

HUMAN CAPITAL PLAN



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Executive Summary

There is abundant literature that points out to the importance of human capital formation, for overall economic development. The average growth rate of Punjab is 2.13%¹, and more than one fourth of its population is of school going age². This points out to the importance of investing in Punjab's largest resource: its populace. Unfortunately, the southern parts of the province have faced considerable neglect, during the course of the country's history. Due this historical neglect; health and education are below par, compared to the rest of the province. This has in turn impacted overall sustained economic development. Hence, it is imperative to understand and remedy the current socioeconomic factors that impede the progress of human capital formation.

Health is a critical element in human development and has significant impact on social progress. Investing in the health of a society is essential to enhance the productivity of workforce. Presently, Bahawalpur Division, which suffers from low performance on the major health indicators like infant mortality rates, Antenatal Care (ANC), number of doctors etc., is a serious cause of concern. The overall objective of the health sector plan is to analyse the accessibility and outreach of health services and to see how public service delivery of health services can be improved through integrated regional planning, with short, medium- and long-term targets.

Education is critical for human development, economic growth and sustained development. No nation can progress without investing in the education of its populace. Unfortunately, the state of education, literacy and education related outcomes are dismal for the division of Bahawalpur. The division ranks below the provincial average, on almost every education related outcome. The overall objective of the plan is thus to identify gaps in the educational set up of the division. And suggest short, long- and medium-term projects; to improve overall public service delivery in education.

¹ Punjab Education Sector Plan, 2019/2020-2023/2024

² Ibid

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Introduction

Poverty is a major stumbling block in the bid to achieve growth with development. Measuring poverty is crucial because it is a key determinant of living standards and the performance of a region across other socio-economic indicators. In Bahawalpur, 38% of the population, on average, is categorized as poorest according to the Wealth Quintile Index³. This number includes a fairly high proportion of the population and is also significantly higher than the overall average of poorest population in Punjab, of 20%. This statistic thus, is indicative of disparity in the social and living standards in Bahawalpur Division relative to Punjab.

The following Figure presents Multidimensional Poverty⁴ assessments by measuring the non-income-based dimensions of poverty, to provide a more comprehensive assessment of the extent of poverty and deprivation in Bahawalpur Division and Punjab province. MPI allows us to track deprivation across three dimensions: health, education and living standards. And further breaks down these dimensions into indicators, to provide an overall holistic understanding of social development. The figure below illustrates that the division of Bahawalpur performs below the provincial average, in nearly all the indicators.

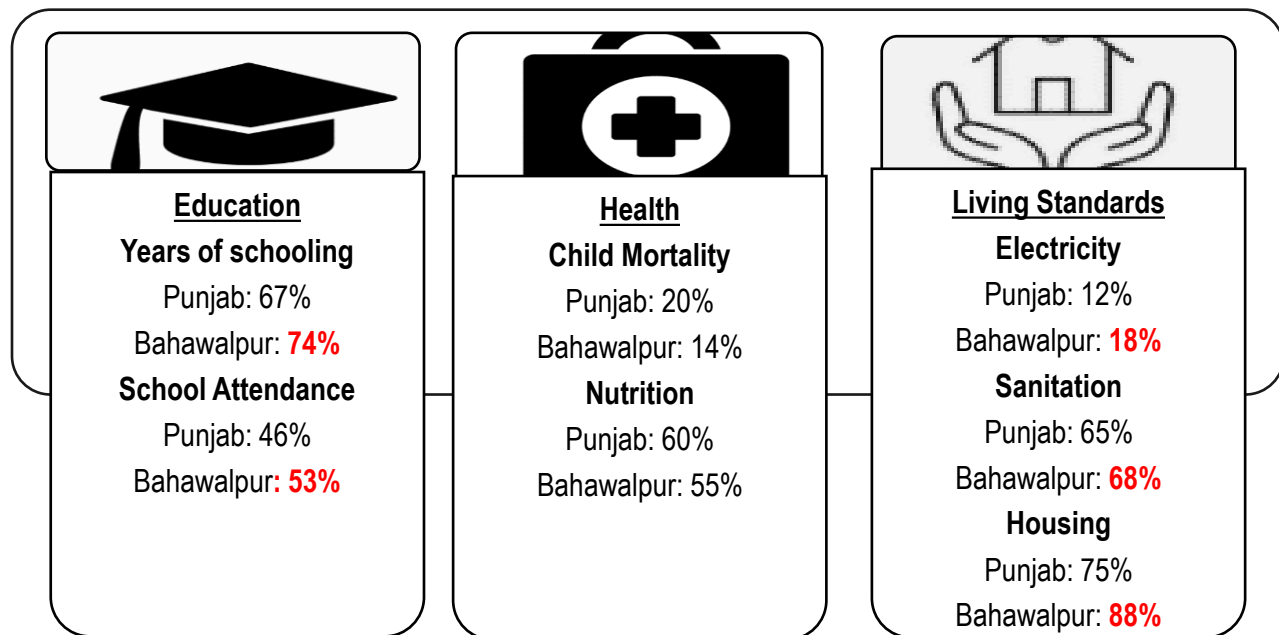


Figure 1: Percentage of the population who are MPI poor and deprived in each indicator, by selected characteristics, Punjab (2017-18)

Source: MICS, 2017-2018

³ MICS 2017-2018

⁴ MICS 2017-2018

Overall the figure above indicates that on average, more children in Bahawalpur division are deprived of schooling and exhibit lower attendance rate, than provincial average. For health also, child mortality and nutrition are higher than provincial average. And a greater percentage of people are deprived of basic facilities such as electricity, sanitation and housing; relative to the rest of the province.

This assessment of MPI across its seven indicators, betters our understanding of the social deprivations of the division. It first identifies which of these seven deprivations across the province each household experiences.

More specifically it reflects the following deprivations:

1. Adult or child malnourishment
2. Disrupted or curtailed schooling (a minimum of years 1-8)
3. The absence of any household member who has completed 6 years of schooling
4. Child mortality within the household within the last 5 years
5. Lack of access to basic sanitation services
6. Lack of basic housing
7. Lack of access to reliable electricity

As demonstrated in the figure below, the overall social deprivations of the people of Bahawalpur division, is quite profound. The figure below shows that about forty-one to fifty-five percent of the division's population, are multi-dimensionally poor. And hence face deprivations in health, education and living standards.

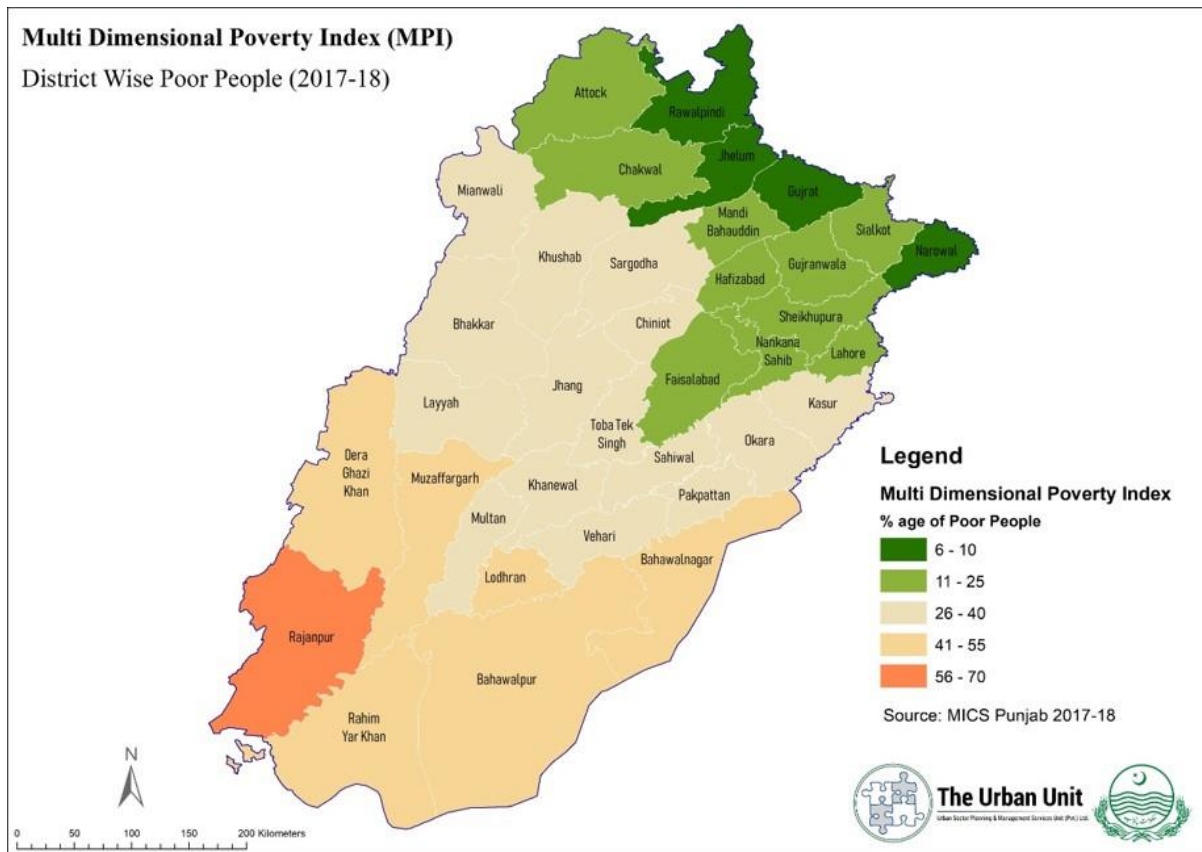


Figure 2: Multidimensional Poverty Index, MICS 2017-18
Source: The Urban Unit database

Health

The overall performance of health-related indicators, is below provincial average. As per the statistics, food insecurity is another pervasive issue in Bahawalpur Division with 22% of the population being moderately to severely food insecure when compared with Punjab average of 16%.⁵ This situation culminates into several other socio-economic challenges that have a negative bearing on the overall quality of life – Malnutrition in children is one such problem.

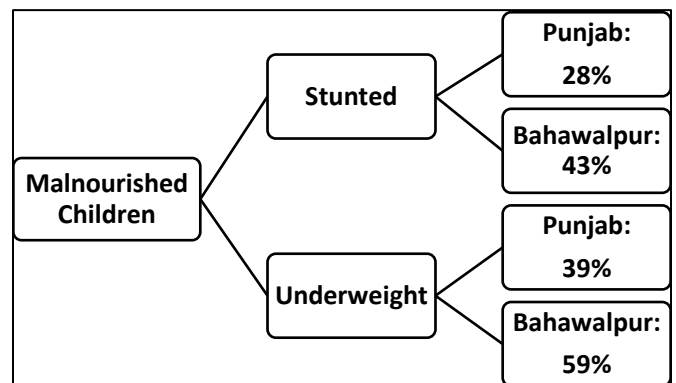


Figure 3: Stunted and Underweight Children
Source: MICS 2017-18

⁵ PSLM, 2019

Nearly half of all deaths in children under 5 are attributable to undernutrition; undernutrition puts children at greater risk of dying from common infections, increases the frequency and severity of such infections, and delays recovery.⁶ Child Stunting and underweight Children are a manifestation of prevalence of Malnutrition. The following statistics present a grim situation of nutritional status of children under five in Bahawalpur Division, on average, when compared with Punjab.

District Health Authorities (DHA) of each district are responsible for the delivery of key health services to the people, through a total network of one DHQ (District Headquarter Hospital), 11 THQs (Tehsil Headquarter Hospitals), 41 Rural Health Centres (RHC), 134 Basic Health Units (BHU), and three specialized hospitals at urban and rural level. Spatial spread of the health facilities indicates that the coverage of RHCs, THQs and DHQs seems insufficient due to this huge geographic spread of the region, while there is enough coverage of BHUs in settled areas. Moreover, Cholistan desert is lacking from basic health facilities.

For the identification of gaps and other operational issues existing in the health sector of the Bahawalpur region, secondary sources (provincial reports including BOS, MICS, PSLM/HIES etc.) and data available at existing HMIS (District Health Information System dashboard) were reviewed. Primary data collected through field visits to health facilities and stakeholders' consultation (including DGHS South Punjab, DDHS Bahawalpur division, MD Cholistan Development Authority CDA and CEO District Health Authority) were also consulted.

The major gaps identified were inadequate access and coverage to health facilities, lack of qualified human resource, missing or non-functional equipment, inadequate M&E criteria for health system management, inadequate primary structure in urban areas, lack of family and household data and deprived nomadic population of remote areas.

The integrated healthcare model for Bahawalpur Division regional plan is based on three major approaches, which include holistic ecosystem approach of health coverage and delivery, life course approach for MCH and nutrition, and digital healthcare approach for remote areas. Lastly, a list of the proposed projects is developed, which is divided into two parts, where the first part includes short- and medium-term projects including improving health facility access through OPD Clinics/ Sehat Ghar, provision of missing facilities, provision of missing HR, upgrading of THQs, Mobile Health Vans and digital health ecosystem etc., while the

⁶ UNICEF data, 2021

second part includes long-term projects including provision of new blocks / extension of Tertiary Care, medical education, and medical R&D etc.

Education

The overall performance of the education sector of Bahawalpur division is way below that of Provincial average, thus indicating various institutional and governance challenges that have resulted in this. As far as key performance indicators are concerned, they all underscore the problem of low participation in formal education in the division, which intensifies with higher levels of education.

The overall education system is bifurcated across three levels: School education, Higher education and Technical skills and Vocational training. Additionally, District Education Authority is responsible for the service delivery of education in the region. As far as Public sector education facilities are concerned there are in total 5358 Primary schools, 991 Middle schools, 618 lower secondary and only 69 Higher-secondary educational facilities. These numbers highlight how there is a sheer supply-side constraint in the post-primary education facilities in the Bahawalpur division. Moreover, among other things, this factor has a key bearing on the low enrollment rates in all the districts of Bahawalpur relative to Punjab as highlighted by the PSLM 2019 report.

For the identification of gaps and other operational issues existing in the education sector of the Bahawalpur region, secondary sources (provincial and district wise reports including MICS, PSLM, ASER, ASC etc.) and data available at existing School Information System (District Education Information System dashboard) was reviewed. In addition to that, Primary data has also been incorporated through field visits that were conducted to various education facilities, including:

- Primary, Middle & High School (School Education Department)
- Female High School (Cholistan)
- Primary, Middle, High Schools (Community Schools)
- Five Mobile Schools (Derawar Fort & greater Cholistan area).

Furthermore, stakeholders' consultation was also a key component to assess the existing situation of the educational landscape of Bahawalpur division. To this end, following stakeholders were consulted:


- Education Team (School Education Department)
- Director (Punjab Education Foundation)
- MD, CDA Cholistan
- DD Development, Bahawalpur

- DD, Literacy, Bahawalpur
- Sec. Education, South Punjab
- CEO Education, Bahawalpur
- CEO Education, Rahim Yar Khan

These rapid assessments really aided in understanding the local educational landscape of Bahawalpur division. This helped to identify the stark urban-rural socioeconomic divide, regional migratory patterns, supply sided constraints (accessibility, infrastructure, quality) and Demand-sided constraints (teachers, parents, students focus group discussions) which have led to underperformance in most performance indicators.

As a result of these pervasive challenges, MICS 2018 and PSLM 2019 reports highlight how for one due to historical neglect and lagging development in the region the literacy rates and foundational learning skills [literacy and numeracy] are significantly lower than Punjab. Furthermore, compounded by this factor and continual institutional negligence, various reports indicate that the school education sector of the Bahawalpur division is marked by poor quality of infrastructure, high proportion of out of school children, low enrollment & attendance rates, low completion and transition rates; hence low student retention rates. In addition to that, while Higher education also gets impacted by these deficiencies in school education, few HEC recognized higher education facilities only make the situation graver for the educational landscape of Bahawalpur division.

The following chapters describe the state of social development in the Bahawalpur division of Punjab. The chapters include a thorough analysis of health, education and the skills sector of the region.



HEALTH SECTOR PLAN



Chapter 1: Health Sector Plan

1.1 Introduction and Background

Bahawalpur is a division of South Punjab which is situated at the Southern edge of the province and on the border of Sindh province. This health sector plan is a crucial component of Human Capital plan under the regional economic plan of Bahawalpur. The health plan aims at identifying the potential projects programs that can contribute to equitable and inclusive quality healthcare services to the masses of the division. The unique feature of this analysis is that it uses blend of both quantitative data (spatial and non-spatial secondary data sets and qualitative data (collected through field visits and stakeholders' consultations in conjunction with on ground assessments with local stakeholders) to rapidly develop a health sector plan that can be put into execution in the shortest period of time. Such a plan will provide a strategic vision for the socioeconomic development of the region as the local community will have a voice in the overall planning process in the province.

1.1.1 Objectives and Scope of Work

The overall objective of the health sector plan is to analyse the accessibility and outreach of health services and to see how public service delivery of health services can be improved through integrated regional planning. The scope of work is as follows:

- A comprehensive situation analysis of health facilities in Bahawalpur division with benchmarking with provincial landscape
- Identification of unserved and underserved areas by facilities location through GIS based maps (subject to availability of spatial coordinates and data)
- Identification of development or upgradation needs for existing facilities and infrastructure through stakeholder engagement
- Brief Health Sector Plan (with short, medium- and long-term targets), incorporating demand-based project pipeline for ADP, PSDP and donor funding

1.1.2 Methodology and Framework

First of all, for overall situation analysis of the existing health facilities in the Bahawalpur division, both primary and secondary data will be collected using mixed methodology (both quantitative and qualitative) and all the secondary data sets, survey reports and departmental data sets (DHMIS) have been consulted. Then, these datasets have validated using ground assessment through field visits and stakeholder consultations to assist in identifying the gaps and operational issues prevailing in the division regarding healthcare outreach and

service delivery. In addition, spatial accessibility analysis was also performed to develop an integrated short-, medium- and long-term health targets, identify types of intervention needed through site assessment and give an overall project direction for an integrated social development plan.

For the identification of gaps and other operational issues existing in the health sector of the Bahawalpur region, various secondary sources have been reviewed including provincial reports (PDS, MICS, PSLM/HIES etc.) and District Health Information System (DHIS) dashboard. Moreover, primary data was also collected through an initial field visit of the Urban Unit team to health facilities in Bahawalpur and Rahim Yar Khan districts, in August and September 2021. Key stakeholders including Director General Health Services (DGHS), Divisional Director Health Services (DDHS) Bahawalpur division, Managing Director (MD) Cholistan Development Authority (CDA), and CEO District Health Authority (DHA) of all three districts were also consulted.

The following steps of research framework have been adopted:

- Collection of Secondary Data
- Collection and Access to Departmental data and ports (DHIS)
- Review of data, literature and desk research
- Ground assessment through field visits
- Stakeholder consultation and meetings
- Situation Analysis to identify gaps and challenges of the health sector
- Development of short-, medium- and long-term plan

1.2 Baseline Statistics of Healthcare in Bahawalpur

Health is a critical element in human development and has significant impact on social progress. Investing in the health of a society is essential to enhance the productivity of workforce by increasing their physical capabilities, which include strength and endurance. Presently, Bahawalpur Division, which have highest Multidimensional Poverty Index (MPI) and poor health indicators as compared to other divisions in the province, is a serious cause of concern. However, the whole division suffers from high disparity in terms of health with relatively low performance on the major health indicators like infant mortality rates, antenatal care, number of doctors etc.

The figure below depicts the health-related disparities and priority zones, based on the Health Dimension Index, incorporating major health indicators like Infant mortality rate, child mortality rate (aged under 5),

population diagnosed with major diseases (Hepatitis and Tuberculosis), immunization coverage and percentage of cases for pre- and post-natal consultation. It can be seen that the district Bahawalnagar is high priority district in terms of healthcare provision and performance. Similarly, district Bahawalpur and district R.Y. Khan is medium-high priority districts in terms of health provision and performance.

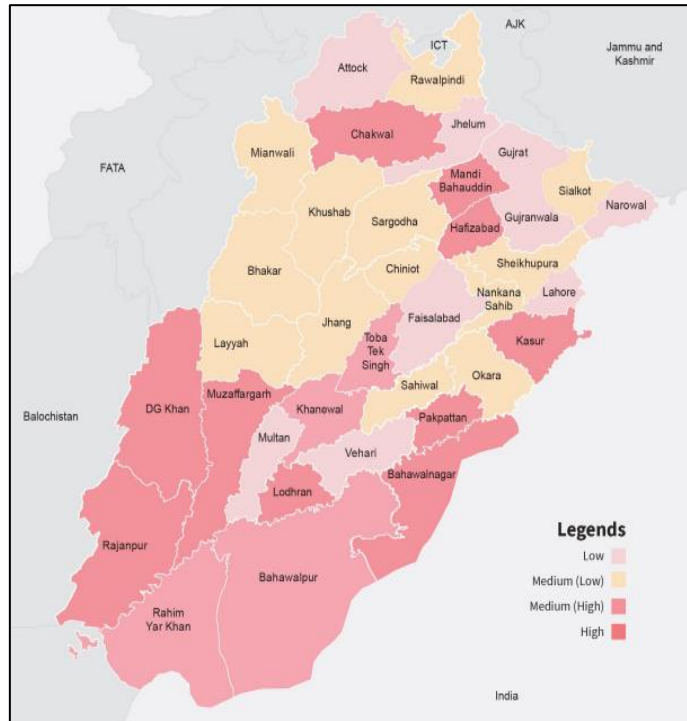


Figure 4: Priority areas for health interventions
Source: Punjab Spatial Strategy (PSS) 2047

1.2.1 Existing Health Infrastructure

The Bahawalpur region covers the districts of Bahawalpur, Bahawalnagar and Rahim Yar Khan. District Health Authorities (DHA) of each district are responsible for the delivery of key health services to the people, through DHQs (District Headquarter Hospitals), THQs (Tehsil Headquarter Hospitals), Rural Health Centres (RHC), Basic Health Units (BHU), and Rural Dispensary (RD) at urban and rural level. The health infrastructure in Bahawalpur division is given below:

Table 1: Health facilities in Bahawalpur Division

Facility Type		Bahawalnagar	Bahawalpur	Rahim Yar Khan
DHQs	No.	1	0*	0*
	Beds	535	0	0
THQs	No.	4	4	3
	Beds	232	212	200
RHCs (all)	No.	10	12	19
	Beds	148	240	356
BHUs (all)	No.	58	27	49
	Beds	115	54	98
Teaching / Specialized Hospital	No.	0	2	1
	Beds	0	1,920	954

Source: Cholistan Development Authority (CDA), District Health Information System (DHIS) and Punjab Health Management Facilities Company Office (PHFMC)

Note: *these districts have tertiary care /teaching hospitals instead of DHQs

The spatial location of the above-mentioned health facilities is shown in the following maps, the locations of BHUs are shown as:

