SCOTTSDALE INSTITUTE

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FROM CMIO TO CHIO:

INFORMATION, INTEGRATION AND INNOVATION

May 31, 2016

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You may contact us at
scottsdale@scottsdaleinstitute.org / (763) 710-7089.

LUKE WEBSTER, MD
VICE PRESIDENT & CMIO
CHRISTUS HEALTH

luke.webster@christushealth.org
@LukeWebsterATL

- Over 20 years of clinical and health informatics experience specializing in health informatics and physician leadership including service as the senior physician with The Southeast Permanente Medical Group in Atlanta
- First CMIO for CHRISTUS Health in Dallas, led the creation and staffing of a Health Informatics department for a complex Integrated Delivery Network with both US and International operations
- Under his leadership, CHRISTUS Health has rapidly progressed to a successfully implemented Electronic Health Record with high physician adoption and Meaningful Use attestation
- Brought evidence-based medicine programs, tele-medicine and remote patient monitoring capacity to CHRISTUS as well as the foundation of what will become an advanced clinical intelligence/health analytics platform

PAM ARLOTTO, MBA, FHIMSS
PRESIDENT & CEO
MAESTRO STRATEGIES

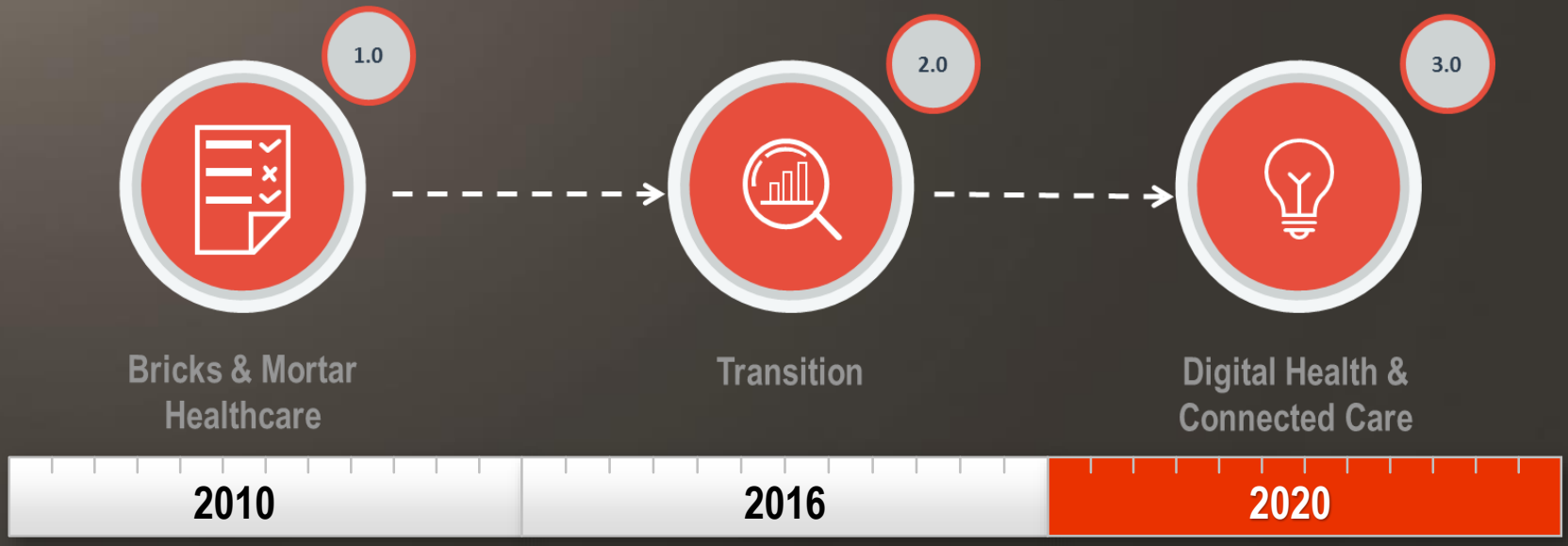
parlotto@maestrostrategies.com
@PArlotto

- 36 year track record as a healthcare industry consultant, thought leader and entrepreneur
- Fellow and Past National President of HIMSS, HIMSS 50-in-50 top HIT thought leaders
- Frequent speaker and author, HIMSS all time best selling series on HIT ROI and winner Book of the Year
- Service as Board Member:
  - The Georgia Tech Foundation and Alumni Association
  - The Wallace H. Coulter Department of Biomedical Engineering at GA Tech & Emory University School of Medicine
  - The Scheller College of Business at Georgia Tech
  - Advisory Boards of several privately held healthcare companies
- Faculty of UAB Health Informatics Masters program
- Member ACHE, HFMA and AMDIS Foundation

