Pediatric Care Coordination Curriculum

Module 5

Using Technology to Improve Care Planning and Coordination

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Module 5—Objectives

After this session, learners will be able to:

- Assess current practice of care coordination with and without technology.
- Describe ways to use technology to connect key players in care coordination.
- Provide an overview of system requirements.
- Create an action plan for integration of technology platforms.

Note to the facilitator:

This module includes a didactic portion, a set of tools and resources, case studies, worksheets, and suggested literature.

Please be aware that it is important to include local-, state-, and region-specific content, as relevant, if this module is being implemented.

A found in the module indicates places where the authors specifically call out the need for local content, but facilitators should feel free to include local content wherever they see fit. Local content includes, but is not limited to, the following:

- Cultural aspects of the community (including assets, vulnerabilities, and language)
- Sociodemographic factors
- Geography
- Local, state, and/or regional resources

Optimal Facilitation Guidance

To achieve the most efficient and effective outcomes from the learning sessions, it will be essential to assure vital and equitable input from all stakeholders, especially from patients and families. Please see the section in the Introduction Module (page 4) entitled Tips for Facilitator: Ways to Keep the Workshop on Track.

There are 2 tables included below. The first is a high-level agenda of the module. The second is the facilitator guide that includes a breakdown of slide content and talking points. The facilitator should use the guide as a resource to tailor training content.

The curriculum is intended to be tailored to fit the training needs, and the content can be modified for different audiences. Therefore, facilitators may decide to pick and/or choose content from this module and incorporate it into the training. However, a suggested agenda for implementing this module as a stand-alone is included.
### Module Overview

The Pediatric Care Coordination Curriculum is offered for educational purposes only and is not meant as a substitute for independent medical judgment or the advice of a qualified physician or health care professional. Users who choose to use information or recommendations made available by the Pediatric Care Coordination Curriculum do so at their own risk and should not rely on that information as professional medical advice or use it to replace any relationship with their physicians or other qualified health care professionals.

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Time</th>
<th>Materials Required</th>
<th>Instruction/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-session readings</td>
<td>N/A</td>
<td>“How Care Coordination Tech Helped One Health Network Address Social Determinants”</td>
<td>Whether to use these readings as an introduction to this module’s topic is optional, but if they are going to be used, they should be sent to the participants prior to the session.</td>
</tr>
<tr>
<td></td>
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<td>“Use of Technology for Care Coordination Initiatives for Patients With Mental Health Issues: A Systematic Literature Review”</td>
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<td></td>
<td>“Ten Key Considerations for the Successful Implementation and Adoption of Large-Scale Health Information Technology”</td>
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</tr>
<tr>
<td>Introduction</td>
<td>10 min</td>
<td>Slides 1-5</td>
<td>Lead an introduction activity, review the module objectives, and present the case study.</td>
</tr>
<tr>
<td>Didactic</td>
<td>20 min</td>
<td>Slides 6-18</td>
<td>Present the slide deck using the content in the didactic portion of this guide. Facilitators should look at the prompts in the notes to pause and allow for participant discussions.</td>
</tr>
<tr>
<td>Creation of action plan</td>
<td>40 min</td>
<td>Slides 19-30, Whiteboard or flip chart for report back</td>
<td>Give participants an opportunity to have small group discussions. Learners can begin outlining initial steps (steps 1-3) and/or answering questions raised in slide 27. Small groups should scribe answers on a flip chart. After the breakout session, small groups can report back to the larger group to initiate further discussion, obtain feedback, etc. Flipcharts can be displayed for a “gallery walk” at the end of the module.</td>
</tr>
<tr>
<td>Didactic</td>
<td>10 min</td>
<td>Slides 31-37</td>
<td>Participants will return to the previously presented case study. The facilitator will review how concepts learned from today’s module were applied to adopting new technology to improve coordinated care.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>10 min</td>
<td>Slide 38</td>
<td>The final discussion and wrap-up, followed by the gallery walk of small group discussion flip-chart sheets.</td>
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Introduction

