**: Interviewers may not discuss participants’ answers with anyone, except the supervisor when clarification was needed. Individuals’ names or other identifying information was not linked to any responses.

- **Safety and security of data**: Hard copies such as interview notes, prints of photographs and audio recordings were kept secure in a locked cabinet that could only be accessed by agreed members of the evaluation team. Soft copies in the computers were encrypted / password protected. All data will be securely kept for up till three years and then safely disposed off.

- **Conflict of interest**: Being a primary element of a staff member’s obligation to maintain integrity, independence and impartiality required, there should be no conflict of interest. No actual and potential conflicts of interests were identified for the evaluation team.

- **Addressing Gender, Equity and Child Rights Issues**: Gender equality is a human rights issue and a prerequisite for sustainable development. According to human rights principles of equality and non-discrimination, everyone is entitled to equal enjoyment of their rights and the responsibilities and opportunities that come along, regardless of their gender. In Pakistani society gender is a major organizing principle. Local traditions and culture embody values pre-determining gender roles in the community. There is substantial diversity in the status of women as well as rights of the children across classes, regions, and rural/urban divide due to uneven socioeconomic development and the impact of tribal, feudal, and social formations on women and children's lives. This evaluation kept in consideration gender, child rights and social exclusion barriers during varied phases of the evaluation including activity designing, consultations and stakeholders’ engagement, staff hiring and training, monitoring and analysis. Selection of field teams also ensured gender balance. Further, during training of field teams, gender and child rights orientation was given as part of the evaluation design. Evaluation approaches and activities were revised to safeguard sensitivity in understanding gender values as well as child rights according to CRC. At large, all stages of the evaluation were assessed through the lens of gender, social exclusion, child rights and equity, ensuring that it was reflected in the findings and recommendations.
4.9.2. Risks Management
A Risk management and mitigation plan was developed; identifying events in which the team foresaw numerous potential risks and constraints, which may affect the evaluation adversely. Accordingly, mitigation measures were adopted to ensure a robust evaluation process and outcome like data quality, consistency and others. A risk register was prepared at the inception phase of the evaluation (Annex 11).

4.9.3. Back Stopping and Quality Assurance
Backstopping and quality assurance mechanism was established and a consensus was built on what activities and outputs required to be monitored, how to monitor and what information is required to monitor them. This task was carried out by backstopping and advisory team at Contech, which constituted of senior public health experts at the organization. Monitoring and regular progress updates were used as a way of assuring quality. For quality assurance purpose, the final report is also being externally peer reviewed.

4.9.4. Continuous Liaison with UNICEF Team
The evaluation team worked in close collaboration and continuous liaison with UNICEF Evaluation & Research Unit, UNICEF Health & Immunization team as well as UNICEF’s Gender Specialist and Regional Advisors. An ongoing platform was also established on which knowledge and best practices were shared and issues were tackled with better understanding. The data collected is the sole property of UNICEF.

4.10. Limitations and Mitigation Strategies
This evaluation carries certain limitations that had the potential to affect the interpretation of the findings. The technical team took appropriate measures and used certain techniques to minimize these limitations. The limitations were mitigated through maintaining a continuous liaison with the Directorate General of Health Services, UNICEF Immunization team and EPI Cells for obtaining the required information.

1. Lack of institutional memory regarding RED/REC strategy initiation and implementation was a major limitation, which was due to frequent transfers of key officials and longer time lag between 2014 till date. Further, some of the stakeholders were not aware of term of RED/REC Strategy, nonetheless, were familiar with the components of RED/REC strategy.

2. Dearth of baseline data, initial project documentation and progress reports was a challenge as initial project/strategy documents were not available with most key informant causing a limitation in writing the whole story of the strategy.

3. Challenge in seeking security approval for data collection especially in the districts of southern Punjab, AJK and newly merged districts in KP; however, the team was supported by Provincial DOH, UNICEF Immunization officers and DGHS to seek necessary permissions.

4. Non-availability of retrospective district-wise data on immunization coverage was a limitation as MICS rounds were not uniform at all provincial and regional levels and administrative data was either not found at some places, had a smaller sample size or the quality was questionable. The evaluation team faced multiple challenges in collection of realistic and verified data from the districts with questionable quality and authenticity. Therefore in the absence of any uniform district level data set available in the country, this constraint was mitigated through secondary analysis of PDHS. Although PDHS itself has limitation due to non-availability of district specific data, this was taken as an indicative
analysis to present an overview of immunization and related indicators to understand the existing situation.

5. **Limitations were faced while selecting the districts**, considering secondary baseline (2014) and recent (2018) data on immunization coverage and performance was not available district wise for some provinces and regions. However, this was mitigated through consultations with UNICEF. Seeking financial data for Value for Money Analysis also remained a challenge.

6. **Delineation of RED/REC strategy interventions from routine immunization programme and efforts of other development partners** like WHO, was a challenge due to their overlapping role. This limitation was tried to be mitigated through interviewing key informants of the EPI program and WHO to understand their role and contribution.

7. **Determining the impact of RED/REC Strategy in improving immunization coverage** was found to be another limitation in the absence of any baseline or evaluability study. This evaluation could not be designed to measure impact by using counterfactual or quasi experimental design due to several reasons, including lack of baseline data, absence of uniform household data at community (beneficiaries) or district level. To mitigate this challenge, the evaluation recognized RED/REC as one of the contributing factor for coverage improvement. Considering the strategy was focused on low coverage districts, it was presumed that improvement in such districts would ultimately result in improved overall provincial coverage.

**SECTION D: EVALUATION FINDINGS**

5. **Evaluation Findings**

This section provides the findings of the evaluation in terms of the achievement of Strategy outcomes, involved processes and their conformance against the OECD/DAC evaluation criteria, including relevance, effectiveness, efficiency, impact (long-term outcomes) and sustainability. The findings of cross-cutting areas, being one of the evaluation criteria, have been merged within the five key OECD/DAC Evaluation criterions.

5.1. **Status of strategy outcomes and involved processes**

The Reaching Every District (RED) approach emerged from a search for innovative strategies to improve stagnating immunization coverage. RED/REC was a bottom up approach and focused at the Union Council (UC) or to be more specific on the child at the community / operational levels and included five components: 1) re-establishing outreach services; 2) supportive supervision; 3) linking services with communities; 4) monitoring and use of data for action; and 5) planning and management of resources.

This evaluation revealed an interesting fact that RED/REC strategy is being implemented within the intervention districts of all provinces and regions till date, recognizing the support of UNICEF. However, it is pertinent to mention that all major components of RED/REC strategy have been taken up and merged into Provincial EPI Programmes to maximize the coverage of immunization. For instance, RED/REC strategy was incorporated into Sindh EPI Programme in 2016, where all activities are now performed under one umbrella, in both intervention and non-intervention districts. Similarly, the Government of KP/NMD had merged the components of RED/REC strategy into Provincial EPI Programme, providing the financial support as evident from PC-1. Likewise, in case of other provinces, like Punjab, Balochistan, AJK and GB, the RED/REC
approach and its implementation had been taken up effectively and are being in the process of rolling-out in other non-intervention districts.

As part of this evaluation, achievement against each outcome and areas for further improvement were assessed to propose actionable recommendations. Overall, the objectives of the strategy were consistent with the national policies and strategic frameworks. The successful implementation of the RED/REC strategy contributed to reaching the marginalized, high risk and hard to reach population based on the principle of equity.

Process mapping of interventions carried out under RED/REC Strategy’s five components across provinces and regions, entailed:

Figure 8: Process mapping of interventions under RED/REC Strategy

5.1.1. Re-establishing outreach services

Outreach in RED/REC Strategy had been a delivery strategy that required health facility staff to leave their facility to deliver immunization entailing ideally a minimum of four contacts per year to fully immunize an infant. For some communities, where access was irregular, mobile teams were utilized to provide outreach services, which involved resources beyond the health facility and district level. Outreach sessions, especially through mobile teams, were promoted by UNICEF to explore opportunities to provide other interventions along with immunization. Funds were secured for the vaccinators for their outreach session at the rate of PKR 200 per session for 16 sessions per month for each UC.
This was undoubtedly the most important component of the RED/REC strategy and after establishment, contributed in reaching the most marginalized, difficult to reach and high-risk populations. Prior to the introduction of the RED/REC approach, the vaccinators used tour plans, which remained unsuccessful in reaching the unvaccinated children, living in hard to reach areas. As described by one of the key stakeholders at provincial level, “The routine outreach vaccination plan was introduced by the RED/REC approach otherwise in the past it was just a Tour Plan, rather than routine outreach vaccination micro-plan”.

Micro-plans were introduced as essential elements in identifying local problems and finding corrective solutions, using data available at union council and district levels. Social maps and micro-plans were developed to help reach clients, target services in the area and identify populations at risk of not accessing or not being able to use immunization services at district and union council levels. Under the RED/REC strategy, all implementing union councils were required to develop UC level micro-plans, specifying vaccination strategy for service delivery, with assigned supervisor and identified vaccine and logistic requirements. Adherence and availability of these UC level Micro-plans was variant within the provinces, however they have become computerized with support from UNICEF RED/REC Strategy and were now institutionalized as part of routine immunization (RI) programme. Emphasis was given to accountability at planning, social mobilization, service delivery and monitoring levels to ensure that all communities were covered for routine immunization. Most of the provinces and regions had been developing micro-plans at union council levels and reviewing them at district and provincial level on a quarterly basis with electronic versions of Micro-plans, also being made available at provincial level (EPI-MISs).

Based on the findings of the evaluation, RED/REC strategy had been successful in re-establishing outreach vaccination services in the form of quarterly RI outreach vaccination plans since the year 2016. A significant example of this is Khyber Pakhtunkhwa Province, where computerized quarterly RI plans had been available for each district. In order to increase immunization coverage, Khyber Pakhtunkhwa and Punjab provinces utilized lady health workers (LHWs) and their health houses as outreach vaccination sites. Cluster of 4-5 health houses were allied to serve as an outreach vaccination centre in the form of Extended Health House (EHH). LHWs played a vital role in mobilizing and facilitating vaccinators during these outreach sessions.

LHW’s role as injectors (vaccinators) perceived under the strategy had been facing critique and resistance. Their role as injectors had been undermined because of multiple inhibiting factors, such as low acceptance by EPI officials, resistance by LHW programme in accepting more workload, lack of adequate skills & experience for vaccination, low educational attainment and lack of trust in their role as injectors from communities. Further, a disparity at provincial level regarding enhanced role of LHWs as injectors was observed, where LHWs in provinces of KPK and Balochistan are involved in tetanus toxoid (TT) vaccination, and in district Muzaffarabad (AJK), LHWs are involved in RI as injectors according to EPI Provincial officials. However, LHWs had been restrained in any kind of vaccination activities in provinces of Punjab, Sindh and GB since 2016.
5.1.2. Supportive supervision
Supportive supervision, a key component of the RED approach was initiated in the country to aid the health workers in continuously improving their performance in providing quality immunization services. With an emphasis on “supportive,” the supervision performed using this technique encouraged an individualized, open, two-way dialogue and focused on using data to guide decisions. Critical to successful supportive supervision had been the need for clear objectives and standards, consistent feedback, provision of on-the-job training to fill observed gaps and regular follow-up on recommendations. It is also evident from the statement of one of the key Provincial official regarding supportive supervision, who expressed that “the concept of supportive supervision was introduced for the first time by RED/REC approach, otherwise the previous practice was just to perform a supervisory visit and identify issues only.”

The evaluation findings suggested that special emphasis had been given to supportive supervision through regular detailed follow up visits with health care providers to ensure tasks were being implemented correctly. In majority of places, routine Immunization supervisory visits were planned at the district level and incorporated into EPI annual work plan. Local health facility in-charges were made responsible for supervising immunization activities in their catchment areas and monitoring immunization indicators’ accuracy for timely and accurate reporting. District Health Management Teams at many of the targeted provinces, had been supervising immunization activities quarterly with their outreach teams. Guidelines for supervision were also made available in most districts. Logistics for supervision in relation to transport, POL, and human resource had been overcome by modest funding from UNICEF or by allocation in district budgets.

Regular supervisory visits and constructive written feedback were key features that improved performance by ensuring consistency in RED/REC implementing districts. Records of EPI logbooks and checklists were found to be available and were being used at majority of districts to provide feedback after routine supervisory visits. Updated EPI Guidelines were used to draft EPI log books and check lists. Feedback regarding RI supervisory activities was incorporated as notes in supervisory log books and copies of checklist after supervisory visits conducted by DHO and DSVs.

Provincial and District Review meetings had been vital in sharing information regarding immunization coverage and activities being carried out. Desk review analysis revealed that EPI review meetings were being conducted regularly at various levels (health facility, district and provincial). District level EPI meetings were held monthly and attended by vaccinators, LHWs/LHSs LHV to discuss performance of EPI and suggested measures to bridge gaps. Provincial and federal level meetings had been helpful and served as an oversight and co-ordination forum to government stakeholders and key development partners to assess performance of provinces and districts for addressing gaps in immunization activities.

5.1.3. Linking services with the communities
The best kind of service is one that involves the community in planning and delivery. Involving the community with the planning and delivery of the service under RED/REC Strategy encouraged community ownership and improved attendance. Making regular contact and holding regular meetings with women and men in the community could help in identifying most suitable locations/places and convenient times for immunization sessions (in particular,
accessible for women), pro-active roles for community volunteers, such as identifying newborns, infants and pregnant women, and defaulter follow-up. Linking services with communities, as one of the five RED components, aimed to improve and sustain immunization coverage by involving the community in all aspects of immunization services (planning, implementation, monitoring and evaluation).

Regular advocacy, communication and social mobilization had been considered an integral component to create awareness of the benefits of vaccination and increase demand for immunization services. However, the community component, had been found to be among the weakest RED/REC component in districts where evaluation was conducted, with few improvements including involvement of community volunteers and opinion leaders being active in provinces such as in Khyber Pakhtunkhwa. Listing of community outreach sites along with the names of the influential were made and developed periodically. EPI health personnel, community elders and opinion makers in the districts of Balochistan, KP and NMD, had been participating at a joint platform through monthly EPI meetings and were actively engaged in immunization service planning and community mobilization. Community focal persons and lady health workers had been playing a prominent role in most of the evaluated districts and had been assisting with defaulter tracking, outreach sessions and awareness sessions. Limited linkages of EPI programme with local Civil Society Organizations regarding mobilization and community awareness activities were observed in Balochistan, Sindh and Punjab. Male and female community leaders and opinion leaders were found to be playing a role in KP, FATA/NMD, GB and AJK, where they had been involved in defaulter tracking and community outreach services.

