

Public Health Project Management – Why Do Public Health Projects In Khyber Pakhtunkhwa Fail To Deliver? A Qualitative Study

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Abstract

Khyber Pakhtunkhwa is a province that faces austere public health challenges. Several funded projects are initiated from time to time to tackle these health issues. Despite additional funds allocation and resources, these projects do not achieve the desired results. The existing project management practices in the Public health projects in KPK require complete revamping. In the context of KPK, there is a huge research gap in the area pointed out and minimal research has been carried out to cover the gap. This study has been conducted to find out and analyze the major challenges faced in Public Health projects in KPK. The main areas of focus in the study are project cost, time, resources, PMO, PMIS, and their impact on the project's success. Since the study is qualitative, an interpretivist approach was followed and a detailed survey comprising fifty (50) respondents was conducted and their opinion regarding different project success indicators was pursued. Results were analyzed using SPSS and spreadsheets. Based on the outcomes, a detailed project phase-wise comprehensive review has been provided in the conclusions and recommendations section. The study will help the project managers, project stakeholders, and future researchers alike if they wish to conduct research in the future on the challenges and practices of Public health project management in Khyber Pakhtunkhwa.

Keywords: KPK - Khyber Pakhtunkhwa, PMO – Project Management Office, PMIS – Project Management information system.

1. Introduction

Pakistan is one of those Asian countries that faces Health emergencies from time to time. The existing Health infrastructure is not in a position to properly manage these public health issues. Pakistan is currently positioned at 154th place among a total of 195 countries when considering the comprehensive performance of its health system (Fullman et al., 2018).

Khyber Pakhtunkhwa among the four provinces in Pakistan faces dire healthcare challenges. Despite a low health budget, the Health Department in KPK receives a considerable number of

International and additional grants to carry out and complete different projects. However, according to reports and evidence shared by these donor agencies, the majority of projects in the health sector either fail to achieve the anticipated results or are delayed and require additional grants. The study of the systems and deliverables of the KPK health projects reveals a lot of factors that can help determine the success and failure rate. There is a significant research gap in the area of public health projects in KPK. This is the first-ever study of its type in the context of public health project management in Khyber Pakhtunkhwa. Not much research has been done in the Public Health KPK sector to examine these challenges and explore the possibilities of the adoption of project management policies and procedures. Moreover, a period of nearly thirty years of being subjected to an atmosphere of sociopolitical unrest, economic unpredictability, acts of aggression, regional disputes, and displacement have all played a role in the significant occurrence of mental health conditions in KPK (Jafar et al., 2013).

The KPK government in its commitment to improving the quality of Public health in KPK introduced the Khyber Pakhtunkhwa Health Policy 2018-2025 in which they envisioned and laid great focus on improved governance, regulation, and accountability (Khyber Pakhtunkhwa Health Sector Review: Hospital Care, n.d). In realization and commitment to the achievement of the targeted goals, it is imperative to lay great focus on the performance of the public health projects in Khyber Pakhtunkhwa. The establishment of units like HSRU (Health Sector Research & Reforms Unit), Medical Teaching Institutions Act 2015, and other commendable initiatives like the introduction of IPMS, HRIS, and HMIS in Hospitals may improve the quality of the overall healthcare service delivery in the province but at the same time, the current project management practices in the projects also need reformation. To develop such a framework and to make the projects successful, emphasis on the primary factors of project cost, project time, and project resources is required. A critical review of the processes was required to enhance the quality of the healthcare projects and adapt project management methodologies.

In this study, the analysis of the current project management practices was carried out by conducting a detailed survey. It mainly included a focus on the project scope triangle, the project team, and its training prospects. The respondents included a range of people directly or indirectly involved in the public health projects of KPK. The response collected from the survey and study of the literature on project management practices in Pakistan, and health challenges in KPK helped in understanding the shortcomings and challenges faced in the public health projects in KPK that ultimately led to failure. In the conclusions and recommendations section, possible solutions and outcomes have been discussed. The study may also help close the research gap in the area and provide useful insight into areas that require serious consideration, and it will also help project phase-wise adoption and implementation of the project management methodologies in the public health projects of Khyber Pakhtunkhwa.

