HIMSS Innovation Community Webinar: a Project Management Series

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May 28, 2020
Telehealth Project Management: Unique Challenges and Critical Success Factors

Patrick Mattis, DNP, MSN, MSCS, RN-BC, CPHIMS, CNE

Chair and Professor at Lincoln University, and the Chief Nurse Administrator
Agenda

- Welcome
- HIMSS Innovation Community Updates / Announcements
- A word from the Project Management Work Group Chairs
- Presentation:
  - Telehealth Project Management: Unique Challenges and Critical Success Factors
- Live Q&A
- Wrap-Up / Next Steps
Updates and Announcements
Share. Have a COVID-19 related process or solution that's working well in your organization? Submit it.


Ask. Have questions about a solution? Comment on it and engage in the discussion.
Project Management
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Welcome

Patrick Mattis, DNP, MSN, MSCS, RN-BC, CPHIMS, CNE

Chair and Professor at Lincoln University, and the Chief Nurse Administrator
Project Management of Telehealth: Unique Challenges and Critical Success Factors

Patrick Mattis, DNP, MSN, MSCS, RN-BC, CPHIMS, CNE
Director & Chair /Professor Lincoln University
Speaker

Dr. Patrick Mattis
DNP, MSN, MSCS, RN-BC Informatics, CPHIMS, CNE
Director & Chair Department of Nursing
Professor Lincoln University
Objectives

• Explore the landscape of Telehealth
• Examine issues and challenges unique to Telehealth
• Gain Insights on Lessons-Learned and Best Practices for Successful Project Implementation
Telehealth

*Telehealth* — the use of telehealth, mobile and consumer technology to deliver health-related services, such as remote healthcare provider consultations and patient monitoring — is enabling healthcare providers and payers to address the US healthcare industry’s growing list of problems.
Understanding Telehealth

Telehealth is used to support the delivery of, and improve access to, clinically appropriate care.

Telehealth offers opportunities for consumers to become more involved in their care and in health service planning.

Patient-centered care model offering greater potential to improve health outcomes.
Current and Future Landscape of Telehealth
US Telehealth adoption

Telehealth visits are exploding as doctors and patients embrace distancing amid the coronavirus crisis.

General virtual health care visits expected to top 200 million this year, up sharply from their original expectation of 36 million visits for all of 2020.

The adoption of telehealth flew into hyper-drive over the past few months, with all types of telehealth interactions on pace to top 1 billion by year’s end.
THE US TELEHEALTH LANDSCAPE

TELEMEDICINE

REMOTE PATIENT MONITORING

MEDICAL ALARMS

Source: Business Insider Intelligence, 2018
Current Areas of Telehealth

- TeleAnesthesia
- TeleCardiology
- TeleCritical Care
- TeleDentistry
- TeleDermatology
- TeleEmergency Medicine
- TeleEndocrinology
- TeleFamily Practice
- TeleGastroenterology
- TeleInfectious Diseases
- TeleImmunology
- TeleInternal Medicine
- TeleObstetrics
- TeleMental Health
- TeleNeurology
- TeleNursing
- TeleOncology
- TeleOphthalmology
- TeleOrthopedics
- TeleOtolaryngology
- TelePathology
- TelePediatrics
- TelePsychiatry
- TeleSurgery
- TeleStroke
- TeleUrology
Emerging Areas of Telehealth - mHealth

- The future of implantable technologies from smart stents to high-tech tattoos
- Implantable devices such as ECG recorders, pacemakers, and defibrillators can transmit the status of the heartbeat to healthcare providers and forewarn of potential problems.
- Implanted devices for heart failure patients, can monitor heart failure status and transmit information on worsening of changes
Emerging Areas of Telehealth - Wearable devices

- Wearable devices and mobile apps
- With increased accessibility to smartphones, providers also benefit from apps and devices that help them care for patients.
- Wearable devices including health tracking and patient monitoring devices becoming the future of healthcare.
- Wearable devices help remove elements of human error for providers, because the communication of data comes directly from the device itself.
Emerging Areas of Telehealth - mHealth and Disease Management.
Challenges, Critical Success Factors and Best Practices in Telehealth Project Management
Current Models: Telehealth & Clinical Services

