

COMPLIANCE TO CAPABILITY

Why Your CMS Interoperability Spend Is Not Producing Returns Yet

Executive Summary

CMS interoperability mandates require MA plans to build FHIR APIs at an estimated industry cost of \$1.55 billion over ten years (Centers for Medicare & Medicaid Services, [2024](#)), with full API deadlines by January 2027. The infrastructure is being built. But compliance is not value. Flowing data does not mean usable data:

- **Stars.** Clinical data arrives in formats quality systems cannot interpret. Chart chase remains the default, not the exception.
- **Risk adjustment.** Diagnoses fail normalization, silently dropping conditions and revenue from the risk calculation.
- **Prior authorization.** Auto-adjudication rates remain in single digits despite electronic intake channels.
- **Membership retention.** Incomplete payer-to-payer data exchange leaves new-member risk scores lagging for months.

These gaps put hundreds of millions in annual revenue at risk for large plans. MTN's Data Foundry makes provider data actionable in weeks, with maintenance that stays flat as the network grows and **over 99% mapping accuracy** in proof-of-concept testing. Compliance spend starts generating measurable returns.

Intended Audience (Executive Edition)

Target Audience: CEOs, CFOs, COOs, and Board Members at Medicare Advantage plans

Business Focus: Converting CMS interoperability compliance spend into Star Ratings revenue, risk adjustment accuracy, and PA automation.

Key Economics: Star bonuses worth hundreds of millions (3.5 to 4 stars); PA cost reduction from \$3.52 to \$0.05 per transaction; maintenance flat at 200+ provider connections.

Compliance Deadlines: January 2026 (operational) and January 2027 (APIs) under CMS-0057-F.

The Compliance Trap: Connectivity Without Operational Value

Your organization has spent eighteen months and millions of dollars building Provider Access APIs to comply with CMS-0057-F. The APIs are live. Data is flowing from hundreds of network providers. On paper, interoperability is live. But the reality on the ground is different:

- The quality team still cannot compute Star measures without manual chart chase.
- Diagnoses are arriving through the new APIs, but downstream systems cannot interpret them.
- The prior authorization team built an electronic intake channel, but auto-adjudication rates remain in single digits.
- The CIO reports to the board that the compliance project is on track. The CFO cannot see the ROI.

This is the default experience of CMS interoperability compliance today. The gap between having data and being able to use it is the single greatest underappreciated risk facing payors under these mandates.

THE COMPLIANCE SPEND

CMS mandates FHIR APIs for all Medicare Advantage plans by January 2027. The industry is spending an estimated \$1.55 billion over ten years to comply, with 6.9 million burden hours in year one alone (Centers for Medicare & Medicaid Services, 2024).

CMS projects over \$15.8 billion in savings from these rules. But those savings are for providers: reduced paperwork, faster prior authorization responses, fewer fax-based workflows. Payer value is not guaranteed by the mandate. Your organization captures value only if the data flowing through your new APIs is actually usable for the decisions that drive plan economics (Centers for Medicare & Medicaid Services, 2024).

You are already paying for connectivity. The question is whether you also get value.

FOUR REVENUE POOLS AT RISK

When connected data cannot be reliably interpreted, the impact on core economics is immediate.

Star Ratings. Moving from 3.5 to 4 stars increases a plan's rebate percentage by approximately five per-

centage points, worth hundreds of millions in annual bonus revenue for large plans. But most Star measure failures are not clinical failures. They are data availability failures. When clinical data arrives in formats your quality systems cannot interpret, the team falls back to manual chart chase.

Risk adjustment. Small improvements in risk adjustment accuracy translate to millions in per-member-per-month revenue across Medicare Advantage (MA) populations. When a diagnosis arrives in a format that does not map to the right category, the condition drops silently from the risk calculation. This is not about aggressive coding. It is about preventing information loss.

Prior authorization. Plan cost for a manual PA transaction averages \$3.52, compared to \$0.05 for a fully electronic transaction (CAQH, 2024). CMS-0057-F builds the API infrastructure that can convert portal and fax workflows into structured transactions. But auto-adjudication requires consistent data. Without it, the "electronic" PA is still a document dump, and every transaction enters the manual queue at roughly seventy times the cost (\$3.52 vs. \$0.05 per CAQH, 2024).

