Universal Health Coverage Benefit Package of

Khyber Pakhtunkhwa

ESSENTIAL PACKAGE OF HEALTH SERVICES

WITH LOCALIZED EVIDENCE

MOVING TOGETHER TO BUILD A HEALTHIER PAKISTAN

UNIVERSAL HEALTH COVERAGE: EVERYONE, EVERYWHERE

KHYBER PAKHTUNKHWA

July 2021

Health Department

Government of Khyber Pakhtunkhwa

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Essential Package of Health Services with localized evidence/
UHC Benefit Package of Khyber Pakhtunkhwa

Produced by:
Health Department, Khyber Pakhtunkhwa

Analysis done by:
Khyber Pakhtunkhwa UHC Technical Committee;
Office of the Director General Health Services, KP;
Health Sector Reform Unit, Health Department, KP; and
Health Planning, System Strengthening and Information Analysis Unit (HPSIU)

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MESSAGE

'Universal Health Coverage envisions health for all, including access to quality essential health services, provision of effective, quality and affordable essential medicines, commodities and vaccines both through public and private health sector. Investments in provision of essential health services underpin the reforms that the health care system in Khyber Pakhtunkhwa has been seeking. Universal Health Coverage Benefit Package provides the opportunity of reforming our health care system.'

Taimur Khan Jhagra
Health Minister
Khyber Pakhtunkhwa

Health is a fundamental human right for all people. There have been numerous efforts aimed at addressing the health needs of the people. There is no gainsaying that these efforts, while successful in some aspects, have not had the desired impact on health outcomes and much remains to be done.

Various factors have contributed to the still lagging health indicators. Though, the rate of burden of diseases in Khyber Pakhtunkhwa is comparatively less than other provinces, there has not been much difference in terms of the health system challenges. The government is committed to enhance health services coverage by tackling the chronic issues of financial crises, strengthening governance, ensuring availability of essential health workforce, addressing supply chain issues, to name a few.

The Khyber Pakhtunkhwa government over the last eight years has made tremendous progress at fulfilling the obligation towards the people by ensuring availability of health as a matter of right. Provision of services against diseases with high catastrophic expenditure have been covered under the *Sehat Sahulat* Programme, with coverage of all residents in the province, is a testament to the commitment of the government towards this aim. Now, the question is how to address high burden health challenges at community and primary healthcare level in a more comprehensive way.

The need for reforms, therefore, is inevitable and urgent. The development of a costed Essential Package of Health Services / Universal Health Coverage - Benefit Package of Khyber Pakhtunkhwa based on localized data is the first step towards evidence-based decision making and implementation. In this regard, I am grateful to the headship and support of Dr Faisal Sultan, Federal Minister of Health and his team in the Ministry.

The Disease Control Priorities 3 (DCP3) Translation project hosted at the London School of Hygiene and Tropical Medicine (LSHTM) and supported by the Bill & Melinda Gates Foundation (B&MGF) has extended collaboration in support of the provincial localization phase including the development of the KP EPHS. I deeply appreciate the continued support of Professor Ala Alwan, Principal Investigator and his colleagues at the DCP3 Secretariat. I am also personally thankful to Dr Mahipala Palitha, Head of WHO Office in Pakistan, Dr Zafar Mirza, WHO Advisor on UHC, Ms Aida Girma, UNICEF Representative and Ms Annabel Gerry, Head of Foreign Commonwealth Development Office (FCDO) for their continued strategic support and advice.

The road ahead is not easy, but must be traversed. As with any journey this will require careful planning. I take this opportunity to appreciate the efforts of Dr Mohammad Niaz, Director General Health Services and the KP UHC Technical Committee. I am fully confident that they are capable of seeing us through this journey and help us reach our destination of comprehensive health services for all residents of Khyber Pakhtunkhwa.

FOREWORD

Syed Imtiaz Hussain Shah
Secretary Health
Khyber Pakhtunkhwa

Provision of health services to the people of Khyber Pakhtunkhwa is a higher calling. The Health Department of Khyber Pakhtunkhwa has undertaken various actions to enhance the reach and quality of services in the province over the last decade. While, there has been some improvement in health indicators, for others the interventions required are more extensive and complex.

Honourable Minister of Health, Mr Taimur Khan Jhagra has spearheaded the recent health sector reform agenda in Khyber Pakhtunkhwa. The reforms are all encompassing and aim at truly achieving the stated goal of 'Health for All' of the government. Under the guidance of the Honourable Minister for Health, the department has completed the extremely complicated process of finalizing the costed Essential Package of Health Services (EPHS)/ Universal Health Coverage (UHC) - Benefit Package of Khyber Pakhtunkhwa. This package ensures that those essential health services, meeting the high burden needs of the people, are made available considering efficiency and effectiveness, across the five health service delivery platforms - community, primary health care, first level hospital, tertiary hospital and population levels.

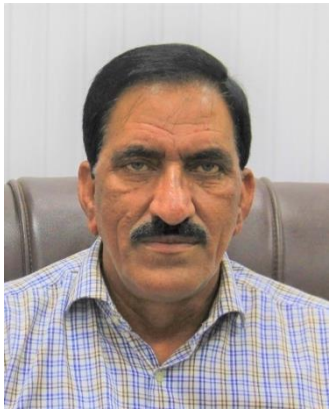
Improvements in public investment and partnership with the private sector can significantly enhance the efficiency of public investment. However, it is equally important to ensure efficiency gains at the design stage of policy and programmatic reform in the sector.

Significant challenges remain ahead in the implementation of the UHC Benefit Package. First, the financing required, to see the implementation of the UHC Benefit Package of Khyber Pakhtunkhwa to fruition, needs to be assessed and earmarked. This requires a comprehensive understanding of the existing fiscal space and financial gap analysis between actual spending and what will be required to carry out the essential interventions. Second, identification and capacity building of the critical workforce that will be involved in its implementation. And third, building a well-coordinated mechanism of collaboration with other line departments and sectors to ensure that the inter-sectoral interventions of the UHC Benefit Package of Khyber Pakhtunkhwa are successful in achieving the desired impact.

It gives me immense confidence to note that the Health Department, under the leadership of Dr Niaz Ahmad - Director General Health Services, Khyber Pakhtunkhwa, is ready to take on this responsibility. Dr Ahmad has been assisted in the endeavour of finalizing the costed UHC-BP of Khyber Pakhtunkhwa and the UHC Technical Committee. The way forward is in some ways uncharted as Pakistan is the first country not only to develop a costed UHC-BP but also moving towards its implementation with support of the World Bank, FCDO, B&MGF, GAVI, GFF, USAID, UN agencies and other partners in addition to investment from the government of Pakistan.

The secret to success lies in building a strong and robust mechanism to do what is needed for success. At the Health Department, Khyber Pakhtunkhwa we are positive and firm in our belief that we will follow through with commitment and dedication towards this end.

ACKNOWLEDGMENT



Dr Niaz Ahmad
Director General Health Services
Khyber Pakhtunkhwa

Good health is the topmost priority for the Government of Khyber Pakhtunkhwa for sustainable development. More recently, the Health Department KP has been a pioneer for a number of health sector initiatives including Medical Teaching Institutions Reforms, ensuring availability of Skilled Health Workforce in all health facilities, *Sehat Sahulat* Programme, Universal Social Protection for Health and Revamping of Primary Healthcare System etc.

The most important strategic priority for the health department is to deliver results of improved health outcomes through universal provision of essential health services, while ensuring efficiency and effectiveness.

Currently, half of the people in the province do not receive the essential health services they need and are pushed into extreme poverty each year. This must change. To make health for all a reality in KP, we need: individuals and communities who have access to high quality essential health services so that they take care of their own health and the health of their families; skilled health workers providing quality, people-centred care; and policy-makers committed to investing in universal health coverage.

The development of Essential Package of Health Services/ UHC Benefit Package of KP is a major milestone of the roadmap for achieving Universal Health Coverage in the province. In line with the vision of the Honourable Health Minister – Mr Taimur Khan Jhagra, and the esteemed guidance of Secretary Health – Mr Syed Imtiaz Hussain Shah, the Health Department has successfully localized the scientific evidence and used this for prioritization of interventions through an extensive consultative process for the finalisation of the Essential Package of Health Services (EPHS) / Universal Health Coverage (UHC) – Benefit Package (BP) of Khyber Pakhtunkhwa. This package is the most far-reaching health reform enacted in the province.

The UHC-BP of Khyber Pakhtunkhwa would not be possible without support from the Director General (Health) - Dr Rana Mohammad Safdar at the Federal Ministry of National Health Services, Regulations and Coordination. It must be acknowledged that Dr Safdar dedicated the technical team at the Health Planning, System Strengthening & Information Analysis Unit (HPSIU), under the leadership of Dr Malik Muhammad Safi and the technical lead - Dr Raza Zaidi, to assist the Health Department, Khyber Pakhtunkhwa in developing the package.

The Department acknowledges the technical and strategic support from Dr Ala Alwan, Principal Investigator of DCP3 Translation project, hosted at the LSHTM. WHO Representative for Pakistan Dr Palitha Mahipala and the provincial WHO office deserve recognition regarding the support provided on this initiative. UNICEF Representative Ms. Aida Girma and provincial office have provided incredible support to complete the task. Technical support from the Foreign Commonwealth Development Office (FCDO) on this initiative through Oxford Policy Management (OPM) is highly valued.

Lastly but not the least, the efforts of the KP UHC Technical Committee and the core committee led by Dr. Shahid Yunis must be recognized with the affirmation that this milestone event of a finalized EPHS/ UHC-BP of Khyber Pakhtunkhwa is not the end, rather the beginning of a long road ahead.

Contributions

The Health Department, Khyber Pakhtunkhwa played a lead role in the development of costed EPHS/ UHC Benefit Package of KP in collaboration with partners and stakeholders.

Involvement of stakeholders from the public & private health sector, implementing partners/ CSOs, academic institutions, UN and donor agencies was ensured for a comprehensive and inclusive dialogue.

Under guidance of

Mr Taimur Khan Jhagra, Health Minister, KP; and
Syed Imtiaz Hussain Shah, Secretary Health, KP

Chair of KP UHC Technical Committee

Dr Niaz Ahmad, Director General Health Services, KP

KP UHC Core Team:

- Prof. Dr Zia-ul-Haq, Vice Chancellor, Khyber Medical University
- Dr Shahid Yunis, UHC Coordinator, KP
- Dr Shaheen Afridi, MD Health Foundation, KP
- Dr Asghar Khan, Chief HSRU, KP
- Dr Mohammad Rahman, Team Lead, OPM KP
- Dr Babar Alam, HOO, WHO KP

KP UHC Technical Committee:

- Dr Abdul Jalil Khan, HOD Family Medicine, KMU
- Dr Abid Hassan, Director DHIS
- Dr Ali Rehman, Surveillance Coordinator, IDSRS
- Dr Anisa Afridi, Director MNCH Programme
- Dr Atta Ullah Khan, Department Chief, HSRU
- Dr Durkhanay Ali, PM AIDS Control Programme
- Dr Faisal, PTO, TBCP
- Dr Fazal Majeed, Director Nutrition
- Dr Haroon Latif, DPD, PTP
- Dr Haroon Nasir, PH Coordinator
- Dr Harris Ali Khan, RA UHC-BP, KP
- Dr Ijaz Ahmed, PC LHW programme KP
- Dr Ilyas Rashid, Assistant Director, SCP
- Dr Jalaluddin, PH Coordinator
- Dr M Khalil Akhter, PD IHHTCP
- Dr M Saleem, ADG (HRH)
- Dr M. Arif, DRUS-CHD
- Dr Makhdoom Safdar, DDGPI
- Dr Maqsood, CEO, HCC
- Dr Mohammad Ishaq, DDHO
- Dr Mudassar Shahzad, PD, PTP
- Dr Mushtaq Ahmad, Director
- Dr Nasir Khattak, PH Coordinator Health
- Dr Rehman Afridi, IVC/MCP, PM
- Dr Riaz Nasrullah, WHO, NPO-EPI
- Dr Riaz Tanoli, Director, SCP
- Dr S M Idrees, DHO Charsadda
- Dr Saleem, Director EPI
- Dr Shahid Khan, Coordinator, Health Department
- Dr Sheraz Khan, General Secretary, PHA
- Dr Syed Ijaz Ali, Director, IMU
- Dr Syed Mohammad Samin, DHO Kohat
- Dr Syed Wasif Javed, Health Advisor, PHE
- Dr Tanveer Inam, DD MCH
- Dr Tufail, DCNP
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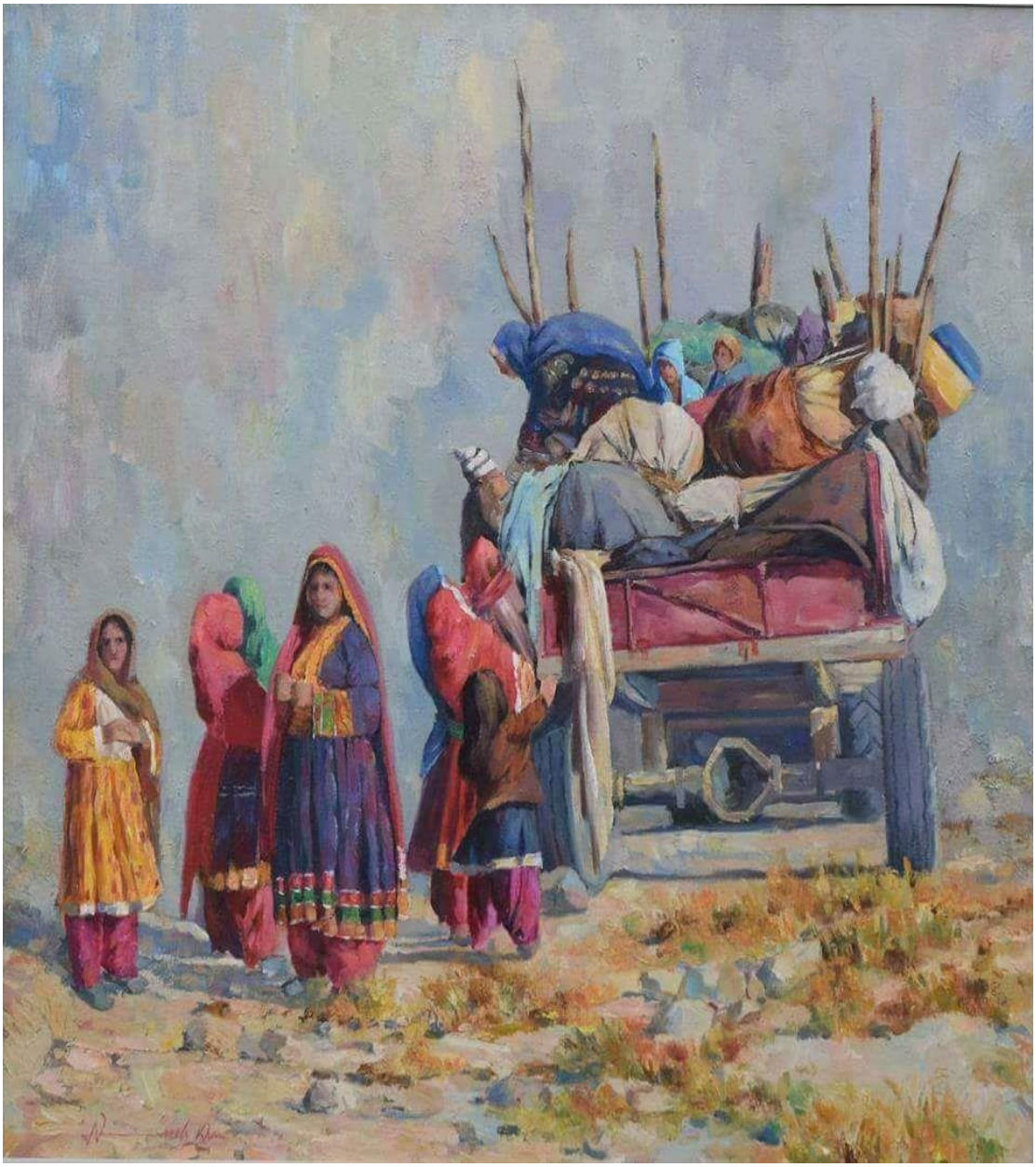
- Dr Zahid, Assistant Director, SHPI
- Mr Asad Ullah, EMS, Health Department
- Mr Buhrulah Khan, Chief Health
- Mr Hassan Khan Durrani, Associate ISU, Finance Department
- Mr Mahboob Illahi, Coordinator DHIS
- Mr Qaisar Aalam, CPO
- Mr Zahid Noor, FP (Tr), LHW program
- Ms Samina Gul, Assistant Chief
- Prof. Dr A H Amir, Project Director, D- TALK
- Prof. Dr Saira Abid, President, PHA
- Dr Abdul Jamil, Health Specialist, UNICEF
- Dr Mohammad Atif, Nutrition Officer, UNICEF
- Dr Nosheen Khan, Health officer, UNICEF
- Mr Aien Khan, Nutrition Specialist, UNICEF
- Mr Arshad, UNICEF
- Mr Jamal Afridi, Director Program, JSI
- Dr Ajmal, PFM, OPM
- Dr Mehram, HSS, OPM
- Mr Abid, PFM, OPM
- Mr Jalal Khan, PFM Expert, OPM
- Mr M Faheem, Senior Associate, OPM
- Ms Fatima Niaz, Research Associate, OPM

- Dr Mazhar Khan, NPO, WHO
- Dr S. M Idrees, NPO, WHO
- Dr Suffian Khan, WHO
- Dr Mohammad Rafiq, Technical Officer, UNFPA
- Dr Nadeem Hassan, Senior Advisor GHSA, JSI
- Dr Inamullah Khan, Health Specialist, UNICEF
- Dr Baqer Hasnain Jafri, Technical Officer, WHO

Team from M/o NHSR&C / HPSIU:

- Dr Malik Muhammad Safi, National UHC Advisor
- Dr Syed Raza Mahmood Zaidi, Sr. UHC Benefit Package / Health System Specialist
- Dr Muhammad Khalid, UHC Benefit Package Specialist
- Mr Wahaj Zulfiqar, Finance Specialist
- Dr Sabeen Afzal, Deputy Director (Health System)
- Dr Hasan Bin Hamza, Policy & Planning Specialist
- Dr Ahsan Maqbool Ahmed, Information Analyst
- Mr Usman Bashir, M&E Officer / Data Analyst
- Ms Javeria Yousuf, Research Associate
- Dr Ifra Javaid, Research Associate



'LEAVING NO ONE BEHIND'

MOVING TOGETHER
TO BUILD A HEALTHIER PAKISTAN

UNIVERSAL HEALTH COVERAGE: EVERYONE, EVERYWHERE

KHYBER PAKHTUNKHWA

EXECUTIVE SUMMARY

Universal Health Coverage (UHC) is based on the principle that all individuals and communities have equitable access to their needed health care, in good quality, without suffering financial hardship. A set of policy choices about benefits and their rationing are among the critical decisions for moving towards UHC. The three dimensions of UHC are: i) which services are covered and which needs to be included; ii) covered population and extension to non-covered; iii) reducing cost sharing and fees.

Designing a comprehensive package of health services considering burden of disease, cost effectiveness of interventions and social context is critical to define which services are to be covered through different platforms: i) community level; ii) primary healthcare centre level; iii) first level hospital; and iv) tertiary hospital; and v) population level. In addition, interventions related to inter-sectoral prevention and fiscal policies play a key role in moving towards UHC.

Disease Control Priorities – Edition 3 (DCP3) finalized in 2017 defines a model concept of essential universal health coverage (EUHC) that provides a starting point for country/province-specific analysis of priorities considering cost structures, epidemiological needs, and strategic priorities.

Development of a generic Essential Package of Health Services/ UHC Benefit Package of Pakistan was carried out jointly by the Ministry of National Health Services, Regulations & Coordination (NHSR&C) and Provincial/ Area Departments of Health and other key stakeholders. Following the same exercise, the Health Department, Khyber Pakhtunkhwa (KP) decided to localize scientific evidence in the context of province and use this to develop a costed Essential Package of Health Services.

The Health Department, KP led the process of localization with a quick review of availability of essential health services in the province compared to 218 DCP3 recommended interventions and 151 prioritized interventions in the generic national EPHS. The review indicated that:

- Overall, **50% (108/218) of the DCP3 recommended EUHC interventions and 80% (120/151) of the generic EPHS interventions** are being currently implemented partially, out of which only 13% of EUHC and 21% of generic EPHS interventions are expected to be accessible in more than 50% of the health facilities of KP province;
- **Out of the DCP3 recommended district level EUHC interventions, 46% (85/185) and out of the generic district level EPHS interventions 81% (94/117) are available partially in KP.** Only 11% of district EUHC interventions and 17% of generic district EPHS interventions are available in more than 50% of facilities of KP;
- **Infectious diseases and non-communicable diseases clusters appears comparatively to be neglected areas;**
- **Interventions at Community and PHC centre level platforms were also comparatively feeble.**

After the review, scientific evidence was localized in the context of KP:

- It was decided to use the **'Description of Interventions'** at national level as such as the same was developed at through consensus among stakeholders, using the latest guidelines and manuals.
- The **burden of disease data for KP** for the year 2019 from the Institute of Health Matrix & Evaluation was shared and used, rather than 2017 data used at the national level.

- Considering high burden of Malaria in FATA and some districts of KP, **additional interventions related to Malaria** were included for localization of evidence. These interventions were not prioritised in the generic EPHS at national level.
- The KP UHC Technical Committee as a group decided the baseline and year wise milestones for each proposed intervention. **Year-wise targeted population for each intervention** was defined using projected KP data from the 2017 census, latest national/provincial/area surveys, burden of disease data for KP produced by the Institute of Health Metrics and Evaluation (IHME), administrative data and other published research. The baseline for some interventions was identified through department's programmatic data. Year-wise milestones were kept realistic as the same has significant impact on the overall unit cost.
- The **unit costs** for around 170 interventions across the five platforms estimated for the national exercise were used with adjustments to staff pay scales for KP province.
- For the KP EPHS, the **Incremental cost-effectiveness ratio** (ICER) value identified in the generic national EPHS were used (considering availability of limited data in province).

Health Interventions Prioritization Tool (Hiptool) is a web-based digital tool developed by the University College of London (UCL) and was used to analyse, optimise health interventions and visualization of results (in addition to Excel sheets). Optimization of interventions based on – cost effectiveness, disability adjusted life years (DALYs) averted, targeted population, budgetary impact was done. This consequently led to the Investment Cascade of Interventions in KP to further analyse the evidence.

All evidence was reviewed and discussed in group work and then in a plenary. Later on, evidence was used for prioritisation of health interventions for KP EPHS. A total of 132 interventions were prioritized for five platforms including 98 interventions for District EPHS.

Platform	Immediate Priority Interventions	Unit Cost ($)/ person/ year (inclusive of health system cost)	DALYs Avert
1. Community level	21	3.74	530,138
2. PHC centre level	35	3.28	1,255,150
3. First level hospital	42	9.28	925,205
District EPHS	**98**	**16.30**	**2,710,492**
4. Tertiary hospital	22	8.15	342,263
5. Population level	12	4.47	++
All five platforms	**132**	**28.92**	**3,052,755 ++**

- **District EPHS included 98 interventions as immediate priority** for EPHS, out of which 21 were at Community level, 35 at PHC centre level and 42 at First level hospital;
- An addition of **11 interventions through special initiatives** will cost US$6.14/ person/ year and will avert additional 119,612 DALYs through District EPHS.

Year wise unit costs and DALYs averted were also estimated whereas year-wise unit costs were also estimated using with 8% annual inflation rate. All costs also included health system costs.

Detailed health system needs and standards are included in this document considering prioritized interventions. It was also agreed to strengthen institutional capacity in the Health Department, KP to regularly localize and generate evidence for inclusion and exclusion of interventions in future.

Table of Contents

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AJK	Azad Jammu & Kashmir
AKU	Aga Khan University
ARV	Anti-Retro-Viral therapy
BEmONC	Basic Emergency Obstetrical and Neonatal Care
BOD	Burden of Disease
CEmONC	Comprehensive Emergency Obstetrical and Neonatal Care
CKD	Chronic Kidney Disease
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardio Vascular Diseases
DALYs	Disability Adjusted Life Years
DCP3	Disease Control Priorities – Edition 3
DFID	UK's Department for International Development
EIP	Early Inter-sectoral Prevention Policies
EPHS	Essential Package of Health Services
EUHC	Essential Universal Health Coverage
FCDO	UK's Foreign Commonwealth Development Office
GAVI	Global Alliance on Vaccine & Immunizations
GB	Gilgit Baltistan
GDP	Gross Domestic Product
GFATM	Global Alliance to fight against AIDS, TB and Malaria
GNI	Gross National Income
GPEI	Global Polio Eradication Initiative
HIV	Human Immuno-Deficiency Virus
HPP	Highest Priority Package
HPV	Human Papilloma Virus
ICPD	International Conference on Population & Development
IP	Inter-sectoral Prevention Policies
IHR	International Health Regulations
IMCI	Integrated Management of Childhood Illnesses
JEE	Joint External Evaluation
KP	Khyber Pakhtunkhwa
LMIC	Low-income and middle-income countries
LSHTM	London School for Hygiene and Tropical Medicine
MCH	Maternal and Child Health
MDGs	Millennium Development Gaols
MDR	Multi Drug Resistance
M/o NHSR&C	Ministry of National Health Services, Regulation & Coordination
NTD	Neglected Tropical Diseases
PMTCT	Prevention of Mother-to-Child transmission
RH	Reproductive Health
RUTF	Ready to Use Therapeutic Food
SDGs	Sustainable Development Goals
STI	Sexually Transmitted Infections
TB	Tuberculosis
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations Children Fund
WASH	Water, Sanitation & Hygiene
WB	World Bank
WHO	World Health Organization

ESSENTIAL PACKAGE OF HEALTH SERVICES OF KHYBER PAKHTUNKHWA

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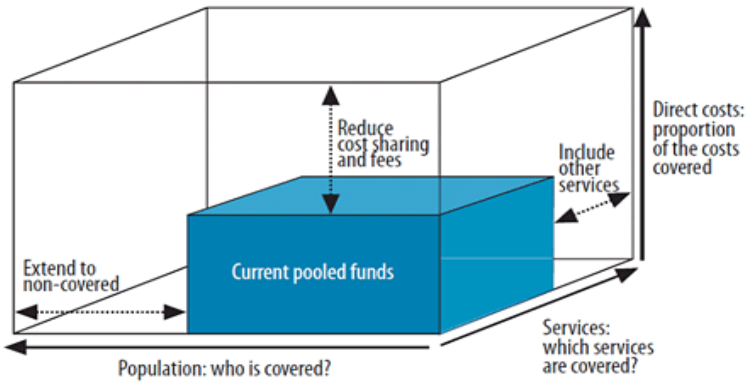
The Agenda for Sustainable Development 2015 was endorsed by the United Nations as an integrated global commitment to chart a new era for development and poverty reduction during the period 2015-2030. In this agenda, Universal Health Coverage (UHC) became the key outcome under the health goal of the Sustainable Development Goals (SDG).

The draft 12th Five Year Plan (health chapter), National Health Vision (2016) and Khyber Pakhtunkhwa (KP) Health Policy are underpinned by the idea to ensure provision of good quality essential health care services to all people through a resilient and equitable health care system.

KP Health Policy (2018-25) **vision** is:

'Accessible, equitable and quality healthcare for all people of Khyber Pakhtunkhwa to advance our community's wellbeing, productivity and prosperity'

UHC is based on the principle that all individuals and communities have equitable access to their needed health care, in good quality, without suffering financial hardship. A set of policy choices about benefits and their rationing are among the critical decisions in the reform of health financing system towards universal coverage. Choices need to be made about proceeding along each of the three dimensions in a way that best fits their objectives as well as the financial, organizational and political contexts. The three dimensions are: i) which services are covered and which needs to be included; ii) covered population and extension to non- covered; iii) reducing cost sharing and fees.



Three dimensions to consider when moving towards universal coverage

Disease Control Priorities – Edition 3 (DCP3)[1] defines a model concept of essential universal health coverage (EUHC) that provides a starting point for analysis of priorities. Pakistan is one of the first countries in the world to use the global review of evidence by the DCP3 to inform the definition of its EPHS/ UHC benefit package.

To transform the KP Health Vision into reality, one of the key actions is to develop province specific UHC Benefit Package. 'UHC Benefit Package' consists of i) **Essential Package of Health Services (EPHS)** at five platforms and ii) **Inter-sectoral Interventions/ policies**.

[1] http://dcp-3.org/

The KP Health Department in partnership with the DCP3 secretariat and funding of Bill & Malinda Gates Foundation (BMGF), World Health Organization (WHO), United Nations Children Fund (UNICEF), Foreign Commonwealth Development Office (FCDO) and the Ministry of National Health Services, Regulations & Coordination (NHSR&C), has ensured review and localisation of evidence to inform the prioritization of health interventions at five platforms for inclusion in the KP EPHS. Evidence was gathered on burden of disease in KP, unit cost and cost-effectiveness of each intervention, budget impact, feasibility, financial risk protection, equity and social context. In addition to economic evaluation, EPHS interventions incorporate evidence on intervention quality and uptake, along with non-health outcomes such as equity and financial protection.

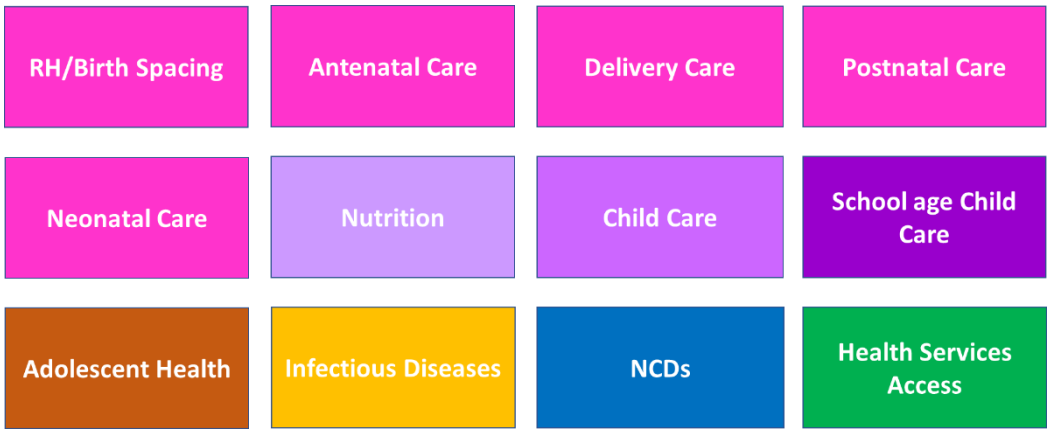
The objective of the KP EPHS is to define which services are to be covered through **five different platforms** (both through public and private sector) for ALL people in Khyber Pakhtunkhwa:

i) Community level;
ii) Primary healthcare centre;
iii) First level hospital;
iv) Tertiary hospital; and
v) Population level

Interventions at community, PHC centre and First level hospital are clubbed as the **District EPHS**, whereas interventions at tertiary hospital, population level and selected programmatic reforms are to be managed at provincial level. In addition, inter-sectoral policies can also play an important role in moving towards UHC and addressing around half of the burden of disease (BOD) in KP by mitigating risk factors.