- **LIVE (SYNCHRONOUS) VIDEOCONFERENCE**
- **STORE-AND-FORWARD (ASYNCHRONOUS) VIDEOCONFERENCE**
- **REMOTE PATIENT MONITORING (RPM)**
- **MOBILE HEALTH (MHEALTH)**
- **NONCLINICAL HEALTH EDUCATION AND PUBLIC HEALTH PROGRAMS.**
Telehealth & Clinical Services Models

• The equipment needed may range from dedicated turnkey videoconferencing units to software-based videoconferencing programs for computers or mobile platforms such as tablets and cell phones.

• The technology should be able to provide sufficient AV clarity needed for the patient’s assessment and the ability for providers to communicate easily with each other.

• The technologies should be able to connect peripheral medical devices that may be hardwired or portable (e.g., general examination camera, stethoscope, pulse oximeter, otoscope, ultrasonography device).

• Interoperability with existing telehealth services and technologies.

• The recommended criteria for current technologies are H.323 compliance, live video resolution of $4 \times$ Common Intermediate Format (4CIF) ($704 \times 480$) or higher.

• The technologies should comply with current organizational, legal, and regulatory requirements and will change as technology develops.
Telehealth & Clinical Services Models

• **Connection**
  - Provide adequate bandwidth to support the needs of the telehealth program goals.
  - Provide point-to-point connectivity from within or outside the health care facility.
  - Use a high-speed Internet connection.
  - Occasionally, telehealth interactions use an ISDN connection when sites lack the infrastructure to support high-speed Internet connections.
  - For live synchronous telehealth, a frequently suggested minimum speed is a 384-kilobits-per-second bidirectional connection between the sites.

• **Privacy and Security**
  - Telehealth interactions must comply with HIPAA and other regulatory requirements.
  - Create a point-to-point encryption between the devices involved in telehealth interaction.
  - Virtual private network tunnels are a common method used to facilitate the privacy of the Internet connection used for the telehealth interaction.
  - Each covered entity should ensure the security of protected health information
Telehealth Integrates all Project management knowledge Areas:

- Integration
- Scope
- Time
- Cost
- Quality
- Procurement
- Human resources
- Communications
- Risk management
- Stakeholder management
Telehealth Project Management Success and Best Practices

Pre-Planning

Telehealth Implementation

Post-Implementation
Pre-Planning

- Define the Purpose of the Telehealth Project
- Engage Executive Leadership/Key Stakeholders
- Assemble the team
- Define Success
- Evaluate Vendors
- Contract
Pre-Planning: Needs Assessment & Infrastructure Analysis

Assess and confirm your organization’s readiness for telehealth.

- It is costly, time consuming and challenging to start a telehealth program.
- A formal assessment of readiness have the advantage of identifying potential problems and addressing them early.
- Increase support for the project by engaging people early.

Best Practice: Perform A Needs Analysis

- A needs analysis will help your organization to identify key unmet needs.
- Improves understanding of the nature and scope of the unmet need.
- Provides a sound foundation for planning, helping to clarify objectives and shared expectations.
- Improved coordination of services and resources and provide supporting structure for your program evaluation.
Pre-Planning – Define the Purpose of the Telehealth Project

- Why is a telehealth service model being considered and what is it intended to achieve?
- What is the problem that needs to be solved?
- How will telehealth contribute to the organization's overall vision?
- What outcomes are anticipated and how will these be measured?
- Have examples and evidence of effective telehealth technologies used in similar contexts been identified?
- What population will be served?
Pre-Planning: Engage Executive leadership

- Has the project gained support from senior leadership?
- Have internal champions been identified for the initiative?
- Is there recognition and support for change from clinicians and executive?
- Does the project leader have good project management skills to drive sustainable implementation, integration and organizational change?
Pre-Planning: Engage Key Stakeholders

• Ensure staff have the opportunity to be involved in developing the project plan and developing the evaluation measures?
• Consult and Engage community or consumers in designing the service?
• Establish regular lines of communication to keep all stakeholders well informed of progress?
• Create feedback mechanisms to ensure issues and considerations of staff and consumers are captured and can be addressed?
Pre-planning: Assemble the Right Team(s)

The success of any telehealth project depends on engaging the right people.

