Effective Use of Technologies in RNCM Practice

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Lead Faculty

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- Electronic Health Records
- Meaningful Use
- Certified Electronic Health Records and Health IT (CEHRT)
- Interoperability
- Mobile Technology
- Telehealth
- Patient Portal
- Secured Messaging
- Digital Literacy

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Electronic Health Records, Meaningful Use and Care Coordination

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The Journey to Electronic Health Records

- The roots of current Electronic Health Record (EHR) systems go back to the 1960s and 70s
  - Academic medical centers
    - Electronic Medical Record (EMR)
    - Billing and Insurance Information
  - Department of Veterans Affairs
    - Collaborative EMR using a common platform
    - Documenting patient visits
    - Displaying labs and diagnostics

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- Institute of Medicine:
  - Conducted an analysis of paper health records and computer-based patient records
  - Estimated >100,000 lives were being lost every year due to medical errors

- National Call to Action to:
  - Reduce errors
  - Provide safe and effective healthcare

Health Information Technology identified as key to reducing medical errors by facilitating timely transfer of important patient information

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National Call for System Change

- Private Sector
  - Academic education changes increased focus on safety
  - Federal Funding for pilot projects to create “real world” learning lab for examining HIT in practice
- VA
  - Expanded technology use from EMR to HER
  - Largest integrated EHR delivery system
  - Demonstrated: elimination of lost or incomplete medical records; improved patient safety and clinical quality of care

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- During this time new technologies were also becoming available:
  - Internet
  - Email
  - Personal devices (PDAs, iPod)
  - Cell phones
  - USBs, memory sticks/data transportation devices
  - Online banking and shopping began

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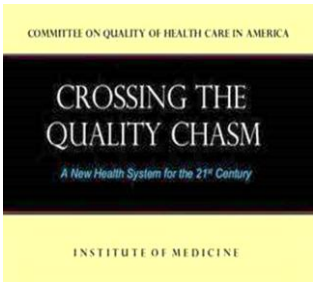
- ***Crossing the Quality Chasm: A New Health System for the 21st Century*** (2001)
  - Identified the development and application of clinical information systems as essential for delivering healthcare that is:
    - **Safer**
    - **Highest quality**
    - **Cost effective**
    - *Today's Triple Aim*



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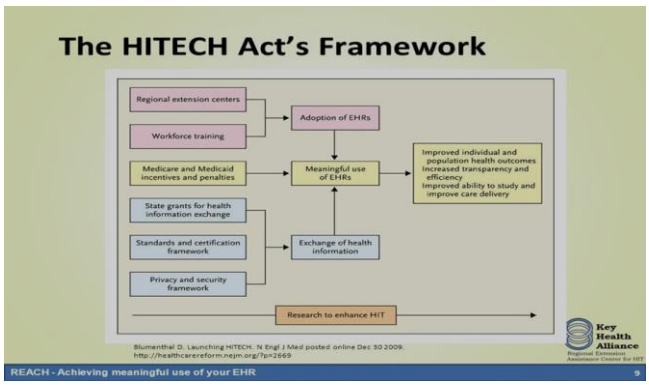
In response:

- VHA comprehensive EHR and clinical information system demonstrated significant outcomes:
  - 70% increase in the number of patients accommodated
  - 37% decrease in the number of people needed to manage medical records
  - *20% decrease* in overall costs per patient
- In the Private Sector:
  - Limited EHR and clinical information system implementation
  - Most care settings still relied predominately on paper records
  - Centers for Medicare and Medicaid reported *>20% increase* in costs