2. Literature Review

In the literature review, we are going to study various aspects related to our public health domain and project management practices in successive order. Firstly, we are going to examine various key indicators related to Khyber Pakhtunkhwa public health projects. Secondly, we will conduct a critical analysis of the current traditional management methodologies and practices that have been adopted by the project management teams. We will also look at the impact of these traditional management practices on the project outcomes. Lastly, in our effort to restructure the processes, we will analyze from a global and national perspective, the best public health project management practices that can be adopted in Khyber Pakhtunkhwa public health projects.

2.1 The State of Health in Khyber Pakhtunkhwa: Khyber Pakhtunkhwa is one of the provinces where we face dire health challenges. These include a group of public health problems ranging from communicable diseases to non-communicable diseases, policy and governance issues, and budgetary restraints. If we look at the key health indicators we observe that the Infant mortality (cases per 1,000 live births) rate in KPK is 53.2, Maternal mortality (cases per 100,000 live births) is 165, Pregnancy-related mortality ratio is 175. Hospital bed availability (per 1,000 people) is 0.8 and Nurses and midwives availability (per 1,000 people) is 0.5 (Asian Development Bank Report 2020). According to the Health Policy document (Health Policy KPK 2018-25), Morbidity and mortality in KP due to non-communicable diseases is higher compared to other provinces of Pakistan.

2.2 Status of Public Health Projects: According to Mustaqeem (Mustaqeem et al., 2020) the average PMM level in Pakistan was found to be 2.32 (on a scale of 1 to 5), and only 24% of the projects carried out were found to be successful. It means that the project management practices are not fully institutionalized. According to Khan (Khan et al 2013), The public sector places great emphasis on minimizing costs and satisfying stakeholders, while the private sector's main focus is on maximization of the profits and the satisfaction of the customers. We also see that the definition of project success is dependent on context and perspective. The relative importance of success dimensions varies across sectors, industries, roles, geography, and time. Projects in the public sector in developing nations encounter specific challenges unique to the particular context. It involves a wide range of stakeholders, deficiencies within procurement systems, intricate procedures, limited availability of skills and resources, and the presence of bureaucratic obstacles (Ahsan et al ., 2010). In light of the growing emphasis placed on projects and their administration within healthcare organizations and the networks they create (A Primer on Project Management for Health Care, n.d), what contributions can the field of Project Management make to professionals in the health sector within the Khyber Pakhtunkhwa Health Department? To address the issue we will conduct a qualitative study of what project management practices can be adopted by the Health department to ensure positive outcomes and timely deliverables in healthcare projects. According to Saleem (Saleem et al., 2020), Public health projects in Pakistan face a plethora of challenges when it comes to observing their work patterns, including ineffective administrative frameworks, lack of pragmatic strategizing, substandard operational conditions, interference from political entities, and ineffective knowledge acquisition. One of those major

challenges is the project costs and timeframe. The public sector projects in Pakistan are required to adhere to the original cost estimates and cannot surpass them by a margin greater than 4.5%. To ensure this, rigorous financial control measures are implemented (Pakistan: Public Sector Enterprise Reforms Project - Asian Development Bank, n.d). A study conducted by the World Bank in 2007 examined the Infrastructure Implementation Capacity of Pakistan and revealed that the typical public sector project required three times the originally scheduled duration and two times the initial funding (World Bank, 2007). Khan (2007) referenced information from the Planning Commission, which indicated a budget escalation ranging from 200% to 800% for significant infrastructure projects implemented between the years 1993 and 2003. According to estimates from the National Health Accounts, health spending in 2015-16 was primarily dominated by Out of Pocket (OOP) expenditure, accounting for 67%. This was followed by 21% of health spending that was financed by the public sector. Keeping in mind the people living below or above the poverty line, and comparing the OOP health expenditures, it is evident that people in KP households have been spending more on health in comparison to all other provinces (Mahmood et al 2016). It is evident that despite increased spending, the overall project success rates in Pakistan in general, and Khyber Pakhtunkhwa in particular, have not been able to produce productive results.