5.1.4. Monitoring and use of data for action
Monitoring and use of data for action implied not only the timely collection of data at various levels, but also the timely use of the data to solve problems. Some simple monitoring tools including wall charts were being used to track monthly progress. In addition, other useful information on logistics, supply and surveillance were being usually collected on a monthly basis. Regular analysis of all these data helped in identifying problems and finding solutions to improve the immunization system.

Monitoring under RED/REC Strategy referred to a systematic and continuous process of examining data, procedures and practices to identify problems, develop solutions and guide interventions. It involved several steps, including: planning to monitor (identifying information sources and selecting indicators), collecting and managing data, analysing and interpreting information and using data for action. Monitoring required continuous observation (daily, weekly, monthly, and quarterly), which must be linked to the implementation of Programme activities. Monitoring and reporting of outreach and fixed immunization activities in evaluated districts was being done on a monthly basis through health facility in-charges, TSV, ASVs and DSVs. District EPI level data was being made available for review and feedback at provincial and federal levels using the Electronic Management Information System. Monitoring and reporting of outreach and fixed immunization services was being done on a monthly basis through DSVs, TSV and Facility In-charges in GB, Punjab, KP, Balochistan, Sindh, whereas, monitoring and supervisory activities remained limited in FATA/NMD and AJK.
Records of outreach activities of front line workers, mainly lady health workers in their respective catchment areas were being maintained in permanent registers at union council and compiled monthly by EPI in-charges and vaccinators in the form of union council immunization catchment reports and shared with districts through EPI-MIS. An E-monitoring system in the form of a supervisory application ‘e-vacc’ existed in Punjab, Khyber Pakhtunkhwa and Balochistan, while similar apps with different names were also being used in other provinces, such as Hayat in GB and Zindagi Mahfooz in Sindh. These apps have been used to track vaccinator areas of work, attendance and targets achieved in a day. Immunization coverage charts as predictors of facility immunization coverage and performance status were displayed in majority of health facilities at the time of evaluation.

5.1.5. Planning and management of resources
The RED/REC approach aimed to ensure the effective planning and prioritization of immunization activities and use of resources — human, financial and material. The approach encouraged broad participation of key partners in the planning process, where it focused on the district level planning and management of resources. This also entailed development of action plans; systematic forecasting and distribution of vaccines/supplies; effective cold chain management; capacity building for staff in immunization; and mobilization and efficient use of financial resources at all levels – national, provincial, district and health facilities. Annual immunization plans were found to be available in all districts at the time of evaluation, while catchment area social maps were found in majority of districts, having details of population landmarks and hard to reach population. Development of Plan of Action was undertaken at district level while quarterly progress reports of RED/REC were developed at UC level.

Different combinations of funds were available and used by provinces to cover the costs incurred under RED/RC Strategy. UNICEF and government funding were the primary source of support to cover associated costs. In the evaluation of the Districts, outreach and supervisory activities were markedly improved as a result of mobility support provided by UNICEF, including POL, vehicles and incentives to supervisors had also been provided by UNICEF to improve coverage. From the initiation of RED/REC strategy, UNICEF had been procuring vaccines internationally and ensuring their timely and safe delivery at national levels. Provinces had been responsible for supplying vaccines to districts. Stock position for vaccines had been monitored regularly through a vaccine and logistics management information system (vLMIS) to address stock-outs at district and provincial levels.

In order to improve coverage under RED/REC Strategy, capacities of outreach front line workers and relevant EPI staff had been strengthened to achieve sustainable and enduring immunization services. UNICEF and other partners like WHO, took the initiative in all provinces and regions and were involved in hiring and carrying out capacity building workshops of EPI staff.

5.2. Findings against OECD/DAC Criteria
In line with the Organisation for Economic Cooperation and Development (OECD)/ Development Assistance Committee (DAC) criteria, this evaluation assessed the findings against relevance, effectiveness, efficiency, impact (long-term outcomes) and sustainability. A set of evaluation questions (EQs) were proposed in the TORs as per OECD/DAC criteria, against which, the findings of the evaluation report have been presented in the following section:
5.2.1. Relevance

Relevance has been assessed to determine the extent to which the Strategy suited to the priorities and policies of the target group, recipient and donor.

Finding: There is high relevance of RED/REC strategy objectives in relation to addressing the needs of marginalized and vulnerable communities

Pakistan has a high burden of newborn and under five children mortality, which could be prevented through appropriate routine immunization. Pakistan ranks second amongst South Asian countries with 1.4 million unvaccinated and under-vaccinated children (WUENIC, 2019). Literature suggest that in Pakistan proximity to healthcare centres, geographical distance, and time required to reach for healthcare services are strong predictors of immunization coverage (Haq, et al., 2019). Rural-urban inequalities in healthcare delivery system further create problems in accessing and availing routine immunization services. Higher reliance on outreach services, suffering from inadequate physical infrastructure and transportation, overburdened immunization staff, and shortage of trained healthcare professionals at community and healthcare facilities also become challenges for immunization (Haq, et al., 2019).

Considering the context above, RED/REC strategy launched to ensure equitable immunization coverage within communities, identifying the underserved populations, understanding barriers and challenges to access in immunization. Analysis found that this approach is substantively contributing to improve immunization coverage and addressing gender equity and equality simultaneously for girls and boys children. In Pakistan, significant health inequality and disparities exist in vaccination coverage within districts and across provinces. Hence, RED/REC strategy is well-suited for Pakistan’s context, as efforts are required to improve immunization coverage in pockets of population, that are excluded; children residing in poverty, hard to reach, having limited access to health services, and marginalized (ethnic) minority groups and missed girls (UNICEF, 2014). All stakeholders at federal, provincial, district and community levels unanimously agreed to this notion that RED/REC strategy was launched to cater the needs of the poor, marginalized and vulnerable population, living in hard to reach areas. As one of the respondents expressed, “RED/REC strategy is primarily designed to reach the unreached and defaulter children, addressing the needs of marginalized and vulnerable communities”.

Finding: Empirical evidence suggest that objectives of RED/REC strategy are in complete alignment with national and provincial set priorities

This finding highlights the policies and guidelines relevant to childhood immunization and how consistent are the RED/REC objectives aligned with them according to the policy makers. Respondents categorically mentioned that national and provincial policies/strategies incorporated the global guidelines for childhood immunization. There was an agreement among the respondents at policy level that RED/REC strategy targeting to ensure equitable immunization coverage within the underserved populations are highly consistent with Pakistan’s National Health Vision (2016-2025) and priorities for child health. Provincial health managers agreed that RED/REC strategy objective are aligned with core mandate of national guidelines for
EPI to increase equitable immunization coverage of children between 0-23 months against vaccine preventable diseases.

Officials from all provinces expressed that RED/REC strategy focused on improving immunization coverage by reaching vulnerable members of community and align with the targets set in provincial health sector strategies. According to one of the policy maker, “The Government of the Punjab has developed ten year Punjab Health Sector Strategy 2019-28 with priorities of the new leadership in the health sector for ensuring measures to safeguard mother and child health and improving access to immunization services”.

RED/REC Strategy is in complete alignment with the strategic framework for existing provincial health sector strategies, which emphasize on components that are required for enhancing immunization coverage. According to EPI health officials from KP, Sindh and Balochistan, RED/REC strategy aiming to attain 80 percent district level immunization coverage is in coherence with their respective health sector vision. A respondent from KP stated, “One of the major component of health sector strategy are measurable reductions in morbidity and mortality due to common illnesses among vulnerable segments of the society along with an aim of being able to vaccinate 90% of under 5 according to EPI schedule.”

Finding: The selection of intervention districts for implementing RED/REC Strategy were based on evidence with priority given to worst performing or hard-to-reach areas

This finding is a discourse on the major overarching themes that emerged from the interviews among relevant stakeholders at Provincial and District levels. There was a consensus of opinion among policy makers and government officials that prioritization and selection of districts for the introduction of RED/REC approach was based on the immunization coverage of districts, which acted as an initial filter. Findings from latest Multiple Indicator Cluster Surveys were used as a guide to refine district selection on the basis of completion of their Penta III immunization by one year of age (measured by Penta I-Penta III coverage), and access to immunization (Penta I coverage). Provincial level official from UNICEF Punjab further endorsed the district selection criteria as, “RED/REC started in Punjab, in 2013, in seven districts that had the lowest immunization rates, with Rajanpur being at a 17 percent (as per MICS)”. 

Senior government officials from KP, Balochistan and GB reported some additional criteria such as ranking being used to categorize districts as low and poor performing. Access to immunization coverage, internally displaced people, security issues, compromised communities, hard to reach and poorly performing districts were prioritized for RED/REC implementation. RED/REC review report shared by government officials from Balochistan imply that the six selected districts during 2013 were areas that were underdeveloped, security compromised with poor health indicators and low EPI coverage. According to EPI government official from Balochistan, “Killa Abdullah was included for RED/REC intervention based on their low vaccination coverage of less than 12 percent”.

Finding: Micro-planning based on social mapping has ensured inclusion of most vulnerable populations
A key action proposed in the RED/REC strategy was micro-planning based on social mapping to ensure that immunization services reach every community and every missed boy and girl. Various concrete steps were taken by UNICEF, WHO and partners in the RED/REC intervention districts to develop micro-plans using social maps. Social maps provide an overview of the whole population to identify priority communities for addressing barriers in reaching population in uncovered areas. These maps are generated with support from local vaccinators and communities, to develop micro-plans, ensuring maximum coverage to those most unreached.

Policy makers and government officials from all provinces acknowledged the role of social mapping before micro-planning to achieve the equitable reach to the marginalized and far-flung communities. In majority of the intervention districts, micro-plans with social maps were available at the time of evaluation. Provincial and districts level officials in KP acknowledged the role of social maps and micro-planning, stating “Social mapping prior to micro-planning has strengthened the routine immunization system by helping to better plan outreach activities and hence improve coverage”. However, in few intervention districts, it was reported that social mapping and integrated micro-plans were not fully implemented due to managerial and training capacity gaps. In these districts, outreach activities were being conducted using the advance tour plans resulting in low immunization coverage and inability to achieve the equitable reach to the marginalized and hard to reach communities. One of the district respondents from Balochistan stated, “Due to lack of training for social mapping and microplanning, the immunization status remains stagnant for all antigens and overall programme objective of achieving 80 percent coverage has not been possible”.

EQ: To what extent the strategies used by RED/REC are relevant to national (Government of Pakistan) priorities and policies related to Routine Immunization issues addressed under the programme?

Finding: The RED/REC strategy has been able to maximize/supplement coverage of routine immunization in low performing districts

RED/REC approach in all the intervention districts was introduced as a package of five components. Evaluation findings indicated that planning for outreach services, a component of the strategy was strong at district and health facility levels. Majority of these were able to develop service plans and catchment area maps resulting in improved outreach services for hard to reach populations. Majority of the districts claimed to receive regular supportive supervisory visits with the tools necessary to conduct supervision (checklists, logbooks). Monitoring of information was being carried out in the visits conducted at health facility and district level. More than 80 percent of districts claimed to have regular review meetings, with an opportunity for ongoing technical support and trainings.

According to the RED review reports 2019, as a result of RED/REC Implementation and provincial Government’s commitment, the Routine Immunization improved in whole Punjab especially in 7 RED/REC Districts which were all below 50 percent coverage for Penta III. A senior provincial official claimed that, “in Rajanpur, the full immunization coverage increased from 27 percent (MICS 2014) to 61.3 Percent (MICS 2018) during the 4 years of intervention”. In Balochistan and KP, the overall situation for Routine Immunization after RED/REC implementation also showed improvement. Analysis of trends of immunization coverage from 2010 onwards, showed encouraging results. According to a representative from Development Partner in Balochistan,
“Immunization status before 2015 was stagnant for all entities but after RED/REC implementation in six districts, province is at 52 percent [NNS, 2018]”. Although the immunization coverage in many of the districts might be below the targeted RED/REC coverage of 80 percent; however it is apparent that with the roll-out of RED/REC strategy, the immunization coverage has started showing improvements at a steady pace.

5.2.2. Effectiveness

Effectiveness has been assessed to determine the extent to which the Strategy was able to attain its objectives.

Finding: RED/REC Strategy has promoted equity based immunization services, addressing the gender gap

RED/REC strategy has been implemented in Pakistan since 2010 and has moved on in 56 districts across the country. It has ownership of government at all the levels from federal to district and sub-district levels. The major success in implementation of all the five components of this strategy has been bridging up the gender gaps by introducing gender disaggregated data and promoting innovative approaches to bring percentage of girls being vaccinated as closer to that of boys across the intervention districts.

The achievement and success of the RED/REC strategy was evident in its implementation as these components were made part and parcel of operational plans of nearly all provinces and districts. The healthcare providers, supervisors, monitors and other stakeholders (government, community, donor agencies etc.) adhered to these components while planning, implementing and monitoring routine immunization activities in the intervention districts. Both equity and gender had been emphasized in outreach services for immunization across all the RED/REC districts, with hiring against the vacant posts of male and female vaccinators, and their subsequent trainings and capacity building sessions. Also, inclusion of LHWs as injectors in the EPI Programme played an important role in effectively enhancing this gender balance. Supervisors including DSVs, TSVs, ASVs had their supervisory plans made against the micro-plans and the trainings had been imparted on-site as well as during the district level meetings.

The male and female community members were identified as volunteers in various RED/REC districts and they had been useful linkages between community and healthcare providers to achieve the objectives for which RED/REC strategy was introduced in Pakistan. The data related to immunization, logistics and supervision have been collected and computerized and is made available for monitoring at respective districts, provincial as well as federal level. The planning had been constantly done throughout the duration (2014-18), especially at the UC and district levels, where micro-plans and the supervisory plans were updated and followed regularly. All the respondents categorically mentioned that since the implementation of RED/REC strategy was started, there had been availability of vaccines in all the intended places whether at health care facilities, warehouses or stocks for coping with required needs. A Senior official in EPI Sindh shared, “... that there is no shortage of vaccine at all”.

EQ: To what extent have the implementation of strategies and program approaches worked as intended, particularly for girls?