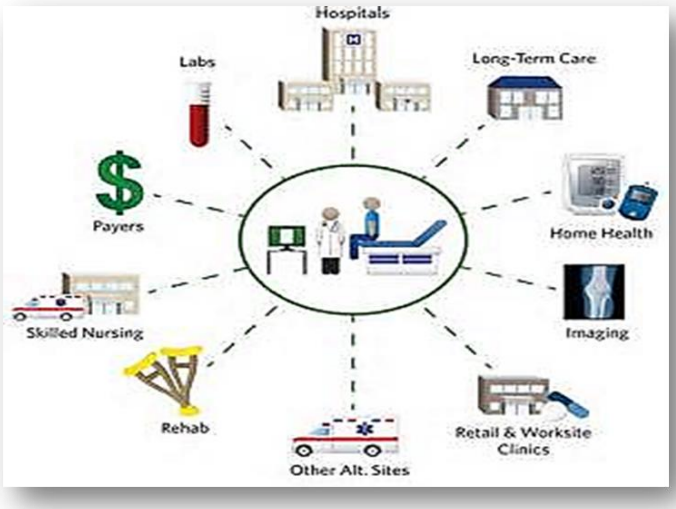
2010 Passage of the ***Patient Protection and Affordable Care Act*** (PPACA)

- Facilitated national transition to EHR and Clinical Information Systems
- Allocated funding to increase the use of EHRs by clinicians and hospitals under the Health Information Technology for Economic and Clinical Health Act (HITECH Act)



Electronic Health Records

- "Real time" patient health records now available
- Can be created, managed, consulted by authorized providers and staff across more than one healthcare organizations
- Patient's health record in now in one place



Certified EHRs and Health IT (CEHRT)

- Office of the National Coordinator for Health Information Technology
- EHR and Health IT Certification Program sets national standards
- Assures purchasers that a system meets:
  - Technological capabilities
  - Functionality
  - Security requirements
  - Interoperability

Goal is to provide nationwide, connected and interoperable HIT Infrastructure - Must be "Meaningful"

Meaningful Use is a Medicare Requirement

- Implemented with the ACA EHR Incentive Program
- Provides the standard to assure PHI is represented in the EHR
  - Medical history
  - Diagnosis
  - Medications
  - Immunization status
  - Allergies
  - Lab and diagnostics
- Also includes:
  - ePrescribing
  - Provider order entry systems
  - Clinical decision support systems
  - Supports analytics

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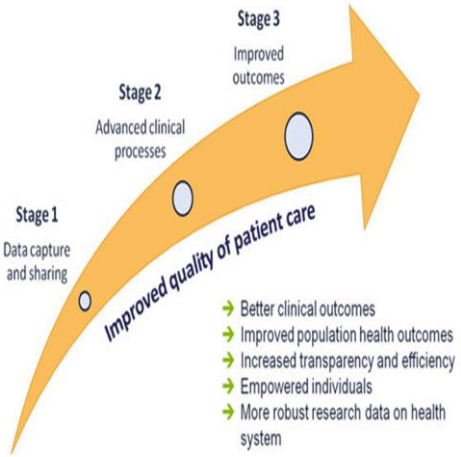
Goals of Meaningful Use

- Better clinical outcomes
- Improved population health outcomes
- Increased transparency and efficiency
- Empowered individuals
- More robust research data on health systems



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Meaningful Use Sets a Standard for Care

- Streamlines workflow and improves efficiency
- Enhances patient safety and care quality
- Improves inter-professional care coordination
- Keeps clinical practice current with the latest evidence-based information

Research shows that standardization of care directly impacts patient safety, enhances care and leads to improved patient outcomes

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What Does This Look Like in Practice?

Stage 1: Meaningful use criteria focus on:	Stage 2: Meaningful use criteria focus on:	Stage 3: Meaningful use criteria focus on:
Electronically capturing health information in a standardized format	More rigorous health information exchange (HIE)	Improving quality, safety, and efficiency, leading to improved health outcomes
Using that information to track key clinical conditions	Increased requirements for e-prescribing and incorporating lab results	Decision support for national high-priority conditions
Communicating that information for care coordination processes	Electronic transmission of patient care summaries across multiple settings	Patient access to self-management tools
Initiating the reporting of clinical quality measures and public health information	More patient-controlled data	Access to comprehensive patient data through patient-centered HIE
Using information to engage patients and their families in their care		Improving population health