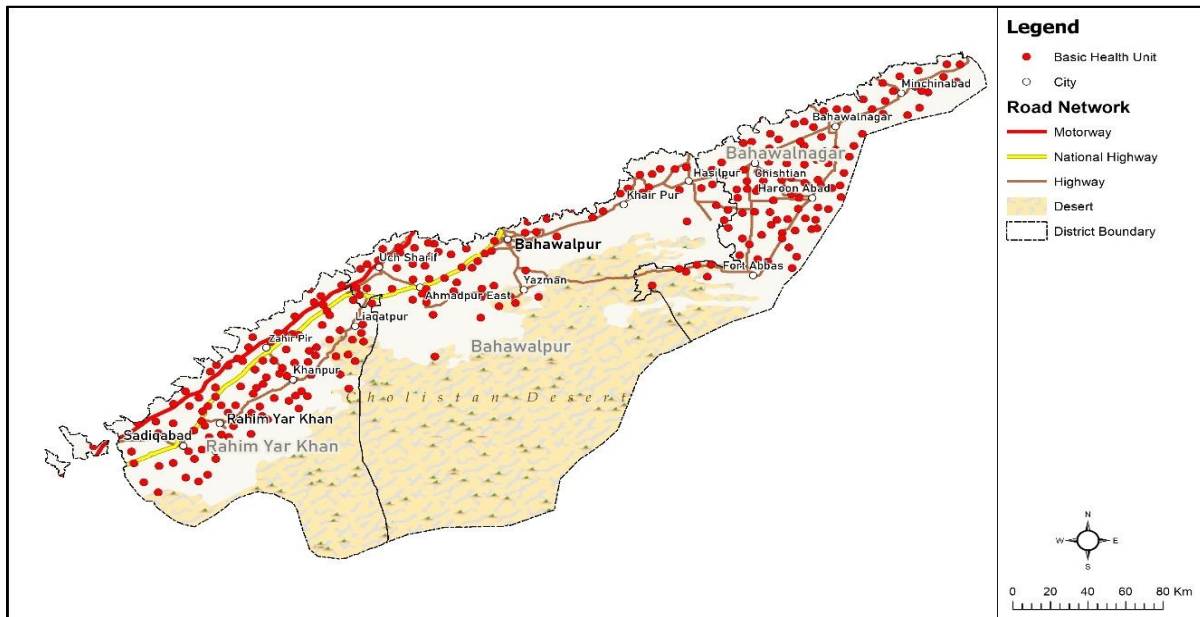


Figure 5: Spatial Coverage of Basic Health Units (BHUs) in Bahawalpur division
Source: The Urban Unit Mapping based on DHIS/ P&SHD Data

Similarly, the locations of the RHCs, THQs and DHQs are depicted below in the Figure 6:

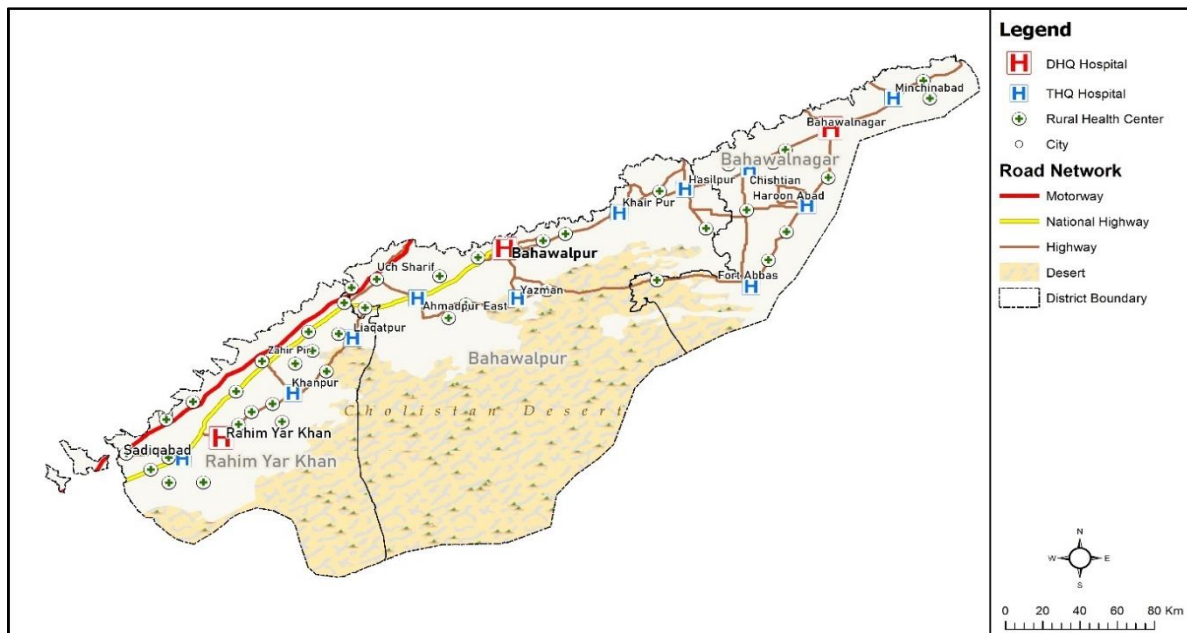


Figure 6: Spatial Coverage of Hospitals (RHCs, THQs and DHQs) in Bahawalpur division
Source: The Urban Unit Mapping based on DHIS/ P&SHD Data

The division's area ranges from Michinabad in North-East to Sadiqabad in South-West. Total area of this division is around 45,588 Sqkm (i.e., 11,265,040 acres), including 6,655,360 acres of Cholistan desert (of which 4,028,217 acres in Bahawalpur district, 1,011,200 in Bahawalnagar and 1,615,965 acres in RY Khan district).

The above Figure 6 shows enough coverage of BHUs in settled areas of the division, however, Cholistan region is lacking these basic facilities. However, the coverage of RHCs, THQs and DHQs seems insufficient due for this huge geographic spread of the region. The total population of the division is 1,1452,594 with rural population of 8,629,763 and urban share of 2,822,831. Average annual growth of Bahawalpur division is 2.15 by which urban growth rate is 2.78 and rural is 1.96. Whereas average household size of Bahawalpur division is 6.43 along with population density is around 251.22 per Sq km.

1.2.2 Existing Healthcare Performance

Bahawalpur division has an alarming rate of under-five mortality i.e., 69 lives per 1000 births. This is very far away from SGD target 2030 of 25 lives per 1000 births. The figure below shows the major child healthcare

indicators in Bahawalpur Division as compared to the overall province average and the global Sustainable Development Goals (SDG) target for the year 2030.

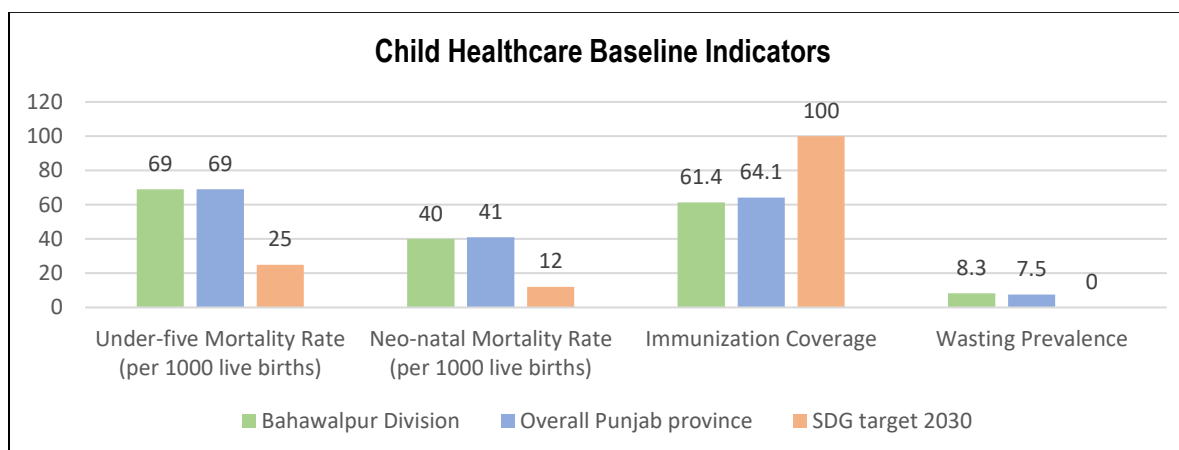


Figure 7: Child Healthcare Indicators of Bahawalpur division, Punjab province and the SDG targets 2030
Source: MICS 2017-18

For achieving these global targets, there is a need to improve the existing health infrastructure and to increase the accessibility of the unserved and marginalized population in the region.

Following table compares the health-related indicators in Bahawalpur, Bahawalnagar and Rahim Yar Khan districts with the provincial average, to give an indication of the overall performance of the existing healthcare system in each district. The red boxes indicate that the districts are performing low as compared to the province average, thus targeted interventions should be introduced as per the existing situation.

Table 2: Comparison of Bahawalpur, Bahawalnagar and Rahim Yar Khan districts with Punjab average

Indicators	Bahawalpur	Bahawalnagar	Rahim Yar Khan	Punjab Average
Input Indicators				
Provision of Antenatal Care By Medical Doctor(%)	62.5	62.3	59.8	68.1
Provision of Antenatal Care By Nurse/ Midwife(%)	4.3	17.6	3.1	14.3

Post-Natal Health Check For The Newborn(%)	53.8	74.6	66.0	69.6
Post-Natal Health Check For The Mother(%)	56.2	75.6	63.7	70.7
Pre-Natal Consultation	89	73	77	83
Post-Natal Consultation	30	26	43	42
Output Indicators				
Infant Mortality Rate(%)	61.2	61.7	56.4	60.2
Under-Five Mortality Rate(%)	71.5	70.5	66.3	68.9
Post-Neonatal Mortality Rate(%)	21.4	18.7	17.7	19.2
Children Under 5 Suffering From Diarrhea In Past 15 Days(No.)	9	4	2	6
Children Aged 12-23 Months That Have Been Fully Immunized Based On Record(%)	77.0	65.0	65.0	81.0
Treatment Of Diarrhoea In Children Under 5 Years Where a Practitioner Was Consulted	99.0	93.0	92.0	90.0
Pregnant Women That Have Received Tetanus Toxoid Injection(%)	87.0	73.0	53.0	83.0
Percentage with comprehensive knowledge of HIV	10.05	5.26	4.33	9.40

Source: PSLM 2019-20 and MICS 2018

In addition to above-stated facts, the care seeking behavior of the population is not satisfactory in the region. During diarrhea and fever cases, 22.9% and 16.1% of children in Bahawalpur division did not seek advice or treatment from a health facility respectively⁷. If the population is not aware of diseases and healthcare options, it keeps them from taking preventative actions and improving their health. Policy makers need to understand the drivers of health seeking behavior of the population and introduce targeted demand generation strategies for raising health awareness and improving the maternal education level. Only 9.2% of

⁷ MICS 2017-18

women in Bahawalpur division have the knowledge mother-to-child transmission of HIV, which can put a risk to child's health. Lack of awareness can also be divisive in society and can affect quality of life, for instance about 64.7% of the men in the division reported discriminatory attitudes towards people living with HIV⁸.

The following figure shows the change in OPD per capita in primary & secondary and tertiary health care facilities in the districts of Bahawalnagar, Rahim Yar Khan and Bahawalpur⁹, against the overall Punjab OPD per capita. This indicator shows the extent of facility utilization by the population, giving an indirect indication of public trust on health services. OPD per capita is seen to be decreasing in Bahawalpur and Rahim Yar Khan.

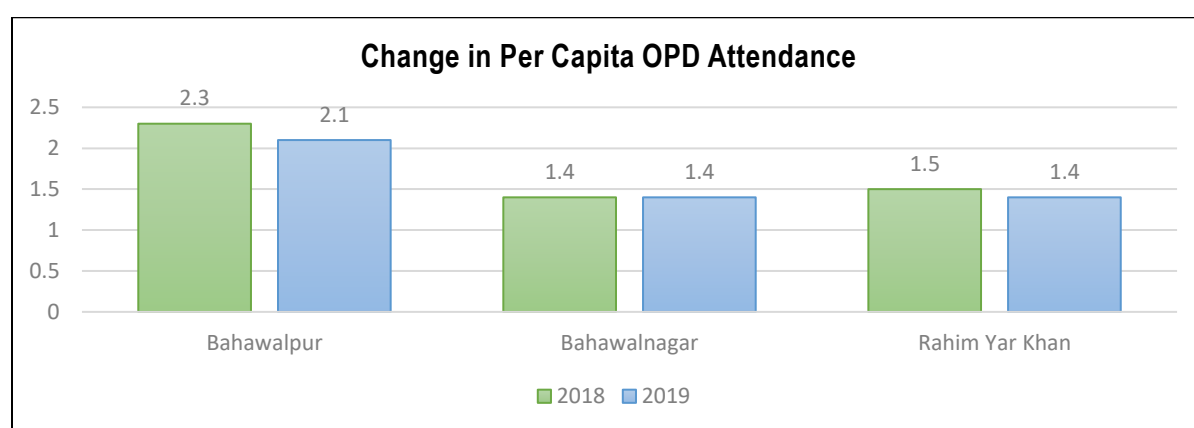


Figure 8: Change in per capita OPD attendance
Source: DHIS 2019-20

However, measuring the quality of patient's trust, satisfaction or other intangible service products is a great challenge and can be linked to other indicators such as availability of Human Resources, availability of medicine etc. In Bahawalpur division, more than half of the patients for one of the top diseases in the region i.e., Acute Respiratory Infection (ARI), reached out to private health facilities for advice and treatment as shown in the table below. While only a small proportion of respondents reported availing the facilities of public facilities which raise the question why citizens are not availing the public services.

⁸ MICS 2017-18

⁹ These are district level indicators, no Cholistan specific data is available

Table 3: HH satisfaction level of BHUs

Care seeking behavior during Acute Respiratory Infection (ARI) - top disease						
		Bahawalpur	Bahawalnagar	Rahim Khan	Yar	Province Average
Advice or treatment was sought from	Public HF (%)	20.4	19.6	12.0		16.3
	Private HF (%)	59.5	59.7	75.4		63.6
No advice or treatment sought		15.8	10.5	11.2		13.5
Public Perception (in percent)						
HH satisfaction level by BHUs		57.62	75.62	67.82		71.92

Source: PSLM 2019-20

Diarrhoea/Dysentery, Acute (upper) Respiratory Infections (AURI), Fever, Scabies, Diabetes Mellitus and Peptic Ulcer Diseases are the most common diseases reported by the health facilities. The graph below shows the age wise and gender wise percentage distribution of new OPD patients attending the health facility in Bahawalpur Division for the year 2020-21. The figure shows that the female patients are the maximum number of patients catered by the health facility, specifically in age group 15-49 years. On the other hand, children under 5 years or elderly patients are availing less health services. Thus, high demand of female patients should be efficiently catered to by the administration.

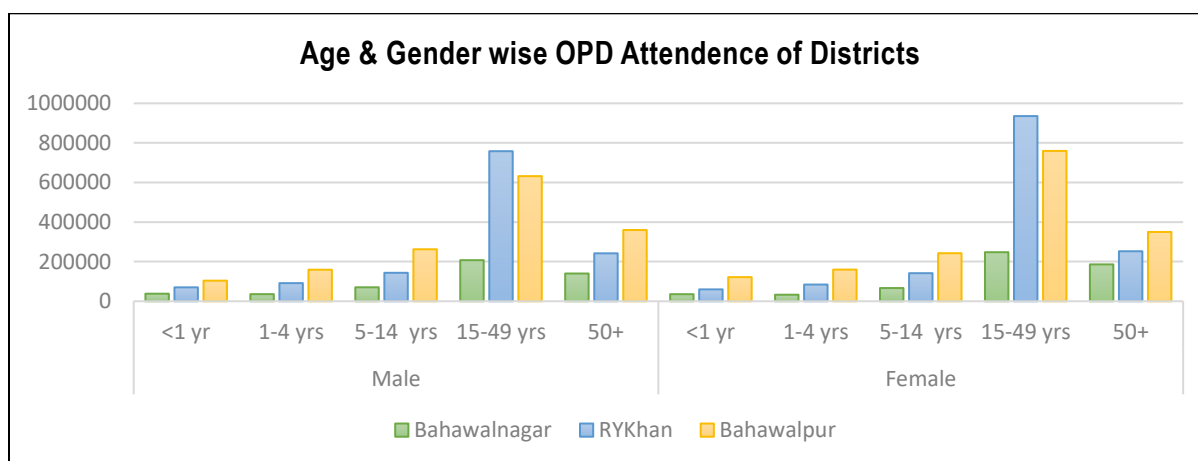


Figure 9: Age and Gender wise OPD attendance in Bahawalpur Division
Source: Data extracted from DHIS (October 2020-21)

1.3 Rapid Assessment and Stakeholder Consultation

1.3.1 Rapid Assessment: Field Visits

The Urban Unit healthcare sector team visited various health facilities in the division Bahawalpur during October 2021. The team visited following health facilities:

1. OPD and various departments (OT, Wards, Pharmacy etc.) of the Sheikh Zayed Teaching Hospital Rahim Yar Khan
2. Tehsil Headquarter (THQ) Liaquatpur in Rahim Yar Khan (visited OT, Wards, and building etc.)
3. Rural Health Center (RHC) Tarinda Saway Khan
4. Rural Health Center (RHC) Mubarak Pur,
5. Basic Health Unit (BHU) Goth Mehrab,
6. Basic Health Unit (BHU) Chak Lohara
7. Basic Health Unit (BHU) Hatheji.



Figure 10: Rapid Assessment Field Visits of Health Facilities of Bahawalpur Division

In addition to above-mentioned field visits, the data was collected through phone calls and email for remaining facilities.

1.3.2 Stakeholders Consultation and Meetings

The Urban Unit healthcare sector team during field visit for rapid assessment of various health facilities in the division Bahawalpur in October 2021, also met various officials and stakeholder.



Figure 11: Stakeholder Consultations and Meetings in Bahawalpur Division

The list of the stakeholder consulted are as under:

1. DHO (CDC) and DHO (HRM) at CEO District Health Authority office in Rahim Yar Khan
2. Medical Superintendent at Sheikh Zayed Teaching Hospital Rahim Yar Khan
3. MS, Tehsil Headquarter (THQ) Liaquatpur in Rahim Yar Khan
4. CEO District Health Authority (DHA) Bahawalpur
5. District Health Officer (DHO) CDC Bahawalpur
6. Divisional Director Health Services (DDHS), Bahawalpur
7. Director General Health Services (DGHS) South Punjab
8. Deputy Secretary (IRMNCH) South Punjab.

In addition to above-mentioned meetings, the number of meetings were conducted online (over zoom) for consultations with other stakeholders of CEO, DHAs.

1.4 Situation Analysis: Identification of Gaps and Challenges

Based on aforementioned data sources, stakeholder sessions and rapid assessments, following gaps were identified:

1.4.1 Access and Coverage

According to the recent census, the average annual growth rate of Bahawalpur province is 2.15%¹⁰. The region is experiencing a rapid growth, where the average annual population growth rate has increased from 7.6 million during 1981-98 Census to 11.5 million in 2017 Census, showing increased pressure on existing health infrastructure in the city. Population growth in urban areas (2.78%) is slightly higher than in rural areas (1.96%).

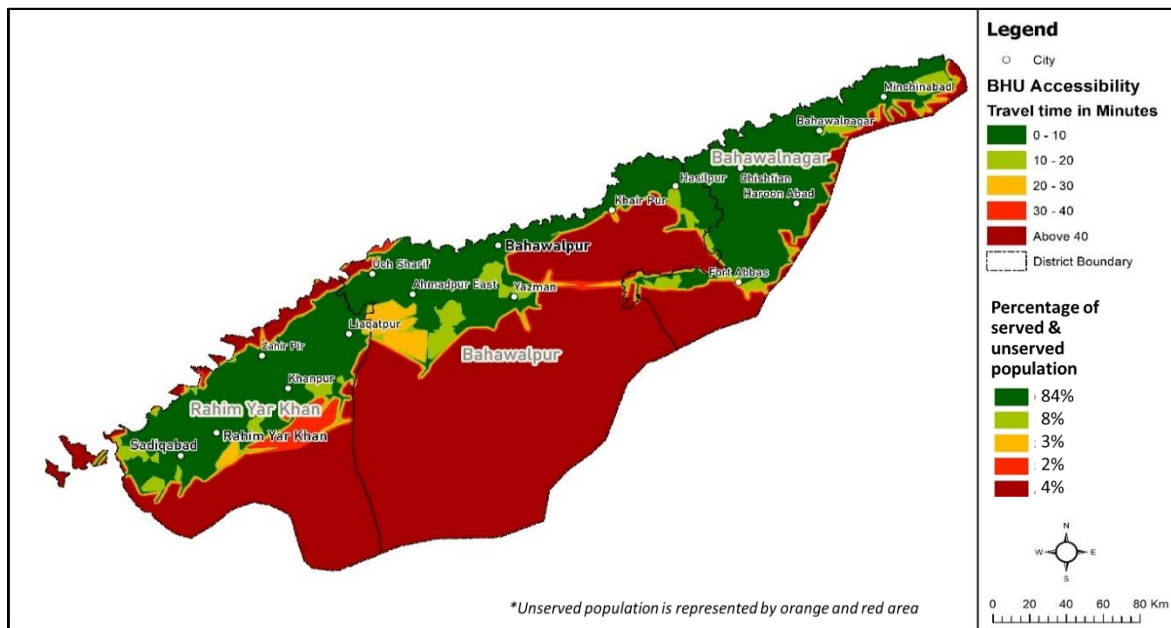


Figure 12: BHUs Accessibility Map
Source: Urban Unit database

The current model of Punjab health system includes at least one BBU at each UC, while RHC is established on cluster of BHUs. Each tehsil has a THQ and there is one DHQ at district level. Initially, the BBU was designed for the population of 15K-20K in UC. Currently, UC population increased from 20K to 50K, so, BBU is not sufficient. In Bahawalpur, some new UCs are lacking BBU, and some have more than one. Nomadic population of remote areas in of Cholistan desert are completely deprived of health facilities as shown in the figure above. Similarly, the RHC, THQ and DHQ accessibility is shown in following figures:

