



KODJIN
by Edenlab

Operationalizing Digital HEDIS Measures with Kodjin Analytics:

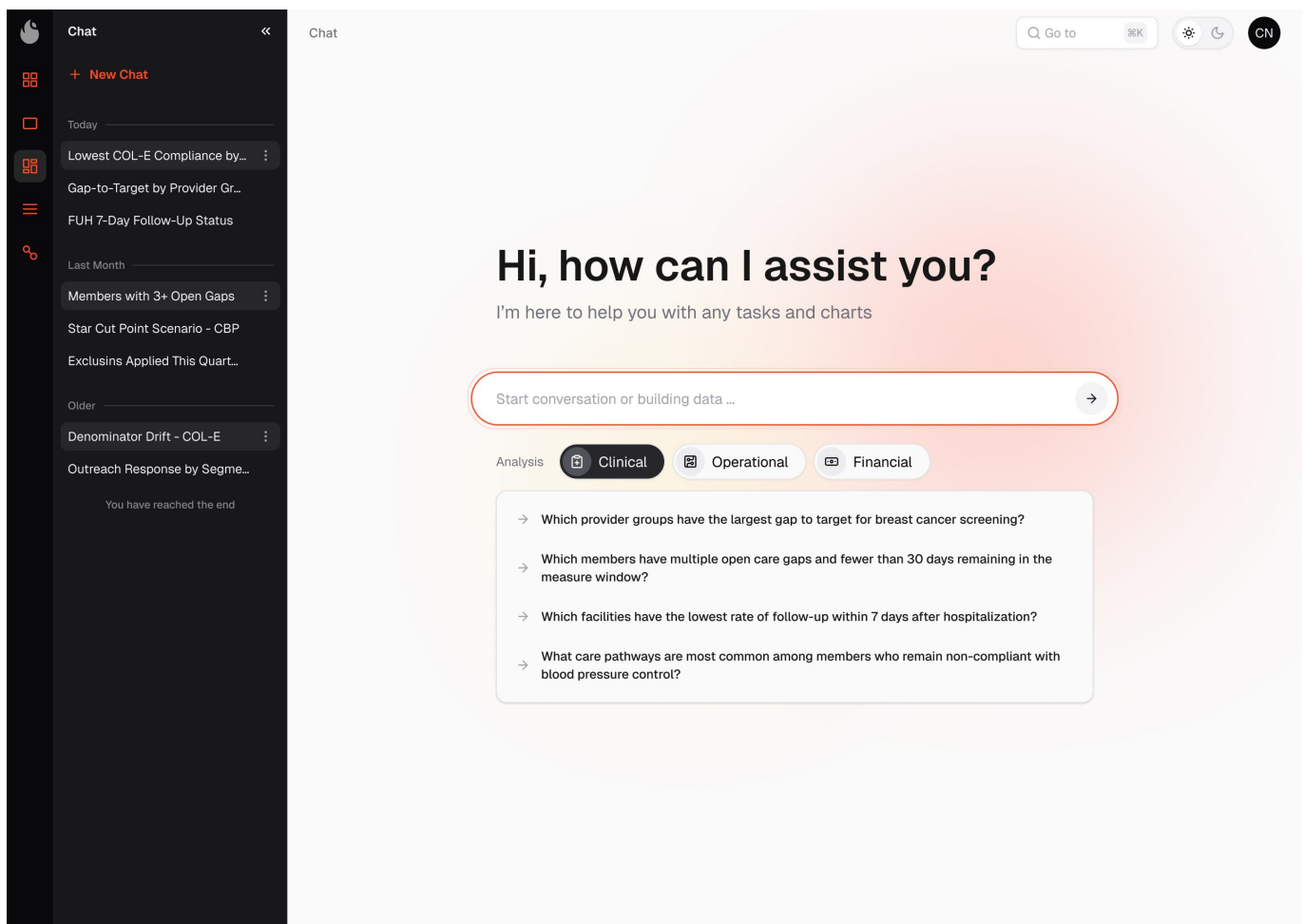
From Annual Scores to Everyday Action

Intro

For most health plans and value-based care organizations, HEDIS® performance is discovered rather than managed. **Measure logic runs retrospectively, gaps surface months after they open, and final rates arrive when the measurement year is already closed** — too late to change anything. The result is a familiar cycle: a frantic "chase season," expensive supplemental data hunts, and scores that reflect what the organization failed to see in time.

Kodjin Analytics makes quality performance manageable during the year, not just measurable after it. Built on a FHIR-native, real-time data foundation, the platform lets quality teams express HEDIS-aligned measure logic as living queries: tracking numerators, denominators, and exclusions daily; identifying open care gaps the moment data arrives; analyzing the pathways that lead members to compliance or failure; running the temporal queries that HEDIS logic is made of; and asking new questions in plain language through AI-powered conversational analytics. Gap lists flow through the platform's APIs into the care management and outreach tools where intervention happens, so a gap detected today is worked today.

Kodjin Analytics complements certified quality-measure reporting software: the certified engine computes the official rate at year-end, while Kodjin Analytics manages the daily process that determines what that rate will be. If gaps are detected every day, they can be closed every day — and the final score becomes the outcome of twelve months of deliberate intervention, not a surprise.



Problems and Solutions

Kodjin Analytics: The Operational Layer of HEDIS Performance

Kodjin Analytics is a healthcare-native data management platform. It consolidates fragmented clinical, claims, and operational data into a unified, FHIR-structured foundation, streams every change into an analytical warehouse in real time, and exposes it through a governed semantic layer: a no-code visual query builder, dashboards, AI-powered conversational analytics, and open APIs.

Behind the platform is Edenlab, a healthcare IT company with over a decade of exclusive focus on health data interoperability. Edenlab built the ONC-certified Kodjin Data Platform and delivered one of the largest FHIR implementations in the world: a national eHealth system serving more than 36 million people. National-scale interoperability, terminology services, and high-load clinical data pipelines are the engineering foundation Kodjin Analytics stands on.

