Supplementary Material 1

Document Classification and Analytic Mapping Framework

1. Document Categories Used in the Analysis

The study relied exclusively on organisational and system-level artefacts. Documents were grouped into structured analytic categories to enable cross-level comparison of implementation dynamics. Categories are outlined below:

A. Policy and Payer-Level Documents

- Medicaid contractual provisions
- State-level regulatory guidance
- Standardised reporting requirements
- Quality metric specifications
- Compliance audit criteria
- Reimbursement-linked screening mandates

Purpose: To identify externally imposed expectations defining EBP compliance and performance indicators (Williams et al., 2020; Durojaiye et al., 2024).

B. Organisational Governance Materials

- Internal clinic protocols
- Implementation manuals
- Leadership communications
- Training materials
- Task allocation frameworks
- Accountability structures

Purpose: To examine translation of policy mandates into formalised organisational procedures (Kilbourne et al., 2012; Jaramillo et al., 2023).

C. Workflow and Operational Artefacts

- Clinical workflow diagrams
- Process maps
- Task sequencing charts
- Appointment flow structures
- Screening integration schematics

Purpose: To analyse intended versus enacted workflow sequencing and operational feasibility (Zheng et al., 2020; Carayon et al., 2015).

D. Electronic Health Record (EHR) Configuration Materials

- Alert logic specifications
- Mandatory field structures
- Screening templates
- Data capture protocols
- Reporting interface configurations

Purpose: To assess sociotechnical structuring of screening activities and digital workflow friction (Pinevich et al., 2021; Olakotan et al., 2025).

E. Audit and Performance Monitoring Reports

- Benchmark dashboards
- Compliance summaries
- Quality performance reports
- Documentation completeness analyses
- Feedback loop documentation

Purpose: To evaluate how implementation success was operationalised and monitored (Lennox et al., 2018; Wooldridge et al., 2017).

2. Coding Logic Structure

The analytic process followed an iterative, conceptually guided thematic mapping approach informed by implementation science (Moore et al., 2015; Damschroder et al., 2022).

Step 1: Structural Classification

Documents were first categorised by governance level:

- Policy (external)
- Organisational (meso-level)
- Workflow (operational)
- Technological (EHR infrastructure)

This allowed tracing of mandate translation across system layers.

Step 2: Sensitising Concept Application

Rather than applying a rigid determinant framework, sensitising concepts drawn from implementation science guided interpretive coding (Nilsen, 2015; Chambers et al., 2013).

Primary analytic constructs:

- Workflow compatibility
- Organisational readiness
- Climate for implementation
- Sociotechnical interaction
- Documentation burden
- Alert density and task sequencing
- Fidelity versus procedural adaptation
- Feedback loop integration

These concepts were used heuristically rather than deductively to avoid construct imposition bias (Kirk et al., 2016).

Step 3: Divergence Mapping

A key analytic strategy involved identifying divergence between:

- Work-as-imagined (formal protocols)
- Work-as-configured (EHR logic and dashboards)
- Work-as-anticipated (training materials)

Divergence signals were treated as indicators of structural friction (McCurdie et al., 2017; Zheng et al., 2020).

Step 4: Adaptation Typology Development

Observed responses to structural friction were categorised into:

Structural Adaptations

- Role reallocation
- Workflow revision
- Template modification
- Formal timing adjustments

Behavioural Adaptations

- Delayed documentation
- Selective alert engagement
- Task bundling
- Informal redistribution

This typology was informed by dynamic sustainability and fidelity–adaptation scholarship (Chambers et al., 2013; von Thiele Schwarz et al., 2019; Owczarzak et al., 2016).

Step 5: Cross-Level Synthesis

Patterns were synthesised to trace causal chains:

Policy Mandate → Organisational Translation → Digital Configuration → Workflow Density → Adaptive Response → Audit Feedback → Iterative Adjustment

This synthesis reflects relational implementation modelling rather than linear stage progression (Lewis et al., 2018; Powell et al., 2019).

3. Mapping of Artefacts to Framework Components

The table below illustrates how artefacts informed each conceptual domain of the framework.

Framework Component	Supporting Artefact Categories	Analytical Focus	Key Literature Anchor
External Mandate Structuring	Medicaid contracts, reporting guidelines	Definition of implementation success (documentation vs feasibility)	Williams et al., 2020; Durojaiye et al., 2024
Organisational Translation	Protocols, training manuals, task allocation charts	Responsibility clarity, readiness, governance hierarchy	Jaramillo et al., 2023; Kilbourne et al., 2012
Sociotechnical Configuration	EHR logic specs, alert templates	Task density, alert rigidity, sequencing conflicts	Pinevich et al., 2021; Olakotan et al., 2025

Workflow Integration	Process maps, appointment structures	Additive layering vs redesign	Zheng et al., 2020; Carayon et al., 2015
Audit Feedback Mechanisms	Dashboards, compliance summaries	Metric prioritisation, performance orientation	Lennox et al., 2018
Adaptive Responses	Workflow revisions, documentation adjustments	Structural vs behavioural adaptation	Chambers et al., 2013; von Thiele Schwarz et al., 2019

4. Methodological Transparency Statement

The analytic mapping framework was constructed to ensure:

- Structural triangulation across governance levels (Moore et al., 2015)
- Theoretical coherence with implementation science (Damschroder et al., 2022)
- Avoidance of overextension beyond documentary evidence
- Explicit traceability between artefacts and interpretive claims

No raw documents are included due to institutional confidentiality constraints.