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MODULE 5

Pediatric Care Coordination Curriculum

Using Technology to Improve Care Planning and Coordination

Areej Hassan, MD, MPH
Eric Fleegler, MD, MPH*

**Dr. Fleegler is a consultant to Veta Health. Otherwise, the authors have no conflicts of interest to disclose.*

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Antonelli R, Huth K, Rosenberg H, Bach A. Pediatric Care Coordination Curriculum: An Interprofessional Resource to Effectively Engage Patients and Families in achieving Optimal Child Health Outcomes, 2nd Edition. Boston Children's Hospital, 2019.

Hassan A, Fleeger E. Module 5, Using Technology to Improve Care Planning and Coordination. In Antonelli R, et al, Pediatric Care Coordination Curriculum: An Interprofessional Resource to Effectively Engage Patients and Families in achieving Optimal Child Health Outcomes, 2nd Edition. Boston Children's Hospital, 2019.

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Using Technology to Improve Care Planning and Coordination

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 1

Agenda Item	Time	Materials Required	Instruction/Notes
Pre-session readings	N/A	<p>“How Care Coordination Tech Helped One Health Network Address Social Determinants”</p> <p>“Use of Technology for Care Coordination Initiatives for Patients With Mental Health Issues: A Systematic Literature Review”</p> <p>“Ten Key Considerations for the Successful Implementation and Adoption of Large-Scale Health Information Technology”</p>	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.
Introduction	10 min	Slides 1-5	Lead an introduction activity, review the module objectives, and present the case study.
Didactic	20 min	Slides 6-18	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.
Creation of action plan	40 min	<p>Slides 19-30</p> <p>Whiteboard or flip chart for report back</p>	<p>Give participants an opportunity to have small group discussions.</p> <p>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.</p> <p>After the breakout session, small groups can report back to the larger group to initiate further discussion, obtain feedback, etc.</p> <p>Flipcharts can be displayed for a “gallery walk” at the end of the module.</p>
Didactic	10 min	Slides 31-37	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.
Conclusion	10 min	Slide 38	The final discussion and wrap-up, followed by the gallery walk of small group discussion flip-chart sheets.

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 (eg, 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.

Facilitator Guide–Slide Deck

SLIDE 1 » Title Slide

Using Technology to Improve Care Planning & Coordination

Areej Hassan, MD, MPH
Eric Fleegler, MD, MPH



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SLIDE 2 » Educational Purpose Only–No Medical Advice

Educational Purposes Only – No Medical Advice

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SLIDE 3 » Faculty Disclosures

Faculty Disclosure Information

- *Dr. Hassan has no disclosures to report.*
- *Dr. Fleegler is a consultant to Veta Health.*

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Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 537 617" style="border: 1px solid black; padding: 10px;"><p style="text-align: center;">Learning Goals</p><ul style="list-style-type: none">• Assess current practice of care coordination with and without technology.• Discuss ways to use technology to connect key players in care coordination.<ul style="list-style-type: none">◦ Barriers• Recognize system requirements for care coordination activities.<ul style="list-style-type: none">◦ Understand types of coordination.• Describe an action plan for integration of technology platforms.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 216 1016 268" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 4 » Learning Goals</div> <p data-bbox="643 317 1174 348">Introduce the learning goals to the audience.</p>
<div data-bbox="142 764 537 1060" style="border: 1px solid black; padding: 10px;"><p style="text-align: center;">Current State: Case Study</p><ul style="list-style-type: none">• 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.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 653 1170 705" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 5 » Current State: Case Study</div> <p data-bbox="643 758 1401 821">Start the session with the case study (after the didactic, go back to the case study to apply what was learned).</p> <p data-bbox="643 842 1411 905">Think about particular medical problems that are relevant to the audience.</p> <p data-bbox="643 926 1401 989">The case does not have to be extremely complicated; technology can be useful across the continuum.</p>
<div data-bbox="142 1205 537 1501" style="border: 1px solid black; padding: 10px;"><p style="text-align: center;">Current Coordination</p><ul style="list-style-type: none">• Write 1-month prescriptions for medications.• Provide paper questionnaires for parents and teachers to complete.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 1094 1110 1146" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 6 » Current Coordination</div> <p data-bbox="643 1199 789 1230">Case details</p>

