Summer Internship Report

ON

Operational Challenges in Managing Aam Aadmi Clinics: A Field-Based Assessment

At

(5th May – 30th June, 2025)

A Report

By

Aditya Kumar

(PG/24/007)

Mentor: Dr Vinay Tripathi

PGDHM (Hospital and Health Management)

2024-26

International Institute of Health Management Research, New Delhi

The certificate is awarded to

Aditya Kumar

In recognition of having successfully completed
his internship in

The department of Director Health & Family Welfare
(PO HWC & AAC)

and has successfully complete his Project on

Operational Challenges in Managing Aam Aadmi Clinics: A Field-Based Assessment

Date: 30th June 2025

Organisation: National Health Mission, Punjab

He comes across as a committed, sincere & diligent person who
has a strong drive & zeal for learning

We wish him all the best for future endeavors

Organization Supervisor

Dr. Gurmandeep Singh
Lead Consultant, HWC
NHM, Punjab

Rajesh Bhaskar

Head-HR/Department Head

Assistant Director,
Directorate of Health and Family Welfare
Punjab, Chandigarh

Government of Punjab
Department of Health & Family Welfare
Aam Aadmi Clinics

No. HWC/PB/2025/2346 **Dated –30/6/2025 Chandigarh**

APPRECIATION LETTER

This is to sincerely appreciate the efforts and contributions of **Mr. Aditya Kumar**, a PGDM (Healthcare Management) student from IIHMR, New Delhi, who successfully completed his internship under the National Health Mission, Punjab, from **May to June 2025**.

Mr. Aditya Kumar was actively involved in the **Aam Aadmi Clinics (AACs)** project, where he contributed to the **integration of key primary care services**, including **Non-Communicable Diseases (NCDs), family planning, and pregnancy care**, into the AAC framework—supporting comprehensive service delivery at the primary level.

He also made significant contributions across multiple divisions, particularly in:

- The NCD Division, where he supported the design and evaluation of Medical Officer training programs, including pre- and post-test analysis, and helped coordinate training implementation.
- The Tobacco Control Cell, where he designed IEC materials and awareness posters for World Tobacco Day campaigns.
- PM-ABHIM initiatives, including equipment procurement planning and HR gap analysis for critical care services.
- Essential Drug List (EDL) review, where he contributed to the collection, analysis, and validation of EDL consumption data across different healthcare levels in Punjab, supporting informed decision-making for essential drug planning.

Mr. Aditya Kumar has demonstrated strong analytical skills, excellent coordination with senior officials, a detail-oriented approach to assignments, and a proactive mindset. His performance was consistently professional, and his contributions across AACs, NCD, Tobacco Control, PM-ABHIM, and EDL-related work are highly appreciated.

We commend his efforts and wish him continued success in his future professional journey.

Signatures:

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Department of Health & Family Welfare

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Assistant Director,
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Department of Health & Family Welfare

Certificate of Approval

The Summer Internship Project of titled **"Operational Challenges in Managing Aam Aadmi Clinics: A Field-Based Assessment"** at **NHM, PUNJAB** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the report only for the purpose it is submitted.



Dr. Vinay Tripathi

Assistant Professor

IIHMR, Delhi

FEEDBACK FORM

(Organization Supervisor)

Name of the Student: Aditya Kumar

Summer Internship Institution: National Health Mission, Punjab

Area of Summer Internship: PO HWC & AACs, NPCB&VI O/o Director Health & Family Welfare

Attendance: Regular and punctual throughout the Internship period.

Objectives met:
Completed successfully all the assigned tasks and actively contributed to the Aam Aadmi Clinics (AACs), NPCB&VI project with in-depth exposure to operational models, integration with primary healthcare, HWCs, and NCD components. Gained hands-on experience in training coordination, fieldwork, data analysis, and public health program implementation.

Deliverables:

- Supported AAC service integration through training and field observations.
- Developed and evaluated MO training modules with pre/post-test analysis.
- Conducted field visits and compiled training reports.
- Analysed service data using Excel for mapping and KPIs.
- Aided PM-ABHIM in equipment and HR planning for critical care.
- Reviewed EDL usage across health facilities.
- Created IEC posters for World No Tobacco Day (NCD).
- Provided admin support to NCD and HWC units.
- Analysed NGO cataract surgery data under NPCB-VI.

Strengths:

- Demonstrated strong analytical and critical thinking skills during the project.
- Punctual, disciplined and showed sincere commitment to assigned tasks.
- Quick learner with a keen interest in understanding public health systems.

