

# Zuber's Post-Accreditation Continuous Compliance Framework (ZPA-CCF): Addressing the Sustainability Gap in Healthcare Accreditation

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# Zuber's Post-Accreditation Continuous Compliance Framework (ZPA-CCF): Addressing the Sustainability Gap in Healthcare Accreditation

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## ABSTRACT

**Purpose:** Accreditation can mobilize healthcare organizations around standards, safety, documentation, and improvement, but the more difficult task is sustaining reliable compliance after the external survey. This paper defines the post-accreditation sustainability gap (PASG) and develops Zuber's Post-Accreditation Continuous Compliance Framework (ZPA-CCF), a theory-informed operating model for converting episodic survey readiness into continuous, risk-based, measurable compliance.

**Methodology/Approach:** A conceptual framework-development methodology was used. Evidence from hospital accreditation research was integrated with Normalization Process Theory, the Consolidated Framework for Implementation Research, organizational readiness theory, and the Dynamic Sustainability Framework. The synthesis was also informed by the author's published work on accreditation standards, patient safety, quality indicators, incident reporting, critical-care outcomes, and patient experience. Recurring mechanisms were translated into eight organizational domains, a seven-stage closed-loop compliance cycle, candidate sustainability indicators, and a staged validation roadmap. No patient-level or identifiable institutional data were analyzed.

**Findings/Result:** A decline in organizational attention and compliance after an accreditation survey is a familiar and practically important challenge in healthcare, and longitudinal research has documented a distinct post-accreditation slump in measured compliance. The evidence, however, does not justify assuming that every accredited organization will deteriorate or that gains are necessarily lost. Repeated accreditation cycles may reduce variation and strengthen reliability. ZPA-CCF therefore treats sustained compliance as an organizational capability requiring governance, operational embedding, workforce competency, continuous monitoring, risk-based prioritization, corrective-action effectiveness, organizational learning, and adaptive standards intelligence. The framework distinguishes point-in-time survey compliance from sustained compliance over time and requires separate escalation of critical safety or regulatory failures.

**Originality/Value:** ZPA-CCF shifts accreditation management from periodic survey preparation to a continuous operating system. It links accreditation requirements to routine workflows, risk management, performance measurement, accountability, corrective-action effectiveness, digital intelligence, and organizational learning. The framework is accreditation-body neutral and provides a testable architecture for longitudinal and multicenter research.

**Paper Type:** Conceptual research paper / framework-development paper.

**Keywords:** Healthcare accreditation, Post-accreditation, Continuous compliance, Sustainability, Continuous readiness, Patient safety, Implementation science, Quality improvement.

## 1. INTRODUCTION :

Healthcare accreditation is intended to do more than confirm that an organization can satisfy a set of standards on the days of an external survey. At its best, accreditation creates a disciplined way to

examine whether governance, clinical practice, workforce capability, infrastructure, documentation, and safety systems are reliable enough to support consistently safe care. Systematic reviews suggest that accreditation can be associated with improvements in selected dimensions of quality, safety culture, efficiency, process performance, and organizational behavior, although the strength and consistency of these effects vary across settings and outcomes (Araujo et al., 2020; Brubakk et al., 2015; Hussein et al., 2021; Alhawajreh et al., 2023).

One of the most recognizable challenges in accreditation practice appears after the survey has ended. In the months before an external assessment, organizations often intensify audits, education, policy review, environmental rounds, leadership oversight, document correction, and staff coaching. The approaching survey creates urgency, visibility, and a shared deadline. After accreditation is achieved, that concentration of attention can diminish as normal operational pressures reassert themselves. Staff rotate or leave, leaders change, new services and technologies are introduced, standards evolve, and corrective actions that appeared complete may gradually lose effectiveness. The practical concern is therefore not simply achieving compliance, but preventing compliance from becoming survey-dependent.

The phenomenon is sufficiently common in practice to deserve explicit management attention, but it should not be presented as inevitable or universal. Accreditation research is heterogeneous, and some organizations sustain or further improve performance. Even so, longitudinal studies provide a strong empirical basis for the concern. Devkaran and O'Farrell (2015), examining 27 quality measures, reported substantial improvement before accreditation followed by negative post-accreditation slope changes in many measures and an immediate decline after the survey, while overall performance remained above the original baseline three years later. An eight-year analysis across repeated accreditation cycles subsequently supported a life-cycle pattern that included a post-accreditation slump and stagnation phase, while also showing reduced variation as organizations accumulated accreditation experience (Devkaran et al., 2019). The scientific issue is therefore not whether every hospital declines, but why some organizations lose part of the survey-period gain while others convert accreditation into a stable organizational capability.