RESEARCH APPROACH

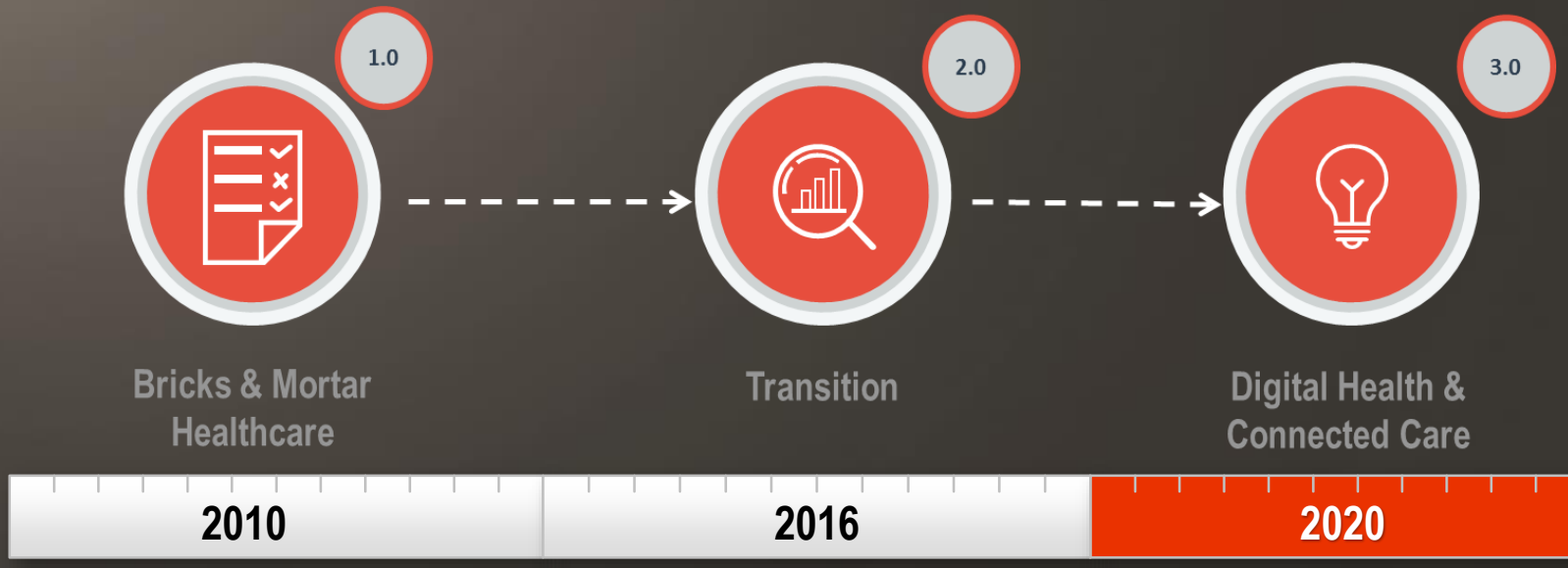
- Conducted qualitative interviews with over 60 CEOs, CMOs, CIOs, CMIOs and CNIOs at leading Integrated Delivery Networks
- Partnered with Christus Health and other clients, as well as University HealthSystem Consortium – Quality Award Winners
- Asked key questions such as:
  - What are the enterprise strategic priorities given the transformation from volume to value?
  - How are the information and technology leadership roles changing?
  - Describe the responsibilities of:
    - Information Technology
    - Health Informatics
    - Analytics
    - Quality

TRANSFORMATION FRAMEWORK – ENTERPRISE STRATEGY



*"In the past, medical/clinical informatics was about **automating existing** clinical processes in hospitals" (Stead 2005) "Today and tomorrow, health informatics will be about **transforming** clinical decision-making and work processes across the care continuum" (Brown, Patrick, Pasupathy 2013)*

TRANSFORMATION FRAMEWORK – THE "PIVOT"



"The future will be about getting the right information to the right person at the right time to make the right decision to create value"

THE "PIVOT"