Suggestions for Improvement:
•Recommended to continue learn and building technical proficiency in different tools.

Signature of the Officer-in-Charge (Internship)

Date: 30/06/2025
Place: Directorate of Heath & Family Welfare, Chandigarh

Dr. Gurmandeep Singh
Lead Consultant, HWC
NHM, Punjab

FEEDBACK FORM (IIHMR MENTOR)

Name of the Student: Aditya Kumar

Summer Internship Institution: NHM, PUNJAB

Area of Summer Internship: PO HWC & AACS, NPCB&VI O/o Director Health & Family Welfare

Attendance: Regular

Objectives met: Summer internship objectives are met by the student

Deliverables: Submitted Summer internship report

Strengths: Willingness to learn and work

Suggestions for Improvement: —

Signature of the Officer-in-Charge (Internship)

Date: 23/07/2021

Place: Below

Aditya Kumar ST report

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Acknowledgment

The past two months have been a valuable and enriching experience for me. As I reflect on this journey, I would like to express my sincere gratitude to everyone who supported and guided me throughout this internship. The successful completion of this internship would not have been possible without the help and encouragement of the individuals mentioned below.

First and foremost, I sincerely thank **IIHMR Delhi** for giving me the opportunity to undertake this internship with **NHM, PUNJAB**. I am especially grateful to **Dr. Vinay Tripathi**, my mentor, for his guidance and support throughout this journey.

I would like to sincerely thank **Dr. Gurman Sekhon**, my mentor, for the constant support and guidance during my internship. His help made it easier for me to understand how public health systems work in real life. His knowledge and encouragement helped me learn better, take part in the ongoing projects, and grow as a young professional in this field.

I truly appreciate their teamwork, patience and the way they included me in important projects. It really helped me learn and grow. I'm thankful for the trust they showed in me and for giving me chances to be a part of the team's work. The friendly and supportive work environment made me feel comfortable and made each day enjoyable and productive.

I also want to thank my fellow interns with whom I really enjoyed working with. Their energy and commitment made the internship more fun and engaging. I'm grateful for everything I learned from them and the teamwork we shared.

I look forward to use the knowledge and experience I gained during this internship as a strong base for my future journey in the field of public health.

Thank you

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List of abbreviations

Abbreviation	Full Form
AAC	Aam Aadmi Clinic
ABDM	Ayushman Bharat Digital Mission
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
CHC	Community Health Centre
DHS	Directorate of Health Services
EDL	Essential Drug List
IEC	Information, Education, and Communication
IPHS	Indian Public Health Standards
LIS	Laboratory Information System
MO	Medical Officer
NCD	Non-Communicable Diseases
NHM	National Health Mission
NPCB&VI	National Programme for Control of Blindness and Visual Impairment
OPD	Outpatient Department
PHC	Primary Health Centre
PPE	Personal Protective Equipment
RCH	Reproductive and Child Health
SOP	Standard Operating Procedure
TAT	Turnaround Time
UHC	Universal Health Coverage

Observational learning

Introduction

National Health Mission, launched by the Government of India in 2005, act as a important initiative which ensure the delivery of affordable, accessible and high-quality healthcare across both rural and urban areas. In Punjab, NHM work with the Department of Health and Family Welfare, tasked for integrating health programs and strengthening the public healthcare infrastructure through localized planning, active community involvement and coordinated service delivery.

NHM Punjab plays important role in advancing various public health agendas, including reproductive and child health (RCH), the prevention and control of both communicable and non-communicable diseases, mental health services and infrastructure development. An innovative model of primary care like Aam Aadmi Clinics (AACs), contributing significantly to the expansion and enhancement of health services, for achieving goals of Universal Health Coverage.

Directorate of Health Services, Punjab operates under the Department of Health and Family Welfare and act as administrative body which regulates the public health service delivery across the state. DHS is responsible for policy implementation, institutional governance, infrastructure development and workforce deployment. DHS provides strategic and technical guidance to ensure the effective functioning of health facilities at all levels.

Objectives:

- Universal Access to Equitable Healthcare
- Strengthening Health Infrastructure
- Integration of Health Services
- Strengthening Health Systems Governance

Mode of data collection

A mixed- method design is used to collect data during the internship at DHS Punjab. Qualitative data is collected by semi-structured interviews with healthcare staff and field observation using checklists. Quantitative data were gathered from digital platforms like e-Sushrut and e-Aushadhi, along with verification from installation records and sample shadowing logs. This approach assured a balanced understanding of both functional challenges and service delivery performance.

