



Report

Profiling of Slums and Underserved Areas of
Peshawar City of Khyber Pakhtunkhwa
Province of Pakistan
July 2020



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Abbreviations

BCG	Bacille Calmette-Guérin
BISP	Benazir Income Support Programme
CBV	Community Based Vaccinator
CHIP	Civil Society Human and Institutional Development Programme
CI	Confidence Interval
CID	Converted Identity
CNIC	Computerized National Identity Card
CSO	Civil Society Organization
DEFF	Design Effect
EPI	Extended Programme of Immunization
ESS	Effective Sample Size
GI	Gastrointestinal
GIS	Geographic Information System
Hep B	Hepatitis B
Hib	Haemophilus Influenza Type B
ILR	Ice-Lined Refrigerator
KM	Kilometre
KP	Khyber Pakhtunkhwa
KPHS	Khyber Pakhtunkhwa Health Survey
LHV	Lady Health Visitor
LHW	Lady Health Worker
MDGs	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MNCH	Maternal, Newborn and Child Health
MPI	Multidimensional Poverty Index
OPV	Oral Poliovirus Vaccines
PCV	Pneumococcal Conjugate Vaccine
PSLM	Pakistan Social and Living Standards Measurement
SDGs	Sustainable Development Goals
STATA	South Texas Art Therapy Association
SOP	Standard Operating Procedure
SPSS	Statistical Package for the Social Sciences
TB	Tuberculosis
TDP	Temporary Displaced Person
UC	Union Council
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
UNDP	United Nations Development Programme
UN-HABITAT	United Nations Human Settlements Programme
UNHCR	United Nations High Commissioner for Refugees
WASH	Water and Sanitation and Hygiene
WCBA	Women of Childbearing Age
WHO	World Health Organization



Executive Summary

Health is one of the primary rights of Humans as defined by one of the Sustainable Development Goals (SDGs) of the United Nations (UN), “Goal – 3 Good Health and Well-being: To ensure healthy living and promote well-being for all at all ages.” Pakistan as one of the member states of the UN has committed to achieve SDGs by 2030. The efforts so far have been satisfied with some successes and failures, and lessons learned from the performance on Millennium Development Goals (MDGs). Pakistan is focusing on bringing continuous improvements in the health sector through reforms and policies entailing towards collaborative mechanisms by involving international, national, and provincial stakeholders.

The objective of this report is to provide data sets for the population living in slums and, health facilities available, the status of EPI facilities, and the status of vaccination coverage among children residing in slums/underserved areas of Peshawar. It will, further, contribute towards improved policy-making and setting up better public services and health facility programs for the marginalized communities of the province. The data collected for this report was a multi-collaborative effort between UNICEF, UNICEF field office Peshawar, and Provincial EPI cell. The idea behind the collaborative effort was to make the process more participatory and engage the community for a community-driven perspective.

The report is divided into six chapters, where the first chapter introduces the demographics of Khyber Pakhtunkhwa with specific focus on Peshawar with their status of health and EPI. Also, it gives the status of basic facilities and challenges faced by the city due to a lack of resources, funds, and urban-rural divide. The second chapter details the methodology. The third chapter presents the profile of the slums/underserved areas, the status of health resources, availability of infrastructure, and social welfare services.

The results of the study give a bleak picture, where more than half the population of Peshawar lives in slums/underserved areas, indicating to unplanned city growth with vulnerable conditions. With the estimate of a total population count of 1.97 million, approximately 76% (1.5 million) live in slums/underserved areas. More than half of the slums/underserved areas do not have any solid waste disposal system or have inadequate waste disposal system. This, further, hampers the environment conditions and leads the communities towards poor hygiene conditions exposing them to health hazards. In terms of education facilities in slums/underserved areas, the schools are constructed in slums, but they are at a far-off distance from majority, resulting in fewer enrolments, while few slums do not have any kind of schools. Further, no services of Civil Society Organisations (CSOs) were found in almost all the slums and underserved areas.

Chapter four provides an insight into deplorable infrastructure of health facilities and resources available at the Union Council (UC) level. This chapter highlight key gaps of health and EPI facilities and resources. The fifth chapter assesses the physical infrastructure of EPI facilities located in and around slums/underserved areas. Furthermore, EPI facilities do not have a drinking water facility, no toilets, SOPs are not available, whereas, often some of these facilities operate for less than 6 hours a day. The sixth chapter gives the status of vaccination coverage among children living in slums/underserved areas. The data highlights that various factors hinder the family to get their children vaccinated, like, mother's education, permission from family, distant health facility, misconceptions regarding vaccination, etc.

The report wraps up by highlighting the major findings and recommendations for improving the health conditions in the slums/underserved areas of Peshawar. The report concludes that in most areas' residents are living in vulnerability. The housing structures are weak, lack of safe sanitation, and drinking water. Liquid and solid waste management services are unavailable where chances of disease outbreaks are very high. Realistic micro planning of vaccinators, Community Based Vaccinator (CBV) and LHWs is extremely important for generating demand for health and EPI services. The overall profiles of slums/underserved areas demand an integrated service delivery model and robust mechanisms by government to address the issues holistically and in a coordinated manner.

Box 1

Key Highlights

Childhood Immunization

1. 46% children living in slums/underserved areas are unimmunized or under immunized

Health Facilities

2. 18% UCs do not have public healthcare facilities where 528 slums/underserved areas are located
3. Lady Health Workers (LHWs) are not found in 41% slums/underserved areas.

Infrastructure

4. 30% houses of slums/underserved areas are *Kacha-Pacca*.
5. 50% slums do not possess documents to prove their registration status.

WASH Facilities

6. 88% slums/underserved areas do not have government water supply system.
7. 62% slums/underserved areas have traditional or open pit toilet.
8. 4% slums/underserved areas do not have paved drains.

Education Facilities

9. 16% slums/underserved areas do not have schools.



Chapter 1 Introduction





Chapter 1: Introduction

1.1 Background Context:

Pakistan is a lower-middle-income country with a population of 212.2 million in 2018¹. The administrative powers are divided between federal and provincial governments with health, education, labour, and human rights devolved to the provincial authorities. Pakistan covers an area of approximately 796,096 km, divided between four major provinces and five administered territories². Khyber Pakhtunkhwa is one of the provinces of Pakistan, located on the north-western side of Pakistan. According to the recent census, the population in the province has increased from 17.7 million in 1998 to 30.5 million in 2017³. As KP neighbours Afghanistan, almost 3 million Afghan refugees reside in the province⁴.

Peshawar is the provincial capital of Khyber Pakhtunkhwa province of Pakistan. It is known for its strategic location, which connects to Khyber Agency in the West, Mohmand Agency in the North, Kohat in the South, Charsadda and Nowshera in the North and North East respectively. The city spans over an area of 1,257 square kilometres and comprises of 97 UCs. Peshawar has seen a drastic population increase since 1998 and migration influx to the city contributes to a high annual growth rate at 3.99%. As the main city of Khyber Pakhtunkhwa province, Peshawar sees a multitude of problems amidst its limited resources. As of 2004-15, the Multidimensional Poverty Index (MPI) for Peshawar at headcount stands at 53.7%. On the Average Intensity of Deprivation for KP province is at 57%, thus, making it the country's second most poor provincial capital after Quetta, Balochistan. According to Pakistan Social and Living Standards Measurements (PSLM) Survey 2018, the literacy rate in Pakistan stands at 62.3% with 71% male and 47% females.

1.2 Demography

According to Pakistan's Population Census 2017, the population of Peshawar is 1.97 million distributed into four towns, which are further distributed into 97 UCs. With the influx of refugees in the province, the city faced a rapid increase in population. According to estimates out of 80% of Afghan refugees living in Khyber Pakhtunkhwa, 42% reside in Peshawar valley (UNHCR, 2012) while many unregistered Afghan refugees are contributing to increase in security issues, poverty and lack of public services. Displaced populations having low financial resources tend to settle in and around the city in squatter settlements (Katchi Abadis). Besides, Afghan refugees are considered as the reason of slum formation in Peshawar. Furthermore, the District Disaster Management Plan suggests that the floods of 2005 made 3.5 million homeless, destroying more than 600,152 houses (UN-Habitat-III, 2015). Besides, UN-Habitat identified 18 informal settlements in Peshawar city. It constitutes about 15% of the total population of Peshawar with an estimated population of 250,000, although the actual number of people living in slums is higher than this.

1.3 Status of Health in Slums

Major causes of diarrheal diseases are unhygienic living conditions, open defecation, and lack of access to clean drinking water which together contributes to about 1.5 billion deaths of children below 5 years of age (MDGs-UN 2007). Slums are known to be the incubator and transmitters of infectious diseases. Moreover, Tuberculosis (TB) is reportedly prevalent in congested and densely populated slums. Besides TB, malaria, diarrhoea, and respiratory infections are also common among slum dwellers where children are the main affectees from these diseases (WHO 2009⁵).

With residents living in extremely poor living conditions, the incidence of disease remains high in Peshawar. A study conducted by Urban Unit Khyber Pakhtunkhwa in selected slums of Peshawar revealed that 74% of frequently occurring diseases being linked to unhygienic living conditions. It was also reported that 72% of these diseases were found in children. In terms of health services, almost 74% of slum residents use public health facilities while 30% seek services from private health care.

1.4 Status of Immunization in Slums

Despite all factors, levels of immunization in the slums of Pakistan have remained low. A study on Measles Vaccination reported immunization coverage of 58% in children of 1-2 years in Peshawar, with ration of 50.4% for boys and 49.6% for girl. The main cause of low levels of immunization is lack of

¹ World Bank 2018

² Comprehensive Multi-year Plan – Immunization Program of Pakistan

³ Pakistan Bureau of Statistics – Population Census 2017

⁴ KP Health Sector Review – Hospital Care 2019 – Asian Development Bank

⁵ World Health Organization – 2009 - Report on Biennial Performance 2008-09



awareness and proper policies. Lack of mother's education is also considered to be an important factor regarding a child's health and diseases like measles, polio, Tuberculosis (TB), and typhoid lead to high child mortality rates. The study revealed that there is a low prevalence of vaccination for children, among illiterate mothers, which was found to be low for children with 36.3% illiterate mothers compared to 83% for children having literate mothers.

Hence maternal knowledge is equally important in preventing children from diseases. Interventions like awareness programs, community engagements, vaccination campaigns, and medicine coupon incentives are some of the initiatives taken by the Government of Pakistan to overcome prevalent health issues in slums (Crocker-Buque, Mindra, Duncan & Mounier-Jack, 2017).

1.5 Status of Basic Utilities in Slums

1.5.1 Housing

Slums remain highly neglected by the city administration due to their unplanned and unauthorized sprawl. Almost 59% of the houses in slums are temporary and made of mud and clay.

The residents living in slum houses, made of muds and temporary material, lack concrete housings (Khan, 2014). The slums and squatter settlements have severe infrastructure and services problems, where the houses are built of unreliable and poorly made material making them vulnerable to man-made and natural disasters. Additionally, the slums are densely populated and highly congested resulting in inaccessibility during emergencies.

1.5.2 Water and Sanitation

In 2010, a study conducted to assess the existing conditions of slums in Peshawar, revealed that there is the unavailability of adequate resources adding to the poor and unhygienic living conditions. With 86% of the houses have single toilets while the common practice within the residents was the usage of community-shared toilets and open defecation. Such practices are unhygienic and significantly contribute to high occurrences and the spread of infectious diseases.

The said study further, reported that over-spilled drains pose a high risk for health, with more than 95% of slums having open drains. As for the waste management system, it was found that less than 50% of the waste is processed under the waste management chain, whereas more than half of the waste is dumped openly on empty plots creating health hazards for the surrounding communities. These dumpsites then serve as a means of livelihood for garbage-pickers who scavenge and sell recyclable material in scrap markets. Thus, exposing the waste pickers and their family members to a hazardous environment.

For the water consumption trends in slums of Peshawar, results indicated that 58% of households rely on tap water, 9%, and 12% on hand pumps and motor pumps respectively. However, clean drinking facilities are scant due to poor sanitation facilities. Water availability coupled with unpaved drains easily leads to the mixing of human and municipal waste, which ultimately permeates into groundwater facilities, wells, and water pipes. Another recent study by Khyber Medical College was conducted to assess the quality of water in Peshawar, where it was revealed that the water is of poor quality with massive contamination of coliform bacteria--a sign of faecal contamination.

1.5.3 Education

The education facilities in slums are grossly inadequate; with schools in the slum areas are reported to be present at an average distance of 3.5 Km. one of the studies on slums in Peshawar indicated that only 6% of slum residents have ever attended school. For gender, the percentage of male children enrolled in schools is higher compared to female children.

1.6 Major Challenges

The challenges of the rural-urban divide and urban poor are compounded with a lack of resources. Unlike other mega-City, the problems in Peshawar remain unique in terms of the presence of large numbers of temporary residents and migrants. A multi-sectoral understanding of Peshawar's social dynamics needs to be established to understand major barriers to equitable health accessibility and routine immunization coverage for the urban poor. In addition, the accessibility issue due to security restricts the mobilization within the areas.

1.7 Objectives

The general objective of this study was to prepare the in-depth profiling of slums and underserved areas located within the Peshawar City of Khyber Pakhtunkhwa province in Pakistan. The specific objectives of this study were to:

- a. To collect the socio-demographic information of the residents of slums and underserved areas
- b. To assess the fixed EPI facilities located in the slums and underserved areas
- c. To compile the data of health and EPI resources at the union councils level
- d. To determine the childhood immunization coverage rates in the slums and underserved areas

1.8 Rationale

The review of literature reveals that the data on housing infrastructures, water and sanitation practices and immunization status of children in slum areas is limited. Therefore, this study was designed and conducted for the following reasons:

- There is no comprehensive report or tangible dataset available specifically for slums/underserved areas. The studies are carried out in one specific slum or a few sampled slums and are not a true representation of inequities prevalent in all slums. Moreover, existing studies rely on outdated or nationally non-representative datasets, bringing the validity of research in question;
- The City are growing very fast and are most popular for urban migration. Systematically collected scientific data on geographical scale, locations and population of slums is not only essential to inform policy-makers for needed interventions. ;
- The available literature does not have comprehensive information about the scale and situation of slums/ underserved areas;
- A comprehensive list and profile of slums is not available which would inform planners about the geographical scale, locations and population of slums;
- Additionally, it is not clear whether people living in slums which are not considered legal/registered/regularized in the records of relevant public departments were included in the National Census or not. The current resource allocations and provision of public services is decided according to the available information hence do not cater slums which are not recognised officially;
- No secondary dataset is available which provides a complete picture of the status of health and immunization practices in slums and underserved areas. Although some studies mention a few reasons for zero-dose and unimmunized children, an extensive approach on the pattern of coverage survey has not been adopted by any of the studies to understand the reasons for under-immunization. An extensive understanding of slum lifestyle and their socioeconomic conditions is to be undertaken to draft and implement better immunization-related policies;
- Coverage surveys have never been undertaken in slums hence status of immunization was never known for realistic planning and resource allocation.
- The micro plans of vaccinators and LHWs are prepared based on targets only and do not include specific coverage of slums. The comprehensive data on slums/underserved areas would help in setting up realistic targets for slums/underserved areas.
- Action plans for improvement of vaccination and general health conditions in slums/underserved areas would become possible.
- There is little or no data available on the role of private and not-for-profit sector on the kind of interventions undertaken by these sectors for the urban poor. The potential for these sectors to provide for the urban poor has not yet been explored.





Chapter 2 Methodology



Chapter 2: Methodology

This part describes the detailed methodology adopted for the profiling of slums / underserved areas. This methodology was designed in close consultation with the UNICEF Pakistan Country Office, UNICEF Pakistan Field Office and Provincial Expanded Programme on Immunization (EPI) Cell. The process was made participatory and engaging for having community driven perspectives. Triangulation, validation and supportive monitoring were adopted as the key principles and formed the backbone of the entire process. The methodology was finalized according to the security situation and local context.

2.1 Study Design

This was a cross-sectional study undertaken to prepare the in-depth profiling of slums / underserved areas. The following four key activities were conducted for the purpose of this study [Figure 1].

2.2 Study Sites

The study was conducted in the slums / underserved areas located in the city and its periphery. The administrative structure of Pakistan distributes the country into four provinces and Islamabad, Azad Kashmir and Gilgit Baltistan as federally administered areas. The provinces are further distributed into districts. Each district is distributed into multiple towns (*tehsils*), which are further distributed into union councils. Each union council has 5 to 15 villages/areas depending on the context and rural/urban settings in each province. Previously, the performance of the country used to be assessed either at the provincial level and or at the district level. Gradually it has been realized that the performance needs to be monitored at the administrative unit level, which is union council. Each union council has a union council office, which is headed by the Secretary. The Secretary gets certain resources for the development of villages/areas for that particular union council. The resources of each union council have direct correlations with the performance outputs of that particular union council.

2.3 Study Duration

This study was conducted between 2018 and 2019 with different intervals.

2.4 Study Respondents

For the purpose of this study, four key activities were conducted and each activity had different respondents.