Micro (1.0) View

- Represented by 1 encounter between 1 physician and 1 patient within 1 entity

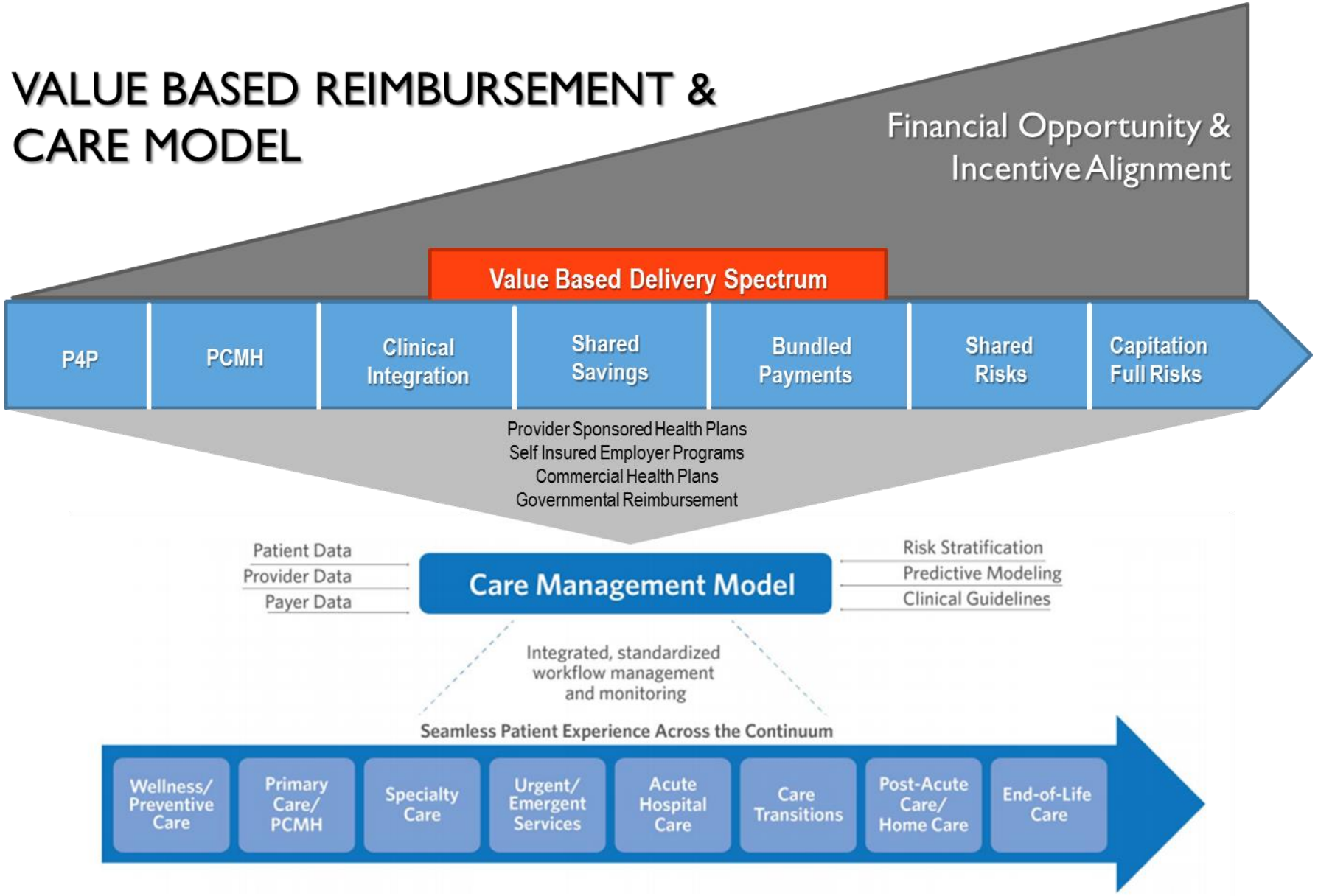
EHR does not fundamentally change the clinical decision making process

Macro (2.0 & Beyond) View

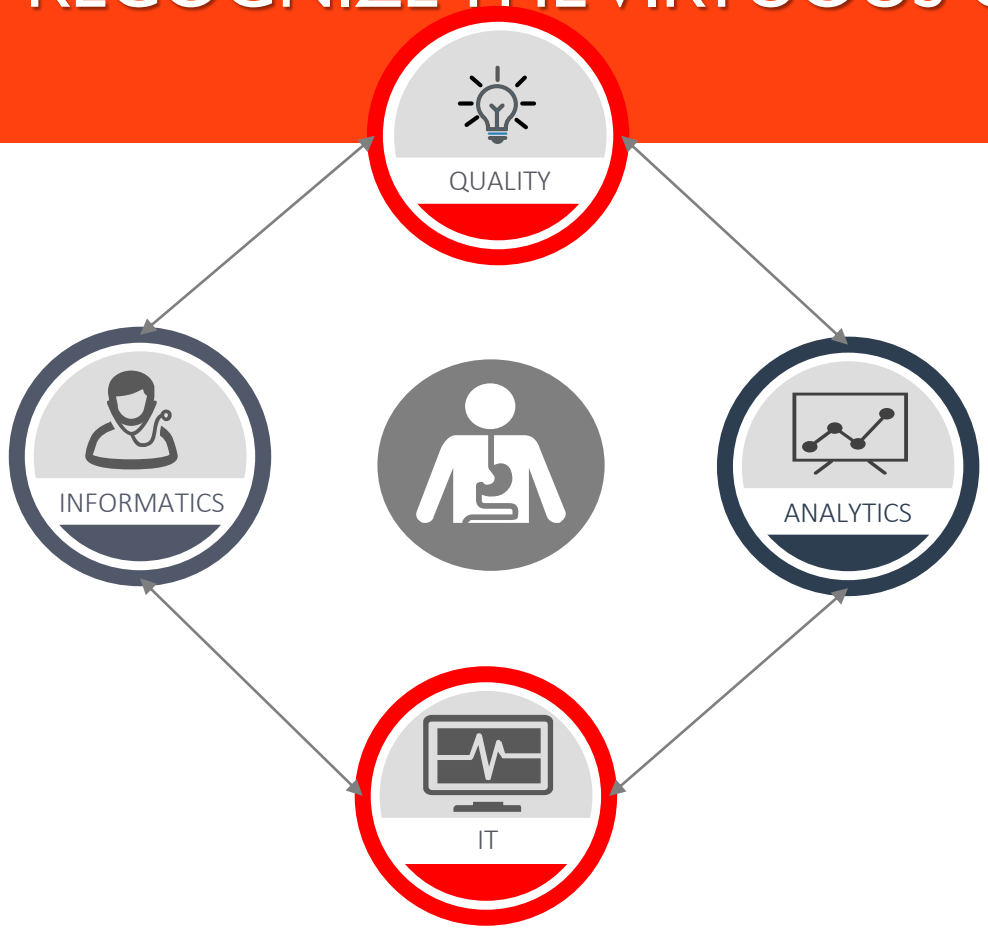
- Characterized by multiple or ongoing encounters, by patients with chronic disease (& multiple comorbidities) getting treatment from many providers
- Transcends time, geography, professional domains, organizations and technology
- Focused on population health, patient experience and reduction in total cost of care