This localized evidence was used to organise priority services into **four clusters** and **twelve categories**:

a. Reproductive, maternal, new-born, child, adolescent health & nutrition/ Life course related cluster
b. Infectious diseases cluster
c. Non-communicable diseases & Injury prevention cluster
d. Health services cluster



The evidence has been intensely reviewed by the technical experts and stakeholders, followed by critical review at the UHC Technical Committee of KP to select those health interventions that should be provided in the pathway to UHC, given the best estimates of the funding available to the government, partners and private sector.

HISTORY OF ESSENTIAL HEALTH SERVICES

Near the end of 19th century, the industrial revolution in Europe saw heavy disease and death tolls especially in urban areas. Early epidemiological discoveries about diseases like cholera, malaria, yellow fever etc., raised awareness about organization of medical services, clean water, sanitation, and living conditions. During the first half of the nineteenth century, different approaches were adopted by the European countries to tackle health challenges.

Later on, the Second World War damaged health infrastructures in many countries, paradoxically it also paved the way for the introduction of some reforms. Wartime Britain's national emergency service to deal with casualties was helpful in the construction of what became, in 1948, the National Health Service, perhaps the most widely influential model of a health system.

Japan and the Soviet Union also extended their limited national systems to cover most or all of the population, as did Norway and Sweden, Hungary and other communist states in Europe, and Chile. As former colonies (including Indo-Pak) gained independence, they also tried to adopt modern, comprehensive systems with heavy state participation.

At the time of independence in 1947, Pakistan inherited a wide range of public health problems. The majority of the country's population was illiterate, unaware of healthy lifestyles and practices, malnourished or under-nourished and living in low levels of environmental sanitation with majority having no access to safe drinking water. Situation was further aggravated by the fact that only a handful of doctors and skilled personnel were left behind to manage the situation.

In 1947, a large epidemiological outbreak of cholera in Egypt gave motivation to the development of tropical medicine for dealing with international outbreak containment. A programme of social uplift was also launched, and medical colleges were established in former East and West Pakistan. Later on, scope of health services remained under the influence of international declarations, global health initiatives and other development initiatives but largely focused on the disease specific approach to health. Pakistan's public health remained focused on small pox eradication, malaria eradication/ control and control of some other infectious diseases, as well.

A paradigm shift was witnessed in the health systems after the International Conference on Primary Health Care, Alma-Ata in 1978. Health for all (HFA) became the goal and achieving universal accessibility for populace through primary health care approach became the central theme. A large number of PHC facilities were established. In 1982, an alternate Selective PHC approach (GOBI – Growth monitoring, Oral rehydration salt, Breast feeding and Immunization) was launched, which mainly targeted childhood illnesses. The launch of the Lady Health Workers' Programme in 1994 was a major reform in the country, which also expressed the commitment of the government towards International Conference of Population and Development (ICPD).

During 1980s and 1990s the World Bank and other financial institutions assumed a more preeminent role in the health sector and for specific services private sector was also engaged. During 1990s, Global Health Initiatives (Global Polio Eradication Initiatives-GPEI; Global Fund to fight against AIDS, TB & Malaria – GFATM; Global Alliance for Vaccine and Immunization-GAVI etc.) started evolving and represented a radical shift towards these Initiatives.

In 2000, the Millennium Development Goals (MDGs) reinforced the vertical disease focused nature of development assistance with additional inclusion of hepatitis, blindness etc. along with some elements of health system strengthening indirectly through programmes focusing on maternal and

child health supported by bilateral donors and multilateral banks. A number of management and institutional reforms were also tested to improve efficiency and effectiveness in the health system.

Over the period, focus of provincial governments remained on hospitals, while private sector emerged as a major service provider. However, private sector prioritized provision of private goods in health and provision of public goods remained largely the mandate of public sector.

The public sector always faced fiscal constraints due to which it could not provide essential health services to all. After 2005 Earthquake, an attempt was made to define very broad basic package of health services. At the same time at global level, concept of EPHS developed further mainly in conflict affected countries – notably Afghanistan, Somalia, Liberia, South Sudan and the Democratic Republic of the Congo to name but a few. The key feature was that all the EPHS proposals were drawn up immediately after conflict/ humanitarian crises in order to assist with comprehensive reform and reconstruction of public health infra-structure.

In Pakistan, a more formal attempt for developing an essential package of health services (EPHS) was made initially in the provinces of Punjab and Khyber Pakhtunkhwa during 2012-13, and later on in Sindh, corresponding with the 18th constitutional amendment. With UK's Department for International Development / Technical Resource Facility (TRF) support, costed EPHS were defined but remained limited to reproductive, maternal, new-born, child health and nutrition services at primary health care level. Non-communicable diseases, health emergencies, inter-sectoral interventions were not prioritized, while the implementation focus remained largely through the public sector, along with contracting out of health facilities to NGOs to a variable extent. Main objective was to ensure efficiency and effectiveness of health services in the system rather than provision of comprehensive EPHS to all people. However, this offered a good lesson learning opportunity for provision of a package of services, which was positively supported by development of minimum services delivery standards mainly at primary level. In parallel, legislative reforms were also initiated to establish healthcare commissions/ authority, to set service delivery standards and their enforcement both in the public and private sector.

Health Insurance Programme was first approved in June 2014 and launched on December 31st 2015. The Programme aimed at families living below the poverty line and were covered for up to Rs. 50,000 of treatment in public or private hospitals and for up to Rs. 300,000 for treatment of seven particularly expensive diseases: diabetes, cardiovascular diseases, cancer, kidney and liver diseases, HIV and Hepatitis complications, burns and road accidents. In 2019, the package of services was enhanced to nine diseases and per family support was increased to Rs. 720,000 per year.

The 2030 agenda on Sustainable Development in 2015 has provided another opportunity to revisit the health services and health system in Pakistan to ensure achievements of new targets and goals, which are more comprehensive and ambitious than MDGs. The Astana Declaration in 2018 is also expected to provide a fresh look on the PHC agenda.

In August 2018, an international meeting on Disease Control Priorities - Edition 3 (DCP3) was held in Pakistan and attended by Morocco, Lebanon, Iran, Jordan, Pakistan, WHO EMRO, University of Washington and other stakeholders including provincial departments of health. Soon after the workshop, and on the decision of Inter-Ministerial Health & Population Forum meeting held in September 2018, Pakistan proposed the DCP3 secretariat to select Pakistan as the first country in the World to adopt DCP3 recommended interventions. The proposal was agreed by the secretariat.

In July 2019, with support of the DCP3 secretariat and WHO, work related to development of generic UHC Benefit Package of Pakistan started through a consultative process with provincial / area Health Departments and other stakeholders. The generic EPHS was endorsed by the Inter-Ministerial Health & Population Council on 22nd October 2020. It was also decided to develop province specific EPHS. Khyber Pakhtunkhwa has thus developed its own provincial EPHS based on localized evidence.

UHC SITUATION IN KHYBER PAKHTUNKHWA

Khyber Pakhtunkhwa (KP) is committed to the sustainable agenda of 2030 and in health sector 'Universal Health Coverage' is the key outcome to ensure progress on health-related goal of 'Good Health'. Ensuring health services access without facing financial hardship is key to improving the well-being of population. Universal health coverage is an investment in human capital and a foundational driver of inclusive and sustainable economic growth and development.

Located in the northwestern area of Pakistan, KP is the smallest province geographically, characterized by increase population growth and a large refugee population. It faces a set of unique obstacles in the health sector including poor access and utilization of health services especially at community and primary healthcare level. Federally administered tribal area (FATA) having some of the worst health indicators was merged with the KP province on 31st May 2018.

The trend analysis of KP UHC service coverage index indicate a positive trajectory - 36.2 in 2015 to 47.6 in 2019. The projected population of KP province in 2021 is 39.3 million with more than 5.6 million children under 5 years of age and 7.9 million child bearing age women. The birth rate is estimated as 30.1 per 1000 population with total fertility rate is 4.4 children per women in 2017-18. The life expectancy is 67 years (66.3 years for males and 67.9 years for females)[2] with projected growth rate 2.4. However, the death rate is 6.1 per 1000 population.

With overall improvement in the rate of burden of diseases, KP is undergoing an epidemiological transition from communicable conditions to the emerging non-communicable conditions and injuries. Burden of the communicable, maternal, child and nutritional group, which was 63% (31,130 DALYs lost per 100,000 population) in 2000, has gone down to 55.1% (21,537 DALYs lost per 100,000 population) in 2019. However, the burden of non-communicable diseases (NCD) group which was 32.6% (16,050 DALYs lost per 100,000 population) of the total burden in the year 2000 has increased its share to 39.5% (15,457 DALYs lost per 100,000 population) in 2019. The share of burden of injuries increased from 4% (1,984 DALYs lost per 100,000 population) to 5.3% (2,078 DALYs lost per 100,000 population) over the same period.

The overall sexual and reproductive health in KP is assessed by maternal mortality ratio and has reached the level of 165/100,000 live birth from 2016-2019[3]. It is very high compared to other provinces. There are significant improvements in other maternal health indicators especially skilled birth attendant 67.4% and the institutional deliveries 61.8% in 2017-18[4] . However, there are serious equity concerns as quality services are not available in many hard-to-reach areas.

Unfortunately, there has been slight progress in contraceptive prevalence rate with only 23.2% of couple is using the modern contraceptive methods. The lack of family planning leads to unintended pregnancies, leading to rising induced abortions and unplanned childbirth.

[2] IHME; Global Burden of Disease data for Balochistan, 2019
[3] NIPS; 2020; Pakistan Maternal Mortality Survey, 2019
[4] NIPS; Pakistan Demographic & Health Survey (2017-18)

Maternal health has a direct impact on the new-born health. The neonatal mortality in KP is 42/ 1000 live births. Under-five mortality is 64/ 1000 live births and the infant mortality is as high as 53/ 1,000 live births in 2017-18. The DPT/ Penta III coverage is only 64.9%. KP province is facing the challenge of malnutrition, the under five children with stunting observed in KP accounting 40.4% (FATA: 52.3), however, 7.5% (FATA: 5.3%) are wasted. The women of reproductive age (15-49 years) with anemia are constituting 30.2%, whereas the prevalence of anemia among under five children is 47.3%.

In 2019, the incidence of Tuberculosis was 158/100,000 population and the Multi Drug Resistance cases (incidence rate) 9.18/ 100,000 population. The total notified cases in KP are 41,129 (FATA: 4,413) with case detection rate in KP 48% (FATA: 32%). However, treatment success rate in KP is 93% (FATA: 87%). The incidence rate of HIV & AIDS in KP is 4.64 per 100,000 population with the estimated people living with HIV & AIDS are 12,127 and the registered cases 4,113. However, the anti-retroviral therapy coverage is only 12-22% in KP.

According to KP burden of disease data for 2019, the prevalence of Hepatitis B is 68.5 per 100,000 people, while the prevalence of Hepatitis C is 14.8 per 100,000 people. For Hepatitis B and C, blood transfusion, therapeutic injections, syringe use and hospitalization are the main risk factors for disease transmission in the province. The endemic districts for Malaria are located in KP with API 2.76 (FATA: 6.83) and the number of new malaria cases was 1.1 million in 2019.

The shift of burden of disease from communicable to non-communicable diseases accounting for 50.35% of total deaths as reported by Global Burden of disease data for KP in 2019. Among NCDs, the cardiovascular disease accounts for 21.95% of total deaths and the number of cases with stroke and ischemic heart disease are 0.236 million and 0.6 million respectively. The second largest non-communicable group is cancers and neoplasms and are responsible for 9.92% of total deaths. The number of people living with mental health disorders are 4 million. Whereas with diabetes and the chronic liver disorders are 1.18 million and 5.17 million respectively.

KP is facing a critical shortage of essential health workforce with a very low density of essential /skilled health professional (physicians including specialists, nurses, lady health visitors (LHVs) and midwives) density of 1.2 per 1,000 population, which is much below the indicative minimum threshold of 4.45 physicians, nurses and midwives per 1,000 population necessary to achieve universal health coverage. For sustainable development, these are not adequate numbers with further challenge of non-equitable distribution of health workforce and less skills mix to provide quality services.

There have been deliberate efforts to increase access and demand for healthcare services in the province. Emphasis on improving quality of health services also needs to be prioritized in order to achieve UHC.

RATIONALE

The Health Department, KP is committed to improve the health of all people, particularly women and children by providing universal access to affordable, quality, essential health services which are delivered in an efficient way through a resilient and responsive health system. On the other hand, there are always financial constraints and the government is unable to provide even basic health services to all people resulting in poor health outcomes.

The trend analysis of KP UHC service coverage index indicate a positive trajectory - 36.2 in 2015 to 47.6 in 2019. However, the SDG baseline in 2015 for UHC coverage index in Khyber Pakhtunkhwa was

much less than the average of sub-Saharan Africa at 42[5]. While considering different factors, one cannot ignore whether right essential health services are offered to all people or not.

It is therefore, critical to review the current status of health services and suggest cost-effective interventions through different platforms in such a way to avert maximum possible preventable burden of disease in the province.

AIM AND PRINCIPLES

The UHC Essential Package of Health Services is a policy framework for service provision based on scientific evidence on health interventions. The **purpose** is to ensure that all people have access to essential health services (including prevention, promotion, treatment, rehabilitation and palliation) particularly in the context of limited resources. It **aims** to address current poor access to health and inequalities in health service provision. It also helps to establish and clarify health priorities and direct resource allocation accordingly.

The guiding **principles** adopted for the development process of the 'UHC benefit package' included the following:

- Setting of the package is country/province executed and owned with active engagement of policy makers and other stakeholders
- The package should enhance equity and improve access for vulnerable segments of the population
- Strong commitment and joint work of key stakeholders in government and stakeholders is essential for success
- The process should be open and transparent in all steps with clearly defined criteria, driven by evidence and a systematic approach of collaboration from data to dialogue and decisions
- Partnership with other stakeholders including UN agencies and development partners is a critical component of joint work
- Feasibility and affordability of implementation is key. Unrealistically aspirational package with inadequate financial resources or health system capacity is a recipe for failure
- The package developed should be linked to robust financing mechanisms and effective service delivery system

PROCESS FOR THE DEVELOPMENT OF KP EPHS

After the development of generic UHC Benefit Package for Pakistan, provincial adaptation of the UHC BP is a critical step for rolling out across the provinces. There are variations across the provinces in terms of health systems dynamics, situation with regards to the prioritized interventions at the national level and the service delivery issues. Consequently, it is important that each province/ federating area, deliberate and prioritize interventions keeping in view the local context.

To implement the decision of developing province/area specific costed EPHS document, three options were considered by the KP Health Department:

a. Adopt the generic UHC BP for Pakistan / EPHS as KP EPHS
b. Consideration of the currently available KP specific evidence and use this for prioritization of interventions for KP EPHS
c. Province specific detailed evidence generation followed by intervention prioritization

[5] WHO, 2016; World Health Statistics, Monitoring Health for SDGs

The Health Department, KP decided to opt for the option (b) of using KP specific available evidence to a maximum possible extent and use national evidence where evidence generation is time consuming and difficult. It was also decided to institutionalize the process in the Health Department, KP so that evidence is generated on a regular basis and that the department will make required changes in the EPHS in future if required. Later on, following steps were followed for the development of KP EPHS:

Step 1: Governance arrangement

To ensure clear and consistent governance of the UHC BP provincial localisation, it was important to set out the order of procedures for decision making across different tiers, roles and responsibilities while ensuring clear ways of engaging to support an inclusive process.

The governance arrangement recognizes the leadership of the Health Department - KP, while supported by the M/o NHSR&C, Partners and the UHC BP National Advisory Committee (NAC). Health Department, KP notified the KP UHC Technical Committee[6] under the chairmanship of Director General Health Services (DGHS) - KP and with wider representation of different constituencies with following Terms of Reference (TOR):

- The UHC Technical Committee will act as KP specific Coordination and Facilitation architecture on UHC related interventions, projects and reform initiatives;
- Liaise with the Ministry of NHSR&C, other departments, partner organizations and stakeholders for effective coordination and harmonization;
- Facilitate generating the localized evidence for province/area specific UHC Benefit Package and related reform initiatives;
- Collection, collation of available data and information on UHC related interventions and situation in the province/area;
- Based on available localized evidence, the group will produce background documents/ discussions papers, which will be used to guide the development of provincial/area UHC Benefit Package (including a: Essential Package of Health Services for all five platforms – community, PHC centre, First level hospital, Tertiary hospital and Population level; and b: Inter-sectoral interventions policies);
- Facilitate consultations at different levels to produce the project documents not limited to the National Health Support Project (NHSP), Global Financing Facility and Joint UHC Technical Assistance (TA) Plan of the province/area;
- Monitor the progress of implementation of UHC related interventions and suggest recommendations for the consideration of Health Department;
- The KP UHC Technical Committee may form sub-committees as per need.

The Health Department - KP also notified KP UHC Steering Committee[7] under the chair of KP Health Minister with following TOR:

- Provide strategic direction to oversee and governing all KP UHC-Benefit activities;
- Drive the use of UHC-Benefit Package in policy and planning;
- Ensure stakeholders involvement in the KP UHC-Benefit Package process;
- Review and approve the recommendations of the KP UHC Technical Committee;
- Guide and approve work plans presented by the KP UHC Technical Committee;
- Resource mobilisation of funds for UHC Benefit Package activities for long term sustainability;

[6] Notification No. 786-03/HSRU/H/Vol III dated 11 March 2021; Notification and TOR of UHC Technical Committee KP Health Department

[7] Notification No. SOG/HD/1-35/Gen Notification/2020 dated 24 March 2021: Notification and TOR KP UHC Steering Committee

- Monitor implementation progress in pilot districts and facilitate addressing barriers and challenges;
- Revisit the UHC Benefit Package considering evidence generated locally.

The Health Department - KP also selected a UHC Coordinator and a Research Associate (with support of the DCP3 secretariat) to systematically carry out the activities for the development of KP UHC Benefit Package.

Step 2: Provincial Sensitization, Review and Localisation of Evidence

After initial meetings with the Ministry of NHSR&C and DCP3 secretariat, first formal consultative workshop of the UHC Technical Committee was held on 17-18th of March 2021 to sensitize the stakeholders from KP on the process, appraise them of the UHC situation in the province, review the availability of essential health services and set baseline and milestones for all EPHS proposed interventions for KP.

It was agreed that the criteria used for the development of generic national EPHS will also be used in KP to guide the EPHS process. The criteria for the prioritization of interventions included:

1. Burden of Disease;
2. Effectiveness of intervention;
3. Feasibility;
4. Cost-effectiveness;
5. Equity;
6. Budget impact;
7. Financial risk protection; and
8. Social and economic impact.

Step 3: Review of Localized evidence and development of costed KP EPHS

The first workshop was followed by analytical work by the core team and HPSIU to generate KP specific evidence for the development of KP EPHS. The following evidence was collated for the prioritization of interventions:

1. **Description of Interventions:** developed during the generic EPHS to be used as such in KP as the same was developed at national level through consensus among stakeholders, using the latest guidelines and manuals.

2. **Burden of Disease in Khyber Pakhtunkhwa:** With availability of burden of disease data for KP, it was decided to apply province specific 2019 BOD data, instead of 2017 BOD data used at national level for the generic EPHS. Significant rise in the total burden of disease was observed in 2019 compared to 2017.

3. **Target population for each Intervention:** The KP UHC Technical Committee as a group decided the baseline and year wise milestones for each proposed intervention. Year-wise targeted population for each intervention was defined using projected KP data from the 2017 census, latest national/provincial/area surveys, Institute of Health Metrics and Evaluation (IHME) and other published research. The baseline for some interventions was also identified through department's programmatic data. Milestones were kept realistic rather than ambitious as the same has significant impact on the unit cost estimation.

4. **Unit cost:** For the generic EPHS at national level, unit costs were calculated for 170 interventions across the 5 platforms. Costs were calculated to be nationally representative,

using a provider perspective. Staff requirements were described in terms of staff type and number of minutes of direct contact required. For some interventions, multiple drug regimens were described depending on the target population. For equipment, resources were quantified by the number of minutes used per intervention. The same cost components were used in the KP EPHS considering the fact that the technical specifications of the interventions will remain the same. However, staff salaries were adjusted to the pay scales in KP and annual milestones defined by the KP UHC technical committee were used to make year-wise cost projections. In addition, an inflation rate 8% was also added separately for the forthcoming years.

5. **Incremental cost-effectiveness ratio (ICER):** For the KP EPHS, the ICERs value identified in the generic national EPHS were used (considering availability of limited data at provincial level), which were identified through the use of the Tufts registry and DCP3 databases on cost-effectiveness. The matching of the ICERs for each intervention went through a step-wise process along with assessment of quality of data.

6. **Health Interventions Prioritization Tool (Hiptool):**[8] is a web-based digital tool developed by the University College of London (UCL) and was used to analyse, optimise health interventions and visualization of results. Optimization of interventions based on – cost effectiveness, disability adjusted life years (DALYs) averted, targeted population, budgetary impact was done using the Hiptool. This consequently led to the Investment Cascade of Interventions in KP to further analyse the evidence.

The next step after generation of localized evidence / investment cascade, was a three-days' workshop held on 3-5 June 2021. The KP UHC Technical Committee deliberated to prioritize interventions into **immediate**, **special** and **high** priority categories, considering the fiscal space and availability of resources for the implementation.

Prioritized interventions were drafted as EPHS document for final review by the KP Core Committee and endorsement of the KP UHC Steering Committee.

REVIEW OF AVAILABILITY OF ESSENTIAL HEALTH SERVICES IN KP

The review was carried out by the Health Department, KP and other key stakeholders to compare the current availability of Essential Health Services in the province against the DCP3 recommended 218 interventions for Essential UHC (EUHC) and 151 initially prioritized interventions under the generic EPHS of Pakistan.

Results are based on general consensus among 51 participants of KP UHC Technical Committee and gives a glimpse of health services in the province. However, there would be significant variation in service provision not only among districts of KP but also expected worse coverage in hard to reach/ socio-economically poor districts.

[8] Health Interventions Prioritization Tool Working Group. http://hiptool.org/

Results in KP against the DCP3 recommended 218 EUHC interventions by platform and cluster are as following:

Platform	No of EUHC interventions	Not available	Available 1-25%	Available 26-50%	Available 51-75%	Available >75%
Community	**59**	68%	19%	5%	8%	-
PHC Centre	**68**	57%	24%	18%	-	1%
First Level Hospital	**58**	36%	14%	26%	22%	2%
Tertiary Hospital	**20**	15%	45%	5%	30%	5%
Population	**13**	54%	23%	23%	-	-

Cluster	No of EUHC interventions	Not available	Available 1-25%	Available 26-50%	Available 51-75%	Available >75%
RMNCH/Age related	**59**	25%	42%	24%	8%	-
Infectious diseases	**51**	75%	8%	6%	10%	2%
NCD and Injuries	**52**	60%	25%	12%	4%	-
Services access	**56**	46%	9%	20%	21%	4%
TOTAL	**218**	**51%**	**21%**	**15%**	**11%**	**1%**

Results in KP against the generic national EPHS initially prioritized 151 interventions by platform and cluster are as following:

Platform	No of EPHS interventions	Not available	Available 1-25%	Available 26-50%	Available 51-75%	Available >75%
Community	**28**	18%	54%	14%	14%	-
PHC Centre	**43**	33%	35%	26%	5%	2%
First Level Hospital	**46**	9%	22%	43%	26%	-
Tertiary Hospital	**22**	9%	36%	-	45%	9%
Population	**12**	50%	33%	17%	-	-

Cluster	No of EPHS interventions	Not available	Available 1-25%	Available 26-50%	Available 51-75%	Available >75%
RMNCH/Age related	**53**	4%	55%	30%	11%	-
Infectious diseases	**30**	53%	17%	10%	17%	3%
NCD and Injuries	**29**	28%	45%	21%	7%	-
Services access	**39**	13%	13%	31%	38%	5%
TOTAL	**151**	**24%**	**32%**	**23%**	**18%**	**2%**

Summary results of the review indicate that:

- Overall, **50% (108/218) of the DCP3 recommended EUHC interventions and 80% (120/151) of the generic EPHS interventions** are being currently implemented partially, out of which only 13% of EUHC and 21% of generic EPHS interventions are expected to be accessible in more than 50% of the health facilities of KP province;
- **Out of the DCP3 recommended district level EUHC interventions, 46% (85/185) and out of the generic district level EPHS interventions 81% (94/117) are available partially in KP.** Only 11% of district EUHC interventions and 17% of generic district EPHS interventions are available in more than 50% of facilities of KP;

- **Out of the DCP3 recommended community level EUHC interventions, 32% (19/59) and out of the generic community level EPHS interventions 83% (23/28) are available partially in KP.** However, only 9% of community level EUHC interventions and 15% of generic community EPHS interventions are available in more than 50% of communities;
- **Out of the DCP3 recommended PHC centre level EUHC interventions, 43% (29/68) and out of the generic PHC centre level EPHS interventions 68% (29/43) are available partially in KP.** However, only 2% of PHC level EUHC interventions and 7% of generic PHC centre EPHS interventions are available in more than 50% of facilities;
- **Out of the DCP3 recommended FLH level EUHC interventions, 64% (37/58) and out of the generic FLH level EPHS interventions 92% (42/46) are available partially in KP.** However, only 25% of FLH level EUHC interventions and 26% of generic FLH EPHS interventions are available in more than 50% of facilities;
- **Out of the DCP3 recommended TH level EUHC interventions, 85% (17/20) and out of the generic TH level EPHS interventions 90% (20/22) are available partially in KP.** However, only 35% of TH level EUHC interventions and 55% of generic TH EPHS interventions are available in more than 50% of TH in KP;
- **Out of the DCP3 recommended Population level EUHC interventions, 47% (6/13) and out of the generic population level EPHS interventions 50% (6/12) are available partially in KP.** However, NIL of Population level EUHC interventions and NIL of generic Population level EPHS interventions are available;

- Analysis of cluster-based results indicate that out of 218 DCP3 recommended EUHC services, partially available RMNCH and age-related cluster interventions are 44/59 (**75%**), for infectious diseases cluster 13/51 (**25%**), for NCD & injuries cluster 21/52 (**40%**) and for health services cluster 30/56 (**54%**). **Infectious diseases and non-communicable diseases clusters appears to be neglected areas;**
- Analysis of cluster-based results indicate that out of 151 recommended generic EPHS services, partially available RMNCH and age-related cluster interventions are 51/53 (**96%**), for infectious diseases cluster 14/30 (**46%**), for NCD & injuries cluster 21/29 (**72%**) and for health services cluster 34/39 (**88%**). **Again, infectious diseases and non-communicable diseases clusters need more attention.**

The review concludes that

- Current services are not sufficient to make significant progress towards achieving UHC;
- Two platforms – community and PHC centre level should have scaled up services through an integrated approach;
- Where services are included in the package they should be provided with the appropriate technology and to a high quality;
- EPHS should be a live document and should be reviewed regularly;
- UHC benefit package should also consider inter-sectoral interventions, which are mostly cost-effective and have long lasting impact on the health outcomes.

AN OUTLINE OF KP EPHS WITH LOCALIZED EVIDENCE

The Essential Package of Health Services (EPHS) has been designed to provide a progressively improving access of essential health care services to the population considering fiscal space and based on the commitment of the government to achieve UHC.

The fiscal space is critically constrained and the health part of the government budget that provides sustainable resources for public purposes is very narrow[9]. Although a gradual increase in health expenditure has been reported in recent years, health expenditure remains low in KP with equity issues. In Pakistan, public health expenditure is around 1% of the GDP whereas around 2% of the health expenditure is out-of-pocket. The total health expenditure per capita was US$ 45 in 2015-16, of which public spending on health was around US$ 14,[10] much lower than the estimated cost of the packages and compared to other countries in the region.

Adequate public spending on essential health services is central to UHC, the current financial gap calls for exploring options to implement the recommended package in a way that is consistent with current fiscal realities but also take into account the potential to adopt approaches for progressive increase in resources and coverage of interventions.

While the government need to focus attention not only to enhance health sector allocations but also to gradually improve the coverage of essential health services especially in socio-economic poor districts. The contents of the EPHS are therefore a dynamic process that should be regularly updated and refined by the Health Department. District level interventions through community, PHC clinic and FLH are interlinked with each other and augment each other for maximum benefit.

Needless to say, prioritizing the government budget for EPHS is a very challenging task that requires full engagement of the highest level of government and relevant sectors specially the Department of Planning & Development, Department of Finance and the Federal government. Making the case for a higher level of investment in health requires:

Conducting fiscal space analysis and identifying potential sources of additional funding

- Linking revenue raising to a health financing strategy and investment plan
- Advocacy for political support and presenting evidence of efficiency and economic gains

Details of interventions prioritized for the KP EPHS are as following:

Platform	Number of DCP3 recommended Interventions	High Priority Interventions (with split)	Immediate Priority Interventions (with split)	Interventions through Special Initiatives
1. Community level	59	28	21	6
2. PHC centre level	68	45	35	2
3. First level hospital	58	47	42	3
District EPHS	**185**	**120**	**98**	**11**
4. Tertiary hospital	20	22	22	-
5. Population level	13	12	12	-
All Five Platforms	**218**	**154**	**132**	**11**

[9] WHO. https://www.who.int/health_financing/topics/fiscal-space/why-it-matter/en/

[10] Federal Bureau of Statistics; National Health Accounts 2015-16

A summary of interventions (immediate priority) of KP EPHS for the **year 2021** are as follows:

Platform	Immediate Priority Interventions	Unit Cost ($)/ person/ year (inclusive of health system cost)	DALYs Avert
1. Community level	21	3.74	530,138
2. PHC centre level	35	3.28	1,255,150
3. First level hospital	42	9.28	925,205
District EPHS	**98**	**16.30**	**2,710,492**
4. Tertiary hospital	22	8.15	342,263
5. Population level	12	4.47	++
All five platforms	**132**	**28.92**	**3,052,755 ++**

An addition of **11 interventions through special initiatives** will cost US$6.14/ person/ year and will avert additional 119,612 DALYs through District EPHS:

- Unit cost of 6 community level special interventions is US$ 0.39 with 3,357 DALYs avert;
- Unit cost of 2 PHC centre level special interventions is US$ 0.09 with 4,995 DALYs avert;
- Whereas unit cost of 3 FLH special interventions is US$5.67 with 11,259.

DALYs avert through population level interventions are difficult to measure but are expected to be highly cost-effective, especially in partnership with other provinces/ federating areas.

At the community level, majority of interventions are to be implemented through Lady Health Workers (LHWs), which cost US$1.53 to US$2.3/person/year depending upon the covered population per LHW (1,500 or 1,000 people respectively).

Implementation of EPHS progressively improves the coverage of essential health care services to the population and accordingly has cost implication and DALYs averted. Accordingly, projections from 2021 to 2027 are shown below.

