# PROGRAM SOUNDNESS ASSESSMENT

## A. Program Description

1. **Overview.** The results-based lending (RBL) program will support the implementation of the Government of Punjab's broader nursing and health workforce reform agenda under the Punjab Health Sector Strategy (2019–2028) and the Pakistan Nursing and Midwifery Policy Framework 2025–2034. The broader government program aims to transform nursing education and workforce governance to address chronic shortages, enhance quality, and promote gender equity across Punjab's health system.

2. The RBL program covers the period from 2026 to 2030 and focuses on the establishment of three centers of excellence (COEs) for nursing education in Lahore, Multan, and Rawalpindi, and in doing so strengthening the faculty and institutional capacity, and introducing a governance and regulatory framework to modernize nursing workforce management. The program will improve the quality and relevance of preservice nursing education through simulation-based training, digital learning, international certification, and targeted faculty development. Digital transformation will be achieved through the expansion of the existing human resources management information system (HRMIS) to include public sector nursing student and faculty data. The program will provide incentives for system-wide reforms through disbursement-linked indicators (DLIs) and capacity development under the RBL modality.

3. **Impacts and outcomes.** The program will contribute to the impact of improved quality and resilience of health services in Punjab. The outcome will be enhanced availability of an adequately qualified nursing workforce to fulfill evolving health needs with increased access to employment opportunities for women in the nursing segment. This outcome will be achieved through three outputs: (i) quality of nursing professionals improved, (ii) climate-resilient and gender-sensitive COEs for nursing education established, and (iii) governance and management for health workforce strengthened. The scope of the broader government program and the RBL program is summarized in the table below.

**Table 1: Program Scope**

| Item | Broader Government Program | Results-Based Lending Program |
|---|---|---|
| Outcome | Availability of adequately skilled health workforce to fulfill the current and emerging health needs of population | Enhanced availability of an adequately qualified nursing workforce to meet evolving health needs with increased access to employment opportunities for women in the nursing profession |
| Key outputs | Establish a governance and leadership structure for human resources for health (HRH) policy, planning, production, and management<br><br>Ensure availability of health care providers where required<br><br>Establish ways of improving quality and productivity of HRH<br><br>Improve retention of health workers and revitalize the concepts of continuous professional education and training | Output 1: Quality of nursing professionals improved<br><br>Output 2: Climate-resilient and gender-sensitive centers of excellence for nursing education established<br><br>Output 3: Governance and management for health workforce strengthened |

| Item | Broader Government Program | Results-Based Lending Program |
|---|---|---|
| | Update the medical education curriculum with a focus on community-oriented medical education | |
| Activities | Establish a governance and leadership structure for HRH policy, planning, production, and management<br>(i) Establish a human resource planning and development unit<br><br>Ensure availability of health care providers where required<br>(i) Fill all vacant posts of health care providers at primary health care facilities, especially in rural and hard-to-reach areas, by introducing central induction policy<br>(ii) Fill all vacant posts of specialists at secondary health care hospitals<br><br>Establish ways to improve quality and productivity of HRH<br>(i) Develop a health services academy on the lines of civil services academy for training different categories of health workers<br><br>Improve retention of health workers and revitalize the concepts of continuous professional education and training<br>(i) Develop strategy/policy guidelines for retention of HRH<br>(ii) Fill faculty positions in all health educational institutions (medical, nursing, and allied health professionals) with trained and qualified teachers<br><br>Update medical education curriculum with a focus on community-oriented medical education<br>(i) Revise the medical education curriculum with more emphasis on promotive and preventive care and incorporate community-oriented medical education at all levels<br>(ii) Create continuing medical education opportunities for health professionals and over time make continuing medical education mandatory for continuation of practice | Quality of nursing professionals improved:<br>(i) Develop and approve a phased faculty recruitment and appointment plan for centers of excellence (COEs)<br>(ii) Develop and approve a COE management capacity-building plan<br>(iii) Appoint the first batch of COE faculty holding master of science in nursing degrees from accredited institutions.<br>(iv) Finalize institutional partnerships for international training and certification of nursing students and COE leadership<br>(v) Revise and update specialized diploma curricula in priority areas<br><br>Climate-resilient and gender-sensitive COEs for nursing education established:<br>(i) Finalize and approve standard equipment specifications and procurement packages for COEs<br>(ii) Deploy e-learning platforms and digital simulation equipment at COEs to enable blended learning for nursing students<br>(iii) Construct and equip COEs<br><br>Governance and management for health workforce strengthened:<br>(i) Expand human resource management information system to include (a) COE and (b) government nursing college enrollment and graduate data for all degree programs and courses<br>(ii) Establish soft infrastructure for COEs, including governance, policies, and outreach systems<br>(iii) Launch a digital academic assessment and credentialing system for COE students<br>(iv) Operationalize the HRH management unit |
| Expenditure size | $981 million | $255 million |
| Main financiers and their respective total amount | Government of Punjab: $831 million<br>Asian Development Bank: $150 million | Government of Punjab: $105 million<br>Asian Development Bank: $150 million (concessional ordinary capital resources) |