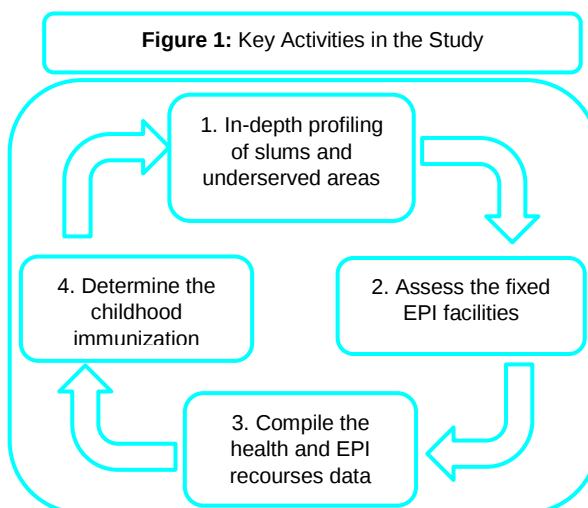


Table 1.: Respondents of The Study		
Activities	Study Respondents	Study Instruments
In-depth profiling of slums and underserved areas	Residents of slums / underserved areas	A. Questionnaire for Group Discussion in Slums / Underserved Areas
Assess the fixed EPI facilities	In-charge of EPI facilities	B. Questionnaire for EPI Facility Assessment
Compile the health and EPI resources data at union council levels	District Health Officer, District EPI Coordinator and District Supervisor Vaccination or their nominees for providing official information on health and EPI resources	C. Questionnaire for District or Town Health Office
Determine the childhood immunization coverage rates	Mothers of the children aged between 12 and 23 months	D. Questionnaire for Household Coverage Survey

2.5 Sampling Procedures and Sample Size

Activities 1: In-depth profiling of slums and underserved areas

Slums/underserved areas form a major portion of the largest City' population. Consolidated information about the names, addresses and population sizes of slum / underserved areas were not available for realistic planning and extension of the health and EPI services. In order to identify the locations and scale of slums/underserved areas, to know the approximate size of target population and to prepare basic characteristics of these locations, their holistic profiles were prepared.

Step 1: Desk Research: For the purpose of this activity, initially extensive desk research were carried out by the study team. The purpose was to understand the different dynamics of the urban poor living in the five largest City of Pakistan. These conditions were assessed by gathering the literature retrieved from search engines on internet, academic research journals, and policy papers on slums / underserved areas.

Step 2: Verification of the Study Areas: As there was no data (i.e. listing) available on the slums / underserved areas, the team visited and physically verified these areas.

Step 3: Interactive Group Discussions: Once these areas were verified and listed by the study team, the process of collecting socio-demographic information of the residents of slums and underserved areas were started through interactive group discussions. The study team conducted one group discussion from each union council located in the slums and underserved areas.

Sampling Method: A convenience sampling method was used for the purpose of interactive group discussions among the residents of slums and underserved areas. This was done because of the following three key reasons:

- A. There were no lists or records of the households. The lists of households prepared by Community Based Vaccinators (CBVs) did not differentiate between the slums and non-slums areas
- B. The security situations and general hostility as well as unwillingness to share information rendered a simple random sampling nearly improbable
- C. Considered to be close knit communities, slums represent wide information sharing networks. Therefore estimates by these informants were deemed to be close to accurate through cross-validation

Sample Size: 3 to 5 respondents were selected based on inclusion and exclusion criteria for the interactive group discussions.

Inclusion and Exclusion Criteria: Following criteria were designed and adopted for the purpose of identifying the respondents for these interactive group discussions

Inclusion Criteria	Exclusion Criteria
A. Resident of either slum or underserved area which was to be profiled	A. Not the resident of either slum or underserved area which was to be profiled
B. Have been living there for more than two years	B. Have been living there for less than two years
C. Have knowledge about physical infrastructure and other facilities of that particular area	C. No knowledge about the physical infrastructure and other facilities available in the area

Activities 2: Assess the fixed EPI facilities

The overall objectives of the assessment of fixed EPI facilities were to know the strengths and weaknesses of the service delivery system and to analyse correlations between coverage rates and strengths and weakness of the system.

Step 1: Obtaining the list of fixed EPI facilities: The study team obtained the list of all fixed EPI facilities from the department of health authorities.

Step 2: Assessment of fixed EPI facilities: Once the lists were obtained, fixed EPI facilities were physically visited by the study team for assessment.

No sampling method was used for this activity. All listed fixed EPI facilities (i.e. 228) were physically visited and assessed by the study team.

Activities 3: Compile the health and EPI recourses data

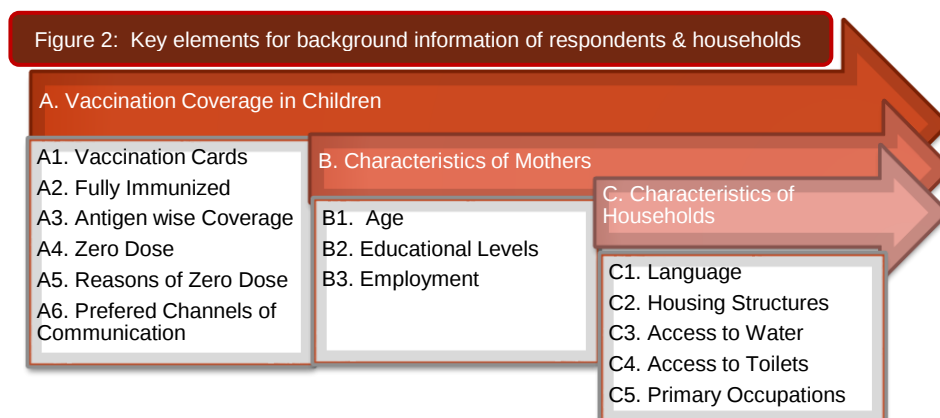
Step 1: Obtaining data of health and EPI resources: The data of health and EPI resources available at the union council's level were collected from the department of health. The study team used 'Questionnaire for District or Town Health Office' for this purpose.

Step 2: Triangulation of Data: This data was triangulated with the information collected from the residents of slums and underserved areas through interactive group discussions (activity 1).

No sampling method was used and data on the key variables (section 2.6) were collected by the study team through study instrument.

Activities 4: Determine the childhood immunization coverage rates

The coverage survey was conducted to determine the childhood immunization rates by the study team. This background information about the households and respondents were also collected (Figure 2).



The correlations of these broader categories i.e. i). Vaccination coverage in children, ii). Characteristics of the mothers, and iii). Vaccination coverage of the children were undertaken to comprehend the real reasons of high / low or no coverage rates in the slums and underserved areas.

Step 1: Sampling Methodology: This was conducted according to the methodology of World Health Organization (WHO). The following six points were utilized in calculating the sample size for this coverage survey.

1. Penta 3 coverage rates from 3rd party sources
2. Effective Sample Size (ESS)
3. Design Effect Factor (DEFF)
4. Estimation of number of children aged between 12 and 23 months
5. Calculation of inflation or no response
6. Steps for determining sample size and cluster

1. **Penta 3 Coverage Rates:** The city was taken as an independent stratum and Khyber Pakhtunkhwa Health Survey (KPHS) 2017 was used for using Penta 3 coverage rates. 80% coverage rate for Penta 3 was taken as a basis for calculating sample size.
2. **Calculation of Effective Sample Size:** ESS was determined through expected coverage and desired precision level was set at 95 percent Confidence Interval (CI) as per Table B - 1, Page 118, WHO reference manual.
3. **Design Effect Factor:** Post measles campaign design effect factor 4 calculated for the 3rd party survey 2018 was utilized as a basis for calculating the sample size.
4. **Estimation of Number of Children Aged between 12 and 23 Months:** The number of children aged between 12 and 23 months were determined by using the 3.5 percent of the total population are children between 0 and 1 year and 3.5 percent are between 1 and 2 years. The estimation of the number of 12-23 months old children was calculated as follows:

= Percentage of 12 – 23 months children in 100 household
 = $100 / 3 / 6.5$
 = 5
 = This means that from every 5th to 6th house one child will be available
 = If the required # of children were not available in a cluster, new clusters were included and existing cluster was stopped.



5. Calculation of Inflation or No Response: Inflation or No Response factor from households was calculated by using the following formula mentioned in WHO manual. This factor is usually intended to include additional houses in case a child is not available at a set interval or has refused to participate. In order to overcome this, additional houses were also listed and profiled. The inflation or no-response factor was calculated as follows:

$$\begin{aligned}\text{No Response} &= 100 / 100 - P (\text{Household Did not Respond}) \\ &= 100 / 100-5 \\ &= 1.05\end{aligned}$$

6. Calculation of Sample Size and Clusters: Calculation of sample size was done once the DEFF and ESS, including No Response Inflation factor were all set. The following steps were undertaken to ascertain the sample-size:

Total Completed Interviews

= # of strata X ESS target from table B of WHO guidelines X DEFF⁶

Total Households to be visited to get the Target # of Households to be interviewed

= ESS X DEFF X household to find a child X no response inflation factor

Number of Households to Visit per Strata

= ESS X DEFF X household to find a child X no response inflation factor

Number of Clusters

= ESS X DEFF / Household to be interviewed per cluster

Total Households to Visit per Cluster

= Household to find a child X no response inflation factor X household to be interviewed per cluster.

Step 2: Sampling Procedure:

The slum was taken as a cluster. The following steps were undertaken during survey taking:

1. The city-wise lists of slums located in all urban towns were organized in an ascending order on the basis of population
2. The random number for selecting slum was calculated by dividing the total slums by total clusters
3. After knowing the random number e.g. 2 or 3 or 4 or 5, every 2nd-5th slum of each town was picked up for mapping and listing
4. Maps were prepared for each selected slum (cluster). The buildings including government schools were numbered and marked. Maps of the areas/clusters/slums were prepared and residential buildings were marked for the listing of the households
5. Then by throwing a pencil on the map, the residential block was selected randomly
6. The selected block was listed and number of children were also listed
7. A list of minimum 80 to 150 houses was prepared
8. The total listed households were divided by 15 to calculate the random number for selecting a household for checking availability of children
9. Listed households with the final random number were picked for interview
10. In case of unavailability of 15 children in a cluster, additional clusters were added

⁶ Taken from Post Measles Campaign Analysis by WHO

2.6 Key Variables

Table 2.: Key Variables in the Study

Activities	Key Variables
In-depth profiling of slums and underserved areas	1. Slums and Underserved Areas 2. Demography 3. Health and EPI Resources 4. Infrastructure 5. Social Welfare Services
Assess the fixed EPI facilities	1. Infrastructures 2. System 3. Management and Facilities 4. Equipment and Supplies 5. Waste Management 6. Human Resources
Compile the health and EPI recourses data	1. Administrative Layout 2. Healthcare Facilities 3. Equipment and Supplies 4. Human Resources 5. Nutrition Services
Determine the childhood immunization coverage rates	1. Vaccination Coverage 2. Characteristics of the Mothers 3. Characteristics of the Households 4. Characteristics of Fully Immunized Vs. Zero Dose Children

2.7 Data Collection Instruments

The data collection instruments were designed by the senior investigators and finalized in consultation with the UNICEF Pakistan officials. The instruments were pre-tested in order to ensure the consistency, appropriateness of language and sequencing of the questions. Based on the feedback from the pre-testing, the instruments were modified and rephrased, where necessary. These data collection instruments were not only translated into local languages but also culturally adopted, where necessary. All study instruments are attached in annexures.

2.8 Operational Definitions

The operational definitions were defined based on the desk reviews as well as discussions with the health authorities.

2.8.1 Slums

The definition of slums was reviewed from UN Habitat, *Kachi Abadi* Cell, Town Municipal Offices and Offices of Development Authority. Slums are a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is often not recognized and addressed by the public authorities as an integral or equal part of the city. According to UN Habitat, the generic definition of a slum suggests that it is:

...a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is often not recognized and addressed by the public authorities as an integral or equal part of the city (UN Habitat, 2010, p. 13⁷).

Similarly, a slum household is defined as a group of individuals who live under the same roof that lacks one or more⁸ of the following conditions:

- Limited access to improved water and sanitation
- Weak housing structures
- Insufficient living area
- Uncertain about legal ownership of the residential area

2.8.2 Peri-Urban Slums

Slums located at the periphery of urban areas that join the borders of City and rural areas.

⁷ UN Habitat (2010), The Challenge of Slums: Global Report on Human Settlements 2003

⁸ This definition may be locally adapted for where some factors may be similar between the slums and majority of the society (UN Habitat).



2.8.3 Legal Status

Concerned government department recognizes slums as either registered or regularized officially. Documentary evidence such as electricity bill or Computerized National Identity Card (CNIC) shows the address.

2.8.4 Underserved Areas

Underserved Areas includes both planned residential areas with *majority of the plastered housing structures*. Underserved areas have one or more of the following conditions:

- Low immunisation coverage or
- High number of refusal

2.8.5 Expanded Programme on Immunization

Expanded Programme on Immunization of the government of Pakistan for children and women of child-bearing age.

2.8.6 Outreach Vaccination

Within remote and inaccessible areas where EPI or healthcare facilities have difficult access or do not exist, an outreach vaccinator covers the area through house to house visits.

2.8.7 Ice Lined Refrigerators

Ice Lined Refrigerator (ILR) for maintaining a particular temperature required for storage of vaccines.

2.8.8 Kacha Housing Structure

All walls and ceilings are made of mud, straws, bamboos or material other than cement, concrete and iron and are vulnerable to damage due to excessive rains, floods or earthquake etc.

2.8.9 Pacca Housing Structure

All walls and ceilings are made of cement, concrete and iron.

2.8.10 Kacha-Pacca Housing Structure

Walls are made of concrete and iron while ceiling is made of mud, straw or bamboo or vice versa.

2.8.11 Antigen

A liquid medicine, which develops immunity in the body of an individual.

2.8.12 Fully Immunized

Children aged between 12 and 23 months who have completed vaccination of all doses starting from BCG-OPV0, Penta 1, Penta 2, Penta 3, and Measles-1.

2.8.13 Partially Vaccinated

Children aged between 12 and 23 months who have received some doses of vaccination but could not complete it according to age wise requirements.

2.8.14 Defaulter

Any child aged between 12 and 23 months who has received BCG+OPV0 and Penta 1 and Penta 2 but did not receive Penta 3 or Measles-1.

2.8.15 Zero Dose

Children aged between 12 and 23 months who have not received any doses of vaccines including polio, which may protect children from vaccine preventable diseases.

2.8.16 Records

Under two years of children whose vaccination cards containing record of their age wise doses administered are available in readable condition for any confirmation.

2.8.17 Recall

Under two years of children whose record of vaccination is not presented on any paper or card at the time of the survey and mother shares the vaccination status based on her memory or recall.

2.8.18 Vaccine Preventable Diseases

The vaccine preventable diseases for children aged between 0 and 23 months are prevented through offering basic vaccination. The names of these diseases are Childhood Tuberculosis, Poliomyelitis, Rotavirus Diarrhea, Pneumonia, Diphtheria, Pertussis (Whooping Cough), Tetanus, Hepatitis B (Hep B), Haemophilus Influenza type b (Hib) and Measles.

2.8.19 Antigens as Part of Basic Vaccine

The following antigens are administered to children aged between 0 and 15 months old with different age intervals:

Table 3: Vaccination Schedule					
1 st Dose	2 nd Dose	3 rd Dose	4 th Dose	5 th Dose	6 th Dose
Immediately After Birth	6 Weeks	10 Weeks	14 Weeks	9 Months	15 Months
BCG+OPV0	OPV 1, Rota 1, Pneumococcal Conjugate Vaccine (PCV) 1, Penta 1	OPV 2, Rota 2, PCV 2, Penta 2	OPV 3, Rota 3, PCV 3, Penta 3	Measles-1	Measles-2

2.9 Data Analysis Techniques

Systematic approach was adopted for cleaning, and verification and further entering of data in excel sheets as per the variables defined for this study. The data was analyzed by the Data Manager in Statistical Package for Social Sciences (SPSS) and Statistics and Data (STATA). The processed data is interpreted through tabular and graphical presentation required for quantitative analysis. The data of slums was segregated in the following categories.

Table 4: Categories of Slums Data					
Categories	Size	Housing Structure	Legal Status	Facilities	Location
Category A	More than 60 households	Mostly Kacha/mud made/Tented	Mostly illegal	No solid/liquid waste management system No government water supply	Mostly under the bridge, near river, railway station and any empty land within the city
Category B	Less than 60 households	Mostly Kacha/mud made/Tented	Mostly Illegal	No solid/liquid waste management system No government water supply	Surrounded by big houses
Category C	More than 60 households	Mostly Pacca/ Plastered	Mostly legal	Mostly garbage management system and drains exist	Mostly upgraded from slums or housing societies or extension of towns
Category D	More than 100 households	Mostly un-plastered	Mostly legal	No solid/liquid waste management system No government water supply	Originally rural area but gradually became part of the city hence located at the periphery of the city

2.10 Monitoring Mechanism

For the purpose of this study, timely review and rigorous monitoring system was put in place to ensure there were no detractions. This included engagement of a full-time team dedicated to holding surveys and field visits, timely submission of data, physical verification and further cleaning process of the data, and assignment for each team member. The monitoring ensured the following:

- Verification of data either through telephonic correspondence or physical on-field visits
- Supportive supervision and daily review of field performance
- Trouble shooting in case of problems
- Review of survey forms to ensure that no information was missed or fake or contradictory

2.11 Study Team and Training

A three-tiered teams were engaged in in-depth profiling of slums and underserved areas, assessment of fixed EPI facilities in slums and underserved areas, compilation of health and EPI resources data of union councils and childhood vaccination coverage in slums / underserved areas.