	District EPHS – 120 interventions		District EPHS – 109 interventions (Immediate & Special)	
Year	Unit Cost ($) (Inclusive of health system cost)	DALYs Averted	Unit Cost ($) (Inclusive of health system cost)	DALYs Averted
2021	29.16	3,116,433	22.44	2,830,104
2022	31.02	3,211,578	23.97	2,912,860
2023	33.80	3,378,554	26.42	3,050,443
2024	36.76	3,575,738	29.04	3,231,439
2025	39.89	3,748,112	31.89	3,387,804
2026	42.95	3,908,595	34.66	3,533,829
2027	45.62	4,021,703	37.05	3,632,370

Year	DISTRICT EPHS – 98 interventions (Immediate Priority)		
	Unit Cost ($) (Inclusive of health system cost)	DALYs Averted	Unit Cost ($) 8% annual inflation rate
2021	16.30	2,710,492	17.60
2022	17.50	2,789,414	18.90
2023	18.45	2,886,605	19.93
2024	19.59	3,027,137	21.16
2025	20.90	3,142,619	22.57
2026	22.11	3,247,488	23.88
2027	23.01	3,305,433	24.85

Year	Tertiary Hospital Level – 22 interventions		
	Unit Cost ($) (Inclusive of health system cost)	DALYs Averted	Unit Cost ($) with 8% annual inflation rate
2021	8.15	342,263	8.81
2022	8.61	358,946	9.30
2023	9.01	376,093	9.73
2024	9.73	402,912	10.50
2025	10.60	431,432	11.45
2026	11.56	463,608	12.48
2027	12.47	488,961	13.47

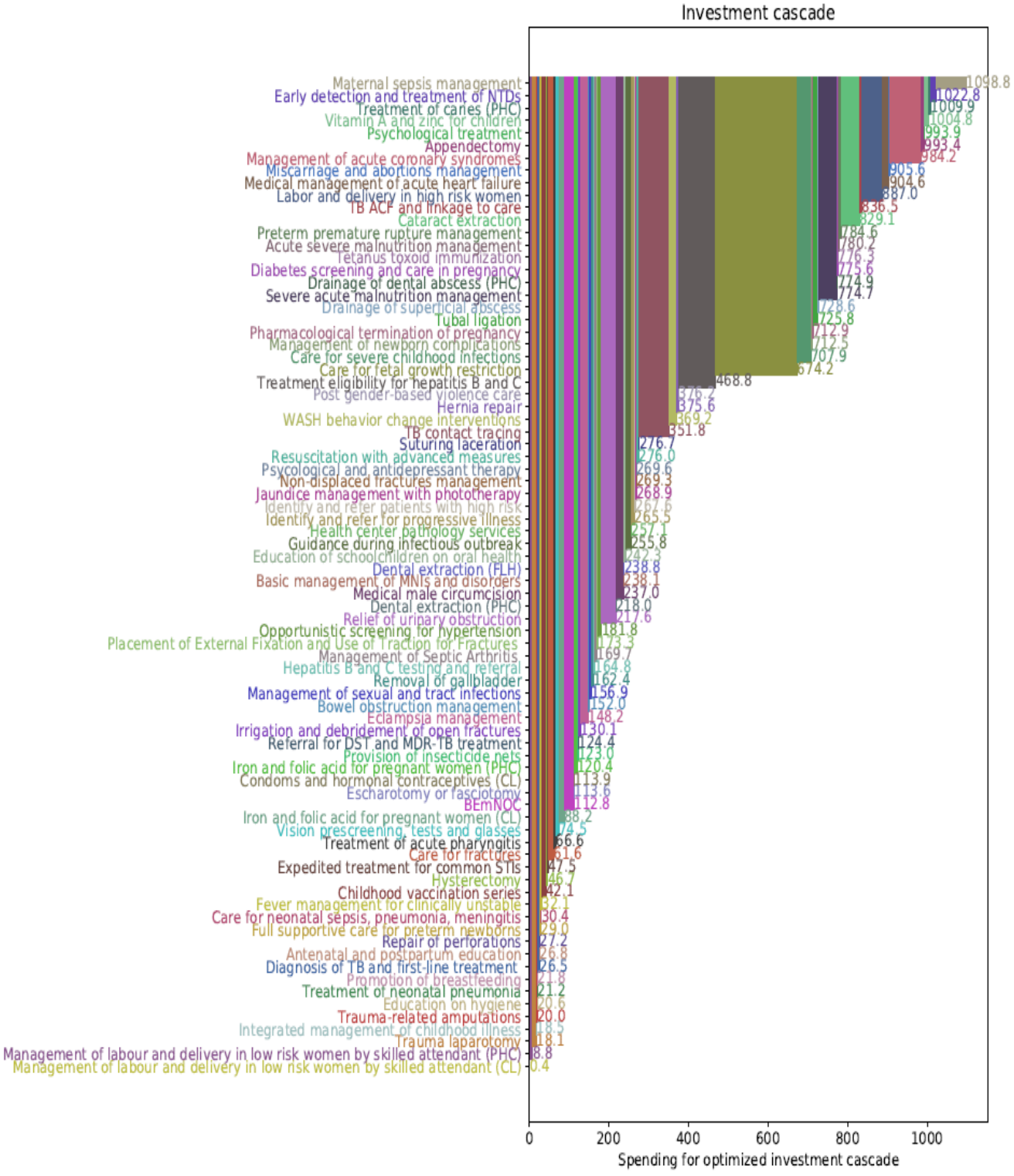
Year	Population Level – 12 interventions	
	Unit Cost ($)	Unit Cost ($) with 8% annual inflation rate
2021	4.47	4.83
2022		5.21
2023		5.63
2024		6.08
2025		6.57
2026		7.09
2027		7.66

Note:

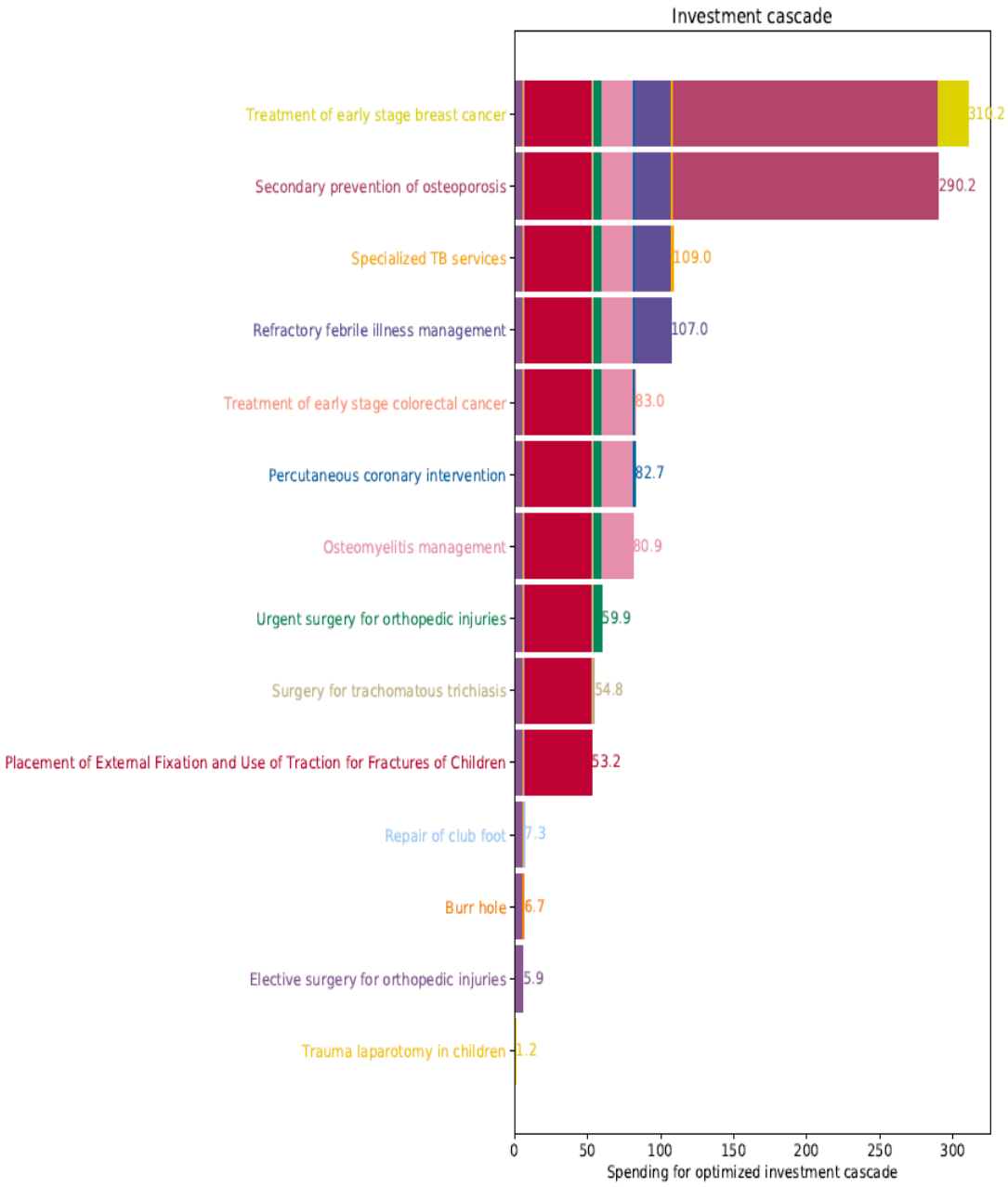
- Considering high incidence of malaria and other needs in Khyber Pakhtunkhwa, more district level interventions were considered for prioritization i.e., 120 interventions compared to 117 in the generic EPHS at national level

INVESTMENT CASCADES

Optimization of interventions based on localized evidence was done using – 'HiP Tool (Health Interventions Prioritization Tool)'. This consequently led to the **Investment Cascade of Interventions**, which suggest interventions may be prioritized for inclusion in EPHS, while considering fiscal space. Investment Cascade for 120 District level interventions for KP is as below:



Investment Cascade for Tertiary Hospital EPHS for KP is as below:



The following section provide details of interventions and evidence in the context of KP EPHS.

Localised Evidence of 120 Interventions for District EPHS and Prioritisation of Interventions

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
C1-COM	Antenatal and postpartum education on family planning	RMNCH	14	57	10,775	265,803	0.02%	Low	0.01	1.07	0.55	Immediate
C10-COM	Education on handwashing and safe disposal of children's stools	RMNCH	9	34	2,428	574,411	0.05%	Low	0.01	2.32	1.19	Immediate
C11-COM	Pneumococcus vaccination	RMNCH	52	749	615	11,579,494	1.03%	High	0.30	46.82	18.34	Immediate
C12-COM	Rotavirus vaccination	RMNCH	106	38,571	2	5,719,552	0.51%	Medium	0.15	23.12	9.06	Immediate
C14-COM	Provision of vitamin A and zinc supplementation to children according to WHO guidelines, and provision of food supplementation to women and children in food insecure households	RMNCH	98	6,143	258	10,915,475	0.97%	Medium	0.28	44.13	20.80	Special Zinc Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
C16-COM	Childhood vaccination series (diphtheria, pertussis, tetanus, polio, BCG, measles, hepatitis B, Hib, rubella)	RMNCH	20	121	2,320	10,049,598	0.89%	Medium	0.26	40.63	18.67	Immediate
C18-COM	Education of school children on oral health	RMNCH	56	1,082	380	3,594,290	0.32%	Low	0.09	14.53	1.34	Immediate
C19-COM	Vision pre-screening by teachers; vision tests and referral for glasses	RMNCH	26	229	275	7,901,843	0.70%	Medium	0.21	31.95	2.95	Immediate
C2-COM	Counselling of mothers on providing thermal care for preterm new-borns (delayed bath and skin-to-skin contact)	RMNCH	11	54	2,757	41,964	0.00%	Low	0.00	0.17	0.75	Immediate
C27a-COM	Provision of iron and folic acid supplementation to pregnant women, and provision of food or caloric supplementation to pregnant women in food insecure households	RMNCH	27	266	477	13,663,771	1.21%	High	0.36	55.24	56.63	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
C27b-PHC	Provision of iron and folic acid supplementation to pregnant women, and provision of food or caloric supplementation to pregnant women in food insecure households	RMNCH	31	286	477	13,133,051	1.16%	High	0.34	53.10	57.09	Immediate
C3a-COM	Management of labour and delivery in low-risk women by skilled attendant	RMNCH	3	2	10,085	373,875	0.03%	Low	0.01	1.51	23.14	Immediate
C3b-COM	Basic neonatal resuscitation following delivery	RMNCH	2	1	10,085	26,182	0.00%	Low	0.00	0.11	1.62	Immediate
C3c-PHC	Management of labour and delivery in low-risk women by skilled attendant	RMNCH	5	17	10,085	8,402,803	0.74%	Medium	0.22	33.97	23.90	Immediate
C3d-PHC	Basic neonatal resuscitation following delivery	RMNCH	1	1	10,085	615,043	0.05%	Low	0.02	2.49	1.75	Immediate
C4-COM	Promotion of breastfeeding or complementary feeding by lady health workers	RMNCH	12	54	2,612	548,549	0.05%	Low	0.01	2.22	1.14	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
C5-PHC	Tetanus toxoid immunization among schoolchildren and among women attending antenatal care	RMNCH	88	2,857	187	787,207	0.07%	Low	0.02	3.18	1.07	Immediate
C8-COM	Detection and management of acute severe malnutrition and referral in the presence of complications	RMNCH	89	2,900	704	3,848,229	0.34%	Low	0.10	15.56	20.05	Special
FLH1-FLH	Detection and management of foetal growth restriction	RMNCH	77	1,286	2,809	205,388,759	18.19%	High	5.36	830.38	514.33	Type A
FLH10-FLH	Surgical termination of pregnancy by manual vacuum aspiration and dilation and curettage	RMNCH	67	1,082	10	128,321	0.01%	Low	0.00	0.52	184.41	Immediate
FLH11-FLH	Full supportive care for severe childhood infections with danger signs	RMNCH	76	1,286	5,684	33,517,743	2.97%	High	0.87	135.51	266.95	Immediate
FLH12-FLH	Management of severe acute malnutrition associated with serious infection	RMNCH	85	2,286	704	46,081,141	4.08%	High	1.20	186.31	240.13	Special (Type A+B)

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
FLH13-FLH	Early detection and treatment of early-stage cervical cancer	RMNCH	48	557	41	16,434	0.00%	Low	0.00	0.07	272.68	Immediate
FLH14-FLH	Insertion and removal of long-lasting contraceptives (IUCDs and Implants)	RMNCH	59	1,082	102	95,083	0.01%	Low	0.00	0.38	1.86	Immediate
FLH15-FLH	Tubal ligation	RMNCH	82	2,000	102	12,922,134	1.14%	High	0.34	52.24	189.17	Immediate
FLH16-FLH	Vasectomy	RMNCH	33	314	102	113,457	0.01%	Low	0.00	0.46	184.96	Immediate
FLH3-FLH	Jaundice management with phototherapy	RMNCH	66	1,082	691	1,287,695	0.11%	Low	0.03	5.21	101.28	Immediate
FLH4-FLH	Management of eclampsia with magnesium sulphate, including initial stabilization at Health centre	RMNCH	37	429	170	18,113,940	1.60%	High	0.47	73.23	170.87	Immediate
FLH5-FLH	Management of maternal sepsis, including early detection at Health centre	RMNCH	102	13,571	37	23,579,656	2.09%	High	0.62	95.33	225.04	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
FLH6-FLH	Management of new-born complications infections, meningitis, septicaemia, pneumonia and other very serious infections requiring continuous supportive care (such as IV fluids and oxygen)	RMNCH	78	1,429	615	4,634,907	0.41%	Low	0.12	18.74	126.50	Immediate (Type A)
FLH7-FLH	Management of preterm labour with corticosteroids, including early detection at Health centre	RMNCH	105	35,714	2,757	23,879,816	2.12%	High	0.62	96.55	252.26	Immediate
FLH8-FLH	Management of labour and delivery in high-risk women, including operative delivery (CEmONC)	RMNCH	92	3,703	10,775	49,823,328	4.41%	High	1.30	201.43	570.38	Immediate Type A, B
HC1-PHC	Early detection and treatment of neonatal pneumonia with oral antibiotics	RMNCH	10	41	615	801,539	0.07%	Low	0.02	3.24	5.46	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
HC10-FLH	Screening and management of diabetes in pregnancy (gestational diabetes or pre-existing type II diabetes)	RMNCH	87	2,571	28	733,227	0.06%	Low	0.02	2.96	25.54	Immediate
HC11-PHC	Management of labour and delivery in low-risk women (BEmONC), including initial treatment of obstetric or delivery complications prior to transfer	RMNCH	28	267	10,775	24,932,187	2.21%	High	0.65	100.80	31.88	Immediate (RHC & 24/7 BHU)
HC12-PHC	Detection and treatment of childhood infections with danger signs (IMCI)	RMNCH	7	23	6,510	1,129,027	0.10%	Low	0.03	4.56	7.46	Immediate
HC14-PHC	Psychological treatment for mood, anxiety, ADHD, and disruptive behaviour disorders	RMNCH	97	4,821	821	826,491	0.07%	Low	0.02	3.34	2.05	Immediate
HC16-PHC	Post gender-based violence care, including counselling, provision of emergency contraception, and rape-response referral (medical and judicial)	RMNCH	120	1,206	998	576,792	0.05%	Low	0.02	2.33	15.04	X (Through Inter-Sectoral and Population Level)

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
HC17-PHC	Syndromic management of common sexual and reproductive tract infections (for example urethral discharge, genital ulcer, and others) according to WHO guidelines	RMNCH	43	469	244	6,132,834	0.54%	Medium	0.16	24.79	5.10	Immediate
HC2-PHC	Management of miscarriage or incomplete abortion and post abortion care	RMNCH	93	3,857	10	2,247,483	0.20%	Low	0.06	9.09	28.95	Immediate
HC3-FLH	Management of preterm premature rupture of membranes, including administration of antibiotics	RMNCH	90	3,041	3,488	4,566,159	0.40%	Low	0.12	18.46	176.45	Immediate
HC4a-COM	Provision of condoms and hormonal contraceptives, including emergency contraceptives	RMNCH	32	286	343	288,470	0.03%	Low	0.01	1.17	15.20	Immediate
HC4b-PHC	Provision of condoms and hormonal contraceptives, including emergency contraceptives and IUDs	RMNCH	81	6,501	343	2,440,903	0.22%	Low	0.06	9.87	15.20	Immediate

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HC5a-COM	Counselling of mothers on providing kangaroo care for new-borns (CL)	RMNCH	39	430	2,077	34,717	0.00%	Low	0.00	0.14	0.67	Immediate
HC5b-PHC	Counselling of mothers on providing kangaroo care for new-borns (PHC)	RMNCH	40	430	2,077	76,386	0.01%	Low	0.00	0.31	0.67	Immediate
HC6-FLH	Management of neonatal sepsis, pneumonia, and meningitis using injectable and oral antibiotics	RMNCH	18	107	615	1,442,974	0.13%	Low	0.04	5.83	66.11	Immediate (Type A)
HC7-PHC	Pharmacological termination of pregnancy	RMNCH	79	1,714	10	560,320	0.05%	Low	0.01	2.27	17.18	Immediate
HC9a-COM	Screening of hypertensive disorders in pregnancy	RMNCH	108	132,148	170	246,143	0.02%	Low	0.01	1.00	0.43	Immediate
HC9b-PHC	Screening and management of hypertensive disorders in pregnancy	RMNCH	107	132,148	170	5,883,725	0.52%	Medium	0.15	23.79	7.11	Immediate
RH1-FLH	Full supportive care for preterm new-borns	RMNCH	16	83	10,298	1,783,711	0.16%	Low	0.05	7.21	38.63	Immediate
C17-PHC	In high malaria transmission settings, indoor residual spraying (IRS) in selected areas	RMNCH	25	217	214	178,973	0.00%	Low	0.00	0.72	1.68	Immediate (In Malaria

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	with high transmission and entomologic data on IRS susceptibility											high-risk districts)
C28-COM	Community-based HIV testing and counselling (for example, mobile units and venue-based testing), with appropriate referral or linkage to care and immediate initiation of lifelong ART	Infectious Disease Cluster	113	286	99	772	0.00%	Low	0.00	0.00	2.24	Special
C30a-COM	Provision of condoms to key populations, including sex workers, men who have sex with men, people who inject drugs (IDU), transgender populations, and prisoners	Infectious Disease Cluster	112	286	343	7,814	0.00%	Low	0.00	0.03	22.65	Special
C30b-COM	Provision of disposable syringes to people who inject drugs (IDU)	Infectious Disease Cluster	30	286	343	63,877	0.01%	Low	0.00	0.26	8.05	Special
C32-COM	Routine contact tracing to identify individuals exposed to TB and link them to care	Infectious Disease Cluster	73	1,082	1,266	75,200,497	6.66%	High	1.96	304.03	13.86	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
C33-PHC	For malaria due to P. vivax, test for G6PD deficiency; if normal, add chloroquine or chloroquine plus 14-day course of primaquine	Infectious Disease Cluster	117	1,082	214	-	0.00%	Low	-	-	2.64	X
C43-COM	Early detection and treatment of Chagas disease, human African trypanosomiasis, leprosy, and leishmaniases	Infectious Disease Cluster	101	8,857	13	12,847,502	1.14%	High	0.34	51.94	12.71	X
C45-COM	Identify and refer patients with high risk including pregnant women, young children, and those with underlying medical conditions (also in RMNCH)	Infectious Disease Cluster	68	1,082	474	2,075,156	0.18%	Low	0.05	8.39	0.90	Immediate
C46-COM	In the context of an emerging infectious outbreak, provide advice and guidance on how to recognize early symptoms and signs and	Infectious Disease Cluster	50	1,082	1,954	4,150,311	0.37%	Low	0.11	16.78	0.45	Immediate

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	when to seek medical attention											
FLH17-FLH	Referral of cases of treatment failure for drug susceptibility testing; enrolment of those with MDR-TB for treatment per WHO guidelines (either short or long regimen)	Infectious Disease Cluster	34	314	141	1,386,596	0.12%	Low	0.04	5.61	597.42	Immediate
FLH18-FLH	Evaluation and management of fever in clinically unstable individuals using WHO IMAI guidelines, including empiric parenteral antimicrobials and antimalarials and resuscitative measures for septic shock	Infectious Disease Cluster	19	116	21,404	1,630,536	0.14%	Low	0.04	6.59	135.02	Immediate
HC19-FLH	For individuals testing positive for hepatitis B and C, assessment of treatment eligibility by trained providers followed by initiation and	Infectious Disease Cluster	75	1,251	454	92,597,649	8.20%	High	2.42	374.37	301.91	Special

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
	monitoring of antiviral treatment when indicated											
HC20-PHC	Hepatitis B and C testing of individuals identified in the national testing policy (based on endemicity and risk level), with appropriate referral of positive individuals to trained providers	Infectious Disease Cluster	45	504	454	2,500,523	0.22%	Low	0.07	10.11	3.88	Special
HC21-PHC	Partner notification and expedited treatment for common STIs, including HIV	Infectious Disease Cluster	22	156	343	3,992,802	0.35%	Low	0.10	16.14	3.69	Immediate
HC23-PHC	Provider-initiated testing and counselling for HIV, STIs, and hepatitis, for all in contact with health system in high-prevalence settings, including prenatal care with appropriate referral or linkage to care including immediate ART	Infectious Disease Cluster	38	429	797	84,847	0.01%	Low	0.00	0.34	4.37	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
	initiation for that testing positive for HIV											
HC24-FLH	As resources permit, hepatitis B vaccination of high-risk populations, including healthcare workers, PWID, MSM, household contacts, and persons with multiple sex partners	Infectious Disease Cluster	119	386	239	-	0.00%	Low	-	-	2.67	Immediate
HC25-PHC	Provision of male circumcision service (also in Health Services)	Infectious Disease Cluster	114	1,081	343	21,152,171	1.87%	High	0.55	85.52	40.05	Immediate
HC26-PHC	For PLHIV and children under five who are close contacts or household members of individuals with active TB, perform symptom screening and chest radiograph; if there is no active TB, provide isoniazid preventive therapy according to current WHO guidelines	Infectious Disease Cluster	110	271	1,266	146,937	0.01%	Low	0.00	0.59	20.19	Immediate

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HC27-PHC	Diagnosis of TB, including assessment of rifampicin resistance using rapid molecular diagnostics (UltraXpert), and initiation of first-line treatment per current WHO guidelines for drug-susceptible TB; referral for confirmation, further assessment of drug resistance, and treatment of drug-resistant TB	Infectious Disease Cluster	13	56	1,266	4,734,172	0.42%	Low	0.12	19.14	92.76	X
HC28-COM	Screening for HIV in all individuals with a diagnosis of active TB; if HIV infection is present, start (or refer for) ARV treatment and HIV care	Infectious Disease Cluster	4	4	99	246	0.00%	Low	0.00	0.00	2.46	X
HC30-PHC	Evaluation and management of fever in clinically stable individuals using WHO IMAI guidelines, with referral of unstable	Infectious Disease Cluster	116	1,082	21,404	328,250	0.03%	Low	0.01	1.33	4.20	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
	individuals to first-level hospital care											
HC32-PHC	Provision of insecticide-treated nets to children and pregnant women attending Health Centre	Infectious Disease Cluster	29	286	474	3,226,876	0.29%	Low	0.08	13.05	8.58	X
HC33-PHC	Identify and refer to higher levels of health care patients with signs of progressive illness	Infectious Disease Cluster	63	1,082	474	8,448,992	0.75%	Medium	0.22	34.16	4.90	X
C34-PHC	Conduct larvicide and water-management programs in high malaria transmission areas where mosquito breeding sites can be identified and regularly targeted	Infectious Disease Cluster	35	318	474	174,994	0.00%	Low	0.00	0.71	0.66	Immediate
P5-COM	Systematic identification of individuals with TB symptoms among high-risk groups and linkage to care (“active case finding”)	Infectious Disease Cluster	118	3,571	1,266	7,518,601	0.67%	Medium	0.20	30.40	0.78	Immediate
C51-COM	WASH behaviour change interventions, such as	NCD & IPC	58	1,082	2,775	17,415,005	1.54%	High	0.45	70.41	1.08	X (Inter-sectoral)

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	community-led total sanitation											
FLH20-FLH	Management of acute coronary syndromes with aspirin, unfractionated heparin, and generic thrombolytics (when indicated)	NCD & IPC	95	4,593	1,730	78,556,835	6.96%	High	2.05	317.60	429.07	Special
FLH22-FLH	Management of acute exacerbations of asthma and COPD using systemic steroids, inhaled beta-agonists, and, if indicated, oral antibiotics and oxygen therapy	NCD & IPC	103	15,714	943	7,400,749	0.66%	Medium	0.19	29.92	81.44	Immediate
FLH23-FLH	Medical management of acute heart failure	NCD & IPC	94	3,857	12	17,606,933	1.56%	High	0.46	71.18	620.43	Immediate
FLH24-FLH	Management of bowel obstruction	NCD & IPC	42	457	86	3,815,335	0.34%	Low	0.10	15.43	267.52	Immediate
FLH30-FLH	Management of intoxication/poisoning syndromes using widely available agents; e.g., activated charcoal, naloxone, bicarbonate, antivenom	NCD & IPC	57	1,082	291	35,938	0.00%	Low	0.00	0.15	30.13	Immediate

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HC36-PHC	Long-term combination therapy for persons with multiple CVD risk factors, including screening for CVD in community settings using non-lab-based tools to assess overall CVD risk	NCD & IPC	61	1,082	4,792	644,764	0.06%	Low	0.02	2.61	9.93	Immediate
HC37-PHC	Low-dose inhaled corticosteroids and bronchodilators for asthma and for selected patients with COPD	NCD & IPC	104	25,180	943	929,371	0.08%	Low	0.02	3.76	2.54	Special
HC38-PHC	Provision of aspirin for all cases of suspected acute myocardial infarction	NCD & IPC	41	443	1,730	162,746	0.01%	Low	0.00	0.66	0.89	Immediate
HC39a-PHC	Screening of albuminuria kidney disease including targeted screening among people with diabetes	NCD & IPC	100	8,737	536	2,396,928	0.21%	Low	0.06	9.69	10.06	Immediate
HC41-PHC	Secondary prophylaxis with penicillin for rheumatic fever or established rheumatic heart disease	NCD & IPC	60	1,082	426	155,595	0.01%	Low	0.00	0.63	2.98	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
HC42-PHC	Treatment of acute pharyngitis in children to prevent rheumatic fever	NCD & IPC	24	214	426	9,219,613	0.82%	Medium	0.24	37.27	4.87	Immediate
HC45-PHC	Opportunistic screening for hypertension for all adults and initiation of treatment among individuals with severe hypertension and/or multiple risk factors	NCD & IPC	49	571	4,306	8,801,435	0.78%	Medium	0.23	35.58	21.85	Immediate
HC50-PHC	Management of depression and anxiety disorders with psychological and generic antidepressant therapy	NCD & IPC	83	1,082	655	2,940,891	0.26%	Low	0.08	11.89	32.58	Immediate
HC56-PHC	Targeted screening for congenital hearing loss in high-risk children using otoacoustic emissions testing	NCD & IPC	80	1,857	309	155,782	0.01%	Low	0.00	0.63	14.01	Immediate
C53a-COM	Identification/screening of the early childhood development issues motor, sensory and language stimulation	Health Services	115	1,082	246	-	0.00%	Low	-	-	1.19	Special

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
C53b-PHC	Early childhood development rehabilitation interventions, including motor, sensory, and language stimulation	Health Services	109	1,082	246	3,504,802	0.31%	Low	0.09	14.17	12.97	X
FLH31-FLH	Appendectomy	Health Services	96	4,814	43	9,214,875	0.82%	Medium	0.24	37.26	275.31	Immediate
FLH34-FLH	Colostomy	Health Services	17	86	75	121,623	0.01%	Low	0.00	0.49	294.82	Immediate (Type A+B)
FLH35-FLH	Escharotomy or fasciotomy	Health Services	111	276	68	802,756	0.07%	Low	0.02	3.25	308.82	Immediate (Type A+B)
FLH36-FLH	Fracture reduction and placement of external fixator and use of traction for fractures	Health Services	23	157	2,326	14,056,559	1.24%	High	0.37	56.83	249.46	Immediate (Type A+B)
FLH38-FLH	Hysterectomy for uterine rupture or intractable postpartum haemorrhage	Health Services	21	139	132	4,549,046	0.40%	Low	0.12	18.39	327.23	Immediate (Type A+B)
FLH39-FLH	Irrigation and debridement of open fractures	Health Services	36	410	2,326	5,705,065	0.51%	Medium	0.15	23.07	378.07	Immediate (Type A+B)
FLH41a-FLH	Management of septic arthritis	Health Services	47	529	309	4,858,219	0.43%	Low	0.13	19.64	402.29	Immediate (Type A+B)