• It is critical to assemble the right team(s) to define the project’s objectives.

Telehealth Involves **people**, **processes**, and **technologies**

• Leadership Team:
  • Board of Directors/C-suite Executives
  • Practice Owners/Partners

• Core Team:
  • Information Technology/Physicians/Nurses
  • Administrators/Compliance officers
  • Finance/Patient engage officers/patient advocates

• Advisory Team
  • Patient advisory board/Patients/Caregivers

• Implementation Team
  • Information Technology/Physicians/Nurses
## Pre-Planning: Define Project Success

<table>
<thead>
<tr>
<th>HEALTH OUTCOMES</th>
<th>PATIENT EXPERIENCE</th>
<th>REDUCED COSTS</th>
<th>PROVIDER SATISFACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved:</td>
<td>Improved:</td>
<td>Reduced:</td>
<td>Reduced:</td>
</tr>
<tr>
<td>✓ Health outcomes</td>
<td>✓ Patient satisfaction</td>
<td>✓ Cancellations/ No-Shows</td>
<td>✓ Burnout</td>
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<tr>
<td>✓ Continuity of care</td>
<td>✓ Patient engagement</td>
<td>✓ Labor costs</td>
<td>✓ Turnover rate</td>
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<tr>
<td>✓ Compliance with standards of care</td>
<td>✓ Patient retention and loyalty</td>
<td>✓ Cost per case</td>
<td>✓ Appointment length</td>
</tr>
<tr>
<td>✓ Insight about population health</td>
<td>✓ Convenience of care</td>
<td>✓ Costs due to readmission penalties</td>
<td>Improved:</td>
</tr>
<tr>
<td>✓ Quality of life</td>
<td>✓ Care plan compliance</td>
<td>✓ Non-reimbursable care</td>
<td>Continuity of care</td>
</tr>
<tr>
<td>✓ Medication management</td>
<td>✓ Safety</td>
<td>✓ ER visits</td>
<td>✓ Efficiency of care delivery</td>
</tr>
<tr>
<td>Reduced:</td>
<td>✓ Access to care</td>
<td>✓ Patient reach</td>
<td>✓ Care team/patient communication</td>
</tr>
<tr>
<td>✓ ER visits</td>
<td>Reduced:</td>
<td>Improved:</td>
<td></td>
</tr>
<tr>
<td>✓ Complications</td>
<td>✓ Wait time to receive care</td>
<td></td>
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<tr>
<td>✓ Admission Rates</td>
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Define Project Success: IOM Dimensions of Quality

- In addition to the triple or quadruple aims of project management, include clinical success factors
- Telehealth innovations should be designed to increase the quality of care. As much as possible, align project success with the Institute of Medicine’s (IOM) six dimensions of quality (STEEEP).
  - Safe
  - Timely
  - Effective
  - Efficient
  - Equitable
  - Patient-centered
Pre-Planning: Evaluate Vendors

- Vendor Organizational Suitability
- Vendor IT Expertise
- Security
- Usability
- Customer Service
- Clinical Verification and Validation
Pre-Planning: Contracts

• Secure any remaining approvals within your organization to proceed with contracting
• Negotiate terms (financial investment, customer support, additional services, upgrade schedule, success metrics, etc.)
• Document clear and measurable definitions of success for your working relationship and the initiative at large
• Identify the timeline for the current contract and outline when terms will be renegotiated
• Clearly outline the plan to scale your program, and align on any relevant contingency plans
• Work with your legal, financial, procurement, or IT teams as necessary to get the new contract signed or existing contract updated
Project Implementation
Project Implementation

Workflow, Policies and Procedures

Staff and Patient Preparation

Project Implementation

Evaluation
Project Implementation: Workflow & Procedures

Ensure your workflow addresses the entire telehealth life cycle.