| Item | Broader Government Program | Results-Based Lending Program |
|---|---|---|
| Geographic coverage | Punjab province | Punjab province, with focus on COEs in Lahore, Multan, and Rawalpindi |
| Implementation period | 2019–2030 | 2026–2030 |

ADB = Asian Development Bank, CME = continuing medical education, COE = center of excellence, COL = concessional ordinary capital resources lending, HRH = human resources for health, HRMIS = human resource management information system, LEED = Leadership in Energy and Environmental Design, MScN = master of science in nursing.
Sources: ADB and Government of Punjab.

## B. Program Soundness

### 1. Relevance and Justification

4. **Development issues.** Punjab faces a critical shortage of qualified nursing professionals. The province's nurse–population ratio remains significantly below the World Health Organization benchmarks, and current production capacity of nursing workforce is constrained by poor infrastructure, outdated pedagogy, and faculty shortages. Only 5% of nurses in the province hold a bachelor of science in nursing degree or higher, and more than 75% of sanctioned faculty positions in public nursing colleges remain vacant.[1] This has contributed to weak service quality, poor learning outcomes, and a widening gap between education and workforce requirements. High rates of nurse migration with more than half of graduates seeking employment overseas reflect both local system failures and unmet international demand.[2]

5. **Strategic context.** The Government of Punjab has recognized these constraints and prioritized nursing workforce reform under the Punjab Health Sector Strategy, 2019–2028 and the Pakistan Nursing and Midwifery Policy Framework, 2025–2034. Similarly, the federal government has acknowledged these failings in the national Human Resources for Health Vision (2018–2030).[3] These policies call for improved quality of nursing education, better workforce planning, and the creation of COEs to serve as innovation hubs. The program also contributes directly to ADB's Strategy 2030 operational priorities (OPs), particularly OP1 (addressing poverty and inequality), OP2 (gender equality), OP3 (climate resilience), and OP6 (governance and capacity development), and aligns with Pakistan's Vision 2025 and Sustainable Development Goal 3 (good health and well-being).[4]

6. **Justification for public interventions.** The nursing segment exhibits clear market failures, including underinvestment in preservice education, limited private sector incentives for long-term training, and an absence of quality assurance and regulatory frameworks.[5] Public investment is essential to correct these failures, expand equitable access to formal employment for women and minorities, and generate public goods in the form of a stronger health workforce. The establishment of COEs on state-owned land reflects efficient use of public assets and avoids delays related to land acquisition. ADB's results-based approach helps the government direct public resources toward structural reforms in education quality, governance, and digital infrastructure.

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1 Pakistan Nursing and Midwifery Council. *Annual Report 2021–2022.*
2 ADB. 2025. Poverty, Social and Gender Analysis; and Pakistan Nursing Council. Annual Report 2021–2022.
3 Government of Punjab. 2019. Punjab Health Sector Strategy 2019–2028; and Government of Pakistan. 2025. Pakistan Nursing and Midwifery Policy Framework 2025–2034.
4 ADB. 2020. *Country Partnership Strategy: Pakistan, 2021–2025—Lifting Growth, Building Resilience, Increasing Competitiveness.*
5 Government of Punjab, Health Department. 2019. *Punjab Health Sector Strategy, 2019–2028.*

7. **Beneficiaries.** Direct beneficiaries include more than 3,000 students annually who will be enrolled in bachelor and master of science in nursing degrees and clinical specialty specific programs across the three COEs once fully functional, as well as faculty, lab technologists, and affiliated trainers receiving advanced education, simulation training, and certification (footnote 2). The program will also benefit approximately 44 public nursing colleges through digital links and instructional support. Downstream, the population of Punjab, particularly underserved urban and peri-urban communities, will benefit from improved health system responsiveness, strengthened service quality, and reduced reliance on informal care providers.