More recent research reinforces the importance of sustainability without implying that accreditation itself is ineffective. Lewis and Hinchcliff (2023) argued that accreditation research needs stronger theoretical explanation of how effects occur. A 2026 systematic review found that accreditation-related improvements may be sustained, but durability varies with governance, workforce capacity, resources, and system-level support (Bhoomadevi et al., 2026). In Saudi Arabia, quality managers emphasized outcomes, continuous performance triggers, automation, and periodic updating of standards as important directions for more sustainable accreditation models (Hussein et al., 2025).

The central problem is therefore not simply whether an organization can become survey-ready. It is whether accreditation requirements become ordinary organizational work. This paper defines the distance between the level of compliance achieved or demonstrated around accreditation and the level reliably maintained during routine operations as the post-accreditation sustainability gap (PASG). It then develops Zuber's Post-Accreditation Continuous Compliance Framework (ZPA-CCF) as a practical and testable architecture for managing that gap.

## **2. RELATED WORKS / LITERATURE REVIEW :**

### **2.1 Accreditation as a Complex Organizational Intervention:**

Accreditation is a complex organizational intervention. It acts through standards, external assessment, governance, professional behavior, documentation, education, audit, reputation, and leadership attention at the same time. This complexity makes simple causal attribution difficult. Greenfield et al. (2012) questioned the strength of the empirical evidence underpinning some accreditation standards, while Brubakk et al. (2015) emphasized the methodological challenges of evaluating accreditation as a complex intervention.

Organizational studies nevertheless show that accreditation can stimulate reflection and change. Pomey et al. (2004, 2010) described accreditation as a catalyst for organizational change, while Braithwaite et al. (2010) found positive associations between accreditation performance, culture, and leadership. Desveaux et al. (2017) identified coherence, organizational buy-in, and organizational action as mechanisms through which accreditation may influence quality. These findings suggest that the survey is only one part of a broader implementation process.

The author's earlier work also demonstrates the breadth of organizational systems touched by accreditation. Comparative analyses of international and national standards addressed patient safety goals, patient and family education, patient and family rights, and workforce qualifications (Shaikh et al., 2016a, 2016b, 2016c; Shaikh, 2017a). These areas are not isolated accreditation chapters; they depend on routine clinical, educational, governance, and human-resource processes. Their sustainability therefore requires operational ownership beyond an accreditation office.

## **2.2 The Accreditation Life Cycle and the Post-Survey Period:**

Survey preparation changes organizational behavior, which makes time within the accreditation cycle an important analytical variable. Devkaran and O'Farrell (2015) reported positive pre-accreditation slopes in 74% of 27 measures, with negative changes in slope more common after accreditation. Devkaran et al. (2019) extended the analysis across 96 months and three accreditation cycles and found evidence consistent with a post-accreditation slump followed by stagnation. At the same time, variation decreased across repeated cycles. This combination is important: post-survey decline can occur, but organizational learning and repeated accreditation experience can also improve reliability. ZPA-CCF is designed around precisely this tension - preventing temporary survey readiness from substituting for sustained system performance.

Continuous readiness is therefore better understood as a recurring assurance process than as a permanent state of pre-survey intensity. Sin et al. (2022), for example, described a pharmacy quality and internal audit program that supported ongoing readiness for medication-management standards. The broader principle is that requirements become more sustainable when they are assigned to subject-matter owners, embedded in routine controls, and repeatedly verified.

## **2.3 Sustainability, Normalization, and Organizational Readiness:**

Sustaining accreditation compliance is fundamentally an implementation problem. Normalization Process Theory explains how practices become embedded through coherence, cognitive participation, collective action, and reflexive monitoring (May et al., 2009). Applied to accreditation, staff must understand what a requirement means, commit to it, be able to perform it within routine work, and receive feedback about whether it is functioning. A policy stored electronically but not enacted consistently is not normalized compliance.

The Consolidated Framework for Implementation Research adds a multilevel perspective by emphasizing intervention characteristics, inner and outer settings, individuals, and implementation processes (Damschroder et al., 2009). Weiner's (2009) organizational readiness theory highlights shared commitment and collective efficacy. Chambers et al. (2013), through the Dynamic Sustainability Framework, further argue that sustainability should not mean rigid preservation. Healthcare systems, technologies, standards, and risks change; sustainable compliance must adapt while preserving the safety purpose of the requirement.

