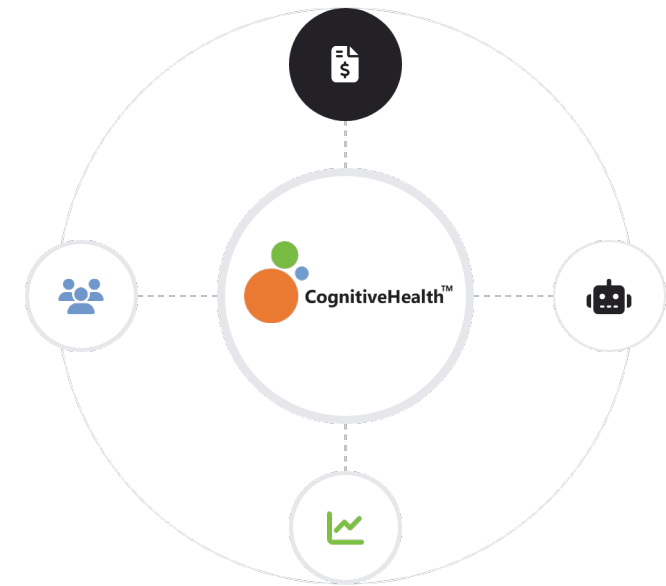


# Beyond Automation: How AI Agents Are Transforming the Revenue Cycle Workforce

Why CFOs and Finance Leaders Should  
Get Involved **NOW**



**Pavani Munjuluri**  
CEO, CognitiveHealth Technologies



AGENTIC WORKFLOW ORCHESTRATION

# Learning Objectives

01



## Evaluate Performance Impact

Evaluate how agentic AI affects revenue cycle performance, financial outcomes, and organizational readiness for adoption.

**Key Outcome: Assessment**

02



## Assess Workforce Strategy

Assess workforce implications of agentic AI and identify strategies for upskilling and redeploying RCM teams into higher-value roles.

**Key Outcome: Strategy**

03



## Develop Business Case

Develop a CFO-ready business case and phased implementation roadmap for agentic AI in revenue cycle operations.

**Key Outcome: Execution**

# Why This Matters Now for CFOs

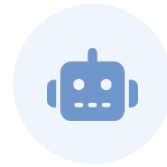


## Cash-Flow Volatility

Denial rates and prior authorization complexity are creating unpredictable revenue lags. Stability requires proactive intervention before claims are submitted.

Denial Trend

↑ Rising



## The "Speed Gap"

Payer AI bots now adjudicate and deny claims in seconds. Human-only teams cannot match this speed or precision without agentic support.

Processing Time

⚡ Seconds vs Days



## Workforce Retention

Top RCM talent is migrating to organizations offering AI-augmented roles. Replacing burnout with upskilling is the new retention strategy.

Staff Strategy

🎓 Upskill

# What Is Agentic AI? Beyond Bots and Copilots




## Agentic AI

Software entities that perceive context, plan tasks, and take actions across systems—autonomously and with human-in-the-loop escalation.

### Core Capabilities

- ✓ **Perceive:** Reads unstructured data (medical records, payer portals)
- ✓ **Plan:** Determines sequence of steps dynamically
- ✓ **Act:** Logs into portals, submits forms, updates EHR

## Evolution of Automation

Technology	Role	Revenue Cycle Example
 <b>RPA (Bots)</b>	Rules-based Do X then Y	Copy claim status from portal to spreadsheet. Breaks if portal changes.
 <b>Copilots / AI</b>	Advisory Suggest & Summarize	Draft appeal letter for human review. Suggest denial root cause.
 <b>Agentic AI</b>	<b>Autonomous Orchestrate &amp; Execute</b>	Verify benefits, identify PA requirement, submit clinicals, track status, and escalate only exceptions.

# Market Reality: Denials, CMS Rules, and the AI Arms Race



Critical Trend

Initial Denial Rate (2025)

**11.65%** ↑ from 11.41%

Bot-driven denials now occur within seconds of submission.

” Source: HFMA Battle of the Bots (2026)



Adoption Gap

Provider AI Usage in Denials

**~20%**

Only 1 in 5 providers use AI for denials management, creating a massive asymmetry vs. payers.