¹⁰ Population Census 2017-18

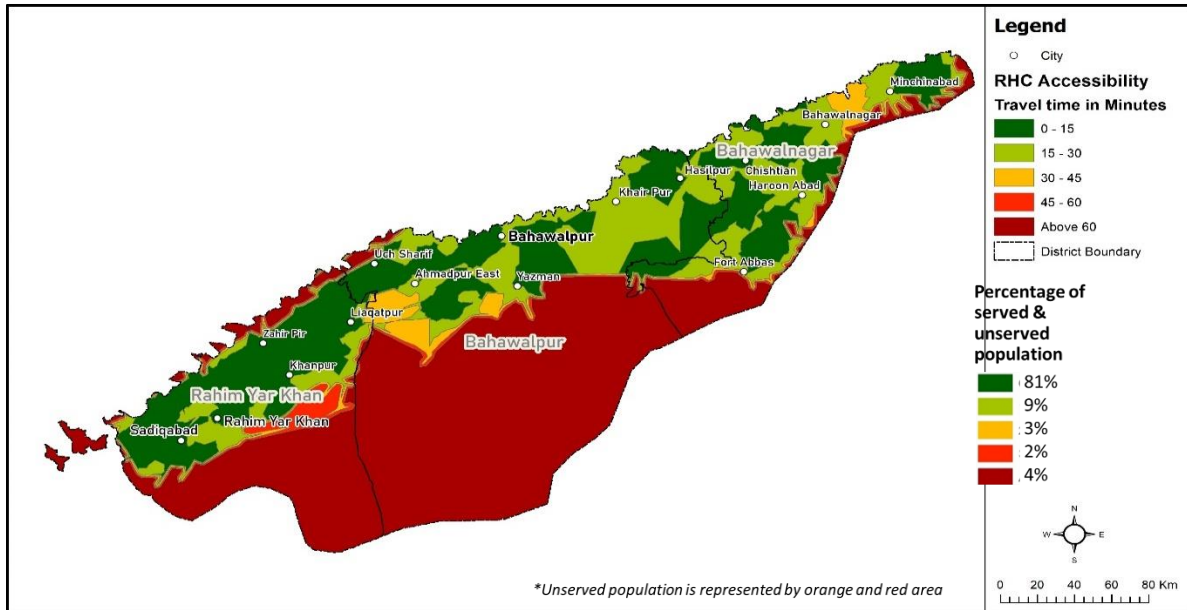


Figure 13: RHCs Accessibility Map
Source: Urban Unit database

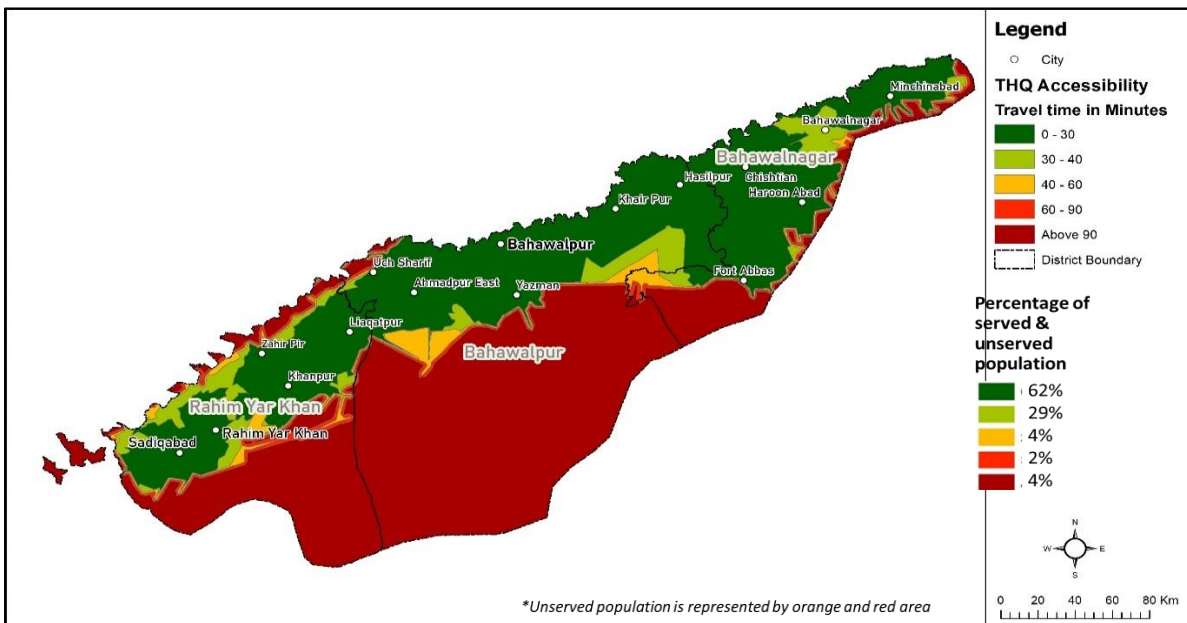


Figure 14: THQ Accessibility Map
Source: Urban Unit database

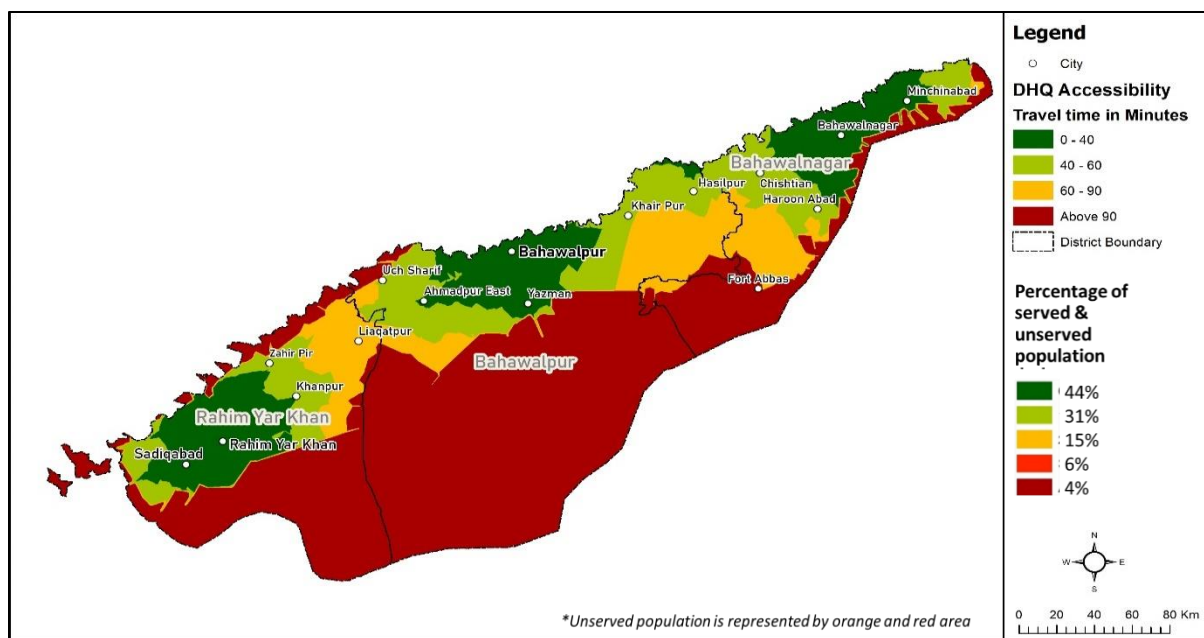


Figure 15: DHQs Accessibility Map
Source: Urban Unit database

The above maps, particularly DHQ accessibility map, show that geographically the vast area of division is still inaccessible (more than 60 mins and even 90 mins away from) the nearest DHQ. For instance, Fort Abbas tehsil headquarter is more than 90 minutes away from DHQ Bahawalnagar and BV Teaching hospital Bahawalpur.

1.4.2 Lack of qualified Human Resource

Doctors to patient ratio is also low in the health facilities of Bahawalpur. Most of the health facilities are lacking the qualified human resources and many posts are vacant. As per the DHIS report 2019-20, the total number of skilled health professionals (midwives, nurses and physicians) in Bahawalpur division is 3932 covering a population of 11 million. Since less than half of the population is currently being covered, the existing capacity is too low against the minimum benchmark laid out by WHO, which is 5.9 skilled health professionals per 1000 population as the workforce requirement for ending preventable maternal deaths¹¹. The figure below demonstrates the vacant posts in each facility:

¹¹ Punjab Health Sector Strategy 2019-2028

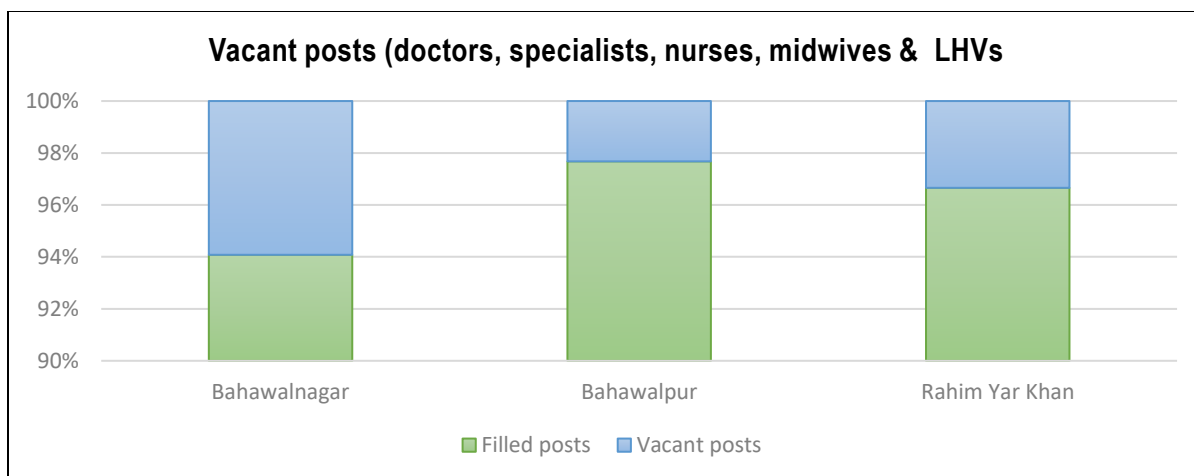


Figure 16: Vacant posts at each facility
Source: Extracted from DHIS dashboard 2021

Moreover, following gaps were also identified during field visit to the health facilities:

- Retention of doctors and consultants at rural areas and remote urban centers is an issue. Sometimes, doctors accept appointments in remote areas but tries to get general duties in main cities.
- Lack of reasonable furnished residences are also main reason of vacant positions. Most of existing residential areas are declared as dangerous buildings and are non-functional, for instance the roof of staff residential building in THQ Liaquatpur, Rahim Yar Khan was collapsing.
- Absence of MO/WMO at BHU Plus Derawar Bahawalpur which is required as per the Minimum Service Delivery Standards (MSDS), Punjab Healthcare Commission (PHC).
- LHV having a Nursing diploma assisted the Doctors during deliveries, at RHC Khutri Bunglow Bahawalpur.
- Further need of capacity building and trainings for Health Staff to meet the modern-day requirements (for instance infection control training, waste management training, training in public & patient dealing etc.)

1.4.3 Missing or incomplete infrastructure

One of the major challenges faced by the region is that infrastructure is incomplete and equipment are missing or non-functional.

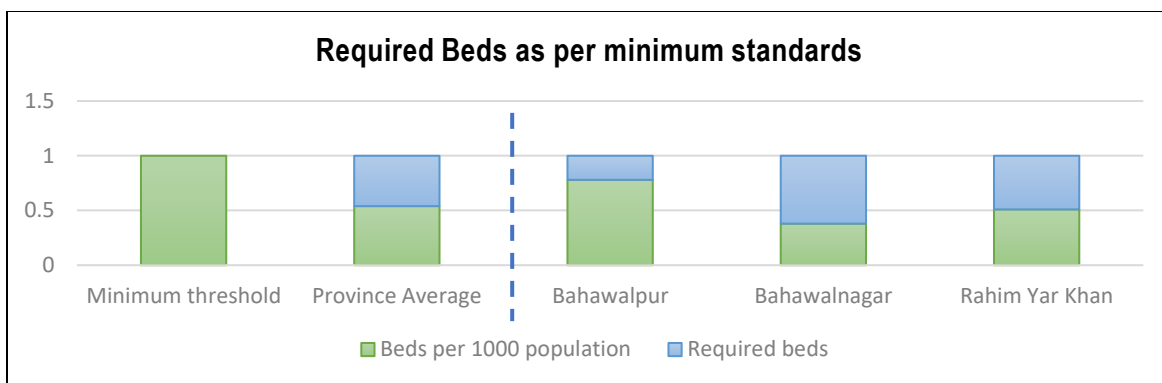


Figure 17: Required beds as compared to 1:1000 beds to population ration mentioned in Punjab Health Strategy

Source: Extracted from DHIS dashboard 2021

The existing capacity of health facility is demonstrated by beds to population ratio, which is a WHO indicator. The figure above shows required beds in the region, which is calculated by dividing the number of beds in the facility by its catchment population. Moreover, following gaps were also identified during field visit to the health facilities:

- The management and the facility staff highlighted that sometimes there is shortage of medicine in the facility, but the minimum medicine stock is maintained for M&E purposes only. It was also highlighted that the monthly stipend received for minor repairs is not enough.
- There is no ambulance available at all the primary healthcare facilities. In case of emergencies, rescue 1122 is contacted, while ambulance 1134 under IRMNCH program only cater to the needs of expecting mothers.
- Absence of boundary wall at BHUs is a security hazard for the facility. Staff at BHU Goth Mehrab highlighted the presence of street dogs which might bite patients and the staff and cause rabies.
- The baby warmer machine in the labour room of RHC Khutri Bunglow Bahawalpur was non-functional, while ultrasound machine in OPD room was semi-functional.
- Absence of dental room laboratory which should be available per the Minimum Service Delivery Standards, Punjab Healthcare Commission (PHC).
- Further need of improvement in building maintenance, ventilation, sewerage system and filtered water system, as well as the need of provision of Trauma centers, delivery tables, operation lights, X-Ray facility etc.

1.4.4 Inadequate M&E tool

The existing M&E Criteria of scoring CEO/DHA performance seems inadequate, which is focused on infrastructure and functioning of equipment and medicine stock instead of quality. The figure below shows the shortage of drugs in public health facilities of Bahawalpur, Bahawalnagar and Rahim Yar Khan districts for the two years. The stock out percentage is increasing in Rahim Yar Khan district. However, the actual stock out figures must higher than the reported figures as it was observed through field visit and stakeholder consultations that the minimum medicine in stock is maintained for monitoring purposes, and the patients are kept deprived of the medicine.

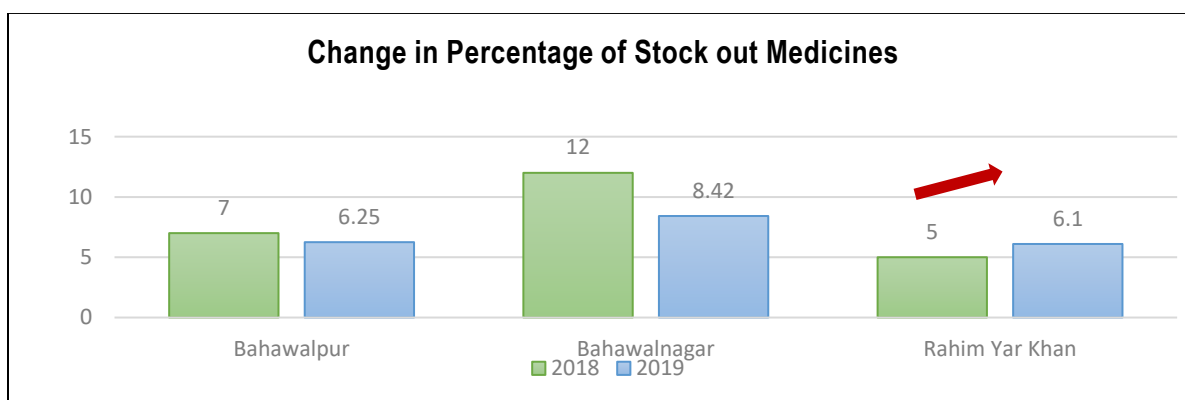


Figure 18: Change in percentage of stockout of essential drugs and medicines
Source: DHIS 2019-20

Apart from this the predefined indicators for facility performance ignores the quality of services provided and service delivery at the facility level. The performance index used under provincial health roadmap program may be improved using some statistical methods such as AHP and by covering service quality indicators

1.4.5 Inadequate primary structure in urban areas

There is insufficient primary or basic health provision in Urban Areas like BHUs and RHC in rural areas. Most of the Urban population are overburdening the secondary/tertiary level facilities. Although there are some Filter Clinics and dispensaries by LG Department in some areas, these are insufficient for population needs and lacking facilities. In some districts, like RY Khan, DHQs are converted into teaching / tertiary hospitals while there is no DHQ/THQ in the district headquarter. Urban population is reliant on Tertiary care facility. Moreover, despite the existence of RHC and BHU in rural areas, most of the rural population overburdens the nearby urban centers for their healthcare needs, due to non-functionality or lack of trust on primary facility. The figure below shows that the percentage of women by four Antenatal Care (ANC) visits by health

providers, a major WHO health indicator, which is lowest for Rahim Yar Khan district. While 33.5 of mothers in the same are deprived of this service.

Table 4: Number of Antenatal visits

Percentage of ever married women who had a live birth during the two years preceding the survey by number of antenatal care visits by any provider		
	WHO recommended at least 4 ANC visits	No. of ANC visits
Bahawalpur district	35.5%	29.9%
Bahawalnagar district	40.3%	17.7%
Rahim Yar Khan district	30.8%	33.5%
Bahawalpur division	34.7%	28.3%

Source: MICS 2017-18

Moreover, there is a need to expand the existing Mother and Child (MCH) healthcare system, since 70.5% of the deliveries in Bahawalpur division were attended by a skilled person which is less than SDG 2030 target of 90%.

1.4.6 Lack of family/HH level data

The existing MIS / Dashboards in the region are catering to the data /record needs of health facilities, medicines and M&E only. There is no individual clients records or family / household data such as data about children, women of childbearing age etc. to monitor the vaccination coverage and SDGs targets. In addition to this, only aggregated district level estimates are available from national and provincial surveys including MICS, PSLM, PDHS etc.

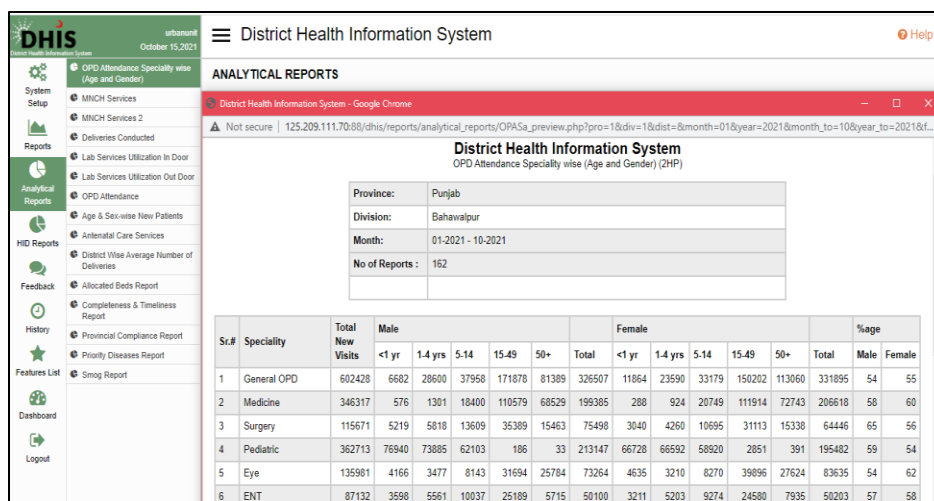


Figure 19: Existing DHIS dashboard for collecting facility related data
 Source: DHIS dashboard

These surveys are done periodically after a lag of 2-4 years and provide estimates at provincial and district level. Thus, there is a need to maintain a family / household data, which can be integrated with the province wide network of LHWs / LHVs for collecting and updating data through tabs or android apps.

1.4.7 Deprived Nomadic Population of Remote areas

A large part of Bahawalpur division is covered by Cholistan desert, which is divided into Lesser and Greater Cholistan. In Greater Cholistan, mostly nomadic population moves around in search of water bodies/ponds (Tobas). Factors such as geographic spread, low population density, limited infrastructure and higher costs for delivering rural and remote health care create challenges for healthcare system. Moreover, most of the existing health facilities are mostly located in in the Lesser Cholistan area (edge of desert close to settled areas), thus the nomadic population is most deprived of healthcare services and facilities. There is a need for unconventional solution for provision of healthcare services in these areas like mobile health vans etc. This demands for innovative blend of mobile and digital services (telemedicine) services and use of alternate energy (solar) solutions.

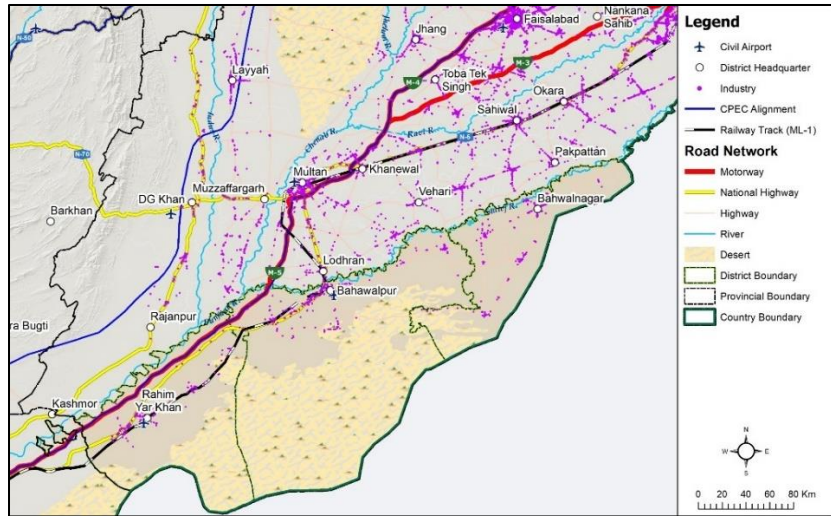


Figure 20: Desert covering most of the area of Bahawalpur Division
Source: The Urban Unit database

1.5 Way Forward: Integrated Healthcare Model for Bahawalpur Division

Following Health Sector Plan Approach are used for assessment of existing situation and for the identification of health interventions:

1.5.1 Health Ecosystem for Coverage & Delivery

The holistic ecosystem of health coverage and delivery consists of four major elements i.e. i) service access and provision which includes access to primary healthcare, urban OPD to reduce burden on secondary and tertiary care and availability of essential services as per Minimum Service Delivery Standards (MSDS) including dental services etc. ii) MCH and Nutrition program which includes urban and rural coverage of vaccination and FP centers and upgradation of MCH services at primary level etc.

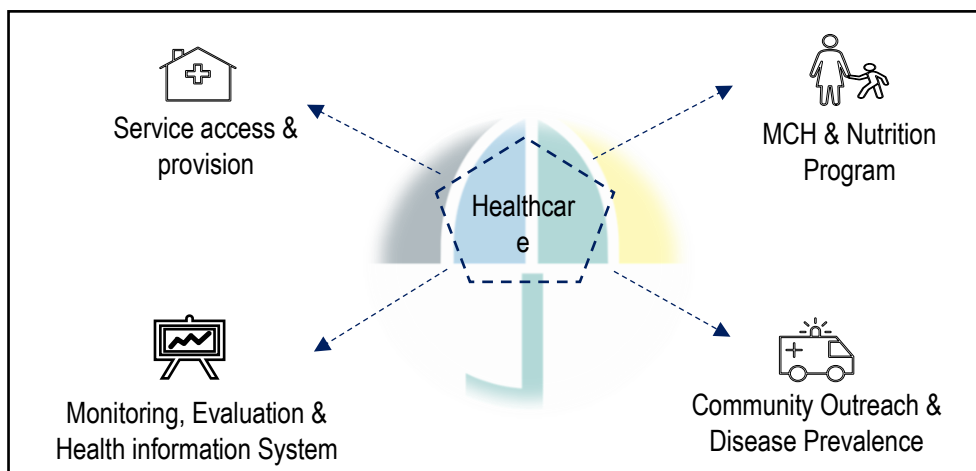


Figure 21: Health Ecosystem for coverage and delivery

iii) Monitoring, Evaluation & Health information System which includes availability of household data relating to vaccination coverage, mortality rates and other SDGs targets and existence of Health Management Information System (MIS) etc. iv) Community Outreach & Disease Prevalence which includes detection and timely control of communicable diseases, service specific availability and readiness and e-health with hub and spoke approach etc.

Community outreach is an essential component of Bahawalpur regional plan. Since livestock is a big source of income for the people in Cholistan area, as a result for the better production of livestock, the people have adopted nomadic lifestyle for the search of fodder and water for their animals. Thus, different mobility healthcare schemes should be initiated to increase the accessibility of the people in these areas. Interestingly, in Bahawalpur Division, Community health providers such as Lady Health Workers (LHWs) were reported as one of the major sources of advice and treatment sought during diarrhea and fever, as compared to the rest of the province¹². Specifically, for the case of Cholistan, which has challenging landscape and limited health facilities, there should be increased number of community health providers for health awareness and demand creation of the population, who are not accessing health facilities

1.5.2 Life Course MCH health and Nutrition

Adopting a life course approach is essential to explore the factors affecting children health and nutrition. Early child development is influenced by factors across the life course, as the prenatal and early pre-schooling years are the sensitive periods of brain development as depicted in the graph below.

¹² MICS 2017-18

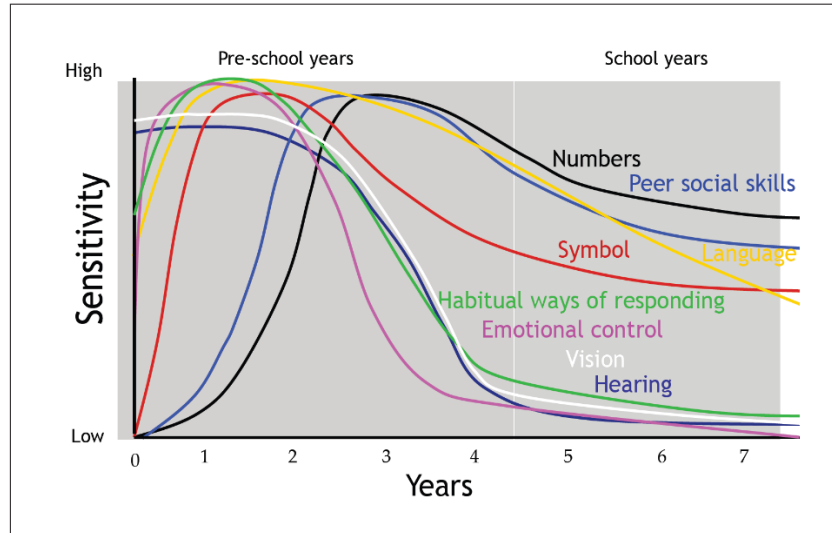


Figure 22: Nutrition and Health for Brain Development in Early Childhood
 Source: Council for Early Child Development, as cited in WHO Report (2013)

Health services have an important contribution to make in promoting and supporting early child development (ECD). The figure below highlights all the major indicator related to mother and child health, which gives an opportunity to explore the influencing factors. For instance, higher number of women receiving prenatal care positively impacts the healthy early development for the next generation. Thus, mother and child health should be the key pillar of healthcare policy.