This implementation perspective is compatible with the author's prior work on healthcare system indicators and quality assurance. Studies of demographic, economic, and health-resource indicators illustrate the need to interpret organizational performance within changing system capacity (Shaikh, 2018a, 2018b, 2018c). Work on laboratory and blood-bank quality indicators similarly emphasizes the importance of measurable, repeatable assurance rather than one-time inspection (Shaikh, 2018d).

## **2.4 Patient Safety, Incident Learning, and Outcome Sustainability:**

Continuous compliance is meaningful only when it supports safer and more reliable care. The author's research on occurrence variance and incident reporting highlights the importance of learning from deviations rather than treating reporting as an administrative endpoint (Shaikh, 2018e). Likewise, research on critical-care outcome quality measures following CBAHI accreditation demonstrates the relevance of connecting accreditation activity with measurable clinical outcomes rather than relying solely on documentation or structural compliance (Shaikh et al., 2018).

The same logic applies to patient experience. A series of studies by Shaikh examined accreditation in relation to satisfaction across ambulance, dietary, emergency, haemodialysis, inpatient, laboratory, outpatient, radiology, pharmacy, and physiotherapy services (Shaikh, 2016; Shaikh, 2017c–2017k). These studies collectively reinforce a key principle of ZPA-CCF: accreditation sustainability should ultimately be judged by whether the processes that matter to patients, safety, and service reliability remain functional over time, not merely by whether evidence can be assembled for an external visit.

### 2.5 Sustainability Evidence and the Emerging Operational Gap:

Recent evidence increasingly treats sustainability as a distinct research question. Bhoomadevi et al. (2026) synthesized 13 studies and concluded that accreditation is associated with improvements in patient safety, organizational performance, and quality of care, while the magnitude and sustainability of benefit vary across contexts. Hussein et al. (2025), in a Saudi Arabian cross-sectional study, found that quality managers considered changes to accreditation policies, standards development, evaluation methods, and evaluation teams important for sustainability.

These studies clarify the problem but do not fully specify how a healthcare organization should govern the interval between surveys. The literature describes accreditation effects, barriers, facilitators, and system redesign; it provides less operational detail on how standards should be embedded, monitored, risk-ranked, corrected, verified, learned from, and adapted continuously. ZPA-CCF is designed to address that organizational-level gap.

### 2.6 Research Gap:

Three gaps emerge from the literature. First, accreditation status and accreditation sustainability are often treated as though they were the same construct. Second, post-survey compliance is rarely organized as a closed-loop operating system that integrates governance, workflow, workforce competency, monitoring, risk, corrective-action effectiveness, learning, and standards change. Third, aggregate compliance percentages can conceal high-consequence failures unless risk-sensitive, non-compensatory rules are applied. ZPA-CCF addresses these gaps by providing a theory-informed, accreditation-body-neutral architecture for continuous compliance between external surveys.

## 3. OBJECTIVES :

- (1) To define the post-accreditation sustainability gap as a distinct healthcare quality-management construct.
- (2) To synthesize accreditation, implementation-science, patient-safety, and sustainability evidence relevant to continuous compliance.
- (3) To develop Zuber's Post-Accreditation Continuous Compliance Framework (ZPA-CCF) as a practical organizational operating model.
- (4) To specify eight organizational capability domains and a seven-stage closed-loop compliance cycle.
- (5) To propose measurable indicators for assessing compliance sustainability, risk, recurrence, timeliness, effectiveness, and adaptability.
- (6) To define a staged scientific validation pathway for testing the reliability, validity, feasibility, and outcome relevance of ZPA-CCF.

## 4. METHODOLOGY :

This paper uses a conceptual framework-development design. It is not presented as a systematic review, meta-analysis, clinical trial, or completed empirical validation study. The framework was developed through an integrative synthesis of accreditation research, implementation and sustainability theory, and the author's published healthcare quality and accreditation research. Sources were selected for their

direct relevance to the problem of maintaining standards after an external survey rather than through a formal systematic-review protocol.