Finding: RED/REC Strategy has promoted equity based immunization services, addressing the gender gap

RED/REC strategy has been implemented in Pakistan since 2010 and has moved on in 56 districts across the country. It has ownership of government at all the levels from federal to district and sub-district levels. The major success in implementation of all the five components of this strategy has been bridging up the gender gaps by introducing gender disaggregated data and promoting innovative approaches to bring percentage of girls being vaccinated as closer to that of boys across the intervention districts.
Not only the major components are visible throughout the interventions areas, but also the other main objectives like gender equity and reaching every vulnerable community were fulfilled to a reasonable extent during the course of the implementation of RED/REC strategy. Empirical evidence of increasing routine immunization coverage, addressing gender and equity gaps was available in form of micro-plans, social maps and administrative data. Number of girls and boys vaccinated during the course of this strategy implementation were very close to each other as seen in the reporting of vaccination status through different sources, e.g., latest Multiple Indicator Cluster Surveys (MICS) of Punjab (63.8% male, 64.4% female), Sindh (43.1% male, 43.4% female), KPK (55.5% male, 55.5% female) and Balochistan (3.5% male, 4.8% female), and Pakistan Social and Living Standards Measurement Survey (PSLM 2014-15) Punjab (70% male, 70% female), Sindh (45% male, 45% female), KPK (60% male, 56% female) and Balochistan (30% male, 25% female). These statistics clearly depicted marked improvement in the percentage of vaccinated children, particularly addressing gender gap. Representative of federal EPI stated, “...as far as the vaccinated children are concerned there is no more discrepancy in the male and female children being vaccinated”.

The analysis of the Vaccine coverage status was observed in 113 children on the basis of the vaccination cards from the mothers/fathers, who participated in FGDs from the sampled RED/REC districts. Routine immunization coverage as shown in the graph (figure 9), indicated that overall RI coverage varied from minimum 81% for measles and 96% for pentavalent vaccine. The gender split data indicated that there were no appreciable differences of coverage among the genders in majority of the vaccines except male coverage was slightly better for first polio, measles and pneumococcal.

Figure 9: Vaccination Coverage Status

![Percentage - Routine Immunization Coverage](image)

Number of doses received for each RI vaccine as shown in the graph (Figure 10) indicated that for measles every child has received on an average two doses, 3 for each for pentavalent and pneumococcal and 7 times for OPV.
The data taken from the field demonstrated that the full immunization coverage outcome was according to set targets for the RED/REC in the sampled districts.

**EQ: How effective was the development and quality of micro-planning in ensuring coverage of all targeted children (especially those hard to reach) at the Union Council level, including girls?**

**Finding: There is a high availability of updated micro-plans at lowest operational level (UCs), focusing on hard to reach areas and populations**

Comprehensive micro-planning had been done to fulfill the objectives of RED/REC in routine immunization activities at the evaluated districts. Social mapping was also done as part of micro-planning. Micro-plans developed on basis of social maps were cognizant of high risk and underserved populations including migratory and mobile populations, populations living in under or non-vaccinated areas, live births, CBAWs, pregnant women, even scattered population. Considering the fact that polio programme had better data in this regard, this was also used in the routine immunization activities for developing micro-plans. These micro-plans were developed and had been regularly updated at the lowest operational levels i.e. UCs. Senior EPI representative from Balochistan mentioned, “Training on micro-planning is very good due to which district wise and UC level micro-plans can be prepared, which we review regularly”.

These micro-plans get shared to the district and from there to provincial level for supervision and monitoring of the immunization activities. The micro-plans are made available at the respective healthcare facilities and sometimes at the district level management units as well. In majority of the evaluated provinces/regions, these micro-plans were either computerized or at the automation stage. Majority of LHWs and Vaccinators have been found to be adhering to micro-plans, ensuring coverage in targeted hard-to-reach populations. Close adherence and follow-up of these micro-plans by the field staff enabled optimal coverage of the targeted areas, which was key to supervision, monitoring and also to identify the new target areas that would have been missed in the first place. Taking the cue from UNICEF; WHO has scaled up the intervention of micro-plans development in Punjab. This may be considered a sign of effectiveness of the RED/REC strategy and the positive role of micro-planning in achieving the set targets. LHWs and vaccinators regularly updated and submitted their respective work plans based on the micro-plans and then adhere to their plans, which were validated through applications like E-vacc in Punjab, Zindagi Mehfoz in Sindh and E-MIS in KPK. The adherence of
the plans at the lowest operational levels enabled the RED/REC strategy implementation in its true spirit of reaching the previously unreached districts and communities, covering hard to reach areas effectively.

In varied provinces, the micro-plans have been adopted according to the situations faced during its implementation, e.g., In KPK, on the basis of RED/REC strategy, micro plans were developed according to the proposed criteria, which was later on amended and the in-charge of the healthcare facilities’ role was also added up. These micro-plans after validation were uploaded in the E-MIS system of KP, on the basis of which supervisory plans were developed and made available in the same E-MIS system. Similarly, in Punjab, 4 workshops for ToTs were conducted, and 4000 vaccinators were trained on micro-planning besides other DHOs, DSVs, EPI Managers and other relevant focal persons.

Both girls and boys were reported to be nearly equally vaccinated according to various sources (PDHS, PSLM) and the gender disaggregation of data was now being presented, which could be taken as an indicator of success of the RED/REC strategy across the country. There were however, some areas in the country (especially Balochistan), where there was still much room for improvement and things are expected to improve further keeping in view the ongoing trends and efforts which had been put in.

**EQ:** How effectively UNICEF engaged with the Government and partners to strengthen coordination among partners and how effectively it advocated with the government leadership for achievement of results?

**Finding:** Willingness of federal and provincial government is evident from their concurrence on RED/REC strategy, its uptake in support of routine immunization activities and its institutionalization within the EPI Programme

RED/REC strategy since its inception was considered as a brainchild of WHO, whereas in Pakistan, UNICEF brought this into action through the government in close coordination with development partners including WHO and other stakeholders. The success of RED/REC could be explained by the fact that this strategy had been institutionalized within the EPI Programmes and is currently a part and parcel of EPI throughout the country. An effective mechanism of coordination existed in place between UNICEF, WHO and the government through which logistics support had been given by UNICEF, advocacy was done by both UNICEF and WHO, while monitoring and supervision was taken up by mainly government with support from both UNICEF and WHO. UNICEF under RED/REC Strategy supported the implementation of routine immunization through the provincial governments, utilizing their existing network and resources.

Through RED/REC Strategy, the contextualization and planning was done in coordination between UNICEF, government and WHO, then district administration were taken on board, where DSVs were engaged. Most of the technical assessments for HR and cold chain needs were provided through UNICEF, while they had been instrumental in conducting ILR and cold chain mappings and in establishing warehouses and cold stores within the intervention districts. Vaccines and equipment to districts was provided according to the standards of WHO, whereas, in few districts, furniture and laptop etc. were also provided. The whole cold chain equipment
was revamped and replaced after the performance surveys and assessments done by UNICEF. UNICEF Representative from Federal level stated, “All the vaccines and related stuff (ILRs, vaccine carriers, syringes, safety boxes etc.) are standardized and are Pre-qualified examined by WHO”.

As an initial measure, additional HR in the form of vaccinators was also provided by UNICEF, which were then taken up by the provincial governments. RED consultants were also hired for ensuring smooth implementation of this strategy in the provinces. Value additions like preparation of micro plans, community engagement programs, training of the staff, support in communication reaching through community engagement and monitoring & supervision support to managers at district level were all attributed to the efforts of UNICEF. A senior official from Federal EPI shared, “UNICEF conducted micro planning workshops and community engagement workshops when the RED/REC strategy was in the initiation”.

The provision of standardized recording and reporting tools to the EPI Programme across the country was a major highlight in regards to supportive role of UNICEF for implementation and success of RED/REC strategy. The POL and mobility incentives for supervision were also initially provided by UNICEF, which was taken over by the provincial governments over the years. UNICEF and WHO had been engaging government in continuous advocacy for filling the shortage of vaccinators in the respective areas. Besides these measures, coordination activities also included conduction of equity workshops and introduction of community mobilization workshops in different low performing districts.

**EQ: To what extent the government accountability mechanisms exist and are ensured at the district level for equitable delivery of immunization services? To what extent their existence or lack thereof affect the achievement of targets?**

**Finding: Although the data gathered through E-monitoring systems is being used for evidence based decision making and course correction, the M&E mechanisms adopted by Government remain deficient and lacked uniformity.**

When seeking excellence in performance and achieving objectives, accountability is the key. Accountability mechanism in different provinces existed at varying levels of implementation of RED/REC through EPI. Although supervision and Monitoring & Evaluation mechanisms have been adopted by Government to ensure equitable immunization services but owing to certain reasons they are not uniformly adopted throughout the intervention areas. A Senior Provincial EPI official stated, “monitoring component of RED/REC is not implemented effectively till now due to lack of accountability mechanisms….”. Gender-responsive approach in RED/REC pushed Government further on gender mainstreaming.

The RED/REC strategy started in the country and then imparted to the provinces is in line with the National Health Vision, Health Sector Strategy and EPI plans. The ownership of government had been there since the start of RED/REC strategy as the institutionalization of the strategy was embedded within EPI. The reporting mechanisms from UC towards district, provincial and federal level were established and followed on most of the occasions, but not regularly or consistently, and the reporting frequency remained hap-hazard. As far as the development and dissemination of micro-plans was concerned, it was followed stringently and its hard copies
were available at the district and provincial level, however a missing link was also observed in using these plans to supervise at provincial and federal level. In addition to this, its computerization was either being regularized or in progress in all the provinces. The vaccination data was regularly computerized in KPK via EMIS and available for use, whereas, there was online reporting of the vaccination data which was more pronounced in Punjab through e-vacc system. In other provinces/regions, this compilation remained to be relatively weaker.

The accountability had not been uniform across all the provinces and districts. In provinces, where a district ranking system was placed and accountability in form of rewards and suspensions was implemented, the performance of EPI staff was seen to be improved, however this lacked in districts, where such mechanism was deficient. According to respondents at both provincial and district level, accountability must be coupled with acknowledgements, which remained to be seldom practiced and limited to only giving away certificates. Further, it was conveyed by the respondents that there should be a true accountability mechanism through which the low performers should be penalized, while the better performers should be given concrete incentives either monetary or through rapid job promotions.

Findings reflected that M&E data was either not recorded/reported regularly or the supervisory visits were not being planned on the district micro-plans, depicting a clear deficiency in realizing the goals of accountability under RED/REC implementation. Despite the weakness in implementation of the accountability part of the strategy in various areas, there were still many districts, where this component was implemented in true spirit and advantages were gained by practicing it. In these districts, supervisory checklist, logbooks, supervisory plans of CEOs/DHOs, EPI coordinators, DSV etc. were being regularly updated and validated and were taken up in the monthly and quarterly stock-takes, EPI review reporting and meetings. The data gathered through E-monitoring systems (e-vacc/EPI, Zindagi Mehfooz, EMISs) was being used for evidence based decision making and course correction, addressing the gaps found in the foregoing activities.

**EQ: To what extent has the programme contributed to the strengthened capacity of duty bearers / service providers?**

**Finding: RED/REC Strategy has strengthened the capacities of DSVs, ASVs, LHWs and vaccinators in reaching out to most marginalized and vulnerable communities**

UNICEF after the introduction of RED/REC strategy has contributed substantially in the capacity building of the workers, particularly female workers from grass root level to the managers in support of the EPI Programmes. The development of contextualized tools in Pakistan, based on the success of this strategy round the world, has enabled Programme strengthening through fortifying the planning part. The existing tools were updated and new recording and reporting tools were developed and disseminated e.g. microplans, social maps and supervisory tools. The trainings on the micro-planning were of key focus, which was imparted to all the concerned workers and supervisors in all the intervention districts. RED/REC Strategy had strengthened the capacities of Senior EPI Managers (EPI Coordinators, DSVs, TSVs, ASVs), Frontline workers (Vaccinators, LHWs) and relevant staff in reaching out to most marginalized and vulnerable communities. These trainings proved to be beneficial in planning of the immunization activities as well as in their supervision and monitoring.
Trainings of the vaccinators were done in the districts to enhance competencies and capacities. There remains a significant gap between female and male vaccinators as expressed by Federal EPI representative, “...our HR has serious shortage of female vaccinators in EPI or in RED/REC”. The same is also evident from the data of federal EPI cell which revealed that a total of 13,217 female and male vaccinators had been trained for routine immunization activities as given in table below:

Table 8: Number of vaccinators trained

<table>
<thead>
<tr>
<th>Provinces/Area</th>
<th>Male Vaccinators</th>
<th>Female Vaccinators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>3550</td>
<td>46</td>
</tr>
<tr>
<td>Sindh</td>
<td>3840</td>
<td>202</td>
</tr>
<tr>
<td>KP</td>
<td>2722</td>
<td>180</td>
</tr>
<tr>
<td>Balochistan</td>
<td>1306</td>
<td>20</td>
</tr>
<tr>
<td>GB</td>
<td>211</td>
<td>21</td>
</tr>
<tr>
<td>AJ&amp;K</td>
<td>434</td>
<td>59</td>
</tr>
<tr>
<td>KP/NMD</td>
<td>591</td>
<td>NIL</td>
</tr>
<tr>
<td>CDA/ICT</td>
<td>35</td>
<td>NIL</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,689</strong></td>
<td><strong>528</strong></td>
</tr>
</tbody>
</table>

The trainings were also provided on planning the immunization activities, and on identifying target areas and children in the hard to reach areas. Support from “Polio Eradication Initiative” was taken in this regard. The trainings were also imparted on-site during the activities by the concerned supervisors and also after the activities in the review monthly and quarterly review meetings. The trainings in the review meetings were to plug-in the gaps found during the field activities, which were beneficial in improving the attitudes and practices of the vaccinators and other workers, which ensued in net improvement in immunization status of these previously low performing districts.

**Finding:** The inclusion of LHWs as injectors has been instrumental in increasing outreach twofold but the initiative is facing resistance

RED/REC strategy after showing remarkable results in African region, proved to be instrumental in raising the vaccination coverage in low performing districts of Pakistan. All the five components of the strategy were included while planning and implementation of the immunization activities in the country. There has been direct and positive effect on the percentage of children getting vaccinated in the previously low performing districts, the new stats from all the RED/REC districts have shown considerable improvement. Besides the visible and tangible major outcomes, there were a few other changes that are attributed to this strategy including enhancing role of community health workers such as LHWs as injectors. The inclusion of LHWs as injectors was instrumental in increasing outreach twofold but the initiative is facing resistance from within the vertical programmes as well as from some other quarters including community despite the success stories.

**EQ:** What other changes (positive/negative, direct/indirect, intended/unintended) have occurred as a result of RED/REC programme?
Several contributing factors to this resistance were observed including; LHW Programme being apprehensive of overloading already burdened LHWs with extra work in addition to their primary job description (related to family planning and maternal and child health) for which they were inducted. Considering the notion that injecting is a complex procedure requiring delicate skills as it deals with newborns, infants and children, the LHWs are thought to be under qualified for such activities. The resistance arose from inside of the LHW Programme and from the health system especially from the managers as well as from outside of the system from the communities. Provincial senior representative added, “I believe that LHWs should not be allowed to do the vaccinations rather they should stick to delivering their primary duties for which this programme was launched”. Similarly, it was found that LHWs were also reluctant to carry out this responsibility being over-burdened by other outreach activities.