In the HEDIS workflow, Kodjin Analytics owns the operational layer. **Tracking measure performance during the year is an established ambition, and most quality teams attempt some version of it.** The hard part is doing it well: continuously rather than in quarterly batches, on complete and unified data rather than a partial extract, with measure logic the team can inspect, query, and adapt itself.

That is the job Kodjin Analytics is built for: tracking measures daily, surfacing open gaps as data arrives, targeting interventions while measure windows are still open, and delivering clean, FHIR-structured data to the certified engine at reporting time. The certified engine produces the official, auditable rate; Kodjin Analytics runs the daily work that shapes it.

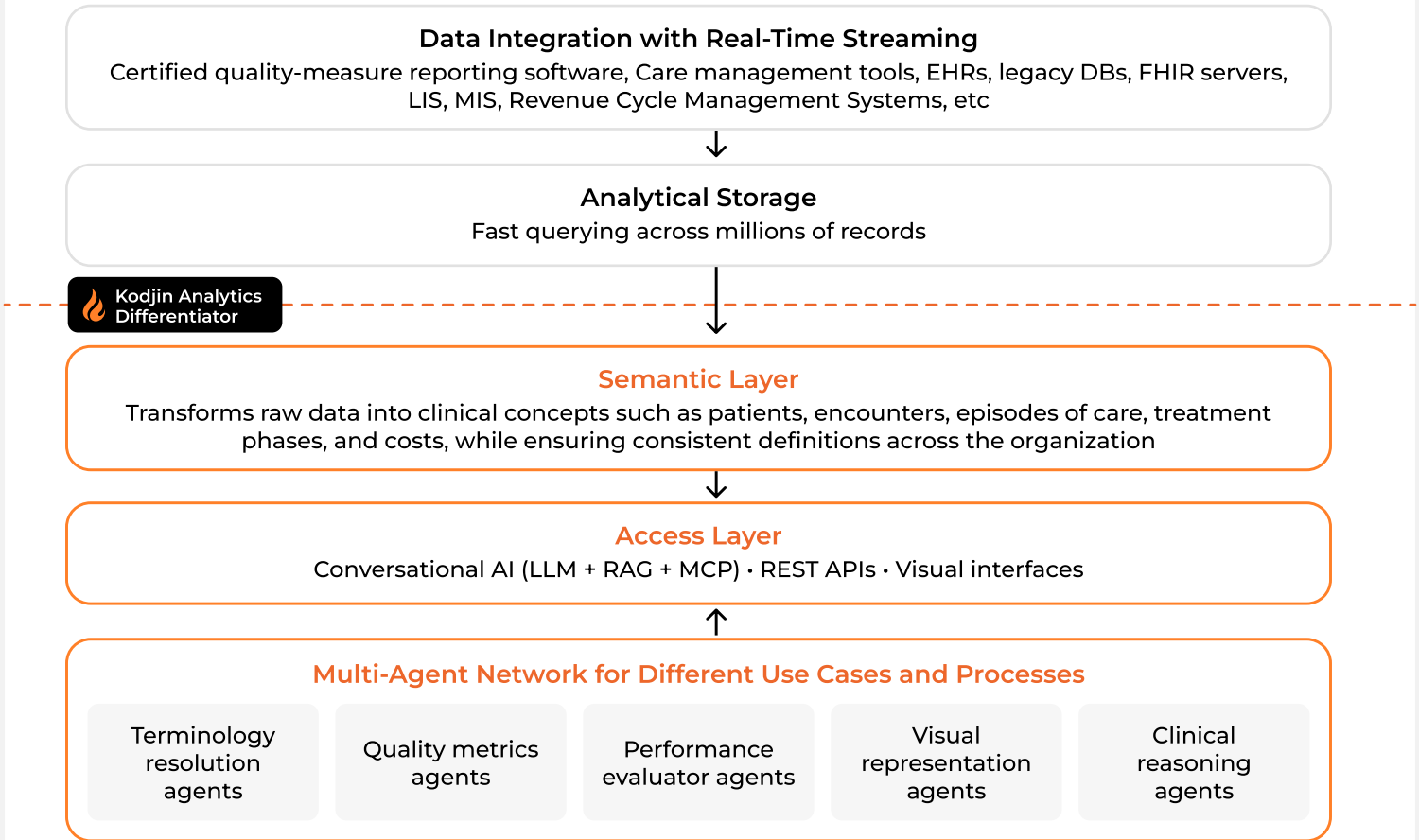
Two Layers, One Goal

How Kodjin Analytics complements certified reporting software

	 Quality-Measure Reporting Software	 Kodjin Analytics
 Role	Official measurement and submission	Year-round operational management
 Output	The audited rate, under the HEDIS Compliance Audit™	Daily measure tracking, prioritized gap worklists, pathway insight, measure-ready FHIR data
 Cadence	Reporting cycle	Continuous — updated as data arrives
 Question answered	What was our rate?	What will our rate be — and what do we do about it today?

The sections that follow pair each problem in HEDIS operations with the capability that solves it.