Framework development followed six steps. First, the problem was bounded as the maintenance of accreditation-related compliance during the interval between external surveys. Second, empirical accreditation literature was examined for longitudinal patterns, organizational effects, barriers, facilitators, and sustainability determinants. Third, implementation-science theories were used to identify mechanisms through which practices become understood, owned, enacted, monitored, and adapted. Fourth, the author's prior research was mapped to relevant operational areas including accreditation standards, patient safety, workforce, quality indicators, incident learning, clinical outcomes, and patient experience. Fifth, recurring mechanisms were translated into eight organizational domains and a seven-stage closed-loop cycle. Sixth, candidate indicators and a validation roadmap were developed to make the framework empirically testable.

The framework intentionally does not assign numerical weights to its eight domains at this stage. Assigning weights without formal expert consensus and empirical calibration would create false precision. Future validation should determine whether domains are best treated as equally weighted, risk weighted, hierarchically weighted, or subject to minimum-gate rules. Critical safety and regulatory failures should not be allowed to disappear within an average score.

## 5. DEVELOPMENT OF ZUBER'S POST-ACCREDITATION CONTINUOUS COMPLIANCE FRAMEWORK (ZPA-CCF) :

ZPA-CCF is founded on a central proposition: accreditation becomes sustainable when standards stop functioning primarily as survey requirements and become embedded, monitored, risk-controlled, verified, learned-from, and adaptable components of routine organizational work.

### 5.1 The Post-Accreditation Sustainability Gap (PASG):

Accreditation compliance is defined here as demonstrable conformity with applicable requirements in policy, structure, process, practice, and evidence. Continuous compliance means that this conformity is maintained as part of routine operations throughout the accreditation cycle rather than being concentrated around survey preparation.

The post-accreditation sustainability gap is the difference between the level of accreditation-related compliance demonstrated at or near the external survey and the comparable level reliably maintained at a later post-survey time point. Where standardized and comparable measures are available, the construct may be operationalized as:

$$\text{PASG}(t) = C_{\text{survey}} - C_t$$

where  $C_{\text{survey}}$  is the standardized compliance level at or immediately before accreditation and  $C_t$  is the comparable compliance level at post-accreditation time  $t$ . A positive value indicates deterioration relative to the survey-period level; zero indicates maintenance; and a negative value indicates further improvement. The equation is a proposed research operationalization and has not yet been empirically validated as a universal metric.

### 5.2 Eight Organizational Capability Domains:

Table 1: Eight Domains of the Proposed ZPA-CCF

| Domain                                 | Core question                        | Operational meaning                                                                                                                                            |
|----------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Governance & Accountability         | Who owns sustained compliance?       | Board/executive oversight, named standard ownership, authority, escalation, resources, and routine leadership review.                                          |
| 2. Standards-to-Operations Integration | Are standards built into daily work? | Requirements translated into policies, workflows, forms, order sets, checklists, job expectations, infrastructure, and routine clinical/operational processes. |

| Domain                                            | Core question                                           | Operational meaning                                                                                                                                                              |
|---------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Workforce Competency & Engagement              | Can staff consistently perform the requirement?         | Role-based orientation, competency assessment, refreshers, local champions, frontline participation, and psychological ownership.                                                |
| 4. Continuous Monitoring & Digital Intelligence   | Do leaders know the current state of compliance?        | Risk-based tracers, audits, observations, validation, dashboards, trend analysis, alerts, evidence repositories, and drill-down.                                                 |
| 5. Risk-Based Prioritization & Escalation         | Are the most consequential gaps acted on first?         | Risk stratification using harm, likelihood, scope, recurrence, detectability, regulatory significance, and persistence; critical findings bypass aggregate scoring.              |
| 6. Corrective Action & Effectiveness Verification | Are findings truly closed?                              | Causal analysis where appropriate, action ownership, deadlines, implementation evidence, effectiveness checks, recurrence monitoring, and reopening of ineffective actions.      |
| 7. Organizational Learning & Improvement          | Does the organization learn across units and cycles?    | Cross-unit learning, lessons from incidents and surveys, standardization of successful practices, improvement projects, and reduction of recurrent findings.                     |
| 8. Adaptive Readiness & Standards Intelligence    | Can the system remain compliant as requirements change? | Horizon scanning, standards updates, regulatory change management, new-service risk review, policy synchronization, technology change, and readiness for unannounced assessment. |

### 5.2.1 Governance and Accountability:

Sustained compliance requires visible ownership beyond the quality or accreditation department. Governance should define who owns each requirement, who has authority to correct gaps, how unresolved risks are escalated, and how performance reaches executive and board oversight. This is consistent with evidence linking accreditation performance with leadership and culture (Braithwaite et al., 2010) and with sustainability research emphasizing governance and leadership (Bhoomadevi et al., 2026).