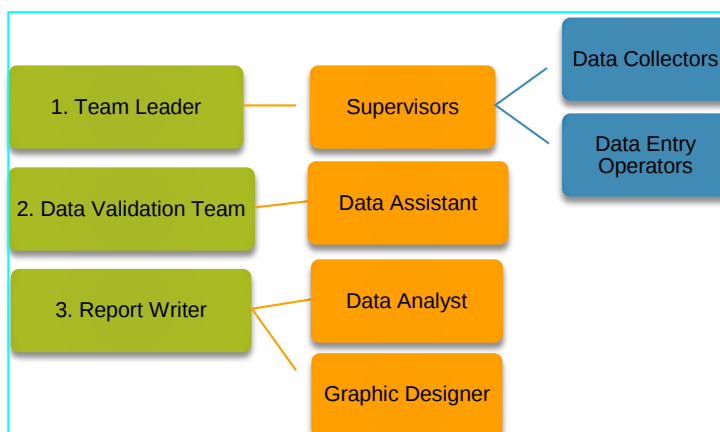
The first tier of team comprised of a team leader, survey supervisors and data collectors. The team leader provided overall guidelines and end-to-end management of the process, the supervisors extended supportive supervision and monitoring of the data collection and ensured quality standards while surveyors collected the data from the field through physical visits, group discussions and individual interviews.

The 2nd tier of the team consisted of data validation, cleaning, entry and analysis.

The 3rd tier of the team comprised report writers responsible for undertaking desk researches and interpreting the results in an effective manner.

The training of study teams was conducted by the professionals prior to commencing data collection activities that includes study objectives, basic concepts on healthcare and immunization services, data collection, ethical considerations as well as confidentiality. In addition, they were trained on data entry processes (i.e. validation and cleaning before their final consolidation).

Figure 3: Study team composition





Chapter 3 Profile of Slums & Underserved Areas

Few Injections are Enough!

Gul lives with her family in the slum of Ibrahim Khel. The slum is located in the UC Deh Bahador Kally, Town 3, Peshawar. Gul's has 8 members (4 males and 4 females) residing in her house, which is a two-roomed mud house. Gul's family has been living in this slum for the last 3 years. The household uses one traditional toilet available for all the family members. The spoken language of their household is Pashto. Gul's father, Mishal Khan drives a Taxi daily for 16 hours to make his both ends meet. Though the Gul's family is not under any financial debt, but they also have no savings for unforeseen circumstances. Gul's mother is a 26 years old woman who is illiterate. On the topic of Vaccination, she mentioned that Gul is 22 months old now, and she has only received vaccination for BCG and Measles. Gul's mother also remarked:

'Few injections are enough for the protection of children!'

Chapter 3: Profile of Slums/Underserved Areas

Slums/underserved areas form a major portion of the largest City' population. Consolidated information about names, addresses, and population sizes of these areas is unavailable for realistic planning and extension of health and EPI services. To identify the locations and scale of slums/underserved areas, the approximate size of the target population, and to prepare basic characteristics of these locations, their holistic profiles were being prepared. This chapter presents the profile of the slums/underserved areas of Peshawar. The profile is presented around the following five broader categories:

3.1 Slums/Underserved Areas

3.1.1 Union Councils with/without Slums/Underserved Areas

Peshawar City is administratively distributed into 4 towns and 97 UCs where 85 of the UCs contain slums or underserved areas and 12% UCs are without any slums or underserved areas.

3.1.2 Number of Slums/Underserved Areas

Overall, there are 550 slums and 22 underserved areas in 85 UCs. These slums/underserved areas vary in size by area and population density. The town wise distribution indicates highest concentration of slums in town 1 and 2 and lowest concentration in town 4.

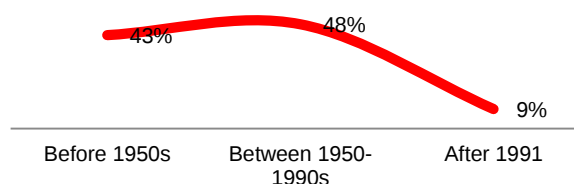
Table 5: Number of Slums and Underserved Areas

Towns	Slums		Underserved		Total	
	#	%	#	%	#	%
Town 1	210	38%	0	0%	210	37%
Town 2	189	34%	0	0%	189	33%
Town 3	108	20%	22	100%	130	23%
Town 4	43	8%	0	0%	43	8%
Total	550	100%	22	100%	572	100%

3.1.3 Timelines of Existence

Slums establishment has been highest during 1950-1990 at 48%. Likewise, slum growth has been almost similar before the 1950s where 43% slums were established. The establishment of new slums reduced to 9% from 1991-2005. The lowering of growth could be attributed with the low inflow of Afghan refugees and internally displaced population.

Figure 4: Timelines of Creation of Slums



3.1.4 Legal Status

Almost 50% of the slums were unregistered and ineligible to have official resource allocation for public services like water and sanitation, health, and education, etc.; whereas, another 50% were registered and had supporting documents as evidence. The supporting documents included utility bills with name of their slum written on it. The population residing in these unregistered slums is 646,713, which is 44% of the total population residing in slums/underserved areas (1,480,942).

Figure 5: Legal Status of Slums



3.2 Demography

3.2.1 Population

The population of slums/underserved area is approximately 1.5 million, with a share of higher population residing in slums (97%) rather than underserved areas. The children aged 0-11 months were 49,346 and children under 5 years of age were 260,521 while 337,145 women were of child-bearing age. Slums/underserved areas of Town 2 were inhabited by the highest number of children aged 0-11 months.

Table 6: Population in Slums/ Underserved Areas

Total Population					
Slums		Underserved		Total	
1,480,942	100%	51,536	100%	1,532,478	100%
Population of 0-11 Months (3.5% and 92% Survival)					
47,686	100%	1,659	100%	49,346	100%
Population under 5 Years (17%)					
251,760	100%	8,761	100%	260,521	100%
Population of Child-Bearing Age Women (22%)					
325,807	100%	11,338	100%	337,145	100%

3.2.2 Types of Residents

Overall, 75% of residents of slums/underserved areas were permanent settlers of their localities; whereas, 19% were temporarily displaced and 6% belong to other nationalities. The slums have a higher number of temporarily displaced families compared to temporary displaced families living in underserved areas.

Table 7: Types of Residents

Areas	Permanent Settlers	Temporary Displaced	Other Nationality
Slums	75%	19%	6%
Underserved	89%	10%	0%
Total	75%	19%	6%

3.3 Health Resources

3.3.1 Health Facilities

Less than quarter of the UCs (18%) is without any health facility. Although 82% UCs have some kind of health facilities available but 93% slums reported no access to health facilities within two kilometres, whereas, 97% underserved areas reported no access to health facilities within two kilometres.

Table 8: UCs with/without Health Facilities

UCs with Health Facilities	UCs without Health Facilities	Total
82%	18%	100%

3.3.2 EPI Facilities

Overall only 3% UCs is without any EPI facility. It is interesting to note that only 8% slums reported to have access to EPI facilities within two kilometres access and only 5% underserved areas reported access to EPI facilities within two kilometres access. (Table 10c Annex 5)

Table 9: UCs with/without EPI Facilities

UCs with EPI Facilities	UCs without EPI Facilities	Total
97%	3%	100%

3.3.3 Outreach Vaccination

Almost 96% slums/underserved areas report outreach vaccination services happening in their areas. A negligible percentage of slums (4%) report no outreach services in their areas. It would be interesting to correlate this factor with the childhood immunization coverage rates.

Table 10: With/without Outreach Vaccination

Areas	With Outreach	Without Outreach
Slums	96%	4%
Underserved	100%	0%
Total	96%	4%

3.3.4 Health Workers

3.3.4 a. Lady Health Workers

LHWs do not extend their services in 41% slums/underserved areas. The comparison of their coverage in slums and underserved areas reflect that greater percentage of underserved areas were uncovered (68%) compared to slums (40%). The majority of LHWs who extended their services in slums/underserved areas raised awareness on childhood vaccination, prenatal care, and maternal and child healthcare.

Table 11: LHWs Uncovered Slums/Underserved

Areas	Covered	Uncovered
Slums	60%	40%
Underserved	32%	68%
Total	59%	41%

3.3.4 b. Dengue Workers

Greater percentage of slums (83%) reported unavailability of dengue Workers compared to underserved areas (64%). The working of Dengue Workers was managed through town municipality as well as the District Department of Health.

Table 12: Unavailability of Dengue Worker

Areas	Available	Not Available
Slums	17%	83%
Underserved	36%	64%
Total	17%	83%

3.3.5 Emergency Health Services

Only 28% slums/underserved areas were not aware of 1122 services. The awareness level of 1122 is greater in underserved areas (86%) when compared to that in slums (71%). It is important to note that another emergency medical response service 1038 was not offered in Peshawar. (Table 13b Annex 5)

Table 13: Unawareness about 1122 Services

Slums	29%
Underserved	14%
Total	28%

3.4 Infrastructure

3.4.1 Housing Structures

Only 22% housing structures in slums/underserved areas are Kacha or tented structures with no such housing in underserved. For Kacha-Pacca (mixed) structures, 30% such housings are in slums compared to 14% in Underserved. In underserved, 86% of the housing structures are Pacca/concrete while 47% are located in slums.

Table 14: Types of Housing Structures

Areas	Kacha/Tented	Kacha-Pacca	Pacca
Slums	23%	30%	47%
Underserved	0%	14%	86%
Total	22%	30%	48%

3.4.2 Household Toilets

Two types of household-level toilets were found i.e. open pit/ traditional or toilets connected with street drain. A significant percentage of open pit/traditional toilets were found in underserved areas (79%) compared to that in slums (61%). Areas where toilets were found, the majority of them were choked or filthy. On average, 9 persons use a single toilet in slums. Only 2% slums and 1% of underserved areas do not have toilets at the household level while open defecation was reported by many slums/underserved areas. The residents of slums practicing open defecation was greater (12%) compared to underserved areas (5%). It can be linked to the choked and filthy facilities. (Table 21a, 21b Annex 5)

Table 15: Household Toilets

Areas	Open Pit/ Traditional	Connected with Street Drain
Slums	61%	39%
Underserved	79%	21%
Total	62%	38%

3.4.3 Domestic Water

It was found that 87% of slums/underserved areas do not have access to the government water system and thus rely on other sources of water. A higher percentage of underserved areas (91%) have no government water supply connection as compared to slums (87%). Many of the residents rely on groundwater (well or hand pumps or tube wells) as the main source of water supply. Slums/ underserved areas where government water supply is installed; the water is available for a minimum duration of 5 hours per day in most of the areas. The quality of domestic water is questionable as the containers used for domestic water storage were found to be very dirty and contaminated.

Table 16: Sources of Domestic Water

Domestic Water	Slums	Underserved	Total
Government Water Supply	12%	9%	12%
Ground Water	87%	91%	87%
Other Sources	1%	0%	1%

3.4.4 Waste Management

3.4.4 a. Liquid Waste

For liquid waste management, 67% slums/underserved areas either do not have any drains or have choked and filthy drains. The percentage of filthy and choked drains is higher in slums (64%) in comparison to underserved areas (59%).

Table 17: Conditions of Drain

Areas	No Drains	Drains Filthy/Choked	Drains have Running Water
Slums	4%	64%	32%
Underserved	5%	59%	36%
Total	4%	63%	32%

3.4.4 b. Solid Waste

In terms of waste pick-up facility by the government, 30% slums/underserved areas availed the service while 60% throw waste on empty plots/streets. A small percentage of slums/underserved areas have other waste management system that includes burning/burying of the waste. The percentage of slums throwing waste on empty plots/streets was greater than in underserved areas. Such unsanitary conditions facilitate breeding of mosquitoes and are dangerous for people getting exposed to such poor sanitary conditions who are more likely to suffer from diarrhoea, typhoid, and dengue.

Table 18: Solid Waste Disposal Practices

Areas	Throw on Empty Plots/Streets	Govt System	Other-System
Slums	60%	30%	10%
Underserved	50%	32%	18%
Total	60%	30%	10%

3.5 Social Welfare

3.5.1 Schools

All 22 underserved areas have schools available in their surroundings compared to 16% slums having no schools available.

Table 19: Availability of Schools

Areas	Available	Not Available
Slums	83%	17%
Underserved	100%	0%
Total	84%	16%

More than half of the slums/underserved areas have government schools as well as private schools. A significant percentage of slums/underserved areas (55%) have Madrassas as well. Schools run by any charity or welfare organisations are only 4%.

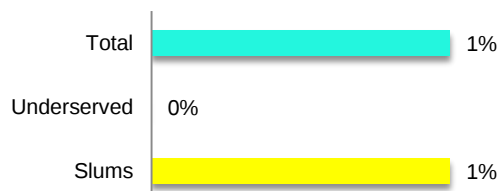
Table 20: Types of Schools

Types of Schools	Slums	Underserved	Total
Government	73%	91%	74%
Private	61%	77%	61%
Welfare/Trust	4%	0%	4%
Madrassas	54%	77%	55%
No Schools	17%	0%	16%

3.5.2 Civil Society Organizations (CSOs)

Civil Society Organisations are dependant on external resources for their working. Majority of them work according to the priorities of donors otherwise they are unable to secure resources for their work. Although 4% slums/underserved areas have welfare/charity run schools but other than this only 1% slums report availability of active working of CSOs. No active CSO was found in underserved areas.

Figure 6: Availability of CSOs



3.5.3 Informal Groups

Overall, 28% slums/underserved areas have informal groups with a higher percentage in underserved areas (45%) compared to slums (27%). The majority of these informal groups are Masjid Committees, Jirga, or unregistered community-based organizations. Some of the areas had church committees as well. These informal groups were engaged in voluntary support to their residents such as advocacy for resource allocation for improving their water and sanitation facilities.

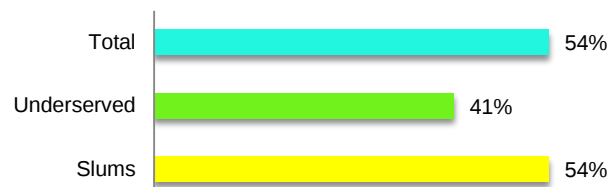
Figure 7: Availability of Informal Groups



3.5.4 Public Welfare Schemes

Overall 54% slums/underserved areas report availability of social welfare schemes for their residents. The comparison of slums with underserved reflect that coverage of social welfare schemes was greater in slums (54%) compared to underserved areas (41%). These schemes primarily focus on social benefit cards (Sehat Card, BISP Card), stipend schemes, vocational training, and loan schemes

Figure 8: Availability of Social Welfare



Chapter 4 Health Resources in Union Councils



Chapter 4: Health Resources in Union Councils

The country is structurally divided into four provinces namely Punjab, Khyber Pakhtunkhwa, Sindh and Balochistan, and two autonomous territories of Gilgit-Baltistan and Azad Jammu Kashmir and one Federal Capital of Islamabad. Each province is then subdivided into divisions, which are further divided into districts. The districts are categorized into tehsils/towns, with UC as the subunit. Under administrative tiers of Pakistan, UC is the fifth and the lowest level of the administrative unit. This chapter compiles the status of health and EPI resources of UCs.

4.1 Administrative Lay Out

There are 97 UCs in Peshawar city. The slums/ underserved areas are concentrated in 85 UCs, whereas, 12 UCs are without any slum/underserved area.

Table 21: UCs with/without Slums/Underserved

Total UCs	UCs with Slums/Underserved Areas
97	85

4.2 Health Facilities

4.2.1 UCs with/without Health Facilities

18% of UCs do not have public health facilities. The residents of these UCs including slums/underserved areas are expected to utilize services of health facilities located in other UCs.

Table 22: UCs with/without Health Facilities

UCs with Health Facilities	UCs without Health Facilities
82%	18%

4.2.2 Number of Health Facilities vs. UCs

Although there are 97 UCs but 110 health facilities are located in 80 UCs. The total population of Peshawar city is 1.97 Million, which is expected to access any of the 110 available health facilities.

Table 23: Public Health Facilities vs. UCs

Public Health Facilities	# of UCs with Public Health Facilities
110	80

4.3 EPI Facilities

4.3.1 UCs with/without EPI Facilities

Only 3% of UCs are without EPI facilities, whereas, 97% of UCs have EPI facilities. The UCs without EPI facilities are expected to visit facilities located in neighbouring UCs.

Table 24: UCs with/without EPI Facilities

UCs with EPI Facilities	UCs without EPI Facilities
97%	3%

4.3.2 EPI Facilities vs. Union Councils

Although there are 97 UCs but 120 EPI facilities are located in 94 UCs as 14% of UCs are without any EPI facility.

Table 25: EPI Facilities Vs UCs

# of EPI Facilities	# of UCs with EPI Facilities
120	94

4.3.3 Outreach Vaccination

The outreach vaccination services are available in all 97 UCs. Outreach vaccination services are essential to increase the outreach of routine immunization in areas where EPI facilities are not accessible by the public.

Table 26: Outreach Vaccination

UCs with Outreach	UCs without Outreach
97	0

4.3.4 Cold Chain

Although ILRs are available in 100% facilities, however, 97% EPI facilities have functional ILR, while 3% have non-functional ILR.

Table 27: Status of Functional ILR

Functional ILR	Non-Functional ILR
97%	3%

4.4 Nutrition Services

4.4.1 Presence of Nutrition Services

Out of the total 97 UCs, nutrition services are not offered at 34% UCs while 66% have nutrition services available.

Table 28: Nutrition Services

Available	Not Available
66%	34%

4.4.2 Types of Nutrition Services

Three types of nutrition services are offered at various levels i.e. fixed sites, school sessions, and LHW sessions. No UCs have fixed nutrition services, while 2% offer school nutrition sessions and 66% UCs offer Nutrition sessions through LHW.

Table 29: Types of Nutrition Services in UCs

UCs with Fixed Nutrition	School Sessions	LHW Sessions	No Nutrition Services
0%	2%	66%	34%

Note: Some UCs have more than one type of Nutrition Service

4.5 Human Resources

4.5.1 Vaccinator per EPI Facility

There are 246 vaccinators for 120 EPI facilities suggesting that there are around 2 vaccinators per EPI facility.

