Chapter

Enhancing Role Clarity and Reducing Burnout: Implementing Interprofessional Collaboration Agreements for Physician Associates in Primary Care

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Abstract

Physician associates are essential contributors to primary care delivery, playing a key role in expanding access, alleviating workforce shortages, and improving patient outcomes. However, their effectiveness is often compromised by systemic issues such as role ambiguity, scope creep, and professional burnout. These challenges disrupt team dynamics, reduce job satisfaction, and undermine the quality of care. This chapter presents the implementation of interprofessional collaboration agreements (ICAs) as a strategic and sustainable solution to these persistent problems. ICAs are formal agreements that define clinical roles, establish communication protocols, and promote mutual accountability among care team members. Guided by the Joanna Briggs Institute Implementation Framework, this project engages stakeholders, assesses organizational readiness, and applies evidence-based change strategies tailored to the primary care setting. Key evaluation metrics include reductions in provider burnout, improvements in patient satisfaction, and fidelity to ICA protocols. Key findings from the proposed implementation suggest that formalizing ICAs enhance provider role clarity, mitigate scope creep, reduce clinician burnout, and improve patient satisfaction and care continuity in primary care settings. The proposed framework offers a replicable model for improving collaboration, reducing clinician burden, and optimizing outcomes in diverse primary care environments.

Keywords: interprofessional collaboration agreements, physician associates, burnout, scope creep, role clarity, primary care, Joanna Briggs institute implementation framework, healthcare teams

1. Introduction

The efficiency and well-being of healthcare providers are essential to achieving high-quality patient outcomes. Physician associates (PAs) play a pivotal role in

primary care by addressing workforce shortages and delivering essential services. However, systemic issues such as role ambiguity, scope creep, and burnout compromise their effectiveness and contribute to professional dissatisfaction [1, 2].

Role ambiguity arises when responsibilities are unclear or overlap with those of other team members, creating inefficiencies, interpersonal conflict, and fragmented care [3, 4]. Scope creep, or the assignment of duties beyond a PA's defined role without appropriate support, intensifies this issue and contributes to burnout, a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment [5, 6]. Burnout further disrupts team dynamics, leading to delayed care, diminished quality, and patient dissatisfaction [6, 7]. Its broader effects of ripple through the healthcare system contribute to higher turnover, lower morale, and poorer outcomes [8, 9]. A scoping review protocol for this project was preregistered via OSF to ensure methodological transparency [8, 9]. Ineffective collaboration frameworks exacerbate these challenges by failing to support team navigation in complex clinical environments [10, 11]. A systematic review by Sangaleti et al. identified that unclear decision-making and insufficient communication often undermine interprofessional team performance [12]. This project proposes implementing interprofessional collaboration agreements (ICAs) in federally qualified health centers (FQHCs) and rural clinics, where provider shortages make role clarity and collaboration especially critical [13, 14]. Although PAs are highly trained, the lack of formal support structures can hinder their performance. Research supports collaborative frameworks that clarify roles, streamline workflows, and enhance team decision-making [15, 16]. ICAs offer a viable solution to reduce burnout, improve functionality, and elevate care delivery [14, 17].

Grounded in the Joanna Briggs Institute (JBI) Implementation Framework [18] and a supporting scoping review [16], this chapter introduces a sustainable ICA model tailored for primary care. This approach addresses systemic barriers to role clarity and professional satisfaction, both essential to a thriving healthcare workforce.

2. Defining the practice area and evidence-based implementation model

PAs are integral to primary care, providing a broad spectrum of clinical services, especially in underserved and high-demand areas where they are often primary providers. Despite their crucial role, systemic challenges can hinder their efficiency [19, 20]. The status quo in many primary care settings features informal role definitions, leading to inefficiencies and increased stress due to tasks performed outside their scope and inadequate communication [20]. The proposed implementation of ICAs addresses these issues by providing a structured framework for interprofessional collaboration, clearly defining roles, establishing accountability, and promoting equitable workload distribution among team members (see **Table 1**). For instance, as outlined in **Table 1**, collaborative management of chronic conditions like diabetes and rapid responsibility allocation in emergencies will be enhanced [21, 22]. These improvements are also aligned with chronic disease surveillance goals outlined in statewide public health guidance [23]. Implementing ICAs is anticipated to improve team dynamics, reduce stress, and foster a collaborative culture, leading to higher-quality and more sustainable primary care delivery [6, 19]. The model's emphasis on sustainability and trustworthiness also aligns with best practices in health research and qualitative evaluation [24, 25]. Furthermore, AB 890 offers a valuable policy precedent for expanding provider roles under formalized frameworks [26].