General Findings on Learning:

During my internship under NHM Punjab, I was actively engaged with three key public health programmes: Aam Aadmi Clinics, Non-Communicable Diseases (NCD) and the National Programme for Control of Blindness and Visual Impairment (NPCB-VI).

1. Aam Aadmi Clinics (AACs) Programme:

- Identified inconsistencies between the State Essential Drug List and actual drug availability at AACs, indicating gaps in procurement and supply chain efficiency.
- Observed the need for improved on-ground training and supervision, as service delivery was impacted by operational and knowledge gaps among clinic staff.

2. Non-Communicable Diseases (NCD) Programme:

- Identified the importance of aligning NCD training content with the practical capacity of frontline workers to ensure effective integration into AACs.
- Noted that successful implementation of NCD screening at the primary level requires adaptive strategies to address ground-level operational and resource constraints.

3. National Programme for Control of Blindness and Visual Impairment (NPCB&VI):

- Observed that effective public–private collaboration significantly enhances access to eye care services, particularly in underserved and rural populations.

Conclusive Learning

- Gained hands-on exposure to the functioning of AACs, NCD and NPCB&VI programmes.
- Understood how policy initiatives are implemented and adapted at the grassroots level.
- Gained hands-on experience in creating training modules, writing field visit reports and checking data for accuracy.
- Understood how digital tools like e-Sushrut and e-Aushadhi help in tracking services and improving healthcare delivery.
- Realised the critical role of government-NGO collaboration in expanding access to care.
- Recognised that continuous feedback, supervision and structured training are essential for system improvement.
- Making new connections with our colleagues.
- Engaging with people from varied areas of experience and expertise.

Limitations

Limited field coverage and absence of patient interaction constrained the ability to generalize findings and assess user perspectives on service quality.

Project Report

Operational Challenges in Managing Aam Aadmi Clinics: A Field-Based Assessment

Introduction

The Aam Aadmi Clinic initiative introduced in Delhi in 2015, was developed as a localized, community-oriented approach to provide no-cost, high-quality primary healthcare services to underserved populations. Inspired by the success of this model, the Government of Punjab adopted a similar initiative in August 2022 to enhance its own healthcare delivery system. This initiative aimed to alleviate pressure on tertiary healthcare facilities while promoting equitable access to essential medical services across the state.

AACs act as the first point of contact in the healthcare system, by covering all preventive, promotive, diagnostic and curative services under a single roof. By June 2025, a total of 881 AACs are in operational, across all urban and semi-urban areas of Punjab. Every clinic is managed by a team that includes a medical officer, pharmacist, clinical assistant and support staff, also supported by a digital health infrastructure for efficient service delivery.

In keeping with the objectives of Universal Health Coverage and the National Health Policy (2017), AACs focus on ensuring everyone has access to healthcare while supporting early disease detection and prevention. AACs helps to reduce out-of-pocket expenses of patients by offering key services like general outpatient consultations, NCDs screening, maternal and child health care, immunization, family planning services, diagnostic sample collection and gives free medications listed under the State EDL. All patient data and service records are safely managed through e-clinic portal.

Rationale

AACs is a flagship health initiative launched by the Government of Punjab, designed to improve the accessibility, affordability and quality of primary healthcare services across the state. A total of 881 AACs are in operational as of June 2025, it helps in improving public access to free outpatient consultations, diagnostic services and essential free medicines.

This initiative's implementation has brought to light many operational challenges that may affect its long-term effectiveness and sustainability. By field observations and stakeholder feedback revealed issues such as overburdened clinical staff, inefficiencies in diagnostic sample collection and result turnaround, inadequate cold chain infrastructure and overburdened frontline workers such as ASHAs.

If left unaddressed, these challenges may compromise the program's ability to achieve its core objectives, including reducing out-of-pocket healthcare expenditures, improving early disease detection and alleviating the pressure on secondary and tertiary care facilities.

Despite the critical role of AACs in advancing the goals of UHC and public health reform in Punjab, there is a lack of systematic, field-level evidence evaluating the operational barriers affecting their performance. This study seeks to fill

that gap by conducting a field-based assessment of AACs to identify on-ground issues, analyse their underlying causes and provide practical, evidence-based recommendations to strengthen the functionality and impact of the AAC model across the state.

Research Question

What are the primary operational hurdles hindering the efficiency of Aam Aadmi Clinics in Punjab and what practical measures can be implemented to overcome these challenges?