Membership retention. Better payer-to-payer data exchange reduces the blind spot period for new members, when pricing assumptions are uncertain, risk scores lag, and care gaps are invisible. A one percentage point reduction in churn for a mid-size MA plan can preserve tens to hundreds of millions in annual premium revenue (Centers for Medicare & Medicaid Services, 2025).

WHY IT GETS WORSE AT SCALE

The problem is not building APIs. The real problem is that data arriving in standard formats does not retain consistent meaning across systems. Standards do not guarantee meaning. The same diagnosis can arrive in dozens of different formats, and patient match rates between organizations can be as low as fifty percent (The Pew Charitable Trusts, 2018). In one national survey, thirty-eight percent of providers reported an adverse event within two years due to patient record mismatches (eHealth Initiative and NextGate, 2020).

Traditional integration approaches handle this through manual engineering: skilled teams analyze each provider's data, write custom mapping logic, and main-

tain it over time. That works at five provider connections. At fifty, the maintenance team spends all its capacity keeping what already exists running. At two hundred, you need five to ten dedicated engineers, and the cost has grown faster than the network. Every new provider connection makes all existing ones more expensive to maintain.

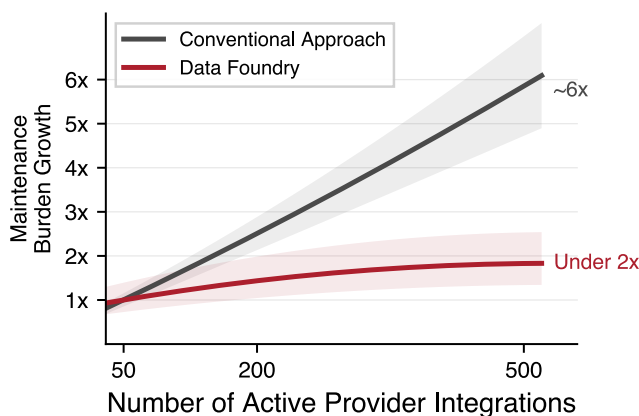


Figure 1. As the number of provider connections grows, conventional integration maintenance compounds. Each new connection increases the burden on every existing integration. A shared-layer approach keeps maintenance growth nearly flat. Shaded regions indicate ranges based on network complexity.

Large-scale IT projects run an average of forty-five percent over budget while delivering fifty-six percent less value than predicted (McKinsey & Company, 2012). More than half of total integration cost accrues after go-live, in ongoing maintenance.

Every month of delay between compliance and value is a month of Star data you cannot use, risk adjustment revenue you cannot capture, and PA transactions stuck in manual queues.

Turning Compliance Spend Into Durable Advantage

WHAT IT DOES

MTN's Data Foundry platform takes a fundamentally different approach. Rather than building a custom connection between every provider's data format and every downstream system, the platform maps each source

to a single shared layer. Adding provider connection two hundred does not require touching connections one through one hundred ninety-nine.

The system automatically proposes data mappings for human review and approval. An analyst, not a senior engineer, can review and approve a typical provider integration in minutes rather than days. When provider systems change, the platform detects the change and queues the update for review. This is what keeps maintenance flat regardless of network size.

In proof-of-concept testing across sixty data formats spanning the structural diversity found in payer networks, the system achieves over ninety-nine percent mapping accuracy. Anything the system is not confident about is flagged for human review rather than passed through silently. Nothing goes live without explicit sign-off.

The core insight: each new provider integration should make the next one faster, not harder. The two hundredth provider connection reuses what the first fifty already established. The same infrastructure that satisfies regulators starts driving revenue.

THE COMPARISON

At fifty active provider integrations, the conventional approach requires a dedicated engineering team just for maintenance. Data Foundry can substantially reduce that burden.

At two hundred provider connections, where the conventional approach demands five to ten dedicated engineers and the maintenance burden has grown with every connection added, Data Foundry's review burden can be managed by a single analyst.

When provider systems update, change code sets, or modify their data structures, the conventional approach requires engineering investigation, diagnosis, fix, test, and deployment. Data Foundry detects the deviation automatically and queues a proposed fix for analyst review in minutes.

The conventional approach gets more expensive with every provider connection. Data Foundry stays flat.

THE REVENUE CASE

The \$1.55 billion in industry compliance cost is already being spent. The question is whether your organization

can turn that spend into a durable advantage across four revenue pools.