Note from the authors

The content included in this module provides an overview of both the benefits and challenges associated with the use of technology to improve health care coordination. Use of technology has significantly impacted the health care landscape in recent years. Incorporating various technologies into health care, particularly primary care, increases the potential for overcoming barriers currently experienced by an overburdened health care system. The goal is for learners to critically assess their own care coordination practices, identify weaknesses that may be addressed with increased access to technology, and create action plans that focus on incorporating technological innovation into routine care. Learners may be clinicians, administrators, managers, and other direct service providers of all disciplines from diverse settings. These stakeholders may include clinic staff, Title V personnel, representatives of community-based organizations who play a role in care integration (e.g., education, social service supports), and state agency staff responsible for implementing and/or regulating technology to support care coordination.

We present both care team member and patient perspectives and highlight features of available systems, while having learners brainstorm specific challenges to optimizing technology use. Learners will work in both small and large groups to share ideas and strategies. A key aspect of this module is to have each learner create an action plan with concrete steps to begin creating change(s). What are the gaps between current and ideal approaches to coordinating care for patients? How can technology potentially bridge this gap? How can care team members learn more about available systems and test whether they are feasible in their contexts? The facilitator’s role is not to be a content expert in the multitude of specific products that are currently available in the marketplace but rather to guide learners in considering how technology can be used to create efficient work processes and planning a thoughtful approach to adopting technology that can be successfully integrated into their sites’ long-term mission.
SLIDE 2 » Educational Purpose Only–No Medical Advice

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SLIDE 3 » Faculty Disclosures

Faculty Disclosure Information
- Dr. Hassan has no disclosures to report.
- Dr. Flegler is a consultant to Web Health.
**SLIDE 4 » Learning Goals**

Introduce the learning goals to the audience.

- Assess current practice of care coordination with and without technology.
- Discuss ways to use technology to connect key players in care coordination.
- Recognize system requirements for care coordination activities.
  - Understand types of coordination.
- Describe an action plan for integration of technology platforms.

**SLIDE 5 » Current State: Case Study**

Start the session with the case study (after the didactic, go back to the case study to apply what was learned).

Think about particular medical problems that are relevant to the audience.

The case does not have to be extremely complicated; technology can be useful across the continuum.

**Current State: Case Study**

- A 14-year-old male, who is struggling in school with failing grades, was transferred to an adolescent clinic in the past year without access to prior medical records.
- His parent requests a refill of ADHD medications, which he has not taken in 6 months.
- The results of the paper “Conners” ADHD questionnaire indicate high levels of inattention and hyperactivity.

**SLIDE 6 » Current Coordination**

Case details

- Write 1-month prescriptions for medications.
- Provide paper questionnaires for parents and teachers to complete.
This slide illustrates issues with the current practice for prescription ordering.

A note for the audience: The universal problem is that many patients do not have their prescriptions filled and, even if they do, a high percentage do not take medications correctly.

It is difficult to gather this information using paper questionnaires because, oftentimes, surveys are not returned. When they are returned, however, it can be difficult to track responses because readily seeing or visualizing how data change over time is challenging.

Ask the learners to weigh in on their experiences with this.

This slide introduces 2 technologies used to coordinate care: electronic medical records used by care team members and patient portals used by families.

This slide is intended to demonstrate that technology alone is insufficient for coordinating care. Even if more advanced technology becomes available, it is valuable to note that there will likely be issues that come with it.

The facilitator should feel free to add examples.
This slide is an attempt to outline major problems that can be addressed by enhanced technology.

As the facilitator, it may be useful to give specific examples or to ask the audience to share examples.