Objective

1. To identify field-level operational issues in managing AACs across infrastructure, staffing and service delivery.
2. To assess system inefficiencies such as delays in sample testing, cold chain management and digital platform usage.
3. To examine the impact of administrative and workforce-related burdens (e.g., ASHA workload, lab logistics).
4. To provide actionable recommendations for enhancing the efficiency and impact of AACs in Punjab.

Methodology:

Study Design:

This study employed mixed methods study design, integrating both qualitative and quantitative approaches to gain a comprehensive understanding of the operational challenges in AACs in Punjab. This design was chosen to combine other data and understand the system level problems and connect them feedbacks and observation from the field.

Study Population and Sample:

The sample was selected using convenience sampling of frontline healthcare workers at AACs, with the aim to know about operational insights from all AACs staff. Total 25 healthcare personnel were interviewed:

- 10 Medical Officers (MOs)
- 5 Pharmacists
- 5 Clinical Assistants
- 5 Support Staff

Study Setting

The study was conducted across Five AACs located in Mohali and Hoshiarpur sections of Punjab. These Districts were chosen to represent a blend of urban and semi urban healthcare delivery settings within the AAC framework.

Mode of Data Collection

In this study data was collected by using mixed-methods approach, by combining both qualitative and quantitative data collection techniques during field visits to AACs.

1. Qualitative Data Collection

- **Semi-structured interviews** with healthcare personnel, including Medical Officers, Pharmacists and Clinical Assistants. These interviews aimed to capture in-depth perspectives on workflow challenges, staffing patterns and system-level bottlenecks.
- **Structured observational checklists** were utilized to evaluate the implementation of SOPs, particularly those related to laboratory sample collection, storage and dispatch (Annexure1).
- **Field notes and verbal feedbacks** with frontline health workers, such as ASHAs, were documented to understand their operational constraints, informal responsibilities and perceptions of service delivery gaps.

2. Quantitative Data Collection

- **Portal-based data**, including daily OPD footfall, medicine stock movement and diagnostic sample records were extracted from platforms such as *E-Sushrut* and *E-Aushadhi*. This data provided measurable indicators of service utilization, inventory management and diagnostic workflow timelines.
- **Inventory logs and sample tracking records** were reviewed at the facility level to cross validate digital data, assess consistency in reporting and identify any discrepancies impacting service efficiency.

Data Compilation

The data compilation process for this field-based assessment is conducted with a focus on systematically capturing the operational realities of AACs in the districts of Mohali and Hoshiarpur, Punjab. A mixed-methods approach is adopted, integrating both quantitative metrics and qualitative field insights to ensure a comprehensive understanding of the service delivery environment at the primary care level.

Data were gathered during structured field visits using a combination of validated tools and stakeholder interviews. Information was sourced from both digital health platforms and on-site documentation, complemented by firsthand observations of facility operations and interactions with clinic personnel.

Important sources and data types include the following:

- **Quantitative Data**:
    - Daily OPD footfall records extracted from the e-Clinic portal.

- Diagnostic sample collection logs and turnaround timelines.
- Medicine availability and stock tracking data via the **E-Aushadhi** portal.
- Facility-wise service uptake and inventory records.

- **Qualitative Data**:
  - Semi-structured interviews conducted with Medical Officers, Pharmacists, Clinical assistant and support staff.
  - Observational checklists were used to check laboratory sample handling, cold chain maintenance and workflow management.

Findings and Analysis

The field-based evaluation of AACs in Punjab highlighted valuable insights into service utilisation patterns, staffing dynamics, managing diagnostic services and digital system performance. Information gathered through field visits, stakeholder interviews, portal analytics and observational checklists gives overall view of system bottlenecks affecting service delivery.