2.3. Adoption of Project Management Methodologies: To tackle the issues of governance at the top and to make the health Department Research, reform, and implementation focused, through the MTI ACT of 2015 decentralization was done and the respective hospitals, units, and other institutions were declared autonomous. The Health Department has since laid the groundwork for these improvements by developing units Like PMRU, and HSRU, and introducing innovative ideas like the Pakistan Citizen portal, the Introduction of HMIS, and HRMIS for integrated human resource management. We will also develop a theoretical framework to see if the current enterprise structure is viable to incorporate project management methodologies. Along the way, a review of the challenges and key performance indicators will also be carried out to evaluate the feasibility of the existing health department infrastructure to enhance project practices. The evaluation of development project performance requires the analysis of tactical factors related to project efficiency and strategic factors related to the achievement of desired outcomes through project effectiveness and impact (Organization for Economic and Cooperative Development, 2008).

The existing body of knowledge about project management has primarily concentrated its efforts on the realms of information technology, construction, and software development. Within the domain of public health projects, however, only a scant number of investigations have been conducted, thereby rendering this area significantly lacking in research (Santos et al., 2014). Public health initiatives possess distinct characteristics that necessitate a particular framework of success factors to bolster upper-level administration as well as project managers in the realms of strategizing and operational oversight (Scot et al, 2008). Understanding project management methodologies is imperative for public health managers, given that informatics endeavors are

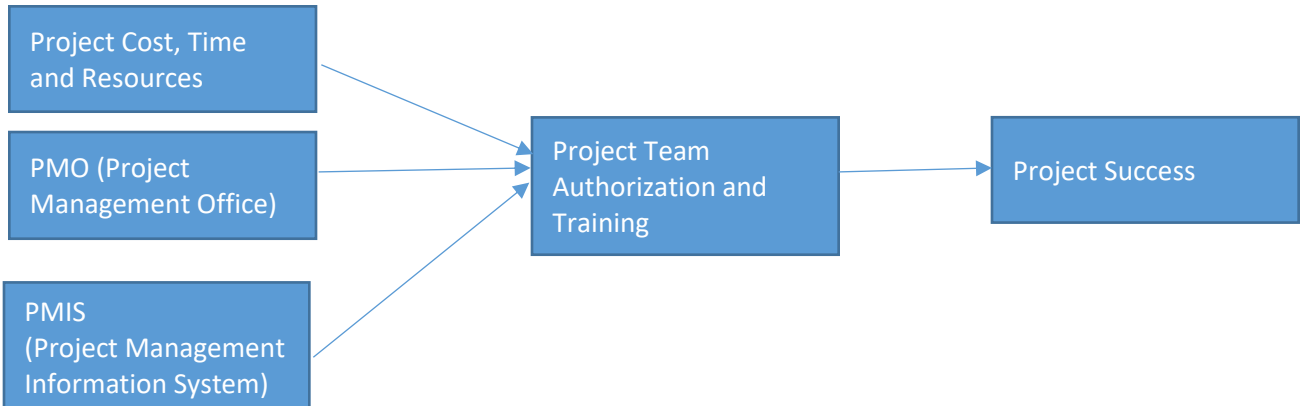
frequently executed as undertakings (Aspevig, 2013). Indeed, Effective project management practices, such as government policies, project planning, and funding, exert a beneficial influence on the execution of healthcare initiatives within public healthcare facilities (NDACHI & KIMUTAI, 2018). Therefore Health organizations need to reconsider their project-related structures. As far as global public health project practices are concerned, according to Rainey and Kellenbrink (Rainey et al., 2009; Kellenbrink 2015), most health improvement initiatives are executed in the shape of projects. These endeavors are regarded as more effective in attaining their goals in comparison to the inflexible bureaucratic approach of public administration.