Table 30: Vaccinators in EPI Facilities

Vaccinators	EPI Facilities
246	120

4.5.2 Lady Health Workers

There are 1,160 LHWs available for 66% UCs, while 34% UCs are uncovered by LHWs. The majority of the LHWs raise awareness on maternal child health care.

Table 31: LHWs Vs UCs

Total LHWs	UCs Uncovered by LHWs
1,160	34%

4.5.3 Dengue Workers

Dengue Workers extend their services in 100% UCs. The majority of the dengue workers are managed by the town Municipality while a small proportion is provided by the district health department.





Chapter 5 EPI Facilities



Chapter 5: EPI Facilities

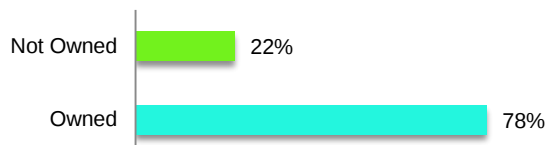
This chapter amplifies the situation of EPI facilities based on the physical assessment of EPI centres. The overall objective of the assessment of EPI facilities is to know the strengths and weaknesses of the service delivery system. The following variables were assessed while visiting 116⁹ EPI facilities (Table 1, Annex 6):

5.1 Infrastructure

5.1.1 Ownership of Buildings

Out of the total 116 EPI facilities, 78% are situated in the buildings owned by the government; whereas, 22% are rented, out of which, 20% are operational in privately owned buildings, while 2% are functional at buildings owned by a family medical centre and at Peshawar University. Building and infrastructure of EPI facilities have a direct impact on the quality of services and attraction for caregivers. Insufficient facilities e.g. absence of waiting areas, insufficient seating capacity in waiting areas, absence of toilets, and drinking water discourages caregivers from attending EPI facilities. Likewise, the absence of gender-segregated waiting areas, gender-segregated clean and useable toilets, and unavailability of drinking water creates difficulties for female caregivers while visiting these EPI facilities. The following section further assesses the conditions of EPI centres on these essential parameters.

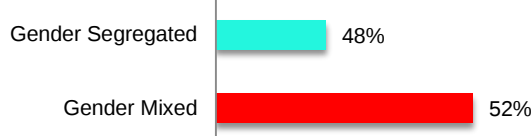
Figure 9: Ownership of EPI Facility Buildings



5.1.2 Waiting Areas

Most of the waiting areas were observed to have gender-mixed (52%) seating arrangements, whereas, gender-segregated waiting areas are present in only 48% EPI facilities. This became one of the major discouraging points for caregivers especially in areas which observe highly gender segregated practices.

Figure 10: Waiting Areas



On the other hand, 37% of EPI facilities have waiting areas with inadequate seating capacity. This creates a discouraging point for caregivers coming from distant locations. Adequate seating capacity in a gender segregated manner encourage caregivers to visit EPI facilities comfortably on their own.

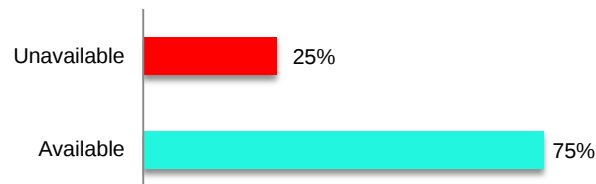
Seating Capacity of Waiting Areas



5.1.3 Drinking Water

About a quarter of EPI facilities do not have drinking water facility. Considering the hot weather conditions during summer, the availability of an adequate drinking water facility is important for EPI facilities.

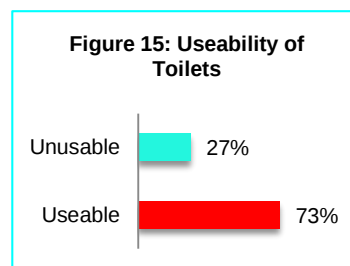
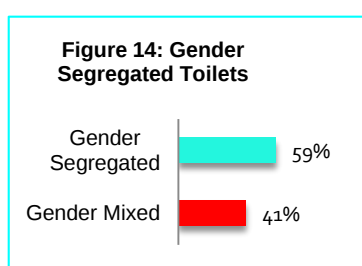
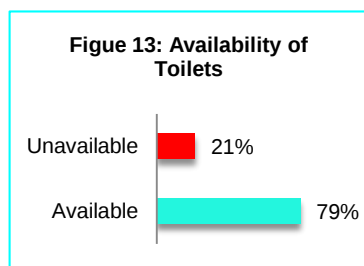
Figure 12: Drinking Water



⁹ 116 are the number of EPI facilities assessed in Peshawar city

5.1.4 Toilets

There are 21% of EPI facilities without toilets. The EPI facilities where toilets are found, a large percentage (41%) were found gender mixed. About a quarter of toilets in EPI facilities are not useable.

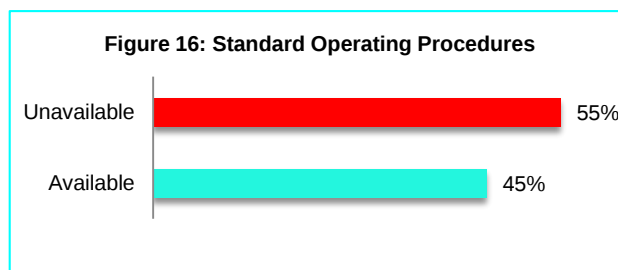


All three major factors i.e. unavailability of toilets in EPI facilities, availability of gender mixed toilets and unusable toilets are discouraging factors for caregivers especially female caregivers.

5.2 Systems

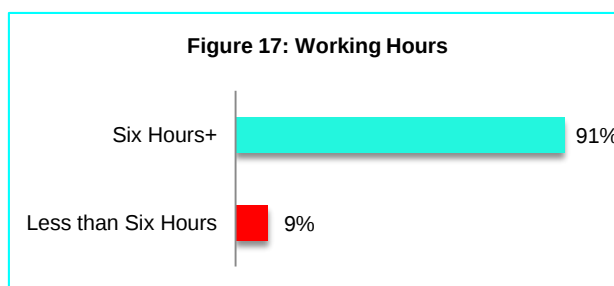
5.2.1 Standard Operating Procedures

Standard Operating Procedures is a key document for providing guidelines on the management of facilities to ensure minimum quality standards. Although availability of Standard Operating Procedures is not a sign of quality standards but at least it may provide some guidance for maintaining quality standards. It is alarming that 55% of facilities in Peshawar do not have any Standard Operating Procedures.



5.2.2 Working for Less than 6 Hours

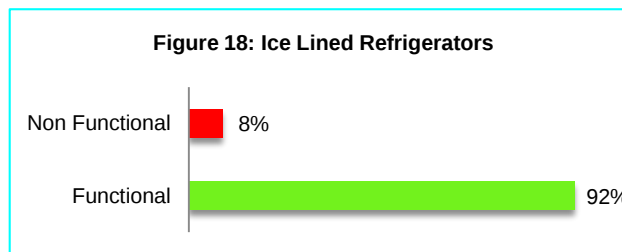
Although majority of the EPI facilities are observing their official timings but some EPI facilities were found non compliant to their official working hours. This could be because of multiple factors such as weak accountability or low turn out of caregivers or shortage of vaccine or supplies. It is important to find out real reasons and ensure that all EPI facilities observe working hours.



5.3 Equipment and Supplies

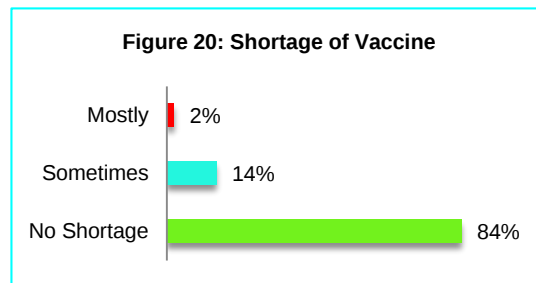
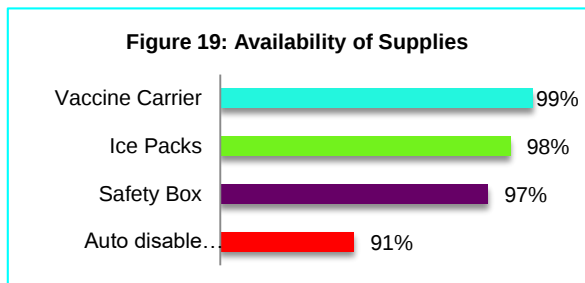
5.3.1 Ice-Lined Refrigerators

100% EPI facilities have Ice Lined refrigerators available but 8% of them were found non functional. Non-functional ILR has direct link with the quality of available vaccine. It is extremely important to ensure cold chain maintenance in all EPI facilities.



5.3.2 Supplies

Availability of supplies is extremely important for providing uninterrupted services to caregivers. Although majority of the EPI facilities do not report shortage of supplies but a small percentage (9%) report shortage of auto disable syringes. 3% EPI facilities report shortage of safety boxes and 2% report shortage of ice packs.

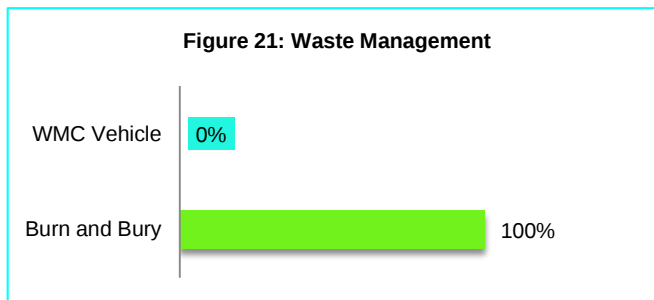


84% EPI facilities reported no shortage of vaccine. A small percentage of EPI facilities (14%) report infrequent shortage of vaccine. Only 2% report frequent shortage of vaccine in their facilities.

5.4 Waste Management

5.4.1 Types of Practices

Waste management practices are extremely important in preventing misuse of used syringes and vaccine bottles. It is also important to prevent infections. Although the waste management practices for different items such as vaccine bottles and syringes were found aligned but some EPI facilities reported challenges for burning and burying.



5.5 Human Resources

5.5.1 Vaccinators

Vaccinators are available in all of EPI facilities. It is important to analyse the number of vaccinators per EPI facility to assess if the number is in accordance with the inflow of caregivers.

Table 32: Availability Vaccinators and LHVs

Status	Vaccinators	Lady Health Visitors
Available	100%	64%
Not Available	0%	36%

5.5.2 Lady Health Visitors

EPI facilities are mostly housed in health facilities. The deployment of Lady Health Visitors (LHVs) in any EPI facility is determined according to the administrative status of the health facility. LHVs were not available in 36% EPI facilities, whereas, they are available in 64% facilities. The unavailability of LHV could be because of the administrative status of EPI facility



Chapter 6 Childhood Vaccination

Vaccination Cause More Diseases!

Israr is the resident of the slum Palosi Athozai since his birth. He saw his father and grandfather living in the same slum. Israr lives with his family of 15 members. This slum was established in 1940 and consequently carries multiple stories of deprivation and poverty dating back to pre-independence of Pakistan. Currently there are 400 people residing in Palosi Athozai. Although this is a legal community, but the system for provision of necessities of life is poor. The houses in the community are either tented or Kacha-Pacca. Israr is the only breadwinner of his family and works in a private firm, which pays poorly. In Israr's household, there are two women who are mothers to 3 children within the age bracket of 1-23 months. None of the three children have received any vaccine due to their mothers' misconception about vaccines causing more diseases. The mothers are not ready to vaccinate their children as they do not have enough funds to spend on healthcare for their children if in case the vaccine causes more diseases.

Chapter 6: Childhood Vaccination

This chapter provides a brief analysis of vaccination coverage rates of children aged 12-23 months. The coverage rates are correlated with the background characteristics of households and the profile of mothers. This chapter covers the following variables:

6.1 Vaccination Coverage

This section presents the sample size, retention of vaccination cards, and childhood immunization coverage rates. The status of vaccination is analysed for both record and recall basis.

6.1.1 Sample Size

In terms of sample size, a total of 1,799 households with 1,807 mothers and 1,814 children aged 12-23 months were part of this survey. Out of the total 1,814 children aged 12-23 months, 46% (833) were girls and 54% (981) were boys. These households have a total of 18,592 family members with 48% (8,839) male and 52% (9,753) female members while the average family size is 10 persons per house. (Table 5 Annex 8)

Table 33: Sample Size		
Children	Mothers	Households
1,814	1,807	1,799

6.1.2 Retention of Vaccination Card

Only 32% of children have vaccination cards, where the retention of a vaccination card was higher among boys (53%) compared to only (47%) girls. With regards to the relationship between retaining vaccination cards and living conditions, it was highlighted that 66% of the children without vaccination cards live in either Kacha or Kacha/Pacca houses. Additionally, 53% of families of children having no vaccination cards depended on daily wages for their livelihood, whereas, 35% of them face constant debt-burden. In connection with education, 73% of mothers of children without the cards were illiterate

Table 34: Children with Vaccination Cards		
With Cards (Record)		
Total Children	Boys	Girls
32%	53%	47%

6.1.3 Fully Immunized Children¹⁰

6.1.3 a. Record + Recall Basis

The data suggests that 53% of children were fully immunized on record and recall basis, where a higher number of boys (53%) were fully immunized compared to girls (47%). For the reliability of the data, children with a recall basis were assessed for a BCG scar. Therefore, resulting in a large number of children being defaulter due to a lack of outreach and EPI facilities. Moreover, the communities have different myths associated with childhood immunization that affects the vaccination process.

Table 35: Fully Immunized		
Records+ Recall Basis		
Total Children	Boys	Girls
53%	53%	47%
Records Basis		
27%	53%	47%

6.1.3 b. Record Basis

For the record basis, data shows that 27% of children were fully immunized. On a gender lens, the share of boys within fully immunized children was higher (53%) as compared to that of girls (47%). (Table 8 Annex 8)

¹⁰ Fully Immunized means a child who has completed all vaccination up to Measles 1

6.1.4 Antigen-wise Coverage

6.1.4 a. Record + Recall

Almost 81% of children were recipients of BCG + OPV0 dose, but the coverage rate for Penta 3 was 64% and the coverage rate for Measles 1 was 59% for record + recall basis. This reflects a greater need for comprehensive follow up and tracking of children to ensure a rise in coverage rate.

Table 36: Antigen-Wise Coverage

Antigens	Record+Recall Basis	Record Basis
BCG OPV0	81%	30%
Penta 1	73%	30%
Penta 2	67%	30%
Penta 3	64%	30%
Measles 1	59%	30%

6.1.4 b. Record Basis

It was observed that the antigen-wise coverage rate presented a significant drop when checked against the records.

6.1.5 Partially Vaccinated¹¹

The data notes that 31% of children were partially vaccinated. The gender-wise analysis found a higher percentage of boys (56%) getting partially vaccinated compared to girls (44%).

Table 37: Partially Vaccinated

Girls	44%
Boys	56%
Total	30%

6.1.6 Zero-Dose Children

The record and recall data states that 16% children who have not received any antigen hence declared as zero-dose. The gender-segregation shows that 44% of zero-dose children were girls compared to 54% of boys.

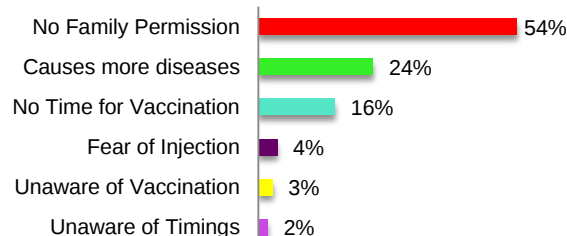
Table 38: Zero-Dose Children

Girls	44%
Boys	54%
Total	16%

6.1.7 Reasons for Zero-Dose

More than half of the mothers state non-permission as one of the major reasons of not getting their children vaccinated for any antigen. Another significant percentage of mothers' states multiple reasons for not getting their children vaccinated. These multiple reasons such as fear about side effects and fear of pain from injection shows limited awareness about benefits of vaccination. Some reasons of zero dose shows lack of information about timings and locations from where children can be vaccinated.

Figure 22: Reasons of Zero Dose



6.1.8 Information about Working of LHWs

The survey results show that 17% of mothers were not aware of the functioning of LHWs in their locality. As for the types of services provided by LHWs, only 55% of mothers knew that LHWs promote health services. Contrary to this, 9% of the mothers believed that LHWs only supply family planning products, whereas, only 1% of the mothers reported LHWs provide information on routine immunization. (Table 18 Annex 8)

Table 39: Awareness Level of Mothers About LHWs

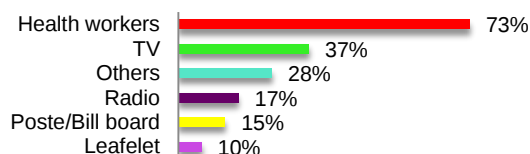
Aware of LHWs	Not Aware of LHWs
83%	17%

¹¹ This means that although they have received a few antigens of vaccination, they have not received all up to Measles 1

6.1.9 Preferred Channels of Communication

For communication purposes, 73% of mothers preferred health workers as communicators for information on vaccination. Along with health workers, another preferred medium of communication to receive information was television (37%). Written leaflet (10%) and posters (15%) were the least popular medium for receiving information on vaccination, which may be linked with the illiteracy among families.

Figure 23: Preferred Channels of Communications



6.2 Background Characteristics of Mothers

To comprehend the real reasons for low or no coverage, it is important to understand the background characteristics of mothers. Three major variables i.e. mother's age, education level, and engagement in livelihood activities were analysed.