Other Complex Care Coordination Challenges

- Specialist communication
  - Who is managing a patient's specific needs, especially if care is provided across institutions?
- Adverse therapy
  - How is information being shared with nonphysician clinicians, such as physical therapists, occupational therapists, nutritionists, or acupuncturists?
- Insurance-aimed care coordination
  - This is good, but insurance providers are not part of the hospital ecosystem, which can make assigning care coordination challenging.
- Non-health care partners
  - Community service partners, such as Big Brothers Big Sisters, DOT, and schools, cannot share information.

Learning Goals

- Assess current practice of care coordination with and without technology.
- Discuss ways to use technology to connect key players in care coordination.
  - Barriers
- Recognize system requirements for care coordination activities.
  - Understand types of coordination.
- Describe an action plan for integration of technology platforms.

Technology to Connect Key Players in Care Coordination

Minimum technology requirements

- Confidential
- HIPAA compliant (including the ability to communicate with physicians, nonphysician clinicians, agencies, and respondents)
- Secure
- Interoperability with current IT systems

Now that the stage has been set for the issues that exist, it is time to examine how technology can be used to close gaps.

This slide illustrates basic needs that accompany the use of technology with patients. The facilitator could ask learners to brainstorm what these might be before showing the slide.
Now it is time to address how technology can help users accomplish goals and reduce issues that were outlined earlier in the session.

This slide shares a few goals around effective and efficient communication.

This slide continues with the goals of technology use and additional ways it can support communication.

Slide 15 continues with the goals of technology use. The facilitator might want to ask learners to discuss these goals and talk about the pros and cons of different types of communication, eg, bidirectional communication.
SLIDE 16 » Barriers to Technology Use

The facilitator might want to ask the learners to call out barriers before sharing this slide.

Emphasize the importance of acknowledging barriers when new technology is being introduced.

Barriers should not be shared with the sense that they are insurmountable; all barriers can be addressed.

SLIDE 17 » Learning Goals

Now it is time to move on to an overview of system requirements.

What should learners be looking for or considering when adopting new technology?

SLIDE 18 » System Requirements Checklist

This slide shares suggestions and questions for learners to consider when reviewing new technology.

Specific platforms have purposely been left off this slide, but facilitators should feel free to give examples about their own experiences with various platforms.

This list is in no particular order. Facilitators can encourage learners to identify which points they find to be most relevant.
Now the session will move into a discussion about how to create an action plan for integrating technology platforms.

**SLIDE 19 » Learning Goals**

- Assess current practice of care coordination with and without technology.
- Discuss ways to use technology to connect key players in care coordination.
- Barriers
  - Recognize system requirements for care coordination activities.
  - Understand types of coordination.
- Describe an action plan for integration of technology platforms.

**SLIDE 20 » Action Plan**

This is a suggested list for creating an action plan when implementing new technology. The list has been adapted from the paper “Ten Key Considerations for the Successful Implementation and Adoption of Large-Scale Health Information Technology.”

It is important for the facilitator to note that this will take time to complete.

The slides will walk learners through each of these steps as a large group before breaking into small group discussions.

**SLIDE 21 » Step 1: Assessment**

This slide outlines 4 questions that should be determined in the assessment phase.

*Note to the facilitator*: Consider the role of Title V programs and gaps in current technologies.

General assessment: "map" the current processes

- What is the current technology used in coordinated care?
- What gaps exist?
- What is the ideal approach?
- What works best in your institution/office/setting?

General assessment:

Ideal approach ≠ current approach = defined need
Continue along the list of questions for the next step.

Note to the facilitator: If all team members are not at the training, consider how to best create structured discussions. If all of the team members are present, they can brainstorm together as a team.

This slide is intended to help facilitators guide discussion around steps for implementing new technology.

Consider other stakeholders, including Title V personnel.

Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.

This slide is to help the facilitator guide discussion around steps for implementing new technology.

Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.
This slide will help the facilitator guide discussion around steps for implementing new technology.

Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own process.