8. **Poverty and social issues.** Institutional data from the Specialized Healthcare and Medical Education Department (SHC&MED) indicates that approximately 45% of nursing students in public colleges come from the bottom two income quintiles.[6] Many, particularly those enrolled in evening shifts, are first-generation college attendees. The profession also provides a critical pathway to formal employment for women from low-income and minority backgrounds. By improving infrastructure, expanding faculty capacity, and strengthening academic governance, the program addresses key social barriers to equitable education and employment in the health sector.

9. **Gender.** Nursing is a female-dominated profession in Pakistan, with women comprising more than 90% of students and 95% of the active nursing workforce in Punjab (footnote 1). Yet women remain underrepresented in leadership positions, and public perceptions continue to undervalue the profession. The program directly supports gender equity through safe residential infrastructure, career development for female educators, and formal recognition through international certification. By expanding preservice education and improving pathways to employment, including international migration, the program will enhance women's economic participation and agency. The program is classified as having a *gender equity objective*, with gender-responsive DLIs, design and monitoring framework indicators, and program action plan (PAP) actions embedded throughout.

10. **Use of the RBL modality.** The RBL modality is the most appropriate financing instrument for the proposed program, given its strong alignment with the Government of Punjab's Health Sector Strategy, 2019–2028 and the Pakistan Nursing and Midwifery Policy Framework, 2025–2034. First, the government has demonstrated clear ownership and leadership in prioritizing nursing education reforms, as evidenced by the integration of the program into the approved draft Annual Development Program (ADP) for fiscal year 2026 and the medium-term expenditure framework. Second, the RBL approach enables targeted investments linked to measurable DLIs, providing incentives for critical actions such as faculty development, COE establishment, quality assurance, and workforce planning. Third, the RBL modality provides good opportunities for institutional capacity-building through the use of country systems, particularly those of the SHC&MED and the Punjab Regulatory Authority, minimizing transaction costs, and embedding reforms within public systems. Fourth, it supports the creation of a performance-based governance and accountability structure for the COEs, including a new board of management governors under the SHC&MED. Fifth, the RBL structure encourages sustained collaboration between ADB and other development partners through aligned results and shared reform objectives. Lastly, the government has gained prior exposure to results-based modalities through health and education reform initiatives, and sees RBL as an effective tool to structure, sequence, and monitor sector-wide transformation.

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[6] Pakistan Bureau of Statics. Labour Force Survey 2022–2023; and ADB. 2025. Poverty, Social and Gender Analysis.

## 2. Adequacy of Program Design

11. **Effectiveness.** A central component of the program's implementation logic is the expansion of the provincial HRMIS, managed by the SHC&MED's IT unit. This expanded HRMIS will integrate real-time data from the three COEs and all 44 public nursing colleges to track student enrollment, faculty deployment, training completion, and international certification. These data systems are directly linked to DLIs 1, 3a–3c, 4a–4b, and 5, and will provide the basis for reporting, verification, and results-based disbursement.[7] The enhanced system will also support monitoring of equity dimensions such as geographic access and gender-disaggregated participation and improve accountability at institutional and provincial levels.

12. **Efficiency.** The program leverages economies of scale by consolidating investments into three strategically located COEs, rather than distributing smaller investments across dozens of underperforming colleges. The use of results-based financing enhances allocative efficiency, ensuring that disbursements are directly tied to measurable reforms. The construction and equipping of the COEs are guided by concept plans and design templates developed during program preparation, which will reduce procurement delays and ensure readiness.[8] Digital platforms will enable hybrid instruction, reducing the cost and logistical constraints of in-person training and faculty deployment.