### 5.2.2 Standards-to-Operations Integration:

A requirement is more sustainable when the required behavior is designed into normal work. Electronic prompts, medication safeguards, preventive-maintenance schedules, credentialing workflows, infection-prevention bundles, emergency routines, and environmental controls reduce dependence on memory and last-minute inspection. NPT supports this domain because normalization depends on the ability to enact the work within existing roles and systems (May et al., 2009).

### 5.2.3 Workforce Competency and Engagement:

Accreditation knowledge cannot remain concentrated among chapter owners. Staff turnover, rotation, new services, technology, and policy change continually alter capability. Continuous compliance therefore requires role-specific competency rather than generic accreditation lectures. This principle is consistent with the author's comparative work on staff qualifications and education standards (Shaikh et al., 2016c) and with organizational-readiness theory (Weiner, 2009).

#### 5.2.4 Continuous Monitoring and Digital Intelligence:

Periodic preparation is replaced by continuous assurance. Monitoring should combine observation, record review, staff interview, data trends, tracer methodology, environmental rounds, and targeted audits. Frequency should be proportional to risk and performance stability. Digital systems can connect standards to evidence, owners, KPIs, risks, findings, actions, due dates, and effectiveness checks. Automation should support, not replace, accountable human judgment.

#### 5.2.5 Risk-Based Prioritization and Escalation:

Not all nonconformities have equal consequences. A minor documentation defect and a medication-safety failure should not compete on the same basis. At minimum, organizations should consider potential severity of harm, likelihood, scope, recurrence, detectability, regulatory significance, and persistence. High-risk findings require immediate containment and escalation.

#### 5.2.6 Corrective Action and Effectiveness Verification:

Administrative closure is not equivalent to risk reduction. A finding should be considered sustainably closed only when the action is implemented and its effectiveness is verified after an appropriate interval. Recurrent findings are important signals because they suggest that the original response did not sufficiently change the underlying system.

#### 5.2.7 Organizational Learning and Improvement:

Accreditation produces information that should become organizational memory. Survey findings, incidents, complaints, audits, regulatory findings, and improvement projects often reveal common system weaknesses. Learning requires mechanisms to spread effective solutions, revise standard work, and monitor recurrence. This is consistent with accreditation as an organizational-change mechanism (Pomey et al., 2004, 2010).

#### 5.2.8 Adaptive Readiness and Standards Intelligence:

Sustainability does not mean preserving the organization exactly as it was on survey day. Standards, evidence, technologies, services, risks, and regulations evolve. Dynamic sustainability therefore requires horizon scanning and structured change-impact assessment so that affected policies, competencies, systems, risks, and monitoring plans are updated together (Chambers et al., 2013).

### 5.3 Seven-Stage Continuous Compliance Cycle:

**Table 2:** Seven-Stage ZPA-CCF Continuous Compliance Cycle

| Stage            | Action                                                                                             | Expected output                                        |
|------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 1. Embed         | Translate standards into routine workflows, policies, systems, responsibilities, and competencies. | Operationalized requirements with named owners.        |
| 2. Monitor       | Measure actual practice through data, tracers, audits, interviews, and observation.                | Current-state evidence and trend data.                 |
| 3. Detect        | Identify deviations, weak signals, recurrent gaps, and emerging requirements.                      | Validated compliance gaps and emerging risks.          |
| 4. Prioritize    | Risk-rank gaps and determine containment and escalation requirements.                              | Risk-based action priority.                            |
| 5. Correct       | Implement proportionate corrective and preventive actions with ownership and deadlines.            | Implemented controls and documented evidence.          |
| 6. Verify        | Test whether the action works and remains effective over time.                                     | Effectiveness evidence; closure or reopening decision. |
| 7. Learn & Adapt | Spread lessons, update systems, and respond to changing standards and context.                     | Standardized learning and renewed readiness.           |

The cycle is deliberately closed-loop. Learning and adaptation return to embedding. This prevents a common failure mode in which a finding is corrected once, evidence is uploaded, and the underlying process is left unchanged.