6.2.1 Age

The majority of mothers (32%) were within the age range between 25-29 years while 3% of mothers were between 14-19 years and another 4% mothers were older than 39 years of age. (Table 20 Annex 8)

6.2.2 Educational Level

The data on education level among mothers suggests that 74% of mothers have no education while 12% received 6-10 years of education, and only 5% mothers acquired 11-15 years of education. (Table 21 Annex 8)

6.2.3 Engagement in Livelihood

With regards to livelihood earning, a significant number of mothers (96%) serve as homemakers while only 4% are engaged in livelihood activities. (Table 22 Annex 8)

6.3 Background Characteristics of Households

The background characteristics of households were assessed to understand the family background, living conditions, and economic pressure. For this, five major variables were analysed i.e. spoken language to know the ethnic background, housing structures, access to water and toilets, major profession, and financial debt.

6.3.1 Commonly Spoken Language

Pashto is the commonly spoken language by 87% of households, whereas, Urdu is the spoken language of 8% families. Furthermore, a combination of languages including Urdu, Punjabi, Balochi, Persian, Hindko is spoken by various families (Table 23, Annex 8).

6.3.2 Housing Structures

The housing structures of 29% of houses having children are Kacha/tented houses, whereas, 37% of houses are a combination of Kacha/Pacca (mixed structures), and 35% are Pacca houses. The majority of the (57%) houses have 2-3 rooms, while 12% of houses consist of only 1 room. The average family size is 10, which constitute 50% each for males and females respectively. The operational electricity connections were available in the majority (99%) of the houses.

6.3.3 Sources of Domestic Water

The majority (75%) of the houses do not have government water supply connections and they use either groundwater or acquire alternate water sources. Besides, 24% of houses have access to government water supply, and only 17% of such houses receive water for 1-5 hours a day. (Table 28 Annex 8)

6.3.4 Household Toilets

Most of the houses (69%) have traditional or open-pit toilets. Around 1% of houses where toilet facilities are absent engage in open defecation practices, increasing to health hazards in the community. An average of 9 people uses a single toilet daily. (Table 30 Annex 8)

6.3.5 Major Professions

Various forms of employment professions were reported from the survey. As for income, 54% of households rely on daily wage labour followed by 25% of households earning from small businesses, and 21% of households hold regular jobs. In analysing the financial pressure, 36% of households face constant financial debt because households must borrow for groceries, for which they have to pay it back every month. (Table 32 Annex 8)

6.4 Background Characteristics of Zero-Dose vs. Fully Immunized Children

There were 82% of mothers of zero-dose children who are illiterate as compared to a share of 73% illiterate mothers of fully immunized children. The source of income for the majority (54%) of households belonging to zero-dose and fully immunized children is daily wage

Table 40 Fully Immunized Vs Zero-Dose

Variables	Fully Immunized	Zero-Dose
Illiteracy in Mothers	73%	82%
Caregivers Working as Daily Wage Labour	54%	54%
Financial Debt	37%	46%
Live in Kacha or Kacha-Pacca House	63%	66%
No Toilets	0%	2%

work showing no discrimination. The comparison of the economic situation reflects a better condition of families for fully immunized children as compared to zero-dose. As 46% of households of zero-dose children have debt burden in contrast to 37% of households of fully immunized. Housing structures of zero-dose and fully immunized children have no significant difference. With 66% of zero-dose children live in either Kacha or Kacha-Pacca (mixed) structures in comparison to 63% fully immunized children living in Kacha or Kacha-Pacca (mixed) structures. 2% of the houses belonging to zero-dose children lack toilets and hence, residents mostly practice open defecation. On the other hand, 100% of houses of fully immunized children have toilet facilities.



Chapter 7 Conclusion and Recommendations





Chapter 7: Conclusion and Recommendations

This chapter draws on the findings of the survey to conclude and present key recommendations. These recommendations can be transformed into a cost-effective action plan through participatory exercise at the provincial and district level.

7.1 Conclusion

More than half of the Peshawar city population lives in slums/underserved areas, which is an indication of unplanned city growth, and the vulnerable state under which most of the city residents are surviving. The city saw major slum proliferation during 1950-1990, the era of urbanization in Pakistan.

During this period, the economy of Pakistan saw a transition from an agrarian to a semi-industrialized economy. Initiating a wave of migration from rural to urban areas by residents in pursuit of better life opportunities, thereby creating informal settlements in the process. Only half of the slums are registered by city authorities, which means that the rest of the settlements are illegal. Therefore, they do not have access to public health, water, and sanitation systems, and education services. A quarter of the residents of slums/underserved areas of Peshawar are either temporarily displaced or are of other Nationalities. The TDPs and residents of other Nationalities need special attention from city authorities since they either keep moving from one locality to another. Thus, creating shantytowns, or in the case of refugees, they may not have the legal right to work in Pakistan which further, adds to their misery due to marginalization.

When assessed for their infrastructural facilities, more than half of the houses in slums/underserved areas are either Kacha/Kacha-Pacca, making them vulnerable to extreme weather conditions and natural disasters. Although most of the households in slums/underserved areas of Peshawar have toilet facilities, more than half were without proper solid and liquid waste disposal systems. These households have either open or running drains, as for the solid waste disposal, they dump their waste material often on streets or in open empty plots. Contributing to poor hygiene and cleanliness related issues, which in turn leads to the spread of diseases among the residents of these informal settlements. Further analysis of access to government supply of water reveals that it is only available to around 10% of the residents of slums/underserved areas. The rest of the residents rely on groundwater or acquire it from other sources. When assessed for the availability of social welfare schemes, half a quarter of slums do not have any schools which means that either the children in these areas do not attend a school or have to cover a long distance to access the nearest school.

For the presence of public health and EPI facilities, the data showed that in the UCs where public health and EPI facilities were present, more than 90% of the residents of slums/underserved areas reported that they are far from the accessible vicinity of 2 km. In case of health emergencies, the far off distance from the health facilities makes it difficult for the slum dwellers to reach on time. Moreover, the distance from EPI facilities means that families, considering their state of financial deprivation, are less likely to take their children for routine immunization. This, in turn, contributes to poor immunization coverage and the outbreak of preventable diseases, which strains the already limited budget of the Provincial and District Health Departments. As for the availability of nutrition services, three-quarter UCs of the city do not have nutrition services.

The assessment of EPI facilities revealed that almost half of the EPI facilities do not have gender-segregated waiting areas, whereas, more than a quarter of the EPI facilities do not have gender-segregated toilets. Keeping in view the cultural context of Khyber Pakhtunkhwa, gender-segregated facilities are essential to enable female family members to visit EPI facilities on their own for vaccinating their children. The coverage analysis on the sample population revealed that only half of the children were fully immunized, whereas, the other half were either zero-dose or partially vaccinated. The reason for poor immunization coverage is primarily attributed to a low level of awareness about routine immunization among the mothers and the lack of permission from their families. Further, analysis indicates that the families of zero-dose children were living under more vulnerable conditions with constant income deficit, illiteracy, Kacha housing structures, and absence of sanitation system when compared to the families of fully immunized children.



7.2 Study Limitations

- The profiling of slums / underserved areas is done by conducting interactive group interviews. There is a possibility of exaggeration and biased input from the participants due to prevailing group dynamics.
- The study provides accurate listing of the slums and provides substantial details on the profiling of the slums. However, since it is a sample-based study, the input from the sample does not precisely represents the true opinion of the entire slum population.
- Although the study provides an insight into the water and sanitation conditions of the dwellers of slums/underserved areas, the study does not, in detail covers the hygiene of water in terms of water safety for human consumption. The study also does not cover the poor sanitation related ordeals of the slum dwellers.
- The data on existing healthcare facilities has been collected from the department of health. It has been organised and analysed under the existing study but the healthcare facilities (except EPI facilities) located in the union councils, were not physically visited and verified by the study team.
- The data presented on EPI facilities is the observation/input of the survey team and information provided by the technical staffs / doctors. The department of health may have different information about EPI facilities in their records.
- The profiling of slums/underserved areas was conducted to have a cursory view of the situation therefore participatory groups discussions were conducted in each slum and underserved areas. Since the detailed house-to-house information has not been collected from the residents, some of the information may have exaggeration according to the participants of the group.
- The status of vaccinations explored through childhood vaccination coverage survey in the community were not triangulated with the data obtained from fixed EPI facilities through assessment. Therefore, the survey records for recall basis may have some variation.
- The childhood vaccination coverage survey was conducted only with mothers of children aged between 12 and 23 months, living in slums/underserved areas. The majority of mothers were either had no formal education or had very low levels of education. Their responses may have some understanding gaps.
- Since majority of the respondents of coverage survey were mothers with no formal education therefore the status of vaccination on recall basis has limited reliability.
- Since majority of the mothers of zero dose children had no formal education therefore reasons of zero dose may have missed some more aspects.
- Almost 75 percent population (slums and underserved areas) has access to school (i.e. access to primary education) in the study areas. However, type and quality of school education had not been assessed.

7.3 Recommendations

The following recommendations are made according to the gaps prevalent in health resources and coverage rates in slums/underserved areas.

7.3.1 Service Delivery

- Improve the availability and accessibility of health and EPI facilities for residents of slums/underserved areas. It is important to utilize the support of private-sector health facilities for improving the access of slums/underserved areas for vaccination services.
- To support the families, working hours, and duration for offering vaccination services should be according to the preference of families. Either introduce flexible hours for outreach vaccination services to ensure availability of residents of slums/underserved areas or introduce a double shift system for vaccination services and confirm availability of vaccination for extended hours within EPI facilities.
- Ensure that the SOPs are updated with current changes in the system and practices. Also, the staff is fully trained and adhere to the procedures and policies.
- Provide gender-specific infrastructure facilities in buildings of EPI facilities. For example, women and men specific waiting areas with adequate seating capacity, gender-segregated functional and clean toilets, and drinking water facilities may enhance the visits of women caregivers. Also, ensure the presence of LHVs in all EPI centres considering the cultural dynamics of Khyber Pakhtunkhwa.
- Guarantee availability of vaccines and supplies without any interruption to provision of vaccination services.
- Create permanent outreach vaccination points in or near slums/underserved areas. Health houses of LHWs can also be transformed into outreach vaccination points.

- 
- Ensure registry of children living in slums/underserved areas for easy identification of children for the childhood immunization process.

7.3.2 Demand Generation and Communication

- Design demand specific strategy, which not only targets caregivers of children but also, offers tools for raising the awareness level of family members.
- Community awareness-raising sessions can be conducted to increase the knowledge of residents of slums/underserved areas, to eliminate misconceptions and to maximize their understanding of the overall safety and efficacy of vaccines.
- Design literacy programmes for improving maternal education level. Literacy can be utilized as a medium for raising awareness of the importance of immunization.
- Use channels of communication preferred by mothers and other community members so that the importance of childhood immunization can be understood and practiced accordingly.
- Facilitate LHWs in raising the awareness level of caregivers on the importance of childhood immunization on a priority basis.
- Regular follow-up of caregivers by front line health workers (vaccinators/LHWs/social organizers/local community activists) before and after outreach vaccination in their respective areas.

7.3.3 Health Workforce

- Facilitate vaccinators and LHWs in preparing realistic joint micro-plans for covering immunization for children living in both planned and unplanned areas (slums/underserved).
- Create a robust system for tracking the newborn and moving population to prepare realistic micro-plans.
- Introduce performance-based payments together with effective performance management measures. For example, offer non-financial incentives to high performing LHWs and vaccinators such as a certificate for best employee. Any LHW or vaccinator securing 12 certificates consecutively may be recommended for salary increments etc. As a result, it will improve the coordination and teamwork between LHWs and vaccinators.

Offer periodic performance-based incentives to vaccinators to improve the effectiveness of outreach vaccination services.

7.3.4 Gender in Immunization

- Ensure deployment of LHVs in all EPI facilities to attract female caregivers.
- Ensure administration of vaccination in private health facilities, which offer Maternal, Newborn, and Child Health (MNCH) services.

7.3.5 Practical vs. Strategic Needs

- Coordinate with public and private vaccination services and welfare initiatives to contribute towards improving the economic conditions of urban poor. This would directly contribute to an increase in coverage rates as this addresses their practical as well as strategic problems.
- Provide easy and accessible registration process for slum dwellers so that the provision of secure tenure for slum residents becomes a prerequisite for receiving the delivery of basic services.
- It is vital to ensure that policies and strategies formulated for urban poor are made according to their needs and requirements.
- A multi-pronged robust strategy needs to be in place that caters to the various practical and strategic needs of the slum residents, considering their dynamic living conditions.

Annex 1: Questionnaire for Group Discussion in Slums/Underserved Areas

Objectives: To line list slums/underserved areas and prepare their profile.

BS02	Name of facilitator of group interview
BS04	What is the name of your province? Select from below by typing the correct number: 1. Punjab 2. KP 3. Balochistan
BS05	Enter the name of your city
BS06	Enter name of your town
BS07a	What is the NEW NAME of this Union Council?
BS07b	What is the NEW NUMBER of this Union Council?
BS08a	What is the OLD name of this Union Council? If there is no OLD name, type X
BS08b	What is the OLD NUMBER of this Union Council? If there is no old number, type X
BS09	Is this a 1. Slum 2. Underserved area
PART B	
SP01	Please share current publicly known name of slum or underserved area (this should be name of the slum/underserved area that is also used in their postal address)
SP02	What is the status of registration of slum or underserved area with the relevant government department? Type 1 if its registered, or 2 if its unregistered. 1. Registered 2. Unregistered
SP03	Do you have documentary evidence? Type 1 for "yes" or 2 for "no". Skip if answer to question S02 is no. 1. Yes – check the evidence. If any utility bill is available in the name of the area, this can be treated as evidence 2. No
SP04	Which year was this area established?
SP05a	What is the name of the nearest landmark of this area?
SP05b	Please enter distance in kilometers from the slum/underserved area to the landmark
SP06	How many Mohallas do you have in this slum or underserved area?
SP07a	How many total families live in this slum or underserved area?
SP07b	What is the total population of this slum/underserved area?
PART C	
MT01	Do you have families other than permanent residents living here? If answer to this question is no then skip questions MT02b 1. Yes 2. No
MT02a	What is the number of permanent resident families settled here? Please enter number of FAMILIES only, and not individuals
MT02b	What is the number of temporary displaced families settled here? Please enter number of FAMILIES only, and not individuals. If none, type 0. Skip this question if answer to the question MT01 is no
MT02c	What is the number of nomad families settled here? Please enter number of FAMILIES only, and not individuals. If none, type 0. Skip if answer to questions SP08a is no
MT02d	What is the number of families from conflict affected areas that are settled here? Please enter number of FAMILIES only, and not individuals. If none, type 0. Skip if answer to questions SP08a is no
MT02e	What is the number of non-Pakistani families settled here? Please enter number of FAMILIES only, and not individuals. If none, type 0. Skip if answer to questions SP08a is no
MT02f	Any there families settled other than explained in answers to the earlier questions? Please enter number of FAMILIES only, and not individuals. If none, type 0. Skip if answer to questions SP08a is no
PART D	
HF01	Are there any functional public or private health facilities having MBBS qualified doctors in this slum or underserved area? If answer to this question is no then skip questions from HF02a to HF02d 1. Yes 2. No
HF02a	If there are any functional health facilities having MBBS qualified doctor then how many of these are public health facilities? Reply with a number. If there are none, type X. Skip this question if the answer to the question HF01 is no
HF04	Please share distance of nearest Public health facility located within your slum or underserved area in kilometers from the centre of your slum or underserved area. Skip this question if the answer to the question HF01 is no. Type a number from the select: 1) 0 - 1 Km 2) 1 - 2 Km 3) 2 - 3 Km 4) 3 - 4 Km 5) 4 - 5 Km 6) 5 + Km
HF05a	Does this public health facility offer the service of vaccination of children? Skip this question if the answer to the question HF01 is no 1. Yes 2. No



HF05b	Does this public health facility offer the service of maternal and child health care? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF05c	Does this public health facility offer the service of administration of polio drops? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF05d	Does this public health facility offer the service of obstructive care and delivery? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF05e	Does this public health facility offer any other facilities? Skip this question if the answer to the question HF01 is no If yes, please describe. If none other, type X
HF 06	Does this public health facility have functional ambulance? 1. Yes 2. No
HF02b	How many Private profit making health facilities having MBBS doctor are located in this slum or underserved area? Reply with a number. If there are no private health facility in this slum or underserved area then type X
HF07.	Please share distance of nearest private facility (for-profit) in kilometers from the centre of the area. Type a number from the select. Skip this question if the answer to the question HF01 is no 1) 0 - <1 Km 2) 1 - <2 Km 3) 2 - <3 Km 4) 3 - <4 Km 5) 4 - <5 Km 6) 5 + Km
HF 08.	Does this private for-profit health facility have functional ambulance? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF09a.	Does this private for-profit facility offer vaccination of children? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF09b.	Does this private for-profit facility offer maternal and child health care services? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF09c.	Does this private for-profit facility offer the service of administration of polio drops? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF09d.	Does this private for-profit facility offer obstructive care and delivery services? Skip this question if the answer to the question HF01 is no 1. Yes 2. No
HF09e.	Does this private for-profit facility offer any other services? If yes, please describe what those services are in meaningful text and correct spellings. If the private health facility does not offer any other services defined in earlier questions then type "X". Skip this question if the answer to the question HF01 is no
HF02c.	How many health facilities having MBBS qualified doctor located in your slum or underserved area are run by any WELFARE or TRUST ? Reply with a number. If none of the health facilities are run by any welfare or trust then type X. Skip this question if the answer to the question HF01 is no
HF02d.	Are there any other types of functional health facilities having MBBS qualified doctor which are not been mentioned by you in the answers of earlier questions? If yes how many of these are located in your slum or underserved area. Please answer in number. If there is no health facility other than already explained in the answers of earlier questions then type X. Skip this question if the answer to the question HF01 is no
HF10.	Are you aware of transport services offered by the government for any health related emergencies? 1. Yes 2. No
HF11a.	Are you aware of 1122 by the government to respond to any domestic accidental emergency? 1. Yes 2. No
HF11b.	Are you aware of 1038 by the government to respond to emergency related to the situation of pregnant women? 1. Yes 2. No
HF12.	Do Lady Health Workers work in this slum or underserved area? If the answer to this question is no then skip questions from HF13a to HF14f 1. Yes 2. No
PART E	
EP01.	Are there any vaccination services offered for children and women in this slum or underserved area? If the answer to this question is no then skip questions from EP02a to EP02f