13. **Sustainability.** The program is embedded in the Government of Punjab's broader health sector strategy and has strong institutional ownership across the SHC&MED and the Planning and Development Board.[9] Sustainability is supported by budget provisions for COE staffing and operations, and by the institutionalization of governance mechanisms, quality assurance systems, and digital infrastructure that will outlive the RBL financing period. The program also contributes to climate and environmental sustainability through the adoption of green building standards and energy-efficient infrastructure.[10] The inclusion of climate-resilient design features and operational cost efficiencies such as solar energy systems and rainwater harvesting will further enhance infrastructure sustainability. Upskilling of faculty and long-term capacity-building are built into the DLIs and PAP, supporting continuity of reform. The COEs will be designed as provincial centers for excellence, with digital links to 44 public sector nursing colleges, allowing long-term diffusion of innovation and increased system-wide quality.

## 3. Financial and Economic Justification

14. **Economic context.** Pakistan's macroeconomic environment remains under pressure, with fiscal constraints and rising demand for public services across the health and education sectors. In Punjab, public health expenditure remains below 1.2% of provincial gross domestic product, and institutional investments in preservice education have historically been deprioritized in favor of service delivery.[11] Yet health workforce shortages, particularly in nursing, are emerging as a key bottleneck to sustainable health system performance. Within this constrained fiscal context, the Government of Punjab has signaled strong ownership of health workforce reform by

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7 ADB. 2025. Program Monitoring and Evaluation System Assessment: Punjab Nursing and Health Workforce Reform Program. Internal working document.

8 ADB. 2025. Nursing Sector Assessment for Punjab Nursing and Health Workforce Reform Program. Internal working documents.

9 Government of Pakistan. 2019. *Punjab Health Sector Strategy, 2019–2028*; and Government of Pakistan. 2025. *Pakistan Nursing and Midwifery Policy Framework 2025.*

10 ADB. 2025. Poverty, Social, and Gender Analysis.

11 Government of Punjab. 2019. Punjab Health Sector Strategy, 2019–2028.

earmarking resources for COEs and aligning the program with its medium-term budget framework and ADP.

15. **Economic rationale.** The program addresses clear market failures in nursing education, including underinvestment in infrastructure, limited availability of trained faculty, lack of accreditation pathways, and weak governance of public sector nursing institutions and lack of skill development for nursing students. Public intervention is essential to ensure equitable access, maintain standards, and generate external benefits such as improved health outcomes and economic inclusion of women and marginalized groups. Public intervention is essential to ensure equitable access, maintain standards, and generate external benefits such as improved health outcomes and economic inclusion of women and marginalized groups.

16. The program is also expected to generate substantial downstream returns. By year 15, nurses trained through the COEs and pursuing employment abroad are projected to generate up to $100 million annually in remittances into the country, while graduates pursuing employment in the country will assist in addressing domestic shortages. Improved service delivery from a skilled nursing workforce will contribute to reduced out-of-pocket expenditures, lower medical complications, and better disease management.[12] Though a formal economic internal rate of return was not estimated because of the nature of the RBL modality, the program is considered economically viable based on the scale of expected social and fiscal benefits.

17. **Financial analysis.** The total program cost is estimated at $255 million over 5 years, with ADB financing $150 million and the Government of Punjab contributing $105 million through its regular budgetary channels. Cost estimates have been developed in close consultation with the SHC&MED, Finance Department, and Planning and Development Board, and reflect realistic allocations for civil works, equipment, training, verification, and institutional development.[13] A risk related to fiscal sustainability was identified such that the government may not include adequate operation and maintenance funds post-completion for the program-supported COEs. The program design ensures that recurrent costs for faculty and operations will be absorbed into the SHC&MED's existing budget framework, and capital expenditures are aligned with approved ceilings under the provincial ADP. This ensures long-term fiscal sustainability and minimizes implementation risk.

