Making Your Investment In Clinical Data Count



Presented By:

Gaurav Kumar, Senior Director of Product Management – Ciox Health

Paulo Pinho, MD, Vice President & Medical Director of Innovation – Diameter Health





We are a network of health care professionals addressing the challenges posed by the emerging landscape of value-based care and government health care reform.

OUR MISSION

Our mission is to provide a community for like-minded professionals to come together for networking, education, and industry collaboration to stay ahead and advance their careers.

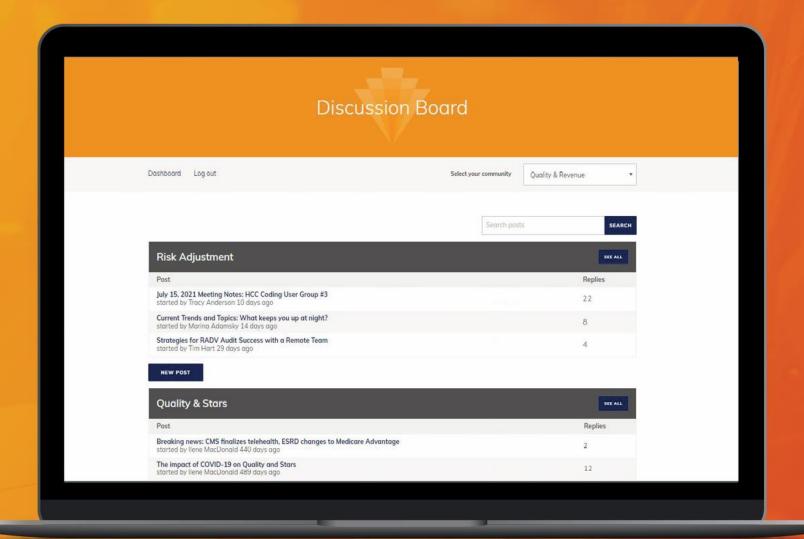
ONE ASSOCIATION THREE COMMUNITIES







LEARN MORE AT THE RISEHEALTH.ORG/MEMBERSHIP



ASK YOUR QUESTIONS IN OUR DISCUSSION BOARD

Today's Discussion

Clinical Data:

Why Now?

Challenges to Effective Use of Clinical Data

Best Practices for Clinical Data Integration

Case Study

Audience Q&A



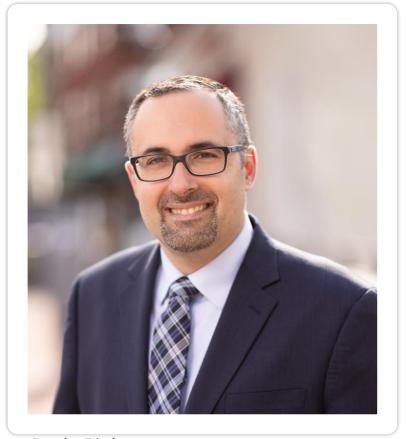
Speakers







Gaurav Kumar Sr. Director Product Management Ciox Health



Paulo Pinho
VP and Medical Director of Innovation
Diameter Health



POLL – more value

How mature is your organization's utilization of clinical data?

- Simple, acquire data for single use case
- Effective, our program is up and running for multiple use cases
- Mature, we have an enterprise approach
- Other



Clinical Data: Why Now?



Digital data acquisition is enabling a shift in member data sourcing





MEMBERS TARGETED

Retrieving medical records for sub-set of the entire member populations based or prioritization (high risk, gap in care, etc.)



PROVIDER TARGETED

Collection of medical record from a specific pre-selected provider office



USE CASE SPECIFIC

Only retrieving partial clinical information based on the requested use case (for example clinical notes, face-to-face visits for RA)



RETROSPECTIVE

Retrieving medical records from previous year date of service

Data retrieval of medical current post visit in the current year

Digital data acquisition is enabling a shift in member data sourcing

PRESENT STATE

FUTURE STATE _



MANUAL RETRIEVAL

Fax, Mail, Onsite, Portal, Copy Service PDF Document



API, CCDs, HIEs, Aggregators XML or FHIR structed data





MEMBERS TARGETED

Retrieving medical records for sub-set of the entire member populations based on prioritization (high risk, gap in care, etc.)