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
FLH41b-FLH	Placement of External Fixation and Use of Traction for Fractures	Health Services	46	529	1,525	3,617,528	0.32%	Low	0.09	14.63	343.42	Immediate
FLH42-FLH	Relief of urinary obstruction by catheterization or suprapubic cystostomy	Health Services	51	743	202	35,790,511	3.17%	High	0.93	144.70	221.13	Immediate
FLH43-FLH	Removal of gallbladder including emergency surgery	Health Services	44	486	58	5,482,188	0.49%	Low	0.14	22.16	304.47	Immediate (Type A+B)
FLH44-FLH	Repair of perforations (for example, perforated peptic ulcer, typhoid ileal perforation)	Health Services	15	74	100	411,211	0.04%	Low	0.01	1.66	384.42	Immediate (Type A)
FLH45-FLH	Resuscitation with advanced life support measures, including surgical airway	Health Services	64	1,082	2,066	6,456,967	0.57%	Medium	0.17	26.11	80.20	Immediate
FLH48a-FLH	Trauma laparotomy	Health Services	6	20	2,326	9,319,695	0.83%	Medium	0.24	37.68	354.17	Immediate (Type A+B)
FLH49-FLH	Trauma-related amputations	Health Services	8	33	2,326	1,487,481	0.13%	Low	0.04	6.01	310.39	Immediate (Type A+B)
FLH50-FLH	Tube thoracostomy	Health Services	55	1,082	2,488	73,216	0.01%	Low	0.00	0.30	84.88	Immediate
FLH52-FLH	Compression therapy for amputations, burns, and	Health Services	53	800	68	16,785	0.00%	Low	0.00	0.07	8.69	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Interven tion $	Immediate/ Special Initiatives
	vascular or lymphatic disorders											
HC57a-PHC	Dental extraction (PHC)	Health Services	54	1,000	106	467,832	0.04%	Low	0.01	1.89	19.37	Immediate (RHC)
HC57b-FLH	Dental extraction (FLH)	Health Services	72	1,082	106	625,153	0.06%	Low	0.02	2.53	22.29	Immediate
HC58a-PHC	Drainage of dental abscess (PHC)	Health Services	86	2,543	27	238,241	0.02%	Low	0.01	0.96	14.56	Immediate (RHC)
HC59-PHC	Drainage of superficial abscess	Health Services	84	2,159	7	3,248,599	0.29%	Low	0.08	13.13	16.03	Immediate
HC60-PHC	Management of non-displaced fractures	Health Services	71	1,082	2,326	512,217	0.05%	Low	0.01	2.07	13.47	Immediate
HC61-PHC	Resuscitation with basic life support measures	Health Services	69	1,082	2,066	10,022	0.00%	Low	0.00	0.04	1.65	Immediate
HC62-PHC	Suturing laceration	Health Services	65	1,082	2,326	646,255	0.06%	Low	0.02	2.61	2.83	Immediate
HC63a-PHC	Treatment of caries	Health Services	99	6,644	27	5,165,811	0.46%	Low	0.13	20.89	25.38	Immediate (RHC)
HC64-PHC	Basic management of musculoskeletal and neurological injuries and disorders, such as prescription of simple exercises and sling or cast provision	Health Services	62	1,082	3,277	1,541,158	0.14%	Low	0.04	6.23	8.77	Immediate

DCP 3 Code /UHC BP Platform	Full Name of Intervention	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Intervention $	Immediate/ Special Initiatives
HC68-PHC	Health centre pathology services	Health Services	70	1,082	474	1,273,435	0.11%	Low	0.03	5.15	22.14	(Cost included in other interventions)
RH14-FLH	Cataract extraction and insertion of intraocular lens	Health Services	91	3,143	80	44,432,375	3.94%	High	1.16	179.64	242.94	Immediate (Type A+B+C)
FLH37a-FLH	Hernia repair including emergency surgery	Health Services	74	1,086	32	6,415,455	0.00%	Low	0.17	25.94	240.15	Immediate

Note: Health System cost at district level is included

LEGENDS			
	Strong and positive evidence		Intervention recommended for Immediate implementation
	Medium positive evidence		Intervention recommended for implementation through Special initiative
	Weak positive evidence	X	Not an immediate priority

Localised Evidence for 22 Prioritized Interventions in Tertiary Hospital EPHS

DCP 3 Code	Full Name	Cluster	Cost effective-ness and ranking	ICER	Burden of Diseases Annual DALYs per 100,000	Spending per Intervention USD	Spending per Intervention USD % of total spending	Budget Impact	Cost per capita $	Cost per capita PKR	Unit Cost/ Intervention $	Immediate / Special Initiatives
FLH25	Calcium and vitamin D supplementation for secondary prevention of osteoporosis	NCD & IPC	16	2,186	309	181,170,379	58.0%	High	4.7	732.47	236.76	Immediate
FLH33	Craniotomy for Trauma	Health Services	4	286	753	2,770,566	0.9%	Medium	0.1	11.20	497.65	Immediate
FLH37b	Hernia Repair Including Emergency Surgery for neonates and infants	Health Services	1	17	32	87,992	0.0%	Low	0.0	0.36	230.43	Immediate
FLH40	Management of osteomyelitis, including surgical debridement for refractory cases	Health Services	10	799	309	20,953,848	6.7%	High	0.5	84.72	406.99	Immediate
FLH41c	Placement of External Fixation and Use of Traction for Fractures of Children	Health Services	9	529	1,525	45,876,579	14.7%	High	1.2	185.48	311.08	Immediate
FLH48b	Trauma laparotomy in children	Health Services	2	20	2,326	1,186,010	0.4%	Low	0.0	4.80	331.15	Immediate
RH2	Specialized TB services, including management of MDR- and XDR-TB treatment failure and surgery for TB	Infectious Disease Cluster	21	1,082	1,266	2,026,544	0.6%	Medium	0.1	8.19	789.13	Immediate
RH3	Management of refractory febrile illness including etiologic diagnosis at reference microbiological laboratory	Infectious Disease Cluster	13	1,082	21,404	23,959,260	7.7%	High	0.6	96.87	1,077.50	Immediate

RH4	Management of acute ventilatory failure due to acute exacerbations of asthma and COPD; in COPD use of bilevel positive airway pressure preferred	NCD & IPC	19	15,714	943	88,206	0.0%	Low	0.0	0.36	48.18	Immediate
RH5	Retinopathy screening via telemedicine, followed by treatment using laser photocoagulation	NCD & IPC	5	314	813	827	0.0%	Low	0.0	0.00	2.75	Immediate
RH6	Use of percutaneous coronary intervention for acute myocardial infarction where resources permit	NCD & IPC	11	962	1,730	1,757,597	0.6%	Medium	0.0	7.11	411.42	Immediate
RH7	Treatment of early-stage breast cancer with appropriate multimodal approaches (including generic chemotherapy), with curative intent, for cases that are detected by clinical examination at Health Centre	NCD & IPC	17	9,286	378	20,123,716	6.4%	High	0.5	81.36	2,086.46	Immediate
RH8	Treatment of early-stage colorectal cancer with appropriate multimodal approaches (including generic chemotherapy), with curative intent, for cases that are detected by clinical examination at Health centre	NCD & IPC	12	1,071	75	314,671	0.1%	Low	0.0	1.27	640.73	Immediate
RH9	Treatment of early-stage childhood cancers (such as Burkitt and Hodgkin lymphoma, acute lymphoblastic leukaemia, retinoblastoma, and Wilms tumour) with curative intent in	NCD & IPC	20	1,571	479	-	0.0%	Low	-	-	2,364.42	Immediate

	paediatric cancer units or hospitals											
RH10	Elective surgical repair of common orthopaedic injuries (for example, meniscal and ligamentous tears) in individuals with severe functional limitation	NCD & IPC	3	157	2,326	4,670,681	1.5%	High	0.1	18.88	383.83	Immediate
RH11	Urgent, definitive surgical management of orthopaedic injuries (for example, by open reduction and internal fixation)	NCD & IPC	7	529	2,326	5,154,513	1.6%	High	0.1	20.84	282.40	Immediate
RH12	Repair of cleft lip and cleft palate	NCD & IPC	18	11,286	18	145,980	0.0%	Low	0.0	0.59	824.18	Immediate
RH13	Repair of club foot	NCD & IPC	6	474	38	583,734	0.2%	Low	0.0	2.36	152.26	Immediate
RH15	Repair of anorectal malformations and Hirschsprung's Disease	Health Services	13	1,082	51	31,806	0.0%	Low	0.0	0.13	369.21	Immediate
RH16	Repair of obstetric fistula	Health Services	13	1,082	54	90,651	0.0%	Low	0.0	0.37	404.19	Immediate
RH17	Insertion of shunt for hydrocephalus	Health Services	22	226	51	-	0.0%	Low	-	-	396.54	Immediate
RH18	Surgery for trachomatous trichiasis	Health Services	7	529	48	1,631,788	0.5%	Medium	0.0	6.60	218.67	Immediate

Note: Health System cost at district level is included

LEGENDS			
	Strong and positive evidence		Intervention recommended for Immediate implementation
	Medium positive evidence		Intervention recommended for implementation through Special initiatives
	Weak positive evidence	X	Not an immediate priority

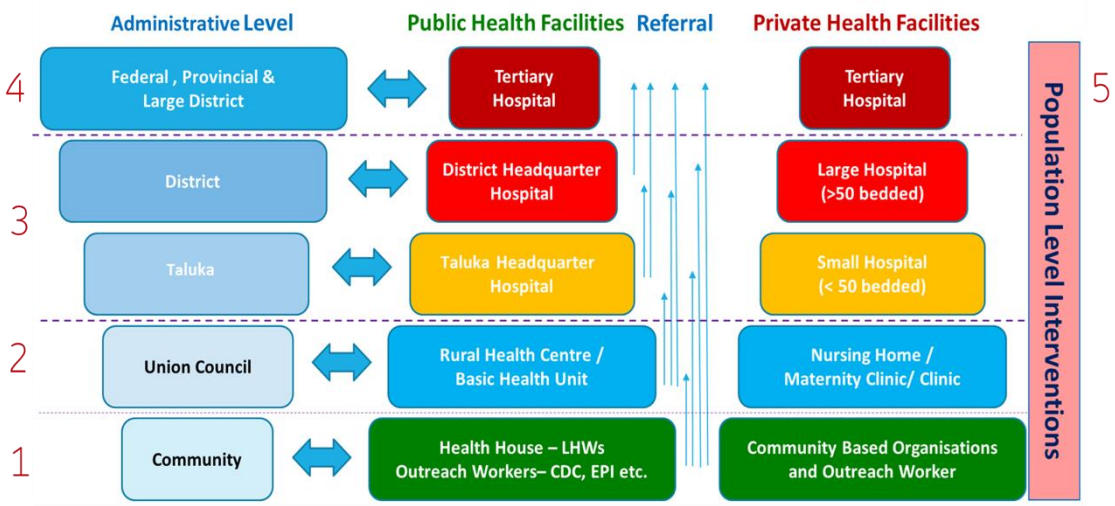
12 Prioritized Interventions at Population Level

Code	Intervention	Cluster	Unit Cost $ /Capita
P1-P1	Mass media messages concerning sexual and reproductive health and mental health for adolescents (Also included in HIV and Mental health packages of services)	RMNCH	0.11
P2-P2	Mass media messages concerning healthy eating or physical activity (Also included in CVD and Musculoskeletal packages of services)	RMNCH	0.11
C25-P3	Education campaign for the prevention of gender-based violence	RMNCH	0.11
P4-P4	Mass media encouraging use of condoms, voluntary medical male circumcision and STI testing	RMNCH	0.11
P6-P5	Sustained integrated vector management for effective control of visceral Leishmaniasis, dengue, chikungunya, CCHF, and other nationally important causes of non-malarial fever vector borne NTDs	Infectious Disease Cluster	0.11
P13-P6	Mass media messages concerning awareness on handwashing and health effects of household air pollution	Infectious Disease Cluster	0.11
P7-P7	Conduct a comprehensive assessment of International Health Regulations (IHR) competencies using the Joint External Evaluation (JEE) tool	Infectious Disease Cluster	0.00
P10-P8	Develop and implement a plan to ensure surge capacity in hospital beds, stockpiles of disinfectants, equipment for supportive care and personal protective equipment	Infectious Disease Cluster	2.84
P11-P9	Develop plans and legal authority for curtaining interactions between infected persons and un-infected population and implement and evaluate infection control measures in health facilities	Infectious Disease Cluster	0.06
P8-P10	Conduct simulation exercises and health worker training for outbreak events including outbreak investigation, contact tracing and emergency response	Infectious Disease Cluster	0.01
P9-P11	Decentralize stocks of antiviral medications to reach at risk groups and disadvantaged populations	Infectious Disease Cluster	0.81
P3-P12	Mass media messages concerning use of tobacco (Also included in CVD package of services)	NCD & IPC	0.11

HEALTHCARE DELIVERY SYSTEM IN KHYBER PAKHTUNKHWA

Khyber Pakhtunkhwa public healthcare delivery system functions as an integrated health complex that is administratively managed at the district level. The government provide healthcare through a three-tiered healthcare delivery system and community-based interventions. The former includes Basic Health Units (BHU), and Rural Health Centres (RHC) forming the core of the primary healthcare centres. Secondary care including first and second referral facilities providing acute, ambulatory and inpatient care is provided through Tehsil Headquarter Hospitals (THQs), and District Headquarter Hospitals (DHQs) which are supported by Tertiary Care mostly annexed with teaching hospitals. Services are augmented through a range of public health programmes through healthcare delivery system and through population level interventions.

Figure: Public & Private Healthcare Delivery System in Khyber Pakhtunkhwa



The private healthcare system constitutes of for-profit and not-for-profit (NGOs and CBOs) and constitutes a diverse group of doctors, nurses, pharmacists, traditional healers, drug vendors, as well as laboratory technicians, shopkeepers and unqualified practitioners. The private healthcare delivery system includes clinics, maternity clinics, nursing homes, small hospitals (less than 100 bedded) and large hospitals (more than 100 bedded) and tertiary care from private teaching hospitals. Diagnostic facilities and the sale of drugs from pharmacies are also a part of this system. In some cases, the distinction between public and private sectors is not very clear as many public sector practitioners also practice privately.

Whereas, primary, promotive and preventive health services are largely offered by the public sector, the focus of private sector is generally on the curative care services, with bias towards urban areas.

A brief introduction of different types of District level healthcare delivery system is provided below:

Community based healthcare delivery system

At the household level, services are provided through community-based health providers including Lady Health Workers (LHWs), Community Midwives (CMWs) and workers for community-based organizations (e.g., for provision of HIV & AIDS preventive services). In addition, there are also outreach workers including Lady Health Supervisors, Vaccinators, Population Welfare Councillor, CDC/Environmental Technologist etc, and have been accounted for as PHC centre staff.

Lady Health Workers (LHWs)

Lady Health Worker (LHW) is a community-based worker and the LHWs Programme was launched nationwide in 1994. LHW is responsible to register households in her community of around 150-200 households (an average of 1,000-1,500 people) and offer primary, preventive, promotive and some curative care services. LHW is required to visit at least 7-10 households each day to ensure that all registered households are visited at least once every month. During household visit she provides services including health education, counselling, motivation and community organization. She promotes and offer family planning services, maternal and adolescent healthcare, child healthcare including immunization and nutrition services, treatment of common ailments etc.

The LHW's house is designated as a **Health House,** where she is expected to establish a 'kit corner' to provide counselling and treatment services to those visiting her for advice. The LHW's house may also serves as a vaccination post to vaccinate women and children in coordination with the area vaccinator. LHW is responsible to organize her community by forming health committee and women's groups. LHW submits her monthly report in the monthly 'continuing education' meeting at the health facility. She is replenished with medicines and supplies consumed during last month.

Community Midwives (CMWs)

Community Midwives (CMWs) were introduced through the National Maternal, New-born and Child Health (MNCH) Programme in 2006. CMW is responsible to provide individualized care to the pregnant women throughout the maternity cycle and the new-born and ensure skilled birth attendance for home deliveries or at work/ birthing station established by her. The catchment population for a CMW is around 5000. In some areas, PHC technician MCH (previously known as Lady Health Visitors – LHV), mostly based at PHC centre, also offer home-based delivery services. Considering rapidly increasing institutional deliveries across the country, the need for community midwives is less comparatively in large urbanized districts. Whereas in remote and socio-economically poor districts, this is among the few options to ensure skilled birth attendance.

Community based services to prevent HIV & AIDS

Community based services are also offered through workers of community-based organizations in HIV & AIDS high-risk populations to ensure provision of preventive services. These services are usually offered to injecting drug users, sex workers, bridging population etc.

In addition, community level services are also offered by the out-reach workers including Vaccinators, Health, Population Welfare Councillors, Environmental technicians, Lady health supervisors and other health facility staff. For some interventions, other volunteers also contribute to delivery of services e.g., polio campaign, deworming campaign, Vit A supplementation, etc. Nomenclature varies in different provinces. Activities related to out-reach workers have been accounted for mostly at the PHC centre level.

Primary healthcare centre level health system

There are different types of primary healthcare centre level facilities in rural areas commonly known as Basic Health Unit (BHU), BHU (24/7) and Rural Health Centre (RHC), while in urban areas, comparable types of PHC facilities are Dispensary, Medical/ MCH centre while in private sector different types of comparable PHC facilities are General Physician (GP) Clinic, Medical centre and Nursing/ maternity homes etc.

A brief explanation of three types of PHC centre facilities in public and private sector are as following:

Basic Health Unit/ Civil Dispensary/ General Practitioner Clinic

Dispensary is the oldest type of a primary healthcare facility mainly in urban areas. After Alma Ata, Basic Health Units (BHUs) were established country wide, mainly in rural areas, to work as the first formal point of contact to access primary healthcare services. Ideally, each Union Council or Ward (lowest administrative unit) should have one PHC centre usually serving a population of around 15,000 to 20,000. Usually, these health facilities offer basic primary healthcare services, which include provision of static and outreach services for maternal & childcare, immunization, family planning, management of diarrhoea, pneumonia, control of communicable diseases and management of common ailment along with health education activities. These facilities are also responsible for provision of management and logistic support to LHWs and other community-based service providers. These facilities offer services usually 8 hours/ 6 days a week.

24/7 BHU / MCH Centre / Medical Centre

With increasing population and to ensure 24/7 delivery services, the concept of 24/7 BHU emerged. In comparison to BHU, 24/7 BHU is envisaged to provide wider range of services including round the clock delivery services. 24/7 BHU is envisaged to serve a catchment population of 30,000 – 40,000. It is important to offer wide range of services, infrastructure, human resources, equipment and supplies should also be ensured at the facility. Khyber Pakhtunkhwa has recently decided to upgrade some BHUs to offer 24/7 services especially for delivery care. Already MCH centres and private clinics are offering such services round the clock.

Rural Health Centre / Health Centre/ Nursing Homes

Rural Health Centre (RHC) functions around the clock and serve a catchment area population of 40,000–60,000 or even more, providing a comprehensive range of primary health care services and basic indoor facilities. The services envisaged to be provided at RHC include health education services, general treatment services, Basic Emergency Obstetric & New-born Care (BEmONC) services, emergency services such as management of injuries, accident, selected surgical services such as stitching, abscess drainage, circumcision etc. and first aid services to stabilize the patient in emergency conditions and refer them to higher level of care in case of complications. RHCs also provide clinical, logistical and managerial support to the BHUs, LHWs, MCH Centres, and Dispensaries that fall within its geographical limits. RHC provides medico-legal, basic surgical, dental and ambulance services. Under the new policy the ambulance services will be handed over to the Rescue 1122. RHCs are equipped with laboratory and X-ray facilities and a 20 bedded inpatient facility. Around 5-8 BHUs are linked with the RHC for referral and other administrative purposes.

Equivalent to RHC, there are private sector Health Centre, Nursing or Maternity homes mostly in urban areas and sometimes offer wider range of services including specialized services.

First level hospital health system

First level hospital refers to the intermediate level of medical care that is provided by a specialist or facility upon referral from primary care and is designed to provide technical, therapeutic and diagnostic services. It requires more specialized knowledge, skills, and equipment than the primary care professional. Services are offered 24/7. Basic specialist consultation and hospital admissions fall into this category. The secondary level of care were previously named as District Head Quarter (DHQ) and THQ hospitals but the level of services to be provided by the hospitals varied from hospital to hospital. To ensure the access and equity of services the department conducted the exercise of standardization in year 2002 wherein all the hospitals were categorized into Category A, B ,C, D.based on the population of the district and the number of beds of each type of hospital so that a ratio of 1 bed to 2500 population is achieved. The notification defined the specialities which are to be provided

in each category as well as staffing for each category. It was also agreed that the upgradation of infrastructure as well as equipment will be done through ADP. The process of upgradation of infrastructure of hospital is being conducted since 2002 through the ADP and number of the hospitals has been standardized.

Bed Strength and Specialities across Category A, B, C and D secondary care hospitals

All the four categories of hospitals have both in-patient and outpatient services, in addition to emergency, diagnostic and other day care facilities. Category "A" secondary care hospital has the highest number of specialties and the number of inpatient beds. The number of specialties and the inpatient beds decreases across category "A" to category "D" hospitals. The bed strength and the available specialities by the four hospital categories are provided in the Table 1.

Table 1: Summary of the Criterion for Categorisation of Secondary Care Hospitals

		CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
INPATIENT BEDS	**SURGERY**	40 beds	30 beds	20 beds	8 beds
	MEDICINE	40 beds	30 beds	20 beds	8 beds
	GYNAE/OBS	40 beds	20 beds	15 beds	;10 beds
	PAEDIATRICS	40 beds	20 beds	10 beds	10 beds
	EYE	30 beds	20 beds	10 beds	0
	ENT	30 beds	20 beds	10 beds	0
	ORTHOPAEDICS	20 beds	10 beds	10 beds	0
	CARDIOLOGY	15 beds	10 beds	0	0
	PSYCHIATRY	15 beds	10 beds	0	0
	CHEST/TB	10 beds	10 beds	0	0
	DIALYSIS UNIT	6 U	4 U	0	0
	DENTISTRY UNIT	6 U	4 U	2 U	1 U
	PAEDS SURGERY	10 beds	0	0	0
	NEUROSURGERY	10 beds	0	0	0
	DERMATOLOGY	10 beds	0	0	0
	ACCIDENT AND EMERGENCY (Casualty)	10 beds	10 beds	5 beds	4 beds
	LABOR ROOM	10 beds	5 beds	5 beds	2
	ICU/CCU	10 beds	10 beds	5 beds	0
	NURSERY PEADS/ICU	10 beds	5 beds	0	0
	TOTAL BEDS	**350 Beds + 6 Dialysis Units + 6 Dentistry Units**	**210 Beds + 6 Dialysis Units + 6 Dentistry Units**	**110 Beds + 2 Dentistry Units**	**42 Beds + 1 Dentistry Unit**

Large private hospitals are considered to be equivalent to Category A and B hospitals while small private hospitals may be considered as equivalent to Category C and D hospitals.

Tertiary hospital (Public/ Private)

A tertiary referral hospital provides tertiary care, which is a level of health care obtained from specialists in a large hospital after referral from the providers of primary care and secondary care. Tertiary hospital that usually has a full complement of services including paediatrics, obstetrics, general medicine, gynaecology, various branches of surgery and psychiatry. Specialty hospital are dedicated to specific sub-specialty care (paediatric centres, oncology centres, psychiatric hospitals).

Patients will often be referred from smaller hospitals to a tertiary hospital for major operations, consultations with sub-specialists and when sophisticated intensive care facilities are required.

Tertiary hospital may also be attached with a Medical Teaching Institute. Tertiary hospitals are not present in all districts but in districts with large population and also serve the neighbouring districts.

Most of the tertiary hospitals in KP have been given autonomy under medical teaching institution bill, to ensure efficiency gain and improve quality of services. Such autonomy also helps in generating other financial resources which could be used to further improve the quality of services.

Population level

Federal and Provincial governments also carry out some interventions which benefit the whole population. Population-level health interventions are policies or programmes shift the distribution of health risk by addressing the underlying social, economic and environmental conditions. These interventions might be programs or policies designed and developed in the health sector, but may be in sectors elsewhere, such as media or education.

DISTRICT LEVEL ESSENTIAL PACKAGE OF HEALTH SERVICES

(Community, PHC Centre and First Level Hospital)

UHC Benefit Package/ Essential Package of Health Services (EPHS) offers a futuristic vision in the health sector to set strategic direction and accordingly implement prioritized interventions to make progress on achieving Universal Health Coverage/ health-related Sustainable Development Goals.

Based on the evidence informed process outlined above, minimum of 98 interventions out of 218 recommended interventions by the DCP3/ 151 generic national EPHS were prioritized for immediate implementation by stakeholders to be included in the KP District level EPHS at the Community, PHC centre and First Level Hospital. Remaining interventions were identified as high priority to be implemented provided resources are available whereas 11 were identified to be implemented through special initiatives with additional support of national and/or provincial governments. Other interventions can also be offered once EPHS interventions are fully offered.

The immediate, high priority and special initiative interventions are categorized to four clusters (i: RMNCAH&N cluster; ii: Infectious diseases cluster; iii: non-communicable disease cluster; and iv: health services access cluster). However, for ease of understanding, some interventions have been merged or broken down further. After that these interventions were re-classified according to lifecycle approach into following 12 categories:

1. Reproductive health/ birth spacing
2. Antenatal care
3. Delivery care
4. Post-natal care
5. New-born care
6. Nutrition
7. Child care
8. School age child care
9. Adolescent health
10. Infectious diseases
11. Non-communicable diseases
12. Health services access

First nine categories are part of RMNCH cluster. The description in the following section reflects the prioritized set of District level EPHS interventions:

EPHS at Community level

The package of services that are being proposed at the community level reflect the community needs, burden of disease, cost-effectiveness of interventions and the contextual factors to ensure delivery of efficient, effective and quality services at the doorstep. The health care workers, service providers and community-based organizations will provide the proposed services in the communities. Service providers include Lady Health Workers, Lady Health Visitor, Population Welfare Councillor and workers of Community-Based Organizations. These frontline workers also get backup support from the out-reach workers including CDC/Environmental Technicians, Vaccinators, Lady Health Supervisors and other health facility staff. The interventions among twelve categories are provided in the following box.

COMMUNITY LEVEL INTERVENTIONS

Reproductive Health/ Birth spacing
– Education and counselling on birth spacing during antenatal and post-natal care (LHW, CMW, LHV)
– Provision of condoms, hormonal pills and injectable contraceptives (LHW, CMW, LHV)
– Referral and linkages for IUCD insertion (LHW)
– Referral and linkages for surgical contraceptive methods (LHW)

Antenatal Care
– Counselling on providing thermal & kangaroo care to new-born (LHW, CMW, LHV)
– Counselling on breastfeeding and growth monitoring (LHW, CMW, LHV)
– Monthly monitoring of pregnant women using MCH card and referral to Skilled birth attendant (LHW)
– Nutrition counselling and provision of Iron and folic acid to pregnant women (LHW)
– Referral/ immunization for TT immunization (CBAs and Pregnant women) (LHW, CMW)
– Screening for hypertension during pregnancy and immediate referral (LHW, CMW. LHV)

Delivery Care
– Referral to skilled birth attendant for low risk labour and delivery (LHW)
– Identification of danger signs and referral to BEmONC or CEmONC facility considering complications (LHW, CMW, LHV)
– Low risk normal delivery (Only where CMW or LHV is available)

Post-Natal Care
– Use of PNC checklist for mother within 24 hours after delivery (LHW) +3 follow up visits for 40 days after delivery (LHW, CMW)
– Education and counselling on birth spacing during post-natal care and service provision/ referral (LHW, CMW)

New-born Care
– Use of PNC checklist for new-born within 24 hours after delivery (LHW) + care of new-born including care of cord (3 follow up visits) (LHW, CMW, LHV)
– Early initiation of breastfeeding (within ½ hour of birth) and initiation of growth monitoring (LHW, CMW, LHV)
– Ensuring thermal & kangaroo care to new-born (LHW)
– Ensure initiation of immunization for BCG and zero dose polio (LHW with support of area Vaccinator)

Nutrition
– Screening for malnutrition in children; growth monitoring, ensure provision of food supplements for moderately acute malnourished cases and refer severely acute malnourished cases to stabilization centre (LHW, PW councillor)
– Ensure provision of vitamin A (after National immunization days are stopped) and zinc supplementation (LHW, PW councillor, etc)
– Provision of micro-nutrients (iron and folic acid), ensure food supplementation to women/adolescent girls (LHW)

Child care
– Community based integrated management of childhood illnesses (LHW); immediate referral for complications and danger signs and follow up visits (LHW, PW councillor)
– Childhood Vaccination (BCG, Polio 0,1,2,3, Penta 1,2,3, Pneumococcal 1,2,3, Rota 1,2, Measles 1,2) – Typhoid vaccine from 2022 (LHW, PW councillor with support of Vaccinator)
– Education on handwashing and safe disposal of children's stool (LHW, PW councillor)

School age Child Care
– Education of schoolchildren on oral health (LHW, PW councillor)
– Vision pre-screening and referral if required (LHW, PW councillor)
– School based HPV vaccination of girls (vaccinator, LHV) – after 2022-23 and through special initiative
– Drug administration against soil-transmitted helminthiasis (LHW, PW councillor, volunteer)

Adolescent Health
– Education and counselling for prevention of sexually transmitted infection, screening and referral (LHW)

Infectious Diseases
– Community based HIV testing, counselling and referral (In high risk groups by CBO worker)
– Provision of condoms and disposable syringes (In high risk groups by CBO worker)
– Health education on Hepatis B and C and referral of suspected cases (LHW, PW councillor)
– Health education on STI and HIV (LHW, CBO worker)
– Systematic screening and routine contact tracing exposed to Tuberculosis (LHW, CBO worker)
– Referral of malaria suspect (LHW, PW councillor)
– Conduct larvicidal and water management (LHW & PW councillor with backup support from CDC/ Environmental technician)
– Identification and referral of suspected cases of Dengue, Influenza, Trachoma etc. (LHW, PW councillor)
– Identification, reporting and referral of notifiable diseases (LHW, PW councillor and CDC/ Environmental technician) - Conduct simulation exercises/ training

Non-Communicable Diseases
– Exercise based pulmonary rehabilitation of COPD (LHW)
– Screening for hypertension (LHW)
– Health education on CVD prevention (LHW, PW councillor)
– Health education on Diabetes (LHW, PW councillor)
– Self-managed treatment of migraine (LHW)
– Clap test for screening of congenital hearing loss among new-born and referral (LHW)
– WASH behaviour changes interventions (LHW, PW councillor with backup support from CDC/ Environmental technician)

Health Services Access
– Health education on dental care (LHW, PW councillor)
– Health education scabies, lice and skin infections (LHW, PW councillor)
– First aid, dressing and care of wounds and referral (LHW)
– Identification and screening of early childhood development issues and referral (LHW)
– Basic management of musculoskeletal injuries and disorders and referral (LHW)

EPHS at PHC centre level

The prioritized interventions are again based on the life-cycle approach which should be offered at the PHC centre. However, scope of interventions will vary considering different types of PHC centre. The following box reflect the essential services across different types of PHC centres.