How Kodjin Analytics Works



Problem to Capability Map

The problem-to-capability map covered in this section

 The problem	 The capability that solves it
 Annual scores, daily decisions	 Year-round measure tracking and daily care gap lists
 Fragmented data, multiplied by the network	 A real-time, FHIR-native data foundation
 The temporal complexity of measure logic	 Temporal queries on demand
 Rates that explain nothing	 Pathway analysis
 Fixed dashboards, changing questions	 AI-powered conversational analytics

Problem: Annual Scores, Daily Decisions

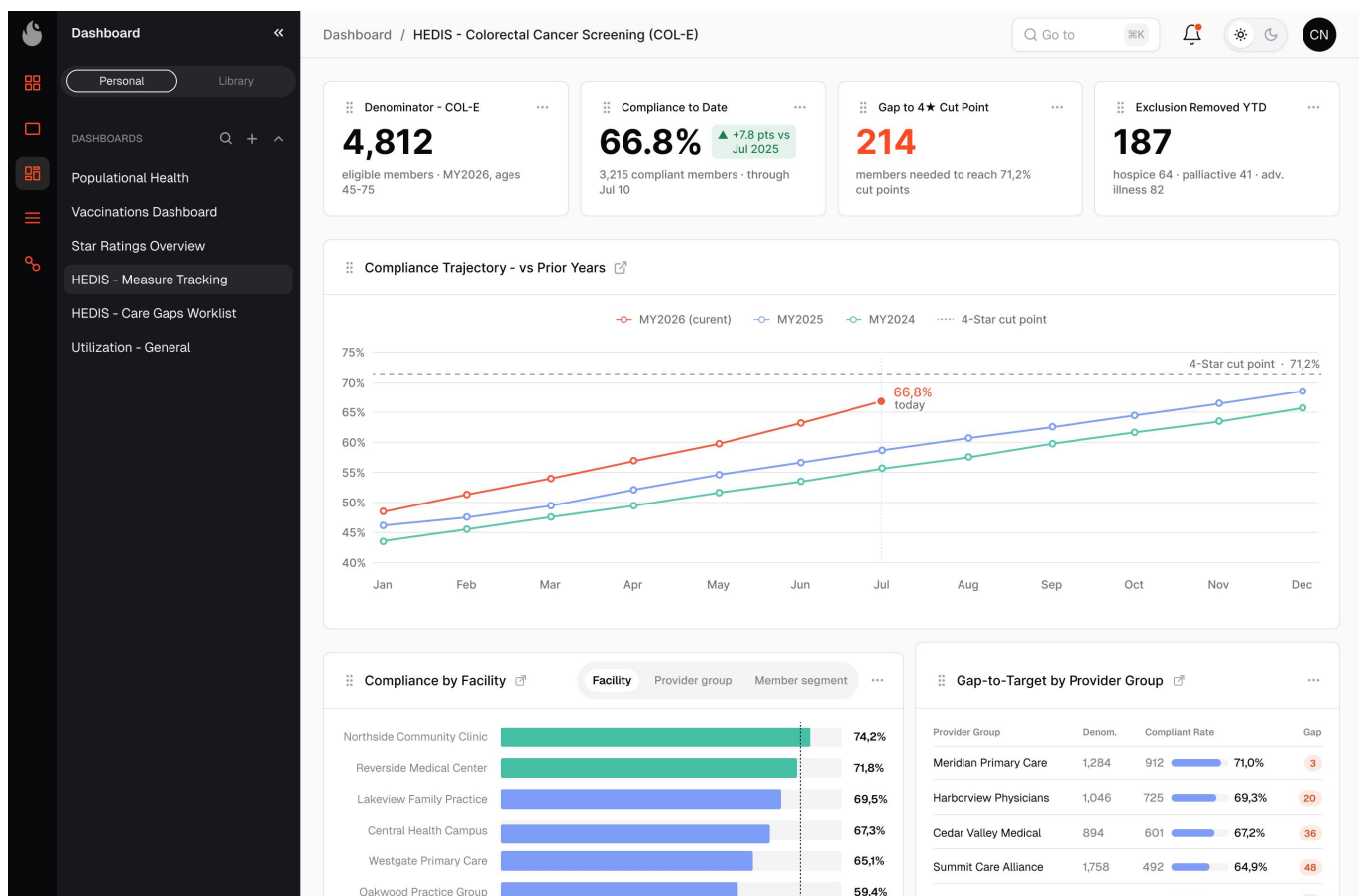
HEDIS is the most widely used performance measure set in American managed care, tied directly to Medicare Advantage Star Ratings, Medicaid quality withholds, accreditation, and value-based contract incentives. Because these operate on rate thresholds, missing a cut point by a handful of members forfeits the full value of that threshold.

Yet the operational rhythm of HEDIS remains retrospective: rates are computed on closed data after the year ends, when the only levers left are chart chase and supplemental data, activities that document care already delivered rather than causing care to happen. The care that produces the score happens one member, one visit at a time, every day of the year; the measurement happens once, after it is over.

Organizations that consistently score well invert this rhythm, treating HEDIS rates as lagging indicators of a process they manage daily: who is in each denominator right now, who has not yet met the numerator, who is approaching a deadline, and which interventions work. The challenge is not realizing that year-round tracking matters, but sustaining it daily, across fragmented, high-volume data, with logic the quality team can trust and query.