ALL MEMBERS

Collection of data for all members using digital connections





PROVIDER TARGETED

Collection of medical record from a specific pre-selected provider office

QUERY ALL PROVIDERS

Collection of member's data across all available connected providers





USE CASE SPECIFIC

Only retrieving partial clinical information based on the requested use case (for example clinical notes, face-to-face visits for RA)

COMPLETE DATA EXTRACTION

EMR extraction of entire clinical data and filtering to match use case





RETROSPECTIVE

Retrieving medical records from previous year date of service

CONCURRENT

Data retrieval of medical current post visit in the current year



Clinical Data's Potential

- Rich in health details
- Timely
- Valuable for all stakeholders
- Available in high volumes



POLL

For deployment of structured clinical data (CCDA/FHIR), what is the primary use case in your organization?

- Risk Adjustment
- HEDIS and Quality Reporting
- Care Management
- Population Health
- Medical Review/Utilization Management
- Social Determinants of Health
- Other



Use Cases – Risk Adjustment and Beyond

- Risk Adjustment
- HEDIS/Quality
- Gaps in Care
- Care Management
- Population Health
- SDOH/Health Equity



Challenges to Effective Use of Clinical Data

Volume: Billions of encounters

Velocity: Data doubles every 73 days

Fragmentation: Multiple sites of care



Example

hemoglobin A1c HbA1c HGB A1C HGBA1c A1c Hb A1c results [Other] hemoglobin A1c %A1c glycated hemoglobin (A1C) hemoglobin A1c% Result [other] aic glycohemoglobin (A1C) A1c Level glycohgb (A1C) HbA1c (Ref Range: 4.2-6.3)

A1c w/EAG hemoglobin aic % A1c H.A1C HGB A1C:HGB A1c glycohemoglobin A1C% gly.hemoglobin A1c % hemoglobin A1c glycohemoglobin (A1C) hemoglobin A1c: HbA1c HGB/A1C glycosylated HGB A1C3% ha1cb HA1C Hemoglobin A1c

ga1cg A1c % HA1C/glycated hemoglobin HGB A1c hplc Hb A1C% Control A1C hemoglobin glycol HGB A1C HbA1C - controlled diabetic A1C3 glycos HGB A1C glycohemoglobing A1C hemoglobin A1C POC hemoglobin A1C%

LOINC 4548-4 HbA1c %

in a given sample did not use LOINC. There were 50+ different uncoded, textual mappings.

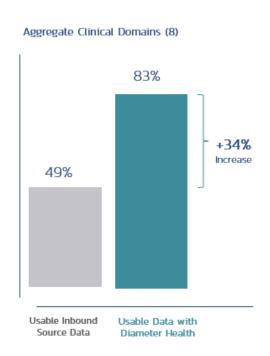
41% of HbA1c results



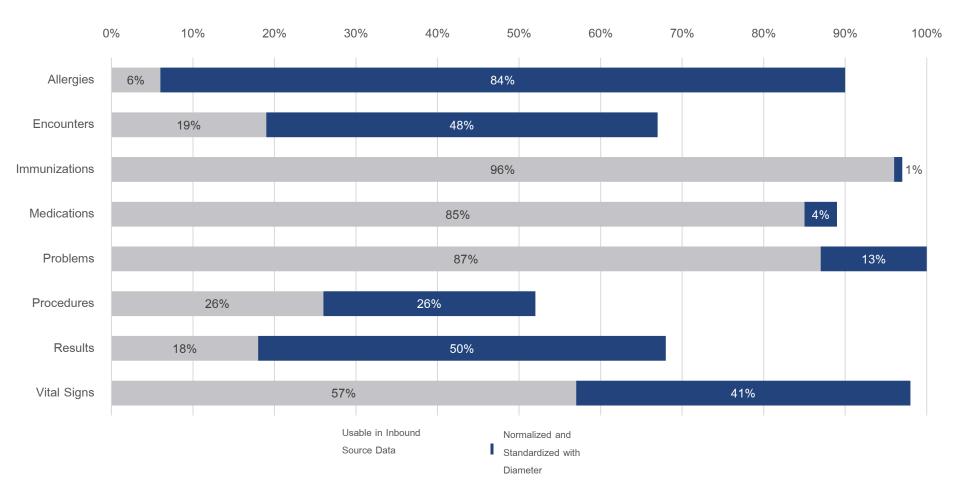


Diameter Health Research Shows Need for Upcycling Data

Upcycle multi-source, multi-format clinical data to increase standardization and interoperability of data







Results based on study performed across cohort of multi-source data spanning 14 EMR systems and >500K clinical documents.