Project management is presented as a methodology that enables the execution of strategic alterations within organizations (Turner, 2009). It is also portrayed as a means of enhancing organizational effectiveness (Crawford & Helm 2009). Tareen and Omar (1997) underscore the importance of community engagement in fostering the success of healthcare partnerships and projects in Pakistan. This is achieved by employing project management instruments, as well as through the collaborative efforts of the community; the community must unite and collaborate to ensure the accomplishment of the project goals and objectives. On the other hand, (Bhat et al., 2016) introduce tools and a framework to evaluate the managerial capacity required to operate and supervise a healthcare program/project at the state or national level in India. Farida Saleem (Saleem et al 2020), various obstacles are encountered in healthcare projects in Pakistan, namely bureaucratic structures, political interference, and insufficient resources. This dimension of achievement varies from the advantages acquired by an organization in that it concentrates on the individuals or entities who utilize or receive the benefits, and who are not affiliated with the project organization. It is observable that the element of project reputation is a component of this factor; this represents an external viewpoint of the project. The measurement of project impact serves as a medium to long-term indicator of success, and studies assessing project impact are conducted after the completion of the project. The training in project management, utilization of project management software, and implementation of Project Management Office (PMO) were anticipated to exert a significantly favorable influence on the development of the Project's maturity (Mustaqeem et al., 2020). The first step in devising a plan should be to allocate resources towards educational initiatives or official credentials, with a particular focus on project risk management, project procurement management, and project management software. These educational endeavors ought to adhere to a consistent approach to project management, such as PMBoK, ICB, or PRINCE2 (Santos et al., 2014). A long-term approach would involve the implementation of a Project Management Information System that is fully utilized, as currently, most individuals are unable to effectively use project management software beyond its basic reporting capabilities (Kafile, 2021). A rigorous reform regarding project management practices is required at the Health Secretariat of Khyber Pakhtunkhwa. Without the adoption of advanced practices, productivity in critical public health projects cannot be ascertained.

2.4.1 Conceptual Framework:

The hypothesis and conceptual framework developed as a result of the study are as follows.

- Effective management of project time, cost, and resources can lead to project success
- An authorized and trained project management team can lead to project success.
- The establishment of PMO plays a significant role in the project's success.
- The use of PMIS can contribute to removing discrepancies in project planning and implementation and lead the team to success.



2.4.2 Problem Statement

The study of the literature on project management in KPK revealed that there is a gap in the area of public health project management in KPK. The previous research conducted in the area relates to project management practices in Pakistan as a whole. The need for the study was felt as most of the public health projects in KPK fail to deliver the required outcomes. This interconnection of the project activities thus leads to the project failure resulting in overburdening the health department. The challenge results in long delays, additional costs, and the assignment of additional resources. So the first question that this research aims to answer is what are the challenges and restraints that lead to undue delays, additional costs, and additional resources in KPK health sector Projects.

Secondly, the traditional project management structure in the KPK health projects does not follow the provided PM guidelines and techniques. So we will analyze and answer the query of what kind of traditional management techniques are used in Khyber Pakhtunkhwa public health projects. Thirdly, the research aims to evaluate the possibility of adopting project management practices that can be implemented across different phases of public health projects.

3 Research Design:

To conduct this qualitative study, data from projects of KPK health sector projects, reports from donor agencies, and studies on the project management and organizational practices of Pakistan were collected and analyzed. Since the study is qualitative we followed the Interpretivist research philosophy approach as the study mostly relies on the opinions collected from the respondents.

The independent variables drawn from the discourse are Project cost time and resources, PMO (Project Management Office), PMIS (Project Management Information System), and project team, and the dependent variable in that case is the project success.

A questionnaire outlining the overall feedback that can be collected across different phases of the project was distributed among the participants. The questionnaire was shared via Google Forms with a selected sample of 50 people who have remained a part of the public health projects in KPK as major stakeholders, project managers, and Officers. This diverse survey sample included project management personnel from the donor agencies that have been assigned to these public health projects. The sample included the Project Directors, Project Managers, and officers with experience in KPK public health project management ranging from 2 to 20 years. Out of the total, 49 responded to the survey. The data was then analyzed using SPSS. The primary focus was laid on project time, project cost, project resources, and the project team. Here are some of the findings from the survey.