1. Utilisation Patterns of AACs

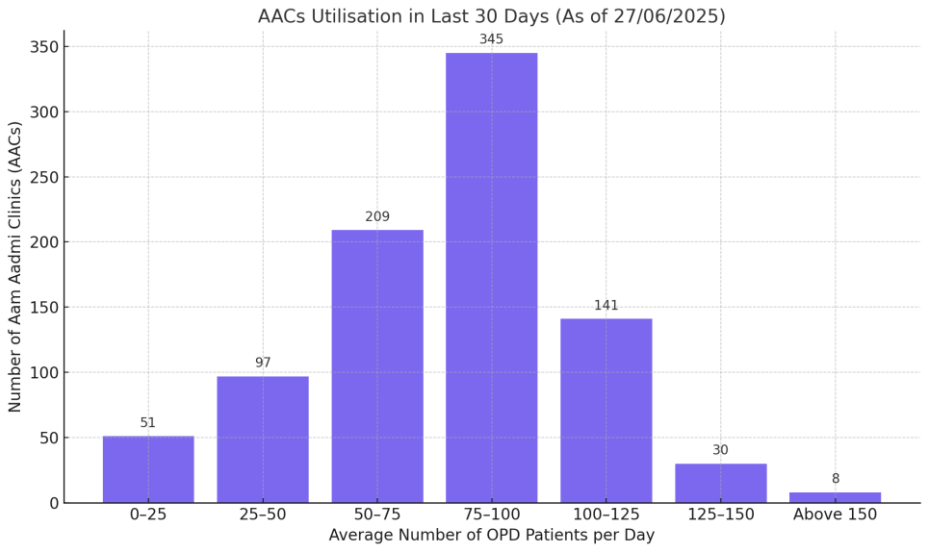
Over 80% of AACs report daily footfall of 50–100+ patients, indicating strong community reliance.

Analysis of patient footfall over the last 30 days (as of 27 June 2025) shows that the majority of AACs are functioning at moderate to high capacity:

- 345 clinics reported 75-100 patients/day
- 209 clinics saw 50-75 patients/day
- 141 clinics handled 100-125 patients/day

Only a small number of clinics had low utilisation:

- 51 clinics had 0-25 patients/day
- 97 clinics saw 25-50 patients/day



Interpretation: High patient volume across most clinics reflects strong community demand and trust. The underutilised facilities may indicate issues with accessibility, local awareness or service quality perceptions, requiring targeted outreach and performance audits.

2. Workforce Constraints and Role Overlap

Field observations indicated that clinical assistants and support staff are handling an excessive workload, often juggling several roles including patient registration, recording vital signs, data entry, assisting in the pharmacy, collecting blood samples and coordinating sample transportation.

Key Issues Identified:

- Inadequate number of supporting staff (data entry operators, Lab Technician)
- Limited task-sharing mechanisms
- Absence of systematic role definition and workflow delegation

Impact:

- Increased staff burnout
- Reduced efficiency and morale
- Higher turnover risk and diminished service quality

3. Need for Consistent Training and Better Teamwork

During the field visits, one of the most noticeable issues was the lack of consistent training for staff working at AACs. Without proper and regular training, team members often had different understandings of how to carry out important tasks like collecting lab samples, entering patient data or dispensing medicines. This often led to confusion and disrupted the clinic's workflow.

Key Issues Identified:

- New staff members were usually not given a proper training to how the clinic operates, which made it harder for them to adjust.
- Staff struggled to communicate effectively during busy hours, causing delays for patients.
- There was no system in place to help team members, like Clinical Assistants, ASHAs and Pharmacists, learn each other's roles or step in when needed.

Why It Matters:

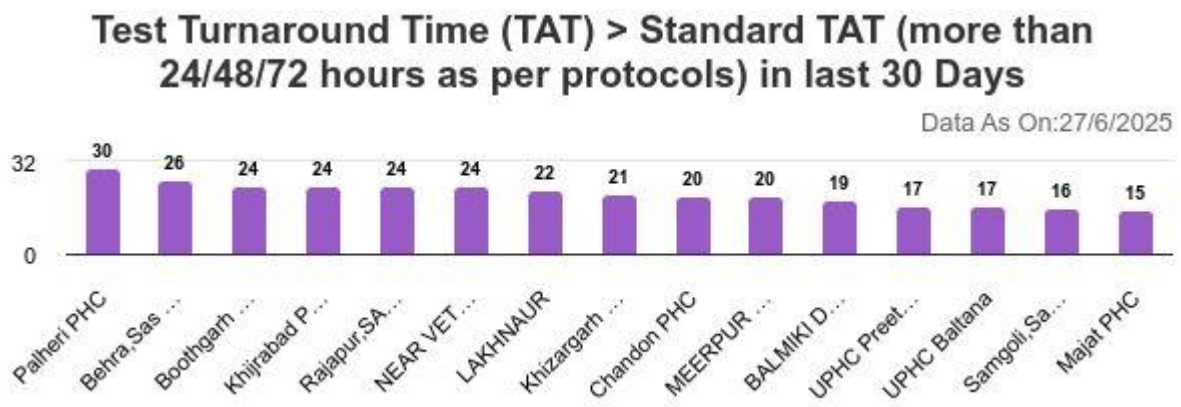
When clinic staff aren't on the same page, it affects how smoothly the clinic runs and patients often end up waiting longer or receiving incomplete care. For these clinics to work well, especially during peak times, teams need clear roles, good communication and regular hands-on training.