Stakeholder group	Roles and contributions
Physician associates (PAs)	Central to ICA implementation; address role ambiguity, burnout, and scope creep; contribute structured feedback to strengthen role clarity and sustainability.
Physicians	Collaborate in defining responsibilities and ensuring equitable task distribution. Support ICA adoption through educational workshops to improve teamwork and reduce workloads.
Clinic administrators	Oversee resource allocation, training, and outcome tracking. Use real-time monitoring tools to integrate ICAs into clinical workflows effectively.
Patients	Provide feedback through surveys and focus groups to evaluate ICA effectiveness, highlighting improvements in care coordination and satisfaction.
Organizational leaders	Align ICA objectives with strategic goals, secure funding, and advocate for policy changes to ensure institutional support and progress toward quality benchmarks.
Interdisciplinary team members	Include nurses, medical assistants, and admin staff. Assist in ICA rollout, provide feedback, and benefit from training to promote acceptance and reduce resistance.
AAPA and CAPA	AAPA advocates for ICAs nationally; CAPA addresses implementation challenges at the state level, advancing collaborative practice for PAs.
NCQA and AMA	NCQA develops evaluation standards for ICAs; AMA fosters physician collaboration and addresses scope of practice concerns.
Public health agencies	Ensure ICA implementation aligns with public health goals, supporting population health at federal, state, and local levels.
CDC and NIH	CDC supports ICAs in preventive and chronic disease care; NIH evaluates ICA outcomes through evidence-based research.
FQHCs and community clinics	Tailor ICAs to fit diverse and resource-limited environments, promoting culturally competent, patient-centered care across rural and urban areas.

AAPA = American Academy of Physician Associates; CAPA = California Academy of PAs; NCQA = National Committee for Quality Assurance; AMA = American Medical Association; CDC = Centers for Disease Control and Prevention; NIH = National Institutes of Health; ICA = Interprofessional Collaboration Agreement; PA = collaborating Physician Associate; FQHC = Federally Qualified Health Center.

Table 1.
Stakeholder Groups, Roles, and Contributions.

3. Key stakeholders

Successful ICA implementation depends on the active engagement of key stakeholders across all organizational levels. Physician associates (PAs), physicians, administrators, interdisciplinary team members, patients, public health agencies, and advocacy organizations each bring essential perspectives, resources, and decision-making authority. Their participation ensures that ICAs are aligned with clinical workflows, institutional goals, and patient needs. **Table 1** summarizes stakeholder roles and contributions across the implementation process.

4. Communication channels, committees, and reporting requirements

Strong communication channels provide the foundation for successful ICA implementation. Internal meetings, such as weekly huddles and monthly leadership updates, play a critical role in ensuring alignment across teams and addressing emerging challenges promptly. These meetings allow real-time problem-solving

and reinforce shared accountability among stakeholders. Digital platforms, enhance collaboration by centralizing resources, tracking progress, and facilitating real-time communication among geographically dispersed team members [20].

4.1 Engagement and oversight committees

Patient feedback mechanisms, including surveys and focus groups, are another vital communication tool, offering valuable insights into care quality and satisfaction from the patient perspective. This input informs ICA refinement and supports a patient-centered approach to care delivery [21].

4.2 Patient feedback and oversight committees

Patient input is a key component of ICA refinement. Surveys and focus groups provide valuable insights into care quality and satisfaction, supporting a patient centered, responsive approach to delivery [21].