Clinical integration and new payment models drive new clinical decision making processes in connected, patient centered care models

VALUE BASED REIMBURSEMENT & CARE MODEL



RECOGNIZE THE VIRTUOUS CYCLE



"There is a virtuous cycle created by having the foundational IT systems in place, applying health informatics skills to help make the systems 'smart', building analytics capabilities to inform decision making and partnering with quality to drive performance improvement and transformed care processes."

John Fox, CEO, Beaumont Health

TYPICAL 1.0 INFORMATICS ATTRIBUTES

Bricks & Mortar Healthcare

- CMIO is often known as the “doctor” in IT and reports to the CIO
- Assumes role of cheerleader or “doctor police”
- Informatics resources are distributed across the health system
- Reactive, focused on responding to requests
- CMIO has limited budgetary authority
- C-Suite often is unclear of role

Key Take-Away

The CMIO is focused the tactics of MU and EHR adoption at the entity level

EMERGING 2.0 INFORMATICS & ANALYTICS ATTRIBUTES

- CMIO is aligned with Clinical leadership – Chief Medical Officer, Chief Clinical Officer, Chief Transformation Officer or Chief Integration Officer
- CMIO must "pivot" focus from EHR adoption to people, process, information and change – value realization
- Expands responsibility beyond acute care to the "system of care" or enterprise, analytics and innovation
- Dyads, triads, matrix and "dotted line" leadership
- Aggregates fragmented resources and defines standard practices

Key Take-Away

The CMIO develops a game plan to formalize Health Informatics

FROM 1.0 TO 2.0: GAME PLAN FOR FORMALIZING HEALTH INFORMATICS & ANALYTICS

- Clear Vision & Strategy for Health Informatics & Analytics
  - Based on enterprise progress toward clinical integration and VBC
- Defined Organization Structure and Operating Model
  - Consolidates informatics and clinical intelligence functions across the enterprise, create COE
  - Considers the entire continuum and the extended enterprise
- Clarify Roles & Responsibilities
  - Data definitions
  - Clinical content and workflows to support protocols
  - Care process change and innovation
  - Foundational EHRs plus Interoperability, Analytics, Care Coordination, Patient Engagement, etc technologies
  - Value measurement based on financial, quality or process metrics

FROM 1.0 TO 2.0: HEALTH INFORMATICS & ANALYTICS OPERATING MODELS

1.0: Decentralized Operating Model

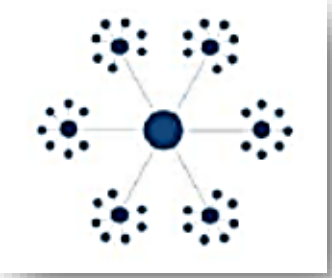
Limited alignment or standardization of people, process, data integrity and use, technology, information policies, etc

2.0: Hub and Spoke Operating Models

Hub - Corporate Standards, Centers of Excellence and Governance

Spoke – “Localization” v “Customization”

Daisy – Multi-Entity and Complex Organizations



Key Take-Away

HI & Analytics Operating Models must align with Clinical Integration Strategies

EMERGING 3.0 INFORMATICS & ANALYTICS ATTRIBUTES

Digital Health & Connected Care

- CHIO has responsibility for information strategy and leadership of Health Informatics & Analytics
- Collaborative leadership across the C-Suite, less focus on dotted lines and who reports to who
- Digital capabilties are woven into the fabric of new business, care delivery & reimbursement models
- New capabilities in predictive and prescriptive management of populations, personalized medicine, virtual care, retail care and consumer behavior management

Key Take-Away

CHIO partners to achieve convergence of quality, informatics & analytics

"Local MIOs support service lines, entities, regions, etc."