#### 5.4 Measurement Architecture:

**Table 3:** Candidate ZPA-CCF Indicators for Future Validation

| Indicator                             | Proposed definition                                                                                                                     | Purpose                                                                                    |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Sustained Compliance Rate             | Applicable requirements meeting defined compliance criteria during routine monitoring / applicable requirements assessed $\times 100$ . | Measures current routine compliance.                                                       |
| Post-Accreditation Sustainability Gap | Survey-period standardized compliance minus comparable post-accreditation compliance.                                                   | Measures deterioration, maintenance, or improvement relative to survey-period performance. |
| High-Risk Open Finding Rate           | Open high-risk findings / total open findings $\times 100$ .                                                                            | Prevents aggregate compliance from masking serious risk.                                   |
| Repeat Finding Rate                   | Findings recurring after prior verified closure / total findings $\times 100$ .                                                         | Tests sustainability of corrective action.                                                 |
| On-Time Corrective Action Rate        | Actions completed by approved due date / actions due $\times 100$ .                                                                     | Measures execution discipline.                                                             |
| Corrective Action Effectiveness Rate  | Actions that pass defined effectiveness verification / actions effectiveness-tested $\times 100$ .                                      | Separates completed actions from effective actions.                                        |
| Standards Change Implementation Rate  | New/revised applicable requirements implemented by internal target date / new/revised applicable requirements $\times 100$ .            | Measures adaptive readiness.                                                               |
| Role-Based Competency Compliance      | Staff meeting defined accreditation-related competency requirements / staff assessed $\times 100$ .                                     | Measures workforce capability.                                                             |
| Monitoring Reliability                | Planned risk-based compliance assessments completed as scheduled / assessments due $\times 100$ .                                       | Measures assurance-system reliability.                                                     |
| Finding Recurrence Time               | Time from verified closure to recurrence of the same or systemically related finding.                                                   | Provides a longitudinal sustainability signal.                                             |

These indicators are candidate measures rather than validated benchmarks. Definitions, sampling rules, risk thresholds, denominators, and data-quality controls should be standardized before comparison across departments or organizations.

#### 5.5 Proposed Continuous Compliance Maturity Model:

**Table 4:** Proposed ZPA-CCF Maturity Levels

| Level | Descriptor                           | Characteristics                                                                                                                                |
|-------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Survey-Dependent                     | Compliance activity is concentrated near accreditation; ownership is centralized; routine monitoring is limited.                               |
| 2     | Reactive                             | Gaps are addressed when identified, but the system remains finding-driven and recurrence or delayed closure is common.                         |
| 3     | Managed                              | Defined owners, schedules, dashboards, competency processes, and corrective-action controls operate across most domains.                       |
| 4     | Continuous                           | Risk-based monitoring, effectiveness verification, leadership review, and standards integration are embedded in routine operations.            |
| 5     | Adaptive / High Reliability-Oriented | Continuous compliance is integrated with risk, improvement, and learning; weak signals and changing requirements trigger proactive adaptation. |

The maturity levels are qualitative and should not be treated as validated cut points. Future expert and multicenter work should determine whether a reliable scoring instrument can be developed and whether selected domains should operate as minimum gates.

### 5.6 Non-Compensatory Safety and Regulatory Rule

A composite compliance score can create false reassurance if strong performance in low-risk areas mathematically compensates for a critical safety or regulatory failure. ZPA-CCF therefore requires non-compensatory escalation: predefined high-consequence conditions must trigger immediate containment, leadership review, and separate reporting irrespective of the aggregate compliance percentage or maturity level.

## 6. ANALYSIS / RESULTS / DISCUSSION :

ZPA-CCF reframes accreditation from an event to an operating system. The distinction is practical rather than rhetorical. Event-based accreditation concentrates resources as a survey approaches. A continuous system distributes ownership, evidence generation, risk management, and verification across the entire cycle. The longitudinal work of Devkaran and colleagues supports treating time within the accreditation cycle as an important performance variable (Devkaran & O'Farrell, 2015; Devkaran et al., 2019).

The framework also addresses a persistent limitation in accreditation research: mechanisms are often unclear. ZPA-CCF explicitly connects accreditation sustainability to normalization, implementation context, organizational readiness, and dynamic adaptation (May et al., 2009; Damschroder et al., 2009; Weiner, 2009; Chambers et al., 2013). These theories explain why the same accreditation requirement may be sustained in one unit and decay in another even within the same organization.

A second contribution is the separation of compliance status from compliance sustainability. An organization may be compliant on a particular day because extraordinary effort has corrected visible gaps. Sustainability asks whether the process remains reliable when extraordinary attention is removed. This distinction supports longitudinal measurement of trajectories, recurrence, and effectiveness rather than dependence on a point-in-time percentage.