Before the visit
- Patient Engagement and Education
- Scheduling Protocols:

During the visit
- Patient intake
- Trouble shooting
- Virtual patient room
- Communication

After the visit
- Coding/Billing
- EHR Integration
- Summary
Project Implementation: Staff and Patient Preparation

- TRAINING
- SUPER USERS
- EDUCATE STAFF ON NEW WORKFLOW
- TRAIN STAFF TO EDUCATE PATIENTS
- CONDUCT INTERNAL TELEHEALTH TEST VISIT
- DEVELOP A PROCESS FOR ONGOING FEEDBACK
Training and Education

Consider:

| Is there an adequate workforce base to support the demand for telehealth services? |
| What technical and administrative resources are required to support the service? |
| How will any additional impacts on the health service or clinicians be monitored and managed? |

The under-estimation of the personnel requirements required to support implementation, has been identified as a common cause of telehealth failure.
Telehealth Technology and Clinical Services

- Determine who will actually provide care
- Determine initial set of acceptable diagnoses/visit reasons
- Develop workflow for conducting a visit (standard forms, demographic information gathering, etc.)
- Develop triage protocols
- Develop telehealth treatment protocols that comply with standards and protocols of care
- Develop follow-up protocols
- Infection control and cleaning of equipment
Telehealth Technology and Clinical Services

- How often the patient will be monitored – once a day, more? Also on weekends?
- The process to report patient problems – what triggers a phone call or home visit? When is the physician contacted?
- Decide which telemonitoring devices / manual measurements to use – e.g. weight scale, blood pressure and SpO2, perhaps ECG rhythm strip on cardiac surgery patients.
- Determine procedures for infection control
Evaluation

• Develop an evaluation and monitoring plan
• Conduct an end-to-end test of the entire process and all use cases, and connection between all sites.
• Monitor and evaluate all key elements of the program on a regular and ongoing basis.
• Include a range of topics in your plan
  • Service usage,
  • Patient and provider comfort level with particular technologies, devices and applications
  • Cost savings analysis.
• Be sure to monitor and track ancillary or related services benefiting from your telehealth program activities, e.g. lab and blood tests performed at local clinics, staff and nursing employment etc.
Telehealth Unique Challenges
Telehealth Project Management: Challenges

Although telehealth offers many benefits, there are also barriers to adopting such technology which includes:

- Reimbursement models
- Interstate licensure challenges
- Legal and regulatory issues
- Concerns over security, privacy, and confidentiality
- Lack of evidence about impact on health care costs, utilization, or outcomes
- Concerns about impacts to clinical duty to provide safe and effective care
- Logistical space challenges
Interstate Licensure:

- Telehealth rules vary from state to state
- Include the legal and billing team as early in the process as possible to understand federal, state, and payer requirements and regulations
- Identify in which states your clinicians need to be licensed as well as in which states they are currently licensed
- Research interstate licensure, including the Interstate Licensure Compact
  - the enhanced Nursing Licensure Compact (eNLC)
  - the Interstate Medical Licensure Compact (IMLC)
- Check with your malpractice insurance carrier to ensure you are covered to provide telehealth services
Telehealth: Legal Issues

**LEGAL DOCUMENTS**
- Business Associate Agreement
- Master Service Agreement
- Scope of Work/Price Quote
- Purchase Order
- Financial Audit Reports
- Confidentiality Agreement/Non-Disclosure Agreement
- W-9 Form

**VALIDATION DOCUMENTS**
- IT Security and Risk Assessment
- 510(k) Clearance:
- Liability Insurance
- Medical Licenses for Practitioners
- Third-party Audit
Q&A
Wrap-Up & Next Steps

Want to get involved?

- Chapters
- Committees
- Communities
- Roundtables

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- Contact:
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References


References