CHIO COMPETENCIES

- Thinking systematically about the health system as a whole instead of its components
- Leading change through people, process and the use of information in addition to technology adoption
- Leveraging the health system's investment in clinical, financial, care management, analytics and patient engagement systems to drive value creation and realization
- Improving and reinventing care delivery across the continuum
- Convening multidisciplinary teams to improve care practices and processes

CHIO COMPETENCIES continued

- Collaborating with other members of the C-Suite to lead the convergence of quality, informatics and analytics, and aligning with the overall IT strategy and direction
- Leading teams of informaticists, process engineers, data analysts, content management specialists, change management experts and curriculum designs to standardize care processes
- Enabling patient and consumer engagement through mhealth, social media and stratified health information to improve wellness, prevention and management of chronic disease
- Thinking about emerging trends and enabling innovation

- An international Catholic, faith-based, not-for-profit health system, headquartered in Dallas
  - Comprised of almost 350 services and facilities, including:
  - More than 50 hospitals and long-term care facilities
  - 175 clinics and outpatient centers and dozens of other health ministries and ventures
- Located in over 60 cities in Texas, Arkansas, Iowa, Louisiana, New Mexico, Georgia, Mexico, and Chile
- Has over 13,500 physicians on facility medical staffs who provide care and support for patients
- Recently announced formation of Christus Trinity Mother Frances Health System

Source: www.christushealth.org

Meaningful Use

EHR INCENTIVE PROGRAM

Quality & Patient Safety

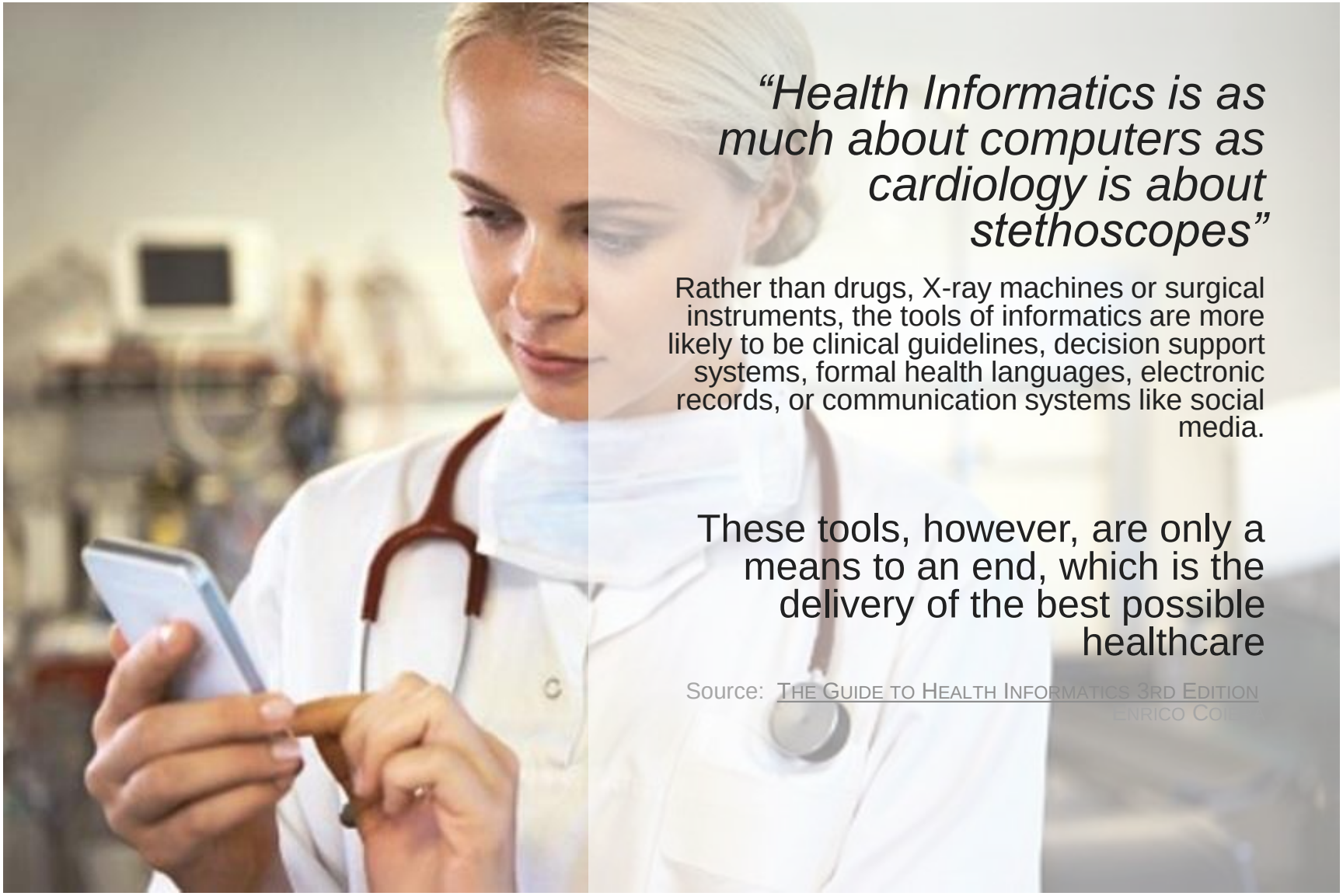
Patient Engagement

Care Coordination

Health Information Exchange

In addition to incentive payments received and penalties avoided, Meaningful Use has positively impacted Christus Health and the patients we serve by setting stage to:

- Use clinical decision support rules to reduce errors
- Provide better communications to patients and engage them more in their health
- Coordinate care across settings and avoiding unnecessary care (ED, readmissions)
- Securely exchange patient information between hospitals and providers



“Health Informatics is as much about computers as cardiology is about stethoscopes”

Rather than drugs, X-ray machines or surgical instruments, the tools of informatics are more likely to be clinical guidelines, decision support systems, formal health languages, electronic records, or communication systems like social media.

These tools, however, are only a means to an end, which is the delivery of the best possible healthcare

Source: THE GUIDE TO HEALTH INFORMATICS 3RD EDITION ENRICO COI

LEADERSHIP PERSPECTIVE

- Strong leaders have the capacity to move from the field of play to the press box
- By understanding the game from a broader perspective, they see how offense and defense are working together, who is missing the block, who is open for a pass – they are able to execute strategy by considering a larger field of play

Source: Heifetz and Laurie, "The Work of Leadership", Harvard Business Review, Dec 2001

*Many CMIOs fall prey to the "**fix it now**" problem solving approaches that served them so well in clinical practice*

Source: From the Playing Field to the Press Box: The Emerging Role of the CHIO, Maestro Strategies

OBSERVATIONS

- 1.0 enterprise with fragmented care delivery across the continuum
- Multiple VBC initiatives occurring within key markets and across divisions
- Invested in technology to support population health analytics and workflow, yet focus was on implementation and integration
- Early stage clinical integration network, employer contracting, health plan and primary care quality initiatives
- Beyond MU, HI purpose was unclear to enterprise leadership

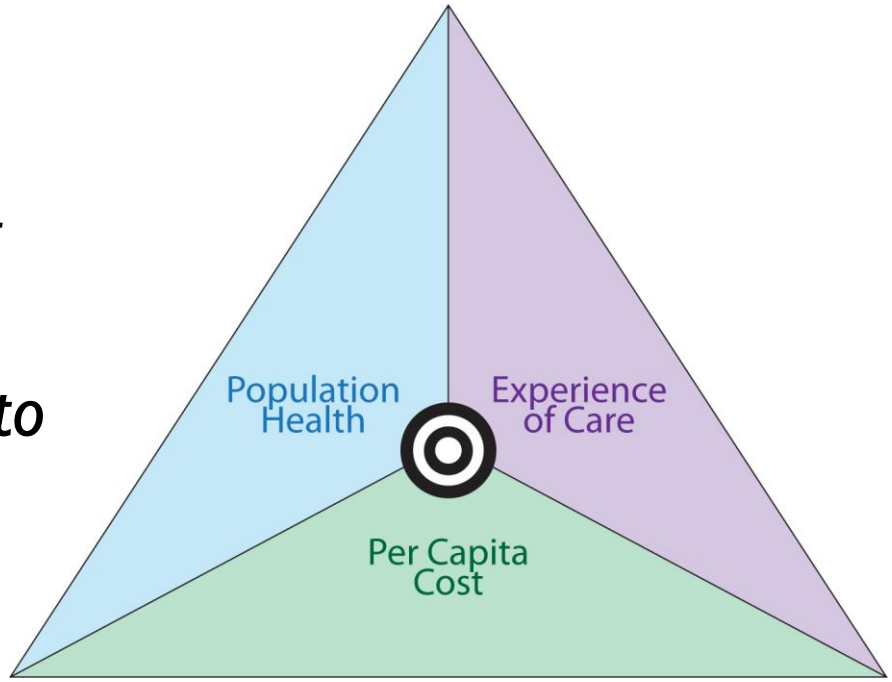
Opportunity

Create a plan for realizing value from clinical intelligence, workflow, improved quality measurement, patient engagement tools, etc.

HEALTH INFORMATICS CHRISTUS Health

"***Health Informatics*** *embraces the transforming power of people, process, information and technology to drive the Triple Aim"*