2 primary care office visits - April 2019



AGE

PAST MEDICAL HISTORY

MEDICATIONS

68 years old

- 1. Hypertension
- 2. Hyperlipidemia
- 3. Episodic low back pain
- 4. Posterior wall Myocardial Infarction
- 5. Acute Bronchitis

Aspirin 81 mg tablet - 1 PO QD

Amlodipine 10 mg/ Atorvastatin 20 mg tablet- 1 PO QD

Meloxicam 15 mg tablet - 1 PO QD

Cyclobenzaprine 10 mg tablet – 1 PO Qhs

Acetaminophen 325/ Oxycodone hydrochloride 5 mg tablet -

1 PO Q8h PRN

Nitroglycerin 0.4mg sublingual tablet SL PRN chest pain

Metoprolol Tartrate 50 mg tablet - ½ PO BID

Famotidine 20 mg tablet – 1 PO Qhs

Clopidogrel 75 mg tablet – 1 PO QD

Zithromax Z-pack – use as directed

Inpatient Hospital Stay - April 2021



AGE

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Meloxicam 15 mg tablet - 1 PO QD

Cyclobenzaprine 10 mg tablet – 1 PO Qhs

Acetaminophen 325/ Oxycodone hydrochloride 5 mg tablet -

1 PO Q8h PRN

Nitroglycerin 0.4mg sublingual tablet SL PRN chest pain

Metoprolol Tartrate 50 mg tablet - 1/2 PO BID

Famotidine 20 mg tablet – 1 PO Qhs

Clopidogrel 75 mg tablet - 1 PO QD

Zithromax Z-pack – use as directed

Urgent Care Visit - June 2021



AGE

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Famotidine 20 mg tablet – 1 PO Qhs

Clopidogrel 75 mg tablet – 1 PO QD

Zithromax Z-pack – use as directed

All Encounters



AGE

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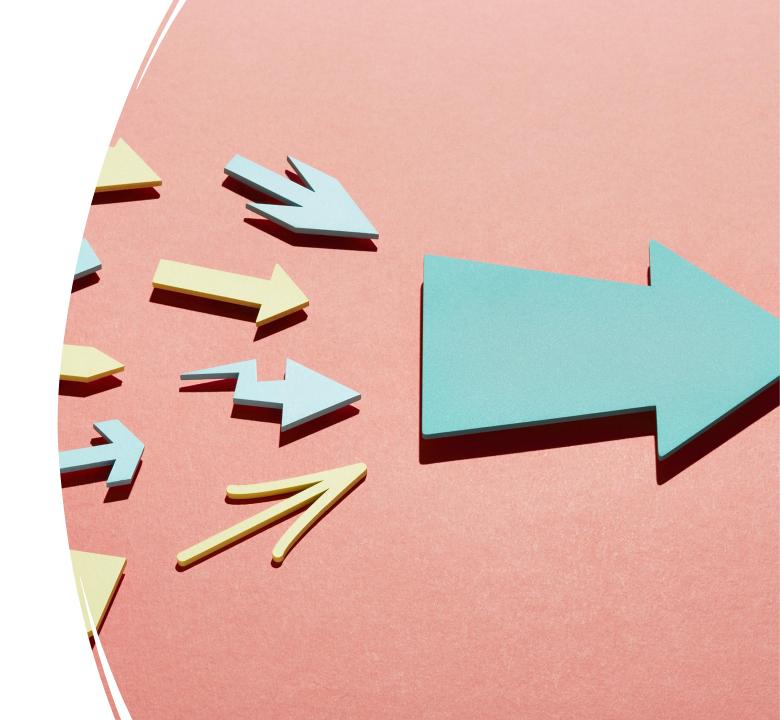
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Best Practices for Clinical Data Integration