**Note to the facilitator:** Ask the learners to develop a goal(s) and objective(s).

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### SLIDE 25 » Step 3: Goals and Objectives

- Goal: Broad target
- Objective: Specific measurable outcome
  - “Our office will improve X%.”
- Select adopting new technology, medical providers will be able to:
  - Communicate directly with patients via ....
  - Receive updates on emergency room visits or inpatient hospitalizations.
  - Discuss plan with pediatric medical subspecialists or pediatric surgical specialists.

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### SLIDE 26 » Step 4: Selecting and Planning for New System

This slide is designed to help the facilitator guide discussion around steps for implementing new technology.

Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.

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### SLIDE 27 » Step 5: Implementation

This slide will help the facilitator guide discussion around steps for implementing new technology.

Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.

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- Identify resources.
- Develop a training plan.
- Anticipate barriers.
- Delineate responsibilities (training, operations, etc.).
- Conduct pilot testing:
  - Obtain feedback from all stakeholders.
- Respond quickly to initial problems.
This slide is intended to help the facilitator guide discussion around steps for implementing new technology.

Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.

**SLIDE 28 ➤ Step 6: Evaluation and Feedback**

- To determine if goals and objectives have been met
- To provide information for continuous improvement
- To assess outcomes
  - Clinical (patient outcomes)
  - Health care dollar outcomes
  - Care team member satisfaction, acceptability, etc.
- To maintain and increase support

**SLIDE 29 ➤ Breakout—Small Groups**

If it has not already been done, this would be a good place to have small breakout groups take concepts and apply them to their own settings.

Consider having the small breakout groups discuss ideas and then report back to the larger group.

**SLIDE 30 ➤ Report Back from Small Groups**

Report back
Now, go back to the case study to apply the concepts to the case.

**Current State: Case Study**

- A 14-year-old male, who is struggling in school with failing grades, was transferred to an adolescent clinic in the past year without access to prior medical records.
- His parent requests a refill of his ADHD medications, which he has not taken in 6 months.
- The results of a paper “Conners” ADHD questionnaire indicate high levels of inattention and hyperactivity.

**Challenge: Monitoring Children with ADHD**

- Parent- and teacher-completed ADHD rating scales are needed to assess the patient response to treatment:
  - Parent: Early morning, Stimulant not in effect
  - Parent: School day, Stimulant in effect
  - Parent: Evening, Stimulant worn off
  - A minimal number of rating scales are typically returned to the medical home:
    - Parent rating scales: ~20%-30%
    - Teacher rating scales: <5%
  - Providers are “flying blind” with respect to medication decision-making.

**Intervention**

1. Email notifications are sent to parents, patients, and teachers to complete online surveys.
2. Scoring algorithms are automated.
3. Email notifications are sent to clinicians with alerts.

- Vanderbilt (ADHD rating)
- PedCQOL (Quality of Life)
- Medication confirmation
- Side effects inventory

**Responder Interface**

The next few slides demonstrate the different modalities that people use to communicate. This slide includes an example from a computer.
This slide is about gathering information through the use of mobile devices. The facilitator might want to note that, generally, trends can be found in the type of information that is provided, depending on the modality that is used.

The facilitator should consider making different modalities accessible. It is also important to think through making platforms accessible in different languages.

This slide demonstrates different forms of data results. This is an example of a system collecting ADHD data that has been integrated into the patient’s electronic medical record, but other platforms can be used as well.

Visual cues and being able to see progress over time are both important and worth considering when considering new technologies.

This slide demonstrates response rates over time and the ability to visualize data using technology.

The facilitator might want to ask learners to weigh in on what they find useful about technology-collected data.

Facilitators may choose to share their experiences—either personal or in preparing to teach this module—with different technological platforms. Instead or in addition, ask learners about their experiences (both positive and negative) with various platforms.

Close with a final discussion and questions. Reiterate the message that this work takes time. The facilitator could ask learners to share what they have decided to bring back to their home institutions based on what they learned during the workshop.
Works Cited


   Accessed December 20, 2018