Frequency table and the response of the respondents. (n=49)

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	5	10.2	10.2	10.2
	Male	44	89.8	89.8	100
	Total	49	100	100	
Age	15-30	4	8.2	8.2	8.2
	30-45	33	67.3	67.3	75.5
	45-60	12	24.5	24.5	100
	Total	49	100	100	
Field of Work	ER	1	2	2	2
	Health	42	85.7	85.7	87.8
	MSP	1	2	2	89.8
	Other	4	8.2	8.2	98
	Protection	1	2	2	100
	Total	49	100	100	
Years of Experience	1-5	5	10.2	10.2	10.2
	10-15	15	30.6	30.6	40.8
	15-20	4	8.2	8.2	49
	20 above	7	14.3	14.3	100
	Total	49	100	100	

*ER- Education & Research MSP- Multi-sectoral Projects

When asked about the satisfaction with current project management practices, the majority (40.8%) responded with a negative. When asked about the authorization of the project manager and project team, 55.1% (n 21) also responded with a negative. When inquired about the project managers and project teams being provided with project management training, a huge number 97.9% (n 47) agreed to the fact that it must be provided. Regarding the query of the use of PMIS and other PM software usage, 91% (n 45) agreed that the use can bring significant improvement. When the scale of the effect of bureaucratic involvement on project progress was evaluated, 85.7% (n 42) responded that it leads to a negative impact on the progress. Regarding the accurate data usage and its effect on the project success, 38.8% (n 19) said that it's not reliable, and 32.7% answered with maybe (unaware of the significance and usage). In the question regarding the establishment of PMO, 87.7% (n43) agreed that the establishment can contribute to the improvement of existing project infrastructure. Out of the total 49 respondents, a cumulative 71.4% (n36) collectively responded that projects in KP public health consume more than the assigned cost, time, and resources. To describe the outcomes of the opinion sought regarding the improvement and success of the project, here is a table drawn from the feedback.

The survey results indicate that a major number of respondents agreed to the fact that a trained and authorized project management team is the key to success. The majority also agreed to the fact the projects in the KP health sector fail due to inefficient use of project time, cost, and resources. 91% agreement with the use of PMIS makes it another major indicator of the project's success.

Figure no 01 – Opinion about Project Cost Time and Resources

In your opinion, do you think our public health projects take more than the assigned time, cost and resources?
49 responses

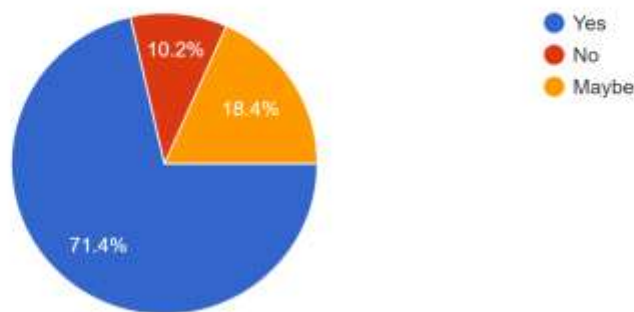


Figure 02 – Opinion about the establishment of PMO

Do you think the establishment of a PMO (project management office) inside health organizations can improve the quality of public health projects?

49 responses

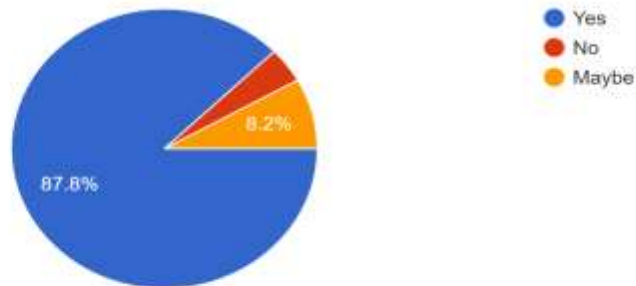


Figure 03 – Opinion about the use of PMIS and its impact on project success

Do you think the use of a project management system or software can play a crucial role in the success of a project?