A third contribution is risk sensitivity. Accreditation requirements differ substantially in clinical and regulatory consequence. The framework therefore rejects the idea that a high aggregate percentage is sufficient evidence of safety. Critical failures require separate escalation. This principle is consistent with patient-safety thinking and with the author's work on incident reporting, patient-safety standards, and critical-care outcome measures (Shaikh et al., 2016a; Shaikh, 2018e; Shaikh et al., 2018).

A fourth contribution is the requirement for effectiveness verification. Healthcare organizations can accumulate large action-plan inventories in which completion becomes the target. ZPA-CCF distinguishes implementation evidence from effectiveness evidence. The question is not only whether an action was completed, but whether the intended control changed practice and remained effective.

Fifth, ZPA-CCF treats workforce competency as a dynamic control. The author's studies across multiple patient-facing services demonstrate that accreditation reaches far beyond policies into the experience of care (Shaikh, 2016; Shaikh, 2017c–2017k). Sustaining accreditation therefore requires the people who deliver care and support services to understand, perform, and own the relevant requirements.

Finally, ZPA-CCF is accreditation-body neutral. It does not replace the standards of a national, international, or specialty accreditor. It governs how whichever standards apply are translated into routine controls. This creates the possibility of mapping overlapping requirements from multiple programs to shared operational processes, thereby reducing duplication while preserving program-specific evidence.

## 7. FINDINGS :

- (1) Post-accreditation decline is a recognized and practically common sustainability challenge, and longitudinal research has demonstrated measurable post-survey decline or plateau in some settings; however, the evidence does not support treating deterioration as inevitable in every accredited organization.
- (2) Accreditation effects and their sustainability are heterogeneous and depend on organizational context, leadership, governance, workforce capability, resources, and implementation processes.
- (3) Sustained accreditation compliance is more appropriately conceptualized as an organizational capability than as a periodic quality-department project.
- (4) ZPA-CCF organizes this capability into eight domains: governance and accountability; standards-to-operations integration; workforce competency and engagement; continuous monitoring and digital intelligence; risk-based prioritization and escalation; corrective-action effectiveness; organizational learning; and adaptive readiness.
- (5) Continuous compliance operates through a seven-stage closed loop: Embed → Monitor → Detect → Prioritize → Correct → Verify → Learn & Adapt → Embed again.
- (6) Sustainability measurement should include trajectory, high-risk gaps, recurrence, corrective-action effectiveness, monitoring reliability, competency, and adaptability rather than relying only on aggregate compliance percentages.
- (7) Critical safety or regulatory failures require non-compensatory escalation and should never be concealed by favorable aggregate performance.

## 8. RECOMMENDATIONS :

Healthcare organizations should establish a formal transition from survey preparation to post-accreditation governance before the external survey process is considered complete. Temporary preparation structures should be converted into routine ownership, risk-based monitoring schedules, and defined leadership review rather than simply being disbanded.

Accreditation requirements should be mapped to the processes that produce compliance. Wherever feasible, controls should be embedded in electronic systems, standard work, competency requirements, maintenance programs, procurement controls, clinical pathways, and routine management processes so that compliance does not depend primarily on memory.

Monitoring frequency should be proportional to risk and stability. High-risk, newly implemented, or recurrently noncompliant requirements require more frequent assurance than mature and stable processes. Repeat findings should automatically trigger deeper causal review and increased monitoring intensity.

Corrective-action closure should require both implementation evidence and a later effectiveness decision. Organizations should track recurrence after closure and use repeat findings as a core signal of sustainability failure.

Executive leadership should review continuous compliance within normal performance and enterprise-risk governance. Digital accreditation systems should connect standards, evidence, findings, risk, actions, KPIs, competencies, and due dates. Artificial intelligence may assist evidence retrieval, classification, trend detection, and prioritization, but decisions affecting compliance status or patient-safety risk should remain explainable and subject to human governance.