Solution: Year-Round Measure Tracking and Daily Care Gap Lists

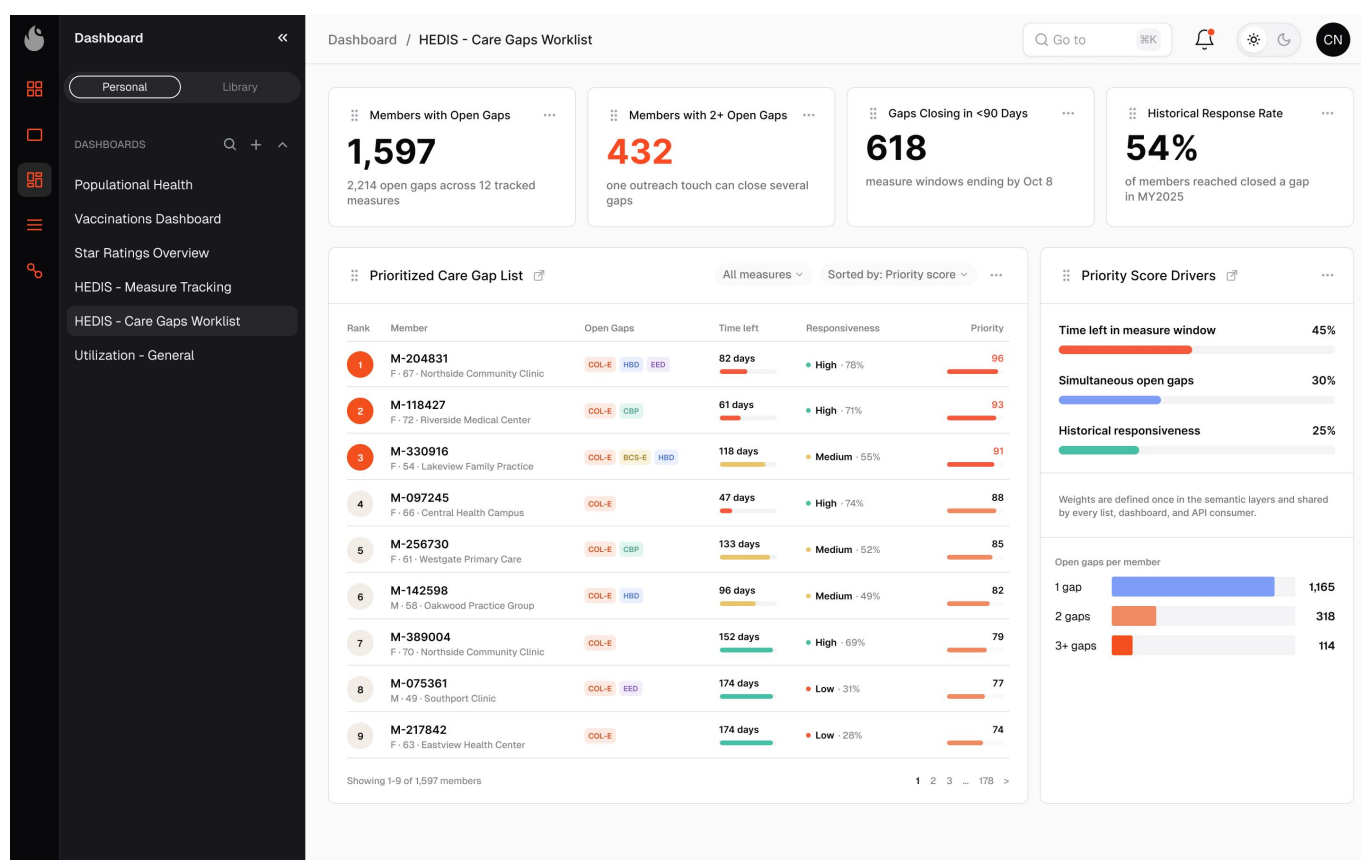
Every HEDIS measure decomposes into the same anatomy: eligible population, qualifying numerator events, exclusions, and temporal constraints. In Kodjin Analytics, each component becomes a governed, reusable cohort or metric in the semantic layer — one definition shared by every dashboard, query, and API consumer.



Year-round dashboards show, per measure: the current denominator, compliance to date, trajectory against the same point in prior years, breakdowns by facility, provider group, or member segment, and — critically — the gap-to-target. Knowing a measure needs 214 more compliant members to cross a Star Ratings cut point turns an abstract percentage into a concrete operational goal with months left to achieve it. Continuous exclusion surveillance runs alongside, removing members from denominators as hospice, palliative care, or advanced illness evidence arrives.

A rate tells you the size of the problem; a member list tells you what to do about it. A gap cohort is a native query pattern: denominator, minus members with a qualifying numerator event, minus exclusions. Because each population is defined once against terminology-mapped FHIR data, the lists are consistent and auditable — the underlying SQL is inspectable, so an analyst can verify exactly why a member appears on, or drops off, a list.

Gaps are prioritized, not just listed — ranked by time remaining in the measure window, by simultaneous open gaps (one outreach touch closes several), and by historical responsiveness.



And the lists travel: through the API-first architecture they are embedded in care management tools, delivered to outreach platforms, pushed to practice-level scorecards, or exported for campaigns.

A member who completes a screening on Monday disappears from Tuesday's list.

The AI-assisted interface extends access to anyone: a quality director can ask, in plain language, "Which clinics have the lowest colorectal screening compliance among members turning 46 to 75 this year?" and get a grounded answer through the same governed layer — no ticket, no waiting.

Problem: Fragmented Data, Multiplied by the Network

A single HEDIS measure may require an encounter from claims, a lab result from an LIS, a blood pressure reading from the EHR, and an exclusion documented in a specialist's system. Unless those sources are unified continuously — not in quarterly batches — the measure cannot be evaluated in time to act on it.

For health plans, the problem is multiplied by the network. A plan does not control its source systems: every contracted provider brings its own EHR, data structures, coding practices, exchange format — claims feeds, C-CDA, HL7v2, flat files, FHIR APIs — and integration cadence. One fragmentation problem becomes hundreds of parallel ones, each with different completeness, quality, and latency. The consequence: many "care gaps" are actually data gaps — the service was delivered, but the structured evidence never arrived. Plans pay twice: once in depressed rates, again in chart chase.

The stakes are rising. NCQA is phasing out hybrid measurement in favor of digital quality measures computed from structured electronic data — the ECDS reporting standard covers a growing measure list, digital packages ship as FHIR-based specifications, and NCQA's public direction is fully digital HEDIS. Digital measures reward organizations whose data is structured, terminology-mapped, and complete — and penalize those whose data quality leaves earned numerator hits on the table.