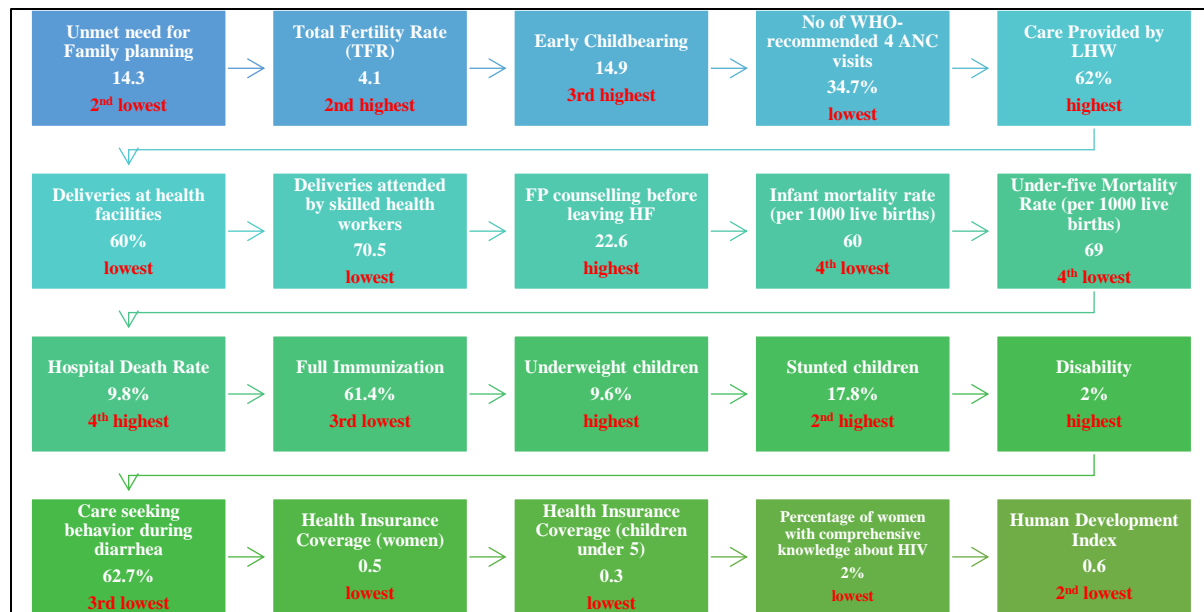


Figure 23: Snapshot of Health indicators in the Bahawalpur division
 Source: PSLM 2019-20 and MICS 2017-18

1.5.3 Integrated Tele-Healthcare Services for Remote Areas

Connectivity is an important aspect for any segment of a country. Telehealth interventions rely on strong infrastructure connectivity to support healthcare programs, especially in remote areas. This would require a Hub and spoke approach, where main hospitals in Multan or Lahore can serve as a Hub, which will be connected with THQs/DHQs of Bahawalpur division, acting as spokes. Through strategic centralization of the advanced medical services at Hub and distribution of basic services via secondary sites, efficiency and effectiveness of service delivery will be improved. The hub and spoke will be connected through Punjab Hospital Management Information System (HMIS), to facilitate in electronic health records (EHRs) and electronic medical records (EMRs) and remote monitoring solutions. Digital Pakistan Policy¹³ also encourages the use of telemedicine to provide clinical health care to distant rural communities in order to leverage access to an online network of qualified specialists and doctors. Thus, telehealth and telemedicine services can be provided at spokes, similar to the existing telemedicine health centers for corona virus, established at specialized teaching hospitals under special initiative by the Governor of Punjab in 2020¹⁴. As per WHO Global strategy on digital health 2020-2025¹⁵, there is a need to establish effective coordination mechanisms for the implementation of digital health strategies and the digital health force should be well-versed with IT solutions such as mobile health (mHealth) apps, electronic health records (EHRs), electronic medical records (EMRs), telehealth and telemedicine, thus capacity building of nursing and paramedic staff should be focused.

Since livestock is a big source of income for the people in Cholistan area, as a result for the better production of livestock, the people have adopted nomadic lifestyle for the search of fodder and water for their animals. Thus, different mobility healthcare schemes should be initiated to increase the accessibility of the people in these areas. Interestingly, in Bahawalpur Division, Community health providers such as Lady Health Workers (LHWs) were reported as one of the major sources of advice and treatment sought during diarrhoea and fever, as compared to the rest of the province. Specifically, for the case of Cholistan, which has challenging landscape and limited health facilities, there should be increased number of door-steps services for health awareness and demand creation of the population, who are not accessing the health facilities. Thus, Mobile Health Vans with Basics Diagnostics, Basic OPD and Sample Collection should also be made available, integrated with e-health and telemedicine services, in each district. Additionally, the digital healthcare system

¹³ Digital Pakistan Policy 2018 (Ministry of IT & Telecom)

¹⁴ Punjab Telemedicine Center of Excellence at King Edward Medical University (KEMU) 2020. Accessed from <<https://drive.google.com/file/d/1ujUqf23myLzEWJxoLsQC2DnrN6svTuei/view>>

¹⁵ WHO (2021). Global strategy on digital health 2020-2025. World Health Organization.

can be complimented by developing a referral system for chronic or life-threatening situations model on the basis of 1122 or can be outsourced to private sector. Enabling digital healthcare system in remote areas of the desert can improve the healthcare accessibility, along with reducing costs associated with delivering health care.

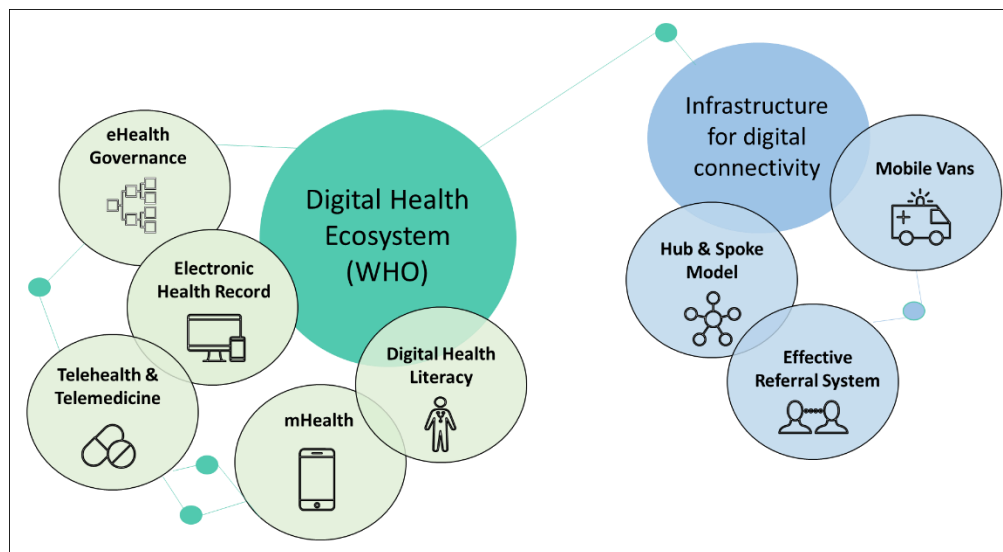


Figure 24: Components of patient-focused Digital Healthcare Services for Remote Areas
 Source: Five components of WHO Digital Health Ecosystem as mentioned in Digital Health Literacy Case Study 2017¹⁶

1.6 Proposed Healthcare Plan

Following are the list of the proposed projects, divided into two parts, where the first part includes short- and medium-term projects including improving health facility access through OPD Clinics/ Sehat Ghar, provision of missing facilities, provision of missing HR, upgrading of THQs, Mobile Health Vans and digital health ecosystem etc., while the second part includes long-term projects including provision of new blocks / extension of Tertiary Care, medical education, and medical R&D etc.

¹⁶ Novillo Ortiz D (2017). *Digital health literacy*. World Health Organization (WHO). Accessed from <https://www.who.int/global-coordination-mechanism/working-groups/digital_hl.pdf>

Table 5: Interventions for the health sector

Sr No	Proposed Project	Estimated Cost	Description	Relevant Stakeholders
Short-Term Proposed Projects				
1	Family Folder app for Mother and Child Health (MCH): Pilot in Bahawalpur District	Rs. 85 million	<ul style="list-style-type: none"> Data collection and management for HH family health profile and periodic updating Pilot in Bahawalpur district Ongoing: Health department South (in process) 	<ul style="list-style-type: none"> Health and Population Welfare Department, Civil Secretariat, South Punjab District Health Authority (DHA) Bahawalpur
2	Sehat Ghar Initiative in for improved primary health services (including Urban areas) Pilot Project	Rs. 834 million	<ul style="list-style-type: none"> Pilot in Rahim Yar Khan (1 tehsil) both in rural and urban area Provision of basic OPD and FP Ongoing: Health department South (in process) 	<ul style="list-style-type: none"> Health and Population Welfare Department, South Punjab Punjab Health facilities Management Company (PHFMC) District Health Authority (DHA)
3	Remodeling of Urban Health Facilities in South Punjab	Rs. 45.5 million (Rs.15.15 mil x 3 districts)	<ul style="list-style-type: none"> Prioritizing Bahawalnagar district as a pilot and then entire division BWP (Ongoing – Health Deptt South Punjab PC1) 	<ul style="list-style-type: none"> Primary and Secondary Healthcare Department (P&SHD)
4	Solar-powered autoclave for sterilizing medical equipment in primary health facilities	Rs. 9.4 million	<ul style="list-style-type: none"> Coverage: Bahawalpur division Focusing Cholistan Facilities and mobile vans first New Proposed for Cholistan 	<ul style="list-style-type: none"> District Health Authority (DHA) Punjab Health facilities Management Company (PHFMC)

Sr No	Proposed Project	Estimated Cost	Description	Relevant Stakeholders
5	Child nutrition support program for schools in slums and Mobile/Toba Schools in Cholistan	Rs. 50 million	<ul style="list-style-type: none"> Pilot for schools in Cholistan / Urban Slums (New) Provision of food to students Monitoring through health monitors 	<ul style="list-style-type: none"> Specialized Healthcare and Medical Education Department (SH&MED)
6	Upgradation of Dental Unit and positioning of teaching staff at Bahawalpur Victoria University	Rs. 35 million	<ul style="list-style-type: none"> Local demand for operationalization of Dental teaching unit (New) 	<ul style="list-style-type: none"> Specialized Healthcare and Medical Education Department (SH&MED)
Medium-Term Proposed Projects				
7	Establishing LHV's vaccination and FP centres in urban areas	Rs. 240 million (Rs.80 mil x 3 districts)	<ul style="list-style-type: none"> Coverage: Bahawalpur division In rural areas, linked with BHUs but no network in urban areas (New) 	<ul style="list-style-type: none"> District Health Authority (DHA) IRMNCH program
8	Establishment of state-of-the-art disease surveillance and early warning systems to support the detection and timely control of communicable diseases	Rs. 193.98 million	<ul style="list-style-type: none"> Coverage: Bahawalpur Division (New) Surveillance and early warning systems to support the timely detection of pandemic and other communicable diseases. 	<ul style="list-style-type: none"> Provincial Disaster Management Authority (PDMA) Health and Population Welfare Department, South Punjab
9	Digital Healthcare Services for Remote Areas (Cholistan) – Previously dropped	Rs. 500.0 million	<ul style="list-style-type: none"> Mobile Vans in remote area/ Cholistan (New) Hub (Specialized hospital) and Spoke (THQ/DHQs) Telemedicine services 	<ul style="list-style-type: none"> Health and Population Welfare Department, South Punjab

Sr No	Proposed Project	Estimated Cost	Description	Relevant Stakeholders
			<ul style="list-style-type: none"> Prioritizing Bahawalpur district as a pilot (since it includes most of the area of Cholistan desert), and then later can be scale up to cover entire division BWP 	
Long-Term Proposed Projects				
10	Upgradation of THQ Liaqat Pur, THQ Minchinabad and THQ Fortabbas	Rs. 400.0 million	<ul style="list-style-type: none"> THQs Upgradation in Bahawalnagar and RY Khan Districts (New) 	<ul style="list-style-type: none"> Primary and Secondary Healthcare Department (P&SHD)
11	Scaling up of Sehat Ghar Initiative to entire division	Rs. 1.2 billion	<ul style="list-style-type: none"> Rest of Bahawalpur Division Revamp in rural areas Health department South Punjab already working on it (New – Upscaling of ongoing pilot) 	<ul style="list-style-type: none"> Health and Population Welfare Department, Civil Secretariat, South Punjab Punjab Health facilities Management Company (PHFMC) District Health Authority (DHA)
12	Scaling up of Family Folder app	Rs. 636.6 million	<ul style="list-style-type: none"> Rest of Bahawalpur Division Health department South Punjab already working on it (New – Upscaling of ongoing pilot) 	<ul style="list-style-type: none"> Health and Population Welfare Department, Civil Secretariat, South Punjab Punjab Health facilities Management Company (PHFMC) District Health Authority (DHA)

Sr No	Proposed Project	Estimated Cost	Description	Relevant Stakeholders
13	Establishing state-of-the-art health research lab linked with Health Research Institute (HRI) for cooperation and technical assistance	Rs. 278 million	<ul style="list-style-type: none"> Location: Bahawalpur city state-of-the-art health research lab and establishing links with Health Research Institute (HRI) for cooperation and technical assistance (New) 	<ul style="list-style-type: none"> Specialized Healthcare & Medical Education Department Health and Population Welfare Department, South Punjab
14	Scaling up of Digital Healthcare Services for Remote Areas	Rs. 1 billion	<ul style="list-style-type: none"> Mobile Vans in remote area/ Cholistan Hub (Specialized hospital) and Spoke (THQ/DHQs) Telemedicine services Rest of Bahawalpur Division 	<ul style="list-style-type: none"> Health and Population Welfare Department, South Punjab

1.6.1 Existing Schemes/Projects on Healthcare Related to Bahawalpur Division

Some of the proposed projects are also related to the existing ADP programs (new and ongoing), for efficient resource mobilization, which are:

- Health and Population Welfare Department, Civil Secretariat, South Punjab has launched a pilot program for the establishment of Model Sehat Ghar in Tehsil Rahim yar khan and Tehsil Khanpur in Rahim Yar Khan district. The project is already focusing the Bahawalpur division, and it can be added in long-term plan to target the whole of the division.
- Another initiative by Health and Population Welfare Department, Civil Secretariat, South Punjab was launched in Muzaffargarh for data collection and management of household family health profile and periodic updating, titled "Family Folder app for Mother and Child Health (MCH)". The Bahawalpur regional plan proposes to launch this project in Bahawalpur district, which has the highest number

of households with LHWs visits¹⁷. The project can be later scaled up to cover the rest of the Bahawalpur division.

- Primary and Secondary Health Care are proposing to provide missing facilities in THQ Liaquatpur, Rahim Yar Khan for ADP 2021-22. Since the facility was last upgraded ten years ago, the Bahawalpur regional plan proposes to upgrade the whole facility keeping in view the demand of health services in the area.
- ADP 2021-22 also proposed to upgrade THQ Munichabad, Bahawalnagar. This project is also added in Bahawalpur regional plan, along with upgradation of a THQ in Bahawalpur.
- Remodelling of Urban Health Facilities in South Punjab was proposed in 2017 for some of the health facilities in Multan. The Bahawalpur Regional Plan proposed to focus on the health facilities of Bahawalpur, Bahawalnagar and Rahim Yar Khan for improving the existing situation of health facilities and reducing the burden on major hospitals.

¹⁷ MICS 2017-18



EDUCATION SECTOR PLAN



Chapter 2: School Education

2.1 Introduction

The mandate of providing education in the division of Bahawalpur is split between the School Education Department and Punjab Education Foundation (PEF). Where the former provides education to the major cities and densely populated regions of the division. And PEF caters to areas where population is sparse and scattered out. This Private-Public Partnership mode has enabled the Government of Punjab to make education accessible in the remoter parts of the division. A great number of private, low-cost schools and madrassas also operate in this region. However, data on these school education facilities and their outcomes, is lacking.

The situation of the education sector indicates a bleak picture for the division. The baseline statistics (described below) are indicative of the division's overall low performance. A myriad of factors contribute to low educational related outcomes. Historical neglect, lack of funding, governance, mismanagement- are some of the supply-sided constraints to education Whereas lack of awareness, literacy, social conservatism, poverty; are some of the demand-sided constraints; that add to the impediment of education.

The overall literacy rate in Bahawalpur division is significantly lower than the average literacy rate of Punjab across both cohorts. This indicator is quite imperative as it highlights the situation of education and also the overall socio-economic wellbeing of a region. A district wise analysis of youth literacy rates reveals that they are the highest in Bahawalnagar district followed by Bahawalpur and being the lowest in Rahim yar Khan district – 64%, 61% and 51% respectively¹⁸.

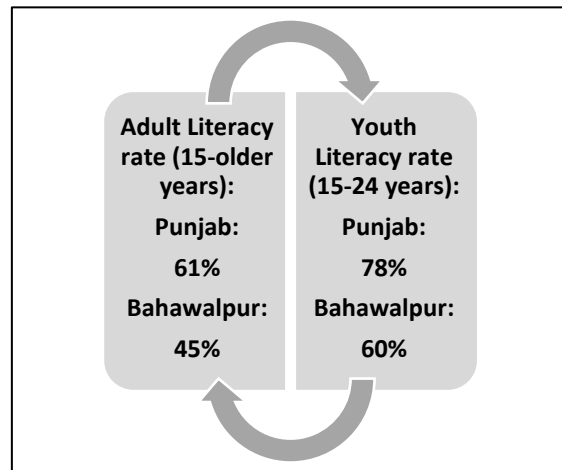


Figure 25: Adult and Youth Literacy rates
Source: MICS, 2017-18

All in all, education is a neglected sector of the economy. The table below shows the key performance indicators of education, taken from PSLM 2020 and MICS 2018 reports.¹⁹ They provide a holistic overview of the educational landscape in Bahawalpur division, which are compared against the statistics of Punjab

¹⁸ MICS, 2018

¹⁹ Pakistan Social and Living Standards Measurement Survey, 2019 and Multiple Indicator Cluster Survey, 2018

being the bare minimum standard. The cells highlighted in green represent satisfactory performance of a district, red cells reveal underperformance and yellow cells are indicative of same performance as Punjab. As it can be seen, the education KPI's for the division are usually highlighted with the red cells.

And redress in this aspect is needed, to bring about overall socio-economic development.

Table 5: Key Performance Indicators, Education

Indicator	Explanation	Bahawalpur	Bahawalnagar	Rahim Yar Khan	Punjab
Gross Enrollment Rate (Primary)	Gross Enrollment Rate at the Primary level Ages 5-9	42	64	54	53
Gross Enrollment Rate (Middle)	Gross Enrollment Rate at the Middle level Ages 10-12	35	51	37	59
Gross Enrollment Rate (Matric)	Gross Enrollment Rate at the Matric level Ages 13-14	41	49	35	63
Adult Literacy rate	Adult Literacy- Percentage of Population aged 10 Years and Older	42	48	42	60
Youth Literacy rate	Youth Literacy-Percentage of Population aged 15-24 Years	61	63	57	78
Percentage of Out of School children	Percentage of Out of school Children age 5-16 Years, Punjab, 2019-20	32	32	41	24
School Readiness	Percentage of children attending first grade of primary school who attended pre-school the previous year, Punjab, 2017-18	82	92	91	91
Primary School Entry rates	Percentage of children of primary school entry age entering grade 1 (net intake rate), Punjab, 2017-18	27	26	11	30
Net Attendance Rate (Primary)	Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending early childhood education, and percentage out of school, Punjab, 2017-18	51	61	46	65
Out of School Children (Primary)	Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending early childhood education, and percentage out of school, Punjab, 2017-19	26	13	29	13

Indicator	Explanation	Bahawalpur	Bahawalnagar	Rahim Yar Khan	Punjab
Net Attendance Rate (Lower Secondary)	Percentage of children of Lower secondary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending early childhood education, and percentage out of school, Punjab, 2017-20	30	30	36	37
Out of School Children (Lower Secondary)	Percentage of children of Lower secondary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending early childhood education, and percentage out of school, Punjab, 2017-21	30	26	37	20
Net Attendance Rate (Upper Secondary)	Percentage of children of Upper Secondary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending early childhood education, and percentage out of school, Punjab, 2017-22	24	19	19	29
Out of School Children (Upper Secondary)	Percentage of children of Upper secondary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending early childhood education, and percentage out of school, Punjab, 2017-18	43	39	51	34
Age for Grade (Primary)	Percentage of children over age by 1 year by grade of attendance :	11.7	11.8	11.7	11.8
Age for Grade (Primary)	Percentage of children over age by 2 years by grade of attendance :	16.2	17.5	18.1	15.7
Age for Grade (Lower Secondary)	Percentage of children over age by 1 year by grade of attendance :	22.4	21.5	19.5	20

Indicator	Explanation	Bahawalpur	Bahawalnagar	Rahim Yar Khan	Punjab
Age for Grade (Lower Secondary)	Percentage of children over age by 2 years by grade of attendance :	18.5	25.9	19.6	19.6
Completion rate	Primary school completion rate	55.7	55.5	17.1	66.3
	Lower secondary completion rate	43.5	41.4	37.5	56.1
	Upper secondary completion rate	31.8	28.8	25.1	38.6
Transition rate	Effective transition rate to lower secondary school	92	88.9	94.8	90.8
Gender Parity Index	Gender parity index (GPI) for primary school adjusted NAR	0.91	1	0.91	0.99
	Gender parity index (GPI) for lower secondary school adjusted NAR	1.04	0.89	0.8	1.05
	Gender parity index (GPI) for uppers secondary school adjusted NAR	1.16	1.3	0.93	1.08
Participation rate (Primary)	Participation rate primary and secondary, Punjab, 2017-18	95.2	95.6	92.8	94.8
Participation rate (Secondary)	Participation rate primary and secondary, Punjab, 2017-19	78.5	76.7	73.4	79
Parental Involvement	Percentage of children for whom an adult household member in the last year received a report card for the child ¹	49.7	43	44.8	59.3
Parental Involvement	Percentage of schools that have a governing body open to parents	7.9	4.2	6.7	18.8
School-related reasons for inability to attend class	Percentage of children who in the last year could not attend class due to absence of teacher or school closure	39.6	41.8	28.3	32.5

Indicator	Explanation	Bahawalpur	Bahawalnagar	Rahim Yar Khan	Punjab
Foundational Learning Skills (Reading)	Percentage of children who demonstrate foundational reading skills	19.4	26.6	26.7	32.8
Foundational Learning Skills (Numeracy)	Percentage of children who demonstrate foundational numeracy skills	0.6	0.7	4	4.5

2.1.2 Objectives and Scope of Work

The overall objective of the education sector plan is to analyse the accessibility and outreach of the education sector and to see how public service delivery of education services can be improved through integrated regional planning. The scope of work is as follows:

- A comprehensive situational analysis of education facilities in Bahawalpur division by benchmarking with the provincial landscape.
- Identification of regional spread of schools and universities and spatially mapping them through GIS based maps (subject to availability of spatial coordinates and data).
- Identification of development or upgradation needs for existing education facilities and infrastructure through stakeholder engagement.
- Brief Education Sector Plan (with short, medium- and long-term targets), incorporating demand-based project pipeline for ADP and donor funding.