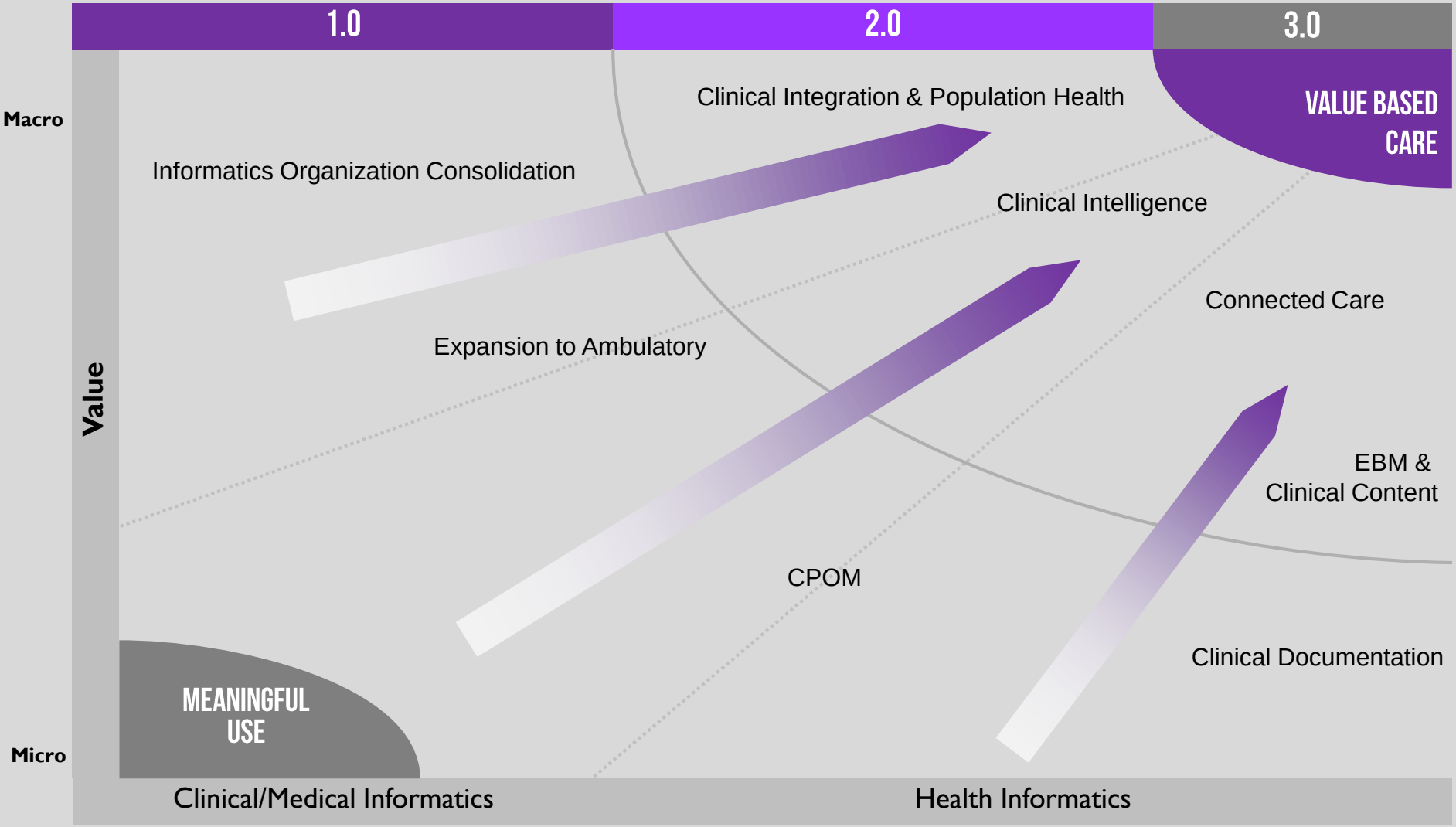
Triple Aim



THE STRATEGIC VIEW OF THE CHIO (2.0+ CMIO)

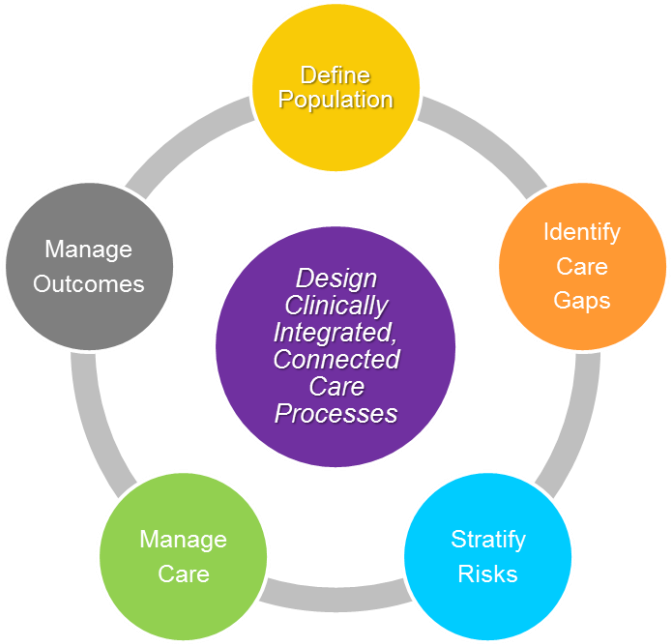
- Transition from meaningful use compliance *enabled* authority to:
  - Strategic leader within division of Clinical Excellence, 2.0 and 3.0 enterprise strategy leadership
  - Partnerships and collaboration with Chief Clinical Officer, Chief Medical Officer, Chief Nursing Officer, Chief Quality Officer and others
  - Create HI Center of Excellence
  - Focus on people, process, information and change to drive value
  - Clarity regarding Information Technology and Health Informatics roles and responsibilities