49 responses

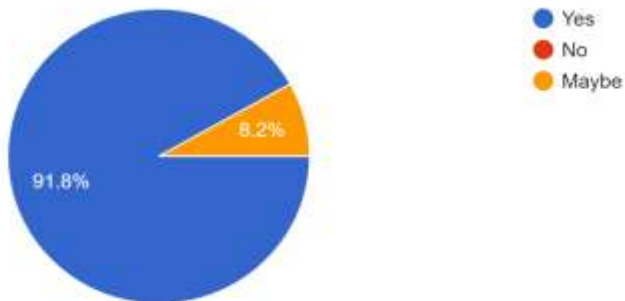


Figure 04 – Opinion about Project Manager and Project Team Authorization

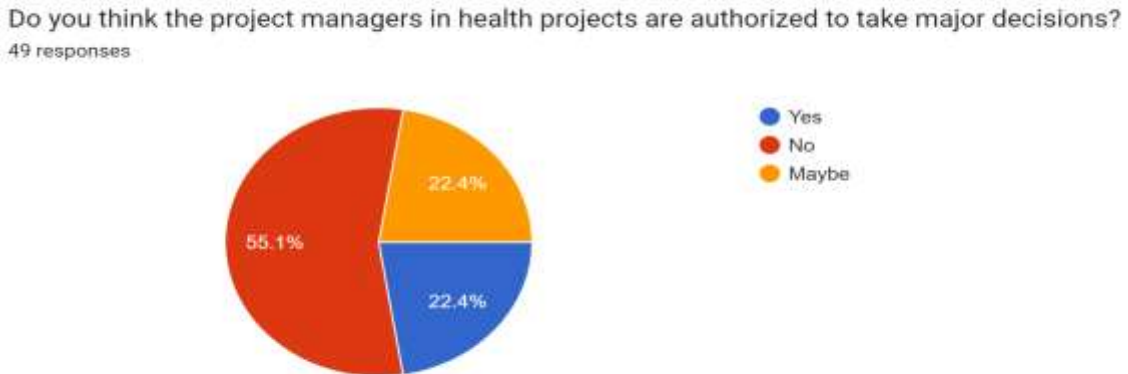
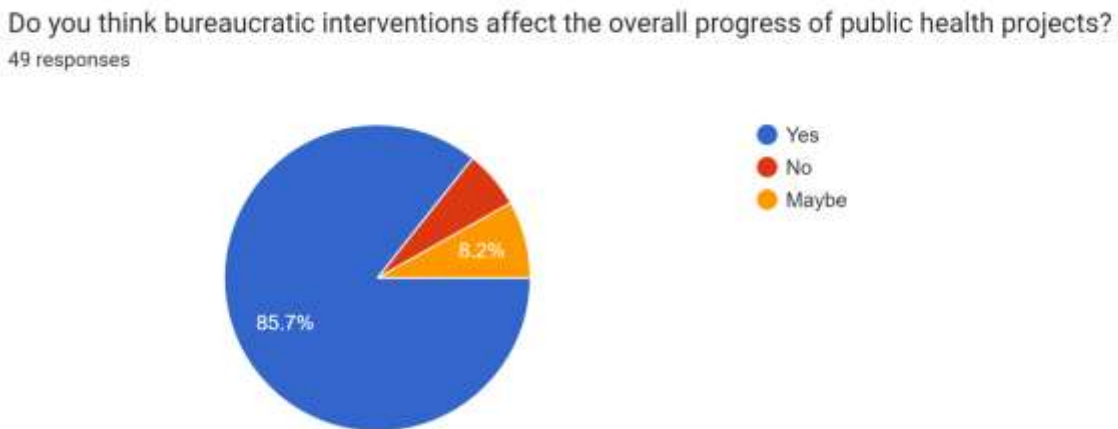


Figure 05 – Opinion about Bureaucratic intervention and its impact on the project success



The results drawn from the survey opinions have been summarized in the form of a table highlighting areas of focus, key elements, and strategies to overcome project challenges.

Point	Area of Focus	Key Elements and Strategies
1	Cost Management	<ol style="list-style-type: none"> 1. Plan budgeted costs for project activities and project Resources. 2. Bring financial control to avoid additional costs. 3. Introduce new methodologies like EVM for better cost management.
2	Time Management	<ol style="list-style-type: none"> 1. Fix timeframes for project activities and project completion. 2. Schedule and sequence project activities.