” Source: HFMA AI Adoption in Denials Management (2026)



Regulatory

CMS-0057-F Deadline

**Jan 2026**

Prior Authorization Interoperability Rule in effect. API requirements mandatory by 2027.

” Source: CMS Interoperability and Prior Authorization Final Rule (2024)



Clinical Impact

Physician Concern

**61%**

of physicians fear payer AI tools are systematically increasing prior authorization denials.

” Source: AMA Prior Authorization Survey (2025)

# Why Many AI Projects Miss ROI



## The "Software Trap"

Treating AI as a technology installation rather than a workforce and operating model transformation. Missing the human-in-the-loop redesign.



## Pilot Purgatory

Launching too many shallow pilots with unclear ownership between Ops and IT. Failure to scale successful tests into production workflows.

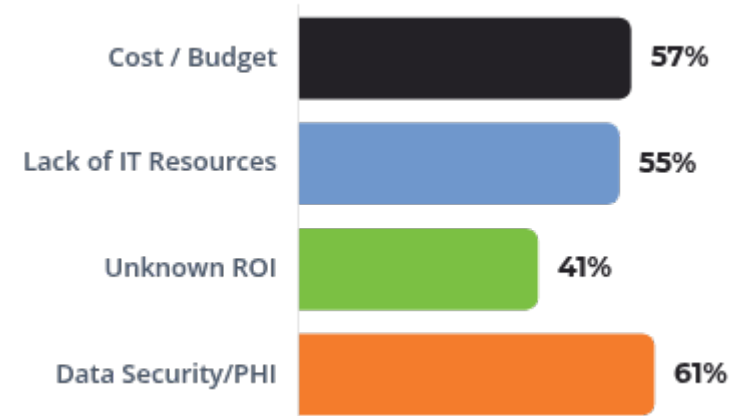


## Weak Data Baselines

Lacking granular pre-implementation metrics or control cohorts. Impossible to prove ROI when the "before" state is anecdotal.

## Top Barriers to Adoption

Survey of Revenue Cycle Leaders (2025)



**Insight: The biggest hurdles are financial and structural (Cost, IT Resources), not technical capability.**

# Revenue Cycle Roles Are Evolving

## Traditional Model

Task Execution & Manual Input

### PFS Representative

Manually works workqueues, calls payers, updates status one-by-one.

### Denials Specialist

Reviews denial codes, drafts basic appeal letters from templates.

### Auth Coordinator

Faxes clinicals, checks portals repeatedly for approval status.

### RCM Analyst

Builds retrospective reports on last month's performance.



## Agentic Future

Strategy, Oversight & Exception Handling

### Agent Supervisor

Manages agent performance, handles complex exceptions, QA & training.

### Appeals Strategist

Designs appeal playbooks, analyzes payer contract nuances for systemic fixes.

### PA Orchestrator


Manages API connections, monitors turn-around-times, intervenes on delays.

### Data Product Owner

Monitors live agent drift, configures KPI dashboards, predicts cash flow.

Emerging Roles

New Positions Created by Agentic AI Adoption:

 Agent Operations Manager

 Workflow / Prompt Designer

 AI Governance Lead

# What Leading Programs Are Achieving



## Efficiency Gains

**40-60%**

Increase in throughput for targeted workflows like Prior Auth intake and Correspondence.

✔ Example: Automated triage of incoming faxes



## ROI Payback Period

**14-22** Months

At health-system scale, treating implementation as workforce transformation rather than software install.

✔ Includes labor reallocation gains



## Manual Effort Reduction

**80%**

Reduction in manual touchpoints for high-volume, repetitive tasks like correspondence management.

✔ Specific to Correspondence Triage

# The CFO Business Case: From Pilots to Portfolio

## Value Drivers (ROI)

- ✓ **FTE Productivity Uplift** Shift staff from clerical data entry to high-value exception handling (1.5x - 2x capacity).
- ✓ **Denial Prevention** Reduce initial denial rate by pre-validating clinicals and auth requirements.
- ✓ **Cash Acceleration (DSO)** Faster submission and automated status checks reduce days in A/R.
- ✓ **Vendor Spend Offset** Reduce reliance on outsourced bolt-on agencies for backlog cleanup.