	1. Yes 2. No
EP02a	Are there any fixed EPI facilities for vaccination in this slum or underserved area? Skip this question if answer to question EP01 is no 1. Yes 2. No
EP03.	Who is running this fixed EPI facility? Skip this question if answer to question EP01 is no 1. Government 2. Private 3. Welfare organisation 4. Cantonment 5. Other
EP04.	What is the average distance of the facility from the centre of the slum? Skip this question if answer to question EP01 is no 1. 0 - 1 Km 2. 1 - 2 Km 3. 2 - 3 Km 4. 3 - 4 Km 5. 4 - 5 Km 6. 5 + Km
EP02b.	Are there outreach vaccination camps in this slum or underserved area? Skip this question if answer to question EP01 is no 1. Yes 2. No
EP02c.	Do Lady Health Workers do the vaccination? Skip this question if answer to question EP01 is no 1. Yes 2. No
EP02d.	Are there overnight stay of mobile vaccinators for vaccination camps Skip this question if answer to question EP01 is no 1. Yes 2. No
EP02e.	Do doctors in private health facility do the vaccination? Skip this question if answer to question EP01 is no 1. Yes 2. No
EP02f.	Are there any system for vaccination in this slum or underserved area which is not explained in the answers to earlier questions? If yes, please explain in a meaningful sentence and there is no other system for vaccination which is not explained in earlier questions then type X. Skip this question if answer to question EP01 is no
PART F & G	
WA01	What is the MAIN source of water for domestic purposes for the majority of the houses of this slum or underserved area? 1. Government water supply 2. Well 3. Hand pump 4. Tube wells 5. Other
WA02	If acquire domestic water through any water supply system is available in this slum what is the duration of water availability? Please enter number of hours, e.g., type "4" if the water comes for 4 hours. If no running water available, type X
TO01.	Are toilets available in any of the houses of this slum or underserved area? Skip questions TO02a if the answer to this question is no 1. Yes 2. No
To02a.	Approximately how many houses of this slum or underserved area have toilets? Enter number only. If the answer to the question TO01 is no then skip this question
To02b.	How many total houses of this slum or underserved area do NOT have toilets? Enter number only. If answer of TO02a is less than the total number of houses in this slum or underserved area then this question will filled otherwise skip it
To02c.	How many total houses are located in this slum or underserved area? Enter number only. (This question is asked to check that the answer to the question TO02a and To02b should not be greater than the total houses located in this slum or underserved area
TO 03a	If toilet exists in any of the houses of this slum or underserved area, please specify how many flush to sewage toilets are there? (Flush to sewage toilet refers to sewer connected pour flush toilet fixed with a household and main sewer outside the house leading to a disposal point or sedimentation tank). Please enter NUMBER of such type of toilets only. If there are none, type 0. Skip if answer to question TO01 is no
TO 03b	If toilets exist in any of the houses of this slum or underserved area, please specify how many traditional pits toilets are there in the slum/underserved area? (Constructed over simple dug well without any p-trap provision). Please enter NUMBER of such type of toilets only. If there are none, type 0. Skip if answer to question TO01 is no
TO 03c	If toilets exist in any of the houses of this slum or underserved area, please specify how many open pits are there in the slum/underserved area which people use as toilets? Please enter NUMBER of such type of toilets only. If there are none, type 0. Skip if answer to question TO01 is no

TO 03d	Please specify if there are ANY OTHER types of toilets in the slum/underserved area, which we have not asked you about yet. If so, please describe what type and how many are there. If there is no other type, type X. Skip if answer to question TO01 is no
TO 04.	If toilet exists in all or some of the houses of this slum or underserved area, please explain approximately how many persons in majority of the houses share one toilet? Enter number only. Skip if answer to question TO01 is no
To05.	If there are houses without any toilets in this slum or underserved area then where do generally men and women go for defecation? 1. Neighbor's toilet 2. Public toilet 3. Open defecation 4. Other
PART H, I & J	
TH 01a.	How many total houses are located in this slum or underserved area
TH 01b.	How many houses of this slum or underserved area have Kacha type of infrastructure as the main residential area of the household? If yes, please enter answer in number only. If there are no Kacha houses in this slum or underserved area then type X
TH 01c.	How many houses of this slum or underserved area have Pacca type of infrastructure as the main residential area of the household? If yes then enter answer in number only. If there are no Pacca houses in this slum or underserved area then type X
TH 01d.	How many houses of this slum or underserved area have mixed type of infrastructure (partially Pacca and partially Kacha) as the main residential area of the household. If yes then enter answer in number only. If there are no houses having mixed infrastructure in this slum or underserved area then type X
TH 01e.	How many houses of this slum or underserved area have tented type of infrastructure as the main residential area of the household? If yes then enter answer in number only. If there are no tented houses in this slum or underserved area then type X
TH01f	Are there houses in this slum or underserved area having infrastructure other than explained in earlier questions as the main residential area of the household? If yes then enter answer in number. If there are no houses constructed in infrastructure other than explained above in this slum or underserved area then type X
SWM 01a	Are there any paved or unpaved drains in this slum or underserved area. If the answer to this question is no then skip question SWM01b 1. Yes 2. No
SWM 01b	What is the condition of drains regarding disposal of waste water? 1. Drains have running water 2. Drains are filthy 3. Drains are choked 4. Any other
SWM02a.	Is there any system available for disposal of solid waste in this slum or underserved area? If the answer to this question is no then question SWM02b will be skipped 1. Yes 2. No
SWM 02b.	What is the system for the disposal of solid waste in this slum or underserved area? Type a number to select from the following list. Skip this question if answer to the question SWM02a is no 1. Government/WMC vehicle comes to pick 2. Welfare organisation arrange disposal with some intervals 3. Residents dump it on an empty plot 4. Residents throw it on streets 5. Any other
ED 01.	Are there schools in this slum or underserved area? If the answer to this question is no then skip questions ED02a to ED03a 1. Yes 2. No
ED02a.	Are there schools by government? Skip this question if the answer to question ED01 is no 1. Yes 2. No
ED02b.	Are there for profit schools by private sector? Skip this question if the answer to question ED01 is no 1. Yes 2. No
ED02c.	Are there schools by welfare trust or charity? Skip this question if the answer to question ED01 is no 1. Yes 2. No
ED02d.	Are there any Maktab schools by religious group(s)? Skip this question if the answer to question ED01 is no 1. Yes 2. No
ED02e.	Are there any other type of schools which are not explained while answering earlier questions? If yes, please describe what type of schools in meaning full text and correct spellings. If there are no schools types, which are not explained in earlier questions, then type X. Skip this question if the answer to question ED01 is no
Ed03a.	What is the approximate distance of nearest school (it could be any type of school) from the centre of the slum or underserved area? Type a number to select: Skip this question if the answer to question ED01 is no 1. Less than 1 km 2. Between 1-2 km 3. Between 2-3 km 4. Between 3-4 km

	5. More than 4 km
	PART K
CSO01.	Are there any not for profit registered welfare or charity organisation working in this slum or under served area (NGOs-CSOs)? If the answer to this question is no then skip questions from CSO02 and CSO03. 1. Yes 2. No
CSO02	If registered not for profit organisations are working in this slum or underserved area, please mention its number? This question will be answered if the answer to question CSO01 is yes otherwise type X. Skip this question if answer to the question CSO01 is no
CSO03	If registered not for profit organisations are working in this slum or underserved area, please share their full names in correct spellings. Skip this question if the answer to question CSO01 is no
CSO04	Are there any informal groups or committee working in this slum or underserved area? If answer to this question is no then skip question CSO05 1. Yes 2. No
CSO05	Do the informal groups/committees include the following. Skip this question if the answer to the question CSO04 is no 1. Health committee 2. School committee 3. Masjid/church committee 3. Jirga or Panchait 4. Zakat committee 5. Unregistered Community Based Organisation 6. If other than stated above then explain in meaningful text in correct spellings
CSO06a	Are there any public welfare schemes or initiatives by government? If answer to this question is no then skip questions CSO06b, CSO06c, CSO06d, CSO06e, CSO06f 1. Yes 2. No
CSO06b	Does the government provide a loan scheme? Skip this question if the answer to the question CSO06a is no 1. Yes 2. No
CSO06c	Does the government provide a stipend scheme? 1. Yes 2. No
CSO06d	Does the government provide a Social Benefit Card scheme? Skip this question if the answer to the question CSO06a is no 1. Yes 2. No
CSO06e	Does the government provide a vocational skills scheme? Skip this question if the answer to the question CSO06a is no 1. Yes 2. No
CSO06f	Are there any other types of government scheme for the welfare of people of slum or underserved area, which is not explained in the answers of earlier questions? If the answer is yes, please explain it in a meaningful text and correct spelling and if there is no other type of welfare scheme by the government then type X.
Please enter names and mobile phone numbers of participants of this group discussion (minimum three names and numbers required).	
	Participant 1 name ----- Participant 1 number-----
	Participant 2 name----- Number-----
	Participant 3 name----- Number-----

Annex 2: Questionnaire for Household Coverage Survey

Objectives: To assess childhood immunization coverage rates in slums/underserved areas.

Questionnaire for Household Coverage Survey	
	Name of Enumerator
	Date of interview
	Select your province by typing the number from below, e.g., 2 for KP: 1. Punjab 2. KP 3. Balochistan
	Enter district name
	Enter Union Council name
	Enter the name of location
HHM1	Is this location a slum or underserved 1. Slum 2. Underserved
	Enter name of household head
	Enter household number. Please insert household numbers as 1, 2, 3 etc. as you begin filling questionnaires from different households
	Enter Converted ID number (CID) Instructions for Supervisors: The logic of having Converted ID number (CID) is to ensure a unique ID for each HOUSEHOLD. The household number cannot be unique as different enumerators will collect data from different households on the same time and will enter household number of their own such as 1, 2, 3 etc. Once data collection by all enumerators is completed for the day, the supervisor or Team Leader) enter CID for each of the completed interviews on the MS EXCEL sheet. The supervisor should know the last CID entered. This will be continued in the following day. The supervisor will enter CIDs considering the last CID entered in the previous day.
HHMa	How many members are currently living in your household?
HHMb	How many of them are males? Please write your answer in numbers e.g. 2, 3, 4
HHMc	How many females are in the household? Please write your answer in numbers e.g. 2, 3, 4
SE01	Since how long you (and your family members) are living here in this house/slum? Enter the duration in number of years and months, e.g. 2 years and 3 months
SE02	In case of nomads please specify the reason for moving and write this correct spellings and complete meaningful sentence
SE03	Which language is primarily used in your house with family members? Type the correct number from below. If they choose 8: Please write which language is primarily spoken at home and not stated in the above mentioned list of languages 1. Urdu 2. Punjabi 3. Potohari 4. Balochi 5. Pashto 6. Sindhi 7. Siraiki 8. Other
SE04	What is type of infrastructure of main living room/bedroom of the house? If they choose 5: Please specify what is the other type of infrastructure of the main room of the house in correct spellings and complete meaningful sentence 1. Kacha 2. Pacca 3. Mixed 4. Tented 5. Other type of infrastructure
SE05	How many (living rooms and bedrooms) are in the house? (Do not include kitchen, toilet, cattle-shed etc). Please write your answer in number only e.g. 1 or 2 or 3
SE06	How many members were in the house yesterday including any guests? Please write your answer in number only e.g. 1 or 2 or 3
SE07	Is electricity available/installed in your house? Please write your answer either in 1 or 2 or yes or no 1. Yes 2. No
SE08	What is the main source of water for ALL PURPOSES in your house? If they select 7, please specify the water source in words other than stated above 1. Government water supply 2. Well 3. Hand pump 4. Tube wells 5. Other
SE09	What is the main source of DRINKING water? If the answer is other than specified the above please specify it in correct spelling and meaningful sentence 1. Government water supply 2. Well 3. Hand pump 4. Tube wells 5. Other



SE10	Do you have running water system installed in your house The answer could be in 1 or 2 or in yes or no if the answer is no then skip to question SE12 1. Yes 2. No
SE11	If the running water system is installed in your house, then what is the duration of water availability? Please write your answer in number of hours only, e.g., 4. If there is no running water, type X
SE12	Do you have functional or useable toilet available within your house? If the answer is no then skip to question number SE15 1. Yes 2. No
SE13	If you have toilet in your house, please specify its type of toilet, which is used by elder family members (not by children)? (Please check the availability of toilet if conveniently possible). Please write your answer in numbers by selecting from the stated list. If they select option 5, they will be taken to SE15 1. Flush to sewage 2. Traditional toilet 3. Open pit 4. Any other type of toilet
SE14	If you do have toilet in your house, how many people share one toilet in the house? Please write your answer in number only
SE15	If you do not have toilet in your house, where do you go for defecation? If they choose 4: Please specify your answer in correct spellings and complete meaningful sentence. 1. Neighbour's toilet 2. Public toilet 3. Open defecation 4. Other
SE16	What is the primary source of income of the household? Please write your answer in numbers by selecting from the stated list. If they choose 7: Please specify the primary source of income in correct spelling and complete meaningful sentence 1. Government Job 2. Private job (factory worker, etc.) 3. Work in foreign country 4. Small business (shop keeper, etc.) 5. Work as daily wage labors 6. Taxi driver 7. Other
SE17	Do you have any type of debt burden? Yes No
Household Survey Questionnaire Part B. It is about knowledge, behaviors and practices of mothers on immunization. Repeat this questionnaire if there is more than 1 mother in this house	
Enter Converted ID number (CID). Please enter mother number, e.g., type "1" if its the first mother of the house you are interviewing. Please enter mother's mobile number if mother does not have a mobile number, please record mobile number of any other family member who lives in the same house	
SD01	How old are you? Please write your answer in number of years e.g. 20, 25, 30 etc.
SD02	How many years of schooling did you finish? Please write your answer in numbers e.g. 0,1, 2, 3, 4 etc.
SD03	Are you employed outside home? 1. Yes 2. No
SD04	How many children under the age of 2 do you have? Please write your answer in number e.g. 1, 2, 3, 4 etc.
KP01	Have you ever heard of childhood vaccination or immunization or EPI from any of the sources? If the answer is no then please skip to question KP04a 1. Yes 2. No
KP02	Please tell us the purposes of vaccinating or immunizing children? If they select option 2, please specify the purpose of vaccination in a correct spelling and complete meaningful sentence 1. To protect from diseases 2. Other purpose 3. Do not know
KP03	What is your preferred channel for receiving information on childhood vaccination? 1. TV 2. Radio 3. Bill Board/Poster 4. Leaflet 5. Health Worker 6. Other
KP04	Have you gotten your children immunised? If the answer to this question is no then skip questions CH04-C11 1. Yes 2. No
KP05	If you do not get your child immunised, please share reason for not getting your child immunised? 1. Was not aware of EPI/outreach facility 2. Did not know the timing/hours 3. Did not have time to go 4. No enabling environment in EPI facility 5. Transport cost/opportunity cost 6. Family/husband did not allow

	7. Fear of injection 8. It is haram 9. It causes more diseases 10. Wastage of time 11. Other
KP06	Have you ever heard of Lady Health Workers (LHWs) working in your area? 1. Yes 2. No
KP07	Please tell us what they (LHWs) do? (As the interviewer, do not read the following options to the respondent.) 1. Promote health education 2. Supply FP methods 3. Treat illness 4. Refer to hospital 5. Vaccinate/help vaccinator 6. Don't know
Household Questionnaire Part C. It is about immunization status of children under 2. For each child ask her mother to answer the following question	
CH01	What is the gender of child? 1. Male 2. Female
CH02	What is the age of child in months? If the age of the child is in days, please specify number with a word e.g. 01 year, 009 months or 15 days
CH03	Has the child ever been given vaccine? Please write your answer either in 1 or 2 or yes or no. If the answer to this question is no then skip to question CH12 1. Yes 2. No
CH04	If the child was given any vaccine, please ask the mother to show the vaccination card? If the card is available then answer yes or 1. (If card is available, then use it to record immunization status of the child below. Ask the following question if the child has not received all expected doses). If card is not available then record the status of vaccination on re-call basis. 1. Yes 2. No
CH05	Has the child ever been given BCG vaccination immediately after the birth? You may ask first dose of the vaccine Please write your answer either in 1 or 2 or yes or no. Interviewer: Confirm if BCG is given by asking how was given, any scar mark on the arm of the child. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH06	Has the child been given OPV to protect him/her from getting polio immediately after the birth or later? This is usually given with BCG.. Please write your answer either in 1 or 2 or yes or no Interviewer: Confirm by asking more questions. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH07	Has the child' been given Penta 1 at the age of 06 weeks or later? Please write your answer either in 1 or 2 or yes or no. Interviewer: Confirm by asking more questions. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH08	Has the child' been given Penta 2 at the age of 10 weeks or later? Please write your answer either in 1 or 2 or yes or no. Interviewer: Confirm by asking more questions. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH09	Has the child' been given Penta 3 at the age of 14 weeks or later? Please write your answer either in 1 or 2 or yes or no. Interviewer: Confirm by asking more questions. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH10	Has the child' been given Measles 1 at the age of 09 months or later? Please write your answer either in 1 or 2 or yes or no. Interviewer: Confirm by asking more questions. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH11	Has the child' been given Measles 2 at the age of 15 months or later? Interviewer: Confirm by asking more questions. The question can be filled by verifying it from the vaccination card or on recall basis 1. Yes 2. No
CH12	Does this mother have another child under 2 years of age? 1. Yes 2. No If the answer is yes, please fill the section C of the questionnaire for the 2 nd child.