PHC CENTRE LEVEL INTERVENTIONS				
		Yes / No		
Sr. No.	Intervention	8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
	Reproductive Health/ Birth Spacing			
1.	Education and counselling on birth spacing during antenatal and post-natal / post abortion care	Yes	Yes	Yes
2.	Provision of condoms, hormonal pills, emergency contraceptive pills and injectable contraceptives	Yes	Yes	Yes
3.	Insertion and removal of intrauterine device (IUD)	Yes	Yes (12/7)	Yes (24/7)
4.	Surgical contraceptive methods	Yes (Referral and Linkages)	Yes (Referral and Linkages)	Yes (Organize mini-lap camps and referral)
	Antenatal care			
5.	Counselling on providing thermal & kangaroo care to new-born	Yes	Yes	Yes
6.	Counselling on breastfeeding and growth monitoring	Yes	Yes	Yes
7.	Monitoring of pregnant women using MCH card (at least 4-8 ANC visits)	Yes	Yes (12/7)	Yes (24/7)
8.	Nutrition counselling and provision of Iron and folic acid to pregnant women	Yes	Yes	Yes
9.	Immunization against tetanus (CBAs and Pregnant women)	Yes	Yes	Yes
10.	Screening and care/ referral for hypertensive disorders in pregnancy	Yes	Yes (24/7 Care & referral)	Yes (24/7 Care & referral)
11.	Diabetes care in pregnancy	Yes (Only screening and Referral)	Yes (Screening and Referral for diabetes care in pregnancy)	Yes (Screening and Referral for diabetes care in pregnancy)
	Delivery Care			
12.	Low risk Labour and Delivery	No (Only Referral)	Yes (24/7 services for low-risk labour & delivery and basic neonatal resuscitation (Availability of seven signal functions for BEmONC)	Yes (Services for low-risk labour / delivery and managing complications; Basic neonatal resuscitation (Availability of seven signal functions for BEmONC)
13.	Identification and referral for complications and danger signs	Yes (Referral to 24/7 BEmONC or CEmONC facility)	Yes (24/7 Referral to CEmONC facility)	Yes (24/7 Referral to CEmONC facility)
14.	Management of premature rupture of membranes, including administration of antibiotic	No	No	Yes

PHC CENTRE LEVEL INTERVENTIONS				
Sr. No.	Intervention	Yes / No		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
15.	Management of miscarriage or post-abortion care	No	No	Yes
	Post-Natal Care			
16.	Post-natal care services +3 follow up visits	Yes	Yes (12/7)	Yes (24/7)
17.	Education and counselling on birth spacing during post-natal/ post abortion care	Yes	Yes	Yes
	New-born Care			
18.	New-born care including care of cord (follow up visits)	Yes	Yes	Yes
19.	Early initiation of breastfeeding (within ½ hour of birth) and initiation of growth monitoring	Yes	Yes	Yes
20.	Ensuring thermal & kangaroo care to new-born	Yes	Yes	Yes
21.	Initiation of immunization for BCG and zero dose polio	Yes	Yes	Yes
	Nutrition			
22.	Screening for malnutrition in children; growth monitoring, provision of food supplements for moderately acute malnourished cases and refer severely acute malnourished cases to stabilization centre	Yes	Yes (12/7)	Yes (24/7)
23.	Provision of vitamin A (after National immunization days are stopped) and zinc supplementation	Yes	Yes	Yes
24.	Provision of micro-nutrients (iron and folic acid) and food supplementation to women and adolescent girls	Yes	Yes	Yes
	Child Care			
25.	Integrated management of childhood illnesses; immediate referral for danger signs and follow up visits	Yes	Yes (12/7)	Yes (24/7)
26.	Childhood Vaccination (BCG, Polio 0,1,2,3, Penta 1,2,3, Pneumococcal 1,2,3, Rota 1,2, Measles 1,2)	Yes	Yes	Yes
27.	Education on handwashing and safe disposal of children's stool	Yes	Yes	Yes
	School-age Child Care			
28.	Education and counselling on oral health	Yes	Yes	Yes
29.	Vision pre-screening and referral if required	Yes	Yes	Yes
30.	Drug administration against soil-transmitted helminthiasis	Yes	Yes	Yes
	Adolescent Health			
31.	Syndromic management of common sexual and reproductive tract infections	Yes	Yes	Yes
32.	Psychological treatment of depression, anxiety and disruptive behaviour disorders among adolescent; referral if required	Yes	Yes	Yes
33.	Post gender-based violence care including counselling and referral	No	No	Yes (from 2022)
	Infectious Diseases			
34.	HIV testing, counselling and referral for ART	No	No	Yes
35.	Hepatis B and C testing and referral	No (Only Health education on Hepatis B and C)	Yes	Yes
36.	Partner notification and expedited treatment for STI and referral for HIV	No (Only Health education on STI and HIV)	Yes	Yes
37.	Diagnosis and treatment of Tuberculosis (TB)	No (Only Referral of suspected cases)	Yes	Yes (Referral of MDR cases)

PHC CENTRE LEVEL INTERVENTIONS				
Sr. No.	Intervention	Yes / No		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
38.	Screening of HIV in all individuals with a diagnosis of active TB	No	No	Yes
39.	Screen for TB in all newly diagnosed PLHIV and close contacts	No	No	Yes
40.	Malaria-suspect to be diagnosed with RDT and treatment for positive cases	Yes	Yes	Yes (Pre-referral treatment in severe and complicated cases)
41.	Early detection and referral of Dengue and Trachoma cases	Yes	Yes	Yes
42.	Identification, reporting and referral of notifiable diseases (Conduct simulation exercises/ training)	Yes	Yes	Yes
	Non-Communicable Diseases			
43.	Low dose corticosteroid and bronchodilator for Asthma and selected COPD	Yes	Yes (12/7 with Nebulizer)	Yes (24/7 with Nebulizer)
44.	Cardiovascular risk factor screening using non-lab-based tools and regular follow up	Yes	Yes (12/7)	Yes (24/7)
45.	Provision of aspirin for suspected acute myocardial cases	Yes	Yes	Yes
46.	Screening of albumin urea kidney disease in diabetics	Yes	Yes	Yes
47.	Secondary prophylaxes with penicillin for Rheumatic fever	Yes	Yes	Yes
48.	Treatment of acute pharyngitis	Yes	Yes	Yes
49.	Self-managed treatment of migraine	Yes	Yes	Yes
50.	Support caregivers of patients with dementia	Yes	Yes	Yes
51.	Management of anxiety and depression disorders	Yes	Yes	Yes
52.	Calcium and Vit D supplementation for prevention of osteoporosis in high-risk individuals	Yes	Yes	Yes
53.	Screening of hearing loss using otoscope and basic management/ referral	Yes	Yes	Yes
54.	WASH behaviour changes interventions	Yes	Yes	Yes
	Health Services Access			
55.	Dental Care	Yes (Dental pain and infection management)	Yes (Basic Dental care)	Yes (Treatment of caries, drainage of dental abscess, dental extraction)
56.	Drainage of superficial abscess (Treatment of scabies, lice and skin infections)	Yes	Yes (12/7)	Yes (24/7)
57.	Management of non-displaced fracture and referral	No	Yes (24/7)	Yes (24/7)
58.	Circumcision	No	Yes	Yes
59.	Suturing of small laceration	Yes	Yes (24/7)	Yes (24/7)
60.	Identification and screening of early childhood development issues	Yes	Yes	Yes
61.	Basic management of musculoskeletal injuries and disorders	Yes	Yes	Yes
62.	Laboratory Services	Yes (Basic and rapid diagnostic lab services)	Yes (Essential PHC lab services including radiology)	Yes (RHC level lab services + radiology)

The availability of laboratory and imaging services that are in compliance with the envisioned EPHS intervention package, is a key for effective provision of the EPHS interventions and reaching diagnosis

prior to initiating treatment. The following table presents the laboratory tests and imaging services across the PHC health facilities.

PHC CENTRE LEVEL LABORATORY & DIAGNOSTIC INTERVENTIONS			
Sr. No.	Intervention	Yes / No	
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
1.	Haemoglobin & Blood Complete Examination	Yes	Yes	Yes
2.	Blood Glucose Testing	Yes	Yes	Yes
3.	Lipid Profile	No	No	Yes
4.	Liver Function Tests	No	Yes	Yes
5.	Serum Uric Acid	No	Yes/No	Yes
6.	Renal function Test (Such as Serum Urea & Creatinine)	No	Yes	Yes
7.	Urine Chemistry (Qualitative and Quantitative Testing)	Yes (Only Qualitative)	Yes	Yes
8.	Onsite Malaria Testing	No	Yes	Yes
9.	Malaria Rapid Diagnostic Test (RDT)	Yes	Yes	Yes
10.	Gram Staining at facility	Yes/ No	Yes	Yes
11.	Stool Microscopy at Facility	Yes / No	Yes	Yes
12.	Onsite Tuberculosis Testing	No	Yes	Yes
13.	X-Ray Services	No	Yes	Yes
14.	ECG Services	No	Yes	Yes
15.	Ultrasound	No	Yes	Yes

EPHS at First Level Hospital

The prioritized interventions are/ should be offered at the FLH. However, scope of interventions will vary considering different types of FLH (Tehsil or District) in public and private sector. The following box reflect the essential services across different types of FLH.

FIRST LEVEL HOSPITAL INTERVENTIONS			
Sr. No.	Intervention	Yes / No	
		Category C and D hospital / Small Private Hospital	Category A and B hospital / Large Private Hospital
	Reproductive Health/ Birth Spacing		
1.	Early detection and referral / treatment of early-stage cervical cancer	Yes	Yes
2.	Insertion and removal of long-lasting contraceptives	Yes	Yes
3.	Tubal ligations	No	Yes
4.	Vasectomy	No	Yes
	Antenatal care		
5.	Management of eclampsia with magnesium sulphate, including initial stabilization at health centres	Yes	Yes
6.	Screening and management of diabetes in pregnancy (gestational diabetes or pre-existing type II diabetes)	Yes	Yes
	Delivery care		
7.	Surgical termination of pregnancy by maternal vacuum aspiration and dilatation & curettage	Yes	Yes
8.	Management of labour and delivery in high-risk women, including operative delivery (CEmONC)	No	Yes
9.	Management of maternal sepsis, including early detection at Health centre	No	Yes
	Postnatal care		
	(Follow up visit of complicated delivery cases)	Yes	Yes
	New-born care		

FIRST LEVEL HOSPITAL INTERVENTIONS			
Sr. No.	Intervention	Yes / No	
		Category C and D hospital / Small Private Hospital	Category A and B hospital / Large Private Hospital
10.	Management of Neonatal sepsis, pneumonia and meningitis using injectable and oral antibiotics	No	Yes
11.	Management of preterm premature rupture of membranes, including administration of antibiotics	Yes	Yes
12.	Management of new-born complications infections, meningitis, septicaemia, pneumonia and other very serious infections requiring continuous supportive care (such as IV fluids and oxygen)	No	Yes
13.	Full supportive care for preterm new-born	Yes	Yes
14.	Jaundice Management with Phototherapy	Yes	Yes
	Nutrition		
	(Stabilization centres only in food-insecure districts)	-	Yes
	Child care		
15.	Full supportive care for severe childhood infections with danger signs	Yes	Yes
	Infectious diseases		
16.	For individuals testing positive for hepatitis B and C, assessment of treatment eligibility by trained providers followed by initiation and monitoring of ART when indicated	No	Yes
17.	Referral of cases of treatment failure for drug susceptibility testing; enrolment of those with MDR-TB for treatment per WHO guidelines	Yes	Yes
18.	Evaluation and management of fever in clinically unstable individuals using WHO IMAI guidelines, including empiric parenteral antimicrobials and antimalarial and resuscitative measures for septic shock	No	Yes
	Non-communicable diseases		
19.	Management of acute coronary exacerbations of asthma and COPD using systemic steroids, inhaled beta-agonists and if indicated oral antibiotics and oxygen therapy	Yes	Yes
20.	Management of acute coronary syndromes	No	Yes
21.	Medical management of acute heart failure	No	Yes
22.	Early childhood development rehabilitation interventions, including motor, sensory, and language stimulation	No	Yes
23.	Management of bowel obstruction	No	Yes
24.	Management of intoxication/ poisoning syndromes using widely available agents e.g., charcoal, naloxone, bicarbonate, antivenom	No	Yes
	Health services access		
25.	Appendectomy	Yes	Yes
26.	Colostomy (Adult and Paediatrics) (Refer to tertiary hospital)	No	Yes
27.	Escharotomy or fasciotomy (Refer to tertiary hospital)	No	Yes
28.	Fracture reduction & placement of external fixator and use of traction for fractures	Yes	Yes
29.	Hysterectomy for uterine rupture or intractable postpartum haemorrhage	No	Yes
30.	Irrigation and debridement of open fractures (Refer to tertiary hospital)	No	Yes
31.	Management of septic arthritis	No	Yes
32.	Placement of external fixation and use of traction for fractures	No	Yes
33.	Relief of urinary obstruction by catheterization for fractures	Yes	Yes
34.	Removal of gallbladder, including emergency surgery	No	Yes
35.	Repair of perforations (for example perforated peptic ulcer, typhoid ileal perforation)	No	Yes
36.	Tube thoracostomy	Yes	Yes
37.	Trauma laparotomy	No	Yes
38.	Trauma related amputations	Yes	Yes
39.	Compression therapy for amputations, burns, and vascular or lymphatic disorders	Yes	Yes
40.	Cataract extraction and insertion of intraocular lens	No	Yes

The availability of laboratory and imaging services that are in compliance with the envisioned EPHS intervention package, is a key for effective provision of the EPHS interventions and reaching diagnosis prior to initiating treatment. The following table presents the laboratory tests and imaging services across the FLH care facilities.

FIRST LEVEL HOSPITAL LABORATORY & DIAGNOSTIC INTERVENTIONS			
Sr. No.	Laboratory / Diagnostic Tests	Yes / No	
		Category C and D hospital / Small Private Hospital	Category A and B hospital / Large Private Hospital
1.	Blood CP	Yes	Yes
2.	ESR	Yes	Yes
3.	Blood Culture & Sensitivity	No	Yes
4.	C-Reactive Protein	No	Yes
5.	Blood Grouping & Cross Matching	Yes	Yes
6.	Blood Smear	No	Yes
7.	Random and Fasting blood glucose	Yes	Yes
8.	Serum Electrolytes (Serum Potassium, sodium, Serum Magnesium)	Yes	Yes
9.	Serum Amylase, Lipase	No	Yes
10.	Creatinine Phosphokinase, Serum Lactate	No	Yes
11.	Serum Bilirubin	Yes	Yes
12.	Prothrombin time test, APTT, INR	Yes	Yes
13.	Blood Urea and Nitrogen	Yes	Yes
14.	Hepatitis B & C test	Yes	Yes
15.	Microscopy for malarial parasite	Yes	Yes
16.	Pregnancy Test	Yes	Yes
17.	Beta HCG	No	Yes
18.	Arterial Blood Gases	No	Yes
19.	LFTs	Yes	Yes
20.	RFTs	Yes	Yes
21.	Glucose-6-phosphate dehydrogenase (G6PD)	No	Yes
22.	Coomb's test	Yes	Yes
23.	Cardiac Troponin - T test	No	Yes
24.	Microscopy of Cerebral Spinal Fluid	Yes	Yes
25.	HIV Testing	Yes	Yes
26.	Urine Analysis	No	Yes
27.	Urine Culture & Microscopy test	Yes	Yes
28.	Urine Myoglobin	No	Yes
29.	Spot Urinary protein test	Yes	Yes
30.	High vaginal swab	No	Yes
31.	Semen analysis (sperm count)	Yes	Yes
32.	Lumbar Puncture	Yes	Yes
33.	Cytology (Pap smear or LBC) and Visual Inspection with Acetic acid (VIA)	No	Yes
34.	Molecular HPV testing	Yes	Yes
35.	Speculum, Vaginal & Rectal examination	No	Yes
36.	Intravenous pyelogram (IVP)	No	Yes
37.	Staining of smears for Ziehl-Neelsen or LED fluorescence microscopy	Yes	Yes
38.	APRI (AST-to-platelet ratio index)	No	Yes
39.	Liver Biopsy	No	Yes
40.	HBV & HCV Serological testing	Yes	Yes
41.	Nucleic Acid testing for HBV & HCV RNA	No	Yes
42.	line-probe assays (LPA) for direct detection of resistance mutations in acid-fast bacilli (AFB) smear-positive processed sputum samples	No	Yes
43.	Xpert MTB/RIF for use as the initial diagnostic test in individuals suspected of having MDR-TB	No	Yes
44.	• Phenotypic DST (conventional DST) • Genotypic DST	No	Yes
45.	Gastric Lavage	Yes	Yes

FIRST LEVEL HOSPITAL LABORATORY & DIAGNOSTIC INTERVENTIONS			
Sr. No.	Laboratory / Diagnostic Tests	Yes / No	
		Category C and D hospital / Small Private Hospital	Category A and B hospital / Large Private Hospital
46.	Pulse oximetry	Yes	Yes
47.	Ultra sound	Yes	Yes
48.	Chest X ray	Yes	Yes
49.	ECG	Yes	Yes
50.	Echo	No	Yes
51.	CT Scan	No	Yes
52.	CT scan with contrast	No	Yes
53.	X-ray Abdomen erect	Yes	Yes
54.	Radiograph of Limbs	Yes	Yes
55.	Joint Fluid Aspirate	No	Yes
56.	Fluid aspitrate gram stain and culture	No	Yes
57.	Abdominal radiograph – erect and supine	Yes	Yes
58.	Ambulatory Xray (Portable)	Yes	Yes
59.	Ultrasound (to assess gestation age/IUGR) if needed	Yes	Yes
60.	Measurement of the compartment pressure (if Tonometer or Doppler Ultrasound available)	No	Yes
61.	Pelvic ultrasound (in case of ruptured uterus)	Yes	Yes
62.	Peri-apical radiograph	Yes	Yes
63.	Orthopantomogram	No	Yes
64.	Anti-cyclic citrullinated peptide (anti-CCP)	No	Yes
65.	Antinuclear antibody (ANA)	No	Yes
66.	Rheumatoid factor (RF)	No	Yes
67.	Uric acid	Yes	Yes
68.	Electrophoresis	No	Yes
69.	Blood test for sickle cell disease	No	Yes
70.	DNA testing (thalassemia specific)	No	Yes
71.	Thalassemia Test	No	Yes
72.	(Serum iron or Serum ferritin) (thalassemia specific)	No	Yes
73.	X-ray with a contrast material (barium X-ray)	No	Yes
74.	Dynamic swallowing study	No	Yes
75.	Fibreoptic endoscopic swallowing evaluation	No	Yes
76.	Manometry	No	Yes
77.	CD4 Testing	No	Yes
78.	Clinical chemistry panels (Automated analyser)	No	Yes
79.	RPR test for Syphilis	No	Yes
80.	FNAC	No	Yes
81.	Tissue Biopsy	No	Yes
82.	H & E staining	Cat C = No; Cat D=No	Yes

Note: Blue ones are essential for intervention.

IMPLEMENTATION ARRANGEMENT

Essential Infrastructure for Community, PHC Centre and FLH Interventions

Following the finalisation of the package, protocols in the government were reviewed. The investment required in each type of facility was estimated to ensure the package is delivered at sufficient quality. Investment in infrastructure is primarily relevant for the PHC centre and FLH level interventions.

At community level, LHW is also envisaged to establish a kit corner in her house-declared as health house. The space is used to store medicines and supplies and give counselling or treat minor illnesses to those patients/ clients visiting health house. This place should also display relevant protocols and posters. LHW should be provided with the necessary equipment and MIS tools. The health house may also serve as a vaccination post.

For CMW, it is proposed that a room in her community will serve as her work station, which is a place where pregnant mothers will contact for consultation, examination and delivery. CMW conducts safe delivery either at the CMW work station or at the woman's home and give women to choose the place of delivery. Privacy and hygiene practices should be ensured with availability of essential equipment, kit and furniture etc.

With regards to the PHC centre, the following guidelines should preferably be followed especially in the public sector.

- The suggested land area for a BHU / BHU Plus is 6-10 kanal, while for a RHC 20 kanal land is required to ensure provision of all essential in-patient and outpatient services. Estimated construction cost of the building currently ranges from Rs.3,200 to 3,500 per square foot.
- In a RHC, 20 bedded indoor facility is recommended i.e. 10 bedded ward for male patients and 10 bedded ward for female patients. At the BHU Plus, there should be at least two bedded facility for institutional delivery.
- While choosing the location for a health facility, it should be ensured that the site has metal road access, electricity supply, adequate water supply, gas supply and communication lines for telephone/ mobile phone. The building should be built in a manner to ensure adequate sunlight and cross ventilation and as per government rules.
- The facility compound should have a boundary wall with gate and a facility sign board. A board with listed services, opening times and emergency contacts during closing times should be displayed, adjacent to the main gate so that it is easily visible to people. The text should be in an understandable format and in local and national language.
- The health facility area should have a rubbish pit for disposal of refuse and medical waste. The surroundings of the health facilities should be kept clean with no reservoirs of stagnant/unclean water, which could serve as vector breeding sites.
- The entrance of the building should have a ramp to facilitate physically challenged patients on wheel chairs or stretchers. Wheel chairs & stretchers should be available near to the main gate to transfer the patient in minimum time to emergency or OT.
- The entrance of the health facility building should have adequate light and ventilation with space for registration and record room, drug dispensing room, and waiting area for patients. The waiting area should have adequate seating arrangements, functional fans/AC and provide protection from extremes of weather. Health education material should be displaced in waiting areas.

- The waiting area should have a list of all fees in local and national languages and a complaint/suggestion box which patients can use to provide feedback on the services.
- Clean drinking water should be available in the facility. Preferably piped water with water storage facility should be available within the facility.
- Separate functional toilets for male and female staff and clients/patients/attendants should be available, while ensuring cleanliness.
- Privacy of patient should be ensured with availability of adequate numbers of functional curtains/screens in the examination room.
- A kitchen should be available for inpatients at RHCs. Cooking should be strictly limited to the kitchen. However, the option of contracting out the food services may also be considered.
- The labour room at the 24/7 BHU and RHCs should have an attached toilet, drinking water facility, and a designated space for new-born care. Privacy should be ensured for patients.
- At the RHC, the Operation theatre area should have a changing room, sterilization area operating area and washing area. Separate storage facility for sterile and unsterile equipment/ instruments should be available within the operation theatre.
- Dressing room/ procedure room/ injection room should be well equipped with all the emergency drugs and instruments in all PHC facilities.
- Laboratory should have sufficient space with work stations and separate area for collection and screening of samples should be available. The lab should have marble/stone table top for platform and wash basins.
- Separate area for storage of sterile and common linen and other materials/ drugs/ consumables. The area should be well-lit and ventilated and should be rodent/pest free.
- Besides the above, the health facility should have
    - Dispensing cum store area
    - Vaccine storage and immunisation area
    - BCC and family planning counsel area
    - Office room
    - Utility room for dirty linen and used items
- Laundry: RHC should have its own arrangement for safe washing of bed linen, blankets, sheets etc. used in different areas. The BHUs and BHUs Plus are proposed to send their laundry to the RHCs as per need or there should be a contractual arrangement for linin washing.
- Decent Residential Accommodation with all the amenities, like 24-hrs water supply, electricity, etc. should be available for medical officers, paramedical staff, support staff, and for peon/chowkidar.

The infra structure and basic amenities, recommended at PHC centre facilities are as following:

PHC CENTRE LEVEL INFRASTRUCTURE NEEDS				
Sr. No.	Infrastructure	Yes / No		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
1.	Land required	5-6 Kanal (BHU)	5-6 Kanal (BHU Plus)	11-12 Kanal (RHC)
2.	Central registration point/ reception (with computerized/ paper records)	Yes	Yes	Yes
3.	Medical officer In-charge room with washroom	No	No	Yes
4.	Medical officer room with washroom	Yes	Yes	Yes
5.	WMO room with washroom	No	Yes	Yes
6.	Examination & procedure room	No	Yes	Yes (MO and minor procedure room)
7.	LHV room with washroom	Yes	Yes	Yes
8.	Labour room	No	Yes	Yes
9.	Operation Theatre (OT) with scrub/washing area, changing room, sterilization room and generator room	Yes	Yes	Yes
10.	Indoor Wards with nursing station and washrooms	No	No (Two beds maternity room)	Yes (20 beds, 10 each for males and females)
11.	Dental room with washroom	No	No	Yes
12.	Waiting areas with washrooms	No	Yes	Yes
13.	Dispensary	Yes	Yes	Yes (Dispensary and dressing area)
14.	EPI room with regular & alternate electricity system	Yes	Yes	Yes
15.	Health education / Training room/ ORT corner	Yes	Yes	Yes
16.	Laboratory	Yes (RDTs)	Yes	Yes
17.	X-ray room with darkroom facility	No	Yes	Yes (Radiology room with darkroom)
18.	Storeroom	Yes	Yes	Yes
19.	Ramps for disabled	Yes	Yes	Yes
20.	Staff kitchen	No	No	Yes
21.	Mortuary and postpartum room	No	No	Yes
22.	Garage	No	Yes	Yes
23.	Boundary wall	Yes	Yes	Yes
24.	Residences for staff	Yes	Yes	Yes
25.	Waste disposal area with proper infection control measures / protocols	Yes	Yes	Yes
26.	Water supply & storage facility	Yes	Yes	Yes
27.	Green area with plantation	Yes	Yes	Yes
28.	Carpeted road access	Yes	Yes	Yes
29.	Electricity, Water and Gas Facility	Yes	Yes	Yes
30.	Telephone and Internet	Yes	Yes	Yes
31.	Facility Sign board	Yes	Yes	Yes
32.	Board with listed services, opening times and emergency contacts	Yes	Yes	Yes
33.	Backup electric supply system	yes	Yes	Yes

With regards to FLH, following guidelines should preferably be followed especially in the public sector.

The suggested land area for Category A, B, C and D level hospitals is as following to ensure provision of all essential in-patient and outpatient services:

a) Category-A Hospital (350-bed capacity) - 70 Kanals

b) Category B (210 beds)- 60 Kanals (Can be adjusted as per design and scope of work)

c) C (110 beds)-40-50 Kanals and (Can be adjusted as per design and scope of work)

d) D Hospitals (40 beds capacity) – 20-30 Kanals

These areas are for the hospital buildings only, excluding the area needed for staff housing.

- The site must be large enough for all the planned functional requirements to be met and for any expansion envisioned within the coming ten years.
- While choosing the location for a health facility, it should be ensured that the site has metal road access, electricity supply, adequate water supply, storm-water disposal gas supply and communication lines for telephone/ mobile phone.
- The building should be built in a manner to ensure adequate sunlight and cross ventilation and as per government rules.
- In areas where such utilities are not available, substitutes must be found, such as a deep well for water, generators for electricity and radio communication for telephone.
- It should be in an area free of pollution of any kind, including air, noise, water and land pollution.
- The hospital compound should have a boundary wall with gate and a facility sign board. A board with listed services, opening times and emergency contacts during closing times should be displayed, adjacent to the main gate so that it is easily visible to people. The text should be in an understandable format and in local and national language. Large DHQ hospital should have incinerator.
- The hospital area should have a rubbish pit for disposal of refuse and medical waste. The surroundings of the health facilities should be kept clean with no reservoirs of stagnant/unclean water, which could serve as vector breeding sites.
- The entrance of the building should have a ramp to facilitate physically challenged patients on wheel chairs or stretchers.
- The entrance of the hospital building should have adequate light and ventilation with space for registration and record room, drug dispensing room, and waiting area for patients.
- The waiting area should have adequate seating arrangements, functional fans/AC and provide protection from extremes of weather. Health education material should be displaced in waiting areas.
- The waiting area should have a list of all fees in local and national languages and a complaint/suggestion box which patients can use to provide feedback on the services.
- Clean drinking water should be available in the facility. Preferably piped water with water storage facility should be available within the facility.
- Separate functional toilets for male and female staff and clients/patients/attendants should be available, while ensuring cleanliness.
- Privacy of patient should be ensured with availability of adequate numbers of functional curtains/screens in the examination room, along with attendant of same gender.

- A kitchen should be available for Inpatients at THQs/DHQs. Cooking should be strictly limited to the kitchen. However, the option of contracting out the food services may also be considered.
- The labour room at the THQs and DHQs should have an attached toilet, drinking water facility, and a designated space for new-born care with required equipment like suction machine. Privacy should be ensured for patients.
- At the FLH facilities, the operation theatre area should have a changing room, sterilization area, operating area, and washing area. Separate storage facility for sterile and unsterile equipment. Autoclave machine/instruments should be available within the operation theatre.
- Dressing room/ procedure room/ injection room should be well equipped with all the emergency drugs and instruments in all FLH facilities.

Besides the above, the health facility should have

- Dispensing cum store area
- Vaccine storage and immunization area
- BCC and family planning counsel area
- Utility room for dirty linen and used items

- Laboratory should have sufficient space with work stations and separate area for collection and screening should be available. The lab should have marble/stone table top for platform and wash basins.
- Separate area for storage of sterile and common linen and other materials/ drugs/ consumables. The area should be well-lit and ventilated and should be rodent/pest free.
- All FLH facilities should have its own arrangement for safe washing of bed linen, blankets, sheets etc. used in different areas. There should be a contractual arrangement for linen washing.
- Decent residential accommodation with all the amenities, like 24 hours water supply, electricity, etc. should be available for medical officers, paramedical staff, support staff and for peon/chowkidar.

The infrastructure and basic amenities recommended at FLH center facilities are as follows:

FIRST LEVEL HOSPITAL INFRASTRUCTURE AND BASIC AMENITIES

Sr. No.	Infrastructure and Basic Amenities	Yes / No	
		Category C and D hospital / Small Private Hospital	Category A and B hospital / Large Private Hospital
1.	Central registration point/reception with computerized and paper records	Yes	Yes
2.	Central registration point Emergency room	Yes	Yes
3.	Medical Officer In-charge room with washroom	Yes	Yes
4.	Medical Officers rooms with washroom	Yes	Yes
5.	WMO rooms with washroom	Yes	Yes
6.	Admin Block with offices for management staff, Finance and accounts, procurements and supply chain.	Yes	Yes
7.	Offices for specialists/ senior medical staff	Yes	Yes
8.	Examination & Procedure room	Yes	Yes
9.	LHV / Population welfare rooms with washroom	Yes	Yes
10.	Medical and non-medical stores in the ward	Yes	Yes
11.	Labour room	Yes	Yes

FIRST LEVEL HOSPITAL INFRASTRUCTURE AND BASIC AMENITIES			
Sr. No.	Infrastructure and Basic Amenities	Yes / No	
		Category C and D hospital / Small Private Hospital	Category A and B hospital / Large Private Hospital
12.	Operation Theatre (OT) with scrub / washing area, changing room, sterilization room and generator room	Yes	Yes
13.	ICU/CCU	No	Yes
14.	Preoperative room	Yes	Yes
15.	Recovery Room	Yes	Yes
16.	Indoor wards with nursing station and washrooms	Yes	Yes
17.	Dental room with washroom	Yes	Yes
18.	Waiting areas with washrooms	Yes	Yes
19.	A big room for any meeting/ Academic activity	Yes	Yes
20.	EPI room with regular & alternate electricity system	Yes	Yes
21.	Health education / Training room / ORT corner	Yes	Yes
22.	Laboratory	Yes	Yes
23.	X ray room with darkroom facility	Yes	Yes
24.	Storeroom	Yes	Yes
25.	Ramps for disabled	Yes	Yes
26.	Kitchen	Yes	Yes
27.	Mortuary and postpartum room	Yes	Yes
28.	Garage	Yes	Yes
29.	Boundary Wall	Yes	Yes
30.	Residences for staff	Yes	Yes
31.	Waste disposal area with proper infection control measures/protocol	Yes	Yes
32.	Water supply & Storage facility	Yes	Yes
33.	Green area with plantation	Yes	Yes
34.	External & Internal Road access	Yes	Yes
35.	Electricity, Water, and Gas facility	Yes	Yes
36.	Telephone and Internet	Yes	Yes
37.	Facility sign board	Yes	Yes
38.	Board with listed services, opening times and emergency contacts	Yes	Yes
39.	Fuel operated generator	Yes	Yes
40.	Pharmacy	Yes	Yes
41.	Main stores for medicines	Yes	Yes
42.	Main stores for non-medical items	Yes	Yes
43.	Public washroom	Yes	Yes
44.	Drinking Water dispensers	Yes	Yes
45.	Parking area (with shades) for staff and visitors	Yes	Yes

Essential Human Resources for Health

Human Resources for Health (HRH) plays a central role in delivery of essential health services and for achieving UHC. HRH is a critical factor in long term planning, implementation and sustaining of health care services. The human resource for the PHC centre is inevitable in view the range of essential health services/ interventions which are prioritized.

