

JOHN TAVERNA, MPH

C Suite Healthcare AI Executive · Product Leader · Public Health Technologist

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PROFESSIONAL SUMMARY

C-suite healthcare executive and AI practitioner with 17 years building technology at the intersection of public health, payer operations, and AI. As Chief Analytics Officer at one of the nation's largest FQHCs - and one of New York's largest servers of Medicaid recipients and the uninsured - I have deployed production clinical AI systems, built end-to-end payer-provider data infrastructure, and driven 20%+ organizational revenue growth through data strategy. My AI work includes a fine-tuned local LLM that ingests external diagnostic imaging consults, summarizes findings, classifies results as urgent or non-urgent, and routes them to care teams for immediate follow-up - a system with direct patient safety consequences operating in a live clinical environment. Earlier in my career, I designed and built the Hub - New York City's first real-time distributed population health surveillance system, connecting 700+ practices, 6,000+ providers, and 2 million patients citywide, published in JAMIA and cited 83 times in peer-reviewed literature, still in active use today. I speak on healthcare AI at major institutions alongside senior executives from Pfizer, Regeneron, and Memorial Sloan Kettering. Outside of healthcare, I independently design, build, and ship native macOS applications - including an open-source LLM benchmarking platform and an AI-integrated documentation editor - demonstrating end-to-end product ownership from zero to market. I hold a certificate in AI in Medicine from Harvard Medical School (HMX, 2026).

SPEAKING & THOUGHT LEADERSHIP

Panelist - "From Data to Discovery: Careers Shaping the Future of Healthcare"

Columbia University Data Science Institute · November 2025

Invited panelist alongside the VP/Chief Data Officer of Regeneron, VP of Data Science at Pfizer, and Head of Centralized Intelligence & Automation at Memorial Sloan Kettering Cancer Center - moderated by the Principal PM for Healthcare Generative AI at Mayo Clinic. Discussed responsible AI deployment, data privacy, ethics, and the future of healthcare analytics before Columbia's data science graduate students and faculty.

EXPERIENCE

Chief Analytics Officer | Urban Health Plan, Inc. · New York, NY | 07/2021 – Present

Urban Health Plan is one of the nation's largest Federally Qualified Health Center networks, operating 12 health centers, 12 school-based clinics, and 2 mental health facilities - among the largest providers of care to Medicaid recipients and the uninsured in New York State.

- **Clinical AI: Fine-Tuned Triage LLM:** Designed, fine-tuned, and deployed a local LLM that ingests external diagnostic imaging consults directly from radiology and specialist reports, generates structured clinical summaries, and classifies each result as urgent or non-urgent - automatically routing new cancer diagnoses, critical findings, and time-sensitive results to care teams for immediate follow-up, while filtering routine discharges and low-acuity results. A production system with direct patient safety consequences, running entirely on-premise with no PHI leaving the organization.
- **Clinical AI: RAG Chatbot:** Built and deployed an in-house RAG chatbot on open-source LLMs, providing clinical and operational teams with real-time access to institutional knowledge and policy - a full 0→1 build from model selection through infrastructure to end-user rollout.
- **Revenue Growth:** Drove 20%+ company-wide revenue and performance improvement through data-driven interventions, payer incentive optimization, and clinical quality feedback loops.
- **Payer Incentive Engineering:** Engineered payer-side quality measure datasets programmed directly from the EHR raw backend database - identifying missed services, correcting coding gaps, and submitting supplemental data to all major Medicaid and Medicare managed care plans (MetroPlus, Healthfirst, Emblem, Fidelis, United, Aetna/CVS, and others). These efforts have recovered millions of dollars in MCO incentive payments.

- **Eligibility Automation:** Built automated insurance eligibility verification pipelines via direct API integrations with payer systems - reducing uncompensated care and improving revenue capture at point of care across all sites.
- **NYC RHIO Integration:** Developed and maintain real-time hospitalization data-sharing integrations with the NYC Regional Health Information Organizations (RHIOs) - enabling timely care coordination for high-risk patients across the payer-provider boundary.
- **Analytics Leadership:** Led all clinical, operational, and financial analytics: HEDIS/NCQA quality measures, UDS federal reporting, MCO performance reporting, claims analysis, and executive dashboards for a patient population exceeding 200,000.
- **Infrastructure Ownership:** Architected and operate the organization's entire on-premise analytics stack: SQL Server, Cognos, Power BI, SSRS, VMware vSphere, and all clinical database connectors - built on a non-profit budget with no vendor lock-in.
- **Team Building:** Built and mentored a high-performing analytics team; established data governance practices, bespoke in-house tooling, and a culture of continuous delivery.
- **Emergency Response:** Activated as technical data lead for every major NYC public health emergency: COVID-19, Ebola, Measles, M-Pox, and others - coordinating across CDC, NYC DOHMH, and NYS DOH.

Director of Informatics | [Urban Health Plan, Inc.](#) · Bronx, NY | 09/2015 – 07/2021

- **BI Strategy:** Designed and implemented the enterprise-wide BI strategy; established scalable infrastructure for processing high-volume clinical, financial, and claims data.
- **Quality & Payer Reporting:** Managed HEDIS/NCQA quality measures and UDS reporting across multiple MCO performance cycles; served as the primary technical interface with payer quality departments.
- **Governance:** Improved data governance and cross-departmental reporting workflows; primary liaison between clinical, operational, finance, and technology stakeholders.