Annex 3: Questionnaire for Compiling Health Resource in Union Councils

BASIC INFORMATION: This questionnaire is to be filled in through individual interview of district health officer or district EPI coordinator						
BS 01. Date:		___ / ___ / 201__				
BS 02. Name of Interviewer						
BS 03. Signature of Interviewer						
BS 04. Name of Province:						
BS 05. Name of District:						
BS 06. Name of Town / Tehsil:						
BS 07. New Name of Union Council:						
TEHSIL/TOWN INFORMATION						
TI 01. How many Union Councils are in this city? Please include all towns of this city.		Number.....				
TI 02. Enlist new and old names and number of all the Union Councils of this city for each town						
#	List of New Name of Union Council	List of Old name of Union Council	List of New Number of Union Council	List of Old Number of Union Council		
TI 03. Enlist Union Council wise names of slum or underserved area if available. (you may attach separate list of slums or underserved area in case of long list)						
#	New Names of Union Council	Name of slums	Name of underserved area			
TI 04. What is the population in each Union Council? (Kindly mention population including and excluding population of slum or underserved area). Please define source of population size as well						
#	New Names of Union Council	Population of Slum or underserved area	Population of Union Council (Excluding Population of Slum or underserved are	Total Population of Union Council		
HF 01. How many Public Health Facilities are in each Union Council?						
#	Names of Union Council	List of Public Health Facilities				
HF 02. How many Public Health Facilities are located in slum or underserved areas?						
#	New Names of Union Council	Name of slum or underserved area	List of Public Health Facilities	List of Private Health Facilities	Total	
HF 04. How many Lady Health Worker are currently active in each Union Council?						
#	Names of Union Council	List of Lady Health Workers				
HF 06. Is Dengue staff working in union council		1. Yes 2. No				
HF 7. If yes, then how many staff members are working		Total				
NUTRITION						
NU 01. Any nutrition service delivered in the Union Councils?		1. Yes 2. No				
NU 02. If yes than what type of nutrition services are delivered?		1. Fixed 2. Temporary 3. School Nutrition Session 4. LHW Sessions on Nutrition in Communities 9. Other.....				
VACCINATION						
VA 01. How many Fixed EPI Facilities (Vaccination centres) are available in each Union Council?						
#	Names of Union Councils	List Public of Fixed EPI Facilities	List of Private Fixed EPI Facilities	List of Welfare Fixed EPI Facilities	List of Any Other Type of Fixed EPI Facilities	No EPI Facility



VA 02. State the number and functionality of ILR or Refrigerator in Fixed EPI Facility (vaccination centres)?

#	Names of Union Council	Public Fixed EPI Facilities		Private Fixed EPI Facilities		Welfare Fixed EPI Facilities		Any Other Type of Fixed EPI Facilities	
		Functional	Non Functional	Functional	Non Functional	Functional	Non Functional	Functional	Non Functional

VA 03. What is the number and status of availability of currently active vaccinator?

#	New Name of Union Council	List of vaccinator in Public Health Facility	List of vaccinator in Private Health Facility	List of Vaccinator in Fixed EPI Facility (vaccination centre) established by other than public sector organisation

Annex 4: Questionnaire for EPI Facility Assessment

Objective: This questionnaire will be used for the assessment of fixed EPI Facility and undertake group interview with the facility team

#	Identification	Answer and code
ID1	Date of assessment	
ID2	Name of assessor	
ID3	Signature of assessor	
ID4	Name of Province	
ID5	Name of District	
ID6	Name of Town (or <i>Tehsil</i>)	
ID7	Name of the EPI Facility	
ID8	Record longitude and latitude of the fixed EPI Facility	 Longitude Latitude
ID9	Take photo of the fixed EPI Facility	1 – Photos taken 2 – Not taken
#	Infrastructure	
IM1	What is the type of building (rented, owned)? 1 - Rented 2 - Owned 9 - Other (specify):	
#	Management	
IM2	Are Standard Operating Procedures for child immunizations available in this facility at the time of visit? 1 – Yes (Assessor: Please verify) 2 – Not available today 3 – Facility never had Standard Operating Procedures	
IM4 a	Are auto disable syringes available in this facility at the time of visit? 1.-Yes 2.-No	
IM4 b	Are sharp containers available in this facility at the time of visit? 1.-Yes 2.-No	
IM4 c	Are vaccine carrier(s) available in this facility at the time of visit? 1.-Yes 2.-No	
IM4 d	Set of icepacks for vaccine carriers available in this facility at the time of visit? 1.-Yes 2.-No	
IM4 e	Anything else available in this facility at the time of visit, which we have not asked about? If yes please specify and if not available type X	
IM5	Does this facility has Ice Lined Refrigerator available at the time of visit with power supply for the storage of vaccines? Please physically verify the answer. 1 – Available with power supply 2 – Available but no regular power supply 3 – Ice Lined Refrigerator is out of order 4 – No Ice Lined refrigerator is available	
IM6	Did the facility experience any problem in getting vaccines in last one year ? 1 – No 2 – Yes, sometimes 3 - Yes, facility has frequent shortage of supplies 4. – Other (specify):	
#	Human Resource	
EP4a	Are vaccinators available in this EPI Facility? 1- Yes 2- No	
EP4b	If vaccinators are available, please share number of vaccinators currently providing services in this EPI facility? If there are no vaccinators type X	
EP4c	Are LHVs available in this EPI facility	
EP4d	If LHVs are available, please share number of LHVs currently providing services in this EPI facility? If there are no LHVs type X	
EP5a	What are the timings of this fixed health facility open? type number only "8" (24 hours format) Opens at:	
EP5b	What are the timings of this fixed health facility closed? type number only "15" (24 hours format) Closes at:	
EP5c	What are total working hours of the facility per day? Type a number only e.g."8" Total working hours.....	



#	Environment & Facilities For The Patients
EN1	Is there any waiting area (separate for men and women patients) in the facility? 1 – Yes, separate for men and women 2 – Yes, mixed waiting area for men and women 3 – No waiting area available
EN2	Is adequate seating capacity/ arrangement available in the waiting area? 1 - Yes, has adequate seating capacity 2 – No, seating capacity is not adequate 9 – No seating area available /NA
EN3	Is drinking water available for patients and their attendants in the facility? 1 – Yes 2 - No
EN4	Is toilet facility available for both men and women patients and their attendants in the facility? 1 – Yes, separate for men and women 2 – Yes but NOT separate for men and women 3 – No toilet facilities available
EN5	Is the toilet facility usable for patients and their attendants in the facility? 1 – Yes, usable 2 – Not usable
EN6	How health facility/ EPI waste is being disposed from the site 1. Buried 2. Burnt 3. Burn and Buried 4. Dumped in health facility / garbage cane 5. Others

Annex 5: Analysis of Profiling of Slums/Underserved Areas

Table 1: Number of Slums and Underserved			
City	Slums	Underserved	Sub Total
Peshawar	550	22	572

Table 2: Timeframe Existence of Slums					
City	Before 1950	1950-1990	1991-2005	After 2005	Total
Peshawar	235	265	42	8	550

Table 3: Registration Status of Slums				
City	# of slums in each city	Registered slums	Unregistered slums	Sub Total
Peshawar	550	273	277	550

Table 4: Population				
City	Population in Slums	Population in Underserved Areas	Sub Total	
Peshawar	1,480,942	51,536	1,532,478	

Table 5a: Types of Residents in Slums				
City	Permanent Resident	Temporary Displaced	Other Nationality	Total
Peshawar	153,038	39,725	11,734	204,497

Table 5b: Types of Residents in Underserved				
City	Permanent Resident	Temporary Displaced	Other Nationality	Total
Peshawar	4,722	553	2	5,277

Table 5c: Types of Residents in Slums and Underserved (Total)				
City	Permanent Resident	Temporary Displaced	Other Nationality	Total
Peshawar	157,760	40,278	11,736	209,774

Table 6: Number of Health Facilities											
City	Slums					Underserved					
	Public	Private	Welfare/Trust	Other	Total	Public	Private	Welfare/Trust	Other	Total	Grand Total
Peshawar	31	7	3	0	41	2	1	0	0	3	44

Table 7a: Slums having Private and Public Health Facilities						
City	With Public Health Facilities	With Private Health Facilities	With Both Public and Private Health Facilities	Total	Without any Health Facilities	Total
Peshawar	31	10	0	41	509	550

Table 7b: Underserved having Private and Public Health Facilities						
City	With Public Health Facilities	With Private Health Facilities	With Both Public and Private Health Facilities	Total	Without any Health Facilities	Total
Peshawar	2	1	0	3	19	22

Table 7c: Slums and Underserved having Private and Public Health Facilities						
City	With Public Health Facilities	With Private Health Facilities	With Both Public and Private Health Facilities	Total	Without any Health Facilities	Total
Peshawar	33	8	3	44	528	572

Table 8a: Average Distance between Private Health Facilities and Slums				
City	0-2km	3km	# of Slums Without Private Health Facilities	Subtotal
Peshawar	6	0	544	550

Table 8b: Average Distance between Private Health Facilities and Underserved				
	0-2km	3km	# of Underserved Without Private Health Facilities	Subtotal
Peshawar	1	0	21	22

Table 8c: Average Distance between Private Health Facilities and Slums/Underserved (Total)				
City	0-2km	3km	# of Slums/Underserved Without Private Health Facilities	Subtotal
Peshawar	7	0	565	572

Table 9: EPI Facilities						
City	Slums		Underserved Areas		Slums/Underserved Total	
	Available	Not Available	Available	Not Available	Available	Not Available
Peshawar	45	505	1	21	46	526

Table 10a: Distance Between EPI Facilities and Slums						
City	0-2km	3km	4km	5+km	Slums without EPI facility	Total
Peshawar	45	0	0	0	505	550

Table 10b: Distance Between EPI Facilities and Underserved (Total)						
City	0-2km	3km	4km	5+km	Slums without EPI facility	Total
Peshawar	1	0	0	0	21	22

Table 10c: Distance Between Fixed EPI Facilities in Slums and Underserved (Total)						
City	0-2km	3km	4km	5+km	Slums without EPI facility	Total
Peshawar	46	0	0	0	526	572

Table 11a: Outreach of Vaccination Services in Slums		
City	Slums with Outreach	Total # of Slums
Peshawar	529	550

Table 11b: Outreach of Vaccination Services in Underserved		
City	Underserved with Outreach	Total Underserved
Peshawar	22	22

Table 11c: Outreach of Vaccination Services in Slums/Underserved (Total)		
City	Slums/Underserved with Outreach	Total Slums/Underserved
Peshawar	551	572

Table 12a: Lady Health Worker in Slums			
City	LHWs Covered	LHWs Uncovered	Total Slums
Peshawar	328	222	550

Table 12b: Lady Health Worker in Underserved			
City	LHWs Covered	LHWs Uncovered	Total Underserved
Peshawar	7	15	22

Table 12c: Lady Health Worker in Slums/Underserved (Total)			
City	LHWs Covered	LHWs Uncovered	Total Slums/Underserved
Peshawar	335	237	572

Table 13a: Availability of 1122 Services								
City	# of Slums	Slums		# of Underserved	Underserved Areas		Slums/Underserved Areas	
		Slums With 1122	Slums Without 1122		Underserved With 1122	Underserved Without 1122	Slums/Underserved With 1122	Slums/Underserved Without 1122
Peshawar	550	390	160	22	19	3	409	163

Table 13b: Availability of 1038 Services								
City	Slums			# of Underserved	Underserved Areas		Slums/Underserved Areas	
	# of Slums	Slums With 1122	Slums Without 1122		Underserved With 1122	Underserved Without 1122	Slums/Underserved With 1122	Slums/Underserved Without 1122
Peshawar	550	0	550	22	0	22	0	572

Table 14: Dengue Workers							
City	Slums		Underserved		Slums/Underserved Total		
	Available	Not Available	Available	Not Available	Available	Not Available	Sub Total
Peshawar	91	459	8	14	99	473	572

Table 15a: Types of Housing Structure in Slums				
City	Kacha or Tented	Pacca	Kacha-Pacca (Mixed)	Total
Peshawar	46,264	97,066	61,167	204,497
Table 15b: Types of Housing Structure in Underserved				
City	Kacha or Tented	Pacca	Kacha-Pacca (Mixed)	Total
Peshawar	0	4,548	729	5,277

Table 15c: Types of Housing Structures in Slums/Underserved (Total)				
City	Kacha or Tented	Pacca	Kacha-Pacca (Mixed)	Total
Peshawar	46,264	101,614	61,896	209,774



Table 16a: Sources of Domestic Water in Slums			
City	Government Water Supply	Ground Water (Well, Hand Pump, Tube Well)	Acquire From Other Sources Of Water
Peshawar	64	477	9

Table 16b: Sources of Domestic Water in Underserved			
City	Government Water Supply	Ground Water (Well, Hand Pump, Tube Well)	Acquire From Other Sources Of Water
Peshawar	2	20	0

Table 16c: Sources of Domestic Water in Slums/Underserved (Total)			
City	Government Water Supply	Ground Water (Well, Hand Pump, Tube Well)	Acquire From Other Sources Of Water
Peshawar	66	497	9

Table 17a: Duration of Water Availability (in case of Government Water Supply) in Slums							
City	1-5 hours	6-10 hours	11-15 hours	16-20 hours	20+ hours	Slums without Government Water Supply	Sub Total
Peshawar	31	22	8	0	3	486	550

Table 17b: Duration of Water Availability (in case of Government Water Supply) in Underserved							
City	1-5 hours	6-10 hours	11-15 hours	16-20 hours	20+ hours	Slums without Government Water Supply	Sub Total
Peshawar	1	1	0	0	0	20	22

Table 17c: Duration of Water Availability (in case of Government Water Supply) in Slums/Underserved (Total)							
City	1-5 hours	6-10 hours	11-15 hours	16-20 hours	20+ hours	Slums without Government Water Supply	Sub Total
Peshawar	32	23	8	0	3	506	572

Table 18a: Availability of Household Toilets in Slums			
City	# of House Having Toilets	# of Household Not Having Toilet	Total Household
Peshawar	196,634	4,374	201,008

Table 18b: Availability of Household Toilet in Underserved			
City	# of House Having Toilets	# of Household Not Having Toilet	Total Household
Peshawar	5,247	30	5,277
Grand Total	967,370	8,613	975,983

Table 18c: Availability of Household Toilet in Slums/Underserved			
City	# of House Having Toilets	# of Household Not Having Toilet	Total Household
Peshawar	201,881	4,404	206,285

Table 19a: Type of Household Toilet in Slums			
City	Connected with Street Drain	Traditional/Open pit	Sub-Total
Peshawar	76,581	120,053	196,634

Table 19b: Type of Household Toilet in Underserved			
City	Connected with Street Drain	Traditional/Open pit	Sub-Total
Peshawar	1,100	4,147	5,247

Table 19c: Type of Household Toilet in Slums/Underserved (Total)			
City	Connected with Street Drain	Traditional/Open pit	Sub-Total
Peshawar	77,681	124,200	201,881

Table 20a: Average # of People using Toilet	
City	Average # of People Using Toilet
Peshawar	9

Table 20b: Average # of People using Toilet in Underserved	
City	Average # of People Using Toilet
Peshawar	11

Table 20c: Average # of People using Toilet in Slums and Underserved Areas (Total)	
City	Average # of People Using Toilet
Peshawar	10

Table 21a: Modes of Defecation Without Toilet in Slums					
City	Neighbor's Toilets	Public Toilet	Open Defecation	Not Applicable	Sub-Total
Peshawar	0	0	66	484	550

Table 21b: Modes of Defecation Without Toilet in Underserved					
City	Neighbor's Toilets	Public Toilet	Open Defecation	Not Applicable	Sub-Total
Peshawar	0	0	1	21	22

Table 21c: Modes of Defecation Without Toilet in Slums/Underserved (Total)					
City	Neighbor's Toilets	Public Toilet	Open Defecation	Not Applicable	Sub-Total
Peshawar	0	0	67	505	572

Table 22a: Condition of Drains in Slums				
City	Drains Have Running Water	Drains Are Filthy/Choked	# Of Areas With No Drains	Sub-Total
Peshawar	177	350	23	550

Table 22b: Condition of Drains in Underserved				
City	Drains Have Running Water	Drains Are Filthy/Choked	# Of Areas With No Drains	Sub-Total
Peshawar	8	13	1	22

Table 22c: Condition of Drains in Slums and Underserved (Total)				
City	Drains have running water	Drains are filthy/choked	# of Areas with no drains	Sub-Total
Peshawar	185	363	24	572

Table 23a: Solid Waste Disposal Practices in Slums				
City	Govt/WMC vehicle	Other Systems	Dumping on Empty Plot and Street	Total
Peshawar	164	56	330	550

**Note: The option of other includes burnt and buried*

Table 23b: Solid Waste Disposal Practices in Underserved				
City	Govt/WMC vehicle	Other Systems	Dumping on Empty Plot and Street	Total
Peshawar	7	4	11	22