At the community level, LHW, fulfilling the criteria, is required to cover 1,000-1,500 population. To ascertain the total number of required LHWs, a standard of 100 percent coverage of the rural areas and 30 percent coverage for urban areas, focussing on the urban slums/densely populated communities is recommended. A CMW should be deployed to cover a population of minimum 5,000 people and this cadre is not recommended for urban and socio-economically better off areas as institutions are usually available. Each union council should have at least two vaccinators to provide vaccination services in the PHC centre and community. Also, the CDC/Environmental technician and Population Welfare (PW) councillors are recommended as outreach workers. For some of the interventions such as HIV, the Community Based Organisations (CBOs) staff working in the community

where high-risk population is concentrated. Linkages with the First Level/ Tertiary hospital staff may be ensured through digital health technology.

The essential human resource across the PHC centre level is reflected in the following table.

PHC CENTRE LEVEL HUMAN RESOURCES FOR HEALTH				
Sr. No.	HRH	Yes / No		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
1.	Medical Officer In charge	1	1	1 (PMO)
2.	Gynaecologist/ Obstetrician (optional)	0	PG students on rotation	PG students on rotation
3.	Medical Specialist (optional)	0	0	Same as above
4.	District/ General Surgeon (optional)	0	0	Same as above
5.	Paediatrician, Eye and ENT specialist (optional)	0	0	Same as above
6.	Male Medical Officer	0	0	3
7.	Women Medical Officer	0	2	3
8.	Dental Surgeon	0	0	1
9.	Staff Nurse	0	0	6
10.	PHC Technician (MCH)/ LHV	1	3	3
11.	PHC Technician (MP)/EPI	2	2	2
12.	PHC Technician (Multi-Purpose)	2	2	4
13.	Clinical Technician (Dental)	0	0	2
14.	Mortuary attendant	0	0	1
15.	Clinical Technician (Surgical)	0	0	3
16.	Clinical Technician (Pathology)	0	0	3
17.	Clinical Technician (Radiology)	0	0	3
18.	Data Entry Operator	1	1	1
19.	Junior Clerk	0	0	1
20.	Lady Health Supervisor & Driver		As per LHWP standards	
21.	Storekeeper	0	0	1
22.	Ward Orderly/Attendant	0	0	11
23.	Ward Attendant (Dai/Aya)	1	3	5
24.	Washer for Laundry*	0	0	1
25.	Naib Qasid	1	1	1
26.	Mali	0	0	1
27.	Chowkidar	2	2	3
28.	Sanitary worker*	1	2	3
	Total	12	19	64

* Cooking, Washing and Sanitary services may be contracted out.
- Staff mentioned in Blue font is critical to ensure essential interventions

The essential human resource for health across the FLH is reflected in the following table.

STAFFING STANDARDS FOR FLH HOSPITALS					
S. No.	Staff Category	Category A Hospitals	Category B Hospitals	Category C Hospitals	Category D Hospitals
			MANAGEMET STAFF		
1	Medical Superintendent	1	1	1	1
3	Deputy Medical Superintendent	3	3	2	1
Total		4	4	3	2
			SPECALIST		
1	Physician	*4*	*2*	*1*	*1*
2	Surgeon	*4*	*2*	*1*	*1*
3	Gynaecologist	*4*	*2*	*1*	*1*
4	Paediatrician	*4*	*2*	*1*	*1*

STAFFING STANDARDS FOR FLH HOSPITALS

5	Anaesthetist	*4*	*3*	*2*	*1*
6	Ophthalmologist	*2*	*2*	*1*	*0*
7	ENT Specialist	*2*	*2*	*1*	*0*
8	Pathologist	*2*	*1*	*1*	*0*
9	Radiologist	*2*	*2*	*1*	*1*
10	Orthopaedic Surgeon	*2*	*2*	*1*	*0*
11	Trauma Surgeon	*1*	*0*	*0*	*0*
12	Forensic Expert	*1*	*0*	*0*	*0*
13	Neurosurgeon	*1*	*1*	*0*	*0*
14	Psychiatrist	*2*	*1*	*1*	*0*
15	Pulmonologist	*1*	*1*	*0*	*0*
16	Dermatologist	2	1	0	0
17	Gastroenterologist	1	1	0	0
18	Urologist	1	1	0	0
19	Paediatrics Surgeon	1	0	0	0
20	Dentistry Specialist	2	2	0	0
21	Cardiologist	2	1	0	0
22	Nephrologist	1	1	0	0
23	Emergency Specialist	1	1	0	0
24	Blood Transfusion Officer	1	1	0	0
25	Neurologist	1	1	0	0
Total		49	33	12	6
			MEDICAL STAFF		
1	General Cadre Medical Officers	128 with at least 12 WMOs. (4 Chief Medical officers, 25 principal medical officer,46 senior medical officers,53 medical officers	*82 with at least 8 WMOs. (4 Chief Medical officers, 18 principal medical officer,20 senior medical officers, 40 medical officers*	44 with at least 4 WMOs. (2 Chief Medical officers, 8 principal medical officer,16 senior medical officers,18 medical officers	16 with at least 3 WMOs. (3 principal medical officer,6 senior medical officers, 7 medical officers
2	*Dental surgeons*	*6*	*6*	*2*	*1*
Total		*134*	*88*	*46*	*17*
			NURSING STAFF		
1	*Charge Nurse*	*4 nurses round the clock/10 beds for general beds (320 beds). For Critical/Specialized care 6 nurse for 24 hours/patient. For OT 2 nurses/table/shift (3 tables) Anaesthesia 2 nurses/apparatus (3) For Causality 3 nurse/2beds/24 hrs (10 beds) 128+120+36+18+18+15 = 335*	*General beds 190, Critical/Specialized beds 10, Dialysis 4U, Casualty 10, OT/Anaesthesia 3+3. 76+60+24+15+36= 211*	*General beds 100, special beds 5, casualty beds 5. OT/Anaesthesia (2+2) 40+30+8 +24 =102*	*16*
2	*Head Nurse*	*14*	*8*	*4*	*2*
3	*Nursing Superintendent*	*1*	*1*	*1*	*1*

STAFFING STANDARDS FOR FLH HOSPITALS

4	Deputy Chief Nursing Superintendent	1	1	0	0
5	Chief Nursing Superintendent	1	0	0	0
Total		352	221	107	67
			NON- MEDICAL STAFF		
1	Clinical Psychologist	1	1	1	0
2	Pharmacist	6	4	2	1
3	Speech Therapist	1	0	0	0
4	Physiotherapist	6	4	2	2
6	Nutritionist	2	1	0	0
7	Optometrist	2	1	1	0
Total		18	11	6	3
			PARAMEDICAL STAFF		
1.	Clinical Technologist (Radiology)	3	2	1	1
2.	Clinical Technologist (Pathology)	3	2	1	1
3.	Clinical Technologist (Cardiology)	2	1	0	0
4.	Clinical Technologist (Dental)	2	1	1	0
5.	Clinical Technologist (Pharmacy)	8	5	2	1
6.	Clinical Technologist (Anaesthesia)	6	3	2	1
7.	Clinical Technologist (Surgical)	6	3	2	1
8.	Clinical Technologist (Physiotherapy)	1	1	0	0
9.	Clinical Technician (radiology)	8	6	6	3
10.	Clinical Technician (Dental)	8	6	3	2
11.	Clinical Technician (pathology)	10	8	7	4
12.	Clinical Technician (ophthalmology)	5	5	2	0
13.	Clinical Technician (Cardiology)	12 with at least 20 % female staff.	8 with at least 20 % female staff.	7 with at least 20 % female staff.	4 with at least 20 % female staff.
14.	Clinical Technician (Surgical)	32	24	10	6
15.	Clinical Technician (Anaesthesia)	22	17	8	4
16.	Clinical Technician (Pharmacy)	30	20	15	10

17.	*PHC Technician Multipurpose*	*7*	*6*	*4*	*3*
18.	*PHC Technician (MCH)*	*13*	*11*	*8*	*5*
19.	*Physiotherapy Technician*	*7*	*5*	*2*	*1*
20.	*Clinical technician (Dialysis)*	*13*	*9*	*0*	*0*
21.	*Clinical technician Pulmonology*	*4*	*4*	*0*	*0*
22.	*Clinical technician Gastroenterology*	*4*	*0*	*0*	*0*
23.	*INCENERATOR MAN*	*1*	*1*	*1*	*1*
Total		*194*	*148*	*66*	*39*
		ADMINISTRATIVE AND SUPPORT STAFF			
1	*Biomedical Engineer*	*1*	0	0	0
2	*Biomedical Technician*	*1*	*1*	0	0
4	*Account Officer*	*1*	*1*	0	0
5	*Head Clerk*	*1*	*1*	0	0
7	*Accountant*	*1*	*1*	*1*	*1*
8	*Statistical Officer*	*1*	*1*	*1*	0
9	*Social Welfare Officer*	*1*	*1*	*1*	0
10	*Store Keeper*	*3*	*3*	*2*	*1*
11	*Computer Operator*	*20*	*20*	*10*	*3*
12	*Naib Qasid*	*8*	*6*	*4*	*3*
13	*Senior Clerk*	*3*	*2*	*1*	*0*
14	*Driver*	*3 per ambulance and 1 per office vehicle*	*3 per ambulance and 1 per office vehicle*	*3 per ambulance and 1 per office vehicle*	*3 per ambulance and 1 per office vehicle*
15	Junior Clerk	*7*	*7*	*3*	*2*
16	Receptionist	*2*	*2*	*1*	*0*
17	Chowkidar/Security Guard	*25*	*20*	*10*	*6*
18	Telephone Operator	*6*	*4*	*3*	*2*
19	Gardner/Mali	*10*	*10*	*4*	*2*
20	Cleaners/Sweeper	*55*	*43*	*13*	*6*
21	Laundry	*10*	*8*	*4*	*2*
22	Tube Well Operator	*3*	*3*	*3*	*3*
23	Ward Orderly/Attendant	*155 (male Female)*	*120 (male female)*	*50 (male/female)*	*30 (male/ Female)*
24	Plumber	*3*	*2*	*2*	*1*
25	Electrician	*4*	*3*	*2*	*1*
26	Carpenter	*3*	*2*	*2*	*0*
27	Tailor	*2*	*1*	*1*	*1*
28	Generator / Fog Machine Operator	2	*2*	*1*	*1*
38	Air Condition Technicians	*3*	*3*	*2*	*1*
39	Dhobi/Washerman	*7*	*6*	*4*	*2*
Total		*338*	*273*	*125*	*68*

STAFFING STANDARDS FOR FLH HOSPITALS				
Grand Total	*1089*	*778*	*365*	*202*

*Cooking, washing and sanitary services may be contracted out

Essential Medicines and Supplies

Considering implementation of prioritized interventions for the EPHS at community and PHC centre level, the essential medicines and supplies have been mentioned in this section (in blue font). However, some additional medicines and supplies have also been included which health care providers use as alternate medicines or for management of other common illnesses (in black font).

At the community level, the essential medicines and supplies defined by the Lady health Workers' programme are as following:

Essential Medicines and Supplies at Community Level

For Lady Health Worker

- Tab Paracetamol
- Syrup Paracetamol
- Syrup Amoxicillin
- Tab Mebendazole
- ORS (Sachet)
- Eye ointment
- Tab. Ferrous salt + Folic Acid
- Syrup Zinc
- Syrup B complex
- Benzyl Benzoate Lotion
- Condoms
- Oral Contraceptive Pills/ emergency pill
- Injectable contraceptive (Depo Provera) with syringes
- Antiseptic Lotion
- Cotton Bandages
- Cotton roll

For other community level interventions

- Vaccine along with auto-destructible syringes and cold chain
  - BCG Vaccine
  - Oral Polio Vaccine
  - Injectable Polio Vaccine
  - Hepatitis B Vaccine
  - Measles Vaccine
  - Tetanus Toxoid
  - Pentavalent Vaccine
  - Pneumococcal Vaccine
  - Rota vaccine
- Clean Delivery kits (for LHV)
- Vitamin A
- Deworming medicines
- Medicines and supplies for high-risk populations
- (RUSF provision at community level to be explored especially in food insecure areas)

Following groups of essential medicines have been proposed at the 8/6 BHUs, 24/7 BHUs, and RHCs considering the conditions/illnesses that are proposed to be managed in the EPHS package of services.

Groups of Essential Medicines and Supplies at PHC centre and FLH

- Anaesthetics (Local)
- Analgesics (NSAIDs)
- Anti-Allergic (Anaphylaxis)
- Antidotes and other substances used in poisoning
- Anti-Epileptics Anticonvulsants
- Antibiotics/Antimicrobial
- Anti-Helminthic
- Anti-Fungal
- Anti-Tuberculosis Drugs
- Anti-Diabetics
- Anti-Malarial
- GIT Medicines
- Cardiovascular Medicines
- Medicines Affecting Coagulation
- Oxytocic Medicines
- Ophthalmic Medicines
- ENT Medicines
- I/V Infusions (Plasma Substitutes)
- Vitamins, Minerals and Food supplements
- Medicines for Mental and Behavioural Disorders & Tranquilizers
- Anxiolytics
- Contraceptives
- Vaccines and Sera

The detailed list of medicines and supplies (essential and alternate + additional medicines) recommended at the PHC centre & FLH are provided in the Annexure A and B.

Essential Equipment and Furniture

A standard list of equipment for community level and PHC facilities have been developed to compliment the EPHS package of the interventions to achieve the goals of the UHC.

At the community level, following equipment are required.

Essential Equipment at Community Level	
– LHW Kit Bag	– Weighing machine (salter)
– Stethoscope	– Weighing machine (Adult)
– BP Apparatus (Dial)	– Mid upper arm circumference (MUAC) tape
– Thermometer Clinical/ Infra-red thermometer	– Plain Scissors
– Torch with batteries	– Respiratory counter

In order to effectively implement the prioritized EPHS interventions at different types of PHC centre level facilities, a group of essential equipment and furniture is recommended, which is as following

Group of Essential Equipment and Furniture at PHC centre and FLH	
– Equipment for Emergency and General services	– Operation theatre
– Equipment for Growth monitoring and Delivery room	– Dental unit
	– Lab equipment and reagents
– Dilatation & Curettage (D&C) set	– Linen
– Caesarean section set	– Transport
– Indoor equipment including hospital beds	– Miscellaneous including furniture
– Procedure room	

A detailed list of essential equipment and miscellaneous items including furniture by different types of PHC centre and FLH is provided in Annexure C and D.

HEALTH SYSTEM AND MANAGEMENT

A key element in ensuring successful implementation of the EPHS is to strengthen the supporting functions of the health system. There are different health system and health management components which are critical to ensure effective delivery of essential health services. These systems are usually managed at district level or above to ensure efficiency and uniformity. Options for different health system components and their costing/ effectiveness will be discussed separately.

In this section, some of the key health management arrangement at the community and PHC centre level are as following:

Supervision

Supervision is the act or function of overseeing something (health facility/ services) or service providers. Generally, supervision contains elements of providing knowledge, helping to organize tasks, enhance motivation, and monitoring activity and results; the amount of each element is varying in different contexts.

- At community level, there is a dedicated supervisor (Lady Health Supervisor) to supervise the activities of LHWs in the catchment area. She is supposed to visit each LHW at least once in a month and do structured supervision using checklist. In addition, concerned health facility in-charge or LHV trainer should carry out supervision activities. The services which are offered by community-based organizations, have its own supervisory mechanism considering the design of intervention.
- At PHC centre (BHU), at least one visit should be ensured on monthly basis by the district level supervisor and more frequently by the tehsil level supervisor.
- At PHC centre (24/7 BHU), at least two visits should be ensured on monthly basis by the district level supervisor and more frequently by the tehsil level supervisor.
- At PHC centre (RHC), at least three visits should be ensured on monthly basis by the district level supervisor and more frequently by the tehsil level supervisor.

The following should be ensured during supervision activities at all levels:

a. Use of checklist for quality supervision. Option for smartphone application-based checklist may also be considered for immediate reporting to district health management team and action by the concerned

b. Written comments with signature should be ensured on registers for follow up actions

c. Verbal/ written feedback should be provided to supervise with few actionable points, and discussion of supervisee performance

d. Supervisee should be supported in decision making using the available data

Management Meetings

Community based workers should attend monthly meeting at the health facility to submit report, collect medicines and supplies, hold discussion with trainers on service delivery related issues and continuing education.

At PHC centre and FLH level, short and structured weekly management meetings should be held to discuss issues and agree on few actionable points. Agenda items of these meeting should be but not limited to: Health information data quality and timeliness reporting, maintenance of record, utilization of services and their quality, disease data and preventive measures, community engagement, work conditions, finance & budget, decision-making and follow up actions.

Community Engagement and Feedback System

At community level, each LHW is expected to organize Health committee and Women group and call meeting on monthly basis to discuss health related issues. PW councillor can also ensure community level health awareness and education sessions in collaboration with LHWs, while supporting the health facility staff in organizing health education sessions of patients/ clients visiting health facilities. CBO workers are also involved in health education and awareness raising activities among high-risk groups.

For getting Patient/ Client opinion and feedback on the LHW service provision, LHS can use her checklist or informal discussion to ensure feedback from some community members. At the PHC centre level, different options for opinion/ feedback from patients/ clients could be by fixing a complaint box in the facility, regular official meeting with community members, informal discussion with community members, using website of the ministry/ departments of health, toll free number etc.

Health Management Information System

Monitoring reflects the periodic collection and review of information on services implementation, coverage and use for comparison with implementation plans. Monitoring identifies shortcomings well in time and thus of critical importance for providing quality care. Timely and reliable data is needed which is helpful for decision-making and strengthening of health systems. Monitoring data could be used to better adapt strategies to local conditions, with the aim of increasing effectiveness.

It is important that the supervision activities should have focus on the data recording and reporting and triangulate/ cross-check the monitoring data relayed through information system and the actual service provision. If the monitoring data relayed through the information system is of reasonable quality, then it should be used for planning the supervisory visits, focussing on the weaker service delivery points. Monitoring and routine supervision complement each other and are central to bringing transparency and accountability within the health system.

At the present, the information flow from the service providers in PHC centre is not digitised. There are multiple health information systems including LHW-MIS, EPI-MIS, Malaria-MIS, TB-MIS and PHC

centre level District Health Information System (DHIS). The reports for all these health information systems are sent in hard copy to the district office on monthly basis where they are entered into the system and the data becomes available at central repository for the respective information system. All these individual systems have been linked to a common platform "Pakistan Health Information System" where the managers and the policy makers can have ready access to these systems. A schematic description of current information flows has been depicted in the picture below.

Government is considering the option of a (paperless) digital health information system at all levels. In the meantime, following MIS tools are required at community and PHC centre level.

Essential MIS Tools at Community and PHC Centre Level

For Lady Health Worker

- Map of catchment area
- Family/ *Khandan* register
- Dairy
- Treatment register
- Mother/ New-born checklist
- Referral slip
- MCH card
- Health Education material
- Flip chart
- Monthly report
- Catchment population chart

For PHC Centre

- Map of catchment area and Demographic details
- Central registration point register
- OPD ticket
- Medicine requisition slip
- Outpatient department register
- OPD abstract form
- Laboratory register
- Referral slip
- Radiology/Ultrasonography/CT Scan/ECG register

For PHC Centre

- Indoor Patient Register
- Indoor Abstract Form
- Daily Bed Statement register
- Operation Theatre (OT) register
- Family Planning register
- Family Planning card
- Maternal Health register
- TB register
- TB treatment card
- Antenatal card
- Obstetric register
- Health education material
- Monthly report
- Daily medicine expense register
- Stock register (Medicine/Supplies)
- Stock register (Equipment/Furniture/Linen)
- Community meeting register
- Facility staff meeting register
- Secondary facility report form
- Catchment area population chart
- Procedures manual for DHIS
- LQAS form

District Monitoring & Evaluation System

Main outcome level indicator at district level is 'Universal Health Coverage Index' which is a cumulative indicator of 4 priority areas and 16 priority indicators. This information should preferably be gathered using national and provincial health & social sector surveys. In case, information is not available than district level survey may be considered to collect information.

For services access and readiness assessment (SARA) of health facility/ district for delivery of EPHS, SARA tool has been adopted for Pakistan with support of WHO and University of Manitoba. The same has been aligned with the EPHS prioritized interventions. It is recommended to repeat the survey at district level with 3-5 years intervals. In addition, it is important to conduct qualitative research to assess community needs, health seeking behaviours and perceptions about quality of health services. Formative research to understand and monitor behaviours and prioritize communication messages is also important, along with other research agenda.

Infection Prevention

The infection prevention at community and PHC centre is proposed for

Separate Washrooms for patients/ clients

- Functional washrooms adjacent to waiting areas must be ensured with availability of water, soap / sanitizers, tissue papers etc.
- Cleanliness must be ensured at all times with waste disposable bins

Individual/ Staff

- Ensure cleanliness
- Maintain hand hygiene, for preventing cross-contamination (person to person or contaminated object to person) – availability of sanitizers
- Have personal protective equipment available (caps, masks, aprons, eyewear, gloves, closed-toe shoes) and use it appropriately
- Prevent needle/sharp injuries

Facility

- Adequate supply of clean drinking water
- Use containers for sharps disposal and dispose these safely
- Ensure that clean supplies are available at all sites (gauze, cotton wool, instruments, plastic containers etc)
- Ensure that antiseptics and disinfectants are available and are used appropriately
- Develop and maintain shelf-life system to store High-Level Disinfectants (HLD) and sterile items
- Ensure proper collection and cleaning of soiled linen
- Follow waste handling, collection and disposal guidelines properly

Processing/ Sterilization of equipment

- Perform point-of-use decontamination of instruments and other items.
- Have a separate area for instrument cleaning, where instruments and items are properly cleaned.
- Ensure proper instrument processing, with facilities for HLD and sterilization.
- The proposed equipment for decontamination of instruments at the 24/7 BHU Plus and RHC include electric autoclave, non-electric autoclave, electric dry heat sterilizer, electric boiler/steamer, non-electric boiler/steamer and chemical HLD. At the 8/6 BHU, electric autoclave and chemical HLD is proposed.

Waste Management

PHC centre level facilities should have the waste management guidelines available in order to reduce the amount of waste, and avoid mixing of general waste (paper, empty juice box, toffee wrappers, packaging) with infectious waste (e.g., dressings, needles) in different assigned colours bin and have regular capacity building of the staff and sweepers to improve practices related to waste management.

Waste management inside the facility should focus on

Waste collection

- Use appropriate Personal Protective Equipment (utility gloves, eye protection and toe covered, long plastic shoes)
- Remove gloves immediately after disposing waste, and perform hand hygiene by washing hands with plain soap and water
- Collect waste in leak proof containers
- Leak proof containers once when three quarters full should be emptied. Do not wait for them to get full
- Human waste, such as the placenta, must be placed in double bags in the leak proof container
- Keep waste collection area clean and free of spills

Waste disposal

- General waste should be discarded in the nearby waste disposal area
- Contaminated Liquid waste (blood, urine, faeces and other body fluids) should be emptied in a toilet/sink to get them drained into a sewer system
- Solid waste (used dressings and other materials contaminated with blood and organic matter) should be buried in the rubbish pit or incinerated
- Sharps containers should be buried in rubbish pit or incinerated or open burning with protection
- Sharps may also be stored in a protected manner for offsite removal / burning in district incinerator
- Incinerator in DHQ hospital is recommended

Referral Services

Referral system is an essential element of an efficient health care delivery system where the patient load is distributed according to services need. For effective referral within the primary health care following propositions are made to make the referral system more effective.

There are different options for establishing a functional referral system including provision of ambulance to each health facility, pooling of ambulances at specific hubs and linking with on line services, using the services of philanthropist ambulance services or 1122 initiatives. Details of these interventions will be further explored in the district health system report. At this stage, following should be considered:

- The community level health workers and all PHC centre level facilities should be linked to each other and referral hospitals digitally with a bed registry and ambulance service system.
- Functional ambulances should be available in all PHC centre level facilities and position of drivers and paramedics should be filled.
- The referral forms should be available and the record of the referred patients adequately maintained.
- Referral protocols should be displayed in the health facilities

- The list of the referral facilities with contact numbers should be displayed/provided to community health worker so that in instances of emergency, a timely referral could be made and the referred facility is informed well in time to be able to provide requisite services.

Capacity Development

All community and PHC centre level, staff must receive training/s for at least 15 days every year. An assessment is being done to identify training needs aligned with UHC Benefit Package of Pakistan. However, following key trainings (others to be developed) are recommended for the technical staff at community and PHC centre level at this stage.

Training for Community Level Workers
Training of Trainers (LHWs)
LHW Training and Inservice Training
Lady Health Supervisor Training
15 Days Refresher Training (Annual)
Specialised/ Refresher Training including *Maan ki Sehat* and *Bachay ki Sehat*
Training for Vaccinators
Training of PW/ HPN Councillor
Training on Infection Control and Disease Surveillance (for surveillance staff)
Training of CBO staff on HIV prevention

Training for PHC Centre Level Technical Staff
Family Planning (FP)
Integrated Management of Pregnancy and Childbirth (IMPAC)
Emergency Obstetric and New-born Care (EmONC)
Emergency New-born Care and Helping Baby Breathe
Integrated Management of Neonatal and Childhood Illnesses (IMNCI)
Syndromic Management of Sexually Transmitted Infections including HIIV
Malaria, Dengue and Vector Control
TB-DOTS
Non-Communicable Diseases (e.g. Diabetes, Cardio-Vascular Diseases, Respiratory Diseases)
Infection Control and Waste Management
Mid-level management of EPI
Management of malnutrition + Infant & Young Child Feeding
Anaesthesia and Surgical procedures at PHC level
District Health Information System (DHIS) and Use of Information
Logistic and Supply management

Annexures

A: Essential Medicines and Supplies - at PHC centre level facilities

Sr. No.	Medicine/Supplies	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
Anaesthetics (Local)				
1.	Lidocaine (Vial)	Yes	Yes	Yes
2.	Lidocaine (Topical)	Yes	Yes	Yes
3.	Inj. Lignocaine + Epinephrine	No	Yes	Yes
Analgesics (NSAIDs)				
4.	Tab. Acetylsalicylic Acid	Yes	Yes	Yes
5.	Tab. Mefenamic Acid	Yes	Yes	Yes
6.	Tab. Diclofenac 50 mg	Yes	Yes	Yes
7.	Diclofenac (Ampule)	No	No	Yes
8.	Tab. Ibuprofen 200 mg	Yes	Yes	Yes
9.	Tab. Ibuprofen 400 mg	Yes	Yes	Yes
10.	Syp. Ibuprofen	Yes	Yes	Yes
11.	Tab. Paracetamol 500 mg	Yes	Yes	Yes
12.	Syp. Paracetamol	Yes	Yes	Yes
13.	Inj. Paracetamol	No	Yes	Yes
14.	Paracetamol (Suppository)	No	No	Yes
Anti-Allergic (Anaphylaxis)				
15.	Tab. Chlorpheniramine	Yes	Yes	Yes
16.	Inj. Chlorpheniramine	Yes	Yes	Yes
17.	Syp. Chlorpheniramine	Yes	Yes	Yes
18.	Tab. Loratadine	No	Yes	Yes
19.	Syp. Loratadine	No	Yes	Yes
20.	Inj. Dexamethasone	Yes	Yes	Yes
21.	Tab. Dexamethasone	Yes	Yes	Yes
22.	Epinephrine (Ampoule)	No	Yes	Yes
23.	Inj. Hydrocortisone 100mg	Yes	Yes	Yes
24.	Tab. Prednisolone 5mg	Yes	Yes	Yes
Antidotes and other substances used in poisoning				
25.	Atropine (Ampoule)	Yes	Yes	Yes
26.	Charcoal Activated (Powder)	Yes	Yes	Yes
27.	Inj. Diazepam	Yes	Yes	Yes
28.	Naloxone (Ampoule)	No	Yes	Yes
Anti-Epileptics Anticonvulsants				
29.	Tab. Carbamazepine 200 mg	No	Yes	Yes
30.	Syp. Carbamazepine	No	Yes	Yes
31.	Inj. Magnesium Sulphate	Yes	Yes	Yes
32.	Tab. Phenobarbital	No	No	Yes
33.	Inj. Phenobarbital	No	No	Yes
34.	Tab. Phenytoin	No	No	Yes
Antibiotics/Antimicrobial				
35.	Tab./Cap. Amoxicillin 250 mg	Yes	Yes	Yes
36.	Tab./Cap. Amoxicillin 500 mg	Yes	Yes	Yes
37.	Syp. Amoxicillin (Powder for Suspension) 250 mg	Yes	Yes	Yes
38.	Syp. Amoxicillin (Powder for Suspension) 500 mg	Yes	Yes	Yes
39.	Inj. Amoxicillin 500 mg	No	No	Yes
40.	Cap. Ampicillin 250 mg	Yes	Yes	Yes
41.	Cap. Ampicillin 500 mg	Yes	Yes	Yes
42.	Tab. Calvanic Acid + Amoxicillin	Yes	Yes	Yes
43.	Ampicillin (Powder for Suspension) 250 mg	Yes	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
44.	Ampicillin (Powder for Suspension) 500 mg	Yes	Yes	Yes
45.	Inj. Ampicillin 500 mg	No	Yes	Yes
46.	Inj. Benzathine Penicillin 6lakh unit	Yes	Yes	Yes
47.	Inj. Benzathine Penicillin 12lakh unit	Yes	Yes	Yes
48.	Cap. Cefixime 100mg/400mg	No	No	Yes
49.	Tab. Ciprofloxacin 250 mg	Yes	Yes	Yes
50.	Tab. Ciprofloxacin 500 mg	Yes	Yes	Yes
51.	Syp. Ciprofloxacin 250 mg	Yes	Yes	Yes
52.	Cap. Azithromycin	No	No	Yes
53.	Azithromycin (Suspension)	No	No	Yes
54.	Tab. Cotrimoxazole DS	Yes	Yes	Yes
55.	Syp. Cotrimoxazole	Yes	Yes	Yes
56.	Cap. Doxycycline	Yes	Yes	Yes
57.	Inj. Gentamicin 80 mg	Yes	Yes	Yes
58.	Tab. Metronidazole 400 mg	Yes	Yes	Yes
59.	Inj. Metronidazole	No	No	Yes
60.	Syp. Metronidazole 200mg/60 ml	Yes	Yes	Yes
61.	Tab. Nitrofurantoin	No	No	Yes
62.	Inj. Procaine penicillin	Yes	Yes	Yes
63.	Tab. Phenoxymethylpenicillin	No	Yes	Yes
64.	Syp. Phenoxymethylpenicillin	No	No	Yes
Anti-Helminthic				
65.	Tab Mebendazole	Yes	Yes	Yes
66.	Tab. Pyrantel	Yes	Yes	Yes
67.	Syp. Pyrantel	Yes	Yes	Yes
Anti-Fungal				
68.	Clotrimazole (Vaginal Cream)	No	Yes	Yes
69.	Clotrimazole (Vaginal Tablet)	Yes	Yes	Yes
70.	Clotrimazole (Topical Cream)	Yes	Yes	Yes
71.	Tab. Nystatin	Yes	Yes	Yes
72.	Nystatin (Drops)	Yes	Yes	Yes
73.	Nystatin (Pessary)	No	No	Yes
Anti-Tuberculosis Drugs				
74.	Tab. Ethambutol	No	Yes	Yes
75.	Ethambutol (Oral Liquid)	No	Yes	Yes
76.	Tab. Isoniazid	No	Yes	Yes
77.	Syp. Isoniazid	No	Yes	Yes
78.	Tab. Pyrazinamide	No	Yes	Yes
79.	Cap. Rifampicin	No	Yes	Yes
80.	Syp. Rifampicin	No	Yes	Yes
81.	Inj. Streptomycin	No	Yes	Yes
82.	Tab. Ethambutol + Isoniazid	No	Yes	Yes
83.	Tab. Isoniazid + Rifampicin	No	Yes	Yes
84.	Tab. Isoniazid + Pyrazinamide + Rifampicin	No	Yes	Yes
85.	Tab. Rifampicin + Isoniazid + Pyrazinamide + Ethambutol	No	Yes	Yes
86.	Tab. Ethambutol + Isoniazid + Rifampicin	No	Yes	Yes
Anti-Diabetics				