18. **Implementation arrangements.** The SHC&MED will be an executing agency, with the Infrastructure Development Authority of Punjab (IDAP) serving as the service provider for construction and procurement of allied furniture and fixtures under output 2. A program implementation unit (PIU) will be established within the SHC&MED to oversee coordination, monitoring, and reporting, as well as to procure consultants and equipment. An independent board of governors will be established under output 3 to oversee governance, quality assurance, and academic functions of the COEs. The program will rely on existing government systems for financial management and procurement, strengthened by specific capacity development actions in the PAP. Independent verification agencies will verify the achievement of DLIs based on protocols outlined in the project implementation document. Digital tools and HRMIS integration will support real-time reporting and monitoring of program performance.

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12 ADB. 2025. Poverty, Social and Gender Analysis; and Pakistan Nursing Council. 2022. Annual Report 2021–2022.

13 ADB. 2025. *Program Expenditure and Financing Assessment 2025.* (Annex 3.04 to the report and recommendation of the President)

## 4. Managing Risks and Improving Capacity

19. **Managing risks.** The program's overall risk profile is assessed *moderate to substantial*, reflecting both systemic and operational risks. Key risks include limited experience within the SHC&MED and IDAP with results-based financing modalities, fragmented institutional responsibilities, and possible delays in procurement or verification because of interagency coordination challenges. There are also risks related to fiduciary compliance, safeguards implementation, and delays in institutionalizing new governance structures.

20. To mitigate these risks, the program incorporates several key design features: (i) early recruitment and induction of PIU staff within the SHC&MED; (ii) detailed procurement packaging and design documentation prepared in advance to accelerate COE construction and equipment; (iii) clear verification protocols for DLIs, supported by an independent verification agency; (iv) built-in exclusions of high-risk activities, including land acquisition and resettlement; and (v) reasonable assurance and commitment by the provincial government that it will allocate the necessary operation and maintenance budget beyond the program implementation period to maintain the assets created under the program to ensure their sustainability. Risks will be monitored throughout implementation, and mitigation measures are embedded in the PAP to ensure timely corrective action.

21. **Capacity development.** Capacity development is a core component of the program and is essential for both immediate implementation success and long-term system sustainability. The program includes targeted support to strengthen the SHC&MED's ability to manage planning, procurement, financial management, safeguards, and monitoring and evaluation (M&E). The newly established PIU will be equipped with dedicated specialists in procurement, M&E, and safeguards. The IDAP and the PIU, will receive orientation and technical support to manage infrastructure and procurement packages aligned with ADB expectations.

22. To address gaps in institutional monitoring capacity, the program includes targeted measures to strengthen the SHC&MED's M&E systems. A key intervention is the placement of IT personnel at the three COEs and all 44 public nursing colleges to support data collection and reporting into the expanded HRMIS. This system will generate automated dashboards for tracking student enrollments, faculty development, course participation, and certification, directly supporting verification of DLIs 1, 3a–3c, 4a–4b, and 5, as well as tracking additional non-DLIs in the design and monitoring framework. These investments will enhance real-time monitoring, enable data-driven decision-making, and reinforce accountability at both institutional and provincial levels.[14]

23. At the institutional level, the program supports the creation of a dedicated COE management and administration entity, which will be responsible for overseeing academic quality, staffing, certification, and data integration into the HRMIS. Training will also be provided to COE staff on governance, digital learning, climate-resilient operations, and financial oversight. These interventions are sequenced in the PAP and supported by specific DLIs to ensure that capacity development is both measurable and accountable.

24. **Knowledge management and learning.** The program will generate significant learning on how to structure and implement quality-driven nursing education reforms in a provincial system. It will pilot integrated digital platforms, DLI-based accountability, and climate-resilient educational

[14] ADB. 2025. *Program Monitoring and Evaluation System Assessment 2025.* (Annex 5 to the report and recommendation of the President.)

infrastructure. Knowledge products will be developed on faculty development, simulation-based learning, and nursing governance reforms, and disseminated through the SHC&MED, COEs, and ADB knowledge platforms. The program's  s are also designed to inform ongoing national discussions on health workforce standards, digital integration, and cross-border labor mobility.

25. In addition, the program will produce implementation case studies, monitoring dashboards, and governance model toolkits that can be adapted for replication in other provinces. Knowledge-sharing forums and peer learning exchanges with provincial and national stakeholders will be embedded into the program's implementation plan, with support from ADB's ongoing technical assistance resources.