Facilitator Guide–Slide Deck

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<div data-bbox="142 321 537 617" style="border: 1px solid black; padding: 10px;"><h3 style="text-align: center;">Current Coordination</h3><ul style="list-style-type: none">• Write 1-month prescriptions for medications.<ul style="list-style-type: none">○ Problem: Written prescriptions are limited to 1 month, cannot be sent electronically to a pharmacy, and are burdensome on the family, patient, and prescriber.○ Problem: Physicians do not receive alerts about unfilled prescriptions.• Provide paper questionnaires for parents and teachers to complete.<ul style="list-style-type: none">○ Problem: These result in poor response rates, especially from teachers.○ Problem: It is difficult to track response to therapy.<small style="text-align: right;">© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 216 1112 275" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 7 » Current Coordination</div> <p>This slide illustrates issues with the current practice for prescription ordering.</p> <p>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.</p> <p>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.</p> <p>Ask the learners to weigh in on their experiences with this.</p>
<div data-bbox="142 884 537 1180" style="border: 1px solid black; padding: 10px;"><h3 style="text-align: center;">Current Coordination: Tech-Enhanced</h3><ul style="list-style-type: none">• Electronic medical records (EMRs) enable primary care physicians to enter notes (eg, urgent visit) to be seen by others in the clinic.• Patient portals allow patients and parents to send messages to and receive messages from their physicians.<small style="text-align: right;">© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 777 1352 835" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 8 » Current Coordination: Tech-Enhanced</div> <p>This slide introduces 2 technologies used to coordinate care: electronic medical records used by care team members and patient portals used by families.</p>
<div data-bbox="142 1325 537 1621" style="border: 1px solid black; padding: 10px;"><h3 style="text-align: center;">Current Coordination: Tech-Enhanced</h3><ul style="list-style-type: none">• Electronic medical records (EMRs) enable primary care physicians to enter notes (eg, urgent visit) to be seen by others in the clinic.<ul style="list-style-type: none">○ Problem: This is only helpful if a patient receives other care (eg, emergency, mental health) within the same system; EMRs do not connect with other health care system EMRs.• Patient portals allow patients and parents to send messages to and receive messages from their physicians.<ul style="list-style-type: none">○ Problem: Minimal penetration and usage of this technology because many physicians, patients, and families find it burdensome, physicians have additional responsibilities, and not all patients and families have access.○ Problem: Physicians find it challenging when parents have access to sensitive information about their adolescents.<small style="text-align: right;">© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 1218 1360 1276" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 9 » Current Coordination: Tech-Enhanced</div> <p>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.</p> <p>The facilitator should feel free to add examples.</p>

Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 537 619"><h3>Other Complex Care Coordination Challenges</h3><ul style="list-style-type: none">• Subspecialist communication<ul style="list-style-type: none">◦ Who is managing a patient's specific needs, especially if care is provided across institutions?• Adjunct therapy<ul style="list-style-type: none">◦ How is information being shared with nonphysician clinicians, such as physical therapists, occupational therapists, nutritionists, or acupuncturists?• Insurance-assigned care coordination<ul style="list-style-type: none">◦ This is good, but insurance providers are not part of the hospital ecosystem, which can make assigning care coordination challenging.• Non-health care partners<ul style="list-style-type: none">◦ Community service partners, such as Big Brothers Big Sisters, DCF, and schools, cannot share information.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<h2>SLIDE 10 » Other Complex Case Coordination Challenges</h2> <p>This slide is an attempt to outline major problems that can be addressed by enhanced technology</p> <p>As the facilitator, it may be useful to give specific examples or to ask the audience to share examples.</p>
<div data-bbox="142 764 537 1062"><h3>Learning Goals</h3><ul style="list-style-type: none">• Assess current practice of care coordination with and without technology.• Discuss ways to use technology to connect key players in care coordination.<ul style="list-style-type: none">◦ Barriers• Recognize system requirements for care coordination activities.<ul style="list-style-type: none">◦ Understand types of coordination.• Describe an action plan for integration of technology platforms.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<h2>SLIDE 11 » Learning Goals</h2> <p>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.</p>
<div data-bbox="142 1205 537 1503"><h3>Technology to Connect Key Players in Care Coordination</h3><p>Minimum technology requirements</p><ul style="list-style-type: none">• Confidential• HIPAA compliant (including the ability to communicate with physicians, nonphysician clinicians, agencies, and respondents)• Secure• Interoperability with current IT systems<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<h2>SLIDE 12 » Technology to Connect Key Players</h2> <p>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.</p>

Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 537 619"><h3>Technology to Connect Key Players in Care Coordination</h3><p>Goals</p><ul style="list-style-type: none">• Facilitate communication between providers within an institution (notifications within EMR) and across institutions (link across EMRs).• Develop efficient messaging and response methods for the patient portal.<ul style="list-style-type: none">◦ Needs to facilitate communication between patient/family and care team members.<ul style="list-style-type: none">– Standardized, set intervals– Open-ended communication– Symptom monitoring/response to therapy in chronic disease<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 216 1320 273"><h2>SLIDE 13 » Technology to Connect Key Players</h2></div> <p>Now it is time to address how technology can help users accomplish goals and reduce issues that were outlined earlier in the session.</p> <p>This slide shares a few goals around effective and efficient communication.</p>
<div data-bbox="142 762 537 1060"><h3>Technology to Connect Key Players in Care Coordination</h3><p>Goals</p><ul style="list-style-type: none">• Provides communication to outside respondents, such as teachers, case managers.<ul style="list-style-type: none">◦ Active collection of data from respondents◦ Easily viewable by care team members◦ School ability to view plans and coordinate with care team members◦ Data available as requested by other respondents (parents, teachers, etc.)• Provides communication between pharmacy and provider.<ul style="list-style-type: none">◦ Electronic Rx (when appropriate)◦ Information about Rx being filled and picked up<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 657 1320 714"><h2>SLIDE 14 » Technology to Connect Key Players</h2></div> <p>This slide continues with the goals of technology use and additional ways it can support communication.</p>
<div data-bbox="142 1203 537 1501"><h3>Technology to Connect Key Players in Care Coordination</h3><ul style="list-style-type: none">• Adjunct therapy (physical therapy, occupational therapy, nutrition, acupuncture)<ul style="list-style-type: none">◦ Share information to develop treatment plans.• Care coordinators<ul style="list-style-type: none">◦ Facilitate bidirectional communication about needs and provided services.• Non-health care partners (community services, Big Brothers Big Sisters, DCF, schools)<ul style="list-style-type: none">◦ Compare unidirectional vs. bidirectional.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 1098 1320 1155"><h2>SLIDE 15 » Technology to Connect Key Players</h2></div> <p>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.</p>


Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 535 619"><h3>Barriers to Technology Use</h3><ul style="list-style-type: none">• Work flow efficiency (ease of implementation by the clinicians and administrative support staff)• Compatibility between systems (important for the clinic, outside sites, and families)• When possible, limit the number of technology-based systems.• Need greater value add -- not just messaging systems but requires analytics that process and display data usefully (summary)• Parents' and others' potential lack of access to new systems, ability to download apps, and to respond to reminders• Responsibility/liability for information that arrives off-hours• Caregivers' health literacy and language barriers<small>© 2018 Boston Children's Hospital. All rights reserved.</small></div>	<h2>SLIDE 16 » Barriers to Technology Use</h2> <p>The facilitator might want to ask the learners to call out barriers before sharing this slide.</p> <p>Emphasize the importance of acknowledging barriers when new technology is being introduced.</p> <p>Barriers should not be shared with the sense that they are insurmountable; all barriers can be addressed.</p>
<div data-bbox="142 762 535 1060"><h3>Learning Goals</h3><ul style="list-style-type: none">• Assess current practice of care coordination with and without technology.• Discuss ways to use technology to connect key players in care coordination.<ul style="list-style-type: none">◦ Barriers• Recognize system requirements for care coordination activities.<ul style="list-style-type: none">◦ Understand types of coordination.• Describe an action plan for integration of technology platforms.<small>© 2018 Boston Children's Hospital. All rights reserved.</small></div>	<h2>SLIDE 17 » Learning Goals</h2> <p>Now it is time to move on to an overview of system requirements.</p> <p>What should learners be looking for or considering when adopting new technology?</p>
<div data-bbox="142 1203 535 1501"><h3>Learning Goals</h3><ul style="list-style-type: none">• Assess current practice of care coordination with and without technology.• Discuss ways to use technology to connect key players in care coordination.<ul style="list-style-type: none">◦ Barriers• Recognize system requirements for care coordination activities.<ul style="list-style-type: none">◦ Understand types of coordination.• Describe an action plan for integration of technology platforms.<small>© 2018 Boston Children's Hospital. All rights reserved.</small></div>	<h2>SLIDE 18 » System Requirements Checklist</h2> <p>This slide shares suggestions and questions for learners to consider when reviewing new technology.</p> <p>Specific platforms have purposely been left off this slide, but facilitators should feel free to give examples about their own experiences with various platforms.</p> <p>This list is in no particular order. Facilitators can encourage learners to identify which points they find to be most relevant.</p>

Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 537 617"><h3>Learning Goals</h3><ul style="list-style-type: none">• Assess current practice of care coordination with and without technology.• Discuss ways to use technology to connect key players in care coordination.<ul style="list-style-type: none">◦ Barriers• Recognize system requirements for care coordination activities.<ul style="list-style-type: none">◦ Understand types of coordination.• Describe an action plan for integration of technology platforms.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 216 1036 275"><h2>SLIDE 19 » Learning Goals</h2></div> <p data-bbox="643 317 1403 380">Now the session will move into a discussion about how to create an action plan for integrating technology platforms.</p>
<div data-bbox="142 764 537 1060"><h3>ACTION PLAN</h3><ol style="list-style-type: none">1. Conduct an assessment of technology needs.2. Establish the need for change.3. Determine the goals and objectives with new technology.4. Select and plan for a new system.5. Implement new technology.6. Evaluate the new system and obtain feedback.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 659 987 718"><h2>SLIDE 20 » Action Plan</h2></div> <p data-bbox="643 758 1477 879">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.”</p> <p data-bbox="643 905 1411 963">It is important for the facilitator to note that this will take time to complete.</p> <p data-bbox="643 989 1440 1050">The slides will walk learners through each of these steps as a large group before breaking into small group discussions.</p>
<div data-bbox="142 1207 537 1503"><h3>Step 1: Assessment</h3><p data-bbox="164 1295 496 1314">General assessment: “map” the current processes</p><ul style="list-style-type: none">• 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?<p data-bbox="177 1415 305 1432">General assessment:</p><p data-bbox="201 1432 498 1449">Ideal approach – current approach = defined need</p><small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 1102 1081 1161"><h2>SLIDE 21 » Step 1: Assessment</h2></div> <p data-bbox="643 1199 1395 1260">This slide outlines 4 questions that should be determined in the assessment phase.</p> <p data-bbox="643 1285 1398 1346">Note to the facilitator: Consider the role of Title V programs and gaps in current technologies.</p> <div data-bbox="1003 1325 1073 1394"></div>

Facilitator Guide–Slide Deck

continued

<p>Step 2: Establish the Need for Change</p> <p>Identify and characterize the problem that will be addressed by adopting technology to improve coordinated care.</p> <ul style="list-style-type: none">• What is the problem?• Whom and what does it affect?• What is the importance of the effects?• Can technology address this problem? <p><small>© 2019 Boston Children's Hospital. All rights reserved.</small></p>	<p>SLIDE 22 » Step 2: Establish the Need for Change</p> <p>Continue along the list of questions for the next step.</p> <p><i>Note to the facilitator:</i> 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.</p>
<p>Step 2: Establish the Need for Change</p> <ul style="list-style-type: none">• Who are the (other) stakeholders?• How can you build consensus that a technology change is necessary?• What information do you need (to build a supporting argument or obtain buy-in)?<ul style="list-style-type: none">○ Existing proficiencies and perceived deficiencies○ Current performance○ Stakeholder preferences○ Financial resources○ Barriers○ Institutional politics <p><small>© 2019 Boston Children's Hospital. All rights reserved.</small></p>	<p>SLIDE 23 » Step 2: Establish the Need for Change</p> <p>This slide is intended to help facilitators guide discussion around steps for implementing new technology.</p> <p>Consider other stakeholders, including Title V personnel. L</p> <p>Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.</p>
<p>Step 2: Establish the Need for Change</p> <p>How will you obtain the information?</p> <ul style="list-style-type: none">• Inventory of existing records• Informal discussion• Interviews• Focus groups• Surveys• Observation• Strategic planning sessions <p><small>© 2019 Boston Children's Hospital. All rights reserved.</small></p>	<p>SLIDE 24 » Step 2: Establish the Need for Change</p> <p>This slide is to help the facilitator guide discussion around steps for implementing new technology.</p> <p>Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.</p>

Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 534 617"><h3>Step 3: Goals and Objectives</h3><ul style="list-style-type: none">• Goal = broad target<ul style="list-style-type: none">◦ "Our office will improve XXX."• Objective: specific measurable outcome<ul style="list-style-type: none">◦ "By adopting new technology, medical providers will be able to<ul style="list-style-type: none">- Communicate directly with patients via- Receive updates on emergency room visits or inpatient hospitalizations.- Discuss plan with pediatric medical subspecialists or pediatric surgical specialists.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 216 1216 270"><h2>SLIDE 25 » Step 3: Goals and Objectives</h2></div> <p>This slide will help the facilitator guide discussion around steps for implementing new technology.</p> <p>Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own process.</p> <p>Note to the facilitator: Ask the learners to develop a goal(s) and objective(s).</p>
<div data-bbox="142 762 534 1058"><h3>Step 4: Selecting and Planning for New System</h3><ul style="list-style-type: none">• Commit adequate time and resources to consider options.• Explore setups in other offices that have been successful.• Network with potential suppliers.• Determine whether the system meets the checklist of requirements (these may vary from setting to setting).• Conduct trials of the new system comparing small group use vs all in and limited initial functionality vs multiple changes.• Consider the costs – financial, research, and the effort to implement the system.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 657 1495 711"><h2>SLIDE 26 » Step 4: Selecting and Planning for New System</h2></div> <p>This slide is designed to help the facilitator guide discussion around steps for implementing new technology.</p> <p>Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.</p>
<div data-bbox="142 1203 534 1499"><h3>Step 5: Implementation</h3><ul style="list-style-type: none">• Identify resources.• Develop a training plan• Anticipate barriers.• Delineate responsibilities (training, operations, etc.).• Conduct pilot testing.<ul style="list-style-type: none">◦ Obtain feedback from all stakeholders.• Respond quickly to initial problems.<small>© 2019 Boston Children's Hospital. All rights reserved.</small></div>	<div data-bbox="586 1098 1144 1152"><h2>SLIDE 27 » Step 5: Implementation</h2></div> <p>This slide will help the facilitator guide discussion around steps for implementing new technology.</p> <p>Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.</p>

Facilitator Guide–Slide Deck

continued

<div data-bbox="142 321 537 617" style="border: 1px solid black; padding: 10px;"><p>Step 6: Evaluation and Feedback</p><ul style="list-style-type: none">• To determine if goals and objectives have been met• To provide information for continuous improvement• To assess outcomes<ul style="list-style-type: none">○ Clinical (patient outcomes)○ Health care dollar outcomes○ Care team member satisfaction, acceptability, etc.○ Patient satisfaction, acceptability, etc.• To maintain and increase support<p style="font-size: 8px; margin-top: 5px;">© 2019 Boston Children's Hospital. All rights reserved.</p></div>	<div data-bbox="586 216 1289 275" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 28 » Step 6: Evaluation and Feedback</div> <p>This slide is intended to help the facilitator guide discussion around steps for implementing new technology.</p> <p>Use these slides to guide small group discussions or even to create a workshop for learners to brainstorm their own processes.</p>
<div data-bbox="142 764 537 1060" style="border: 1px solid black; padding: 10px;"><p><i>Breakout – Small Groups</i></p><ul style="list-style-type: none">• Share information about the system currently used by your institution or office to coordinate care.• Identify problems to be addressed.• Determine what resources are available.• Consider what additional resources are needed.<p style="font-size: 8px; margin-top: 5px;">© 2019 Boston Children's Hospital. All rights reserved.</p></div>	<div data-bbox="586 653 1175 711" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 29 » Breakout–Small Groups</div> <p>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.</p> <p>Consider having the small breakout groups discuss ideas and then report back to the larger group.</p>
<div data-bbox="142 1205 537 1501" style="border: 1px solid black; padding: 10px;"><p>Report Back From Small Groups</p><ul style="list-style-type: none">• Share information about the system currently used by your institution or office to coordinate care.• Identify problem to be addressed.• Determine what resources are available.• Consider what additional resources are needed.<p style="font-size: 8px; margin-top: 5px;">© 2019 Boston Children's Hospital. All rights reserved.</p></div>	<div data-bbox="586 1094 1279 1152" style="background-color: #76923c; color: white; padding: 5px;">SLIDE 30 » Report Back from Small Groups</div> <p>Report back</p>

Facilitator Guide–Slide Deck

continued

SLIDE 31 » Current State: Case Study

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.

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

SLIDE 32 » Challenge: Monitoring Children with ADHD

Challenge: Monitoring Children With ADHD

- Parent- and teacher-completed ADHD rating scales are needed to assess the patient response to treatment.