To ensure structured implementation and accountability, several oversight committees guide ICA rollout:

- Implementation Steering Committee: Provides strategic direction, allocates resources, and addresses system-level barriers [27].
- Interdisciplinary Collaboration Committee: Promotes team cohesion, resolves conflicts, oversees the design, implementation, and ongoing updates of ICA protocols based on stakeholder feedback [23, 24].
- Audit and Quality Improvement Committee: Conducts regular audits to monitor compliance, assess outcomes, and inform ongoing improvement [19, 24].

Together, these mechanisms foster continuous feedback and ensure that ICAs remain adaptable, effective, and aligned with both organizational goals and patient needs.

5. Engage change agents

Successful ICA implementation depends on the coordinated efforts of three key leadership roles:

- System leaders (e.g., CMOs, lead PAs) align ICA efforts with organizational priorities, advocate for resources, and ensure institutional support [22, 27].
- Technical experts provide clinical and regulatory guidance to ensure ICA protocols are safe, compliant, and evidence based [20].
- Day-to-day leaders, such as clinic or unit managers, integrate ICAs into daily workflows, troubleshoot operational issues, and sustain staff engagement [20, 21].

Together, these change agents bridge strategy and execution, supporting the consistent and sustainable rollout of ICAs across settings.

6. Project management

Project management provides the structure and coordination necessary for successful ICA implementation across multiple stakeholders and settings.

6.1 Team structure and coordination

A resolute project manager plays a central role in overseeing clinic operations, managing timelines, allocating resources, and maintaining communication among stakeholders. This coordination ensures ICA implementation stays on track and responsive to emerging challenges [23].

The broader project team comprised of clinic representatives, technical experts, and leaders across organizational levels meets regularly to monitor progress, promote transparency, and refine strategies. Iterative improvement methods, such as the plan-do-study-act (PDSA) cycle, support continuous alignment with organizational goals and facilitate adaptive implementation [24, 25].

6.2 Monitoring and evaluation framework

A robust monitoring framework enables continuous evaluation of ICA implementation by tracking key performance indicators (KPIs), including role clarity, provider burnout, and care quality. In alignment with evidence-based models, these indicators are categorized by implementation stage [14]. *Inputs* include factors such as training availability and leadership engagement. *Processes* refer to metrics like the number of ICAs signed and adherence to established protocols. *Outcomes* capture results such as reductions in provider burnout [1], improvements in role clarity, and increases in patient satisfaction measured by CAHPS surveys [26]. *Effects* reflect long-term impacts, including improved clinical outcomes (e.g., A1c, LDL, and hypertension control [23, 24]), reduced delays in care, and higher workforce retention rates. Real-time dashboards and quarterly audits, stratified by provider role, enable timely, data-driven adjustments and support sustained improvement.

7. Facilitator of change at the point of practice

At the practice level, a dedicated facilitator plays a crucial role in translating strategic goals into operational execution. This responsibility is often assigned to individuals such as lead PAs, clinic site leaders, or clinic managers who have the expertise and established relationships necessary to guide change effectively.

Facilitators are selected for their deep understanding of clinical workflows and team dynamics, which allows them to offer practical, context-specific guidance. Their trusted relationships with staff help build credibility, promote buy-in, and reduce resistance to change [20]. Strong communication skills enable facilitators to articulate objectives, address concerns, and deliver actionable feedback, fostering collaboration [21].

Their commitment to quality improvement is evident through initiative-taking problem-solving and advocacy throughout the implementation process. Skilled in conflict resolution and team motivation, facilitators help navigate challenges and drive adoption of new practices. By combining technical knowledge, leadership, and interpersonal strengths, they ensure consistent engagement and effectively support ICA integration across settings [24].

8. SWOT analysis and organizational readiness

8.1 Readiness for ICA implementation

Organizational readiness plays a central role in the successful adoption of ICAs. A synthesis of stakeholder input, environmental context, and findings from the scoping review revealed strengths such as quality improvement infrastructure and collaborative team culture. However, significant barriers were identified, including rigid structures, limited leadership opportunities for PAs, top-down communication, and inadequate PA representation in decision-making. These factors impact implementation effectiveness and must be addressed through improved workflow adaptability, bidirectional communication, and leadership development. A full summary of organizational strengths, weaknesses, opportunities, and threats is presented in **Table 2**.

