

THOMAS M. WHITE, MD, MS, MA

1305 Eagle Bay Drive, Ossining, NY 10562 • (917) 923-7209 • tw176@columbia.edu • www.tomwhitemd.com

Specialist in predicting national healthcare and research challenges, with proven, 15 year track record of envisioning and delivering transformational solutions for them.

HIGHLIGHTS

- Solved national healthcare IT standardization problem affecting \$1.8 billion/year in Medicare payments.
- Created two internationally used software suites (CORTEX and Dialogix), used to support over \$100 million in research, and essential to the publication of nearly 1000 peer-reviewed articles.
- Created strategy and tools for eliminating over \$28 million/year in excessive polypharmacy (PSYCKES).
- Recipient of National and Governor's awards for IT innovation and workforce development (PSYCKES).
- Expert in over 50 programming, database, web, XML & statistical languages and frameworks.
- Over 70 publications and invited presentations. Complete list on CV at www.tomwhitemd.com.
- Leading Bureau of 25 staff and consultants with budget over \$2 million.
- Providing strategic vision and thought leadership to national and regional healthcare IT initiatives via active membership on 5 national and 6 regional Health IT and quality improvement committees.

STRENGTHS

- Accelerating Pace of Translational Research
- Architecting & Evaluating Healthcare IT Systems
- Balanced Scorecards & Strategy Maps
- Change Management
- Clinical, Imaging, and Public Health Informatics
- Clinical Trials & Services Research
- Computerized Decision Support
- Business Intelligence Systems
- Consensus Building & Teaming
- Designing & Implementing Clinical Guidelines
- Electronic & Personal Health Records
- Enterprise & Clinical Data Warehousing
- Evidence-Based Practices & Benchmarking
- Joint Ventures & Alliances
- Optimizing System Usability & Client Satisfaction
- Taxonomies, LOINC, UMLS, HL7, SNOMED
- Psychometrics, Epidemiology, Neuroimaging
- Quality & Performance Management
- Shaping National Healthcare IT Standards
- Statistical Analysis, Forecasting, & Data Mining
- Strategic Planning & Analysis
- Transforming the Clinical Research Enterprise
- Web 2.0 & Service Oriented Architectures

EXPERIENCE

Department of Health and Human Services (DHHS), Washington, DC 2005 - Present

Consultant to Office of the Assistant Secretary for Planning and Evaluation (ASPE)

Situation: Despite a year's effort, contractors only achieved 50% of their goal of making the Centers for Medicare & Medicaid Services (CMS)'s mandated long term disability surveys compliant with interoperable Health IT standards. These surveys affect \$1.8 billion in annual payment decisions.

- Recruited to architect and champion innovative solution of creating new standards for missing content, achieving 100% compliance with federal goals within two months at negligible additional cost.
- Lead author on a dozen white papers and invited presentations which culminated in a Federal Register notice mandating that this process be used in all Federal Healthcare IT purchases that include assessments of functional status. This process was also endorsed by standards development organizations (LOINC, SNOMED, HL7) and the federal steering process for standards (NCVHS, CHI, DHHS, and HITSP).

New York State Office of Mental Health, New York, NY 2001 - Present

Director, Bureau of Mental Health Informatics (2004 - Present)

Chief, Unit of Psychiatric Informatics (2003-2004)

Assistant Director, Bureau of Evidence Based Medicine (2001-2003)

Challenge: OMH strives to be the national leader in implementing evidence based practices for people with mental illness, but lacked the informatics infrastructure needed to achieve that goal, including an enterprise-wide clinical + financial data warehouse, disease management and business intelligence systems, computerized decision support, data standards, and an adequate electronic health record. It was also unable to train new informaticists.

PROVEN LEADERSHIP

- Recruited to envision and lead a series of initiatives to improve statewide IT systems and business processes for accountability, best practices, care coordination, quality, safety, and cost-effectiveness.
- Rapidly promoted to senior executive level; now managing > \$2 million budget and multi-disciplinary staff of 25 including researchers, statisticians, database architects, and IT application specialists.
- Conceived and executing corporate vision for using informatics best practices to transform mental health research and services delivery.
- Conceptualized new academic Division within Columbia University focused on transforming the mental health research enterprise and training next generation of MH informaticists.

SPECIALIST IN CLINICAL DECISION SUPPORT SYSTEMS

- Architected and oversaw construction of enterprise data warehouse and reporting systems which federate data from multiple state-wide clinical, financial, and administrative systems including Medicaid, pharmacy, lab, clinical, safety, and outcomes content.
- Designed and evaluated the national-award-winning PSYCKES project (<http://psyckes.omh.state.ny.us/>), a web-based disease management, quality improvement, and cost-containing decision support system used to implement clinical best practices. PSYCKES resulted in 41% reduction in polypharmacy, and 58% reduction in excessive doses.
- Architected the Rational Pharmacotherapy Quality Improvement (RPQI) initiative which eliminated, in 3 months, 50% of the suboptimal prescribing which remained after implementation of PSYCKES.
- Identified \$28 million in annual cost savings by implementing PSYCKES and RPQI statewide, and leading enhancement of these systems to support statewide quality improvement goals.