2.1.3 Methodology and Framework

At the outset, the report covers the overall situational analysis of the current educational landscape in the Bahawalpur division. To this end, primary and secondary data has been employed through a mixed methods approach (both quantitative and qualitative) to provide a thorough analysis of the educational facilities. Data from secondary datasets, survey reports and departmental dashboards has been used to conduct a district-wise analysis of the numerical quantity, spatial spread, infrastructural condition and student participation in the educational facilities of Bahawalpur division.

Furthermore, Secondary data was further validated through ground assessment by conducting field visits and stakeholder consultations to efficiently and adequately identify the administrative gaps and institutional

challenges prevailing in the division that impede education service delivery. This is further accompanied by a spatial accessibility analysis to develop an integrated plan with short-, medium- and long-term education targets. This proposed framework identifies the type of intervention needed through site assessment and gives an overall project direction for an integrated social development plan.

For the identification of gaps and other operational issues existing in the education sector of the Bahawalpur region, various secondary sources have been reviewed including provincial and district-wise reports (MICS, PSLM, ASER, ACS etc.) and School Information System (SIS) dashboard. Moreover, primary data was also collected through an initial field visit of the Urban Unit team to education facilities in Bahawalpur and Rahim Yar Khan districts, in August and September 2021. Key stakeholders from all the three districts were also consulted including: Education Team (SED), Director (PEF), MD (CDA) Cholistan, DD Development (Bahawalpur), DD, Literacy (Bahawalpur), Secretary, Education (South Punjab), CEO Education (Bahawalpur) and CEO Education, Rahim Yar Khan

The following steps of research framework have been adopted:

- Collection of Secondary Data
- Collection and Access to Departmental data and dashboards (SIS)
- Review of data, literature and desk research
- Ground assessment through field visits
- Stakeholder consultation and meetings
- Situation Analysis to identify gaps and challenges of the education sector
- Development of short-, medium- and long-term plan for both School Education and Higher Education

2.2 Situational Analysis of Education in Bahawalpur Division

The following three-tiered approach in assessing the situational analysis of the education sector in Bahawalpur division.

- a) **Physical Analysis:** The physical attributes are analysed through three different dimensions. First the spatial analysis, looks at the overall spread of the educational facilities. Then different layers of population settlements, natural barriers, infrastructure network and other contours are added to conduct the accessibility analysis. The accessibility analysis gives us an understanding of population serviced within the settlement areas. And lastly, the infrastructure analysis, gives as an idea to the

quality of infrastructure and identify areas of further improvement. These three analyses are conducted for each educational level in Bahawalpur division.

- b) **Statistical Analysis:** The statistical analysis is conducted by looking at existing data sets, reports, case studies and existing literature on the state of education in Bahawalpur. This analysis is conducted on overall educational related outcomes. It looks at all key important indicators of education from enrolment, transition, completion rates to learning outcomes. These numbers are very important for bettering our understanding of the sector. And in identifying the problem area in education.
- c) **Ground-Level Analysis:** To further solidify the understanding of this sector, repeated site visits, ground assessments, stakeholder and consultative sessions were carried out in the division of Bahawalpur. This exercise helped to further validate the findings from the earlier two assessments. In addition to adding more practical knowledge and on-site assessment. Through random sampling, the team visited different education facilities and assessed the quality of education through personal observations. Different meetings, stakeholder and consultative sessions also added to this wealth of knowledge.

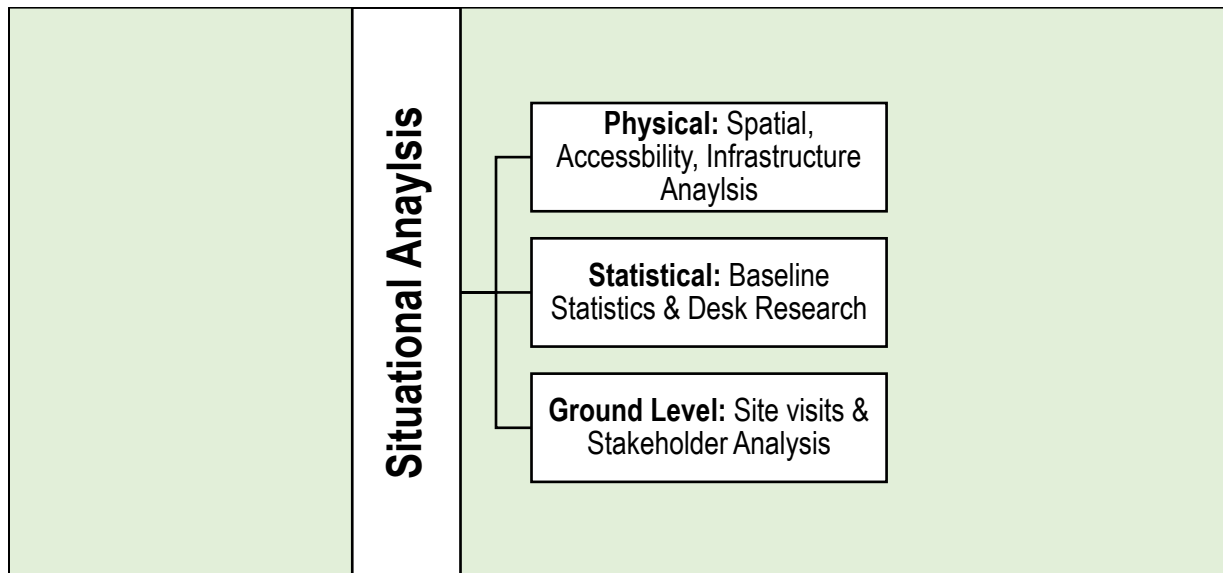


Figure 26: Illustrates the three-tiered approach uses in the assessing the current state of education in Bahawalpur Division.

2.2.1 Physical Analysis

The first set of analysis to understand the overall landscape of education, is to conduct the spatial analysis of the division. The narrative for accessibility for School Education, is the same as all sectors of the economy. The concentration of schools and colleges would most likely be found in the urban-settled parts of the division. With accessibility being limited in peri-urban and rural areas. The issue of accessibility is further a source of grave concern in the Cholistan desert, where semi-nomadic and nomadic lifestyle, affects provision of public service delivery. Here mostly, the schools are run by PEF, but are limited in numbers. PEF operates a network of about 75 New Community Projects Schools (NSP) in the lesser Cholistan desert region, where population settlements are scattered. And about 30 mobile schools in the greater Cholistan region, where habitants follow nomadic lifestyle. The presence of scattered populations, desert terrain and overall lack of social infrastructure in he region; affects the provision to education in the division of Bahawalpur.

(a) Primary Schools

Overall, the spread of primary schools (classes I- V) is good throughout the division. As can be seen in the figure below; primary schools are mostly densely scattered throughout the province.²⁰ The School Education Department caters to the provision of education in the areas shown below. With PEF catering to the schools in the desert parts of Cholistan Desert. Thus overall, primary schools are accessibly in the entire division. Though their accessibility is greatly affected in Cholistan. Though accessibility is not a prime issue of concern, in primary school education. But the quality of schooling, infrastructure and learning related outcomes; is a source for grave concern. Most primary schools in the region, are small buildings, mostly over-crowded with students. The teachers usually follow a multi-grade medium of instruction, where students from all classes are taught in the same classroom. In addition to that, infrastructure related facilities (playing ground, boundary wall, security, clean toilet, drinking water facilities etc.) were mostly lacking. Following is the list of indicators highlighting the performance of schools across various indicators, pertaining to teacher presence, student retention and condition of the infrastructural facilities in schools. Most of the figures indicate underperformance of schools in these indicators. More specifically hygiene, security provision and teacher retention are some of the key challenges.

²⁰ Annual School Census, 2017-18

Table 27: Primary educational facilities – segregated by gender

District name	Male	Female	Total
Bahawalpur	759	843	1,602
Bahawalnagar	768	685	1,453
Rahimyar Khan	1014	1,193	2,207
Total (Division)	2514	2721	5,358

Table 28: Student Enrolment, Teaching staff and student teacher ratios at Primary level

District	Total Enrolled students	Total Teaching staff	Ratio of Total Enrolled Students/Total Teaching staff	Total students with furniture	Total teachers with furniture	Ratio of Total students/Total students with furniture
Bahawalpur	186703	5382	34.7	153808	8023	1.21
Bahawalnagar	216604	6077	35.6	127251	7001	1.70
Rahim Yar Khan	295233	8276	35.7	242806	10251	1.22

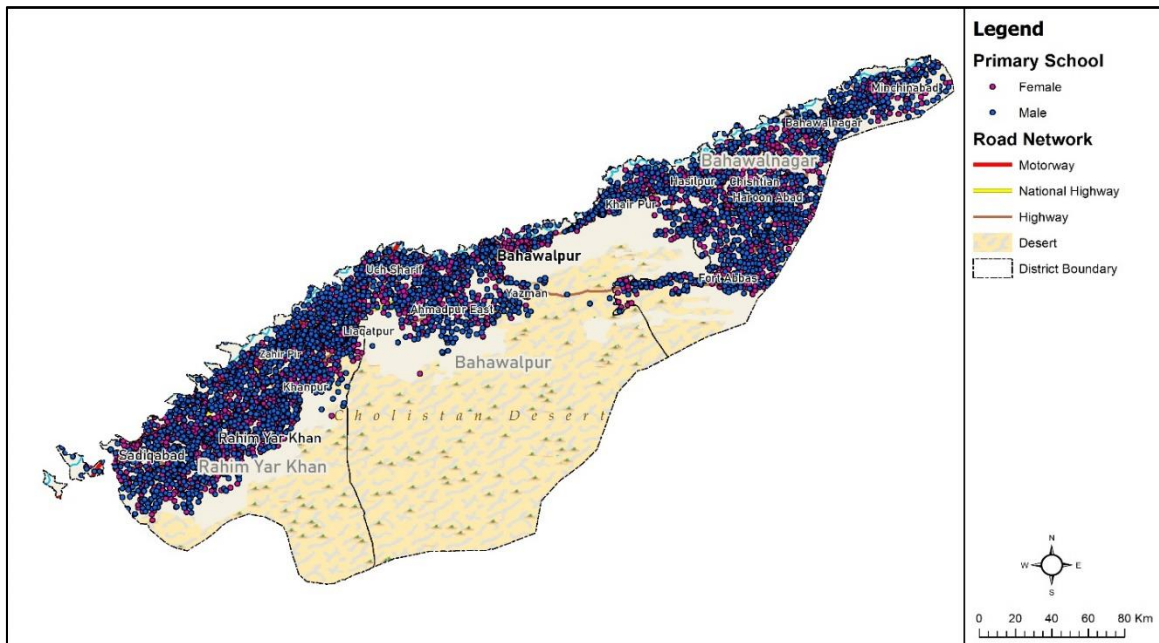


Figure 29: Spatial spread of lower secondary schools

Source: Information taken from Annual School Census, 2018 & mapped out by The Urban Unit.

Accessibility: Spatial analysis

The following map shows that overall, the accessibility of Primary schools is fairly reasonable in the division – with the exception of rural and desert areas. In all three districts, a primary level facility is available within 10 minutes or 20 minutes, at most. Additionally, in peri urban areas the accessibility is relatively lesser compared to the urban areas as the schools are accessible within a 30-minute time duration,

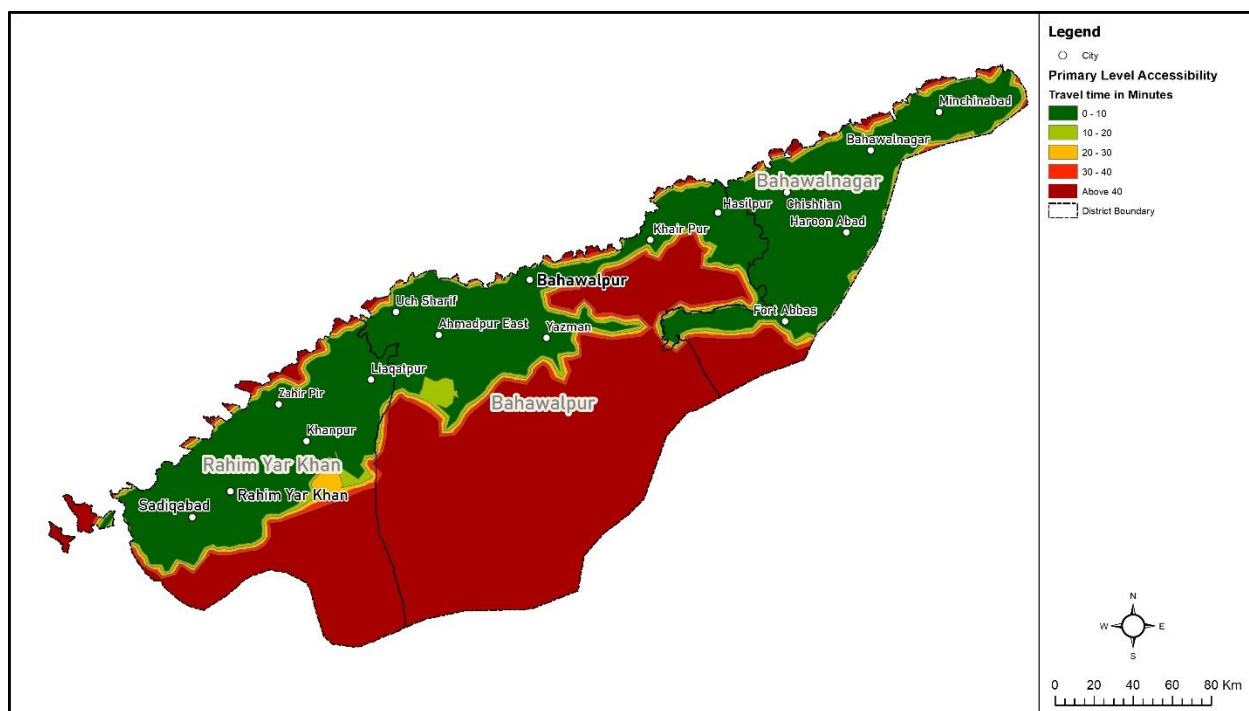


Figure 30: Accessibility of Primary schools in Bahawalpur division
Source: Urban unit database

Infrastructural Assessment

According to the data on available facilities, provision of toilets is adequate across all the districts. However, provision and maintenance of boundary walls is below par as almost 7-9% of the primary schools in Bahawalpur and Bahawalnagar have a missing or deteriorating boundary wall. In addition to that, proper sewerage systems and sanitation are also missing in almost 25-30% of the schools. Lastly, playground provision is also inadequate, and largely in primary schools across Bahawalpur and Bahawalnagar.

Table 6: Total number of Primary schools with the available infrastructural facilities

District	Total Primary schools	Total number of toilets	Availability of boundary wall	Availability of Main gate	Availability of proper sewerage	Availability of playground
Bahawalnagar	1661	1634	1527	1565	1314	772
Bahawalpur	1487	1483	1396	1404	1298	941
Rahimyar Khan	2210	2210	2193	2196	1967	1355

Source: Annual School Census, 2017-18

For the resource provisioning of the following facilities, the figures are alarmingly low – specifically the availability of library, computer labs and internet. Moreover, as per the Punjab Early Childhood Education Program to improve access and equity in school education ECE programs have been introduced in primary schools across Punjab. However, only 8-13% schools in Bahawalpur division have been provided this facility, as of yet.

Table 7: Total number of Primary schools with available facilities

District	Total Primary schools	Availability of library	Availability of computer lab	Availability of internet	Availability of Early Childhood Education facility
Bahawalnagar	1661	103	0	92	134
Bahawalpur	1487	48	1	74	125
Rahimyar Khan	2210	354	3	125	301

Source: Annual School Census, 2017-18

Table 30 shows that only 70% of the primary schools in the region are in a satisfactory condition. While almost 20-25 % of the primary schools require some form of repairs and almost 3-5% of the schools are categorised as dangerous. Furthermore, as far as Classroom status is concerned, 60% of the classrooms are partially or fully dangerous.

Table 8: Building and Classroom status in Primary schools

District	Building Status	Classroom status
Bahawalnagar		
Primary	1623	168
Building Is Dangerous	22	35
Complete Building Needs Repairing	81	4
Needed Minor Repairing	306	23
Partial Building is Dangerous	55	56
Satisfying	1159	50
Bahawalpur		
Primary	1479	194

District	Building Status	Classroom status
Building Is Dangerous	32	57
Complete Building Needs Repairing	82	16
Needed Minor Repairing	338	14
Partial Building is Dangerous	51	72
Satisfying	976	35
Rahimyar Khan		
Primary	2204	350
Building Is Dangerous	62	139
Complete Building Needs Repairing	99	20
Needed Minor Repairing	429	36
Partial Building is Dangerous	66	98
Satisfying	1548	57
Grand Total	5306	712

Source: Annual School Census, 2017-18

(b) Lower Secondary Schools

The spread of lower secondary schools (classes 6-10) is show below in the diagram²¹. These education facilities are usually bigger than the primary school facilities. And once again are densely scattered throughout the division. The accessibility of lower secondary schools in Cholistan areas, is severely limited. However, these schools are mostly accessible, outside of Cholistan. Overall, the quality of infrastructure is better than of primary schools.

Table 9: Lower Secondary educational facilities – segregated by gender

District name	Male	Female	Total
Bahawalpur	216	148	364
Bahawalnagar	147	104	251
Rahimyar Khan	190	191	381

²¹ Annual School Census, 2017-18

District name	Male	Female	Total
Total (Division)	563	443	996

Table 10: Student Enrolment, Teaching staff and student teacher ratios at Lower secondary level

District	Total Enrolled students	Total Teaching staff	Ratio of Total Enrolled Students/Total Teaching staff	Total students with furniture	Total teachers with furniture	Ratio of Total students/Total teachers with furniture
Bahawalpur	155578	6330	24.6	131598	6375	1.18
Bahawalnagar	199375	7752	25.7	149267	7711	1.33
Rahim Yar Khan	263463	8251	31.9	226266	9765	1.16

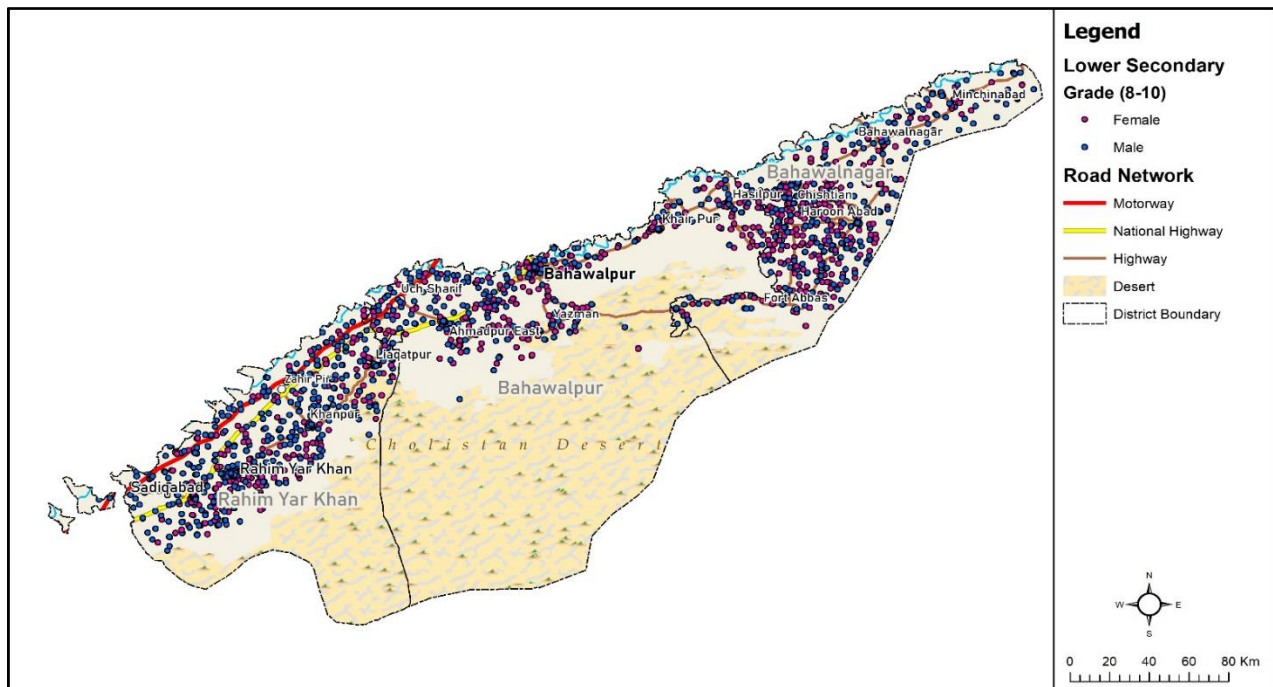


Figure 31: Spatial Spread of lower secondary schools
 Source: Information taken from Annual School Census, 2018 & mapped out by The Urban Unit.

Accessibility: Spatial analysis

The following map highlights the accessibility of Lower secondary schools in Bahawalpur division. While the accessibility is fairly reasonable in most urban centers as a facility is available within 15-30 minutes.

However, peri urban, rural areas and desert areas have a lower accessibility relative to urban areas. In the former regions, a lower secondary facility is available within 30-45 minutes time frame. Moreover, in the latter – desert area- a facility is available within a 60-minute timeframe minimum.

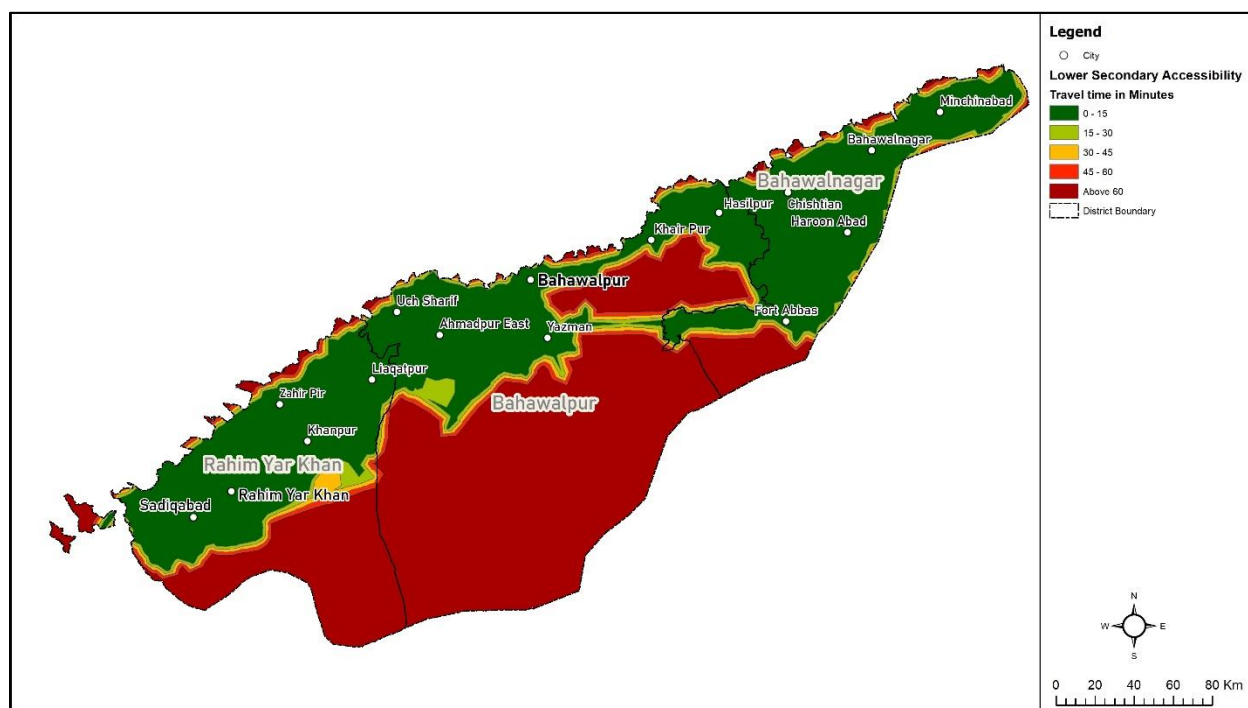


Figure 32: Accessibility of Lower Secondary schools in Bahawalpur division
Source: Urban unit database

Infrastructural Assessment

According to the data from Annual School Census, the provisioning of facilities is adequate except for playgrounds and proper sewerage which are missing in almost 30% of the schools – with High schools at a greater disadvantage than Middle schools.