4. Delayed Diagnostic Turnaround Times

TAT analysis indicated that several clinics frequently breach the 24/48/72-hour diagnostic result protocol. As per portal data, the worst-performing facilities had over 20 test results delayed in the last 30 days.

Key Clinics Reporting Frequent Delays:

- Palheri PHC (30 cases)
- Behlolpur (26 cases)
- Boothgarh (24 cases)
- Khijrabad, Raipur SA, NEAR VET, Lakhnaur (24+ each)



Root Causes:

- Inadequate number of riders per route
- Samples clubbed from multiple clinics causing delay in lab delivery
- Weak cold chain maintenance and lack of tracking

Consequences:

- Delayed clinical decisions and treatment initiation
- Patient dissatisfaction and non-compliance

5. ASHA Workload and Community Engagement Gaps

ASHAs were found to play an expanded role including community mobilization, referral linkage, public health outreach, follow-up and health camp coordination. However, their contributions are under-recognised and their workload is not aligned with their original mandate.

Observations:

- Lack of incentives for expanded duties.
- Poor work-life balance due to unplanned or irregular work assignments.
- Minimal involvement in clinical training despite frontline engagement.

Impact:

- Reduced effectiveness in community mobilization
- Growing attrition risks

6. Third-Party Diagnostic Lab Operation Quality Gaps

Observations in the field indicated that there were grave deficiencies in the quality of operations of third-party laboratories that were charged with the work of analysing and processing diagnostic samples obtained in AACs. This posed a problem as these external partners are quite crucial in the diagnostic service chain, yet they do not have the basic infrastructure and do not follow the biomedical protocols.

Findings:

- No hygienic receiving space of the incoming samples at the laboratory premises.

- The failure to adhere to infection control standards - the lab staff members were seen wearing no masks or gloves or any protective clothing.
- Sample pickup riders were late (approximately 2 PM) making the clinics slow in dispatching the samples.
- There was insufficient insulated carrier and ice packs used to transport blood samples and this jeopardized cold chain.

Implications:

These default conditions undermine sample integrity and test integrity, follow:

- A possibility of wrong test outcomes or sample retention.
- Diagnostic delays affecting the prompt clinical decision.
- Distrust of the patient and raise risk of being exposed to infections by both staff and patients.

7. Real-Time Visibility Issues in E-Aushadhi

Field observations and staff feedback indicated a critical limitation in the E-Aushadhi portal used for medicine inventory management at AACs. The portal refreshes its data only once daily at 12:00 AM, which means that any updates made during working hours—such as new stock entries or issued medicines are not reflected in real time. As a result, clinical and pharmacy staff often encounter discrepancies between the actual stock and what is displayed on the system.

Implications:

- Delays in dispensing medicines due to uncertainty about real-time availability
- Inaccurate reporting of stock status, affecting ordering and restocking cycles
- Patient dissatisfaction due to perceived unavailability of essential medicines

Interpretation

The findings from this assessment indicate that while AACs have gained considerable acceptance within communities, several operational challenges are limiting their overall effectiveness. With high patient turnout, existing staffing structures are under pressure, resulting in hurried consultations, increased workload and signs of staff fatigue raising concerns about long-term sustainability.

Delays in diagnostic processes, due to poor sample management and late test results, are impacting timely clinical decision-making. These inefficiencies not only reduce the quality of care but may also lead patients to seek private alternatives, undermining the program's goals of cost-free, equitable healthcare access.

Lack of regular staff training and poor internal coordination have contributed to disjointed service delivery. Frontline workers like ASHAs are overburdened and given responsibilities beyond their formal roles, without the necessary resources or recognition weakening their effectiveness in community engagement.

To ensure the long-term success and credibility of the AAC model, it is critical to invest in expanding the health workforce, enhancing clinic operations, improving diagnostic workflows and promoting structured teamwork. AACs must be strengthened as reliable public health facilities that prioritize quality, efficiency and universal access.

