

## Augmented Intelligence: Advanced Technology Meets Case Management



Deborah Viola, MBA, PhD
VP, Data Management & Analytics
Westchester Medical Center Health Network



MaryBeth Kurland, CAE
Chief Executive Officer
CCMC



## Agenda

- Welcome and Introductions:
  - Commission for Case Manager Certification
- Presentation:
  - Deborah Viola, MBA, PhD
     Vice President, Data Management & Analytics
     Westchester Medical Center Health Network
  - Question and Answer Session



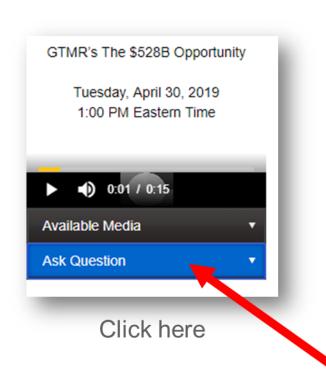


## **Audience Notes**

There is no call-in number for today's event. Audio is by streaming only. Please use your computer speakers, or you may prefer to use headphones. There is a troubleshooting guide in the tab to the left of your screen. Please refresh your screen if slides don't appear to advance.







#### How to submit a question

To submit a question, click on Ask Question to display the Ask Question box. Type your question in the Ask Question box and submit. We will answer as many questions as time permits.





## **Audience Notes**

- A recording of today's session will be posted within one week to the Commission's website, <u>www.ccmcertification.org</u>
- One CCM continuing education credit for board-certified case managers (CCM) and one ANCC nursing contact hour continuing education credit is available for today's webinar only to those who registered in advance and are participating today.





## **Learning Outcomes Overview**

After the webinar, participants will be able to:

- Distinguish among different types of technology and dispel common myths and misconceptions on how "big data" and advanced technology such as artificial intelligence will be applied in healthcare and to the practice of case management
- Describe how tech development teams are approaching the application of advanced technology & analytics -- for utilization management, patient flow, discharge planning, population health, consumer health engagement and other areas across healthcare -- and the intersection with case management
- Illustrate ways that new technology and analytical tools will cause case managers to work differently with both their employers and their clients in the near future and longer term





## Augmented Intelligence: Advanced Technology Meets Case Management



MaryBeth Kurland, CAE
Chief Executive Officer
CCMC

## **CMLearning** network®

A Resource Center for Today's Case Manager











**CarelManagement** 





# Augmented Intelligence: Advanced Technology Meets Case Management



Deborah Viola, MBA, PhD
VP, Data Management & Analytics
Westchester Medical Center



## Augmented Intelligence: Advanced Technology Meets Case Management

#### A Primer

December 5, 2019 CM Learning Network Webinar

> Deborah Viola, MBA, PhD Vice President Data Management & Analytics WMCHealth Network

### **Session Overview**

- Define and distinguish between technology terms
- Identify patient data privacy and security considerations
- Identify how advanced technology intersects with the work of case managers
- Understand how tech development teams are approaching machine learning & AI as part of the case management process



## Agenda

- Technology...Distinctions and Definitions
  - ✓ Artificial Intelligence and Augmented Intelligence
  - ✓ Machine Learning and Human Experience
  - ✓ Interoperability and Intentional Blocking
  - ✓ Patient Privacy and Patient Care
- Case Management
  - ✓ Phases
  - ✓ Analytics
  - ✓ Opportunities





### Healthcare as a Business

- The U.S. spends more than \$3 trillion annually
- This spending represents 18 percent of GDP
- Dollars spent on healthcare reflect opportunity costs to society; these \$ can't be spent on infrastructure, education, or towards other business growth
- Out-of-pocket expenditures have doubled since 1970; these represent opportunity costs to households as evidenced by the rise in medical bankruptcies

## Data, data everywhere!

Typical patient generates 80 MB each year

1 MB of data= 500 typed pages!



30% of entire world's stored data generated by health care industry.

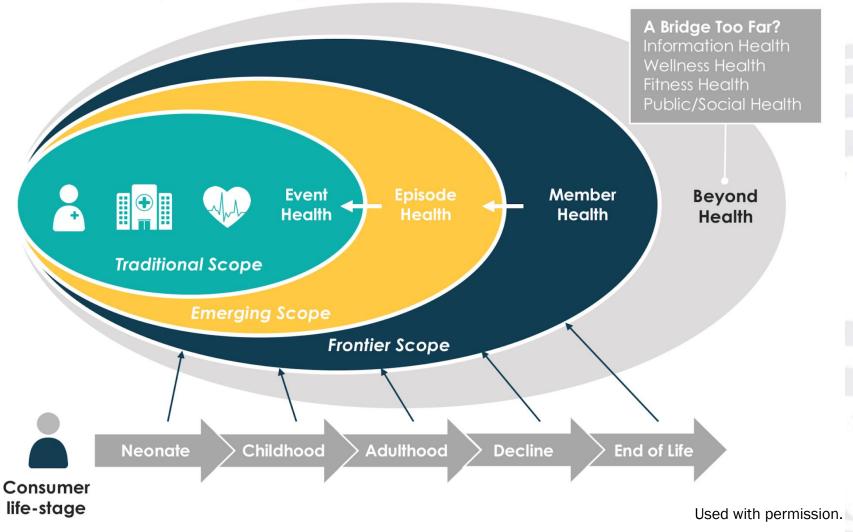


## **Disruptive Payment Models**

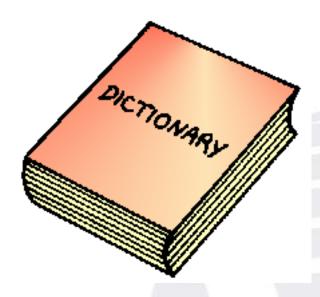
- Transition from traditional fee-for-service to valuebased payment models has fostered a data-driven ecosystem in healthcare
- Negotiation with insurers will become increasingly more important especially around new financial structures, quality measurement and patient centered care
- The data exists but the sources are disparate, access is not always automated, and beyond measuring length of stay or mortality, analytics become more challenging