Table 11: Total Lower secondary schools with the available infrastructural facilities

District	Total Lower secondary schools	Total number of toilets	Availability of boundary wall	Availability of Main-gate	Availability of proper sewerage	Availability of playground
Bahawalnagar	557	557	542	550	449	385

District	Total Lower secondary schools	Total number of toilets	Availability of boundary wall	Availability of Main-gate	Availability of proper sewerage	Availability of playground
High	194	194	189	192	148	146
Middle	363	363	353	358	301	239
Bahawalpur	444	444	432	434	371	339
High	190	190	188	187	151	140
Middle	254	254	244	247	220	199
Rahimyar Khan	608	603	603	603	544	441
High	234	229	229	229	204	171
Middle	374	374	374	374	340	270
Grand Total	1609	1604	1577	1587	1364	1165

Source: Annual School Census, 2017-18

The data in Table 34 indicates that lower secondary schools are lacking severely in the following list of facilities. Apart from science labs, inequitable access to technology (computer labs and internet availability) is another pervasive issue in the lower secondary schools in Bahawalpur division.

Table 34: Total Lower secondary schools with the available facilities

District	Total lower secondary school facilities	Availability library	Availability of science lab	Availability of physics lab	Availability of biology lab	Availability of chemistry lab	Availability of computer lab	Availability of internet
Bahawalnagar	557	358	123	25	26	26	238	204
High	194	172	113	22	23	23	190	170
Middle	363	186	10	3	3	3	48	34
Bahawalpur	444	279	99	19	20	19	188	150
High	190	146	96	17	17	16	151	137
Middle	254	133	3	2	3	3	37	13

District	Total lower secondary school facilities	Availability library	Availability of science lab	Availability of physics lab	Availability of biology lab	Availability of chemistry lab	Availability of computer lab	Availability of internet
Rahimyar Khan	608	380	164	59	57	56	284	250
High	234	192	162	57	55	54	221	211
Middle	374	188	2	2	2	2	63	39
Grand Total	1609	1017	386	103	103	101	710	604

Source: Annual School Census, 2017-18

Table 35 shows that only 70-75% of the lower secondary schools are in satisfactory condition, while 15-25% of the schools (both Middle and High schools) require some form of minor repairing. Furthermore, classroom condition is really worrying in all the districts as almost 70% of the classrooms in High schools and in 36% of the Middle schools are categorised as dangerous. Across these physical infrastructure indicators, the condition of Middle schools is better than High schools.

Table 12: Building and Classroom status in Lower secondary schools

District	Building Status	Classroom status
Bahawalnagar		
High	194	111
Complete Building Needs Repairing	5	0
Needed Minor Repairing	48	18
Partial Building is Dangerous	19	79
Satisfying	122	14
Middle	363	55
Building Is Dangerous	2	5
Complete Building Needs Repairing	11	0
Needed Minor Repairing	61	12
Partial Building is Dangerous	11	21
Satisfying	278	17
Bahawalpur		
High	190	128
Building Is Dangerous	2	7
Complete Building Needs Repairing	5	14

District	Building Status	Classroom status
Needed Minor Repairing	42	9
Partial Building is Dangerous	23	86
Satisfying	118	12
Middle	254	47
Complete Building Needs Repairing	7	5
Needed Minor Repairing	47	4
Partial Building is Dangerous	13	31
Satisfying	187	7
Rahimyar Khan		
High	229	234
Building Is Dangerous	3	19
Complete Building Needs Repairing	8	18
Needed Minor Repairing	62	20
Partial Building is Dangerous	34	160
Satisfying	122	17
(blank)	0	0
Middle	374	178
Building Is Dangerous	9	40
Complete Building Needs Repairing	9	2
Needed Minor Repairing	63	11
Partial Building is Dangerous	32	93
Satisfying	261	32
Grand Total	1604	753

Source: Annual School Census, 2017-18

(c) Higher Secondary Schools and Intermediate Colleges

The number of Higher Secondary Schools and Intermediate Colleges (classes 11-12) are thinly spread out throughout the division.²² But this is not unique to this division alone, as this trend for higher levels of education, is common throughout the province. The state of high schools and intermediate education is overall satisfactory, with most schools and colleges facing issues of teacher retention. Many higher secondary schools are facing critical shortages in subject teachers (mathematics, science etc.). It is especially hard to retain female teachers in the area. Especially outside the major cities region.

²² Annual School Census, 2017-18

Table 13 Higher secondary educational facilities – segregated by gender

District name	Both	Male	Female	Intermediate Colleges	Total
Bahawalpur	5	11	11	24	51
Bahawalnagar	2	7	9	22	40
Rahimyar Khan	1	11	12	22	46
Total (Division)	8	29	32	68	137

Table 14: Student Enrolment, Teaching staff and student teacher ratios at Upper secondary level

District	Total enrolment	Total Teaching staff	Ratio of Total enrolled students/Total Teaching staff	Total students with furniture	Total teachers with furniture	Ratio of Total students/Total students with furniture
Bahawalpur	28322	941	33.7	25937	934	1.09
Bahawalnagar	22815	590	31.3	18301	577	1.25
Rahim Yar Khan	31133	811	34.1	28332	901	1.10

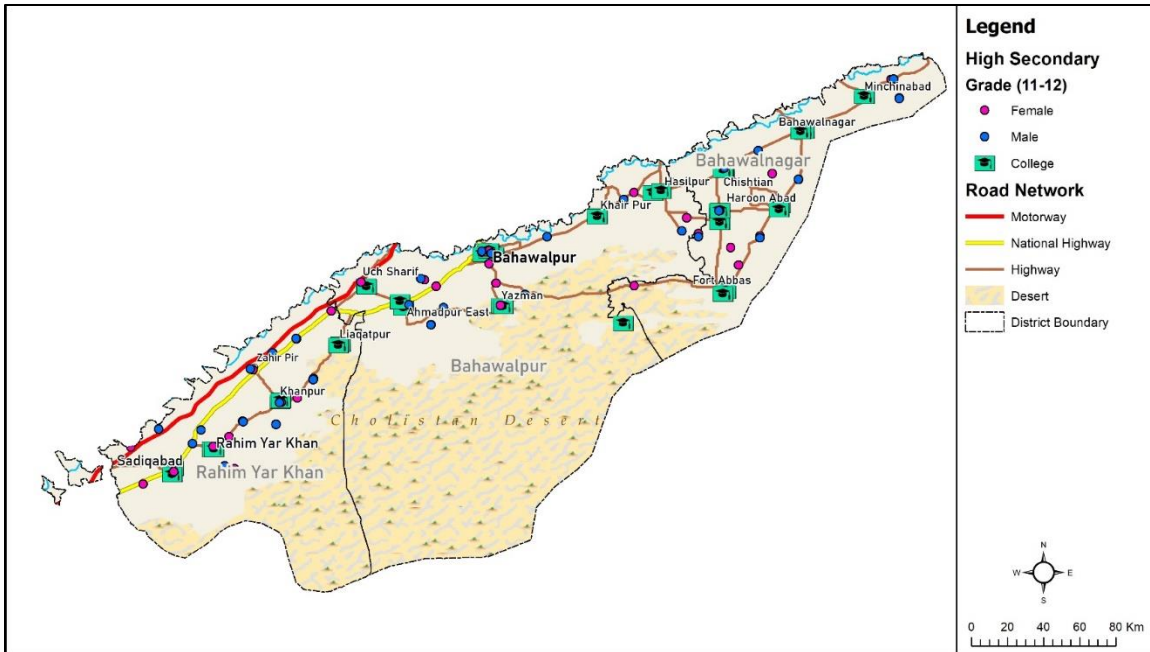


Figure 33: Spatial coverage of Upper Secondary schools in Bahawalpur Division.

Source: Information taken from Annual School Census, 2018 & mapped out by The Urban Unit.

Accessibility: Spatial analysis

The following map shows the accessibility of Upper Secondary school facilities across Bahawalpur division. In all the three districts the accessibility is fairly good, with a school available within 30-40 minutes timeframe maximum. However, the desert region and rural areas are fairly deprived as a facility is available within a 60 minute timeframe minimum.

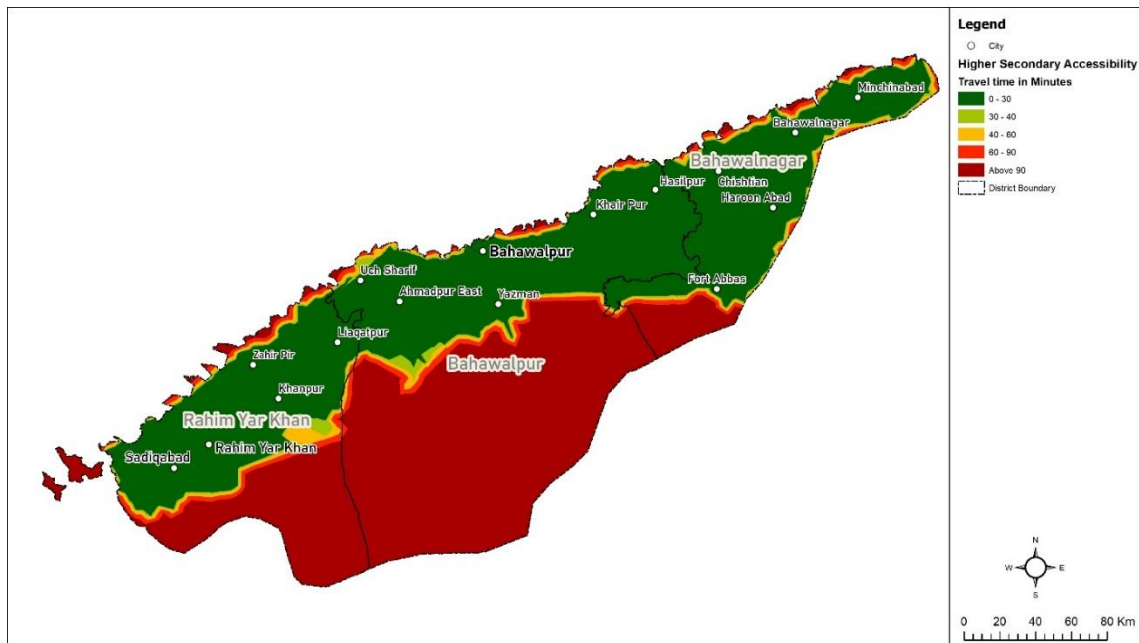


Figure 34: Accessibility of Upper Secondary schools in Bahawalpur division.

Source: Urban Unit database

Infrastructural Assessment

The data from Annual School Census 2018, shows that while inaccessibility is a prevalent issue for upper secondary schools; however, resource provisioning of basic infrastructural facilities is somewhat adequate. Yet almost 5% schools in every district are lacking in one or another facility.

Table 35: Total Higher secondary schools with the available infrastructural facilities

District	Total Upper secondary schools	Total number of toilets	Availability of boundary wall	Availability of Main-gate	Availability of proper sewerage	Availability of playground
Bahawalnagar	18	18	18	18	15	15
Bahawalpur	27	27	27	27	20	25
Rahimyar Khan	24	24	24	24	24	18
Grand Total	69	69	69	69	59	58

Source: Annual School Census, 2017-18

Moreover, for other facilities, as well, Upper secondary schools are performing way better than other lower-level schools. Availability of science labs, physics, biology, chemistry and computer labs is sufficient – apart from some schools in Bahawalpur specifically.

Table 15: Total Higher secondary schools with the available facilities

District	Total Upper secondary school facilities	Availability of library	Availability of science lab	Availability of physics lab	Availability of biology lab	Availability of chemistry lab	Availability of computer lab	Availability of internet
Bahawalnagar	18	18	17	11	11	11	17	17
Bahawalpur	27	24	22	20	19	20	25	23
Rahimyar Khan	24	22	24	19	18	19	24	23
Grand Total	69	64	63	50	48	50	66	63

Source: Annual School Census, 2017-18

Table 39 shows that 38% of the school buildings in Bahawalnagar and 18% of the schools in Bahawalpur district require some form of repairs and maintenance – while the situation of Higher secondary schools is relatively better in Rahim yar Khan district. Moreover, as far as classroom status is concerned 42% of the classrooms in Bahawalpur district and 60% classrooms in Rahimyar Khan district have buildings that are partially dangerous. These numbers indicate that fairly a high proportion of schools in all the three districts have buildings and classrooms that are categorised as dangerous and require urgent upgradation, maintenance and rehabilitation.

Table 16: Building and Classroom status in Higher secondary schools

District	Building Status	Classroom status
Bahawalnagar		
Higher Secondary	18	4
Needed Minor Repairing	7	1
Satisfying	11	3
Bahawalpur		
Higher Secondary	27	14
Building Is Dangerous	1	1
Needed Minor Repairing	5	5
Partial Building is Dangerous	2	6
Satisfying	19	2
Rahimyar Khan		
Higher Secondary	24	34
Building Is Dangerous	1	8
Complete Building Needs Repairing	1	4
Needed Minor Repairing	4	2
Partial Building is Dangerous	5	20
Satisfying	13	0
Grand Total	69	52

Source: Annual School Census, 2017-18

2.2.2 Statistical Analysis

Baseline Analysis

a) School Enrollment

As far as School Education is concerned, following are the Enrolment rates – 66% for Primary level, 21% for Middle, 12% for lower education and 1% for Upper Secondary level of education.²³ The figure represents a sheer skewness in the participation rates, as they increasingly decrease from primary to post-primary levels of education.

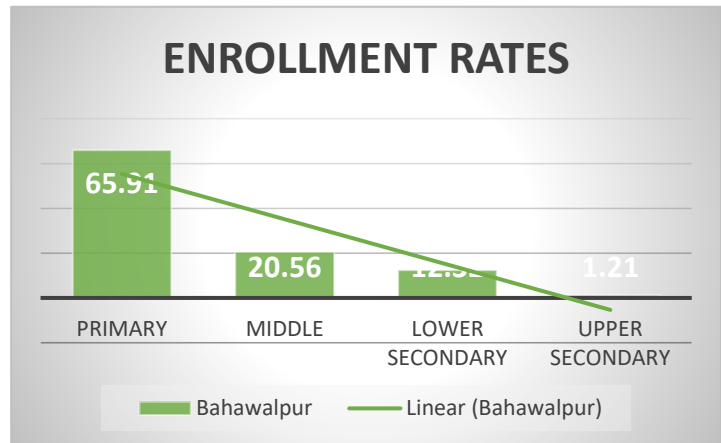


Figure 36 Enrolment rates
Source: MICS, 2017-18

(b) Primary School Entry rates

Primary school entry rates are an important indicator because an effective primary education can build a solid foundation and open avenues for future success. With its profound implications on both the individual and society, primary education plays a crucial role in reducing extreme poverty and promoting social changes. When compared with Punjab where Primary school entry rates are 30%, they are only 24% in Bahawalpur division. While being significantly lower than the province's average, participation rates provide another angle to the situation. They decline from 94% to 76% from primary to post-primary levels of education in

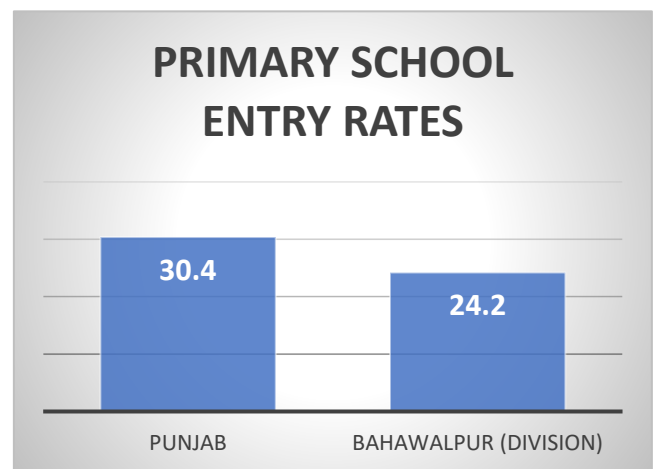


Figure 37: Primary school entry rates
Source: MICS, 2017-18

the division.²⁴ This is reflective of a myriad challenge being currently faced by the education sector of Bahawalpur division. UNICEF reports highlight that wealth inequality directly impacts Primary School participation rates and with 33% of the population falling in the poorest Wealth quintile in Bahawalpur, low

²³ Annual School Census, 2017-18

²⁴ MICS, 2018

Primary School Entry rates come as no surprise. Moreover, Parental Education also has a direct impact on the likelihood of a child entering the course of formal education. Alif Ailaan 2019 report on education performance reveals that in Bahawalnagar only 51% of parents have primary schooling, while 36% in Bahawalpur and 44.5% in Rahim yar Khan district. These statistics reveal that parents in almost more than half of households in Bahawalpur division have never completed primary education and is indicative of prevalence in low participation rate in formal education in the region.

Table 17: Primary School Entry rates

Primary school entry	Percentage of children of primary school entry age entering grade 11
Punjab	30.4
Bahawalpur (Division)	24.2
Bahawalpur	27.1
Bahawalnagar	26.4
Rahim yar Khan	19.2

Source: MICS 2017-18

(c) Completion rates

Furthermore, retention of students is another issue pervasive in Bahawalpur as highlighted by the performance in other education related indicators. Thus, these figures show that drop-out rates increase swiftly with higher levels of education. This problem is also highlighted through low Completion rates at each level of education, they drop from 52% to 28% from Primary to Secondary levels of schooling.²⁵ This is a challenge because it reduces the likelihood of a huge proportion of youth and school going age children to attain or even complete formal education at all.

²⁵ MICS, 2018

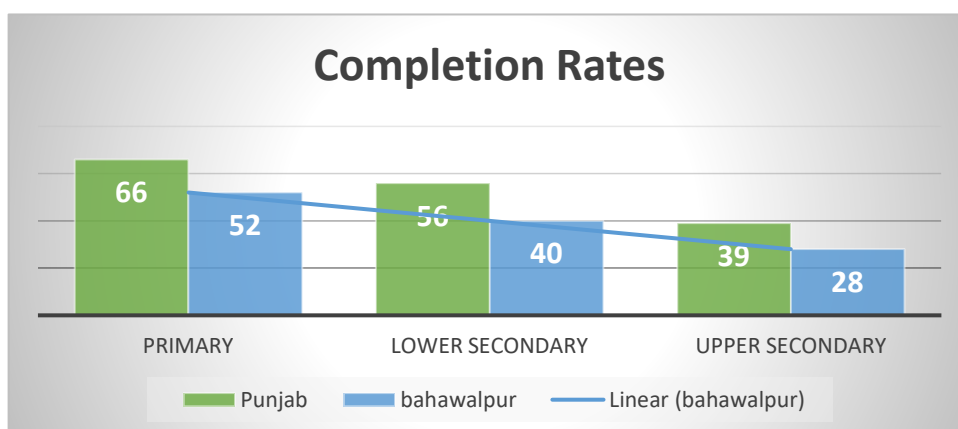


Figure 38: Completion rates
Source: MICS, 2017-18

Table 18: Completion rates (School Education)

Completion rates	Primary	Lower Secondary	Higher Secondary
Punjab	66	56	39
Bahawalpur (Division)	52	40	28
Bahawalpur	55.7	43.5	31.8
Bahawalnagar	55.5	41.4	28.8
Rahimyar Khan	47.4	37.5	25.1

Source: MICS 2017-18

(d) Gender Parity Index

Additionally, by assessing the enrollment rates through a gendered lens some key inferences can be made about variation in participation rates. Gender parity index values demonstrate that in Bahawalpur division at Primary and post-secondary level female disparity in enrollment rates is significant and also greater than provincial average.²⁶ However, the situation improves comparatively at higher levels, with a greater rate of female enrollment rates observed. Additionally, Bahawalnagar and Rahimyar Khan districts have the lowest relative GPI values in the division.

²⁶ MICS, 2018

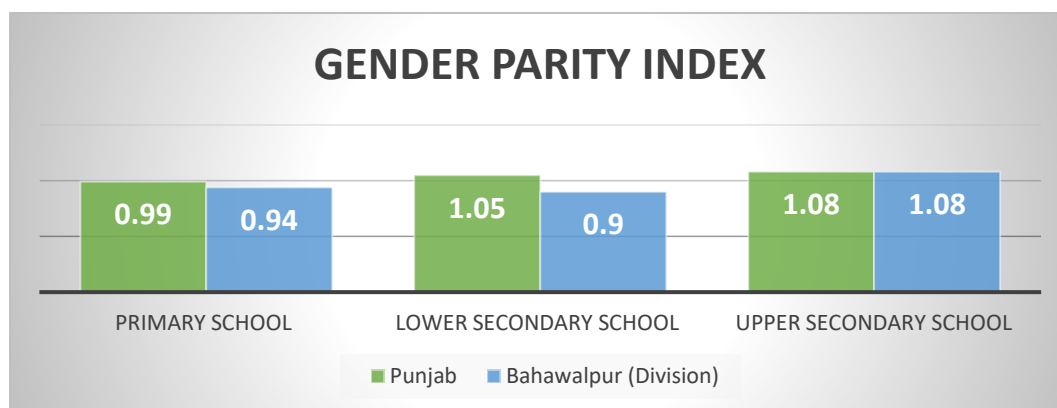


Figure 39: Gender Parity Index
Source: MICS, 2017-18

Table 19: Gender Parity Index (School Education)

Gender Parity Index	Primary school	Lower Secondary school	Upper Secondary school
Punjab	0.99	1.05	1.08
Bahawalpur (Division)	0.94	0.9	1.08
Bahawalpur	0.91	1.04	1.16
Bahawalnagar	1.00	0.89	1.3
Rahimyar Khan	0.91	0.8	0.93

Source: MICS 2017-18

(e) Out-of-School Children

Out of school children increase by two-fold from primary to post primary levels of education – from being at 23% at the Primary level to 31% in Lower secondary and increase to almost 44% in Upper secondary level of education.²⁷ Additionally, a district wise analysis reveals that the proportion of these children is highest in Rahim yar Khan district.