## 9. PROPOSED SCIENTIFIC VALIDATION ROADMAP :

**Table 5:** Scientific Validation Roadmap for ZPA-CCF

| Phase                    | Method                                                                                 | Primary question                                                                                |
|--------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 1. Content validation    | Multidisciplinary modified Delphi; I-CVI/S-CVI and qualitative feedback.               | Are the eight domains, definitions, cycle stages, and indicators relevant, complete, and clear? |
| 2. Structural refinement | Cognitive interviews and pilot testing with accreditation leaders and frontline users. | Is the framework understandable and operationally feasible?                                     |

| Phase                                         | Method                                                                                                                                      | Primary question                                                                            |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 3. Measurement development                    | Develop domain items; test internal consistency where conceptually appropriate and inter-rater agreement for audit-based measures.          | Can ZPA-CCF be measured reliably?                                                           |
| 4. Construct testing                          | Exploratory and confirmatory factor analysis in an adequately powered multicenter sample where a reflective measurement model is justified. | Does the empirical structure support the proposed domain architecture?                      |
| 5. Longitudinal validation                    | Measure comparable compliance at survey and prespecified post-survey intervals.                                                             | Does PASG detect meaningful change over time?                                               |
| 6. Criterion/convergent/predictive evaluation | Compare ZPA-CCF measures with repeat findings, external assessment results, safety/process outcomes, and regulatory events.                 | Does stronger continuous-compliance capability align with and predict independent outcomes? |
| 7. Sensitivity and generalizability           | Test across hospital types, countries, accreditation programs, risk rules, and scoring assumptions.                                         | Is the framework robust across contexts?                                                    |
| 8. Implementation evaluation                  | Mixed-method assessment of workload, usability, unintended consequences, decision impact, and sustainability.                               | Does ZPA-CCF improve management without creating disproportionate compliance burden?        |

Validation should avoid circularity. ZPA-CCF should not be declared valid merely because it correlates with another internally generated compliance score. Independent outcomes and external assessments are necessary. Longitudinal designs are particularly important because sustainability is inherently time dependent.

## 10. LIMITATIONS :

ZPA-CCF is a conceptual framework and does not, in this manuscript, provide empirical proof that its use improves accreditation outcomes. The eight domains and maturity levels were derived from theory, literature synthesis, and healthcare quality-management logic rather than formal Delphi consensus. Their relative importance, interactions, and minimum requirements remain to be empirically tested.

The PASG construct may be difficult to estimate when survey-period and post-survey assessments differ in sampling intensity, assessor behavior, or measurement method. Survey preparation may also improve documentation more rapidly than underlying practice, which could inflate the apparent survey-period baseline. Future studies should therefore use standardized repeated measurement wherever possible.

Accreditation systems differ across countries, specialties, and accrediting bodies. Some use announced surveys, others use unannounced assessment or continuous monitoring. The framework is intentionally generic, but contextual adaptation will be necessary. Continuous monitoring can itself create burden or dysfunctional behavior if applied indiscriminately; risk-based proportionality is therefore essential.

The deliberate inclusion of the author's prior publications strengthens continuity with earlier work on accreditation, quality indicators, safety, outcomes, and patient experience, but it also increases self-citation. These references are used to establish domain-specific continuity rather than as independent validation of ZPA-CCF. External literature remains necessary for theoretical and empirical support.

## 11. CONCLUSION :

Achieving accreditation and sustaining accreditation compliance are related but different organizational accomplishments. The survey can mobilize extraordinary attention and improvement, yet the period

after accreditation is often where the durability of those gains is tested. When survey-related urgency recedes, compliance may decline, plateau, or become uneven unless the underlying requirements have been embedded in routine systems. The post-accreditation sustainability gap provides a scientific construct for studying this familiar operational problem without incorrectly assuming that deterioration must occur in every organization.

The Post-Accreditation Continuous Compliance Framework responds by shifting the unit of management from survey preparation to continuous organizational capability. Its eight domains and seven-stage closed loop connect governance, routine operations, workforce capability, monitoring, risk, corrective-action effectiveness, organizational learning, and adaptation. Candidate indicators make the framework measurable, while non-compensatory escalation protects against the false reassurance of high aggregate compliance in the presence of critical failures.

ZPA-CCF is therefore best understood as a testable organizational operating architecture, rather than as another accreditation checklist. Its next scientific step is formal expert and multicenter validation using standardized longitudinal measures and independent outcomes. If supported empirically, the framework could help healthcare organizations move from being periodically survey-ready to being continuously safe, compliant, and improvement-ready.

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#### **Conflict of Interest:**

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#### **Ethical Considerations:**

This manuscript presents a conceptual framework and does not report research involving human participants, patient-level data, or identifiable institutional data. Any future empirical validation using patient, staff, or institutional data should obtain the approvals required by the applicable ethics and governance framework.

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