## Investment Required

-  **Platform & Integration** Agentic AI platform fees, EHR API connectors, and cloud infrastructure.
-  **Governance & Oversight** Dedicated "Agent Ops" team to monitor performance drift and QA.
-  **Change Management** Upskilling program for staff transition (training, new role design).

### Key Assumption to Test

 "Time-to-Value" < 6 Months

## The Finance Lens

-  **Baselines & Targets** Establish strict pre-pilot operational baselines (e.g., cost-to-collect per claim).
-  **Sensitivity Analysis** Model scenarios: Conservative (20% eff), Moderate (40%), Aggressive (60%).
-  **Risk-Adjusted ROI** Factor in "re-work" costs if agents fail; balance against risk of doing nothing.

### Success Metric

**Net Cash Impact = (Yield↑ + Cost↓) - (Tech + Change Mgmt)**

# Workforce Transformation: Upskill and Redeploy

## Redeployment Model



### Clerical Tasks

Data Entry, Status Checks, Portal Navigation

Shift Away (-80%)



### Judgment Work

Complex Appeals, Patient Advocacy, Agent QA

Focus Area (+100%)

## Reskilling Tracks



### AI Literacy & Ops

- Prompt engineering basics
- Understanding model confidence scores
- Identifying "hallucinations" vs. facts
- Managing agent exceptions

### Workflow Design

- Mapping agent-human handoffs
- Defining QA audit protocols
- Optimizing exception queues
- Continuous improvement cycles

### Advanced Policy

- Interpreting complex clinical policies
- Contract-based denial arguments
- Root cause analysis of payer trends
- Clinical necessity documentation

### Revenue Intelligence




- Connecting denials to cash flow
- Predictive analytics interpretation
- Yield management strategies
- Vendor performance monitoring


# Phased Implementation Roadmap

## Phase 1

0 – 90 Days

### Focus: Foundation & Pilots




-  Establish baseline metrics (cost-to-collect, denial rate) & governance structure.
-  Secure data access & select 2–3 high-volume workflows (e.g., Correspondence, PA Intake).
-  Launch initial "Human-in-the-Loop" pilots.

 **Milestone: First live agent transaction successful.**

## Phase 2

3 – 9 Months

### Focus: Scale & Integration




-  Scale to 3–5 use cases; full EHR/Portal integration.
-  Stand up "Agent Ops" team; codify playbooks & SLAs.
-  Draft automated appeal templates based on payer contract nuances.


 **Milestone: 30% of target volume automated.**

## Phase 3

9 – 18 Months

### Focus: Enterprise Scale

-  Implement PA APIs (CMS-0057-F Readiness); enterprise-wide rollout.
-  Re-align roles & incentives; shift staff to complex advocacy.
-  Continuous monitoring & model drift management.

 **Milestone: ROI Positive; CMS Compliance Ready.**

# Governance and Risk: Make It Audit-Ready



## AI Operating Committee

*Recommended Cross-Functional Structure:*

**CFO / VP Revenue Cycle**

**CIO / IT Security Lead**

**Chief Compliance Officer**

**PFS Director (Process Owner)**

**CMIO (for Clinical Denials)**

### Key Responsibility

"Approve all new autonomous agent workflows before go-live."

### Policy Guardrails

- ✓ Define "Human-in-the-Loop" triggers (e.g., >\$10k denials).
- ✓ Strict PHI data minimization protocols.
- ✓ Scope limits: What agents can NEVER do (e.g., write-offs).

### Vendor Accountability

- ✓ Require SOC 2 Type II & HIPAA attestations.
- ✓ Transparency on model training data sources.
- ✓ SLAs on uptime and error resolution speed.

### Monitoring & Drift

- ✓ Weekly "Model Drift" reviews (accuracy degradation).
- ✓ Bias detection in payer selection or patient propensity.
- ✓ Exception rate tracking vs. baseline.

### CMS Compliance

- ✓ **CMS-0057-F Readiness:** Ensure API capabilities for 2026/27.
- ✓ Maintain full audit trail of every agent action.
- ✓ Explainability: Why was this appeal drafted this way?



# Your Takeaways & Discussion

## Tools You Can Use Tomorrow



### CFO-Ready Financial Model

Template with pre-built assumptions for sensitivity analysis (20/40/60% efficiency) and risk-adjusted ROI calculations.