Table 23c: Solid Waste Disposal Practices in Slums and Underserved (Total)				
City	Govt/WMC vehicle	Other Systems	Dumping on Empty Plot and Street	Total
Peshawar	171	60	341	572

Table 24a: Schools in Slums and Underserved						
City	Slums			Underserved Areas		
	Available	Not Available	Total Slums	Available	Not Available	Total Underserved
Peshawar	459	91	550	22	0	22

Table 24 b: Schools in Slums and Underserved (Total)			
City	# of Areas With Schools	# of Areas Without Schools	Total slums/Underserved
Peshawar	481	91	572

Table 25a: Types of Schools in Slums						
City	Government	Private	Welfare/Trust	Maktab/Madrsa	Other	No Schools
Peshawar	335	333	21	295	0	91

Table 25b: Types of Schools in Underserved						
City	Government	Private	Welfare/Trust	Maktab/Madrsa	Other	No Schools
Peshawar	20	17	0	17	0	0

Table 25c: Types of Schools in Slums and Underserved Areas (Total)						
City	Government	Private	Welfare/Trust	Maktab/Madrsa	Other	No Schools
Peshawar	355	350	21	312	0	91

Table 26a: Distance of Nearest School from Slums						
City	0-2km	3km	4km	5+km	Slums Without schools	Sub Total
	#	#	#	#	#	#
Peshawar	439	7	13	0	91	550

Table 26b: Distance of Nearest School from Underserved						
City	0-2km	3km	4km	5+km	Slums Without schools	Sub Total
Peshawar	22	0	0	0	0	22

Table 26c: Distance of Nearest School and Slums/Underserved						
	0-2km	3km	4km	5+km	Slums Without schools	Sub Total
Peshawar	461	7	13	0	91	572

Table 27: Availability of Working by CSOs						
City	Slums		Underserved Areas		Slum/Underserved Areas	
	Available	Not Available	Available	Not Available	Available	Not Available
Peshawar	4	546	0	22	4	568



Table 28a: Types of Services by CSOs in Slums	
Types of Services	Peshawar
Education	3
Health	1
Human Rights	0
(Micro Loans)	0
Water	0
Areas with no charity organization	546
Total	550

Table 28b: Types of Services by CSOs in Underserved Areas	
Types of Services	Peshawar
Education	0
Health	0
Human Rights	0
Loans	0
Water	0
No CSO	22
Grand Total	22

Table 28c: Types of Services by CSOs in Slums/Underserved Areas (Total)	
Types of Services	Peshawar
Education	3
Health	1
Human Rights	0
Loans	0
Water	0
No CSO	568
Grand Total	572

Table 29: Presence of Informal Groups						
City	Slums		Underserved		Slum/Underserved (Total)	
	Available	Not Available	Available	Not Available	Available	Not Available
Peshawar	150	400	10	12	160	412

Table 30a: Type of Informal Groups in Slums	
Types of Informal Groups	Peshawar
Health Committee	1
Jirga/Punchaiyat	17
Masjid/Church Committee	77
School Committee	3
Unregistered Community-Based Organization	48
Zakat Committee	4
No Informal Groups or Committees	400
Total	550

Table 30b: Types of Informal Groups in Underserved Areas	
Types of Informal Groups	Peshawar
Health Committee	0
Jirga	4
Masjid/Church Committee	4
School Committee	0
Unregistered Community-Based Organization	2
Zakat Committee	0
No Informal Groups or Committees	12
Grand Total	22

Table 30c: Types of Informal Groups in Slums/Underserved Areas	
Types of Informal Groups	Peshawar
Health Committee	1
Jirga/Punchaiyat	21
Masjid/Church Committee	81
School Committee	3
Unregistered Community-Based Organization	50
Zakat Committee	4
No Informal Groups or Committees	412
Grand Total	572



Table 31: Availability of Welfare Scheme by Government									
City	Slums			Underserved Areas			Slums/Underserved		
	Total Slums	Covered	Uncovered	Total Underserved	Covered	Uncovered	Total slums/Underserved	Covered	Uncovered
Peshawar	550	299	251	22	9	13	572	308	264

Table 32: Types of Welfare Schemes by Government											
City	Type of work	Loan Scheme		Stipend Scheme		Social Benefit Card		Vocational Skills Scheme		Other	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Peshawar	Slum	5	294	38	261	250	13	6	293	0	299
	Underserved	0	9	0	9	9	0	0	9	0	9
	Total	5	303	38	270	259	13	6	302	0	308

Annex 6: Analysis of Health Resources of Union Councils

Table 1: Town Wise Number of UCs with/ without Slums/ Underserved	
Peshawar	
Town	Total UCs
Town 1	25
Town 2	25
Town 3	26
Town 4	21
Total	97

Table 1b: Status of Slums/Underserved in Union Councils			
City	UCs with Slums/Underserved	UCs without Slums/Underserved	Total
Peshawar	85	12	97

Table 2: Town wise Number of UCs and Population		
Peshawar		
Town 1	25	767029
Town 2	25	1185663
Town 3	26	982311
Town 4	21	941093
Total	97	3876096

Table 3: Population of UCs	
City	Population
Peshawar	3,876,096

Table 4: Number of Health Facilities in UCs	
City	Health Facilities in Total UCs
Peshawar	110

Table 4a: UCs with/ without Health Facilities		
City	# of UCs with Health Facilities	# of UCs without Health Facilities
Peshawar	80	17
		97

Table 5: Number of EPI Facilities	
City	Public EPI Facilities
Peshawar	120

Table 6: UCs with/ without EPI Facilities			
City	# of UCs with EPI Facilities	# of UCs without EPI Facilities	Total
Peshawar	94	3	97

Table 7: Availability of Functional ILR/Refrigerator in Fixed EPI Facility			
City	EPIs with Functional ILR	EPIs without Functional ILR	Total
Peshawar	111	9	120

Table 8: Outreach Vaccination Services		
City	UCs with Outreach Vaccination	Total UCs
Peshawar	97	97

Table 9a: Nutrition Services			
City	Available in UCs	Not Available in UCs	Total
Peshawar	64	33	97

Table 9b: Types of Nutrition Services in UCs					
City	Fixed	Temporary Sites	School Session	Sessions by LHWs	No Nutrition Services
Peshawar	0	0	2	64	33

Table 10: Number of Vaccinators in Public Health Facilities		
City	Total EPI Facilities	Total Vaccinators
Peshawar	120	246

Table 11: Number of UCs Covered by LHWs				
City	UCs Covered by LHWs	UCs Uncovered by LHWs	Total UCs	Total Number of LHWs
Peshawar	64	33	97	1160

Table 12: Availability of Dengue Workers			
City	Dengue Workers Available in UCs	Dengue Workers not Available in UCs	Total UCs
Peshawar	97	0	97

Annex 7: Analysis of Results of EPI Facility Assessment

Table 1: Number of EPI Facilities			
Names of Towns	Number of UCs	UCs with EPI Facilities	Number of EPI Facilities
Peshawar			
Town 1	25	23	28
Town 2	25	25	29
Town 3	26	21	36
Town 4	3	3	23
Total	79	72	116

Table 2: Status of Ownership of Building of EPI Facilities			
City	Owned	Rented	Total
Peshawar	91	25	116
Note: 2 EPI Centres are donated by Peshawar University & Family Medical Care Centre			

Table 3: Types of EPI Facilities				
City	Government	Private	Charity	Total
Peshawar	114	0	2	116
Note: There is 1 EPI Centre Other than mentioned variables				

Table 4: Average Working Hours of EPI Facilities			
City	Less than 6 Hours	6 Hours	Total
Peshawar	11	105	116

Table 5: Availability of Standard Operating Procedures			
City	Available	Not Available	Total
Peshawar	52	64	116

Table 6: Availability of LHVs in EPI Facilities				
City	Available	Not Available	Total	Total # of LHVs
Peshawar	74	42	116	143
LHVs are deployed according to the status of health facility. If some facilities offer only vaccination services then LHVs are not deployed there as per government system.				

Table 7: Availability of Vaccinators in EPI Facilities				
City	Available	Not Available	Total	Total # of Vaccinators
Peshawar	116	0	116	264

Table 8: Vaccine Supplies				
Availability of Types of Vaccine Supplies				
City	Auto Disable Syringes	Safety Boxes/ Sharp Containers	Vaccine Carrier (s)	Icepacks
Peshawar	105	112	115	114

Table 9: Supply of Vaccines				
City	Infrequent Shortage	Frequent Shortage	No Shortage	Total
Peshawar	17	2	97	116

Table 10: Availability of Ice Lined Refrigerators				
City	Available Functional	Available Non-Functional	Not Available	Total
Peshawar	107	9	0	116

Table 11: Availability of Waiting Areas			
City	Gender Mixed Waiting Area	Gender Segregated Waiting Area	Total
Peshawar	60	56	116

Table 12: Seating Capacity of Waiting Areas in EPI Facilities			
City	Adequate	Inadequate	Total
Peshawar	73	43	116
Note: 12 EPI Facilities having no waiting areas			

Table 13: Availability of Drinking Water			
City	Available	Not Available	Total
Peshawar	87	29	116

Table 14: Availability of Toilets				
City	Gender Segregated Available	Gender Mixed Available	Not Available	Total
Peshawar	45	47	24	116



Table 15: Usability of Toilet				
City	Useable	Not Useable	Toilet Not Available	Total
Peshawar	61	31	24	116

Table 16: Waste Management Practices			
City	Burials/Burnt	WMC Vehicle	Total
Peshawar	116	0	116

Annex 8: Analysis of Household Coverage Survey

Table 1: Sample Size			
City	Households	Mothers	Children
Peshawar	1799	1807	1814

Table 2: Gender Wise Total Children			
City	Boys	Girls	Total
Peshawar	981	833	1814

Table 3: Number of Children of Each Mother of Less Than 2 Year of Age				
City	1	2	3	Total
Peshawar	1796	11	0	1807

Table 4: Total Family Members with Gender Segregation			
City	Total Household members	Male	Female
Peshawar	18592	8839	9753

Table 5: Average Family Size			
City	Average Family Size	Average Male Members	Average Female Members
Peshawar	10	5	5

Table 6: Children with/without Vaccination Card								
City	With Card (Records)			Without Card (Recall)			Zero Dose	Total Children
	Male	Female	Total	Male	Female	Total		
Peshawar	299	268	567	522	427	949	298	1814

Table 7: Fully Immunized Children (Records + Recall)				
City	Total Eligible Children	# of Fully Immunized Children	Male	Female
Peshawar	1814	964	511	453

Table 8: Fully Immunized Children (Records)				
City	Total Eligible Children	# of Fully Immunized Children	Male	Female
Peshawar	1814	496	262	234

Table 9: Antigen Wise Coverage (Records + Recall)						
City	Total Eligible Children	BCG	Penta 1	Penta 2	Penta 3	Measles 1
Peshawar	1814	1476	1323	1224	1163	1071

Table 10: Antigen Wise Coverage (Records)						
City	Total Eligible Children	BCG	Penta 1	Penta 2	Penta 3	Measles 1
Peshawar	1814	542	551	539	538	520

Table 11: Partially Vaccinated Children (Records+ Recall)			
City	FI (Records +Recall)	ZD	Partially Vaccinated
Peshawar	964	298	552

Table 12: Gender of Partially vaccinated Children on Record and Recall Basis			
City	Male	Female	Total
Peshawar	310	242	552

Table 13: Partially Vaccinated Children (Records)				
City	FI (Records)	With Card	Partially Vaccinated	
Peshawar	496	567	71	4%

Table 14: Status of Zero Dose Children			
City	Zero Dose		
	Male	Female	Total
Peshawar	160	138	298



Table 15: Reasons of Zero Dose Children

Reasons for Zero Dose	PWR
Mother Number of Zero Dose	291
Vaccination causes more diseases	71
Unavailability of Time for Vaccination/Wastage of time	47
Unaware of EPI/ outreach Centre	0
Unaware of Vaccination Timings	6
No Family Permission	157
Fear of Injection	12
Transport cost to EPI facility is High	0
Environment in EPI facility is not good	0
Unaware of Childhood Vaccination	9
Child Was Sick	0
No Facility Available	0

Table 16: Perception of Mothers about Purpose of Vaccination of Children

City	To Protect from Disease	Other Purpose	Do Not Know	Total
Peshawar	637	510	660	1807

Table 17: Knowledge of Mothers About Working of LHWs

City	Mothers having knowledge		Mothers not having knowledge		Total	
Peshawar	1506	83%	301	17%	1807	100%

Table 18: Types of Services Provided by LHWs (Perception of Mothers)

City	Promote Health Education	Supply Family Planning Products	Refer to Hospital	Information About Immunization	Give Guidance about treatment of illness	Help Vaccinator	Don't Know	Not Applicable	Total
Peshawar	1000	159	6	16	143	182	0	301	1807

Table 19: Preferred Channels of Communication for Mothers

City	T.V	Radio	Poster/Billboard	Leaflet	Health Worker	Others
Peshawar	662	313	266	172	1328	385

Table 20: Age Range of Mothers Surveyed

City	14-19	20-24	25-29	30-34	35-39	40+	Total
Peshawar	63	318	575	455	319	77	1807

Table 21: Years of Schooling Completed by Mothers

City	0	1-5	6-10	11-15	15+	Total
Peshawar	1335	151	221	89	11	1807

Table 22: Engagement of Mothers in Livelihood Activities

City	Yes	No	Total
Peshawar	79	1728	1807

Table 23: Commonly Spoken Languages

City	Urdu	Punjabi	Potohari	Balochi	Pashto	Sindhi	Siraiki	Others	Total
Peshawar	150	7	4	1	1567	0	0	70	1799

Table 24: Housing Structures

City	Kacha	Kacha-Pacca	Pacca	Total
Peshawar	513	662	624	1799

Table 25: Number of Rooms per House

City	1 Room	2-3 Rooms	4-6 Rooms	7-10 Rooms	10+ Rooms	Total
Peshawar	222	1021	477	79	0	1799

Table 26: Availability of Electricity

City	Houses With Electricity	Houses Without Electricity	Total
Peshawar	1774	25	1799

Table 27: Sources of Water

City	Government Water Supply	Ground Water	Acquire Water	Total
Peshawar	430	1356	13	1799



Table 28: Duration of Water Availability in Case of Government Water Supply							
City	Less than 1 hour	1-5 hours	6-10 hours	11-15 hours	16-20 hours	20+ Hours	Total
Peshawar	0	306	117	1	3	3	430

Table 29: Household Toilets				
City	Connected with Street Drains	Traditional Latrine/ Open Pit	Houses Without Toilets	Total
Peshawar	555	1236	8	1799

Table 30: Average Users of One Toilet	
City	Average Toilets Users
Peshawar	9

Table 31: Modes of Defecation in the Case of Unavailability of Household Toilet					
City	Neighbor's Toilet	Public Toilet	Open Defecation	Houses with Toilets	Total
Peshawar	2	0	6	1791	1799

Table 32: Major Professions				
City	Job (Government Job, Private Job, Work in Foreign Country)	Small Business	Daily Wage Labor	Total
Peshawar	378	445	976	1799

Table 33: Status of Financial Debt/Savings				
City	Debt (Always / Occasional)	No Debt, No Savings	Savings	Total
Peshawar	651	1085	63	1799

Background Characteristics of Zero Dose Children

Table 34: Education Level of Mothers of Zero Dose Children					
City	0 (Illiterate)	01—05	06—10	11—15	Total
Peshawar	240	17	30	4	291

Table 35: Major Professions of Caregivers of Zero Dose Children					
City	Job Holders	Small Business	Daily wage Labor	Other	Total
Peshawar	42	87	154	0	283

Table 36: Status of Financial Debt/Savings in Households of Zero Dose Children				
City	Debt (Always / Occasional)	No Debt, No Savings	Savings	Total
Peshawar	130	146	7	283

Table 37: Family Sizes of Zero Dose				
City	Average Family Size	Male Members	Female Members	Total Members
Peshawar	11	1632	1807	3439

Table 38: Housing Structures of Zero Dose Children				
City	Kacha	Kacha-Pacca	Pacca	Total
Peshawar	56	131	96	283

Table 39: Households Toilets in Zero Dose Children				
City	Connected with Street Drain	Traditional latrine/Open pit	Houses without Toilets	Total
Peshawar	135	142	6	283

Table 40: Modes of Defecation in the Absence of Toilets in the Houses of Zero Dose Children				
City	Neighbor's Toilets	Public toilet	Open Defecation	Total
Peshawar	1	0	5	6

Background Characteristics of Fully Immunized Children

Table 41: Education level of Mothers of Fully immunized Children						
City	0 (Illiterate)	01--05	06--10	11--15	15+	Total
Peshawar	701	84	109	67	0	961

Table 42: Major Professions of Caregivers of Fully Immunized Children				
City	Job Holders	Small Business	Daily wage Labor	Total
Peshawar	208	234	519	961

Table 43: Status of Financial Debt/Savings in Households of Fully Immunized Children				
City	Debt (Always / Occasional)	No Debt, No Savings	Savings	Total
Peshawar	357	565	39	961



Table 44: Family Sizes of Fully Immunized				
City	Average Family Size	Male Members	Female Members	Total Members
Peshawar	10	4648	5149	9797

Table 45: Housing Structures of Fully immunized Children				
City	Kacha	Kacha-Pacca	Pacca	Total
Peshawar	286	321	354	961

Table 46: Households Toilets in Fully Immunized Children				
City	Connected With Drains	Traditional latrine/open pit	Houses without Toilets	Total
Peshawar	258	703	0	961

Table 47: Modes of Defecation in the Absence of Toilets in the Houses of Fully Immunized				
City	Neighbor's Toilets	Public toilet	Open Defecation	Total
Peshawar	0	0	0	0