Solution: A Real-Time, FHIR-Native Data Foundation

Kodjin Analytics connects to the heterogeneous sources a plan actually has — EHRs, claims feeds, labs, legacy systems — without rip-and-replace. Incoming data is transformed, validated, terminology-normalized, and deduplicated in a real-time pipeline, then stored in HL7 FHIR® format: the same format digital HEDIS specifications are written against. Value-set matching across SNOMED CT, LOINC, ICD, CPT, and RxNorm operates on clean, mapped codes.

Because the pipeline streams rather than batches, the measurement picture is current as of today. When a mammogram result lands, the screening compliance picture changes that day. When a discharge is recorded, the follow-up clock starts immediately — and the platform knows it.

The same foundation supports the digital shift: the data preparation required for digital measurement happens continuously as an inherent part of the pipeline. At reporting time, measure-ready FHIR data is delivered to the certified engine in a clean, standardized format. The unified timeline also separates data gaps from care gaps — when claims suggest a service occurred but the structured result is missing, the member is routed to data retrieval rather than outreach.

Problem: The Temporal Complexity of Measure Logic

Strip away the clinical content, and HEDIS measures are temporal logic. Continuous enrollment with no more than one 45-day gap. A screening in the measurement year or the year prior. An outpatient visit within 7 and within 30 days of discharge. Anchor dates, lookback windows, age as of a specific date, gaps in therapy measured in days — all evaluated per member, across millions of members.

In most organizations this logic exists in one place: the year-end reporting run. Quality teams cannot query it on demand, against today's data, from any angle they choose — so every time-based question becomes a request to a data team, and every answer arrives late.

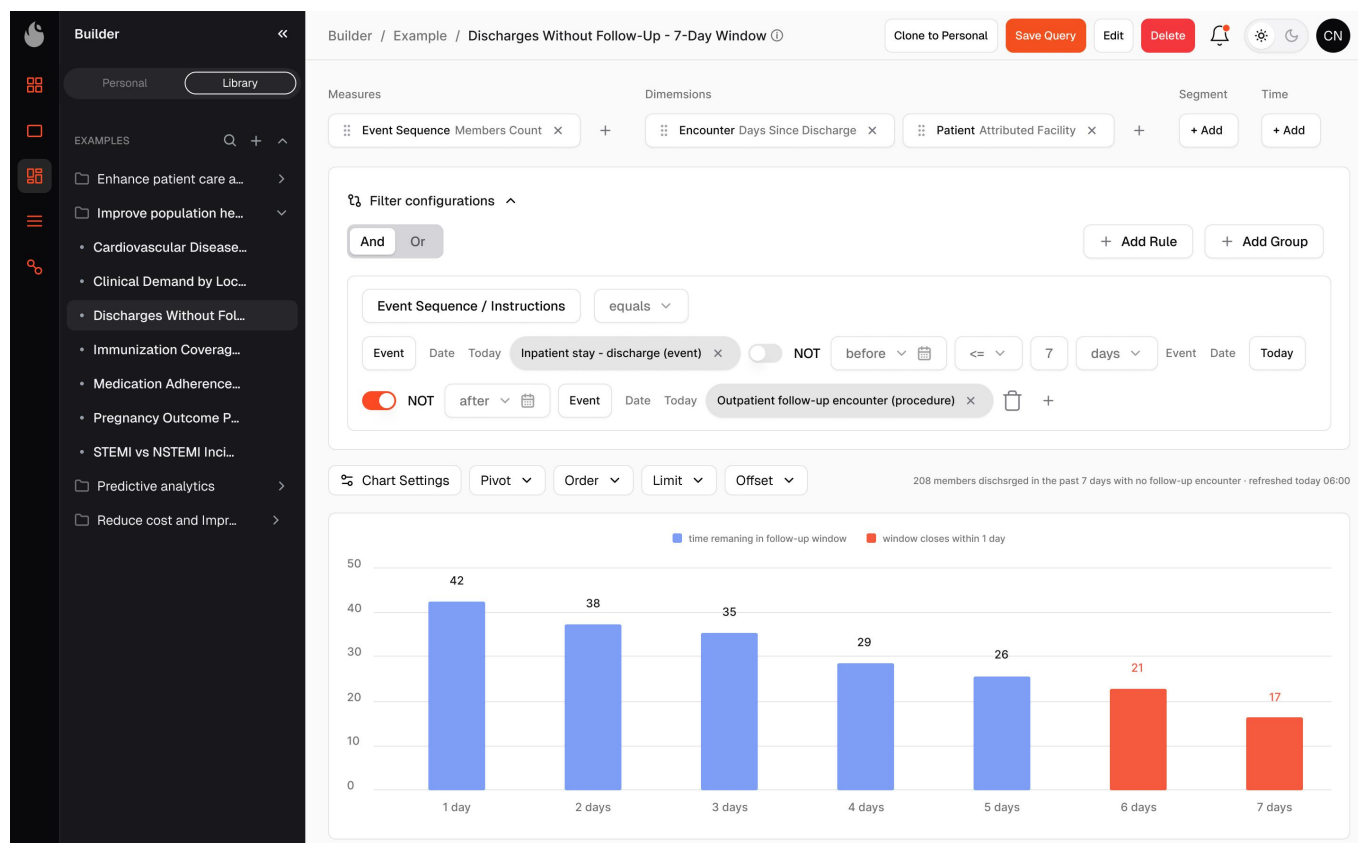
Solution: Temporal Queries — the Native Language of HEDIS Logic

Kodjin Analytics treats temporal relationships as first-class analytical constructs, available on demand in the no-code query builder: event-anchored windows (events within N days after discharge, per member), lookback logic, sequence conditions (event B after A but before C), and duration measures. The mundane mechanics — age as of specification dates, enrollment continuity against gap allowances, automatic re-evaluation as data streams in — are handled the same way.

Two examples show what this means operationally.

Follow-up after hospitalization. As a retrospective rate, the 7- and 30-day follow-up requirement is an autopsy. As a daily temporal query, it is an early-warning system: every morning, the platform surfaces members discharged in the past 7 days with no follow-up encounter, ranked by days remaining. Coordinators intervene inside the window — the only time it counts.