HEALTH INFORMATICS TRANSFORMATION MAP

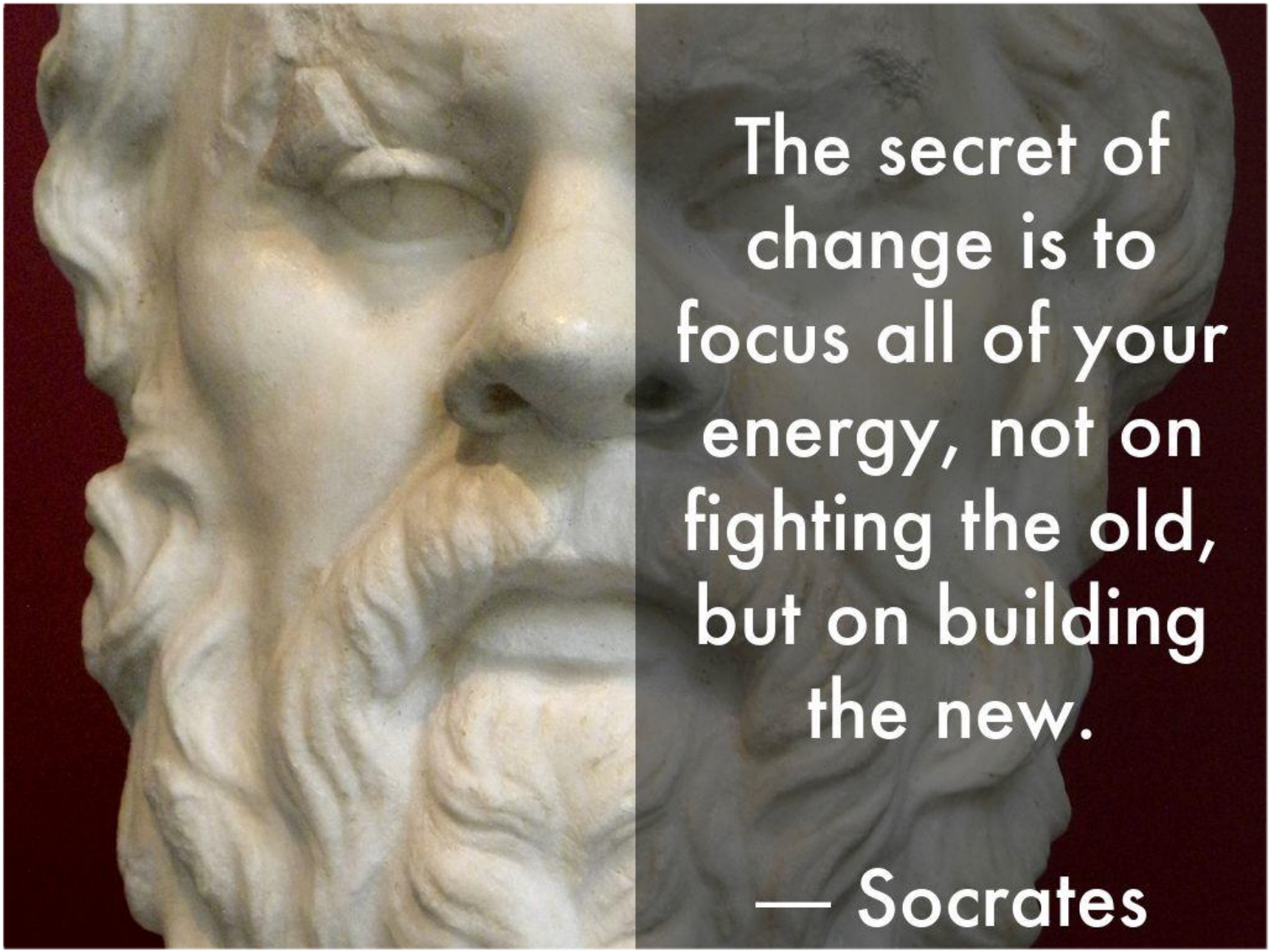


FUTURE ROLE OF HEALTH INFORMATICS

- Leadership of Christus Health's strategic use of data and the resulting clinical knowledge
- Support population identification and risk stratification
- Design multichannel patient and provider outreach, alerts and monitoring
- Curate, combine and automate medical content to support protocols
- Extend analytics insights to improve care, predict and prescribe new care processes
- Collaborate with developers of CIN & ACO care models
- Measure and communicate value



Source: Institute for Health Technology Transformation, "Population Health Management: A Roadmap for Provider-Based Automation in a New Era of Healthcare," http://ihealthtran.com/pdf/PHMReport.pdf, April 2012.


The secret of change is to focus all of your energy, not on fighting the old, but on building the new.
— Socrates