		3. Implement PMIS for efficient data management.
3	Resource Allocation	<ol style="list-style-type: none"> 1. Invest in public health infrastructure at the grassroots level. 2. Training programs for public health employees to avoid third-party intervention.
4	Project Team Authorization and Training	<ol style="list-style-type: none"> 1. Appoint qualified and trained Project management individuals. 2. Implement ongoing training for teams and project managers. 3. Authorize project managers and project teams to deliver successful results.
5	PMIS for Project Data and Baselines	<ol style="list-style-type: none"> 1. Ensure transparency in project implementation. 2. Use PMIS and project software for data management and reporting.
6	Efficient Processes	<ol style="list-style-type: none"> 1. Streamline bureaucratic processes to reduce delays. 2. Involve the project in the planning and initiation processes.
7	Merit-Based Appointments	<ol style="list-style-type: none"> 1. Prioritize merit-based appointments to eliminate corruption. 2. Remove bureaucratic hurdles.
8	Sustainability	<ol style="list-style-type: none"> 1. Ensure the sustainability of public health projects. 2. Establishment of PMO to ensure sustainability 3. Monitoring and control through PMO.

4. Conclusions and Recommendations:

Detailed analysis of the prevailing public health project management structure reveals that the fact that the existing PM structure requires significant change. Additionally, the project health domain in the context of KPK requires extensive research to point out deficiencies at different project levels. However, due to undeniable limitations of time and scope, this study has focused on the fundamental PM areas for improvement. Based on the study, the following conclusions and recommendations have been produced.

4.1 Project Data and Project Plan: The baseline data for most of the projects is provided by the donor agencies and no attempts to refine the data for productive usage are made. Previously executed projects are used to create a baseline for the current and ongoing projects. Reliance on the outdated data makes the whole process of project planning questionable. The unrealistic data for informed decision-making is one of the principal factors that leads to a sequential progression of changes in the project. The project scope and project implementation are based on the data collected through previous surveys or surveys conducted by grantees. How can this data work as a baseline for all the project phases? The unavailability of relevant and precise data compromises the overall project attributes including the project outcomes and mainly the decision-making

process. A good project plan is key to success, efforts to organize and collect specific data related to the activities of the project must be made before the completion of PC-1. In addition to that, advanced data analytics tools and methodologies must be adopted to ensure quality and reliability in data of project planning, monitoring, and control. This role and responsibility can be taken by the PMO office in the organization.

4.2 HR Strengthening (The Project Team): As the survey results reveal, human resources management in public health KP projects requires immediate attention. The project manager is mostly selected from inside the health department. These project directors and project managers are directly or indirectly employees of the health secretariat. These include civil servants, bureaucrats, or heads of departments in an institution operating under the umbrella of the health department. The project Director/Manager roles are normally assigned as an additional responsibility. Through this temporary induction and bureaucratic intervention, this hybrid project structure becomes not only autocratic but also highly politicized. The rest of the staff, which mainly include traditional project management roles like Project coordinator, monitoring and audit officers, etc., are in most cases inducted temporarily. This creates another challenge as the civil servants employed in the projects retain an upper hand and cannot be held accountable by the project team.

Rigorous decentralization and hierarchical reforms related to the establishment of PMO structures are required to bring maturity to the projects. The meritocratic selection of the project manager and project team is the only viable solution to the problem. Despite reforms and decentralization measures, this fragmented institutional structure still does not offer project-specific mediums for public health project management. However, an attempt to initiate such practices can be made through the HSRU (health strengthening and reforms unit) in collaboration with the major stakeholders of public health in KPK. A strong matrix must be created in project structures where the project manager is authorized to make changes and can carry out independent project-specific decision-making. The induction of the project team must take place at the design and planning phase and their feedback must be sought in the finalization of the project plan. Instead of project briefings and project presentations, a project-specific training module must be developed at the initiation phase and delivered to the project team to develop a comprehensive understanding of the project.

4.3 Project Costs: Failure to adhere to this requirement necessitates a reassessment of the project, thus emphasizing the implementation of rigorous financial control measures (Khan & Sheikh et al, 2005). As per Kerzner (2010), the public sector is predominantly motivated by the goal of minimizing costs. In light of the underlying principles of project management in Pakistan, much emphasis is put on the reduction of public health projects in KPK as well. However, despite strict measures, the goal remains unattainable. Measures to adopt financial planning must be carried out at the project initiation stage. The project's financial stability can only be ensured if the cost baseline is strictly followed. Secondly, the introduction of principles of earned value management (EVM) can help a great deal in the management of cost variance during the implementation phase.

As per KPK health policy, Innovative management models for health facilities at all levels will be developed and implemented to enhance coverage and reduce costs. Sophisticated financial monitoring tools must be introduced at program and project levels to ensure transparency and financial control.