8.2 Structure

The organization maintains established systems for quality improvement, offering a strong foundation for ICA adoption. However, rigid structures, particularly those limiting PA involvement in leadership can delay decision-making and constrain

Category	Strengths	Weaknesses	Opportunities	Threats
Structure	Established framework supports quality improvement and ICA introduction.	Lack of flexibility leads to resistance and delays, especially for integrating PAs into leadership roles.	Streamlining workflows and optimizing team structures for inclusiveness and adaptability.	Rigidity and exclusion of PAs from key roles may hinder timely ICA implementation.
Workplace culture	Collaborative culture facilitates ICA adoption.	Resistance to change and inadequate inclusion of PAs in leadership affect engagement.	Engaging PAs as champions to improve ICA perceptions and gain team buy-in.	Resistance to PA inclusion in leadership roles may slow implementation and be perceived as disruptive.
Communication	Multiple communication channels (meetings, newsletters, digital platforms) aid information flow.	Primarily top-down communication limits PA feedback and engagement.	Enhancing bidirectional communication to improve adaptability and responsiveness.	Lack of inclusive communication and feedback may result in miscommunication and disengagement.
Leadership	Leadership supports quality improvement and evidence-based practice initiatives.	Insufficient PA representation in leadership affects oversight and ICA support.	Training and leadership development for PAs to ensure equal opportunities and sustain ICA integration.	Lack of focus on developing PAs as leaders could disconnect leadership goals from implementation efforts.

ICA = Interprofessional collaboration agreement; PA = Physician associate.

Table 2.
Contextual factors for change (SWOT analysis).

innovation. Promoting workflow flexibility and inclusive leadership pathways can enhance structural readiness [14, 17].

8.2.1 Workplace culture

A collaborative and collegial workplace environment supports the principles of interprofessional care. Still, cultural resistance to expanding PA leadership involvement persists. Positioning PAs as facilitators of change and active contributors to implementation efforts can reduce this resistance and increase alignment with ICA goals [6, 7, 13].

8.2.2 Communication

Although the organization uses regular meetings and digital platforms for information sharing, communication remains top-down. This structure limits the ability of frontline team members, including PAs to offer input. Creating more inclusive and bidirectional communication channels is essential to build trust and foster shared ownership of ICA processes [1, 2, 21].

8.2.3 Leadership

Leadership demonstrates commitment to evidence-based practice and improvement initiatives. However, the lack of PA representation in strategic decision-making roles limits full integration. Strengthening leadership development opportunities and formal mentorship structures can address this gap and improve oversight of ICA implementation [10, 11, 23].

9. Review evidence-based audit criteria and sampling plan

9.1 Population to sample

PAs are central stakeholders of ICAs, providing direct insights into role clarity, burnout, and satisfaction [1, 9].

9.2 Sampling strategy

A stratified random sampling approach will be employed, selecting clinics from varying geographic and demographic contexts to ensure representativeness and diversity [10, 13].

9.3 Time, budget, and support

The baseline audit will require 3 months to minimize disruption to clinic operations while allowing thorough data collection. Adequate budget allocations and organizational support are essential to maintain operational continuity [19, 20].

9.4 Bias mitigation

To ensure validity and reliability, several strategies will be employed to mitigate bias:

- Standardized tools: Instruments such as the Maslach Burnout Inventory (MBI) and the Consumer Assessment of Healthcare Providers and Systems (CAHPS) will be administered uniformly across sites [1].

- Credibility in qualitative analysis: To enhance trustworthiness, qualitative data will be coded independently by multiple researchers. A consensus-based approach and established rigor criteria—credibility, confirmability, and dependability—will be used to reduce observer bias and strengthen analytic validity [6, 27].

To ensure validity and reliability, several strategies will mitigate bias:

- Randomization: Clinics will be selected using random stratification, reducing selection bias [25].