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Meaningful Use and Care Coordination

- **MU Puts Measures of Care Coordination in place:**
  - Transitions of care
  - Preventable emergency department visits
  - Potentially avoidable hospitalizations
  - Integration of medication information
- **MU Improves care coordination by:**
  - Decreasing fragmentation between providers and across care settings
  - Organizing and integrating patient health information
  - Making PHI available to authorized providers and patients in real time
  - Issuing alerts ex: hospital admission, discharge
  - Reducing medical errors and unnecessary tests

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Meaningful Use through CEHRT Ensures:

- Communication and improved information sharing with the patient, their caregivers and healthcare team
- View, review and update of medication and allergy lists
- View and enter orders at point of care or off-site
- Documentation and Maintenance of Current Plan of Care representing the patient's health status and decisions
- Access to standardized data, order sets, and clinical practice guidelines to ensure evidence-based care
- Management of populations that includes data, intervention options and outcome studies
- Increased access of care through use of technology including telehealth strategies
- More convenient, faster and simpler self-management related to chronic conditions

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Today

- Significant majority of people now have a "digital footprint" of their health and care experience
- Technology is moving faster than ever before
  - Smart phones
  - iPads and tablets
  - Laptops
  - "The Cloud"
  - Texting and social media
  - Wearable Devices
  - More and more apps
- Patients expect the integration of technologies they use everyday into their healthcare

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Challenges

- Healthcare continues to move forward with the integration of technologies but there are challenges
  - **Confidentiality and security**
  - **Interoperability**
  - **Integration of mobile technology**

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Privacy and Security

- Important for patients to feel that confidentiality and accuracy of their health information is secure
  - If not, they may not disclose important health information to you resulting in health consequences
- Individuals must trust PHI is private and secure to achieve:
  - better health outcomes
  - smarter spending
  - healthier people

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- The same Federal health information privacy protections that apply to paper records also apply to EHRs
- HIPAA Security Rule applies to personal health information maintained in electronic form, sometimes referred to as e-PHI. This includes information in EHRs.
- Your practice, not your EHR developer, is responsible for taking the steps needed to protect the confidentiality, integrity, and availability of health information in your EHR system

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Interoperability

- **Benefits of Interoperability:**
  - Improved care delivery and coordination
  - Improved health of individuals and communities
  - Reduced disparities
  - Increased research and innovation

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Expanding Technology Options

Beyond the EHR

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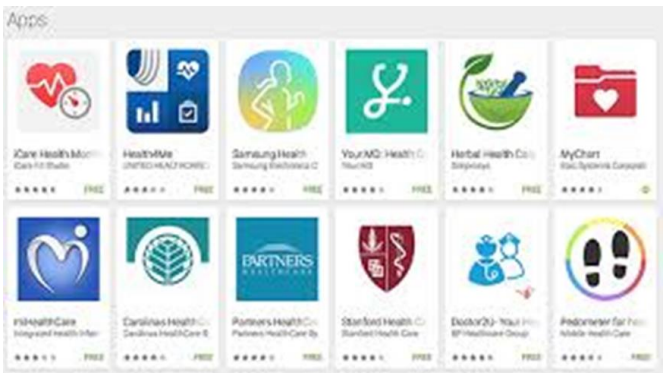
Mobile Technologies or "mHealth"

- Refers to the use of
  - Mobile devices
    - Smartphones
    - Wearables
    - Tablets
  - Apps
    - A type of specialized software that allows you to perform specific tasks

Goal is for patients to be able to engage more quickly, easily and affordably in their healthcare

- Hundreds of downloadable apps on the market
  - Track lifestyle and health behaviors
  - Monitor chronic conditions
  - Manage medications

- **78% of patients using mHealth would like their healthcare team to have access to this information**