4.4 Project time: A detailed study of the project reports and outcomes identifies various factors related to time management in projects. Firstly, the project normally provides an initiation and completion date and ignores the timeframe for WBS (Work Breakdown Structure) and time baseline for each project activity. Although a Gantt chart is mostly developed in the project planning and initiation phase (PC-1) the time frame for the rest of the project modalities is ignored. The scheduling of time remains limited to the time mentioned in the Gantt charts of the projects, which are typically created in spreadsheets, noticeably lacking an analytical approach to the management of time. This situation results in a long chain of changes in the scheduling and sequencing of the project activities adversely affecting the project-related costs. Terminologies like “estimated time” and “stipulated time” are being used to cover up the deficiencies in the time frame, no mentioning and management of time at the micro level is observed.

A time-bounded approach at the level of management of project activities should be adopted to overcome the time challenges. Participation of the project team from the initiation phase. A time baseline when developed must be strictly followed till the closure of the project. Any deviant behavior or change in the time frame must be kept in check and any undeniable change, when it occurs, must be immediately reported and taken into consideration by the project team and the stakeholders involved. Corrective action to control such scheduling and sequencing changes must be taken once the change is reported.

There are multiple computerized tools like Microsoft Project, Oracle Primavera, and others that can be used for searching and sequencing. The implantation of these scheduling and sequencing tools also provides values such as critical path management (CPM) that can have a long-lasting impact on the overall outcomes of the project.

4.5 Monitoring and Reporting Mechanisms: Traditional mediums and basic technological mediums are used for internal and external communication. The reporting mechanism is traditional management reporting. Reporting mechanisms are mostly not devised thus compromising the overall monitoring and evaluation process. In the case of this project, the WB has shown concerns about monitoring and asked for third-party interference.

4.6 Risk Analysis, Risk Categorization, and Risk Management: A Study of the several projects of the KPK health department revealed the fact that risk analysis and risk management are often ignored in their projects. Project impact is the measure of success of a project over a medium to long term. Once the project has been completed, studies on project impact are conducted (Planning Commission, 2008). The scope and impact of the project are the main indicators determining the success or failure of the project. What happens in case of the Pakistan’s Public sector projects is that the impact is calculated after the completion of the project. The same practice has been adopted

by the Health Project managers in KPK health projects. The scope of the project is compromised and the delivered outcome is not as per expectations. The risk assessment and risk management practice remain limited to risks identified in the PC-1. Afterward, the area remains unexplored and unidentified till the projects face a major risk or to the limit provided by the donor agency in the scope document.

Risk assessment, risk categorization, and risk mitigation planning must be made a compulsory part of the project planning. It shouldn't remain limited to the overall project dimensions but assessment and management should be carried out at the level of each activity to ensure risk compliance. During the monitoring and control phases, risk management and risk documentation should be introduced. As an effective measure of risk preparedness and risk mitigation, training of the public health-related project staff on risk assessment should also be taken into consideration as no such training is provided.

4.7 Software interventions (PMIS): if not excellence then due to the global IT revolution, the applicability of the technological mediums in today's world has become a must for effective management. Although several IT mediums have been introduced in the health department KP these applications operate at the departmental level. With the development of departments like the Health Sectors Reform Unit (HSRU), the introduction of PMIS has become easier. The use of project management software Microsoft Project should be considered a must. From planning to closure of the project all the scheduling, sequencing, CPM, and other project modalities should be implemented in the project management software environment. Project management software such as Microsoft Project is currently used on a limited scale, the software application should be extended to all project phases. With the implementation of PMIS, an effective change in data management, planning, costing, and enterprise resource planning can be ensured.

Limitations to the study: There can be certain limitations to the study. The number of the people surveyed were not project management certified and may not have received proper PM education while working. The criteria for evaluation were therefore kept simple and focused mainly on the project cost, time, and resources. The study does not entail an in-depth analysis of the planning phase of the projects as most of the project personnel hired are involved in the implementation phase as the autocratic norms and autocratic structures did not allow these project managers and project officers to intervene and participate at every level. For the usage of project data and its reliability, an oversight, on the data collected, was provided by academicians in KP universities.

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