All key stakeholders acknowledged the role of LHWs at community level. A district level official from Hyderabad highlighted their role as, “LHWs are first point of contact between community and healthcare system. They can reach and approach every corner of catchment area which is inaccessible for others.” Lady Health Workers enjoyed a good rapport within the community. Both mothers and fathers during FGDs were of the view that lady health workers had a pivotal role in enhancing community participation through awareness creation, change of attitudes, and mobilization of support. They were seen to be geographically closer and more readily available than health care facilities. Fathers from Lakki Marwat stated, “…. Our LHWs provide care without cultural and linguistic barriers. Lady health workers are very polite. They have helped increase awareness for vaccine preventable diseases.”

Mothers from Muzaffarabad highlighted their role in raising awareness regarding immunization, and stated that “LHWs visit our house and provide us guidelines about the importance of vaccinations”. While all community members appreciated LHWs in awareness raising and social mobilization, caregivers seemed to have mixed views regarding the role of LHWs as injectors. Majority of them questioned the skills required to handle infants. Communities perceived their role to be limited to awareness creation, mobilizing communities and referral.

Finding: Non-intervention districts are losing out on benefits given in intervention districts (e.g. supervision support), resulting in low focus on their immunization related targets

According to the provincial and federal level stakeholders, although RED/REC Strategy had been institutionalized into Routine Immunization Programme, there were still some areas where intervention and non-intervention districts varied. This was particularly true in case of provision of supervisory support and mobility incentives given to Supervisory provincial and district staff. Provincial representatives showed concern regarding non-uniformity of incentives being given in districts across their provinces, e.g. mobility allowance and POL support was provided to vaccinators within RED/REC interventions districts only, causing inequity within the same province.

Finding: The important but less concerted element of social accountability in the current strategy seemed missing

One of the major challenges found out during the evaluation of this strategy and was pointed out by the development partners and even by the government managers was that of the weakness in effective accountability mechanism. There has to be an element of social accountability and the community should be empowered to demand for something which is for
their own betterment. As expressed by the key stakeholder, “...this could be sorted out if the implementation part of the programme is outsourced to some non-governmental enterprise/organization or local CSOs”. Similarly, respondents endorsed that instituting good governance at the top most level could lead to trickledown effect and an overall improvement in the vaccination coverage in the country and the gaps therein could be automatically filled in. A Senior UNICEF representative stated, “There should also be improvement in the governance and accountability to achieve immunization targets...”.

5.2.3. Efficiency
Efficiency has been assessed by measuring the outputs – qualitative and quantitative – in relation to the inputs.

EQ: In the selected districts, what is the number and percentage of districts having complete and computerized micro-plans and their updation? To what extent planning, budgeting, monitoring and evaluation, supervision, coordination, logistics and financial management systems are functioning well in support of the programme objectives through quality micro-planning?

Finding: Variance was observed in districts regarding availability of complete and computerized micro-plans and their updating.
Data on UC/District level micro-plans had been retrieved from various sources that included the UNICEF monitoring reports of 2015 through 2017, qualitative key informant interviews, FGDs from the stakeholders and records retrieved through checklists from the sampled RED/REC districts for the evaluation. UNICEF records were not uniformly available from all the provinces/regions. The records retrieved during evaluation indicated that UC and district level computerized micro-plans were available in 83% of the sampled districts, while Immunization coverage reports were found in 92% within those districts. The supervisory/monitoring plans of the District Coordinators were reported from 75% of the sampled districts (Figure 11).

Figure 11: Availability of UC/district level micro-plans and Immunization coverage reports

Updated immunization coverage charts were found to be displayed at 92% of the district offices visited during evaluation, while majority (83%) of the evaluated districts were found to be developing district level social maps. Out of the 12 visited districts, around 10 (83%) district EPI offices had EPI Supervisory logbooks, however only 3 offices had access to EPI Checklists in Urdu out of the 12 selected district offices (Figure 12).
Figure 12: Social maps and EPI coverage records in the sampled districts

Data retrieved through the checklist from the sampled RED/REC districts indicated that EPI MIS tools were available in majority of the districts. RI Tally Sheets, Vaccination Cards, Daily Registers, Permanent Registers, Reporting Forms, Vaccine Demand Forms, Stock Registers, Temperature Sheets and Monitoring Charts were available in all the sampled districts. Deficiencies were observed in Case Investigation forms, Inventory Sheets and Outbreak investigation forms (Figure no.13).

Figure 13: Availability of EPI MIS Tools in Sampled Districts

Although UNICEF data available in the form of monitoring reports from Balochistan, Sindh, KP and Punjab could not be subjected to any systematic quantitative analysis due to lack of uniformity, however critical qualitative review/analysis provided following information regarding UC/District level micro-plan and its implementation had been done:
## Table 9: UC/District level micro-plan and its implementation

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Inferences depicted by qualitative analysis</th>
<th>Reference documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>UC level micro-plans were developed in nearly more than 90% of the UCs in selected RED districts of Balochistan, KP and Sindh.</td>
<td>UC Level monthly reports of Balochistan, KP and Hyderabad</td>
</tr>
<tr>
<td>2.</td>
<td>UC Level targets were set for majority of vaccines included in the RI schedule in nearly 90% of UCs in the RED districts</td>
<td>UC Level monthly reports of Balochistan, KP and Hyderabad</td>
</tr>
<tr>
<td>3.</td>
<td>Outreach sessions could not be planned in majority of the UCs due to unavailability of vaccinator or transport to access hard to reach areas</td>
<td>Monthly reports of district Pishin, Balochistan from March to September 2016</td>
</tr>
<tr>
<td>4.</td>
<td>ORT planned could not be executed due to unavailability of the vaccinator/LHWs/Volunteers and transport</td>
<td>Monthly Reports of district Balochistan</td>
</tr>
<tr>
<td>5.</td>
<td>The data on achievement of the targets on majority of the report was consistent and complete</td>
<td>Consolidated UC level data of KP districts and monthly reports of Balochistan</td>
</tr>
<tr>
<td>6.</td>
<td>Vaccine doses were reported to be short than the required doses in majority of the monthly updated reports from Balochistan</td>
<td>Monthly reports of the RED districts Balochistan</td>
</tr>
<tr>
<td>7.</td>
<td>Routine immunization coverage in the target children could not be achieved in majority of the UCs targeted in the microplanning</td>
<td>Monthly and consolidated reports at UCs in Balochistan, KP and Sindh</td>
</tr>
<tr>
<td>8.</td>
<td>A number of bottle necks and challenges have been reported as reasons for non-adherence to the micro-plans in the majority of monthly reports and district level monitoring reports.</td>
<td>District monitoring reports from all 6 districts of Balochistan and remarks in the monthly reports</td>
</tr>
</tbody>
</table>

In evaluation findings, strategic level stakeholders agreed with findings of availability and practice of UC level micro-plans but they did not seem to be satisfied with the adherence to the micro-plan due to the constraints at planning, operational and implementation level. Strategic level stakeholders were also not satisfied from the quality of the data being reported in the micro-plans. On the other hand, in Focus Group Discussions, all LHWs acknowledged the role of micro-plans in outreach services but reported the constraints of scattered populations, lack of transport, and shortage of staff. Some of the LHWs also reported the social barriers of misconceptions about the immunization as one of the reasons for non-achievement of desired RI coverage targets. The bottlenecks depicted in qualitative critical analysis of monitoring report of RED districts from the provinces/regions retrieved through record review and KII/FGDs in all five areas of RED/REC implementation are summarized below in the table:

## Table 10: Bottlenecks analysis and challenges related to RED/REC component

<table>
<thead>
<tr>
<th>RED/REC Components</th>
<th>Bottlenecks analysis and challenges to be addressed</th>
</tr>
</thead>
</table>
| Re-establishing outreach services/reaching every targeted | • Work plan does not include the time and place/site of every outreach session planned  
• District was not able to conduct all sessions as planned  
• There are some hard to reach, far-off areas with scattered population of children, that may be reached a few times a year instead of every month |
<table>
<thead>
<tr>
<th>children</th>
<th>Supportive Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• The HF/UC has not planned regular supervisory visits</td>
</tr>
<tr>
<td></td>
<td>• The supervisors do not take time to provide some needed information and help to solve problems.</td>
</tr>
<tr>
<td></td>
<td>• There is no follow-up on findings from previous supervisory visits.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Monitoring and use of data for action</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Some of the UCs does not have population figures for every village.</td>
</tr>
<tr>
<td></td>
<td>• HFs do not receive feedback on monthly reports.</td>
</tr>
<tr>
<td></td>
<td>• Some of the HFs are unable to provide complete and timely monthly reports.</td>
</tr>
<tr>
<td></td>
<td>• Some of the HFs do not have a defaulter tracking system in place.</td>
</tr>
<tr>
<td></td>
<td>• District does not hold quarterly meetings to review performance.</td>
</tr>
<tr>
<td></td>
<td>• There is a variation between official denominator and immunization denominator.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Planning and Management of Human, logistic &amp; Financial resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Some of the HFs do not have a complete micro-plan, session plan and work plan.</td>
</tr>
<tr>
<td></td>
<td>• Many of the HFs do not receive the required resources to conduct outreach sessions.</td>
</tr>
<tr>
<td></td>
<td>• There are vacant staff posts in some of the health facility.</td>
</tr>
<tr>
<td></td>
<td>• None of the HFs had recent stock-outs of vaccine, safe-injection equipment, fuel and other supplies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community links with service delivery</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Many of the community are still not involved in planning the place and time of sessions, thus remain unaware of the immunization sessions.</td>
</tr>
<tr>
<td></td>
<td>• Some of the communities are not always informed in advance of sessions.</td>
</tr>
<tr>
<td></td>
<td>• Many of the communities do not accept the immunization services offered.</td>
</tr>
<tr>
<td></td>
<td>• In some places or UCs, the community volunteers are not available at immunization sessions.</td>
</tr>
<tr>
<td></td>
<td>• In some UCs, HFs do not receive information on newborns from the community through LHWs.</td>
</tr>
<tr>
<td></td>
<td>• Many of the pregnant women are not aware of the need for TT immunization and how to receive it.</td>
</tr>
<tr>
<td></td>
<td>• There are misconceptions and concerns about safety of vaccines.</td>
</tr>
</tbody>
</table>

**Finding:** The process of micro-planning and their adherence has proven to be instrumental in prioritizing hard-to-reach/high risk populations for increased immunization coverage

Strategic and operational level stakeholders had consensus that micro-planning was a motivational tool for synchronizing resources for the immunization and to improve the coverage in the targeted hard to reach areas. It was evident from the qualitative analysis available from monitoring reports that the UCs where micro-plans were implemented, outreach vaccine and community linkage sessions were conducted, and 100% targets were achieved. Microplans specified the times, places, staff (vaccinator/LHW/Volunteers), transport and vaccine supplies for conduction of immunization sessions in the selected outreach targets. Microplans also depicted the bottlenecks and challenges for those plans that were not executed as per schedules, so that supportive supervision could come in to play to ratify those constraints in specific target areas at UC level. Microplans were appreciated by LHWs and the beneficiaries in their FGDs’ feedback, however LHWs and beneficiaries were not satisfied by the mobilization, logistics, supplies, and transport in scattered and hard to reach area populations. The coverage evaluation at UC level was not the mandate of the evaluation and the data retrieved from the monitoring records was not uniform to demonstrate specific statistical effects on coverage at UC
level. However, the secondary data from the two periodic rounds of PDHS 2013 through 2018 demonstrate the applicable improvement in immunization coverage directly and through cross-cutting effects of RED/REC strategy implementation.

**EQ: To what extent has the programme leveraged additional resources to address identified gaps?**

**Finding: RED/REC Strategy has added value by enhancing outreach services and strengthening capacities and competencies for routine immunization**

It is evident from the various situational analysis reports and KII s from all RED/REC districts that staff engaged for vaccination services were the government employed vaccinators, LHV s and in some places, LHW s and MT s. Considering RED/REC approach required both male and female vaccinators at outreach and static centres, there still remained a shortage of vaccinators in all the provinces/regions to deploy. Situational analysis revealed that there was gender imbalance within EPI field staff, as district EPI Programmes mainly consisted of male vaccinators at static centers and outreach areas. RED/REC Strategy promoted enhancing the number of vaccinators to 2 per UC as per EPI policy. Strategically involving other community health workers like LHWs and paramedical staff including medical technicians in immunization activities was one of the critical interventions applied in the Strategy. RED/REC Strategy therefore leveraged additional resources, including availability of sufficient trained personnel to reach vulnerable communities for routine immunization.

It is evident from the evaluation findings that capacities of LHWs and other relevant EPI staff were enhanced by providing trainings with the financial and technical support of UNICEF and other development partners, e.g., WHO within both intervention and non-intervention districts in all provinces/regions of Pakistan. LHW s were engaged as services providers and coordinators to execute the outreach immunization sessions according to the UC s level micro-planning. Evaluation findings and desk analysis of documents, provided by UNICEF and sampled RED districts, also supported the evidence of trainings provided to LHW s and the vaccinators. Federal and provincial level stakeholders commented that LHW s were pivotal human resources for RED/REC strategy and influencing all five components of strategy, as depicted from the diagram.

**Figure 14: LHW s Programme and LHW s Role in RED/REC Approach**

- Re-establishment of outreach services
- Supportive Supervision
- Monitoring and use of data for actions
- Planning management of human, logistics and financial resources
- Linking services with Community
- LHW as vaccinator/injectors for outreach services in execution of microplans in hard to reach areas
- LHSs/LHWs are beneficial for supportive supervision component
- RI coverage data reported through LHW-MIS recording and reporting tools and role in data management
- Multifaceted role as PHC & FP provider, polio eradication, RED outreach services providers and logistic management
- Community level workers provided role in creating community linkage and service delivery for RED/REC
LHWs role as injectors for vaccination had remained under debate on both strategic and service delivery levels among the LHWs and LHSs, for instance, in Punjab province, the LHWs were not permitted as injectors for selected vaccines e.g. measles and BCG. In this regard, Provincial informants argued that BCG and measles vaccines are allowed at the static centers of EPI and healthcare delivery outlets, while LHWs are not supposed to work on the static centers in addition to their original duties of the programme. On the other hand, LHWs had been injecting OPV, being trained and involved in polio eradication campaigns. Although trainings were provided to LHWs on immunization, yet there remained a need for extensive trainings of LHWs to become competent as injectors for all injectable vaccines. Further, analysis of FGDs revealed that LHWs complained about the workload for the additional duties of vaccination and polio eradication activities, coupled with their original duties, as per their job descriptions of LHWs Programmes. This was one of the key issues highlighted during evaluation analysis, which requires considerations for strategic informed decisions at all provinces/regions of Pakistan to redefine the role of LHWs for service provision at community level.