²⁷ MICS, 2018

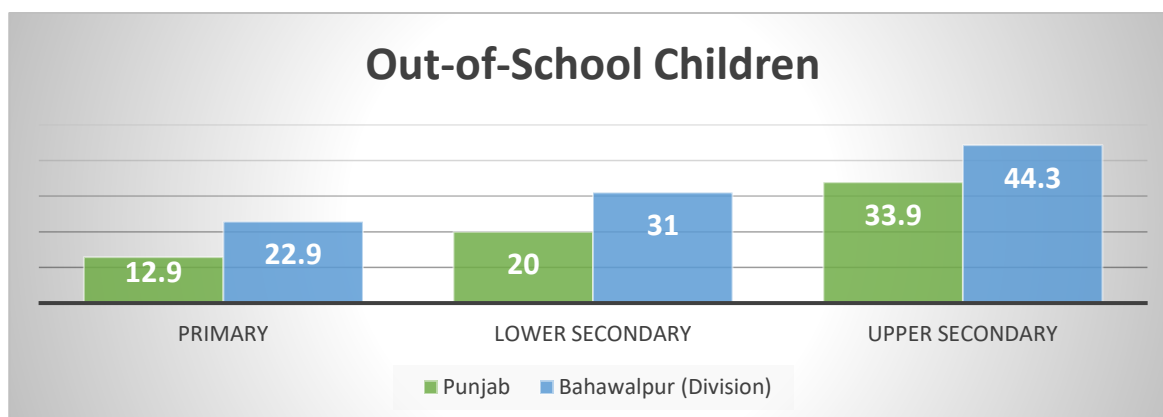


Figure 40: Out-of-School children
Source: MICS, 2017-18

Table 20: Proportion of Out-of-school children at each level of School Education

Out of school children	Primary	Lower Secondary	Upper Secondary
Punjab	12.9	20	33.9
Bahawalpur (Division)	22.9	31	44.3
Bahawalpur	26.2	29.9	43.3
Bahawalnagar	13.4	26.1	39.1
Rahimyar Khan	29.2	37.1	50.5

Source: MICS 2017-18

(f) Transition rates

Effective transition rates from primary to lower secondary are higher for Bahawalpur division, compared to the provincial average. A district wise analysis of the situation reveals that Bahawalnagar is underperforming

in this indicator relative to other districts in the division and this could be due to low coverage of Post-primary educational facilities.²⁸

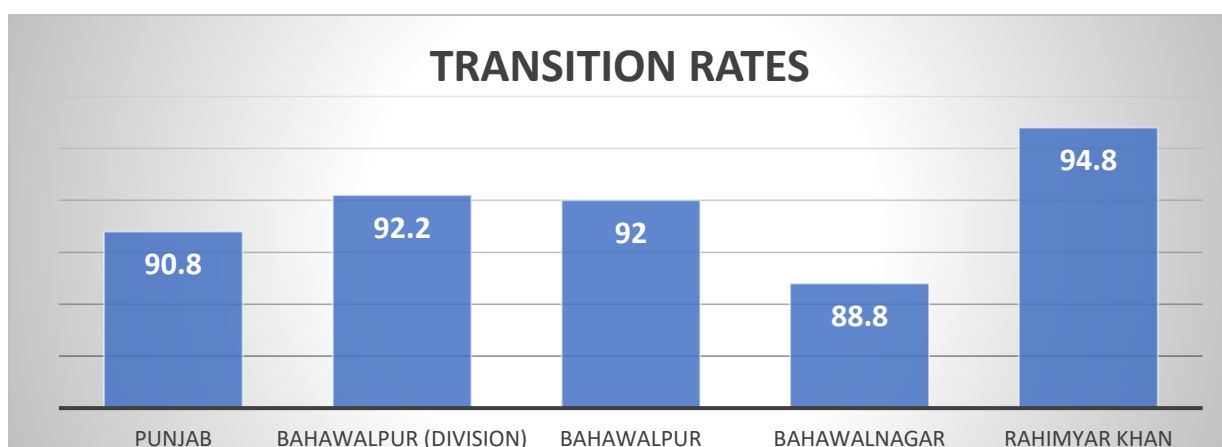


Figure 41 Transition rates
Source: MICS, 2017-18

Table 21: Effective Transition rate to lower secondary schools

Transition rates	Effective Transition rate to lower secondary
Punjab	90.8
Bahawalpur (Division)	92.2
Bahawalpur	92
Bahawalnagar	88.8
Rahimyar Khan	94.8

Source: MICS 2017-18

(g) Foundational Learning Skills

Foundational learning skills is a key indicator to assess the quality of education for children aged 7-14 years. It measures the percentage of children who have successfully completed three foundational reading tasks and four foundational number tasks

²⁸ MICS, 2018

both in and out of school. Across Punjab, foundational reading skills among the representative population is 33% and 24% in Bahawalpur Division. In addition to that, foundational numeracy skills across Punjab are 4.5% and 2.1% in Bahawalpur – these statistics are alarmingly low and are indicative of low learning levels in children in the province as well as in the division²⁹.

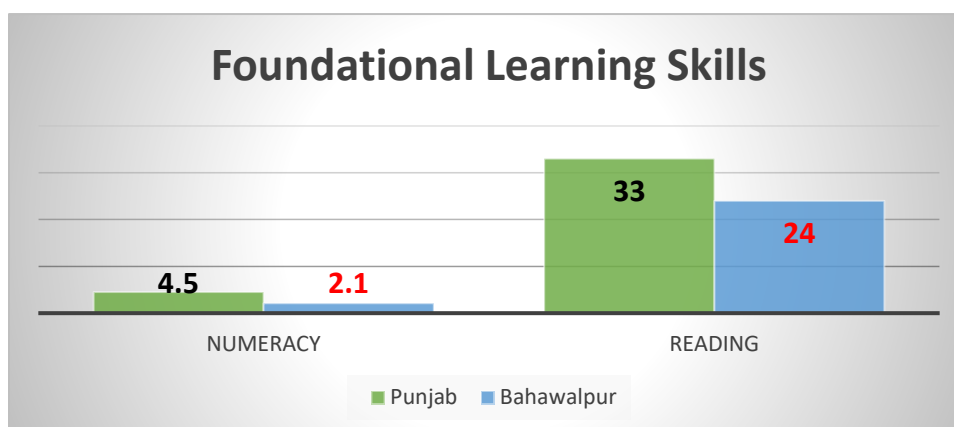


Figure 42 Foundational Learning Skills, Numeracy & Literacy
Source: MICS, 2017-18

(h) Teacher Retention

As per the statistics of School Information System (SIS), the proportion of teachers designated in primary schools is higher than Middle and Secondary levels. This could be due to low accessibility of post-primary educational facilities (specifically in remote and desert areas) and low availability of qualified staff in the region.

Table 22: Teaching Staff (by designation)

Education level	Primary	Middle	Secondary
Province average	199528	105229	44935
Bahawalnagar	7555	3843	1465
Bahawalpur	6957	3169	1247
Rahimyar Khan	10208	4086	1561

Source: School Information System, SED

²⁹ ibid

(i) Teaching staff (sanctioned posts)

The figure illustrates that almost 20% of the sanctioned post in all the three districts of Bahawalpur division are vacant. It is imperative to mention that this is a pervasive issue in the division as well as in the province too, since average vacant posts are same overall in Punjab.

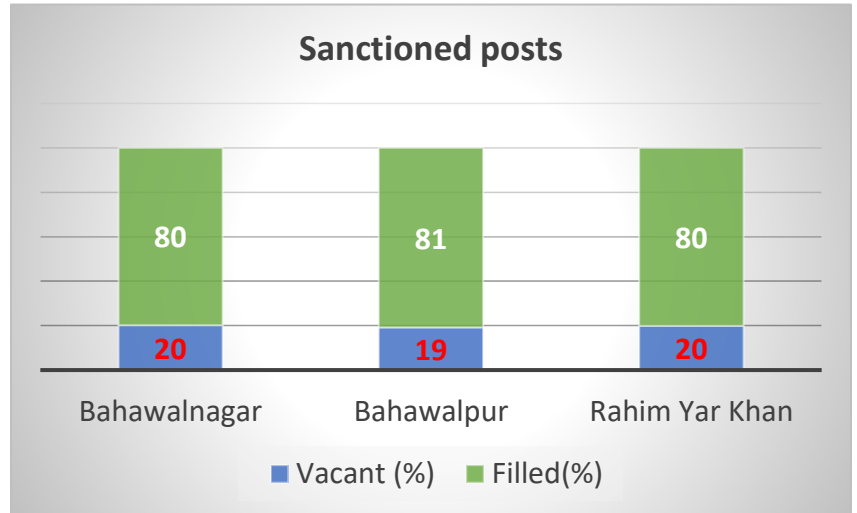


Figure 43 Enrolment rates
Source: MICS, 2017-18

Table 23: Total sanctioned posts: Vacant and Filled

Sanctioned posts	Vacant (%)	Filled (%)
Province average	20	80
Bahawalnagar	20	80
Bahawalpur	19	81
Rahim Yar Khan	20	80

2.2.3 Ground level Analysis

Stakeholder Analysis

The Urban Unit Education sector team visited various education facilities in the Bahawalpur division during August 2021 and met various stakeholders from the Education department of the region.



Meeting with the Principal Government Girls High School, RYK



Meeting with Managing Director, and DD Literacy, CDA Bahawalpur



Civil Secretariat, South Punjab - Education

Stakeholder Meetings & Discussions

- Education Team, SED
- Director, PEF
- MD, CDA Cholistan
- DD Development,, Bahawalpur
- DD, Literacy, Bahawalpur
- Sec. Education, South Punjab
- CEO Education, Bahawalpur
- CEO Education, RahimYar Khan

Field & on-site visits

- Primary, Middle & High School (**SED**)
- Female High School (**Cholistan**)
- Primary, Middle, High Schools (Community Schools)
- Five Mobile Schools
- (Derawar Fort & greater Cholistan area).

Purpose of the visits

- Understand **Education landscape**
- Identify **migratory patterns**
- Understand **supply sided constraints** (accessibility, infrastructure, quality)
- **Demand-sided constraints** (teachers, parents, students focus group discussions).

Rapid Assessments – Field Visits

The Urban Unit Education sector team visited various education facilities in the Bahawalpur division during August 2021.



Grade 8th Classroom Condition



Availability of Physics lab



Exposed sewerage lines, Government Girls High School, RYK



Deteriorating Boundary wall



Unsafe Classroom and building

Figure 44: Condition of infrastructural facilities in lower and upper secondary public schools, Bahawalpur Division



Mobile Schools, Cholistan

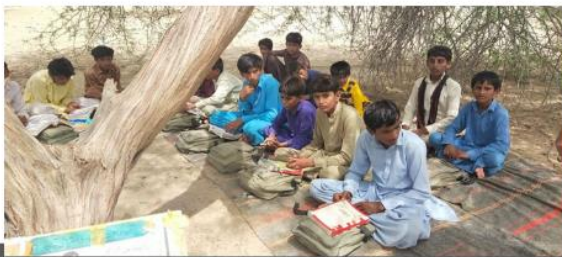


Figure 45: Mobile Schools, Cholistan



Figure 46: Community schools, Bahawalpur

2.4 Gap Assessment

When compared with Punjab, low test scores in Reading and Numeracy assessments are representative of weak foundational skills, as well as low learning levels among students of all age cohorts. These figures highlight the issue of low quality of education in the Bahawalpur Division. This could be a result of multiple factors including pervasive poverty in the regional population as indicated by Multidimensional Poverty Indices which raises the opportunity cost for households of formal education. MICS report 2017-18 reveals that prevalence of Child labor is high in Bahawalpur division as almost 57% of school going age children are involved in some form of exploitative economic activity.

In addition to that some of the supply side factors include: poor infrastructure, lack of competent human resource and weak governance in the education sector of Bahawalpur Division that poorly impacts school participation and student motivation to continue education. As per the statistics of School Education department, in year 2021 there are 179 schools in Punjab without teachers out of which 30% are in Bahawalpur division alone³⁰. Such administrative constraints play a pivotal role in catalysing other challenges such as: low attendance rates across all levels of school education; low completion rates of primary and

³⁰ School Information System, Punjab, 2021.

secondary level; and hence, low transition rates from primary to secondary level. Thus, a high number of children drop out of school or remain out of school, as observed in the aforementioned statistics.

The list of issues and challenges in education (though not exhaustive) can be summarised in the following points, after an overall situational assessment:

- Low learning levels across all levels of Education
- Low Completion rates and Transition at primary and secondary level
- Lack of adequate infrastructure
- Overcrowding in classrooms – high student teacher ratios
- Low Attendance rates across all levels of School Education
- High rate of gender disparity across levels of education
- High number of out of school Children
- Scattered population settlements and nomadic life style
- Issues in teacher retention

2.5 Way Forward

(a) Public-Private Partnerships

Quality of education is a key area that requires urgent reform in the education sector of Bahawalpur division. To this end, public-private partnerships provide an affordable and swift solution to improve on this front. The first category comprises government-funded private schools and/or government funding for students to enrol in private schools. These are schools that are owned by nongovernment providers but receive government funding. These models aim to improve access in underserved areas and for disadvantaged households. These initiatives could be used to target the establishment of such schools in underserved localities of Bahawalpur Division that rank poorly on the following indicators: the size of the out-of-school children population (6–10 years), distance to the nearest primary school, and gender disparity in primary school participation. Additionally, incorporating models like Adopt-a-school programs – where teacher salaries and utility payments are made by the government while the “adopter” takes over all other expenses, including hiring additional contract teachers, where necessary.³¹ Under this program, Punjab Education Department can encourage the private sector and the civil society to adopt government-run schools to ensure public school revival and educational improvements for children in Bahawalpur Division.

³¹ School Education in Pakistan: A Sector Assessment, *Asian Development Bank*, 2019.

Table 24: Common forms of PPP models in School Education

PPP Model	Description
School Management	Private management of public schools, but publicly owned and funded
Capacity Building	Support may be teacher training, textbook provision etc.
	Government pays for provision of specific support
School Infrastructure Initiative	Private partner builds, owns and operates school infrastructure and government pays a fee for its use
Purchase of Educational Services from Private Schools	Government sponsors students to attend private schools
Vouchers and Vouchers-like Programmes	Government gives vouchers to parents to pay for education of their children in a school of their choice

Source: Public Private Partnerships in School Education Learning and Insights for India

(b) Increasing access to Formal Education

A key interim measure could be to incorporate a shift-wise model of classes in schools. Evening shifts in existing primary schools for grades 6–8 or similar shifting measures, could be considered to have a more immediate impact on participation and transition rates while simultaneously making education more accessible.

Another challenge in the educational landscape of Bahawalpur Division is low participation in post-primary education due to a gap in school coverage and hence, low availability of schools which results in a high drop out rate and out of school children in the division. A viable strategy in the short term could be to upgrade existent primary schools to higher levels to offset the gap in supply of post-primary schools in the region. Additionally, with a greater emphasis on rural areas which are more deprived.

c) Upgradation of infrastructure

Low quality of infrastructure is a crucial factor that has a bearing on participation rates, retention rates and student learning outcomes. Educational facilities in Bahawalpur division lag behind in some form of resource provisioning and the problem gets compounded due to a stark urban-rural socio-economic divide in the region - basic facilities like safe buildings, boundary walls, clean drinking water, sanitation are either missing or of poor quality. Hence, among other implications, this situation negatively impacts student retention and specifically female participation in formal education. A survey of the quality of infrastructure in Punjab indicates that the attendance of girls triples when schools have proper classrooms. Additionally, Studies in several developing countries, including Bangladesh and India, have pointed out that having toilets, particularly in middle and high schools, is key to improving girls' participation in schooling and reducing dropouts. Alif Ailaan reports that 52% of boys and 30% of girls drop out of school because they are unwilling to go to schools.³² Factors responsible for this unwillingness include the lack of basic facilities in schools, poor quality of basic facilities in schools and poor quality of education. It is imperative that the Provincial and local government ensure adequate school infrastructure is available and there is timely upgradation of existent facilities to address these issues to increase enrollments and reduce dropouts.

To better analyze this phenomenon, a school wise survey could be conducted to assess the impact of standard of existent infrastructural facilities with the overall performance of that school in central examinations. This would aid in optimally allocating grant funding to schools.

³² Pakistan District Education Rankings 2017, Alif Ailaan

2.6 Higher Education

Universities:

There are four public sector universities in Bahawalpur Division and all the universities fall under the mandate of Punjab Government and are regulated by Higher Education Commission and Higher Education Department, Punjab. Furthermore, while the role of the private sector in providing Higher Education is substantial, none of these facilities are HEC recognized. Hence, they are fairly unregulated, and no inferences can be made about the quality of education that is being provided there. It is imperative to add here that only Public sector universities in the division are HEC recognized.

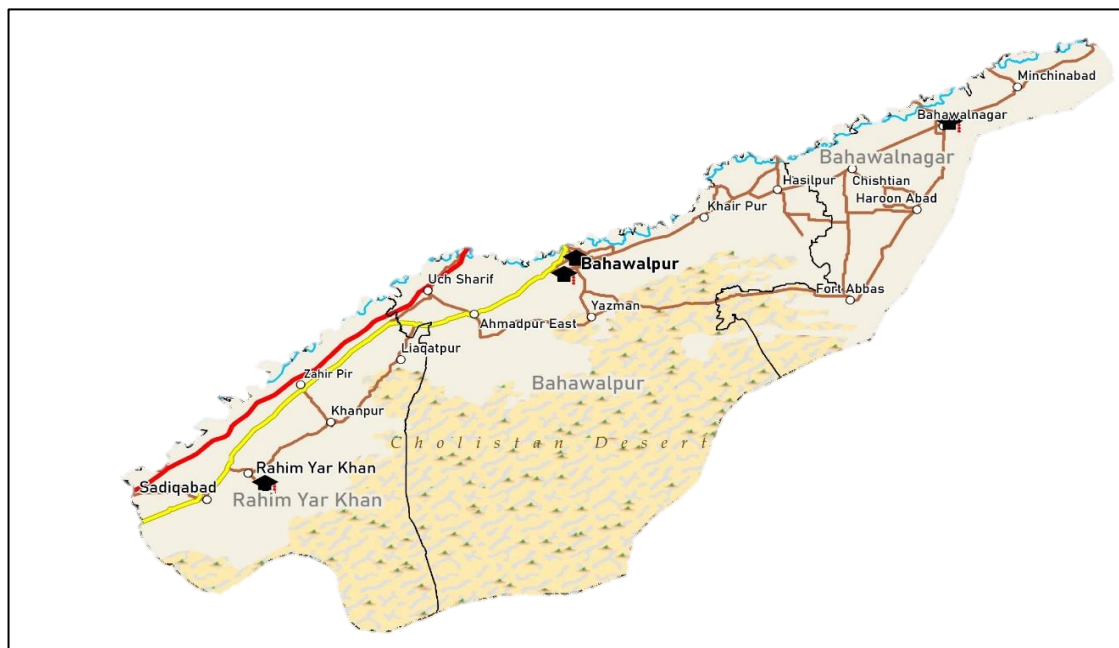


Figure 47 Spatial coverage of Public Universities in Bahawalpur division
Source: Urban Unit database

Accessibility: Spatial analysis

University accessibility is fairly poor in the entire division, as only 3 regions in the entire division have a higher education facility available within 40 minutes. While other regions are severely deprived, as no facility is available within a timeframe of 60 minutes.

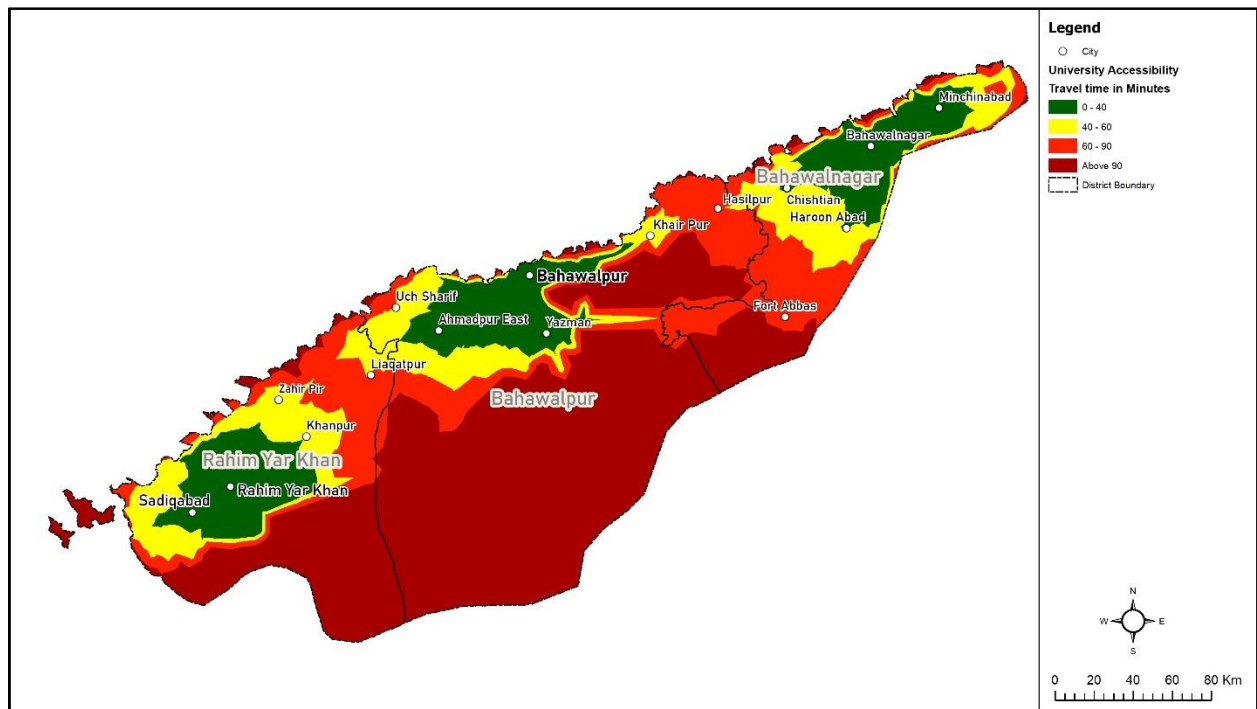


Figure 48: Accessibility of universities in Bahawalpur division

Source: Urban Unit database

Table 25. Higher Education facilities in Bahawalpur Division

University	Sector	HEC Recognised
Islamia University, Bahawalpur	Public	Yes
Khawaja Fared University of Engineering and Information Technology, Rahimyar Khan	Public	Yes
Government Sadiq College Women University, Rahimyar Khan	Public	Yes
Cholistan University of Veterinary and Animal Sciences, Bahawalpur	Public	Yes

University	Sector	HEC Recognised
Riphah International College, Bahawalpur	Private	No
CMH Institute of Medical Sciences, Bahawalpur	Private	No
Softvision College of IT, Bahawalpur	Private	No
GLIM Institute of Modern Studies, Bahawalpur	Private	No
College of Physicians and Surgeons Pakistan, Bahawalpur	Private	No
Bahawalpur Medical and Dental College	Private	No

Following are some of the renowned universities in the division:

i. Islamia University, Bahawalpur

Established in 1975 as a chartered university, Islamia University is the most renowned institution in Southern Punjab with 5 sub-campuses in the region. Apart from conventional disciplines of religious affairs, languages, social and basic sciences, other disciplines that are offered include: Allied Health Sciences, Agriculture, Business Administration, Computing, Education, Engineering, Fine Arts, Information Technology, Law, Pharmacy, Sports and Veterinary Sciences.

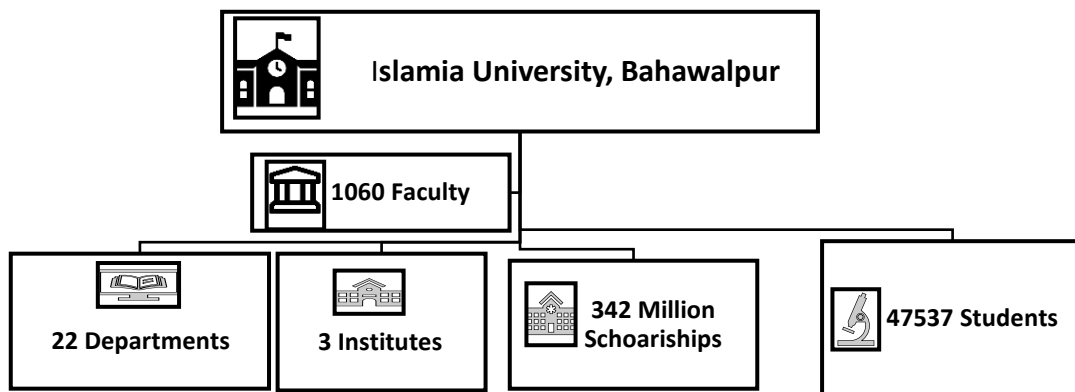


Figure 49: Islamia university, Bahawalpur

ii. **Cholistan University of Veterinary and Animal Sciences, Bahawalpur**

Established in 2018 this university has been set up with the aim of efficiently reaping the potential of livestock resources of Cholistan and Southern Punjab with a state of the art institution that caters to the localized needs of South Punjab for education, research, disease diagnostics, trainings and keeping pace with innovations in the livestock, poultry, wildlife and allied sectors. Furthermore, also aiding in catering to the needs of industry and trade to produce and export safe and healthy livestock products.