- Standardized tools: Instruments such as the MBI and Consumer Assessment of Healthcare Providers and Systems (CAHPS) can be used uniformly across sites [1, 28].

- Credibility in qualitative analysis: To enhance trustworthiness, qualitative data will be coded independently by multiple researchers. A consensus-based approach and established rigor criteria, credibility, confirmability, and dependability, will be used to reduce observer bias and strengthen analytic validity [25].

10. Data collection methods

A mixed-methods approach will comprehensively evaluate ICA implementation, combining quantitative and qualitative strategies:

10.1 Surveys and questionnaires

Tools like the *Maslach Burnout Inventory (MBI)* will assess burnout and job satisfaction among PAs and team members [1], while role clarity will be evaluated using metrics identified in recent interprofessional collaboration research [6, 7].

Patient satisfaction surveys, such as CAHPS, will evaluate care quality and accessibility [28].

10.2 Patient outcome metrics

Chronic disease indicators (e.g., A1c levels, LDL cholesterol, and hypertension metrics) will provide objective measures of care quality and team collaboration [3].

10.3 Interviews and focus groups

Semi-structured interviews with PAs and clinic leaders will identify barriers and enablers of ICA implementation.

Focus groups will explore themes such as interprofessional dynamics and workflow challenges [1].

10.4 Document review

Reviewing existing collaborative agreements and team-based care models will provide a baseline for comparison with the proposed ICA framework [1, 10, 22].

10.5 Examples from literature

Supper et al. demonstrated the effectiveness of focus groups in evaluating interprofessional collaboration [3].

Edwards and Landon confirmed the use of burnout and satisfaction metrics as reliable tools for understanding team dynamics [1].

11. Implications for practice

The results of this audit will offer critical insights into the strengths and challenges of ICA implementation. It will highlight how ICAs influence role clarity, burnout, and patient outcomes across diverse primary care settings. Furthermore, the findings will inform tailored interventions to address barriers, improve workflows, and promote sustainable interprofessional collaboration.

12. Implement changes using GRiP (getting research into practice)

The GRiP model, developed by the Joanna Briggs Institute (JBI), provides a structured framework for translating evidence into practice [14]. This section outlines how each of the four GRiP components informs the implementation of Interprofessional Collaboration Agreements (ICAs) across diverse underserved healthcare settings, ranging from federally supported and rural clinics to low resource and community-based facilities globally. The adaptable nature of this model makes it applicable across various health systems, cultural contexts, and care delivery environments.

12.1 Evaluate baseline audit findings

A formal baseline audit was not conducted due to logistical constraints and the research-based nature of this project. Instead, a comprehensive literature review served as the foundation for establishing contextual insights into PA leadership integration and the utilization of ICAs in primary care [9].

This literature-informed analysis identified several recurring system-level challenges:

- Limited PA representation in leadership roles, despite their growing clinical contributions in underserved settings [1, 10, 12].
- Absence of structured ICAs, contributing to role ambiguity, scope creep, and inconsistent team collaboration [1, 14].
- Implementation shortcomings in existing interventions, which often prioritize clinical task delegation without addressing leadership development, staff wellbeing, or long-term outcome monitoring [1, 14].

These findings informed the strategic design of the proposed ICA implementation model. Although not yet piloted, the model is grounded in these well-documented barriers and aims to introduce a structured, evidence-based framework to strengthen role clarity, reduce provider burnout, and enhance quality of care within primary care settings globally.

12.2 Identify barriers and enablers

The following barriers and enablers were identified through the scoping review, stakeholder input, and assessment of current practice environments [9]:

Barriers

- Limited leadership opportunities for PAs [10, 12, 13]
- Organizational resistance to change [13, 14]
- Burnout related to workload imbalances and lack of institutional support [1, 14]
- Role ambiguity and scope creep, leading to inefficiencies [14]
- Insufficient tracking and limited use of analytics tools [12, 14]
- Resource constraints in rural and underserved clinic settings [12, 24]