5.2.4. Impact (Long-term outcomes)

Long-term outcomes have been assessed to determine the positive and negative changes produced by the Strategy, directly or indirectly, intended or unintended. Outcomes of the RED/REC strategy have been navigated through overall EPI programme performance and assessment of implementation modalities of the RED/REC approach.

EQ: To what extent has the RED/REC programme achieved its objectives and what were the major factors influencing the achievement or non-achievement of the objectives/ outcomes?

Finding: There was appreciable improvement in immunization coverage in all the provinces/regions; however, the absolute goals of RED/REC are yet to be achieved at district and national levels

The outcomes of the strategy were multi-dimensional in terms of quantitative data of immunization coverage and the qualitative data for the equity and accessibility to outreach areas. The RED/REC strategy was introduced with the goal to achieve 80% immunization coverage in all targeted districts and 90% national coverage within the WHO member states. RED/REC strategy aimed to fully immunize every female and male infant with all vaccines included in the national immunization schedule of countries.

The evaluation findings based on secondary data is yet unable to support the achievement of the absolute goals of 80% within each district and 90% at national level. However, a marked improvement in immunization coverage was observed from 2013 to 2018. Although this improvement may not be attributed to only RED/REC strategy implementation, but it can be assumed that RED approach has been a contributing factor. Secondary data analysis from two rounds of PDHS also indicated an increase in immunization coverage except of marginal increase in Khyber Pakhtunkhwa. Highest increase in coverage was observed in Sindh, followed by Punjab, as illustrated for figure below:
Since this evaluation catered the period of 2014 to 2018, PDHS 2012-13 was considered as the baseline. It is worth mentioning here that baseline data for AJK and FATA/NMD was not available for PDHS 2012-13, however the recent data of PDHS 2017-18 indicated that FATA was at lowest coverage of 30.0%, far behind the district level targets of RED/REC approach, i.e. 80%.

Further, tracing the pace of routine immunization coverage in Pakistan, using various waves of PDHS data from early 1990s to 2013, analysis revealed a slow uptake to 2013, which was increased after 2014 to 66%. This improvement may be attributed to the inception of RED/REC approach, considering RED/REC strategy focused on improving immunization coverage in districts with low coverage. However, yet it still remained below the desired level of the RED/REC strategy, as evident from figure below:

Findings suggested that steering and navigation of RED/REC strategy, in the light of evaluation findings would boost up the efforts to achieve the desired level in the coming years.
Finding: Significant cross-cutting affects were observed in Non-RED districts for ownership and implementation of RED/REC components as uniform policy to increase the Routine Immunization

Analysis of KIIs with stakeholders, FGDs with LHWs, vaccinators and the beneficiaries consistently revealed that districts redirected their policies under the influence of RED/REC approach to scale-up the mapping of outreach areas, developing micro-plans, strengthening outreach services, training and engaging of LHWs/other EPI staff to improve the accessibility in hard to reach areas. However, findings disclosed that all 5 components were not uniformly implemented within intervention districts by giving priority for bridging the existing gaps only. The strength of implementation of RED/REC components varied in the sampled districts, emphasizing on scattered geographical areas, marginalized population, modes of communications and socioeconomic factors.

Finding: Multiple factors are affecting achievement of intended objectives and outcomes at policy & planning level and at operational/implementation level

Number of issues and challenges were revealed during evaluation, which may have affected the implementation and achievement of intended objectives, some of them have been given below:

**Policy & planning level**

At the time of initiation of RED/REC strategy in 2013, the health system was devolved to the provinces after the promulgation of the 18th Constitutional Amendment in Pakistan. The federal control of the vertical programmes including EPI was transferred to the provinces, leaving many policy level decisions unclear and unresolved. The transition period, for handing over and taking over the responsibilities from the federal EPI to provincial EPI Programmes was prolonged, due to which RED/REC implementation remained slow-moving during this critical time.

After devolution, the provinces had capacity issues regarding the resource and planning. At strategic level, there was no clearly spelled out mechanism of boosting resources for the RED/REC approach, as the provincial governments had high expectations from the donor partners, while donors were redirecting provincial resources for district level implementation. The role of LHWs for strengthening outreach services for immunization remained under discussion, and varied within the districts and provinces/regions as well.

Provincial governments had its own mechanism of planning and budgeting, with long financial procedures for release of funds. As opined by federal and provincial level stakeholders that untimely release of funds by government and handing over to outreach staff were some of the factors that affected the performance of the RI Programme. Moreover, the allocated funds were thought to be insufficient, for example Rs. 200 was given as POL daily to the vaccinator, which was assumed to be too low. Some of the issues affecting the implementation of RED/REC Strategy were highlighted by the federal, provincial and district level stakeholders, as under:

- Human resources deficiency and capacities issues
- Managerial issues related to deployment and frequent transfer and posting
- Service delivery problems specially at the outreach services including timely provision of equipment, supplies; availability of required funds and transport/mobility allowances or POL; and presence of appropriate staff
- Budget issues and delay in release of funds
- Political interference for human resource and lack of priority for resources allocations
Improper rationalization of the human, technical and financial resources
- Generation of validated data and its dearth of use for monitoring, planning, analysis and dissemination
- Non-uniform communication/awareness and community linkages and low engagement of community in RI
- Incoherent supervision and monitoring with issues regarding feedback
- Lack of accountability
- Shifting of provincial priority and attention from routine immunization towards polio after its resurgence in 2017.

**Operational and implementation level factors**

Findings revealed that provincial EPI officials were fully on board in coordination with UNICEF and WHO regarding RED/REC strategy, nonetheless, this delineation of RED/REC Strategy from RI is not recognized at the provincial health services directorate which remain to be unaware about the interventions under RED/REC approach. This embedded role of RED/REC Strategy within the RI programmes can be termed effective and successful as a health system strengthening initiative. Provincial and district level EPI coordinators reported about their meetings with development partners at provincial and district level for monitoring and sharing feedback regarding implementation of five components of RED/REC strategy. Initially financial support for coordination was provided by UNICEF till 2016, but this has been now taken up by government as its own role. UNICEF kept the monthly feedback reports from KP and Balochistan for 2016.

Findings highlighted that there were multiple local level issues hindering the implementation of RED/REC strategy. Federal, provincial and district level stakeholders had consensus that compliance over the micro-planning to identify inaccessible population and managing outreach services was below the expected performance in majority of the RED/REC districts in all the provinces/regions. UNICEF monitoring data indicated that UC level micro-plans were being generated but the outreach services in many cases got interrupted due to lack of staff, transport and insufficient vaccine supplies. Focus Group Discussions with the vaccinators and LHWS consistently revealed issues of interrupted supplies and logistics for arranging the outreach team sessions. Although overall effect on vaccine coverage increased, however, an observation regarding equity and accessibility to hard-to-reach areas was compromised, due to number of factors at planning and implementation levels. The main reasons pointed out by key stakeholders included:

- Lack of willingness and motivation of the staff and their supervisors;
- Managerial and operational problems, related to lack of vaccine supplies, vaccine carriers, insufficient transport and communication for outreach services;
- Financial resource constraints as a barrier in EPI service delivery;
- Community mobilization, liaison and awareness related issues;
- Insufficient staff in absolute terms and lack of rationalized distribution of staff;
- Ineffective accountability of staff, due to political interference, unionism and pressure groups amongst staff; and
- Social resistances and refusal due to misconceptions and myths about vaccine

The district and provincial level stakeholders specifically highlighted the diluting effect of intervention, as RED/REC strategy was launched during transition period of devolution of EPI
Programme. The issues of the ownership in terms of resources pooling and translation into implementation and operations remained unresolved. The donor support and the government resources were not synchronized, as and when required, losing the focus from the intervention. There was a very thin line for demarcation between EPI own role in strengthening of routine immunization and accelerated role of EPI under RED/REC strategy.

One of the reasons which indirectly retrieved from the available data that there were rapid postings and transfers of the human resources at provincial/district level senior officials. For this reason, a significant number of stakeholders mentioned that they are not much aware of implementation activities and modalities in the provinces and districts, due to their recent charge of the position. According to stakeholders, the RED/REC implementation process remained dormant after its inception in 2013 and reactivated in different provinces at different times that diluted the effects of strategy.

It was learnt from the available documents that the initial mapping for the selection of RED/REC districts was based on the full immunization coverage data retrieved from the PDHS, MICS and PSLM surveys. The district management data of EPI was not used as stated by the federal and provincial level stakeholders, as it was considered to inflate. Analysis also revealed that phased-manner scaling-up of districts was not done uniformly and varied between provinces. For example, in Balochistan, initial mapping was done to categorize all the districts in good (>60%), average (40-60%) and poor (<40%) performing districts, where representative samples were taken from each performance-wise strata as shown in the table 11. After the stratification of the performance, 6 districts were selected, where Quetta was selected as good performing, Pishin, Lasbela and Killa Saifullah from average, while Killa Abdullah and Nasirabad selected as low performing districts.

Table 11: Categorization of Balochistan Districts (total of 28 districts) based on Full Immunization Coverage-PSLM Survey 2013-14 Data

<table>
<thead>
<tr>
<th>Districts Performance</th>
<th>Categorization</th>
<th>No. of Districts</th>
<th>Name of Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Fully Immunized Children Above 60%</td>
<td>9</td>
<td>Quetta, Barkhan, Zhob, Sibbi, Kalat, Mastung, Khuzdar, Awaran &amp; Kharan</td>
</tr>
<tr>
<td>Average</td>
<td>Fully Immunized Children Between 40%to 60%</td>
<td>11</td>
<td>Pishin, Noshki, Loralai, Killasaifullah, Sherani, Kachi, Jaffarabad, Jhalmagsi, washuk, Lasbela &amp; Gawadar</td>
</tr>
<tr>
<td>Poor</td>
<td>Fully Immunized Children Below 40%</td>
<td>8</td>
<td>Killaabdullah, Chagai, Musakhel, Harnai, Ziarat, Kohlu, Derabugti, Naseerabad</td>
</tr>
</tbody>
</table>

Finding: The Strategy was able to attain significant achievements with some shortcomings, which needed to be overcome to enhance impact

Achievements
Looking at secondary data sources and overall performance of the EPI Programme, the RI coverage saw improvement over time between 2013 through 2018. In Punjab, the RI coverage is touching to the overall district level goal of RED/REC approach that is 80%. On the other hand, the RED/REC strategy was widely scaled up at the time of inception in Khyber Pakhtunkhwa but 2018 PDHS data indicated that RI coverage was falling at 54.7% as compared to 53% at baseline
In rest of the provinces/regions, a significant increase from inception to evaluation could be witnessed. This indicated that RED/REC strategy has potentiated overall impact over the EPI Programme to redirect their implementation strategies in line with five pillar implementation modalities defined in the RED/REC approach, however it needs to be focused and targeted.

- **Political will & commitment at policy level**
  In comparison to the time of inception, the currently political commitment for RED strategy to increase the RI coverage is overshadowed by the polio eradication campaign. As a matter of fact, improving RI coverage is inherently one of the key interventions for polio eradication. The international best practices show in African countries who initiated the RED/REC strategy at the beginning of the 21st century, have achieved polio eradication, with increasing the RI coverage without launching special polio eradication campaigns. More advocacy is required for political leadership to give priority to RI coverage to avoid the duplication of the human and financial resources. RED coverage in Khyber Pakhtunkhwa is wide spread as the RI coverage is far below the district level goal of 80% hence the polio eradication campaign alone will not be successfully until and unless synergized through the RED approach. However, the political commitment was indirectly perceived through the overall strengthening and improvement in implementation of components of RED/REC strategy.

- **Addressed inequities in immunization through Social Mapping and micro-plans**
  The record retrieved from the sampled districts indicates that majority of the districts are developing and keeping records of the social maps and developing micro-plans to access demographically, socially and economically marginalized populations at Union Council (UC) levels. A perceived achievement in this regard is that RED approach for social mapping and micro-planning at UC levels, was now made an integral part of the districts and provincial EPI Programmes with its complete ownership in all the provinces/regions. Findings of FGDs and Key Informant interviews also strongly supported the information retrieved from the district records. Stakeholders from provincial and district level endorsed the availability of social mapping and micro-plan at the UC levels. The records retrieved through a checklist from EPI Programmes of the sampled districts indicated that updated immunization coverage chart were displayed in 92% of the sampled districts and supervisory logbooks were available in 83.3% of the districts. District level social maps were available in 83% of the districts while EPI checklists (in urdu) were available in only 25% of the districts.

**Figure 17: Social maps and EPI coverage records in the sampled districts**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPI Checklist in Urdu</td>
<td>25.0</td>
</tr>
<tr>
<td>EPI Supervisory Logbook</td>
<td>83.3</td>
</tr>
<tr>
<td>Updated immunization coverage chart</td>
<td>91.7</td>
</tr>
<tr>
<td>District Level Social Maps</td>
<td>83.3</td>
</tr>
</tbody>
</table>
Promoting effective and regular monthly analysis and reporting
Availability of the updated RI monitoring and coverage charts in majority of the sampled districts provided evidence for the regularity of the data analysis reporting and its utilization for further micro-planning. Monthly supervisory/monitoring reports were being submitted in majority of the sampled districts.

Improved capacity building on supportive supervision
Availability of EPI supervisory logbooks was verified and they were available in majority of the districts. Updated RI coverage charts were available with few exceptions. For capacity building, trainings were imparted to a large number of EPI Managers, LHWs, female and male vaccinators and other relevant staff for implementation of RED/REC components.

Created community link through involvement of community volunteers
It has been revealed through FGD of the Beneficiaries that LHWs had very strong communication and liaison with community and they provided community and health facility links. Majority of the beneficiaries from the sampled districts informed that LHWs regularly visit homes and they educate and motivate the families for getting vaccinations. They also conducted the health education sessions with mothers as reported in their job descriptions. All mothers had consensus that they had learnt about the vaccinations from the LHWs and some of the mothers said, “previously they were not convinced for immunization, but now they had full trust and motivation for immunization”. In response to the probing about refusal and reluctance for immunization, mothers of some of the districts disclosed that “there are still families that are not willing for getting immunization”. The cultural resistance was also consistently reported from many sampled districts. Some of the fathers also informed that, “consistent motivation and counselling of families is required the improvement of immunization coverage and polio eradication”.

The issues and challenges depicted by beneficiaries and LHWs for outreach services were:
- Lack of coverage of Community health workers and vaccinators due to wide spread scattered populations in hard to reach areas in AJK, GB, DG Khan and Rajanpur
- Transport issues both for the mothers and the care providers
- Cultural resistance and religious beliefs

Shortfalls
Limited scope and role in creating awareness among communities for social and behavioural change
As already mentioned, there were multiple factors due to which intended benefits of the RED/REC approach could not be achieved due to the deficiencies identified in the evaluation findings summarized below.