Medication adherence windows. Phase-based measures decompose into per-member timelines anchored on a first dispensing event. Temporal queries expose, at any moment, who is inside a phase, how many covered days they have accumulated, and who is trending toward failure early enough for a refill outreach to change the outcome.



Problem: Rates That Explain Nothing

A rate says 38% of the eligible population is non-compliant; it does not say whether those members received a screening order that was never completed, saw their PCP without an order being placed, or never engaged with care at all. Each failure mode demands a different intervention, and aggregate rates cannot distinguish them — so organizations apply one generic outreach playbook to a population failing for many different reasons.

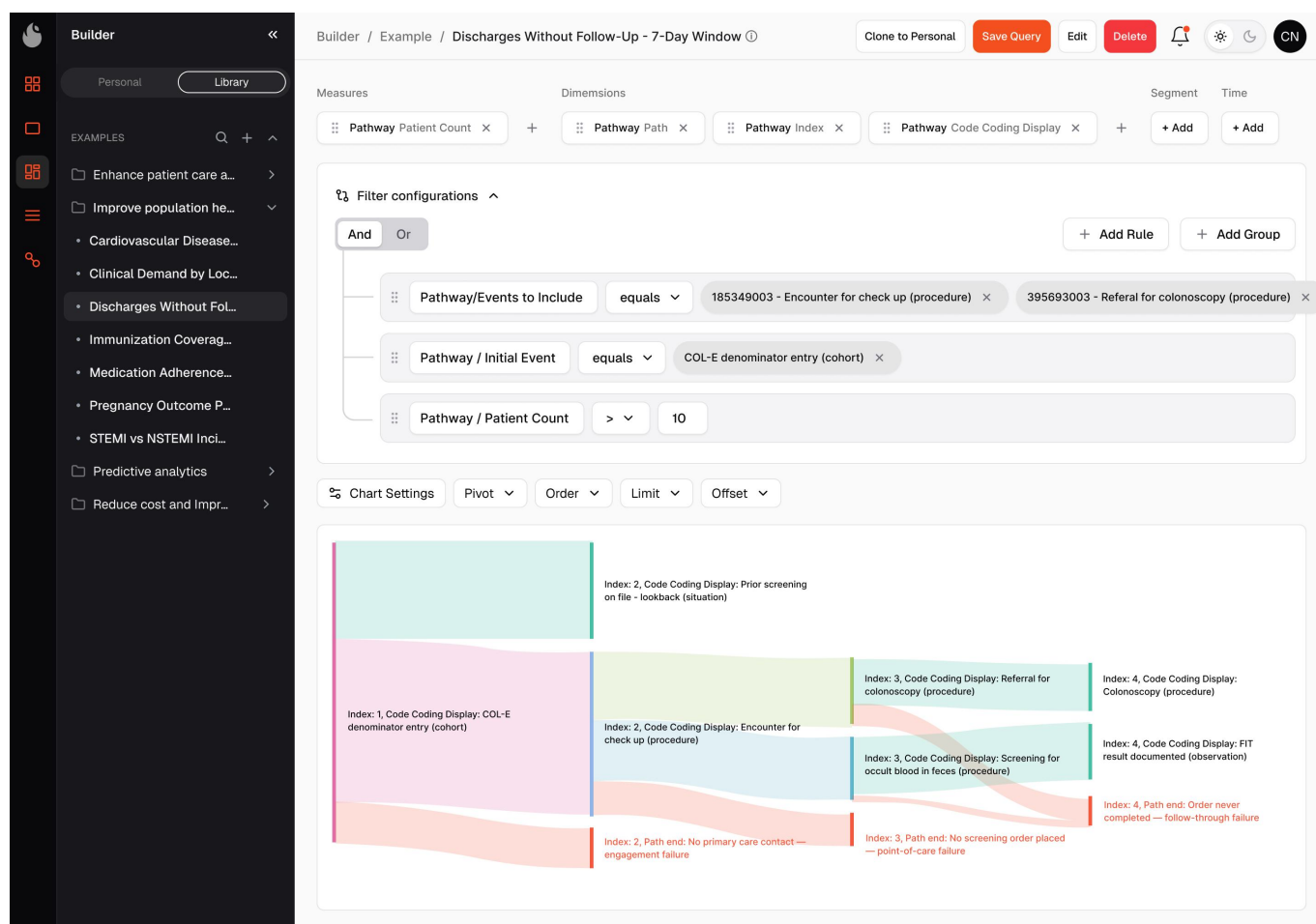
Solution: Pathway Analysis — Understanding Why Members Fail Measures

Gap lists answer *who*; pathway analysis answers *why*. Kodjin Analytics' Pathway Analysis module reconstructs the ordered sequence of clinical events for every member, aligns sequences across the population, and visualizes flows, forks, and convergences as a Sankey-style diagram — each path a queryable dimension with distinct member counts at every step. Measure failure becomes a diagnosable process problem.

In colorectal cancer screening, pathway analysis might reveal three distinct non-compliant segments: members whose screening order was never completed (a follow-through failure), members seen in primary care with no order placed (a point-of-care failure), and members with no primary care contact at all (an engagement failure) — each demanding a different intervention.

In blood pressure control, setting the initial event to a hypertension diagnosis reveals where members diverge from the controlled-outcome route — who never returns after a medication start, who cycles through elevated readings without therapy intensification — and how pathways differ by facility or practitioner.

Pathway analysis also strengthens the intervention loop: comparing journeys of members whose gaps closed after outreach against those who did not shows which intervention sequences actually precede compliance, and early pathway steps that historically precede failure let teams flag high-risk trajectories months before the failure materializes.