Enablers

- Legislative support in California and other states for formalizing ICA use [12]
- Documented improvements in chronic disease outcomes through structured ICAs [13, 14]
- Advancements in telehealth that enhance care team collaboration, especially in underserved and remote settings [24]
- Organizational commitment to equity and access in FQHCs and similar clinics, aligning with ICA goals [12, 24]
- International evidence supporting ICA use across diverse healthcare systems, demonstrating improvements in primary care delivery, patient outcomes, and collaboration among interdisciplinary team members and clinical staff [6, 8, 12, 14, 27]

This barrier-enabler analysis is essential for shaping implementation strategies that address the specific needs of primary care teams. Insights from international studies, including those from Australia, the United Kingdom, and Canada, which highlight additional enablers such as national policy alignment, interprofessional education, and integrated care models, all of which support broader ICA adoption [15, 16, 19]. Incorporating these global findings enhances the relevance and adaptability of the proposed framework across diverse healthcare systems (**Table 3**).

Barrier	Resources	Outcomes	References
Limited leadership opportunities	Educational outreach and leadership development programs for PAs	Enhanced leadership representation among PAs, fostering professional growth	[9, 10, 23]
Organizational resistance	Consensus-building sessions, educational initiatives, leadership support	Stakeholder meetings to build collaboration and organizational buy-in and reduced resistance to ICAs	[17, 23, 26]
Burnout due to workload imbalances and lack of support	Wellness resources, flexible scheduling tools, burnout tracking surveys	Reduced emotional exhaustion and increased job satisfaction among PAs	[1, 14, 23]
Role ambiguity and scope creep	ICA templates, role-specific training sessions	Improved role clarity, reduced overlapping responsibilities, and enhanced team collaboration	[14, 17, 25]
Insufficient patient outcome tracking	EHR upgrades, analytics software, staff training in data utilization	Measurable improvements in patient outcomes and streamlined care delivery	[12, 14, 23]
Resource constraints in rural clinics	Telemedicine platforms, grant-writing resources, partnerships with nonprofits	Enhanced healthcare access and equitable resource allocation in underserved areas	[12, 23, 24]

ICA = Interprofessional collaboration agreement; PA = Physician associate; CPCA = California primary care association; CDPH = California department of public health; EHR = Electronic health record.

Table 3.
Barriers and strategies for implementation of change.

12.3 California case example: A scalable ICA implementation model

California's FQHCs offer a compelling example of effective implementation of ICAs. With policy backing from the California Primary Care Association (CPCA) and the state has enabled expanded roles for nurse practitioners through Assembly Bill 890 and has promoted integrated, team-based care models. Backed by CPCA, California's AB 890 expanded nurse practitioner scope and can provide a replicable model for incorporating advanced practice practitioners (APP) into team-based care using Interprofessional Collaboration Agreements (ICAs) to support safe, independent practice within defined parameters. This policy shift removes longstanding practice barriers for NPs and strengthens the legal and operational foundation for formal ICA implementation, particularly in rural and underserved communities [23, 26].

These developments are reinforced by the state's chronic disease surveillance and outcome monitoring infrastructure led by the California Department of Public Health (CDPH) [24], which enables continuous tracking of key quality metrics such as A1c, LDL cholesterol, and blood pressure outcomes aligned with ICA-driven care goals [24].

While these strategies have been developed within the unique healthcare landscape of California, they offer a scalable, evidence-based model that other organizations can adapt. The integration of supportive legislation, care delivery innovation, and institutional leadership development directly aligns with the third phase of the GRiP model Develop and Implement Strategies for Change and serves as a model framework for replication in FQHCs and rural clinics nationwide.

12.3.1 Broader support for ICA implementation across settings

The proposed ICA model builds on a structured scoping review that identified widespread support for interprofessional collaboration to improve care in primary care environments. While ICAs are recognized as valuable tools, formal implementation protocols, especially within FQHCs, remain underreported [9, 12, 13]. Studies across the U.S. and internationally have demonstrated positive outcomes from structured collaboration models, including improved chronic disease management, enhanced team dynamics, and reduced provider burnout [3, 8, 10, 15]. These findings reinforce the relevance and global applicability of the proposed ICA framework, particularly in resource-constrained and underserved settings.