Sr. No.	Medicine/Supplies	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
87.	Tab. Glibenclamide 4 mg	No	Yes	Yes
88.	Tab. Metformin 500 mg	Yes	Yes	Yes
89.	Inj. Insulin Regular	Yes	Yes	Yes
90.	Inj. Insulin long acting	Yes	Yes	Yes
Anti-Malarial				
91.	Tab. Chloroquine	No	Yes	Yes
92.	Syp. Chloroquine	No	Yes	Yes
93.	Tab. Sulfadoxine + Pyrimethamine	No	No	Yes
94.	Tab. Artesunate + Sulfadoxine + Pyrimethamine	Yes	Yes	Yes
95.	Artemether (Ampule)	No	Yes	Yes
GIT Medicines				
96.	Inj. Hyoscine	Yes	Yes	Yes
97.	Tab. Hyoscine	Yes	Yes	Yes
98.	Tab. Metoclopramide	Yes	Yes	Yes
99.	Syp. Metoclopramide	Yes	Yes	Yes
100.	Inj. Metoclopramide	Yes	Yes	Yes
101.	Cap. Omeprazole 40 mg	Yes	Yes	Yes
102.	Inj. Omeprazole	Yes	Yes	Yes
103.	Tab. Esomeprazole	Yes	Yes	Yes
104.	Cap. Esomeprazole	Yes	Yes	Yes
105.	Tab. Aluminium Hydroxide + Magnesium Trisilicate	Yes	Yes	Yes
106.	Syp. Aluminium Hydroxide + Magnesium Trisilicate	Yes	Yes	Yes
107.	ORS (Sachet)	Yes	Yes	Yes
108.	Tab. Bisacodyl	Yes	Yes	Yes
109.	Glycerine (Suppository)	Yes	Yes	Yes
Cardiovascular Medicines				
110.	Glyceryl Trinitrate (Sublingual)	Yes	Yes	Yes
111.	Isosorbide Dinitrate (Sublingual)	Yes	Yes	Yes
112.	Tab. Enalapril	No	No	Yes
113.	Tab. Atenolol 50 mg	Yes	Yes	Yes
114.	Tab. Methyldopa	Yes	Yes	Yes
115.	Inj. Methyldopa	No	No	Yes
116.	Tab. Hydrochlorothiazide	Yes	Yes	Yes
117.	Inj. Hydrochlorothiazide	Yes	Yes	Yes
118.	Tab. Furosemide 40 mg	Yes	Yes	Yes
119.	Inj. Furosemide 40 mg	Yes	Yes	Yes
120.	Tab. Captopril 25 mg	No	Yes	Yes
121.	Tab. Amlodipine 5 mg	No	Yes	Yes
Medicines Affecting Coagulation				
122.	Inj. Tranexamic Acid 500 mg	Yes	Yes	Yes
123.	Cap. Tranexamic Acid 500 mg	Yes	Yes	Yes
Oxytocic Medicines				
124.	Tab. Misoprostol	Yes	Yes	Yes
125.	Inj. Oxytocin	Yes	Yes	Yes
Respiratory Medicines				
126.	Tab. Salbutamol 4 mg	Yes	Yes	Yes
127.	Salbutamol (Inhaler)	Yes	Yes	Yes
128.	Ammonium Chloride+ Chloroform + Menthol +	Yes	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
	Diphenhydramine + Sodium Citrate (Antitussive Expectorant)			
129.	Inj. Aminophylline	Yes	Yes	Yes
130.	Oxygen Cylinder	Yes	Yes	Yes
Ophthalmic Medicines				
131.	0.5% Chloramphenicol (Eye Drops)	Yes	Yes	Yes
132.	Ciprofloxacin (Eye Drops)	No	Yes	Yes
133.	Betamethasone 0.5% w/v Neomycin eye drops	Yes	Yes	Yes
134.	Tetracycline (Eye Ointment)	Yes	Yes	Yes
ENT Medicines				
135.	Boroglycerine (Ear Drops)	Yes	Yes	Yes
136.	Polymyxin B + Lignocaine (Ear Drops)	Yes	Yes	Yes
137.	Ciprofloxacin (Ear Drops)	Yes	Yes	Yes
138.	Xylometazoline (Nasal Drops)	No	Yes	Yes
I/V Infusions (Plasma Substitutes)				
139.	Plasma Expander (Infusion) 1000ml	No	Yes	Yes
140.	Glucose/Dextrose (Infusion) 1000ml	Yes	Yes	Yes
141.	Glucose/Dextrose (Ampoule)	Yes	Yes	Yes
142.	Normal Saline (Infusion) 1000ml	Yes	Yes	Yes
143.	Dextrose + Saline (Infusion) 1000ml	Yes	Yes	Yes
144.	Ringer's Lactate (Infusion) 500ml	Yes	Yes	Yes
145.	Potassium Chloride (Solution)	Yes	Yes	Yes
146.	Inj. Sodium Bicarbonate	No	Yes	Yes
147.	Water for Injection (Ampule)	Yes	Yes	Yes
Vitamins, Minerals and Food supplements				
148.	Tab. Ascorbic Acid 500 mg	Yes	Yes	Yes
149.	Inj. Calcium Gluconate	No	Yes	Yes
150.	Tab. Calcium 100 mg	Yes	Yes	Yes
151.	Tab. Ergocalciferol (Vit. D)	Yes	Yes	Yes
152.	Tab. Ferrous fumarate	No	Yes	Yes
153.	Syp. Ferrous fumarate	Yes	Yes	Yes
154.	Tab. Folic Acid	No	Yes	Yes
155.	Tab. Ferrous salt + Folic Acid	Yes	Yes	Yes
156.	Inj. Vitamin K	No	Yes	Yes
157.	Tab. /Cap. Retinol (Vitamin A) after NIDs	Yes	Yes	Yes
158.	Tab. Zinc Sulphate	Yes	Yes	Yes
159.	Syrup Zinc	Yes	Yes	Yes
160.	Tab. B Complex	Yes	Yes	Yes
161.	Tab. Multivitamins	Yes	Yes	Yes
162.	Multiple Micronutrients (Sachet)	Yes	Yes	Yes
163.	Ready to Use Treatment Food	Yes	Yes	Yes
164.	Ready to Use Supplement Food	Yes	Yes	Yes
Dermatological				
165.	Benzyl Benzoate Lotion	Yes	Yes	Yes
166.	Betamethasone Cream/ Lotion	Yes	Yes	Yes
167.	Calamine Lotion	Yes	Yes	Yes
168.	Hydrocortisone Cream	Yes	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
169.	Polymyxin B + Bacitracin Zinc (Ointment)	Yes	Yes	Yes
170.	Silver Sulfadiazine Cream	Yes	Yes	Yes
171.	Sodium Thiosulfate (Solution)	No	No	Yes
Medicines for Mental and Behavioural Disorders & Tranquilizers				
172.	Inj. Chlorpromazine	No	Yes	Yes
173.	Tab. Clomipramine	No	Yes	Yes
174.	Tab. Haloperidol	No	Yes	Yes
175.	Tab. Diazepam 2 mg	Yes	Yes	Yes
176.	Inj. Diazepam 10 mg	Yes	Yes	Yes
177.	Tab. Alprazolam 0.5 mg	No	Yes	Yes
Anxiolytics				
178.	Tab. Alprazolam 0.5 mg	Yes	Yes	Yes
179.	Tab. Diazepam 2 mg	Yes	Yes	Yes
Contraceptives				
180.	Condoms	Yes	Yes	Yes
181.	Ethynylestradiol + Norethisterone (Combined Oral Pills)	Yes	Yes	Yes
182.	Progesterone Only Pills (Levonorgestrel)	Yes	Yes	Yes
183.	Emergency Contraceptive Pills (Levonorgestrel)	Yes	Yes	Yes
184.	IUCD (Copper T/Multiload)	Yes	Yes	Yes
185.	Inj. Medroxyprogesterone Acetate (Dmpa)	Yes	Yes	Yes
186.	Inj. Norethisterone Enanthate (Net-En)	Yes	Yes	Yes
187.	Inj. Estradiol Cypionate + Medroxyprogesterone Acetate	Yes	Yes	Yes
188.	Levonorgestrel-Releasing Implant (Subdermal)	No	Yes	Yes
189.	Etonogestrel-Releasing Implant (Subdermal)	No	Yes	Yes
Vaccines and Sera				
190.	BCG Vaccine	Yes	Yes	Yes
191.	Oral Polio Vaccine	Yes	Yes	Yes
192.	Injectable Polio Vaccine	Yes	Yes	Yes
193.	Hepatitis B Vaccine	Yes	Yes	Yes
194.	Measles Vaccine	Yes	Yes	Yes
195.	Tetanus Toxoid	Yes	Yes	Yes
196.	Pentavalent Vaccine	Yes	Yes	Yes
197.	Pneumococcal Vaccine	Yes	Yes	Yes
198.	Rota vaccine	Yes	Yes	Yes
199.	Anti-Rabies Vaccines (PVRV)	No	No	Yes
200.	Anti-Snake Venom Serum	No	No	Yes
Disposables/Antiseptics/ Disinfectants				
201.	Syringe 1 ml (Disposable)	Yes	Yes	Yes
202.	Syringe 3 ml (Disposable)	Yes	Yes	Yes
203.	Syringe 5 ml (Disposable)	Yes	Yes	Yes
204.	Syringe 10 ml (Disposable)	Yes	Yes	Yes
205.	Syringe 20 ml (Disposable)	Yes	Yes	Yes
206.	Syringe 50 ml (Disposable)	Yes	Yes	Yes
207.	IV Set	Yes	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU (Rural) Medical Centre (Urban) Medical centre (Pvt)	24/7 RHC (Rural) Health Centre (Urban) Nursing Home (Pvt)
208.	Scalp Vein Set	Yes	Yes	Yes
209.	Volumetric Chamber (IV Burette)	Yes	Yes	Yes
210.	IV Cannula (18, 20,22 & 24G)	Yes	Yes	Yes
211.	Adhesive Tape	Yes	Yes	Yes
212.	Sterile Gauze Dressing	Yes	Yes	Yes
213.	Paper tape	No	Yes	Yes
214.	Antiseptic Lotion	Yes	Yes	Yes
215.	Cotton Bandage (3", 4" & 6")	Yes	Yes	Yes
216.	Absorbent Cotton Wool	Yes	Yes	Yes
217.	Crepe Bandage	Yes	Yes	Yes
218.	Examination Gloves (All sizes)	Yes	Yes	Yes
219.	Sterile Surgical Gloves (All sizes)	Yes	Yes	Yes
220.	Silk Sutures Sterile (2/0, 3/0, 4/0) with needle	Yes	Yes	Yes
221.	Chromic Catgut Sterile Sutures (different sizes) with needle	Yes	Yes	Yes
222.	Face Mask Disposable	Yes	Yes	Yes
223.	Blood Lancets	Yes	Yes	Yes
224.	Slides	Yes	Yes	Yes
225.	Endotracheal Tube (different sizes)	Yes	Yes	Yes
226.	Nasogastric Tube (different sizes)	Yes	Yes	Yes
227.	Resuscitator Bag with Mask	Yes	Yes	Yes
228.	Disposable Airways (different sizes)	Yes	Yes	Yes
229.	Clean Delivery Kits	Yes	Yes	Yes

Item mentioned in Blue font is critical to ensure essential interventions

B. Essential Medicines and Supplies - at First Level Hospital

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
	Anaesthetics (Local)		
1.	Lidocaine 2 % (Vial)	Yes	Yes
2.	Lidocaine 5 % (Topical)	Yes	Yes
3.	Lidocaine 2% with 1:100,000 epinephrine	Yes	Yes
4.	Lidocaine 2% and bupivacaine	No	Yes
5.	Xylocaine 1%	Yes	Yes
6.	Inj. Ketamine	Yes	Yes
7.	Isoflurane Gas	No	Yes
8.	Suxamethonium 1-2mg ;4	No	Yes
9.	Oxygen supply	Yes	Yes
	Analgesics (NSAIDs)		
10.	Tab. Acetylsalicylic Acid	Yes	Yes
11.	Tab. Mefenamic Acid	Yes	Yes
12.	Tab. Diclofenac 50 mg	Yes	Yes
13.	Diclofenac (Ampule)	No	Yes
14.	Tab. Ibuprofen 200 mg	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
15.	Tab. Ibuprofen 400 mg	Yes	Yes
16.	Syp. Ibuprofen	Yes	Yes
17.	Tab: Paracetamol 325mg	Yes	Yes
18.	Tab. Paracetamol 500 mg	Yes	Yes
19.	Tab: Paracetamol 1000mg	Yes	Yes
20.	Syp. Paracetamol	Yes	Yes
21.	Inj. Paracetamol	No	Yes
22.	Inj. Nalbuphine	Yes	Yes
23.	Inj. Toradol	Yes	Yes
24.	Inj. Kinz 0.1 mg	No	Yes
Anti-Allergic (Anaphylaxis)			
25.	Tab. Chlorpheniramine	Yes	Yes
26.	Inj. Chlorpheniramine	Yes	Yes
27.	Inj. Promethazine 25mg	No	Yes
28.	Syp. Chlorpheniramine	Yes	Yes
29.	Tab. Loratadine	No	Yes
30.	Syp. Loratadine	No	Yes
31.	Inj. Dexamethasone	Yes	Yes
32.	Tab. Dexamethasone	Yes	Yes
33.	Epinephrine (Ampule)	Yes	Yes
34.	Inj. Hydrocortisone	Yes	Yes
35.	Tab. Prednisolone	Yes	Yes
Antidotes and other substances used in poisoning			
36.	Atropine (Ampule)	Yes	Yes
37.	Charcoal Activated (Powder)	Yes	Yes
38.	Inj. Diazepam	Yes	Yes
39.	Naloxone (Ampule)	No	Yes
Anti-Epileptics /Anticonvulsants			
40.	Tab. Carbamazepine	No	Yes
41.	Syp. Carbamazepine	No	Yes
42.	Inj. Magnesium Sulphate (50%)	Yes	Yes
43.	Tab. Phenobarbital	No	Yes
44.	Inj. Phenobarbital	No	Yes
45.	Tab. Phenytoin	No	Yes
46.	Tab: Leviteracetam 500mg	No	Yes
Antibiotics/Antimicrobial			
47.	Tab./Cap. Amoxicillin 250 mg	Yes	Yes
48.	Tab./Cap. Amoxicillin 500 mg	Yes	Yes
49.	Syp. Amoxicillin (Powder for Suspension) 250 mg	Yes	Yes
50.	Syp. Amoxicillin (Powder for Suspension) 500 mg	Yes	Yes
51.	Inj. Amoxicillin 500 mg	Yes	No
52.	Cap. Ampicillin 250 mg	Yes	Yes
53.	Cap. Ampicillin 500 mg	Yes	Yes
54.	Tab. Calvanic Acid + Amoxicillin	Yes	Yes
55.	Ampicillin (Powder for Suspension) 250 mg	Yes	Yes
56.	Ampicillin (Powder for Suspension) 500 mg	Yes	Yes
57.	Inj. Amikacin 15mg	No	Yes
58.	Inj Clindamycin	No	Yes
59.	Inj. Ampicillin 500 mg	No	Yes
60.	Inj. Benzathine Penicillin 6lakh unit	Yes	Yes
61.	Inj. Benzathine Penicillin 12lakh unit	Yes	Yes
62.	Tab: Penicillin V potassium 125 mg	No	Yes
63.	Inj. Cefazoline 2 g	No	Yes
64.	Inj. Ceftriaxone 80mg	No	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
65.	Inj. Cefoxitine 2g	No	Yes
66.	Inj.Cefotaxime 50mg	No	Yes
67.	Cap. Cefixime	No	Yes
68.	Tab. Ciprofloxacin 250 mg	Yes	Yes
69.	Tab. Ciprofloxacin 500 mg	Yes	Yes
70.	Syp. Ciprofloxacin 250 mg	Yes	Yes
71.	Inj. Ethionamide 250mg	No	Yes
72.	Inj. Prothionamide 250 mg	No	Yes
73.	Cap. Azithromycin	No	Yes
74.	Azithromycin (Suspension)	No	Yes
75.	Tab. Cotrimoxazole DS	Yes	Yes
76.	Syp. Cotrimoxazole	Yes	Yes
77.	Cap. Doxycycline	Yes	Yes
78.	Inj. Gentamicin 5 mg	Yes	Yes
79.	Inj. Gentamicin 2 mg	Yes	Yes
80.	Inj. Clindamycin 600mg	No	Yes
81.	Inj. Clindamycin 900mg	No	Yes
82.	Inj. Vancomycin 15mg	No	Yes
83.	Inj. Benzylpenicillin 50,000 units	No	Yes
84.	Inj. Cloxacillin 50mg	No	Yes
85.	Inj. Moxifloxacin 400mg	No	Yes
86.	Inj. Piperacillin	No	Yes
87.	Inj. Tazobactum	No	Yes
88.	Inj. Gatifloxacin 400mg	No	Yes
89.	Inj. Chloramphenicol 25mg/kg	No	Yes
90.	Inj. Flucloxacillin 50mg	No	Yes
91.	Tab. Metronidazole 400 mg	Yes	Yes
92.	Inj. Metronidazole	No	Yes
93.	Syp. Metronidazole 200mg/60 ml	Yes	Yes
94.	Inj. Procaine penicillin	Yes	Yes
95.	Tab. Phenoxymethylpenicillin	No	Yes
	Anti-Helminthic		
96.	Tab. Mebendazole	Yes	Yes
97.	Tab. Flagyl	Yes	Yes
98.	Inj. Flagyl	Yes	Yes
99.	Tab. Pyrantel	Yes	Yes
100.	Syp. Pyrantel	Yes	Yes
	Anti-Fungal		
101.	Clotrimazole (Vaginal Cream)	No	Yes
102.	Clotrimazole (Vaginal Tablet)	Yes	Yes
103.	Clotrimazole (Topical Cream)	Yes	Yes
104.	Tab. Nystatin	Yes	Yes
105.	Nystatin (Drops)	Yes	Yes
	Antivirals		
106.	Tenofovir 300mg	No	Yes
107.	Entecavir 0.5 mg	No	Yes
108.	Sofosbuvir 400 mg	No	Yes
109.	Daclatasvir 60mg	No	Yes
	Anti-Tuberculosis Drugs		
110.	Tab. Ethambutol	No	Yes
111.	Ethambutol (Oral Liquid)	No	Yes
112.	Tab. Isoniazid	No	Yes
113.	Syp. Isoniazid	No	Yes
114.	Tab. Pyrazinamide	No	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
115.	Cap. Rifampicin	No	Yes
116.	Syp. Rifampicin	No	Yes
117.	Inj. Streptomycin	No	Yes
118.	Tab. Ethambutol + Isoniazid	No	Yes
119.	Tab. Isoniazid + Rifampicin	No	Yes
120.	Tab. Isoniazid + Pyrazinamide + Rifampicin	No	Yes
121.	Tab. Rifampicin + Isoniazid + Pyrazinamide + Ethambutol	No	Yes
122.	Tab. Ethambutol + Isoniazid + Rifampicin	No	Yes
123.	Inj. Isoniazid 1000mg	No	Yes
124.	Inj. Ethinamide 15mg	No	Yes
125.	Inj. Prothionamide	No	Yes
126.	Inj. Clofazmine	No	Yes
127.	Inj. Pyrazinamide 2000mg	No	Yes
128.	Inj. Kanamycin 1000mg	No	Yes
129.	Inj. Amikacin 1000 mg	No	Yes
130.	Inj. Capreomycin 1000mg	No	Yes
	Anti-Diabetics		
131.	Tab. Glibenclamide 4 mg	No	Yes
132.	Tab. Metformin 500 mg	Yes	Yes
133.	Inj. Insulin Regular	Yes	Yes
134.	Inj. Insulin long acting	Yes	Yes
	Anti-Malarial		
135.	Tab. Chloroquine	No	Yes
136.	Syp. Chloroquine	No	Yes
137.	Tab. Artemether + lumefantrine	No	Yes
138.	Tab. Artesunate + Sulfadoxine + Pyrimethamine	Yes	Yes
139.	Artemether (Ampule)	No	Yes
	GIT Medicines		
140.	Inj. Hyoscine	Yes	Yes
141.	Tab. Hyoscine	Yes	Yes
142.	Inj. Zantac	Yes	Yes
143.	Tab. Zantac 150mg	Yes	Yes
144.	Tab. Metoclopramide	Yes	Yes
145.	Syp. Metoclopramide	Yes	Yes
146.	Inj. Metoclopramide	Yes	Yes
147.	Cap. Omeprazole 40 mg	Yes	Yes
148.	Inj. Omeprazole	Yes	Yes
149.	Tab. Esomeprazole	Yes	Yes
150.	Cap. Esomeprazole	Yes	Yes
151.	Tab. Aluminium Hydroxide + Magnesium Trisilicate	Yes	Yes
152.	Syp. Aluminium Hydroxide + Magnesium Trisilicate	Yes	Yes
153.	Antacid Sodium citarate 30ml	Yes	Yes
154.	Magnesium trisilicate 300 mg	Yes	Yes
155.	ORS (Sachet)	Yes	Yes
156.	Tab. Bisacodyl	Yes	Yes
157.	Glycerine (Suppository)	Yes	Yes
	Cardiovascular Medicines		
158.	Glyceryl Trinitrate (Sublingual)	Yes	Yes
159.	Isosorbide Dinitrate (Sublingual)	Yes	Yes
160.	Tab. Enalapril	No	No
161.	Tab. Atenolol 50 mg	Yes	Yes
162.	Tab. Methyldopa	Yes	Yes
163.	Tab. Hydrochlorothiazide	Yes	Yes
164.	Inj. Hydrochlorothiazide	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
165.	Tab. Furosemide 40 mg	Yes	Yes
166.	Inj. Furosemide 40 mg	Yes	Yes
167.	Tab. Captopril 25 mg	No	Yes
168.	Tab. Amlodipine 5 mg	No	Yes
169.	Tab. Simvastatin 40mg	No	Yes
170.	Inj. Dobutamine: 10ug	No	Yes
171.	Inj. dopamine; 40 mg: 10ug	No	Yes
172.	Inj. Amiodarone 200mg	No	Yes
173.	Inj. Adenosine 6mg	No	Yes
174.	Inj. Verapamil 5mg	No	Yes
175.	Inj. Atenolol 2.5 mg	No	Yes
176.	Inj. Verapamil 20mg	No	Yes
177.	Inj. Bisoprolol 2.5 mg	No	Yes
178.	Tab. Captopril 12.5 mg	Yes	Yes
179.	Tab. Lisinopril 10mg	Yes	Yes
180.	Tab. Carvedilol 125mg	No	Yes
181.	Tab. Nifedipine 20mg	No	Yes
182.	Inj. Procainamide 20-25mg	No	Yes
183.	Inj. Sotalol 100mg	No	Yes
184.	Tab. Nitroglycerin 0.4mg	No	Yes
185.	Tab. Diltiazem 0.25mg	No	Yes
Medicines Affecting Coagulation			
186.	Inj. Tranexamic Acid 500 mg	Yes	Yes
187.	Cap. Tranexamic Acid 500 mg	Yes	Yes
Oxytocic Medicines			
188.	Tab. Misoprostol 25mcg	Yes	Yes
189.	Vaginal Misoprostol 25mcg	Yes	Yes
190.	Inj. Ergometrine	Yes	Yes
191.	Inj. Oxytocin	Yes	Yes
192.	Inj: Prostaglandin E2 (vial)	Yes	Yes
Respiratory Medicines			
193.	Tab. Salbutamol 4 mg	Yes	Yes
193.	Salbutamol (Inhaler)	Yes	Yes
194.	Ipratropium 500ug	No	Yes
195.	Ammonium Chloride+ Chloroform + Menthol + Diphenhydramine + Sodium Citrate (Antitussive Expectorant)	Yes	Yes
196.	Oral Prednisolone 30mg	Yes	Yes
197.	Inj. Aminophylline	Yes	Yes
198.	Oxygen Cylinder	Yes	Yes
Ophthalmic Medicines			
199.	0.5% Chloramphenicol (Eye Drops)	Yes	Yes
200.	Ciprofloxacin (Eye Drops)	No	Yes
201.	Betamethasone 0.5% w/v Neomycin eye drops	Yes	Yes
202.	Tetracycline (Eye Ointment)	Yes	Yes
203.	Tobramycin 0.3%	No	Yes
ENT Medicines			
204.	Boroglycerine (Ear Drops)	Yes	Yes
205.	Polymyxin B + Lignocaine (Ear Drops)	Yes	Yes
206.	Ciprofloxacin (Ear Drops)	Yes	Yes
207.	Xylometazoline (Nasal Drops)	No	Yes
Antirheumatics Drugs			
208.	Tab. Methotrexate 7.5 mg	No	Yes
209.	Tab. Hydroxychloroquine 400mg	No	Yes
210.	Tab. Leflunomide 10mg/20mg	No	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
211.	Sulfasalazine 1500mg-3000mg	No	Yes
212.	Tab. Prednisolone OR (suspension)	No	Yes
	I/V Infusions (Plasma Substitutes)		
213.	Plasma Expander (Infusion) 1000ml	No	Yes
214.	Glucose/Dextrose (Infusion) 1000ml	Yes	Yes
215.	Glucose/Dextrose (Ampule)	Yes	Yes
216.	Normal Saline (Infusion) 1000ml	Yes	Yes
217.	Dextrose + Saline (Infusion) 1000ml	Yes	Yes
218.	Ringer's Lactate (Infusion) 500ml	Yes	Yes
219.	Potassium Chloride (Solution) not in drip	Yes	Yes
220.	Inj. Sodium Bicarbonate	No	Yes
221.	Water for Injection (Ampule) not in drip	Yes	Yes
222.	Blood Products (Packed RBCs, Fresh Frozen Plasma Units)	No	Yes
	Vitamins, Minerals and Food supplements		
223.	Tab. Ascorbic Acid 500 mg	Yes	Yes
	Inj. Calcium Gluconate	Yes	Yes
224.	Tab. Calcium 100 mg	Yes	Yes
225.	Tab. Ergocalciferol (Vit. D)	Yes	Yes
226.	Tab. Ferrous fumarate	No	Yes
227.	Syp. Ferrous fumarate	Yes	Yes
228.	Tab. Folic Acid	No	Yes
229.	Tab. Ferrous salt + Folic Acid	Yes	Yes
230.	Inj. Vitamin K	No	Yes
231.	Vitamin A Supplement	No	Yes
232.	Tab. /Cap. Retinol (Vitamin A) after NIDs	Yes	Yes
233.	Tab. Zinc Sulphate	Yes	Yes
234.	Syrup Zinc	Yes	Yes
235.	Tab: Alendronate	No	Yes
236.	Tab. B Complex	Yes	Yes
237.	Tab. Multivitamins	Yes	Yes
238.	Multiple Micronutrients (Sachet)	Yes	Yes
239.	Ready to Use Treatment Food	Yes	Yes
240.	F100 and F75	No	Yes
	Dermatological		
241.	Benzyl Benzoate Lotion	Yes	Yes
242.	Betamethasone Cream/ Lotion	Yes	Yes
243.	Calamine Lotion	Yes	Yes
244.	Hydrocortisone Cream	Yes	Yes
245.	Polymyxin B + Bacitracin Zinc (Ointment)	Yes	Yes
246.	Silver Sulfadiazine Cream	Yes	Yes
	Medicines for Mental and Behavioural Disorders & Tranquilizers		
247.	Inj. Chlorpromazine	No	Yes
248.	Tab. Clomipramine	No	Yes
249.	Tab. Haloperidol	No	Yes
250.	Tab. Diazepam 2 mg	Yes	Yes
251.	Inj. Diazepam 10 mg	Yes	Yes
252.	Tab. Alprazolam 0.5 mg	No	Yes
	Anxiolytics		
253.	Tab. Alprazolam 0.5 mg	Yes	Yes
254.	Tab. Diazepam 2 mg	Yes	Yes
	Contraceptives		
255.	Condoms	Yes	Yes
256.	Ethynylestradiol + Norethisterone (Combined Oral Pills)	Yes	Yes
257.	Progesterone Only Pills (Levonorgestrel)	Yes	Yes