Recommendations

Based on the field assessment findings of AACs in Punjab, the following actionable recommendations are proposed to enhance the efficiency, coordination and sustainability of service delivery. These are rooted in public health systems thinking and aim to strengthen primary healthcare at both the operational and systemic levels:

1. Strengthen Human Resource Capacity

- Recruit additional support staff including lab technician, data entry operators and administrative assistants to reduce overload on clinical assistant.
- Introduce shift-based staffing in high-footfall clinics to ensure staff rotation, reduce burnout and maintain quality care during peak hours.

2. Implement Structured Training and Capacity Building

- Develop and mandate induction training modules for all new AAC personnel, covering patient flow, portal usage, sample collection protocols and emergency procedures.
- Conduct periodic refresher training on digital systems, diagnostics handling and interpersonal communication for better teamwork and coordination.

3. Improve Diagnostic Logistics and Turnaround Times

- Establish fixed-time daily sample pickups with designated phlebotomy teams to minimise delays and maintain cold chain integrity.
- Equip clinics with standardized cold chain kits (cool boxes, thermometers, gel packs) and train staff on proper storage and handling.
- Introduce digital sample tracking to monitor real-time transit status and flag delays to lab coordinators.

4. Enhance E-Aushadhi and Digital Portal Utility

- Upgrade E-Aushadhi portal to support real-time inventory updates and generate automated alerts for low-stock medicines.

- Enable offline data entry modes during network outages to avoid disruptions in patient registration and record maintenance.

5. Expand and Support ASHA Engagement

- Provide performance-based incentives and recognition for expanded roles in mobilization, follow-up and health education.
- Involve ASHAs in basic clinic orientation to enhance their understanding of digital tools and patient referral systems.

6. Institutionalize Team-Based Coordination

- Conduct weekly staff huddles within each AAC to identify workflow issues, improve communication and foster a shared responsibility approach.

7. Monitor and Address Underutilisation

- Conduct community-based awareness drives to increase visibility of underperforming clinics and promote available services.
- Analyse local barriers to access (e.g., transport, mistrust, misinformation) and deploy tailored IEC (Information, Education, Communication) strategies.

8. Establish Performance Monitoring and Feedback Loops

- Develop simple dashboard-based performance reports tracking TAT, patient footfall, medicine availability and staff attendance.
- Introduce a monthly feedback mechanism from patients and staff to assess satisfaction and guide continuous quality improvement.

9. Referral Integration with Secondary and Tertiary Care

- Develop and institutionalize digital referral protocols using the existing e-Sushrut and e-Clinic platforms, enabling traceable, time-stamped referrals to appropriate secondary care facilities.
- Create SOPs for upward and downward referral communication between AACs and linked hospitals.

Benefit:

- Ensures seamless transition of patients between primary and higher-level care, especially in cases needing specialist intervention.
- Reduces patient dropouts and delays in critical care.

Conclusion

The AACs initiative in Punjab represents a bold and progressive step toward achieving UHC by bringing essential healthcare services closer to communities. A total of 881 operational clinics functioning across urban and semi-urban areas, AACs have improved access to outpatient care, diagnostics and medicines—free of cost. Findings from field-based assessment highlight that the foundation is strong, the long-term sustainability and effectiveness of the initiative depend on resolving many operational and systemic challenges.

Findings of study identified key gaps in staffing, diagnostic logistics, inter-staff coordination and digital infrastructure. Clinical assistants and support staff are overburdened, ASHAs are undervalued despite expanded roles and responsibility. Delays in receiving diagnostic results impact timely treatment. The lack of formal training and workflow standardisation further hampers service delivery.

These challenges are not only programmatic but also systemic problem in public primary care settings across India. Sustaining and expanding the impact of AACs will require a collective effort one that includes targeted human resource investments, diagnostic system reforms, improved digital platforms and meaningful community engagement.

If timely and strategic action is taken, these clinics have the potential to develop into strong, integrated public health centre that deliver preventive, promotive and curative care with efficiency and dignity. Strengthening AACs is not just a policy priority but a public health is essential to reduce healthcare inequities, reduce patient load on secondary and tertiary care centres and reinforce the foundation of a robust, people-centred healthcare system in Punjab.