12.3.1.1 Clarity on implementation strategy

The proposed ICA implementation strategy follows a structured, evidence-based process to promote sustainable integration into primary care settings. Initial preparation involves engaging stakeholders, finalizing ICA templates customized to organizational workflows, and conducting education sessions for clinical teams [14, 23]. During the implementation phase, clinics will formalize and sign ICA agreements, update EMR templates for documentation alignment, and establish team huddles to reinforce role clarity and communication [23, 27]. Monitoring and evaluation activities will include quarterly audits of role clarity, burnout, and patient satisfaction, with real-time dashboards to provide feedback and guide mid-course corrections [25]. Sustainability planning will incorporate periodic reassessment of workflows, leadership training for physician associates and interdisciplinary team members, and updates to ICA structures based on evolving clinical needs and policy changes [14, 25]. By combining preparation, structured rollout, iterative feedback, and continuous adjustment, the strategy reflects implementation of science best practices and addresses known barriers to sustainable collaboration identified in prior studies [14, 25, 27].

12.4 Reassess the change and plan for sustainability

A comprehensive sustainability and reassessment plan is essential to ensure that ICA implementation remains effective, adaptable, and responsive to evolving clinical needs. Key strategies include:

- Internal surveys: Conduct biannual assessments of staff burnout, satisfaction, and role clarity using validated tools such as the Maslach Burnout Inventory (MBI) [1, 22].
- Patient surveys: Use CAHPS or comparable tools on a quarterly basis to assess care quality and patient experience [22, 23].
- Chronic disease metrics: Continuously monitor A1c, LDL cholesterol, and blood pressure control through EHR-based analytics, with flexibility to adjust metrics according to practice focus [22, 23].
- Feedback loops and audits: Implement scheduled audits and feedback sessions to identify improvement areas and support iterative refinement.

- Structured timeline: Follow a phased approach that includes baseline assessments, midpoint reviews, post-implementation audits, and scale-up activities.

To guide sustainability and facilitate replication across varied care settings, the full sequence of implementation milestones is outlined in **Table 4** and further detailed in **Table 5** ICA Implementation and Replication Checklist. This structured timeline, from initial stakeholder engagement through long-term reassessment, supports ongoing progress while allowing flexibility based on performance data and stakeholder input.

Phase	Activities	Timeline	Responsible Parties
Phase 1: preparation	Finalize ICA framework, identify target clinics, and engage key stakeholders.	Month 1	Implementation of steering committee
	Conduct baseline data collection on role clarity, burnout rates, patient satisfaction, and chronic disease metrics.	Months 2–4	Audit & quality improvement committee
	Conduct workshops and training sessions to familiarize PAs, physicians, and team members with ICA protocols.	Month 3	Interdisciplinary collaboration committee
Phase 2: implementation	Implement ICAs in selected clinics as a research-based model program, emphasizing role clarity and interprofessional collaboration frameworks.	Months 5–12	Clinic administrators & day-to-day leaders
	Weekly or bi-weekly team huddles and leadership updates to address challenges and monitor progress.	Months 5–12	Clinic administrators
	Review preliminary data and address emerging barriers through feedback loops with stakeholders.	Month 8	Steering committee & audit team
Phase 3: re-assessment	Reassess burnout, patient satisfaction, and chronic disease metrics using surveys and EHR tools.	Month 12	Audit & quality improvement committee
	Compare baseline data with follow-up results to measure ICA impact.	Month 13	Audit team
	Share findings with stakeholders and identify adjustments needed for improvement.	Month 14	Steering committee
Phase 4: sustainability	Revise ICA protocols and workflows based on feedback and audit findings.	Month 15	Interdisciplinary collaboration committee
	Develop policies and leadership training programs to sustain ICAs long-term.	Months 16–18	Organizational leaders
	Conduct targeted training for PAs to prepare them for expanded leadership roles.	Months 16–18	Training & leadership development team
	Reassess key metrics (burnout, satisfaction, chronic disease outcomes) to validate sustainability.	Month 24	Audit team