Non-availability of updated micro plans or monitoring/reporting tools
District data retrieved through a checklist indicated that the district level social maps, supervisory checklist in Urdu versions, Inventory sheets and district compilation forms were deficient in majority of the sampled districts. All these deficiencies were also pointed out by the district and provincial level stakeholders in their respective interviews. The key instrument of the mapping and micro-planning were District Level Computerized Micro-plan and UC level micro-plans. The data from the sampled districts traced from 2014 to 2019 indicated that availability of district level computerized micro-plans and UC level micro-plans were reported to be highest in the year 2018, while this number seemed to fall back in 2019. For steering direction of REC approach, these areas need to be addressed with highest commitment and standardization across the board to gear up achievements.
Figure 18: District level and UC Level Micro-plans in the sampled RED districts

- **Weakness in E-monitoring**
  Primary data analysis also highlighted the weakness of the E-monitoring system in majority of the sampled districts, where E-monitoring systems were not found fully functional, particularly in the district EPI offices from 2014 to 2019, lacking evidence for UC level micro-plan as well. Results of immunization coverage reports and monitoring plans in RED/REC sampled districts from 2014 to 2018 also revealed the same situation (Figure 19), emphasizing the need that these issues should be addressed through revamping E-monitoring system at district levels. Similarly, a decline was observed in the availability of supervisory/monitoring plans (Figure 20).

**Figure 19: Immunization Coverage Report**

**Figure 20: Availability of Supervisory /Monitoring Plan of District Coordinators**
Non-availability of retrospective data for selection/rationalization of districts

Reliable validated data was essential to lay down the milestones of RED/REC strategy, particularly in selection and scaling-up of the districts, along with subsequent monitoring targets and goals to be achieved at district, provincial and national level. However, findings indicated that retrospective data was not available for the districts. According to the stakeholders, RED/REC intervention districts were initially scaled-up on the basis of data of PDHS, MICS and PSLM surveys. Therefore, this evaluation relied on the secondary data of PDHS, PSLM and MICS for immunization coverage, which was required to be provided by E-monitoring systems of the sampled districts. Further, key stakeholders expressed concerns, that district based data was mainly collected by vaccinators for internal monitoring systems, which is considered not too authentic, as usually vaccinators inflate those figures to highlight their performance, therefore, the immunization coverage sometimes marked above the 100%, which was last validated by a 3rd party coverage evaluation survey in 2006. Stakeholders also emphasized the need to strengthen RI through reliable data reporting and monitoring system.

EQ: How successful was UNICEF in reaching the most marginalized groups, particularly girls and women in the target areas in order to contribute toward the national/provincial objectives on immunization?

Finding: Improved coverage in fully immunized children is evident, particularly with increase in DPT-3 coverage

Increase in administrative coverage of DPT3 and measles 1

Secondary data retrieved from latest two rounds of PDHS periodic surveys 2012-13 and 2017-18 for evaluation, provided the opportunity to compare coverage. PDHS 2012-13 survey depicted the situation of the inception year of RED/REC approach and was taken as baseline, while latest round of survey (2017-18) highlighted the change or contribution of the intervention over the period of time. Comparison of the DPT3, as an indicator of RI coverage in RED/REC strategy within both rounds of PDHSs showed that there was consistent increase in RI coverage in most of the provinces/regions. Nonetheless, in Islamabad Capital Territory (ICT), a slight decline in coverage was observed as compared to 2013. Its possible reason could be that ICT is a non-intervention area being a capital city, where federal level EPI interventions were more dominant.

Overall, the increase in DPT3 coverage varied among the provinces, where an upward trend was observed in provinces of Sindh, Punjab and Balochistan as compared to KP, which may be due to priority focus of KP government shifted towards resurgence of Polio. However, the cumulative national level coverage of DPT-3 was not found significant as depicted in figure 20. Moreover, in Punjab and ICT, the DPT3 coverage was seen above the district level RED/REC goal, i.e. 80%, while it fell below amongst other provinces and regions.
Likewise, measles vaccination is another indicator for RI coverage, which follows the same trends except of Balochistan, where measles coverage declined from 37.3% to 33.3% during 2013 to 2018. However, measles coverage increased at national level, as shown in graph (Figure 22).

**Figure 22: Comparison of measles coverage from 2013 to 2018 (PDHS data)**

- Increase in fully immunized children
  
  Comparison of fully immunized children between two latest rounds of PDHS surveys indicated an upward trend of RI coverage in 2018 amongst all provinces and regions except of ICT (Figure 23). A slight decline was observed in all RI indicators of ICT, e.g. DPT3, measles1 and full immunization for basic vaccines.
Finding: Improved Equity in immunization services has been brought into limelight through the strategy interventions

Evaluation found that RED/REC strategy has contributed in addressing the inequity in immunization services, particularly in case of gender. Immunization coverage checklist was exercised in the sampled RED/REC districts and findings showed that all the districts were using reporting and recording tools with gender disaggregated immunization coverage data. UNICEF coordination team gave special emphasis to highlight the gender equity to minimise the gender difference of immunization coverage amongst girls and boys. Perspectives of beneficiaries and healthcare providers also highlighted the gender discrimination for immunization coverage, giving preference to male children. The gender segregated data from latest two rounds of PDHS, from 2013 to 2018 also witnessed a marginal edge of immunization coverage in all category of routine EPI vaccination, as illustrated in figure below:

Figure 23: Children fully immunized from 2013 to 2018 (PDHS)

<table>
<thead>
<tr>
<th>Province</th>
<th>National Level</th>
<th>Punjab</th>
<th>Sindh</th>
<th>Balochistan</th>
<th>Khyber Pakhtunkhwa</th>
<th>GB</th>
<th>ICT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>53.8</td>
<td>65.6</td>
<td>29.1</td>
<td>16.4</td>
<td>48.8</td>
<td>47</td>
<td>57</td>
</tr>
<tr>
<td>2017-18</td>
<td>79.9</td>
<td>65.6</td>
<td>52.7</td>
<td>54.7</td>
<td>47</td>
<td>73.9</td>
<td>67.8</td>
</tr>
<tr>
<td>District RED Targets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further, this evaluation also analysed the secondary data of available MICS rounds to comprehend the gender equity amongst provinces. Analysis of multiple rounds of MICS
highlighted that no significant gender gap amongst fully immunized children in Punjab, KP and Sindh provinces. In Punjab, fully immunization coverage in female was found 64.4% as compared to 63.85% male children, as per MICS 2018. Similarly, a consistent fully immunization coverage of 55.5% was recorded in both male and female children of Khyber Pakhtunkhwa, according to MICS (2016-17). MICS data from Sindh (2014) also indicated similar coverages of fully immunization males (43.1%) and females (43.4%). Contrary, MICS data from Balochistan (2010) highlighted gender disparity, where vaccine coverage was seen higher in females as compared to males, while ratio of children who did not receive any vaccine was recorded at 36.3% in both genders. Furthermore, the available national level gender disaggregated data of PDHSs also indicated a marginal difference in males and females, fully immunized children, where male children was observed around 5% higher than female children, from 2013 to 2018.

**Finding: Equity needs were addressed at social and demographic levels to access the services**

One of the important findings of this evaluation highlighted that there is still a need to address equity at multiple demographic and social levels in terms of accessibility, availability and affordability of immunization services. Secondary data analysis, particularly in rural-urban classification of immunization coverage also supported the issues of equity regarding demographic settlement of populations. RED/REC approach was one of the contributing factor in addressing this challenge through equitable interventions covering all urban and rural parts of the district with lowest immunization coverage. The measles-1 coverage data of urban-rural divide indicated that urban coverage was seen higher in all provinces/regions except of Punjab, where conversely a high coverage in rural population was observed (Figure 25). This could be due to the combined efforts of LHWs/IRMNCH and EPI Programmes in Punjab, aiming to enhance the human resources specifically in the rural areas, as LHWs/IRMNCH Programme in Punjab has 70% rural area coverage as compared to 30% in urban areas.

**Figure 25: Urban / Rural Measles1 Coverage from 2013 to 2018 (PDHS)**

- **Inclusion of female community health workers (LHWs as injectors) in increasing outreach coverage**
  
  LHWs Programme was integrated with the EPI Programme at the district levels and majority of LHWs and vaccinators were trained in the provision of immunization services. Punjab has
yet not allowed LHWs to perform the vaccination by themselves especially for BCG and measles. Under RED/REC strategy, the extended health houses (EHHs) were used as outreach centres for this service, where vaccinators or LHV's performed vaccinations with coordination of LHWs. LHWs Programmes is considered the backbone of the EPI Programmes and despite many challenges, it has performed well. The role of LHWs was found to be very important, as it provided a strong linkage between community and facility for healthcare service delivery. During this evaluation, its multi-dimensional role in enhancing RI coverage was seen as follows:

- For polio eradication, LHWs directly involved in immunization
- Synergized the community-based vaccination through coordination with other routine vaccines including BCG and measles
- Coordinated UC level outreach services for implementation or RED/REC strategy
- Developed community linkages for services provision in RED/REC approach
- Involved LHWs in RED/REC approach to address the gender equity for service providers as the District EPI team dominantly consists of male vaccinators
- There is wide range of coverage of LHW Programme in Punjab 70% rural and 30% urban coverage provided by this Programme

Considering the significance of outreach workers in immunization services, RED/REC strategy, trained a number of LHWs and vaccinators. The training data retrieved for both LHWs and Vaccinators from the evaluation sampled RED districts is shown in the following graphs (figure 26 & 27):

**Figure 26: Number of LHW Trained district wise**
It was pertinent to note that there were a very limited number of trained female vaccinators, in comparison to male vaccinators – an area which may need to be emphasized.

5.2.5. Sustainability
Sustainability has been assessed to measure whether the benefits of the Strategy are likely to continue after donor funding has been withdrawn. RED/REC strategy inherently designed to channelize the member state resources and international donors funding to redirect the EPI interventions to improve the immunization coverage in demographically scattered and socially and economically marginalized populations.

Finding: Government’s acceptability is evident as RED/REC Strategy is being institutionalized and scaled up by Provincial Governments through adoption of its five components within non-intervention districts
Strategic level stakeholders at federal, provincial and district levels were of the view that RED/REC approach helped to reorganize the government resources, redirecting and focusing on improving the accessibility of immunization services within hard to reach, marginalized and the underserved populations. All the provincial governments adopted RED/REC approach in the selected 56 districts from all the provinces and regions, including 7 districts from Punjab, 5 from
Sindh, 6 from Balochistan, 32 from Khyber Pakhtunkhwa and 3 each from AJK and GB) of Pakistan, but later on the provinces/regions took the ownership of all implementation modalities under the RED/REC approach. The reasons for scaling up in the provinces highlighted their own commitment and ownership for strengthening of their routine immunizing services, increasing coverage due to consistent reporting of polio cases and measles outbreaks in the various provinces. Provincial governments have wider coverage of LHWs Programme for family planning, PHC and the staff was already engaged for improvement of RI, polio eradication and measles elimination programmes. Governments have strong network of outreach and health facility up to Union Council (UC) levels, already working under district EPI Programmes. RED/REC strategy utilized the existing network of EPI Programmes, aiming to strengthen their capacity. Further, all 5 pillars of RED/REC strategy were implemented, within the scope of resources and the targets of the provincial governments, to ensure instutionalization of the strategy. According to a senior UNICEF official, “The involvement of community is aimed to develop ownership of the strategy, in the local community and also as an accountability measure. The representation of community and its mandate can be decided after rigorous thought processes in the coordination meetings”.

Another significant finding regarding sustainability of the RED/REC approach highlighted by stakeholders is that RED/REC approach was fully embedded in the pivot of the EPI Programme, sharing the objectives of RI coverage in the districts and provinces for prevention of vaccine preventable disease. These programmes utilized their own provincial and district management, infrastructures, logistics and human resources, both the network of primary, secondary and tertiary level health facilities and LHW Programmes for accessing community dwellings with effective linkages. International development partners UNICEF, WHO and other development partners provided technical support in terms of trainings, capacity building, institutionalization of the data monitoring systems and financial support for supplies and to some extent for logistics. It has been learnt from the evaluation that UNICEF ensured full support for the technical assistance, training and capacity buildings initially in the RED/REC districts and later on for institutionalization and strengthening of interventions in all districts. Following are the key points indicating the sustainability of strategy:

- Established warehouses and cold stores at district level and developed strategies at divisional levels
- Provided vaccines, vaccination cards, data reporting checklists and monitoring tools to the districts and at divisional levels for availability of supplies
- Provided furniture, laptops and equipment etc. for strengthening of management and administration
- Engaged 14 trained RED consultants to provide technical support for micro-planning and E-data management
- Conducted training of LHWs as injectors, considering its an invasive process (six months trainings including class room and field work)
- Provided vaccines carriers and special vaccine storage bags by UNICEF in the past and now these are provided by the Polio Programme
- Facilitated and contributed in operational cost to provide transport services during the window periods, when the government budgets were delayed
- Monitored the RED UC level micro-plans after the inception up to 2016-17, especially in Balochistan and FATA, which were later handed over to EPI Programme
Analysis found that community liaison was the weaker link in the sustainability model. The findings of FGDs with beneficiaries and the services providers revealed a limited role of local NGOs and Community based CSOs in this regard, for awareness raising and establishing the effective community linkages. Although LHWs played their role for counseling and motivation of the community, none-the less there felt a need of local organization involvement. According to stakeholders, local organizations were not fully engaged to minimize the social barriers especially in the sensitive and security risk areas.