Problem: Fixed Dashboards, Moving Questions

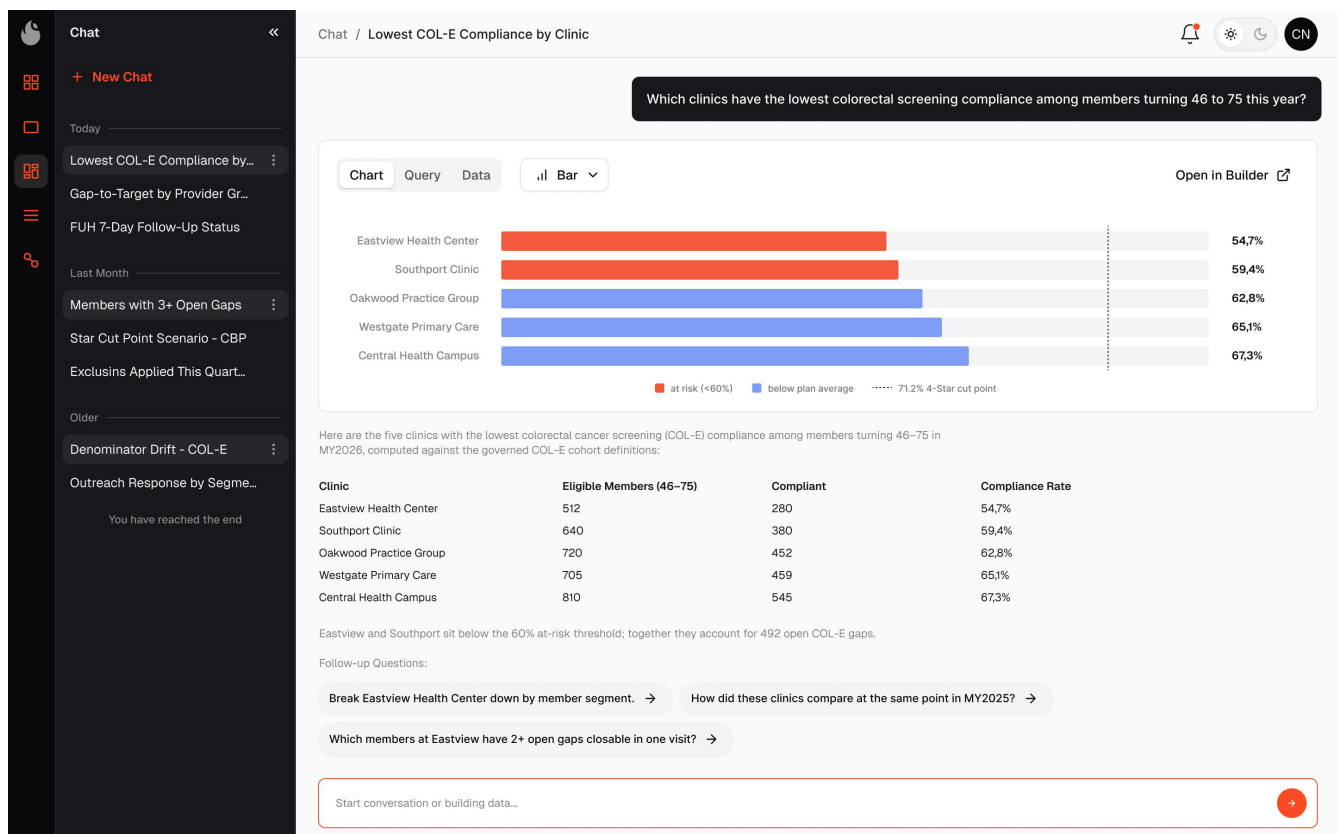
Measure specifications change every year. Star Ratings cut points move. Mid-year, a quality committee asks a question nobody anticipated in January — and in a conventional BI environment, that means a ticket, a development queue, and an answer that arrives after the decision it was meant to inform. Dashboards encode the questions someone thought to ask at design time; quality improvement runs on the questions that come up next.

Solution: AI-Powered Conversational Analytics — a Living Research Instrument

Everything described above — cohorts, metrics, temporal logic, pathway models — lives in Kodjin Analytics' governed semantic layer, and that layer is conversational: an LLM-powered assistant lets any authorized user ask questions in plain language ("Which clinics have the lowest colorectal screening compliance among members turning 46 to 75 this year?"), then drill down and compare, with no query to write and no ticket to file.

The toolset delivered at implementation is therefore not a static set but a starting point: when a measure changes, a cut point moves, or a hypothesis surfaces, the team explores it the same day, and exploration that proves valuable is promoted into governed metrics and dashboards.

Governance holds throughout: role-based access applies to conversational queries as it does to dashboards, and protected health information is never exposed to the model — data access and query execution stay inside the platform.



The Result: A Year in the Life of a Measure

Early in the measurement year, denominators are established from streaming data, prior-year non-compliant members are flagged for early outreach, and exclusion surveillance begins. Through mid-year, daily gap lists drive outreach and provider engagement, dashboards track trajectory against thresholds, and pathway analysis shows where members stall so interventions can be adjusted. As the year closes, effort concentrates on members whose gaps are still closable and on resolving data gaps so delivered care is fully captured.