Telehealth Platforms

Telehealth is the exchange of health information between a clinician in one location and a patient, caregiver or healthcare provider in another made possible by a variety of electronic communication devices

- Telephonic Assistance
- Secured Messaging
- Telehealth Video Conferencing
- Store and Forward
- Remote Patient Monitoring/Home Based Monitoring

Patient Satisfaction is high with all telehealth platforms regardless of patient age

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Telephonic Assistance

- All nurses use the phone but RNCMs use as the tool to provide a wide range of services to assist patients and their caregivers
  - Reach out to assure support in managing chronic conditions
  - Identify potential or actual health problems
  - Provide guidance in navigating the healthcare system
  - Follow up
- Telephonic Assistance improves health outcomes that include decreased ED visits and hospital readmission rates for specific populations of patients (AHRQ, 2019)
  - Asthma/COPD
  - Heart Failure

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Secure Messaging

- Interfaces with the EHR
  - Can only be accessed by authorized users
- Meets Meaningful Use
  - Allows you to write/send a message using a text or email format, save drafts, review your sent messages, maintain a record of the communication
- Security Mechanisms Prevent accidental or malicious disclosure of PHI
  - Unable to send messages outside of the network
  - Unable to copy, paste or forward encrypted data or save it to an external hard drive
  - Automatically logs the user off the app after a period of inactivity
- **HIPAA compliant** replacement for unsecure channels of communication including text and email

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Appropriate Secured Messaging Use includes:

- Asking non-urgent, non-emergency health related questions
- Updating your healthcare team on your health condition
- Requesting referrals and medication renewals
- Managing your appointments
- Asking routine administrative questions
- Receiving education materials

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Telehealth Services

- Real time video conferencing
  - Patient visits/Specialty consults
- Store and Forward
  - X-rays/MRIs/Photos, etc.
- Remote Patient Monitoring
  - BP/Weight/HR/BS/Pulse O2
- Currently >75% healthcare organizations offer telehealth services
  - 20% in 2011

HIPAA Compliance requires use of telehealth services within a secure EHR system to transmit and receive PHI

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Enables Healthcare Organizations to:

- Provide access to critical services in real time
- "Team Up" with healthcare professionals to improve chronic illness management
- Implement home monitoring programs that result in earlier intervention
- Address shortage of healthcare providers an/or limited services
- Provide consultations with community partners to reduce costly transports, ED visits (i.e., nursing homes)
- Participate in Clinical Education and Research
- **RNCMs Use Telehealth Services**
  - Enhance patient care delivery and coordination
  - Engage patients and caregivers in their healthcare
  - Support self-management of chronic conditions

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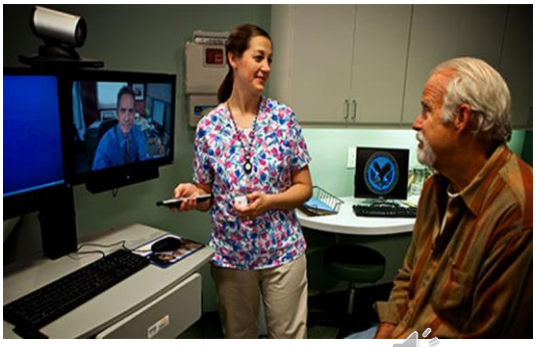
Real time Video Conferencing Telehealth (Virtual Visits)

- Realtime health interaction between a health professional and a patient/caregiver or provider via a live videoconference link
- Often referred to as Telemedicine when clinical services are provided using this platform
  - Assess, treat and provide care remotely
  - Can be used for:
    - Primary Care
    - Acute, Episodic Care
    - Specialty Care
    - Health Promotion
- Video Conferencing can also be used for case review, education, administrative meetings, research



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Store and Forward Telehealth

- Uses technologies to asynchronously acquire and store clinical information that is then forwarded to or retrieved by a provider at another location
- Examples:
  - TeleDermatology
  - TeleRetinal Imaging
  - TeleStroke
  - TeleWound