Phase	Activities	Timeline	Responsible Parties
Phase 5: scale-up	Identify successful elements of ICA implementation for replication in additional clinics.	Months 25–27	Steering committee
	Develop a phased rollout plan for scaling ICAs across additional FQHCs and rural clinics.	Months 28–30	Steering committee & clinic administrators
	Begin ICA implementation with adaptations if any, in newly identified clinics while providing ongoing support.	Months 31–36	Day-to-day leaders & regional administrators

ICA = Interprofessional Collaboration Agreement; PA = physician associate; EHR = Electronic Health Record; FQHC = Federally Qualified Health Center.

Table 4.
Proposed timeline for re-assessment, sustainability, and scale-up of ICAs.

13. Conclusion

By addressing systemic barriers and leveraging key enablers, this model offers a research-informed, scalable approach to bridging the evidence-to-practice gap. It supports the elevation of PAs as collaborative leaders in primary care, particularly in rural and underserved settings. This structured timeline for reassessment, sustainability, and scale-up (**Table 4**) ensures adaptability over time.

Rather than endorsing a single standardized ICA, this review emphasizes core elements, such as team identification, defined roles, and scopes of practice based on

Phase	Step	Action item	Goal
Preparation	1	Engage stakeholders, including PAs, physicians, administrators, and patients	Build buy-in and collaboration commitment
Preparation	2	Customize standard ICA template to reflect local licensure and workflow needs	Preserve standard principles; adapt to setting
Education	3	Conduct team education sessions introducing ICA goals, structure, and benefits	Promote understanding and commitment
Execution	4	Formalize and sign ICA agreements among all care team members	Establish clear scopes of practice and mutual accountability
Integration	5	Update EMR templates to support ICA tracking and hand-off documentation	Ensure operational alignment and monitoring
Monitoring	6	Launch patient satisfaction surveys at baseline and 3 months post-implementation	Monitor patient care perceptions and improvements
Monitoring	7	Conduct quarterly team reviews assessing burnout levels, role clarity, patient outcomes	Sustain momentum and address emerging barriers
Sustainability	8	Perform annual ICA update based on audit findings, clinical trends, and legislative changes	Maintain model relevance, support workforce resilience

ICA = Interprofessional Collaboration Agreement; EMR = Electronic Medical Record; PA = Physician Associate; KPI = Key Performance Indicator; CAHPS = Consumer Assessment of Healthcare Providers and Systems; MBI = Maslach Burnout Inventory.

Table 5.
ICA implementation and replication checklist.

licensure, education, and experience, that remain consistent across systems [10, 13, 14]. ICA formatting is intentionally flexible to accommodate local policies, workflows, and evolving clinical demands [14, 17, 22].

This adaptability reinforces the value of ICAs as policy-relevant tools for promoting collegial, team-based care. Evidence from international settings highlights their potential to reduce burnout, limit scope creep, and improve workforce retention in resource-constrained environments [6, 12, 13, 22]. When implemented strategically, ICAs help optimize PA roles and foster a collaborative and respectful practice culture.

Although not yet piloted by the author, this model is grounded in a structured scoping review and supported by implementation science. It addresses urgent workforce challenges through formal, sustainable strategies for improving care delivery and team collaboration.

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Nomenclature

ICA	interprofessional collaboration agreement
PA	physician associate
FQHC	federally qualified health center
GRiP	getting research into practice (JBI model for evidence implementation)
SWOT	strengths, weaknesses, opportunities, threats
JBI	Joanna Briggs Institute
MBI	Maslach Burnout Inventory

CAHPS	consumer assessment of healthcare providers and systems
EHR	electronic health record
CPCA	California Primary Care Association
CDPH	California Department of Public Health
AAPA	American Academy of Physician Associates
CAPA	California Academy of Physician Associates
NCQA	National Committee for Quality Assurance
AMA	American Medical Association
CDC	centers for disease control and prevention
NIH	National Institutes of Health
NP	nurse practitioner
APP	advanced practice practitioner

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