Finding: UNICEF is fully supportive of Government in operationalization of RED/REC Strategy
The record review of the inception and subsequent monitoring of the RED/REC implementation in provinces/regions during 2014 to 2017 indicated that UNICEF had fully supported RED/REC interventions. UNICEF extensively engaged with provincial and district level stakeholders to ensure smooth implementation of all components of RED/REC approach within districts. Activities regarding RED/REC support by UNICEF Pakistan validated from record are enlisted:

Table 12: UNICEF coordination and assistance to RED/REC explored from Documents

<table>
<thead>
<tr>
<th>Sr.#</th>
<th>Detail and modalities of the UNICEF Support for RED/REC Interventions</th>
<th>Available deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>UNICEF provided technical and financial support to Provincial EPI units for analysis of EPI coverage data and other related data sets in identifying the areas with highest level of inequities</td>
<td>TORs available</td>
</tr>
<tr>
<td>2.</td>
<td>In consultation with the EPI Unit, identified the strategies for addressing the inequities, developing Equity Improvement Plan (EIP) for monitoring the implementation of EIP in field and recommended mid-course corrective measures</td>
<td>TOR available</td>
</tr>
<tr>
<td>3.</td>
<td>Mapping of the districts were done to categorize immunization coverage performance of all districts of Balochistan and helped in selection of RED/RED districts</td>
<td>TOT agenda and training material</td>
</tr>
<tr>
<td>4.</td>
<td>Engaged DOH offices and District EPI Coordinators in the RED/REC districts</td>
<td>Minutes of meetings</td>
</tr>
<tr>
<td>5.</td>
<td>Engaged DOH offices in Sindh for identification and selection of RED districts on the basis of RI coverage performance</td>
<td>Minutes of meeting and notification</td>
</tr>
<tr>
<td>6.</td>
<td>Provided guideline and training provided for National Immunization Programme</td>
<td>Training Guideline</td>
</tr>
<tr>
<td>7.</td>
<td>Situation analysis reports were developed for all RED/REC districts</td>
<td>Deliverables of Balochistan</td>
</tr>
<tr>
<td>8.</td>
<td>Developed new RED format tools for monitoring UC level coverage for micro-plans</td>
<td>Report format</td>
</tr>
<tr>
<td>9.</td>
<td>Documentary evidence supported that UNICEF conducted TOTs at provincial levels and provided assistance to the District Coordinators of EPI Programmes</td>
<td>TOR for DC EPI</td>
</tr>
<tr>
<td>10.</td>
<td>Compiled UC level mapping in the RED/REC districts of KP showing consolidated UC level immunization coverage for women and children</td>
<td>Consolidated mapping Excel sheets</td>
</tr>
<tr>
<td>11.</td>
<td>Developed and monitored UC level micro-plan on monthly</td>
<td>UC monthly</td>
</tr>
</tbody>
</table>
Finding: Enabling Factors and Drivers effecting sustainability of Strategy

As mentioned in previous sections of the findings, there were multiple internal and external factors influencing the sustainability of the RED/REC strategy for effective implementation and improvement of RI coverage to the desired targets of 80% at district level and 90% at national level. The internal factors are inherently embedded in the government owned provincial/regional EPI Programmes, which are practically hosting RED/REC strategy. The external factors are associated with environment of the international donor support and their dependency. The philosophy of ‘support’ may lead to positive and negative outcomes on the delivery systems. The positive outcome of the support is the sustainability and negative outcome of the support is the dependency therefore it is the capacity of the internal system to create a critical balance between sustainability and the dependency. Overall the analysis highlighted the following enabling factors, both positive and negative of sustainability:

Table 13: Key internal drivers of the sustainability

<table>
<thead>
<tr>
<th>Positive Driver of Sustainability</th>
<th>Negative Drivers of Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Government owned and managed EPI Programmes, already engaged for improvement of RI coverage</td>
<td>• Postings, transfer policies are not consistent leading to human resources deficiency</td>
</tr>
<tr>
<td>• Provincial governments financed all the services from their own budgets</td>
<td>• Traditional gender norms have not been strongly enough challenged through the RED/REC strategy</td>
</tr>
<tr>
<td>• Along with EPI Programme, government has integrated health care delivery system network of facilities at primary, secondary and tertiary levels and up to the UC levels</td>
<td>• Managerial issues related to deployment, filling of vacant positions and maintenance of disciplines</td>
</tr>
<tr>
<td>• Provincial governments have community based healthcare network with wide coverage in all provinces, synergizing immunization activities at community level.</td>
<td>• Service delivery problems especially at the outreach services lacked transport and supplies</td>
</tr>
<tr>
<td>• Under 18th constitutional amendment, health services are devolved, and provinces and districts can prioritize their health issue according to local needs</td>
<td>• One line budgeting and untimely release of budget lead to interruptions in service delivery</td>
</tr>
<tr>
<td>• There is high level political commitment to strengthen immunization and eradicate</td>
<td>• Ownership of RED/REC approach not clearly defined and there was non-availability of strategy documents, targets or progress reports</td>
</tr>
<tr>
<td></td>
<td>• Lack of generation of valid data, its</td>
</tr>
</tbody>
</table>
polio in line with the end-game strategy
- There is a potential for engagement of local community based organization for establishment of community linkages with service delivery
- Potential local community based organizations are not patronized by government to create effective linkage between service delivery and community.
- Supervisory system is deteriorated with behaviour and attitudes of human resources in response to donor support.

<table>
<thead>
<tr>
<th>External Drivers of Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination and technical support of development partners and international agencies</td>
</tr>
<tr>
<td>Political commitments priority of resources for immunization coverage</td>
</tr>
<tr>
<td>Political interference in the human resource and service delivery management</td>
</tr>
<tr>
<td>Population settlement and scattering</td>
</tr>
<tr>
<td>Modes of communication and transport</td>
</tr>
<tr>
<td>Social barriers for establishing community linkage</td>
</tr>
<tr>
<td>Security and the working environment for service deliver and outreach services</td>
</tr>
</tbody>
</table>

**Finding: RED/REC component of supportive supervision and e-monitoring has strengthened M&E capacity of the government**

UNICEF data of the engagement of supervisors indicated that one of the key pillars of the RED/REC approach was M&E. UNICEF provided technical assistance in this regard and provided trainings to the supervisors, guidelines and tools for monitoring, supportive supervision to ensure effective implementation of RED/REC interventions. Although this intervention has strengthened M&E capacity of the government but this remained an area where uniformity of data and its utilization still required more emphasis. Data of the district EPI Programmes indicated that updated immunization coverage charts were displayed in above 90% and EPI supervisory monitoring checklists in 80% of the sampled RED/REC districts. On the other hand, district level social maps were found available in 58% of the districts. According to a WHO official, “**Government ownership, capacity building of EPI staff and improvement in the monitoring system is required to scale up RED/REC**”.

**Finding: Consistent focus and financial support to supervisors is a challenge for the government in sustaining the RED/REC strategy**

Analysis revealed that there was marked improvement in overall provincial and regional level routine immunization coverage, reducing the gaps in gender and social equity. After the commencement of RED/REC strategy, UNICEF provided technical and financial support for strengthening of RI services, focusing on the role of supervisors. UNICEF conducted regular monitoring of the supervisors till 2016, and later on the monitoring was weaned off to the respective District EPI Programmes, as a part of sustainability, evident from UNICEF monitoring reports. Tracking of evaluation data for district computerized plans and UC-level micro-plans indicated that adherence to E-monitoring was geared up since 2017-18 but then dropped down in 2019. It showed that adherence to micro-planning and E-monitoring system did not remain consistent, after the monitoring was weaned off by UNICEF to the provincial and district governments, which made this situation more challenging. This altogether showed that for sustainability of the Programme, government will need to strengthen their inherent systems of monitoring and supervision, outreach services, use of data for action and strengthen community
linkages with its own resources. Member of Civil Society Organization stated, “Incentives in form of POL should be given to vaccinators for outreach session and social mobilization needs to be improved for community engagement.”

SECTION E: CONCLUSION & LESSONS LEARNED

6. Conclusions

Political will and commitment were evident from the stress drawn on vaccinating every child in Pakistan’s National Health Vision as well as provincial health policies and sector strategies. Willingness of government institutions, federal and provincial was evident from their ownership of RED/REC strategy. Social mapping and integrated micro-planning in the RED/REC implementing districts led to an increase in immunization coverage especially in hard-to-reach areas. Catchment area maps were available in majority of the health facilities with details about population size, schools and mosques. The RED/REC strategy helped to build monitoring and supervisory capacities of EPI health managers and other relevant staff, along with increased reporting through supervisory logbooks for more efficient recording and reporting. The majority of districts included supervision in their annual work plans. However, only about a third of districts reported receiving supervision visits from national level officials in the preceding three months. Supervisory checklists were commonly used. District stakeholders reported providing immediate verbal feedback more often than documenting written supervisory feedback, while follow-up on recommendations was given even less attention. Furthermore, trainings and managerial capacity gaps existed due to staff turnover, transfers, postings and lack of refresher trainings.

Immunization service delivery component had been strengthened in RED/REC intervention districts through involvement of LHWs and other paramedical staff and community volunteers. Vaccinators were able to reach remote areas through provision of outreach vaccine carriers and POL. The community component was found to be among the weakest RED components in most areas, where there delink between community and service delivery. Dearth of engagement of local CSOs and community influencers in addressing cultural, social and gender barriers and equity related to immunization was observed. Few provinces recognized the mandated role of community volunteers in reporting, defaulter tracking and coordinating outreach sessions in accordance to the RED/REC approach. In efforts to institutionalize the monitoring for EPI services under RED/REC, Electronic Monitoring System and use of monitoring tools were introduced along with validation of data gathered from vaccinators and LHWs, however this component remained deficient and use of data was not consistent and uniform. Results from evaluation revealed that RED/REC approach, although is an effective tool for addressing immunization coverage in implementing districts, there is a need to integrate the Strategy using the systems approach.

Lessons learnt from its implementation in intervention districts needs to be replicated to scale up of this strategy throughout Pakistan in districts, which are low-performing. The lessons learnt from best practices in the intervention districts should be replicated in other provinces and regions of Pakistan through knowledge management.
Conclusions drawn from findings against each evaluation criteria are as follows:

**Relevance**
It is found that the objectives of RED/REC strategy were a priority in national and provincial EPI policies, designed to cater to the needs of marginalized and vulnerable communities. There was high uptake of routine immunization activities across all levels of government along with institutionalization in the EPI. It is key to note that the high coverage in low performing districts cannot be solely attributed to the RED/REC approach, rather, it is one of the major factors within overarching national and provincial policies.

**Effectiveness**
It was found that equity underpinned the implementation of the strategy, particularly in addressing gender gaps. This was achieved through gender-segregated data and reporting, and the inclusion of female vaccinators in service delivery, including LHWs. The strategy was mostly effective in accessing hard-to-reach areas and under-served populations, partly due to the careful selection of intervention districts, and secondly, due to the use of social mapping and detailed micro-planning exercises. The evaluation further found evidence that microplans were prevalent at the lowest operational level (UCs). On the flip side, effectiveness was hampered by lack of uniformity in the use of E-monitoring and therefore limited use of evidence in decision-making and course correction. While the strategy proved to be effective in intervention districts, non-intervention districts are losing out from the benefits of the RED/REC approach. Overall, the strategy has proved to be effective, yet many lessons have been learned to increase its impact that will be discussed in the subsequent section.

**Efficiency**
The strategy proved to be relatively efficient in terms of optimum use of inputs to achieve outputs. Updated micro-planning and adherence to plans was instrumental to efficient access to vulnerable populations. However, it is key to note their use as well as efficiency in general varied across districts. Overall, the strategy was able to enhance outreach services, improve micro-planning at lowest operational level and strengthen capacities and competencies, all of which contribute in improving coverage of routine immunization.

**Impact (Long-term outcomes)**
The strategy resulted in a mixed bag of positive and negative long-term effects, which can further be categorized as either intended or unintended. Most importantly, the strategy was able to target some key equity gaps across demographics and socioeconomic circumstances, which could be further enhanced with a more efficient M&E mechanism, more community engagement and social mobilization.

**Sustainability**
The sustainability of the strategy was evident from the government’s willingness towards institutionalization and scale-up, as evidenced by the adoption of the strategy’s five components within non-intervention districts. There is an anticipated risk of this willingness to reduce once financial support diminishes.

Furthermore, the most effective and sustainable intervention of the Strategy was the impactful role of RED/REC approach in building capacities of DSVs, ASVs, LHWs and vaccinators, however the low emphasis of the approach in training the female vaccinators reflect negatively, which
needs to be further emphasized. This would be particularly pivotal in addressing resistance being faced in ensuring inclusion of LHWs as vaccinators. Where there was many positive spill-over effect of the strategy including province-wide micro-planning and trainings of provincial level EPI managers and staff, non-intervention districts may be losing out on benefits given in intervention districts (e.g. supervision support). Social accountability in the current strategy seemed missing despite the importance given in the five components of the Strategy.

6.1. Lessons Learnt

- **Political will and commitment**
The successful implementation of the strategy would not have been possible without political will and commitment – particularly at the highest levels. Therefore, the organisation of high-level forums chaired by Chief Executives of the country (PM) and provinces (CMs) is essential to effectiveness, scale-up and continuity.

- **Clarity in roles & responsibilities**
A lesson learned was that where there is an absence of defined accountabilities, implementation suffers. Critically, the more the strategic level harmony between federal and provinces the better the overall implementation. Multiple stakeholders, including government and development partners are engaged within the RI programme, but without clearly demarcated and defined roles and mandates – a matter that needs to be rectified for increased efficiency.

- **Deficient social mobilization activities**
The push tends to be towards the supply side and less so on the demand side. This reflects inadequacies in social mobilisation efforts that form the basis of the fourth lesson for the strategy.

- **Lagging Supervisory component**
Inconsistent and non-uniform system of disseminating monitoring and assessment reports among the districts, provinces and federal governments hampered the system that could ensure reward and accountability of good and poor performing staff - this will need to be rectified in future programming.

- **Policies for engaging LHWs**
There was resistance by LHW vaccinator, negatively impacting the RED/REC approach. The evaluation found that this was due to the increased workload of the frontline workers and apprehensions of the health managers as well as community. The lesson learned here was that either incentives for the existing cadres or use of other cadres will have to be considered in the future and strong advocacy and social mobilization will have to be adopted.

- **Disproportionate number of women vaccinators**
Gender disparities remained an issue in implementation. It was learned that this is due to the disparities between male and female vaccinators – not just in terms of numbers, but in terms of the placements. Therefore, planners will have to be more strategic in recruitment and mobilisation of female vaccinators to address gender equity and social acceptability.

- **Utility of micro-planning**
The use of micro-plans has been periodically mentioned in this report for the sole reason that it has proved to be very effective in reaching the most marginalised and hard-to-reach populations. This practice must be continued and further enhanced uniformly across all target districts.
- Lack of synergy
  There was seen to be inadequate synergy of RI activities with other public health initiatives such as PEI. It is believed that more integration will maximise benefits and help to optimise use of resources.

- Knowledge management mechanisms
  Scale-up and replication of the strategy across intervention and non-intervention districts is being impeded by absence of a knowledge management mechanism. First, districts tend to repeat the mistakes of other districts, which can be avoided through increase knowledge sharing. Second, since the roll-out in 2011 to date there have been changes in personnel and restructuring in many cases. In the case of such transitions, the continuity of the RED/REC approach can benefit from a knowledge management mechanism.
SECTION F: RECOMMENDATIONS

7. Recommendations

It is key to mention that all the stakeholders and respondents of primary evaluation contributed in development of the ToC and consequent recommendations. Guides used for key informant interviews and focus group discussion included sub-sections on the respondents’ perspective on bringing improvement in the strategy. In addition to these respondents, government stakeholders, UNICEF Immunization officers and Research and Evaluation Unit team all provided valuable inputs in identifying and refining the recommendations.