References

1. Ministry of Health and Family Welfare, Government of India. *National Health Policy 2017* [Internet]. New Delhi: MoHFW; 2017 [cited 2025 Jul 2]. https://p4h.world/app/uploads/2024/04/National-Health-Policy-2017-India.pdf
2. Ministry of Health and Family Welfare, Government of India. *Operational Guidelines for Comprehensive Primary Health Care through Health and Wellness Centres* [Internet]. New Delhi: MoHFW; 2018 [cited 2025 Jul 2]. https://www.nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/Comprehensive_primary_health_care/letter/Operational_Guidelines_For_CPHC.pdf
3. Government of India. *Ayushman Bharat Digital Mission (ABDM)* [Internet]. [cited 2025 Jul 2]. Available from: https://www.india.gov.in/spotlight/ayushman-bharat-digital-mission-abdm
4. World Health Organization. *Declaration of Astana: Global Conference on Primary Health Care, Astana, Kazakhstan, 25–26 October 2018* [Internet]. Geneva: WHO; 2018 [cited 2025 Jul 2]. Available from: https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf
5. National Health Systems Resource Centre. *Indian Public Health Standards (IPHS) Guidelines for Health and Wellness Centres – Sub Health Centres 2022* [Internet]. New Delhi: NHM; 2022 [cited 2025 Jul 2]. Available from: https://nhsrcindia.org/IPHS2022/IPHS-2022-Guidelines
6. Brar S, Purohit N, Singh G, et al. Health system readiness for roll out of the Ayushman Bharat Health and Wellness Centres – early experiences from Punjab. *J Family Med Prim Care*. 2022 Apr;11(4):1354–60. doi:10.4103/jfmpc.jfmpc_2560_20
7. Mehta V, Ajmera P, Kalra S, et al. Human resource shortage in India's health sector: a scoping review of the current landscape. *BMC Public Health*. 2024 May;24:1368. doi:10.1186/s12889-024-18850-x
8. Kasthuri A. Challenges to healthcare in India: the Five A's. *Indian J Community Med*. 2018 Jul;43(3):141–3. doi:10.4103/ijcm.IJCM_194_18
9. Punjab Health & Family Welfare Department. *e-Sushrut Punjab Health Portal* [Internet]. [cited 2025 Jul 2]. Available from: https://phsc.punjab.gov.in/esushrut-login/
10. Government of Punjab. *E-Aushadhi Punjab Portal for Drug Inventory Management* [Internet]. [cited 2025 Jul 2]. Available from: https://eaushadhipb.in

ANNEXURE 1

Checklist 1: Sample collection and handover process at AACs

S. No.	Checklist items	Yes	No	Remark
1	**Patient Identification**			
1.1	Patient identity verified using at least two identifiers (Name and Unique ID)			
2	**Sample Collection**			
2.1	Aseptic technique used for sample collection as per test requirement			
2.2	Appropriate PPE worn during procedure (gloves, mask, gown)			
3	**Sample Labelling**			
3.1	Sample labelled with patient's name, ID, date & time, sample type and barcode			
4	**Documentation**			
4.1	Sample Requisition Form filled with complete patient and test details			
5	**Sample Packaging**			
5.1	Sample placed in sterile primary container and sealed securely			
5.2	Biohazard bags with absorbent material used			
5.3	Triple-layer packaging is used for infectious samples			
6	**Cold Chain Maintenance**			
6.1	Insulated containers/cool boxes with ice packs used (2-8°C for refrigerated, < -20°C for frozen samples)			
7	**Handover to Rider**			
7.1	Completed Test request form and Transport log attached to container			
7.2	Trained rider collected sample within stipulated time			
7.3	Documentation and sample count verified before handover			

Checklist 2: Sample Processing and Reporting at Lab

S. No.	Checklist items	Yes	No	Remark
1	**Sample Receiving and Verification**			
1.1	Test request form and transport log verified with received samples			
1.2	Secondary container inspected for leakage, damage or labelling mismatch			
1.3	Temperature recorded at time of receipt using data logger			
2	**Sample Integrity Check**			
2.1	Samples examined for signs of haemolysis, inadequate quantity or incorrect storage conditions			
2.2	Non-conforming samples were rejected, recorded and informed to AAC			
3	**Logging and Storage**			
3.1	All samples entered into the Laboratory Information System (LIS)			
3.2	Samples stored as per standard requirements until processing begins			
4	**Testing and Quality Control**			
4.1	Diagnostic equipment calibrated daily			
4.2	Control samples run to ensure test accuracy			
4.3	Tests re-performed in case of abnormal or inconsistent findings			
5	**Reporting and Documentation**			
5.1	Test results verified against patient ID and requisition details			
5.2	Reports reviewed by qualified personnel (e.g., Pathologist)			
5.3	Reports send electronically to AAC within defined TAT			
6	**Communication of Critical Results**			
6.1	AAC Medical Officer is informed in case of critical or reportable findings			
6.2	Time and mode of communication documented			