Star Ratings. Most Star measure failures are not clinical. They are data availability failures. When clinical data is interpretable, quality measures compute. For large plans, the difference between 3.5 and 4 stars is approximately five percentage points of rebate, worth hundreds of millions in annual bonus revenue.

Risk adjustment. A diagnosis that fails to map is revenue that silently disappears. Data Foundry prevents information loss by ensuring that clinical history is usable on the day a member enrolls or a provider connects. Small improvements in risk adjustment accuracy translate to millions in per-member-per-month revenue.

Prior authorization. CMS built the highway. The question is whether your data is clean enough for auto-adjudication, or whether every electronic PA still enters the manual queue. Data Foundry enables the structured intake that makes auto-adjudication possible. For a payor processing 500,000 PA transactions annually, closing even a portion of the auto-adjudication gap represents millions in operational savings.

Membership retention. Better payer-to-payer data exchange means faster time to a complete member record. Pricing assumptions stabilize. Risk scores land sooner. Care gaps become visible. A one percentage point reduction in churn preserves tens to hundreds of millions in annual premium revenue.

THE COMPLIANCE ROI QUESTION

How much of your compliance spend has translated into Star improvement? If the answer is “we do not know yet,” the data is connected but not yet creating value. Provider savings from reduced paperwork do not automatically translate to payer savings from better data.

Compliance without operational value is a cost center. Only payors that convert connected data into business decisions capture revenue upside. The \$1.55 billion is being spent regardless. The question is whether it produces compliance only, or compliance plus durable advantage.

Next Steps

A PROPOSED METRIC: THE COMPUTABLE CLINICAL DATA RATE

The conventional data integration model does not scale. We propose a single metric to evaluate the effectiveness of any payer data integration approach: the Computable Clinical Data Rate (CCDR), the percentage of inbound clinical and claims data immediately usable for risk adjustment, quality measurement, or PA decisions without manual intervention.

We offer a CCDR Assessment: a focused analysis that measures your current rate across your provider network, identifies the specific gaps reducing Stars, risk adjustment, and PA performance, and quantifies the revenue impact of closing those gaps. To schedule a CCDR Assessment, contact warren@themtn.ai.

Whether you are mid-compliance build, post-go-live and finding the data is not usable, or planning for the January 2027 API deadlines, the core question is the same: what percentage of the data flowing through your new APIs is actually driving decisions?

MTN is a research and technology company with deep roots in clinical operations, interoperability, and machine intelligence.

TECHNICAL LEADERSHIP

Our team’s work has been published in Nature journals, PNAS, JMIR, Chest, PLoS Computational Biology, The Royal Society, and other leading venues. We bring these conversations the perspective of researchers and advisors with clinical, technical, and health policy backgrounds.



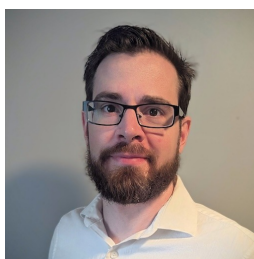
Warren Pettine, MD, Co-Founder and CEO. Assistant Professor at the University of Utah where he leads the Medical Machine Intelligence (M²Int) Lab. Trained in machine learning research at Harvard, Stanford, NYU, and Yale. Prior health policy experience in the U.S. Congress and service on the University of Utah Institutional Review Board ground MTN's approach in policy and regulatory expertise.



Matthias Christenson, PhD, AI Architect. Investigator with the M²Int Lab. PhD and postdoctoral research at Columbia University in computational ML, with prior industry experience as a Deep Learning Research Engineer at DeepLife training foundational models on genomic and biometric data. Leads MTN's technical architecture design and data model development.



Brian Locke, MD, MSCI, Clinical AI Lead. Investigator with the M²Int Lab. Active ICU physician and Assistant Professor at Intermountain Healthcare, bringing firsthand understanding of clinical workflows across academic medical centers and integrated delivery networks. Provides the methodological rigor for the clinical and operational implications of MTN's technology.



Samuel Wecker, Lead Systems Engineer. Over twelve years building and scaling production software, including as a founding engineer at a startup that grew to a billion-dollar platform. Specializes in unifying disparate systems and data sources at scale. Leads Data Foundry's core platform development.

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