EXPERT IN ELECTRONIC MEDICAL RECORDS

- Coordinated usability analysis of existing electronic medical record (EMR).
- Spearheaded benchmarking and review of vendors competing to be new statewide EMR.
- Researched unique needs of behavioral health electronic health records, and championed their codification within federal CCHIT process.

Columbia University, New York, NY

1999-2001

Fellow

Challenge: Although numerous web-based survey and computer aided interviewing tools exist, none can support the complex branching, tailoring, scoring, multi-lingual, statistical, and psychometric needs of the hundreds of semi-structured interviews and surveys used within mental health research. This lack of tools was halting over \$10 million of NIH funded research.

- Created Dialogix (<http://www.dialogix.org>), an internationally used system for rapidly designing, conducting, and analyzing multi-lingual surveys and public health research.
- Dialogix has supported over \$100 million in NIH-funded grants and still bests most commercial systems.
- Extensions to Dialogix have become the national standard for representing survey instruments.

National Council on Compensation Insurance, Boca Raton, FL

1999

Consultant

Challenge: NCCI lacked robust database, content management, and version control systems for its products, preventing it from web-enabling its intellectual property.

- Architected an XML/XSLT and web-based content management system for the company's intellectual property, achieving all goals in 1/8th the time and for 1/20th the cost of the next lowest bidder.

Memorial Sloan Kettering Cancer Center, New York, NY

1994

Consultant

Challenge: MSKCC's Vision Laboratory was conducting functional MRI brain imaging studies for basic research and pre-surgical planning, but lacked tools to process, visualize, analyze, and report their results.

- Designed and created fMRI, a PV-Wave-based software suite for conducting multi-dimensional image visualization, alignment, segmentation, analysis, and publication of fMRI studies.
- System exceeded all expectations, and a decade later, is still driving most of lab's analysis and reporting.

National Institutes of Mental Health, Bethesda, MD

1989 - 1997

System Architect and Consultant

Challenge: NIMH needed tools for designing, conducting, and analyzing real-time brain imaging research. It also had a two year backlog of data, and needed tools to automate the statistical analysis and results reporting of those data.

- Created CORTEX (<http://www.cortex.salk.edu/>), an internationally recognized software suite for real-time data acquisition and experimental control, and maintained it while attending medical school.
- Created a statistical analysis suite and custom statistical programming language which let researchers analyze a two-year backlog of data in three months.
- Both systems used by hundreds of researchers internationally, and essential to the publication of over 1000 research articles.

EDUCATION

MA, Department of Medical Informatics, Columbia University, New York, NY

1999 – 2002

MD, Cornell Medical College, New York, NY

1999

MS, Neuroscience, Cornell Medical College, New York, NY

1997

PhD Candidate (ABD), Neuroscience, Cornell University, New York, NY

1990 – 1997

BA, Neuroscience, Oberlin College, Oberlin, OH

1985 – 1989

AWARDS

- Council of State Governments Innovations Award for PSYCKES, 2005
- Governor's Workforce Development Award for PSYCKES, 2004
- Phi Beta Kappa, Sigma Xi
- Member 5 National and 6 Statewide Health IT committees including 6 elected memberships.
- Complete list at www.tomwhitemd.com

TECHNICAL SKILLS

- **Specialized Skills:** Enterprise data warehousing, healthcare interoperability standards, decision support systems, ontologies , voice-applications, data mining & real-time operating system development.
- **Languages:** Over 20 years of programming experience ranging from Z80 assembly to Java – including APL, C/C++, IDL, JavaCC, Lex, LISP/Scheme, Perl, Prolog, Python, Ruby, SQL, and Tcl/Tk.
- **Databases:** Over 10 years of development, management & use of DB applications including MySQL, Oracle, and Teradata via ODBC, JDBC, JPA, PHP, and custom interfaces.
- **Web:** Expert in Java, JavaScript, JSP, ASP, PHP, HTML, CSS, XML, XSL/XSLT, XPath, XForms, VoiceXML, 18N, SMIL, most Apache Jakarta projects, and many W3C standards.
- **Statistics:** Expert in SAS, SPSS, Matlab, PV-Wave, and IDL.

OTHER

- Volunteer tutoring of children with learning disabilities.
- Cognitive enhancement therapy.
- Hiking, dancing, juggling, bicycling, martial arts.