### Upskilling Framework

Role-by-role transition plan to move staff from clerical tasks to high-value "Agent Operations" and exception handling.



### Phased Implementation Roadmap

Detailed 18-month execution plan calibrated to realistic health system timelines and CMS-0057-F compliance deadlines.



Q&A Session Open

## Pavani Munjuluri

CEO, CognitiveHealth Technologies

Pioneering Agentic AI in healthcare revenue cycle. Helping health systems achieve 40-60% efficiency gains through workforce transformation.

✉ [pavani@cognitivehealthit.com](mailto:pavani@cognitivehealthit.com)

🌐 [linkedin.com/in/pavanimunjuluri](https://www.linkedin.com/in/pavanimunjuluri)

🌐 [www.cognitivehealthit.com](http://www.cognitivehealthit.com)

# CFO-Ready Business Case Model

## 1. Baseline Inputs (Validate Current State)

- **Volume & Velocity:** Claim volume by payer/type, initial denial rate, avoidable denial %.
- **Financial Leakage:** Cost to collect per claim, days in A/R (by payer), write-off trends.
- **Labor Intensity:** Manual touches per claim, FTE mix (front/mid/back), overtime hours.
- **Performance Gaps:** Appeal volume/win rate, underpayment recovery rate, IT backlog.

## 3. Investment Categories (Total Cost of Ownership)

- ▶ **Technology:** Platform licensing (agentic AI), orchestration fees, monitoring tools.
- ▶ **Infrastructure:** EHR integration/API connectors, security/compliance review, clearinghouse fees.
- ▶ **Transformation:** PMO/Process redesign, training & change management, data remediation.
- ▶ **Governance:** "Agent Ops" setup, ongoing model drift monitoring, audit resources.

## 2. Value Drivers (Quantifiable Benefits)

- ✓ **Capacity Release:** Shift 40-60% of clerical time to judgment-based work (strategy/prevention).
- ✓ **Revenue Integrity:** Denial prevention lift (1-3%) and underpayment recovery uplift.
- ✓ **Cash Acceleration:** 2-5 day DSO reduction via automated status checks & rapid re-submission.
- ✓ **Cost Avoidance:** Reduction in outsourcing vendor spend, rework, and compliance penalties.

## 4. Decision Outputs (Finance View)

### Financial Metrics

- Annual Net Benefit
- Payback Period (Months)
- 3-Year NPV & ROI

### Scenario Planning

- Conservative (Base)
- Optimistic (Target)
- Risk-Adjusted Sensitivity

# RCM Workforce Upskilling Framework

Automate

Augment

Elevate

## ↔ Role Transitions

**Billor** → **Exception Specialist**  
Workqueue triage & QA checks

**Follow-up Rep** → **Recovery Strategist**  
Payer tactics & underpayments

**Denial Rep** → **Prevention Analyst**  
Root-cause fixes & edits

**Supervisor** → **AI Workflow Coach**  
Playbooks, SLAs & coaching

**Analyst** → **Payer-Pattern Analyst**  
Signals, drift & KPI ownership

## ☰ Core Capability Tracks

### ☰ AI Workflow Supervision

- Agent runbook management
- SLA monitoring & alerts
- Escalation protocols
- Performance coaching

### ⓘ Exception Management

- Edge case resolution
- Documentation gaps
- Clinical query management
- System disconnects

### 📊 Data/Payer Intelligence

- Denial trend analysis
- Contract nuance interpretation
- Prior Auth rule logic
- Payer behavior signals

### 🛡️ Controls & Governance

- Audit trail verification
- Privacy/PHI compliance
- Bias detection
- Model performance drift

## 🚦 30-60-90 Day Training Path

30

### Foundation & Safety

AI literacy, safe-use policy, basic exception handling

Shadow Agents

60

### Proficiency & QA

Playbooks, prompt standards, QA sampling, payer rules

Supervised Rotations

90

### Mastery & Ownership

Cross-training, runbook ownership, role certification

KPI Ownership

# Phased Implementation Roadmap



**Recommended First Use Cases:**

Denial Correspondence Triage

Appeal Prep Support

Eligibility/Doc Gap Detection

Payment Posting