#### **Building Toward Membership Health**

Future Model Requires Embracing Multiple Roles



Source: Gist Healthcare analysis.



## **Technology...Distinctions and Definitions**

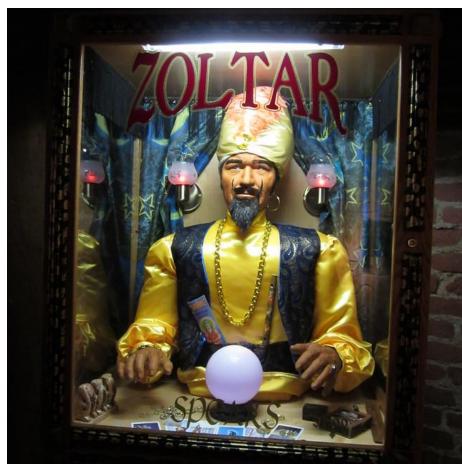


## **Technology Science**

- Technology science is basically about the interaction with and application of human knowledge
- Artificial Intelligence (AI) and Machine Learning (ML) are important factors for success
- Augmented Intelligence is an alternative conceptualization of AI emphasizing the fact that it is designed to enhance and work with Human Intelligence (HI), not replace it



## **Predictive Analytics**





## **Data Spirits**







"Your previous provider refused to share your electronic medical records, but not to worry—I was able to obtain all of your information online."

https://www.newyorker.com/cartoons/daily-cartoon/daily-cartoon-friday-september-11th-healthcare-doctor-visit?verso=true



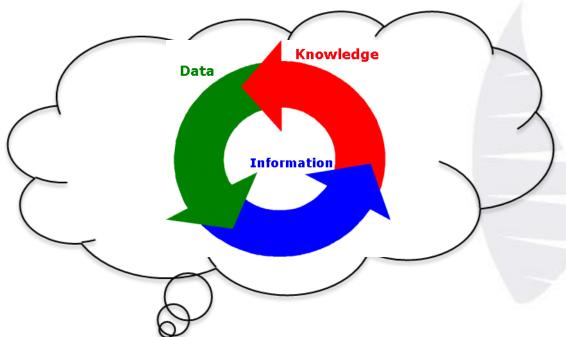
## Big Data: Blocking, [Security, Regulations]





## Big Data: APIs

 Application Program Interfaces are essentially a toolkit of communication protocols and tools to build programs





## Big Data: Disruptive Technology

- Blockchain could be the next disruptive technology in healthcare
  - ✓ What does this mean?



✓ Simply put: Blockchain is an interface between the medical record and other personal data in a cloud based data warehouse that could provide information portability and secure access to critical medical information anywhere, anytime.





## **Case Management**



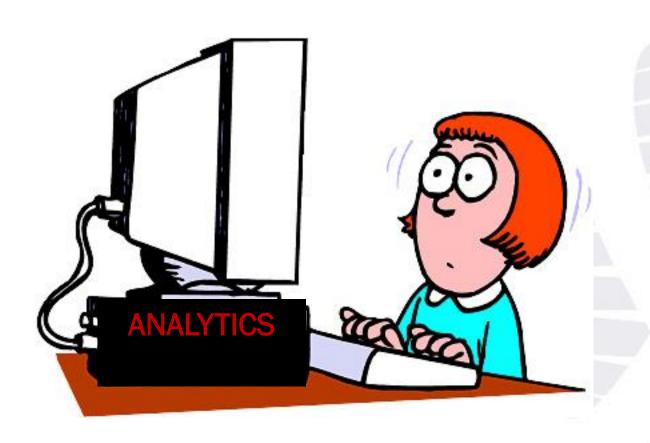
## **Case Management Process**

 "Case management is a collaborative process within the health and human services profession. While the roles of case managers may be different within each organization, the Case Management Process remains a series of phases that work together seamlessly to help clients and their support systems (families, significant others, caregivers, or others) deal with health and other related matters."

**CM Learning Network Course Description** 



## **Transformation in Progress!**





## Al Meets Case Management









### **Question and Answer Session**



Deborah Viola, MBA, PhD
VP, Data Management & Analytics
Westchester Medical Center Health Network



MaryBeth Kurland, CAE
Chief Executive Officer
CCMC

## Thank you!

- Please fill out the survey after today's session
- Those who signed up for continuing education will receive an evaluation from the Commission.
- A recording of today's webinar and slides will be available in one week at <a href="http://ccmcertification.org">http://ccmcertification.org</a>

#### **Commission for Case Manager Certification**

1120 Route 73, Suite 200, Mount Laurel, NJ 08054

1-856-380-6836 • Email: ccmchq@ccmcertification.org

www.ccmcertification.org