Based on the key findings and recommendations to achieve the desired outcomes of UNICEF RED/REC strategy, a ToC (Figure 3) was proposed and tested for this evaluation. All the stages of the ToC were unpacked in the form of a recommendation matrix that links each RED/REC component with recommendations and proposed actions in a linear manner. It further divides all recommendations into short, medium and long-term actions according to the stipulated timelines for their implementation. Further discussions would need to be undertaken by UNICEF and government counterparts for translating the finalized recommendations into an implementable action plan. A policy brief has been developed in consultation with key stakeholders for dissemination and better utilization of evaluation results.

Evidence-based policy advocacy on gaining political and administrative commitment are needed to support equity agenda of RED/REC Strategy. Following are the recommendations under each of the five components of the strategy to achieve universal coverage of immunization across country:

1. Re-establishing outreach services
   - Effective target setting for identification of high-risk communities and establishing extended health houses (EHH)/kit stations with increased visibility to enhance utilization of immunization services
   - Promoting engagement of other cadres, particularly female vaccinators in RI service delivery
   - Improving methods and means to analyse progress and coverage achieved through outreach – addressing challenges for resource allocation
   - Engaging communities and establishing coordination platforms for enhancing ownership and outreach services

2. Supportive Supervision
   - Capitalizing on the existing supervisory structure of superintendent vaccination and benefit from implementing integrated supportive-supervision as a key standard
   - Building competencies and supervisory skills, and promoting constructive feedback for improved performance and regularity

3. Linking services with community
   - Strengthening and enhancing role of community-based organizations (CBOs/CSOs), by augmenting social mobilization activities with a key focus on re-establishing linkages of communities (from remote rural, urban and conflict) with facility-based immunization services
   - Re-vitalizing the network of Community Volunteers, in reaching-out to the most marginalized and underserved populations

4. Monitoring and use of data for action
• Integrating monitoring platforms, and improving quality and use of reliable immunization data at all levels for action, using IT and mobile technology

5. Planning & management of resources

• Taking an integrated approach to avoid duplication of efforts and enhancing RI coverage with facility & community based planning of available resources
• Ensuring availability of appropriate number of EPI staff especially female vaccinators and additional community-based vaccinators (e.g. LHWs) as per need of micro-plans
• Scaling up RED/REC strategy, as a standard in routine immunization programme intervention at District and Sub-district levels.

Based on the findings of the evaluation, following are the prioritized strategic recommendations along with timelines\(^1\) and roles/responsibilities to provide way forward to the government and UNICEF for future implementation of RED/REC strategy:

\(^1\) Short term ≤ 1 year, Medium term 1-3 years and Long term, 3-5 years
## Prioritized Strategic Recommendations Matrix

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Proposed Actions</th>
<th>Timelines (Short, Medium, Long-term)</th>
<th>Primary &amp; Secondary Responsibility</th>
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<tbody>
<tr>
<td>RE-ESTABLISHING OUTREACH SERVICES</td>
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| Effective target setting for identification of high-risk communities and establishing extended health houses (EHH)/kit stations | - Evidence-based identification of high-risk communities and missing/defaulter/unreached children for target setting, utilizing most recent census, PEI data or periodic evaluations  
- Conducting periodic assessments for rolling target setting to address equity  
- Regular refreshers of EPI frontline/outreach workers on social mapping and target setting  
- Establishing EHH/kit stations through uniform selection criteria based on performance indicators (utilization/coverage indicators) | Short to Medium Term                  | Provincial & District EPI UNICEF WHO/partners PEI EPI frontline workers |
| Promoting engagement of other cadres in RI service delivery                     | - Enhancing coverage through engagement of paramedical cadre involved in curative care e.g. LHV and CMW in routine immunization  
- Addressing apprehensions regarding LHWs role as injectors at community level through extensive social mobilization activities | Medium Term                           | LHV and District Health Departments including EPI, IRMNCH/LHW programmes |
| Increasing visibility of Kit stations/EHH to enhance utilization of immunization services | - Engaging community for placement of EHH in a prominent place, ensuring easy access and acceptability of all communities especially those most marginalized.  
- Developing and providing Banners, Display Boards and IEC Material for increasing visibility of EHH and Kit Stations  
- Ensuring display of vaccinator Plan on prominent | Short Term                            | LHV/CMW/LHW CSOs/NGOs for social mobilization                           |
### RE-ESTABLISHING OUTREACH SERVICES

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| Improving methods and means to analyze progress and coverage achieved through outreach – addressing challenges for resource allocation | • Assuring delineated monitoring and reporting of number of vaccinations given at outreach sessions, mobile sessions versus fixed sessions to improve planning of resources  
• Maintaining records of planned versus actual outreach sessions at all levels to be able to determine/allocate resources (e.g., transport, fuel, human resources, etc.) effectively | Short Term      | Provincial/District EPI                                        |
| Engaging communities and establishing coordination platforms for enhancing ownership and outreach | • Enhancing community engagement in micro-planning, selection, preparing sites for outreach sessions and scheduling of outreach sessions  
• Fostering forums like DHPMT and strengthening linkages of health facilities with community through regular meetings to seek support in outreach activities | Short to Medium Term | Provincial and District Health Departments including EPI, IRMNCH/LHW Programmes |

### SUPPORTIVE SUPERVISION

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| Capitalizing on the existing supervisory structure of superintendent vaccination and benefit from | • Utilizing an integrated checklist for supervision of facilities, making it an engrained feature of district level planning  
• Ensuring allocation of budgets for supervisory staff for mobilization, regular supervisory visits and activities within district planning | Medium Term      | Provincial and District Health Departments including EPI, IRMNCH/LH |

**UNICEF/WHO/Partners**

CSOs/NGOs for social mobilization  
Community Influential DHPMTs & health committees

**UNICEF/WHO/Partners**

Provincial & District Finance and P&D departments
**SUPPORTIVE SUPERVISION**

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| implementing integrated supportive supervision as a key standard              | • Emphasizing and strengthening the role of DSVs, TSVs and ASVs within the supervisory structure  
• Filling up of vacant positions of superintendents vaccination in all target districts, maintaining a critical mass at all times | **Short, Medium, Long-term** | W Programme                        |
| Building competencies and supervisory skills, particularly in use of IT of supervisory staff | • Conducting capacity building and refreshers of supervisory staff including DSVs, TSVs and ASVs on supervisory and leadership skills  
• Determining clear objectives and standards for supportive supervision and providing on-the-job trainings of supervisory managers on the same to fill observed gaps.  
• Recruiting and inducting supervisory staff having ability to utilize IT tools at district, tehsil and UC level | **Medium to Long Term** | Provincial and District EPI        |
| Promoting constructive feedback for improved performance and regularity        | • Maintaining uniformity of supervisory visits and ensuring consistent feedback (both written and verbal) to record observations, weaknesses identified and suggestions for improvement  
• Assuring regular follow-up on recommendations during periodic review meetings | **Short Term** | UNICEF/WHO/Partners                |

**LINKING SERVICES WITH COMMUNITY**

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<tr>
<td>Augmenting social mobilization</td>
<td>• Scaling up of C4D activities with focus on demand creation through intensified community</td>
<td><strong>Short Term</strong></td>
<td>UNICEF/WHO/Partners</td>
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### LINKING SERVICES WITH COMMUNITY

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| activities with a key focus on re-establishing linkages of communities (from remote rural, urban and conflict) with facility-based immunization services | - involvement  
  - Informing and involving the communities in service delivery through engagement of community influential (imams, political representatives, elders, teachers etc.) volunteers, local government/municipal assemblies and Health committees/sub-committees  
  - Re-vitalizing Village Health Committees (VHCs) and enhancing their role in community based immunization services through LHWs  
  - Conducting sensitization sessions with school teachers, religious leaders and community notables  
  - Grounding changes in immunization service policies on basis of communities' opinions and acceptance | - Provincial and District EPI, IRMNCH, LHW Programme  
 - EPI Frontline workers & Community Health Workers  
 - CSOs/CBOs & Local Support organizations and village organizations | |

| Re-vitalizing the Community Volunteers network in reaching out to the most marginalized and underserved population | - Establishing/re-vitalizing community volunteers network at district level with participation of community volunteers from most marginalized communities  
 - Creating linkages of community volunteers with districts EPI teams, community health systems and health facilities, engaging them in health education/promotion, social mobilization, defaulter tracking/tracking, addressing missed opportunities and birth registration | - Short Term  
 - Medium Term | - Provincial and District Health Departments including EPI, IRMNCH/LHW Programme  
 - UNICEF/WHO/Partners  
 - Provincial & District Finance and P&D departments  
 - Community Volunteers |
## LINKING SERVICES WITH COMMUNITY

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<td>• Ensuring inclusion of budget for community activities (Community volunteers’ incentives like training and transportation reimbursement) in PC-1/district budgets</td>
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## MONITORING AND USE OF DATA FOR ACTION

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| Integrating monitoring platforms for enhanced use of data for action            | • Increasing interoperability of MISs like EPI MISs with E-vacc, DHIS, Disease Surveillance systems other health related interventions at PHC level for effective monitoring  
 • Establishing fast-track reporting platforms for sharing and use of integrated information e.g. in case of VPD cases/outbreaks to Districts Disease Surveillance & Response Units (DDSRUs)  
 • Enhancing role of PEI or other health teams in integrated monitoring through involvement in periodic rapid assessments and joint session monitoring | Medium Term       | UNICEF/WHO/Partners                
 Provincial IT Boards               
 Provincial and District Health Department including EPI  |
| Improving the quality, availability and use of reliable immunization data at all levels | • Training of provincial and district level managers on enhancing analytical skills, data interpretation skills, use of information and evidence-based decision making  
 • Conducting data quality self-assessment exercises and periodic rapid coverage assessments (using techniques like LQAS) for correct calculation of denominators of | Short to Medium Term | UNICEF/WHO/Partners                
 Provincial and District EPI               
 District Health Managers Third Party Evaluations organizations |
### MONITORING AND USE OF DATA FOR ACTION

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|                 | Immunization coverage and for realistic estimation of vaccine needs  
|                 | - Rigorous training of RI staff on methodology of conducting these assessments  
|                 | - Training of outreach, facility and district level staff relevant to recording and reporting on data quality  
|                 | - Encouraging external Third-party monitoring (e.g. Coverage Evaluation Survey using standard WHO thirty cluster methodology) for validation against reported coverage every 3 years |                                      |                                    |

### PLANNING & MANAGEMENT OF RESOURCES

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<tr>
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| Taking an integrated approach to avoid duplication of efforts and enhancing immunization coverage | - Setting up a robust accountability mechanism to keep check and balance at all levels  
|                 | - Developing a Joint Accountability framework for RI with defined roles and responsibilities (of all partners involved in implementation), timelines and actions  
|                 | - Strengthening of monitoring & accountability mechanism to ensure the effective & efficient planning and utilization of resources  
|                 | - Integration of vLMIS with MIS/information systems (EPI, LHW)  
|                 | - Integration of EPI with maternal, child survival programmes | Short to Medium Term | UNICEF/WHO/Provincial Health Managers & Frontline workers & IRMNCH/LHWs Programmes |

**UNICEF/WHO/Partners**
- Provincial and District Health Department including EPI
# PLANNING & MANAGEMENT OF RESOURCES

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| PLANNING & MANAGEMENT OF RESOURCES | and nutrition programme interventions  
• Utilizing polio assets to strengthen routine immunization activities  
  o Exploring opportunities to synergize RI activities with RI through adopting PEI-RI synergy model in REC/REC intervention districts across all provinces  
  o Nominating a District level EPI Focal Point and PEI-RI Task force for coordination of both PEI and RI activities | **Primary & Secondary Responsibility** | **Federal/Provincial and District Health Departments including EPI** |

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<tr>
<th></th>
<th><strong>Expected Outcomes</strong></th>
<th><strong>Timelines</strong></th>
<th><strong>Primary &amp; Secondary Responsibility</strong></th>
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| Ensuring availability of appropriate number of EPI staff especially vaccinators and additional community-based vaccinators as per need of micro-plans | • Increasing the number of EPI vaccinators (in accordance with National EPI Policy) proportionally on need-basis  
  o Rationalizing the placement of EPI vaccinators within districts with proportionate clustering in rural, urban and most marginalized settings  
  o According to programme intervention based on 4 scenarios: Areas-1: Where only vaccinators working, Area-2: Where both LHWs & Vaccinators are working, Area-3: Where only LHWs working with limited/No vaccinators and Area-4: where neither Vaccinators or LHWs are working.  
  • Developing a deployment strategy and induction plan for cohorts of vaccinators, replacing those who are retiring or have retired  
  • Enhancing EPI workforce through | **Medium to Long Term** | **UNICEF/WHO/partners**  
**Provincial & District Finance and P&D departments**  
**DSVs, TSVs, ASVs and frontline staff** |
## PLANNING & MANAGEMENT OF RESOURCES

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<tr>
<td></td>
<td>o Recruiting new vaccinators</td>
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<td>o Integrating multiple health professionals in immunization service delivery;</td>
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<td></td>
<td>o Hiring technical, managerial staff</td>
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<td>o Seeking short term technical assistance</td>
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<td>Scaling up RED/REC Strategy as a standard in RI programme intervention at district/sub-district level</td>
<td>• Evidence-based policy advocacy - enhancement of geographic coverage of the interventions within the EPI programmes</td>
<td>Long Term</td>
<td>UNICEF/WHO/partners</td>
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<td>• Sharing of lessons learnt, findings of evaluations as evidence</td>
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<td>Federal/Provincial and District Health Departments including EPI</td>
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**Dissemination**

The report has been shared with all key stakeholders and UNICEF programme teams. Their inputs and feedback has been incorporated. A wider dissemination is planned by UNICEF where evaluation team will present key findings. A policy brief (attached as Annex 12) was developed and shared with key stakeholders for better utilization of findings and dissemination of key recommendations of the report.
References


Horn, C. M. (2007). Childhood immunizations in four districts in rural Pakistan: a comparison of immunization uptake across study years (1994 and 1997) and an analysis of correlates. College of Graduate Studies and Research


Annexures

Annex 1: Terms of Reference (TORs)
Annex 2: Evaluation matrix
Annex 3: List of interviewees
Annex 4: Evaluation Team Composition
Annex 5: Approved Data Collection Tools
Annex 6: Training Report
Annex 7: Field Micro-plans
Annex 8: List of documentary evidence (pictures)
Annex 9: Ethical clearance form
Annex 10: Informed Consent Forms
Annex 11: Risk Register
Annex 12: Policy Brief

Annex 1-12 are provided in separate file