Sr. No.	Medicine/Supplies	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
258.	Emergency Contraceptive Pills (Levonorgestrel)	Yes	Yes
259.	IUCD (Copper T/Multiload)	Yes	Yes
260.	Inj. Medroxyprogesterone Acetate (Dmpa)	Yes	Yes
261.	Inj. Norethisterone Enanthate (Net-En)	Yes	Yes
262.	Inj. Estradiol Cypionate + Medroxyprogesterone Acetate	Yes	Yes
263.	Levonorgestrel-Releasing Implant (Subdermal)	No	Yes
264.	Etonogestrel-Releasing Implant (Subdermal)	No	Yes
	Vaccines and Sera		
265.	BCG Vaccine	Yes	Yes
266.	Oral Polio Vaccine	Yes	Yes
267.	Injectable Polio Vaccine	Yes	Yes
268.	Hepatitis B Vaccine	Yes	Yes
269.	Measles Vaccine	Yes	Yes
270.	Tetanus Toxoid	Yes	Yes
271.	Pentavalent Vaccine	Yes	Yes
272.	Pneumococcal Vaccine	Yes	Yes
273.	Rota vaccine	Yes	Yes
274.	Anti-Rabies Vaccines (PVRV)	No	Yes
275.	Anti-Snake Venom Serum	No	Yes
	Disposables/Antiseptics/ Disinfectants		
276.	Syringe 1 ml (Disposable)	Yes	Yes
277.	Syringe 3 ml (Disposable)	Yes	Yes
278.	Syringe 5 ml (Disposable)	Yes	Yes
279.	Syringe 10 ml (Disposable)	Yes	Yes
280.	Syringe 20 ml (Disposable)	Yes	Yes
281.	Syringe 50 ml (Disposable)	Yes	Yes
282.	IV Set	Yes	Yes
283.	Scalp Vein Set	Yes	Yes
284.	Volumetric Chamber (IV Burette)	Yes	Yes
285.	IV Cannula (18, 20,22 & 24G)	Yes	Yes
286.	Adhesive Tape	Yes	Yes
287.	Sterile Gauze Dressing	Yes	Yes
288.	Paper tape	No	Yes
289.	Antiseptic Lotion	Yes	Yes
290.	Cotton Bandage (3", 4" & 6")	Yes	Yes
291.	Absorbent Cotton Wool	Yes	Yes
292.	Crepe Bandage	Yes	Yes
293.	Examination Gloves (All sizes)	Yes	Yes
294.	Sterile Surgical Gloves (All sizes)	Yes	Yes
295.	Silk Sutures Sterile (2/0, 3/0, 4/0) with needle	Yes	Yes
296.	Chromic Catgut Sterile Sutures (different sizes) with needle	Yes	Yes
297.	Face Mask Disposable / Personal Protective Equipment	Yes	Yes
298.	Blood Lancets	Yes	Yes
299.	Slides	Yes	Yes
300.	Endotracheal Tube (different sizes)	Yes	Yes
301.	Nasogastric Tube (different sizes)	Yes	Yes
302.	Resuscitator Bag with Mask	Yes	Yes
303.	Disposable Airways (different sizes)	Yes	Yes
304.	Clean Delivery Kits	Yes	Yes

Item mentioned in Blue font is critical to ensure essential interventions

C: Essential Equipment, Supplies and Furniture – PHC centre level facilities

Sr. No.	Equipment/Supplies Name	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	RHC Health Centre (Urban) Nursing Home (Pvt)
Emergency & Routine				
1.	First Aid box	Yes	Yes	Yes
2.	Electric Oven	Yes	Yes	Yes
3.	Beds with mattress	No	Yes	Yes
4.	N95/ Surgical masks & Personal protective equipment	Yes	Yes	Yes
5.	Emergency OT light	No	Yes	Yes
6.	Oxygen Cylinder with flow- meter	Yes	Yes	Yes
7.	Ambu Bag (Paediatric)	Yes	Yes	Yes
8.	Ambu Bag (Adult)	Yes	Yes	Yes
9.	Suction Machine Heavy Duty	Yes	Yes	Yes
10.	Laryngoscope with 4 blades (Adult & Peds)	Yes	Yes	Yes
11.	Endotracheal tubes (all sizes)	Yes	Yes	Yes
12.	Oral Air Way (all sizes)	Yes	Yes	Yes
13.	Resuscitation Trolley	Yes	Yes	Yes
14.	Nebulizer	Yes	Yes	Yes
15.	Stethoscope	Yes	Yes	Yes
16.	BP Apparatus (Dial)	Yes	Yes	Yes
17.	BP apparatus Mercury (Adult & Paeds)	Yes	Yes	Yes
18.	Dressing Set for Ward	Yes	Yes	Yes
19.	Thermometer Clinical/ Infra-red	Yes	Yes	Yes (and Rectal)
20.	Torch with batteries	Yes	Yes	Yes
21.	Macintosh sheets	Yes	Yes	Yes
22.	Drip stands	Yes	Yes	Yes
23.	Instrument Trolley	Yes	Yes	Yes
Growth Monitoring / Labour Room				
24.	Soap and soap tray	Yes	Yes	Yes
25.	Weighing machine (salter)	Yes	Yes	Yes
26.	Weighing machine (Adult)	Yes	Yes	Yes
27.	Weighing machine (tray)	Yes	Yes	Yes
28.	Height-weight machine	Yes	Yes	Yes
29.	ORT Corner	Yes	Yes	Yes
30.	Feeding bowls, glasses & spoons	Yes	Yes	Yes
31.	Plain Scissors	Yes	Yes	Yes
32.	Demonstration table	No	No	Yes
33.	Delivery table (Labour Room)	No	Yes	Yes
34.	Delivery set (each contain) Partogram Kocher Clamp 6 inch Plain Scissors Tooth Forceps 1 Kidney Tray Needle Holder 7 inch Medium size Bowl Outlet Forceps 8 inch	No	Yes	Yes
D&C set (each Contain)				

Sr. No.	Equipment/Supplies Name	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	RHC Health Centre (Urban) Nursing Home (Pvt)
35.	Metallic Catheter Uterine Sound Sim's Speculum medium Set D&E Sponge Holders Hagar's Dilator 0-8 cm Kidney Tray Bowl 4 inch Bowl 10 inch Vulsellum 8 inch Set Uterine Curette Plain Forceps 8 inch Macintosh sheets Torch with batteries	Yes	Yes	Yes
Caesarean Section Set (each Contain)				
36.	Doven's retractor Green Army tag Big Bowl Cord Clamp 7 inch Kocher Clamp Straight 8 inch Kocher Clamp Curved 8 inch Towel Clip Artery Forceps 6 inch Allis Tissue Forceps 8 inch Needle Holder 8 inch Needle Holder 6 inch Kidney Tray Bowl 4 inch Vulsellum 8 inch Knife Holder 4 number Plain Forceps 7 inch Tooth Forceps 7 inch Curve Scissors Thread Cutting Scissors Sponge Holder 10 inch Vacuum Suction Apparatus Baby Resuscitation Apparatus Adult weighing scale Electric Suction Machine Autoclave Fetal Heart Detector Obs/Gyne: General Set Dressing Set for Ward Eclampsia beds with railing Baby Intubation set Examination Couch with wooden stairs Mucus Extractor Neonatal Resuscitation Trolley Incubator Macintosh sheets Torch with batteries	No	No	Yes
Inpatient (Beds/Wards)				
37.	Bed with side table/locker	No	Yes	Yes
38.	Electric Suction Machine	Yes	Yes	Yes
39.	Electric Sterilizer Oven	Yes	Yes	Yes

Sr. No.	Equipment/Supplies Name	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	RHC Health Centre (Urban) Nursing Home (Pvt)
40.	Oxygen Cylinder with flowmeter and Stand	Yes	Yes	Yes
41.	Stretcher	Yes	Yes	Yes
42.	Examination Couch with wooden stairs	Yes	Yes	Yes
43.	Wheelchair	Yes	Yes	Yes
44.	Patient Screen	Yes	Yes	Yes
45.	Air Ways (different sizes)	Yes	Yes	Yes
46.	Suction Pump (Manual)	Yes	Yes	Yes
47.	Drip Stand	Yes	Yes	Yes
			Procedure Room	**Operation Theatre**
48.	Examination Couch with wooden stairs	No	Yes	No
49.	Hydraulic Operation Table	No	No	Yes
50.	OT Light	No	No	Yes
51.	Gel for ultrasound	No	Yes	Yes
52.	ECG machine and roll	No	Yes	Yes
53.	Shadow less Lamps with 9 Illuminators	No	No	Yes
54.	Anaesthesia machine with ventilator	No	No	Yes
55.	Multi-parameter	No	No	Yes
56.	McGill forceps	No	No	Yes
57.	Patient Trolley	No	No	Yes
58.	Oxygen Cylinder (large size with regulator)	No	No	Yes
59.	Oxygen Cylinder (medium size with regulator)	No	Yes	Yes
60.	Nitrous oxide cylinder with regulator	No	No	Yes
61.	Instrument trolley	Yes	Yes	Yes
62.	Dressing Drum (large size)	Yes	Yes	Yes
63.	Stands for Dressing	Yes	Yes	Yes
64.	Basin	Yes	Yes	Yes
65.	Basin stands	Yes	Yes	Yes
66.	Towel Clips	No	Yes	Yes
67.	BP handle	No	Yes	Yes
68.	BP Blades	No	Yes	Yes
69.	Dissecting Forceps (Plain)	No	Yes	Yes
70.	Needle Holder (Large size)	No	Yes	Yes
71.	Sponge Holder Forceps (large)	No	Yes	Yes
72.	Skin Retractor (small size)	No	Yes	Yes
73.	Metallic Catheter (1-12)	No	Yes	Yes
74.	Dilator Complete Set	No	Yes	Yes
75.	Surgical Scissors (various size)	No	Yes	Yes
76.	Proctoscope	No	Yes	Yes
77.	Thames Splint V.S	No	Yes	Yes
78.	Rubber Sheet	No	Yes	Yes
79.	Scalpels 6”	No	Yes	Yes
80.	Allis Forceps Long	No	Yes	Yes
81.	Allis Forceps 6 inches	No	Yes	Yes
82.	Chaetal Sterilize Forceps 10” long	No	Yes	Yes
83.	Introducer for Catheter	No	Yes	Yes
84.	Smith Homeostatic Forceps Curved	No	Yes	Yes
85.	Arm Splint different sizes	No	Yes	Yes
86.	Instrument Cabinet	No	Yes	Yes
87.	Spotlight	No	Yes	Yes

Sr. No.	Equipment/Supplies Name	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	RHC Health Centre (Urban) Nursing Home (Pvt)
88.	Hand Scrub set with chemical	No	Yes	Yes
89.	Thermometer	No	Yes	Yes
90.	Laryngoscope adult/peds	No	Yes	Yes
91.	Kidney Tray S.S	No	Yes	Yes
92.	Stand for Drip	No	Yes	Yes
93.	Bucket	No	Yes	Yes
94.	Air Cushion (Rubber)	No	Yes	Yes
95.	Gastric Tube	No	Yes	Yes
96.	Macintosh sheets	Yes	Yes	Yes
97.	Torch with batteries	Yes	Yes	Yes
98.	Urine Collection Bags instrument trolley	No	Yes	Yes
99.	Generator	No	Yes	Yes
100.	Air-Conditioner (split 1.5 tons)	No	Yes	Yes
			Dental Unit	
101.	Dental Chair	No	Yes	Yes
102.	Light	No	Yes	Yes
103.	Torch with batteries	No	Yes	Yes
104.	Hand piece unit	No	Yes	Yes
105.	Suction	No	Yes	Yes
106.	Compressor	No	Yes	Yes
107.	Dental hand instruments (set)	No	Yes	Yes
108.	Aseptic Trolley	No	Yes	Yes
109.	Dental Autoclave	No	Yes	Yes
110.	Amalgamator	No	Yes	Yes
111.	Dental X-ray unit	No	Yes	Yes
112.	Intraoral X-ray film Processor	No	Yes	Yes
113.	X-ray view box	No	Yes	Yes
114.	Lead apron	No	Yes	Yes
115.	Ultrasonic Scalar	No	Yes	Yes
116.	Dental Operating stool	No	Yes	Yes
117.	Ultraviolet sterilizer	No	Yes	Yes
Lab Equipment and Reagents				
118.	Centrifuge (Bench Top)	No	No	Yes
119.	Centrifuge Machine	No	No	Yes
120.	Stopwatch	No	Yes	Yes
121.	Ice Lined Refrigerator (ILR)	Yes	Yes	Yes
122.	Small refrigerator	Yes	Yes	Yes
123.	X-ray Machine	No	Yes	Yes
124.	Dark room accessories	No	Yes	Yes
125.	X-ray films (All Size)	No	Yes	Yes
126.	X-ray illuminator	No	Yes	Yes
127.	Needle cutter/ Safety Boxes	No	Yes	Yes
128.	Availability of Ultrasound & ECG Services	No	Yes	Yes
129.	Laboratory Chemicals	Yes	Yes	Yes
130.	Binocular Microscope	Yes	Yes	Yes
131.	Urine meter (bag)	Yes	Yes	Yes
132.	DLC Counter	Yes	Yes	Yes
133.	Haemocytometer	Yes	Yes	Yes
134.	ESR Racks	Yes	Yes	Yes
135.	ESR Pipettes	Yes	Yes	Yes
136.	Water Bath	Yes	Yes	Yes

Sr. No.	Equipment/Supplies Name	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	RHC Health Centre (Urban) Nursing Home (Pvt)
137.	Centrifuge Tubes (Plastic)	No	Yes	Yes
138.	Centrifuge Tubes (Glass)	No	Yes	Yes
139.	Glass Pipettes various sizes corrected	No	Yes	Yes
140.	Jester Pipettes Fixed – various sizes	No	Yes	Yes
141.	Jester Pipettes Adjustable – various sizes	Yes	Yes	Yes
142.	Sputum collection containers	Yes	Yes	Yes
143.	Urine collection containers	Yes	Yes	Yes
144.	Test tubes including blood sample tubes	Yes	Yes	Yes
145.	Test Tube Racks	Yes	Yes	Yes
146.	Pipette Stands	Yes	Yes	Yes
147.	Hemoglobinometer	Yes	Yes	Yes
148.	Table lamp	No	Yes	Yes
149.	Lancets (pack)	Yes	Yes	Yes
150.	Tube Sealer	No	Yes	Yes
151.	Blood grouping Viewing Box	No	Yes	Yes
152.	Surgical Blades	No	Yes	Yes
153.	Test Tube Holder	Yes	Yes	Yes
154.	Baskets	No	Yes	Yes
155.	Wooden Boxes	No	Yes	Yes
156.	Hepatitis B & C and HIV AIDS Kits	No	Yes	Yes
157.	Reagent	No	Yes	Yes
158.	Gas Burner	Yes	Yes	Yes
159.	Stainless-Steel Test-Tube Racks	No	Yes	Yes
160.	Wooden Slides Box	Yes	Yes	Yes
161.	Glucometer and sticks	Yes	Yes	Yes
162.	Urine Testing kits	Yes	Yes	Yes
163.	RDT for Malaria	Yes	Yes	Yes
Linen				
164.	Bedsheet	Yes	Yes	Yes
165.	Pillow	Yes	Yes	Yes
166.	Pillow cover	Yes	Yes	Yes
167.	Towel (large and small)	Yes	Yes	Yes
168.	Tablecloth	Yes	Yes	Yes
169.	Blanket	Yes	Yes	Yes
170.	Curtain	Yes	Yes	Yes
171.	Dusting cloth	Yes	Yes	Yes
172.	Blinds	Yes	Yes	Yes
173.	Overcoat	Yes	Yes	Yes
174.	Staff Uniform	Yes	Yes	Yes
Transport				
175.	Ambulance	Yes (in selected BHUs)	Yes	Yes
176.	Jeep for field activities	No	No	Yes
177.	Motorcycle for field activities	Yes	Yes	Yes
178.	LHS vehicle	Yes	Yes	Yes
Miscellaneous				
179.	Office tables	Yes	Yes	Yes
180.	Officer Chairs	Yes	Yes	Yes
181.	Bench	Yes	Yes	Yes
182.	Blinds, Curtains, Screens for privacy	Yes	Yes	Yes
183.	Steel Almirah	Yes	Yes	Yes
184.	Wooden File Racks	Yes	Yes	Yes

Sr. No.	Equipment/Supplies Name	Availability (Yes/No)		
		8/6 BHU (Rural) Dispensary (Urban) GP Clinic (Pvt)	24/7 BHU Medical Centre (Urban) Medical centre (Pvt)	RHC Health Centre (Urban) Nursing Home (Pvt)
185.	Four-Seater Chairs	Yes	Yes	Yes
186.	Fog machine 60 litre	Yes	Yes	Yes
187.	Spray pumps (2)	Yes (2)	Yes (4)	Yes (8)
188.	Invertor AC	Yes (2 for patient waiting area)	Yes (3 for patient waiting area and labor room)	Yes (9 for patient waiting areas and Indoor and OT)
189.	Facility board/s	Yes	Yes	Yes
190.	Services availability board/s	Yes	Yes	Yes
191.	Room name plates	Yes	Yes	Yes
192.	Stationary and stationary items	Yes	Yes	Yes
193.	Table set and Pens	Yes	Yes	Yes
194.	Paper ream	Yes	Yes	Yes
195.	Health education display in waiting areas	Yes	Yes	Yes
196.	LCDs	Yes (1)	Yes (2)	Yes (6)
197.	Protocol display and chart booklets in provider's rooms	Yes	Yes	Yes
198.	Fire extinguisher	Yes	Yes	Yes
199.	Gardening tools	Yes	Yes	Yes

D. Essential Equipment, Supplies and Furniture – at First Level Hospital

Sr. No.	Equipment/Supplies/ Furniture	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
Emergency and Routine			
1.	First Aid box	Yes	Yes
2.	Electric Oven	Yes	Yes
3.	Beds with mattress	Yes	Yes
4.	N95/ Surgical masks & Personal protective equipment	Yes	Yes
5.	Emergency OT light	Yes	Yes
6.	Torch with batteries	Yes	Yes
7.	Oxygen Cylinder with flow- meter	Yes	Yes
8.	Ambu Bag (Paediatric)	Yes	Yes
9.	Ambu Bag (Adult)	Yes	Yes
10.	Suction Machine Heavy Duty	Yes	Yes
11.	Laryngoscope with 4 blades (Adult & Peds)	Yes	Yes
12.	Endotracheal tubes (all sizes)	Yes	Yes
13.	Oral Air Way (all sizes)	Yes	Yes
14.	Resuscitation Trolley	Yes	Yes
15.	Nebulizer	Yes	Yes
16.	Stethoscope	Yes	Yes
17.	BP Apparatus (Dial)	Yes	Yes
18.	BP apparatus Mercury (Adult & Paeds)	Yes	Yes
19.	Dressing Set for Ward	Yes	Yes
20.	Thermometer Clinical	Yes	Yes
21.	Drip stands	Yes	Yes
22.	Instrument Trolley	Yes	Yes
Growth Monitoring / Labour Room			
23.	Soap and soap tray	Yes	Yes
24.	Weighing machine (salter)	Yes	Yes

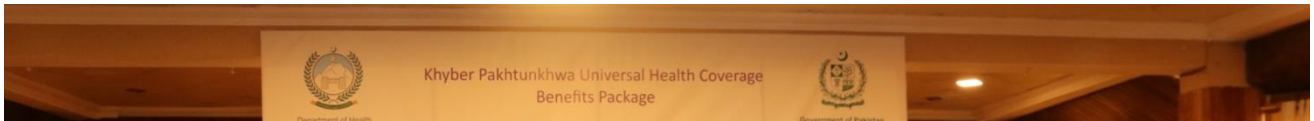
Sr. No.	Equipment/Supplies/ Furniture	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
25.	Weighing machine (Adult)	Yes	Yes
26.	Weighing machine (tray)	Yes	Yes
27.	Height-weight machine	Yes	Yes
28.	ORT Corner	Yes	Yes
29.	Feeding bowls, glasses & spoons	Yes	Yes
30.	Plain Scissors	Yes	Yes
31.	Demonstration table	Yes	Yes
32.	Delivery table (Labour Room)	Yes	Yes
33.	Delivery set (each contain) Partogram Kocher Clamp 6 inch Plain Scissors Tooth Forceps 1 Kidney Tray Needle Holder 7 inch Medium size Bowl Outlet Forceps 8 inch Macintosh sheets Torch with batteries	Yes	Yes
D&C set (each Contain)			
34.	Metallic Catheter Uterine Sound Sim's Speculum medium Set D&E Sponge Holders Hagar's Dilator 0-8 cm Kidney Tray Bowl 4 inch Bowl 10 inch Vulsellum 8 inch Set Uterine Curette Plain Forceps 8 inch Macintosh sheets Torch with batteries	Yes	Yes
Caesarean Section Set (each Contain)			
35.	Doven's retractor Green Army tag Big Bowl Cord Clamp 7 inch Kocher Clamp Straight 8 inch Kocher Clamp Curved 8 inch Towel Clip Artery Forceps 6 inch Allis Tissue Forceps 8 inch Needle Holder 8 inch Needle Holder 6 inch Kidney Tray Bowl 4 inch Vulsellum 8 inch Knife Holder 4 number Plain Forceps 7 inch Tooth Forceps 7 inch Curve Scissors Thread Cutting Scissors Sponge Holder 10 inch Vacuum Suction Apparatus Baby Resuscitation Apparatus	Yes	Yes

Sr. No.	Equipment/Supplies/ Furniture	Availability (Yes/No)			
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital		District Headquarter Hospital (A, B) / >100 bedded Private Hospital	
	Adult weighing scale Electric Suction Machine Autoclave Fetal Heart Detector Obs/Gyne: General Set Dressing Set for Ward Eclampsia beds with railing Baby Intubation set Examination Couch with wooden stairs Mucus Extractor Neonatal Resuscitation Trolley Incubator Macintosh sheets Torch with batteries				
Inpatient (Beds/Wards)					
36.	Bed with side table/locker	Yes		Yes	
37.	Electric Suction Machine	Yes		Yes	
38.	Electric Sterilizer Oven	Yes		Yes	
39.	Oxygen Cylinder with flowmeter and Stand	Yes		Yes	
40.	Stretcher	Yes		Yes	
41.	Examination Couch with wooden stairs	Yes		Yes	
42.	Wheelchair	Yes		Yes	
43.	Patient Screen	Yes		Yes	
44.	Air Ways (different sizes)	Yes		Yes	
45.	Suction Pump (Manual)	Yes		Yes	
46.	Drip Stand	Yes		Yes	
		Procedure Room	**Operation Theatre**	**Procedure Room**	**Operation Theatre**
47.	Examination Couch with wooden stairs	Yes	Yes	Yes	No
48.	Hydraulic Operation Table	No	Yes	No	Yes
49.	OT Light	Yes	Yes	Yes	Yes
50.	Gel for ultrasound	Yes	Yes	Yes	Yes
51.	ECG machine and roll	Yes	Yes	Yes	Yes
52.	Shadow less Lamps with 9 Illuminators	No	Yes	Yes	Yes
53.	Anaesthesia machine with ventilator	No	Yes	Yes	Yes
54.	Multi-parameter	No	Yes	Yes	Yes
55.	McGill forceps	Yes	Yes	Yes	Yes
56.	Patient Trolley	Yes	Yes	Yes	Yes
57.	Oxygen Cylinder (large size with regulator)	No	Yes	Yes	Yes
58.	Oxygen Cylinder (medium size with regulator)	Yes	Yes	Yes	Yes
59.	Nitrous oxide cylinder with regulator	Yes	Yes	Yes	Yes
60.	Instrument trolley	Yes	Yes	Yes	Yes
61.	Dressing Drum (large size)	Yes	Yes	Yes	Yes
62.	Stands for Dressing	Yes	Yes	Yes	Yes
63.	Basin	Yes	Yes	Yes	Yes
64.	Basin stands	Yes	Yes	Yes	Yes
65.	Towel Clips	Yes	Yes	Yes	Yes
66.	BP handle	Yes	Yes	Yes	Yes
67.	BP Blades	Yes	Yes	Yes	Yes
68.	Dissecting Forceps (Plain)	Yes	Yes	Yes	Yes
69.	Needle Holder (Large size)	Yes	Yes	Yes	Yes
70.	Sponge Holder Forceps (large)	Yes	Yes	Yes	Yes
71.	Skin Retractor (small size)	Yes	Yes	Yes	Yes
72.	Metallic Catheter (1-12)	Yes	Yes	Yes	Yes
73.	Dilator Complete Set	Yes	Yes	Yes	Yes

Sr. No.	Equipment/Supplies/ Furniture	Availability (Yes/No)			
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital		District Headquarter Hospital (A, B) / >100 bedded Private Hospital	
74.	Surgical Scissors (various size)	Yes	Yes	Yes	Yes
75.	Proctoscope	Yes	Yes	Yes	Yes
76.	Thames Splint V.S	Yes	Yes	Yes	Yes
77.	Rubber Sheet	Yes	Yes	Yes	Yes
78.	Scalpels 6"	Yes	Yes	Yes	Yes
79.	Allis Forceps Long	Yes	Yes	Yes	Yes
80.	Allis Forceps 6 inches	Yes	Yes	Yes	Yes
81.	Chaetal Sterilize Forceps 10'' long	Yes	Yes	Yes	Yes
82.	Introducer for Catheter	Yes	Yes	Yes	Yes
83.	Smith Homeostatic Forceps Curved	Yes	Yes	Yes	Yes
84.	Arm Splint different sizes	Yes	Yes	Yes	Yes
85.	Instrument Cabinet	Yes	Yes	Yes	Yes
86.	Spotlight	Yes	Yes	Yes	Yes
87.	Hand Scrub set with chemical	Yes	Yes	Yes	Yes
88.	Thermometer	Yes	Yes	Yes	Yes
89.	Laryngoscope adult/peds	Yes	Yes	Yes	Yes
90.	Kidney Tray S.S	Yes	Yes	Yes	Yes
91.	Stand for Drip	Yes	Yes	Yes	Yes
92.	Bucket	Yes	Yes	Yes	Yes
93.	Air Cushion (Rubber)	Yes	Yes	Yes	Yes
94.	Macintosh sheets	Yes	Yes	Yes	Yes
95.	Torch with batteries	Yes	Yes	Yes	Yes
96.	Gastric Tube	Yes	Yes	Yes	Yes
97.	Urine Collection Bags instrument trolley	Yes	Yes	Yes	Yes
98.	Generator	No	Yes	Yes	Yes
99.	Air-Conditioner (split 1.5 tons)	Yes	Yes	Yes	Yes
Dental Unit					
100.	Dental Chair	Yes		Yes	
101.	Light	Yes		Yes	
102.	Torch with batteries	Yes		Yes	
103.	Hand piece unit	Yes		Yes	
104.	Suction	Yes		Yes	
105.	Compressor	Yes		Yes	
106.	Dental hand instruments (set)	Yes		Yes	
107.	Aseptic Trolley	Yes		Yes	
108.	Dental Autoclave	Yes		Yes	
109.	Amalgamator	No		Yes	
110.	Dental X-ray unit	Yes		Yes	
111.	Intraoral X-ray film Processor	No		Yes	
112.	X-ray view box	No		Yes	
113.	Lead apron	Yes		Yes	
114.	Ultrasonic Scalar	No		Yes	
115.	Dental Operating stool	Yes		Yes	
116.	Ultraviolet sterilizer	No		Yes	
Lab Equipment and Reagents					
117.	Centrifuge (Bench Top)	Yes		No	
118.	Centrifuge Machine	Yes		No	
119.	Stopwatch	Yes		Yes	
120.	Ice Lined Refrigerator (ILR)	Yes		Yes	
121.	Small refrigerator	Yes		Yes	
122.	X-ray Machine	Yes		Yes	
123.	Dark room accessories	Yes		Yes	
124.	X-ray films (All Size)	Yes		Yes	
125.	X-ray illuminator	Yes		Yes	

Sr. No.	Equipment/Supplies/ Furniture	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
126.	Needle cutter/ Safety Boxes	Yes	Yes
127.	Availability of Ultrasound & ECG Services	Yes	Yes
128.	Laboratory Chemicals	Yes	Yes
129.	Binocular Microscope	Yes	Yes
130.	Urine meter (bag)	Yes	Yes
131.	DLC Counter	Yes	Yes
132.	Haemocytometer	Yes	Yes
133.	ESR Racks	Yes	Yes
134.	ESR Pipettes	Yes	Yes
135.	Water Bath	Yes	Yes
136.	Centrifuge Tubes (Plastic)	Yes	Yes
137.	Centrifuge Tubes (Glass)	Yes	Yes
138.	Glass Pipettes various sizes corrected	Yes	Yes
139.	Jester Pipettes Fixed – various sizes	Yes	Yes
140.	Jester Pipettes Adjustable – various sizes	Yes	Yes
141.	Sputum collection containers	Yes	Yes
142.	Urine collection containers	Yes	Yes
143.	Test tubes including blood sample tubes	Yes	Yes
144.	Test Tube Racks	Yes	Yes
145.	Pipette Stands	Yes	Yes
146.	Hemoglobinometer	Yes	Yes
147.	Table lamp	Yes	Yes
148.	Lancets (pack)	Yes	Yes
149.	Tube Sealer	No	Yes
150.	Blood grouping Viewing Box	No	Yes
151.	Surgical Blades	No	Yes
152.	Test Tube Holder	Yes	Yes
153.	Baskets	No	Yes
154.	Wooden Boxes	No	Yes
155.	Hepatitis B & C and HIV AIDS Kits	Yes	Yes
156.	Reagent	No	Yes
157.	Gas Burner	Yes	Yes
158.	Stainless-Steel Test-Tube Racks	No	Yes
159.	Wooden Slides Box	Yes	Yes
160.	Glucometer and sticks	Yes	Yes
161.	Urine Testing kits	Yes	Yes
162.	RDT for Malaria	Yes	Yes
Linen			
163.	Bedsheet	Yes	Yes
164.	Pillow	Yes	Yes
165.	Pillow cover	Yes	Yes
166.	Towel (large and small)	Yes	Yes
167.	Tablecloth	Yes	Yes
168.	Blanket	Yes	Yes
169.	Curtain	Yes	Yes
170.	Dusting cloth	Yes	Yes
171.	Blinds	Yes	Yes
172.	Overcoat	Yes	Yes
173.	Staff Uniform	Yes	Yes
Transport			
174.	Ambulance	Yes	Yes
175.	Jeep for field activities	No	No
176.	Motorcycle for field activities	Yes	Yes

Sr. No.	Equipment/Supplies/ Furniture	Availability (Yes/No)	
		Tehsil Headquarter Hospital (C, D) / <100 bedded Private Hospital	District Headquarter Hospital (A, B) / >100 bedded Private Hospital
177.	LHS Vehicles (If LHWP functional at THQ/DHQ hospital)	Yes	Yes
Furniture			
178.	Office tables	Yes	Yes
179.	Officer Chairs	Yes	Yes
180.	Bench	Yes	Yes
181.	Blinds, Curtains, Screens for privacy	Yes	Yes
182.	Steel Almirah	Yes	Yes
183.	Wooden File Racks	Yes	Yes
184.	Four-Seater Chairs	Yes	Yes
185.	Fog machine 60 litre	Yes	Yes
186.	Spray pumps (2)	Yes (8)	Yes (16)
187.	Invertor AC	Yes	Yes
188.	Facility board/s	Yes	Yes
189.	Services availability board/s	Yes	Yes
190.	Room name plates	Yes	Yes
191.	Stationary and stationary items	Yes	Yes
192.	Table set and Pens	Yes	Yes
193.	Paper ream	Yes	Yes
194.	Health education display in waiting areas	Yes	Yes
195.	LCDs	Yes	Yes
196.	Protocol display & chart booklets in provider's rooms	Yes	Yes
197.	Fire extinguisher	Yes	Yes
198.	Gardening tools	Yes	Yes



Health Department
Khyber Pakhtunkhwa