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Remote Patient Monitoring Telehealth

- Also referred to Home Monitoring
- Uses wearables and home monitoring technology that allows patients to gather their own health data and send to an RNCM for assessment and follow up
  - BP
  - Weight
  - Pulse O2
  - Heart Rate
  - Blood Sugars
  - Peak Flows
- Designed specifically for high-risk patients with chronic conditions
  - Diabetes
  - Heart Failure
  - COPD

RNCM is Point of Contact

National Registered Nurse Case Manager Certificate Program

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Telehealth Services Benefits and Challenges

Improved Health Outcomes

- Increased access to care for rural and disparate populations
- Earlier diagnosis and treatment
- Reduced mortality rates, complications, hospital stays and readmissions
- Increased patient and family engagement
- Increased satisfaction with care

Challenges

- Lack of internet/broad ban in rural areas
- Overall shortage of health care providers for telehealth users who may require in-person follow up care
- Establishment of Standards and Best Practices including research funding
- Reimbursement

National Registered Nurse Case Manager Certificate Program

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Technology and Successful RNCM Practice

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Effective Use of Technology Key to RNCM Practice

CHANGING:

- The way we interact with:
  - Patients
  - Their Caregivers
  - The Healthcare Team
- How we
  - Communicate
  - Engage
  - Support

Directly linked to outcomes & payment

- Patient Experience
- Population Health
- Effective Care Coordination

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New Skills Needed

Computer Skills

- Word processing
- Spreadsheets
- Data Bases
- Presentations
- Web browsing

- May require additional education

Nurses commonly overestimate their professional proficiency with technology

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Information Literacy Skills

- Find
- Retrieve
- Analyze
- Use Data to tailor interventions

- May require additional education

Practice Tip: Develop relationships with HIT personnel within your organization

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Selection and Correct Use of Technology Options

- Keep abreast of new technology options
  - Super User
  - Subject Matter Expert
  - Best Practice Use
- Educate and inform patient about technology options to manage care
  - Identify what patients would like to use
- Practice in a way that protects patient privacy and security
  - Follow HIPAA Standards

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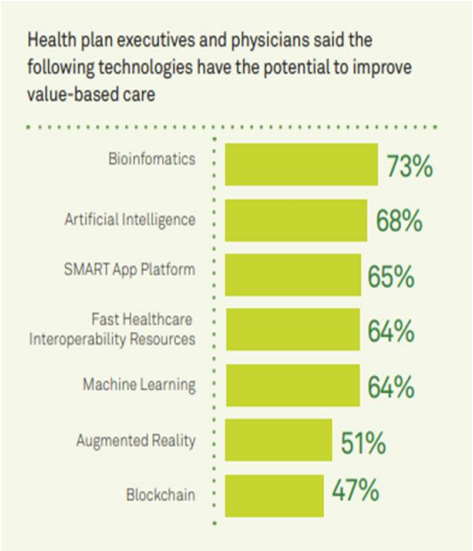
Moving Forward

- **Robust EHRs should be able to cut down on redundant testing**
- Bioinformatics should be able to give clinicians better clues about a patient's individual health
- **AI should be able to analyze data in a way that individualizes care**
- Blockchain systems able to surmount interoperability challenges by sharing data across different health systems.
- **Mobile technologies shift focus to provide data in ways both patients and clinicians can use to improve health outcomes**



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The Future of Healthcare

- More than just universal EHR adoption or smartphone use, the healthcare of the future
  - **reinvents the care-delivery model**
  - **rethinks reimbursement**
  - **retools technology**
- Innovations that realize the triple aim

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Next Steps

- Watch the videos that accompany this lecture
- Review the posted Resources. Download any you would like to keep.
- Complete the Practice Development Activity
- Take the Test Your Knowledge Self-Assessment Quiz
- When you're ready move onto the next topic

- Questions? Let me know:
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