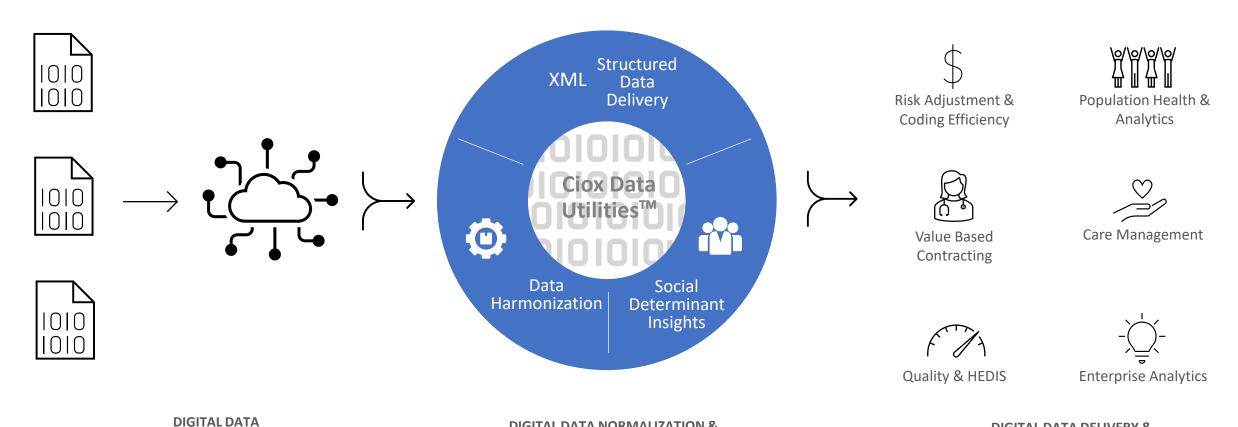
Data Harmonization - Differentiation & Value

- The Ciox Data Harmonization capability for digital charts allows you to **retrieve once and use multiple times.**
- Plug organized and clean CCD content into multiple use cases ranging from risk adjustment to analytics.
 - Chart content that is normalized, deduplicated and summarized
 - Best in industry scalability and speed
 - Automated ingestion of multi-source, multi-format clinical data
 - Consolidated longitudinal data view at a per member level
 - Flexible data output options to support each use case



Ciox Data Utilities™ helps unlock the potential of this data

The expansion of digital data acquisition increases the need for data normalization, summarization and <u>augmentation with member specific data</u>.



DIGITAL DATA NORMALIZATION &

AUGMENTATION

DIGITAL DATA DELIVERY &

APPLICATIONS

ACQUISITION

Ciox Data Utilities™- Social Determinant Insights

Augment harmonized chart data with member & population level socioeconomic factors.

Data Sources

- 70B+ public records
 - Insurance
 - Vehicle
 - Property
- 12K+ regulated data sources
- 5+ petabytes of data!

Stratification Levers

- Member Mortality/Death
- Utilization, Med Adherence and Engagement Risk Scores
- Influencers of Care
- Raw Socioeconomic Attributes





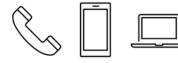




Outreach Enablers

Provides most likely;

- Phone numbers (cell/landline)
- **Physical Address**
- **Email Addresses**











Unlock data acquisition for CMS Advance Notice on SDOH

Harmonized data enables chart level socioeconomic data capture.

Data Collection

- Stratification and outreach data from Social Determinant Insights
- Self reported member data from targeted screenings
- •Z Code capture from charts (NLP) and claims data

Data Reporting

- Chart coding coders can assign Z Codes based on data collected;
- •Z Code capture based on chart stratification
- Assign codes based on self reported member data
- Assign/validate codes from NLP extracts and unstructured notes
- Package data for CMS reporting from coding output

Unlock Use Cases

- Inform member screening touchpoints
- Provider engagement and education (Z Code capture at POC)
- Risk Adjustment suspecting analytics





Q&A



THANK YOU