Parents: Early morning	Teachers: School day	Parents: Evening
Stimulant not in effect	Stimulant in effect	Stimulant worn off

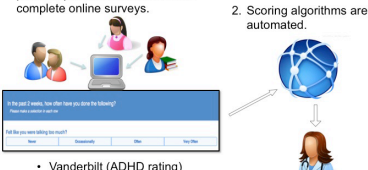
- A minimal number of rating scales are typically returned to the medical home.
 - Parent rating scales: ~20%-30%
 - Teacher rating scales: <5%
- Providers are “flying blind” with respect to medication decision-making.

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This slide indicates a challenge that cannot be helped by technology. The case does not have to be centered around ADHD. The facilitator should feel free to create a new case, based on the target audience.

SLIDE 33 » Intervention

Intervention

1. Email notifications are sent to parents, patients, and teachers to complete online surveys.
 
 - Vanderbilt (ADHD rating)
 - PedsQL (Quality of Life)
 - Medication confirmation
 - Side effects inventory
2. Scoring algorithms are automated.
3. Email notifications are sent to clinicians with alerts.

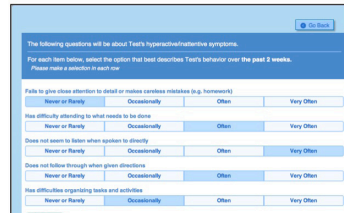
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This slide illustrates a framework for a technological platform that helps get the right information to the right people (something that is often described as an issue with ADHD patients).

The facilitator can choose to share different technological platforms.

SLIDE 34 » Responder Interface

Responder Interface



The following questions will be about Teah's hyperactive/impulsive symptoms.

For each item below, select the option that best describes Teah's behavior over the past 2 weeks.

Please select a number in each row.

Fails to give close attention to detail or makes careless mistakes (e.g., homework)

How often? Never or Rarely Occasionally Often Very Often

Has difficulty attending to what needs to be done

How often? Never or Rarely Occasionally Often Very Often

Does not seem to listen when spoken to directly

How often? Never or Rarely Occasionally Often Very Often

Does not follow through when given directions

How often? Never or Rarely Occasionally Often Very Often

Has difficulties organizing tasks and activities

How often? Never or Rarely Occasionally Often Very Often

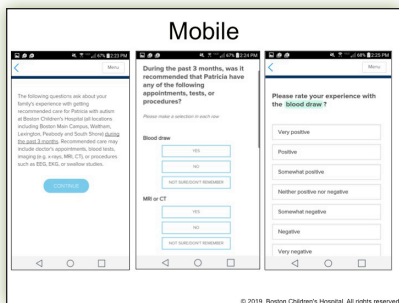
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The next few slides demonstrate the different modalities that people use to communicate. This slide includes an example from a computer.

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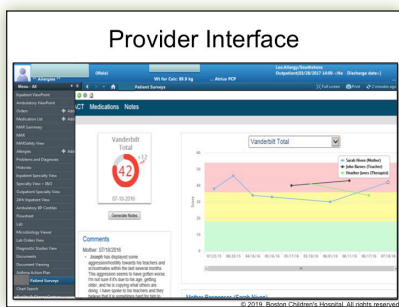
continued



SLIDE 35 » Mobile

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.

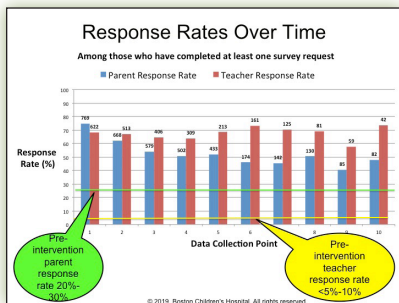
The facilitator should consider making different modalities accessible. It is also important to think through making platforms accessible in different languages.



SLIDE 36 » Provider Interface

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.

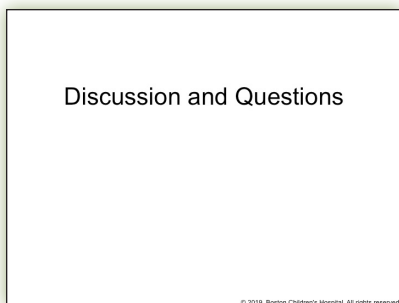
Visual cues and being able to see progress over time are both important and worth considering when considering new technologies.



SLIDE 37 » Response Rates Over Time

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.



SLIDE 38 » Discussion and Questions

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

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