Public Health Data Systems Administrator | [NYC Dept. of Health and Mental Hygiene](#) | 06/2011 – 09/2015

Conceived, designed, and built the foundational real-time health surveillance infrastructure for the City of New York.

- **The Hub - Founding Architect:** Architected and built the Hub Population Health System - New York City's first distributed, real-time public health surveillance platform. The Hub connected directly to EHR systems across primary care practices citywide, enabling the NYC Health Department to issue ad hoc population queries, distribute point-of-care clinical decision support alerts, and send secure messages to provider inboxes - all with HIPAA-compliant, privacy-preserving design (aggregate counts only, no PII transmitted).
- **Scale & Longevity:** At launch, the Hub was live in 400+ practices serving 2.5 million New Yorkers; it has since grown to 700+ NYC REACH member practices, 6,000+ providers, and remains the city's active population health surveillance infrastructure today - more than a decade after its creation.
- **Real-World Impact:** The Hub was used in a real-world medication recall (metronidazole) to rapidly identify affected patients and message providers citywide - a demonstration of real-time clinical-public health integration at urban scale.
- **JAMIA · HIMSS Davies Award · 83 Citations:** Published in the Journal of the American Medical Informatics Association (JAMIA, 2012) and recognized with the HIMSS Davies Award. The paper has been cited 83 times in peer-reviewed literature.
- **CDSS & Real-Time Monitoring:** Developed NYC's first real-time health monitoring dashboards and clinical decision support systems for the outpatient community; served as lead architect collaborating with agency leadership, eClinicalWorks, and federal stakeholders including the CDC.

Healthcare Analytics Consultant | [Independent](#) · NY Metro Area | 2015 – Present

- Analytics strategy, data infrastructure, AI implementation, and quality reporting advisory for major hospital systems and health organizations across the NY metro area.

INDEPENDENT SOFTWARE DEVELOPMENT

Designed, built, and shipped four production applications independently using Swift/SwiftUI - demonstrating end-to-end product ownership from concept through App Store and open-source release.

- **devPad - #1 Mac App Store:** A slide-out macOS developer toolkit with a full code editor, AI chat, API client, SQLite browser, and snippet library. Reached #1 in Paid Developer Tools on the Mac App Store. (devpadapp.com)
- **CyberWriter - AI-integrated editor:** An AI-integrated scientific documentation editor with live Markdown, KaTeX math rendering, Mermaid diagram support, and PDF/DOCX export - built collaboratively with Claude as AI co-developer. (cyberwriter.app)
- **Anubis OSS - LLM Benchmarking:** Open-source LLM benchmarking platform for Apple Silicon; supports Ollama, LM Studio, MLX, and any OpenAI-compatible endpoint. Real-time hardware telemetry, Arena head-to-head comparisons, and a public community leaderboard. (github.com/uncSoft/anubis-oss)
- **Nabu Pro:** Native macOS Markdown-to-PDF/DOCX converter with live preview and professional export themes, zero external dependencies. (Mac App Store)

TECHNICAL SKILLS

AI & Machine Learning: LLM Fine-Tuning, Clinical NLP, Urgency Classification, RAG / Retrieval-Augmented Generation, Local LLM Deployment & Benchmarking, Prompt Engineering, Clinical Decision Support

Payer & Revenue Cycle: MCO Quality Incentive Programming, Claims Analysis, Supplemental Dataset Submission, Insurance Eligibility Automation (API), NYC RHIO Integration, HEDIS/NCQA, UDS Reporting

Software Development: Swift / SwiftUI / AppKit, Python, SQL / T-SQL / MySQL, R, JavaScript, macOS App Store Deployment

Data & Analytics: SQL Server, Power BI, SSRS, Cognos, Tableau, Advanced Statistics, Epidemiological Analysis, EHR Backend Integration

Healthcare & Compliance: HIPAA, On-Premise PHI Handling, Revenue Cycle Management, Medicaid/Medicare Managed Care, Population Health Surveillance, Outbreak Response

Infrastructure: VMware vSphere, Veeam, On-Premise BI & AI Architecture, Database Design, Systems Administration

EDUCATION

Master of Public Health (MPH) | CUNY Hunter College | 2010

Health Policy & Management / Epidemiology & Biostatistics

Bachelor of Arts | CUNY College of Staten Island | 2007

Sociology & Anthropology

CERTIFICATIONS

AI in Medicine — Foundations and Applications | Harvard Medical School (HMX) | April 2026

SELECTED PUBLICATIONS · 83 PEER-REVIEWED CITATIONS

- The Hub Population Health System: distributed ad hoc queries and alerts. Buck MD, Anane S, Taverna J, et al. Journal of the American Medical Informatics Association (JAMIA). 2012;19(e1):e46–50. - Describes NYC's first real-time distributed population health surveillance platform, now in use across 700+ practices and 6,000+ providers citywide.
- Developing public health clinical decision support systems (CDSS) for the outpatient community in New York City: our experience. BMCC Public Health.
- Study of electronic prescribing rates and barriers identified among providers using electronic health records in New York City. Amirfar S, Anane S, Buck M, Taverna J, et al. Inform Prim Care. 2011;19(2):91–7.