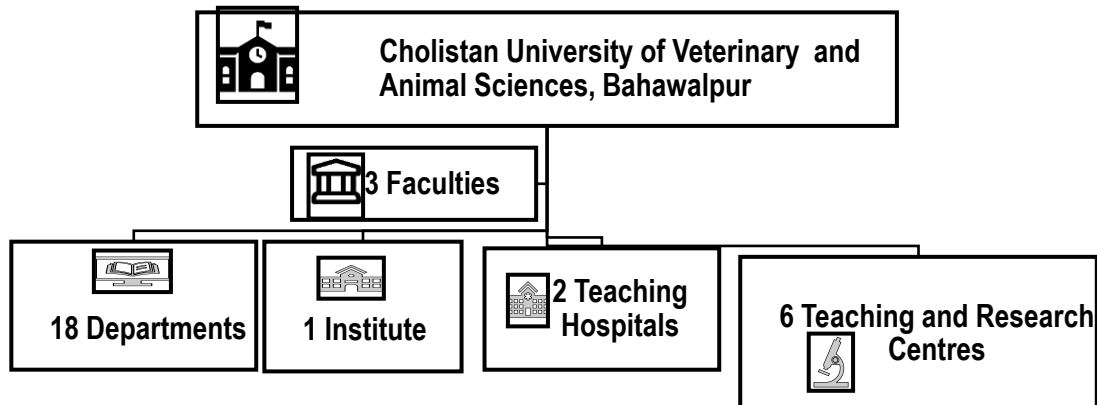


Figure 50: Cholistan University of veterinary and Animal Sciences, Bahawalpur

iii. **Khawaja Freed University of Engineering & Information Technology, Rahim Yar Khan**

This university has been set up fairly recently in 2018 to cater to the longstanding need of an Engineering university in Southern Punjab. This institute offers 30 world-class undergraduate degree programs in six domains of Sciences & Mathematics, Engineering, Information & Communication Technology, Life Sciences & Healthcare, Management, Social & Legal Sciences, Humanities & Arts.

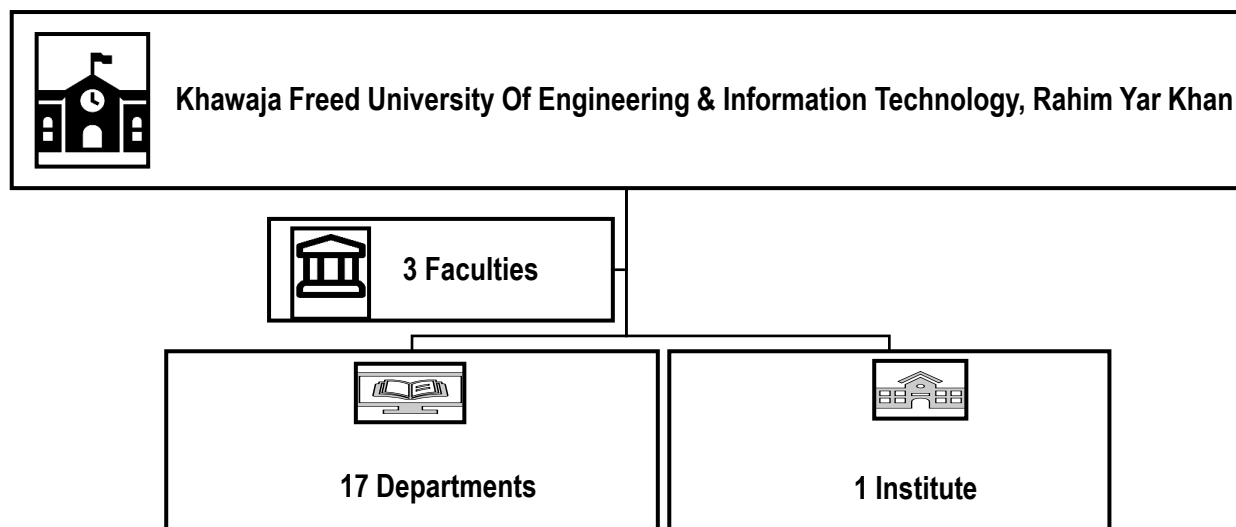


Figure 51: KFUEIT, Rahim Yar Khan

In addition to that, several MOUs have been signed with international universities and well-established organizations to foreground key industry-institution linkages for better academic exposure and employment opportunities

Memorandum of Understanding (MOU's)
MoU Between KFUEIT & Baku Engineering University, Azerbaijan
MoU Between KFUEIT & Stress Physiology laboratory UNIVERSITY OF TASMANIA, AUSTRALIA
MoU Between KFUEIT & Mevlana University Turkey
MoU Between KFUEIT & Dicle University Turkey
MoU Between KFUEIT & netkent mediterranean research and science university
MoU Between KFUEIT & THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
MoU Between KFUEIT & Diya
MoU Between KFUEIT & University of Tasmania Australia
MoU Between KFUEIT & PBSA
MoU Between KFUEIT & GAXB, Guangxi China
MoU Between KFUEIT & First Women Bank
MoU Between KFUEIT & Mir Chakar Khan University
MoU between KFUEIT AND TU BAF
MoU Between KFUEIT & Lanzhou University China on Academic and Research Collaboration
MoU Between KFUEIT & Kamran Education Foundation

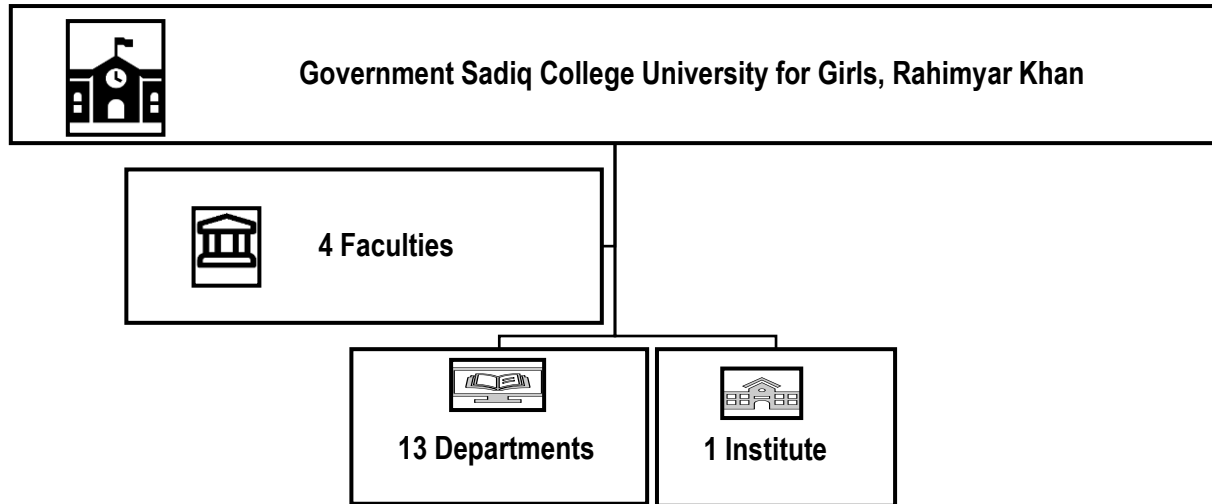
Figure 52: Memorandum of Understanding (MOU'S) signed by KFUEIT, Rahim Yar Khan

iv. Government Sadiq College University for Girls, Rahimyar Khan

This institute is an all-female facility - a degree college that was upgraded to university in 2010. As an emerging university in southern Punjab, The Govt. Sadiq College Women University aims to provide quality education to empower women through knowledge and skills for socio-economic development of the region.

To this end, this university has launched an E-Rozgar scheme to upskill women by providing free of cost online training to in the courses pertaining to E-Commerce, UI-UX Design, Content Marketing & Advertising, Creative Design and Digital and Social Media Marketing.

Figure 53: Government Sadiq University for Girls, Bahawalpur



Monitoring and Evaluation



Additionally, universities that are HEC recognized are barely performing at the margin as per the Monitoring and Evaluation criteria of the HEC Board and other International Ranking organizations on Key Performance Indicators like Quality assurance, Teaching quality, Publications, International and Industrial outlook.

Higher Education Commission developed this dashboard to assess the performance of universities across various parameters of online mode of teaching – which has been relied on heavily post COVID-19.³³

³³ Higher Education Commission, Online Classes Readiness Dashboard, 2021.



- i. Government Sadiq College Women University received a score of 58% in this performance indicator.

< Online Classes Readiness Dashboard
GOVERNMENT SADIQ COLLEGE WOMEN UNIVERSITY, BAHAWALPUR

#	Parameter	Percentage of Readiness	
1	University Readiness	100%	
2	Course Readiness	14.29%	
3	Faculty Readiness	0%	
4	Technology Readiness	100%	
5	Library Readiness	50%	
6	Student Readiness	100%	
7	Evaluation Readiness	100%	
8	Laboratory Readiness	0%	

- ii. Islamia University Bahawalpur received an overall score of 58%.

< Online Classes Readiness Dashboard
ISLAMIA UNIVERSITY, BAHAWALPUR

#	Parameter	Percentage of Readiness	
1	University Readiness	50%	
2	Course Readiness	14.29%	
3	Faculty Readiness	0%	
4	Technology Readiness	100%	
5	Library Readiness	100%	
6	Student Readiness	100%	
7	Evaluation Readiness	100%	
8	Laboratory Readiness	0%	

- iii. Khawaja Fareed University of Engineering and Information Technology received an overall score of 52%.

< Online Classes Readiness Dashboard		
KHWAJA FAREED UNIVERSITY OF ENGINEERING AND INFORMATION TECHNOLOGY (KFUEIT), RAHIM YAR KHAN		
#	Parameter	Percentage of Readiness
1	University Readiness	0%
2	Course Readiness	14,29%
3	Faculty Readiness	0%
4	Technology Readiness	100%
5	Library Readiness	100%
6	Student Readiness	100%
7	Evaluation Readiness	100%
8	Laboratory Readiness	0%

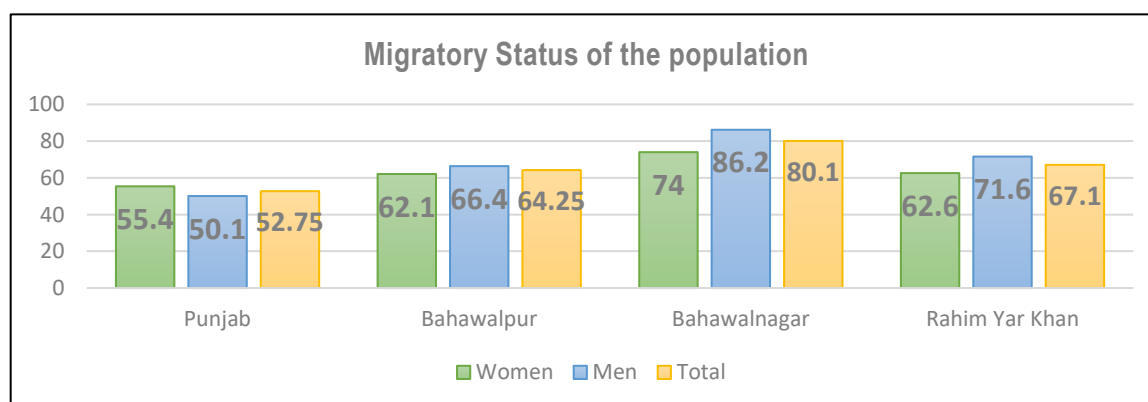
Rankings

- As per the most recent HEC Ranking (2016), Islamia University ranks 11th while other universities did not qualify for the ranking criteria because they have been established fairly recently.
- Apart from that, as per Times Higher Education Ranking List, Islamia University is the only university from the region to have qualified for a place in the list – by getting ranked at 1207 in year 2020.

2.7 Gap Assessment

- (a) The importance of research and development cannot be underscored enough as research and publications are a key component of monitoring and evaluation framework of Ranking boards and organisations. However, consistently, universities in Bahawalpur region have ranked poorly nationally and internationally, due to underperformance in this academic component, among others. This is primarily due to a lack of specialised and research-oriented universities that have an emphasis on strong graduate programmes. Apart from Islamia university, other HEC recognised universities [which are quite a few in number] in the division have been established recently and are in their nascent stages of development. Furthermore, due to a lack of resource funding and unavailability of qualified faculty, universities in Bahawalpur division have been performing poorly in this domain.

- (b) At present, poor inter and intra institutional linkages are a key challenge of the Tertiary institutes Bahawalpur division. This impacts skill development of the potential workforce, and hence their job placement opportunities. Bahawalpur division is predominantly an agriculture-based economy with a weak industrial base and a services sector. Thus, this greatly impacts the kind of job opportunities available for the labor force entrants. Moreover, universities that have been established in line with the growing sectors like Cholistan Institute of Veterinary and Animal Sciences are fairly recent. Additionally, the capacity of vocational training institutes of developing linkages with institutions is limited, due to lack of qualified trainers, outdated curricula and lack of government patronage. Furthermore, TVET pathways and links within the general education system are not fully developed, which impacts the transition of students from formal education to TVET programs. Overall, these current challenges get compounded with a weak policy support from the government with regard to liaising with key industries in the region which could conduct training programmes to upskill workers. Hence, in Bahawalpur division due to a lack of technical, vocational and technology-oriented educational streams industry-institution linkages are fairly under-developed.
- (c) Given the pervasive rural-urban socioeconomic disparity in the division, migration is a central aspect of the lives of most of the households. The statistics reveal that the prevalence of rural-urban migration is higher in all the districts of Bahawalpur compared to Punjab. This is indicative of historical neglect in development, and hence poor public service delivery in key services – education being the most important one. Thus, there is an urgent need to remedy the extreme shortage of Higher educational institutes in the region both in terms of quantity and quality of available education. As of now, only 4 universities in the region are HEC recognized since others do not meet the standards and criteria of education required to qualify for HEC recognition. This not only has a direct impact on the quality of education being provided but also affects the future academic and career opportunities of students who graduate from these universities.



2.8 Way Forward

(a) Affiliating Colleges with HEC recognized universities

The data from Pakistan Education Statistics Report demonstrates that there is high prevalence of public sector colleges in the region relative to universities. Thus, to overcome the supply constraint in Higher Education facilities, MOUs can be signed with renowned and well established Tertiary institutes in the country in order to provide affiliation to these colleges for some of the programs. This is a cost-effective strategy to meet the higher education needs in the division in the short term. The responsibility of the affiliating universities would include determining and overseeing academic standards, administering centralized examinations, and prescribing curriculum to the affiliated colleges.

(b) Establishing sub-campuses

It is crucial to address the challenge of a lack of HEC recognized universities in the division. Hence, to this end MOUs with various well-established institutes could be made like Lahore University of Management Sciences, Lahore School of Economics, UET, NUST and NCA to establish their sub campuses in Bahawalpur. Furthermore, faculty from these universities can also be outsourced on contractual terms. This would significantly scale up the quality of higher education needs in the short term.

(c) Investment in Virtual Education

Furthermore, improving access to education is another front that needs urgent remedy in this sector of education. To this end, a broad distance education-based system can be established for continuing education by providing subsidized virtual courses, to the enrolled students of regional Public sector universities of the division, of International universities through platforms like Coursera and Data camp. This would open an avenue for international education, while also enabling to improve the overall standard of education in Bahawalpur division.

(d) Investment in Technology

As per the MICS 2018 report, access to ICT is fairly low in the division for individuals aged 15-49. During the last three months only 3% women and 9% men had access to a computer and 2% women, and 17% men had access to Internet for the same time duration. These figures not only reveal sheer inequity in access to technology for the regional population but highlight the extent of inequity women face when it comes to accessing technology. This calls for the provision and upgradation of technological facilities in the public sector universities in order to offset this resource constraint.

(e) Fostering Inclusivity

Gendered discrimination is a key stumbling block for the complete realization of educational outcomes, and it gets even more pronounced with higher levels of education. As per MICS 2018 statistics on harassment and discrimination: 3.8% of women have felt discriminated on the basis of their gender in the last 12 months and it is higher than the provincial average of 3%. This has a detrimental impact on participation of women in formal education and employment. Thus, key interventions like codifying anti-harassment policies, reserving admission quotas for women and need based grants could help alleviate gendered disparity in Higher education. In addition to that, replicating and expanding the model of Government Sadiq College University for Girls in other districts of Bahawalpur division would significantly aid in remedying this challenge.

(f) Technology parks and Incubation Centres

Furthermore, stimulating entrepreneurial research and development by establishing technology parks and incubation centres could be a very lucrative investment for both higher education and employment opportunities in the region. Khawaja Fareed University of Engineering and Information Technology in Rahim yar Khan can be converted into a potential hub for the development and expansion of Scientific and technological research capacity. This would help develop and create linkages and synergy between academia and the corporate world in areas that feed into the global knowledge industry. The primary goal is to be achieved through creating clusters of related academic and industry sectors especially in the ICT, Business and Management Sciences, and Science and Technology.

2.9 Proposed plan for the Education sector

Following is the list of the proposed projects for the education sector, they deal with remedying pervasive issues like high number of out of school children, low completion and transition rates. The emphasis of most projects is on upgradation of infrastructural facilities, upgradation of primary schools to higher levels [to offset the supply constraint] and increasing education accessibility for female population of the region.

Table 26: Intervention for the Education sector

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
LITERACY					
1.	Educational Complex	Establishing small centres of educational complex/ public libraries / learning centres at DHQ's of three districts.	Setting up public libraries/ computer labs / adult literacy jobs and trainings centres in DHQ's.	To improve youth and adult literacy rates.	200M x 3 districts (600)
SCHOOL EDUCATION					
Primary Schools					
Short Term					
2.	Upgradation of existing facilities	Identifying targeted areas where over-crowding is predominant. And existing infrastructure is in need of re-modification.	Improving overall infrastructure and accessibility to education	<ul style="list-style-type: none"> To improve overall school environment To improve supply sided constraints to education 	10M x 100 facilities (1000)
Medium Term					
3.	Mid-day Meal Scheme	Identify areas of low enrolment, and provide mid-day meal schemes in those areas, to act as an incentive for increased enrolment.	Provide mid-day meals to students and teachers at primary school level.	<ul style="list-style-type: none"> To increase over-all enrolment To improve child cognitive development 	10
4.	Early Childhood Education (ECE)	Establishing early childhood education facilities in Primary schools of urban clusters of Bahawalpur division	Introduction of Early Childhood Education in Primary Schools of Bahawalpur division with highest enrolment & Improvement of Environment of Schools to convert them into Child-	<ul style="list-style-type: none"> Increasing Participation in Formal education Increasing Primary school entry rates 	100M x 5 facilities (500)

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
			Friendly Schools		
Long Term					
5.	Mobile Schools	Construction of semi-permanent mobile schools structures in Cholistan	Identifying areas that have high enrolment in Cholistan. And providing semi-permanent structures to students.	<ul style="list-style-type: none"> • Increase in overall enrollment • Increase in accessibility • Better environment conditions 	200
Secondary level					
Short Term					
6.	Capacity building of Teaching staff	Teacher training in low performing Tehsils	School based, teacher focused and need based training	<ul style="list-style-type: none"> • To support the School Education Sector in Punjab. • To improve school participation and completion rates. • To improve teaching and learning practices with a particular focus on low performing districts. 	25
7.	Upgradation of school levels – construction of post-primary blocks	Up-gradation of Schools from Primary to secondary level by establishing secondary level blocks in Tehsils which have limited accessibility to post-primary school facilities	Upgrading existing primary level facilities to higher levels	Overcome the supply constraint of post primary educational facilities to improve student retention and reduce drop out rates	1000

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
8.	Upgradation and rehabilitating degrading infrastructure	<ul style="list-style-type: none"> Provision of a boundary wall Maintenance of boundary walls 	There are a high number of schools whose boundary walls require repairing and completion	Improving school infrastructure	500
		Re-Construction of Dangerous School Buildings in District Rahim Yar Khan	Reconstruction of dangerous school buildings	Part of the Planning and Development Board's 2020-21 social development initiative	500
Medium Term					
9.	Performance based stipend	Providing merit-based scholarship amount, to incentivize student performance	After primary level parents see a huge trade off in sending their children to school. And usually end up sending them to work instead. Stipends/ Cash transfers/ scholarships can mitigate that cost of sending child to school at higher education levels.	To increase participation in higher levels of formal education	20
10.	Community mobilisation	Involving the local community to organise and launch awareness campaigns	Community mobilization to raise awareness on the importance of education	To increase enrolment rates	50
Long Term					

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
11.	Provision of Internet	Providing internet access to schools across all levels.	The data shows that only 5-6% of the schools in Bahawalpur region have access to internet.	To facilitate better learning and improve learning outcomes.	50
12.	Improving overall school environment	Construction of Science Block and Multipurpose Hall at Secondary schools	Provision of improved school infrastructure	<ul style="list-style-type: none"> • Increase enrollment • Improve learning outcomes • Reduce drop-out 	10M x 20 schools (200)
13.	Mainstreaming Vocational training	Updating the school curricula to incorporate technical skills at formative levels of education.	Mainstream vocational training to improve children incentives for higher education levels (increased chances of employment - - > greater incentive to attend school).	<ul style="list-style-type: none"> • To incentive higher participation rates. • To increase enrolment rates 	5 5M x 15 schools (750)
14.	Facilitating student mobility	Identifying areas of lesser accessibility and providing low-cost school transport	Providing School vans in targeted areas where accessibility is poor.	<ul style="list-style-type: none"> • Improving Enrollment rates • Improving school participation. 	20M x 3 districts x10 facilities (600)
Higher Secondary					
15.	Establishment of Higher Secondary	Identifying areas of low accessibility	Construction of post-primary educational institutes/	Overcome the supply constraint of post primary educational facilities to improve student retention	170

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
	educational facilities		upgradation of existing facilities	and reduce drop-out rates	
16.	Student Merit Based Stipends	Rewarding student performance with a monthly stipend	To facilitate the continuation of education, and to decrease the opportunity cost of learning. Especially at higher levels of education.	<ul style="list-style-type: none"> • Help reduce drop-outs. • Increase retention by bringing down the opportunity cost of learning 	50
17.	Construction of school labs / libraries and computer labs	Identifying areas of high enrollment, and then facilitating for missing facilities	Many Higher Secondary schools are either ill-equipped, or do not have the necessary arrangements for carrying out laboratory practicals. In addition to that libraries and ICT facilities are missing in majority of the higher secondary schools in the division.	<ul style="list-style-type: none"> • To improve overall learning & literacy outcomes • To provide a holistic school environment 	1000
HIGHER EDUCATION					
Short Term					
18.	Increasing access to Higher education	Signing MOUs with tertiary institutes so they can provide accreditation to public sector colleges for Degree level programs.	To cater the academic requirements of BS students and faculty.	<ul style="list-style-type: none"> • Facility of higher education till master's level to be made available in underserved areas. 	160

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
				<ul style="list-style-type: none"> Provision of facility of research and development to full the need of socio-economic development 	
Medium term					
19.		Establishment of Sub-campuses of renowned national universities.	Well-established institutes like Lahore University of Management Sciences, Lahore School of Economics, UET, NUST and NCA can establish their sub campuses in Bahawalpur.	Provision of quality higher education institutes in Bahawalpur division.	500M x 3 Districts (1500)
	Improving quality education.	Investment in Virtual education	A broad distance education-based system can be established for continuing education by providing subsidized virtual courses to the enrolled students at regional Public sector universities of the division, of International universities through	Making state-of-the-art education more accessible	50M x 3 districts (150)

	Project Type	Project/Program	Description	Implications	Rough Cost (Million PKR)
			platforms like Coursera and Data camp.		
		Regional and National exchange programs	MOUs can be signed with renowned international and local institutes to facilitate semester exchange programs.	Provisioning of a holistic academic exposure to students.	500
Long Term					
20.	Entrepreneurial Centres	Centres to foster entrepreneurial ability	A main centre established at Bahawalpur, with clusters in major cities. Centre would have a workstation, co-working space, high speed internet connectivity, to allow local entrepreneurs to market their products.		50M x 3 districts (150)
21.	Research & Incubation Centres	Attached to each public sector university in DHQ	Centres to be attached with each university at DHQ, to provide an entire ecosystem for learning, research, incubation.		2000M x 3 districts (6000)
Total cost					15,685