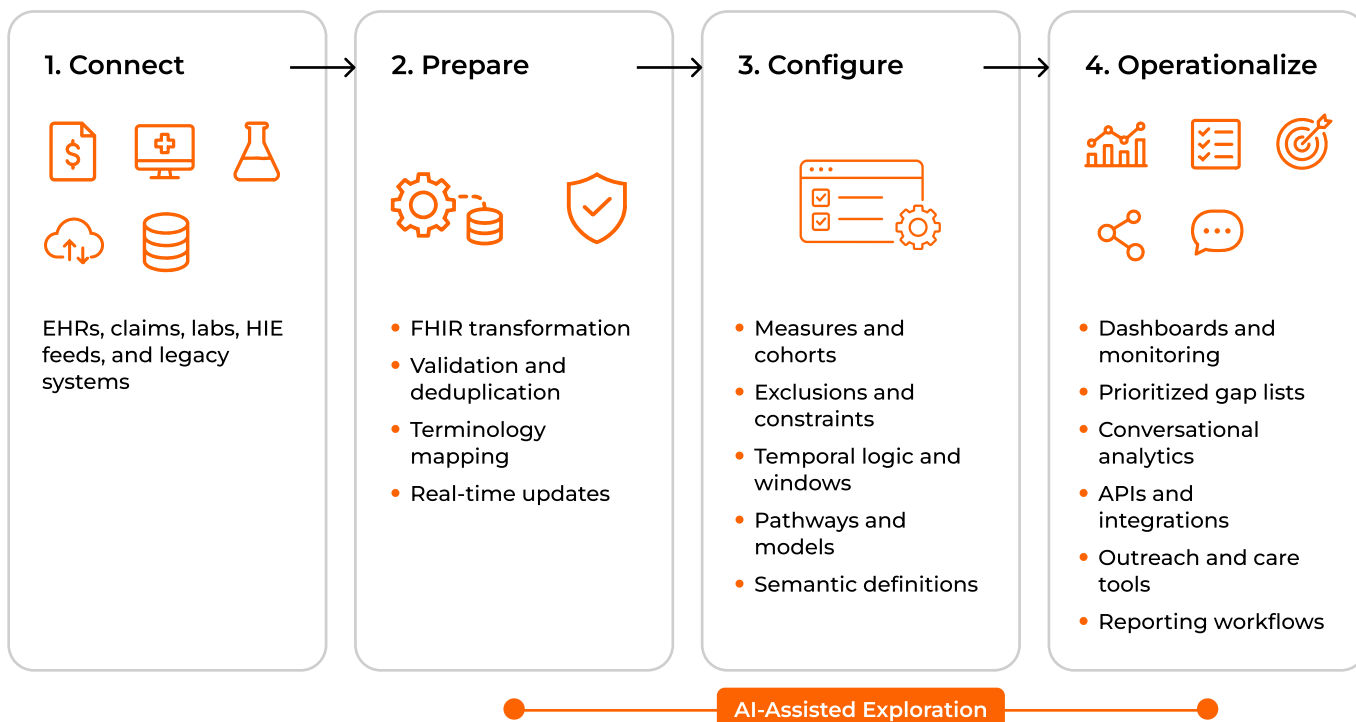
Phase	Operational Focus	Platform Capabilities in Play
 Early year	 Establish denominators; flag prior-year non-compliant members for early outreach; begin exclusion surveillance	 Streaming FHIR pipeline, governed cohorts, exclusion monitoring
 Mid-year	 Work daily gap lists; engage providers; adjust interventions where members stall	 Prioritized gap worklists via API, regulatory dashboards, pathway analysis, conversational drill-downs
 Closing months	 Concentrate on still-actionable gaps; resolve data gaps so delivered care is captured	 Time-remaining ranking, data-gap vs. care-gap triage
 Reporting	 Hand off clean, complete, measure-ready data to the certified engine	 FHIR-standard export, final rate converges on the number tracked all year

When the certified engine computes official rates, it operates on clean, complete, FHIR-structured data — and produces a number the organization has been watching converge all year.

Getting Started with Kodjin Analytics

How Deployment Works

Kodjin Analytics is deployed end to end by Edenlab's team. Implementation includes source integration, real-time update configuration, and setup of the metrics, cohorts, temporal logic, and pathway models the organization's measure set requires, so quality teams can begin working with live gap data without depending on internal data engineering capacity.



Once the organization's data, measure logic, and semantic definitions are configured, AI allows teams to explore the analytical environment, adapt it to new questions, and extend it beyond the dashboards established during implementation.



Who Benefits

Quality and HEDIS teams gain daily visibility and defensible, reproducible gap logic. Care management and outreach teams receive current, prioritized member lists in the tools they already use. Provider network teams see gap creation with their own gap lists and scorecards. Finance and executive leadership track trajectory toward the thresholds that drive Star Ratings and incentive revenue, with time left to act.



Security and Compliance

All analytics run within the platform's governance architecture: privacy by design, HIPAA and GDPR alignment, four-level role-based access control enforced at the semantic layer, end-to-end encryption, and complete audit trails. For conversational analytics, protected health information is never directly exposed to the LLM. The model works with the semantic layer while data access, query execution, and result delivery remain governed by the platform.



Implementation by Edenlab

Edenlab's team manages the implementation lifecycle—from discovery and integration to configuration, validation, training, and ongoing support—so teams can focus on quality improvement, not infrastructure.

Conclusion

HEDIS scores are annual, but the care that produces them happens every day. Organizations that only measure retrospectively surrender control over their own results; by the time the rate is known, the year that produced it is gone.

Kodjin Analytics makes quality performance something a team manages rather than discovers: continuous FHIR-native consolidation keeps the picture current across a fragmented network, gap cohorts turn rates into daily worklists, temporal queries operationalize the deadline logic at the heart of every measure, and pathway analysis explains why members fail and where to intervene, and AI-powered conversational analytics keeps the whole toolkit adaptive as measures, cut points, and questions change. As NCQA completes the shift to digital measurement, the same FHIR-structured foundation positions organizations to thrive in a fully digital HEDIS future.

Your certified engine computes the official rate. Kodjin Analytics helps ensure that when it does, the rate is the highest one your population's care could have produced.

HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA). Kodjin Analytics is not NCQA-certified measure software; official HEDIS reporting requires certified measure logic and the HEDIS Compliance Audit™.

Request a Personalized Demo

See how Kodjin can address your organization's specific healthcare use case

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