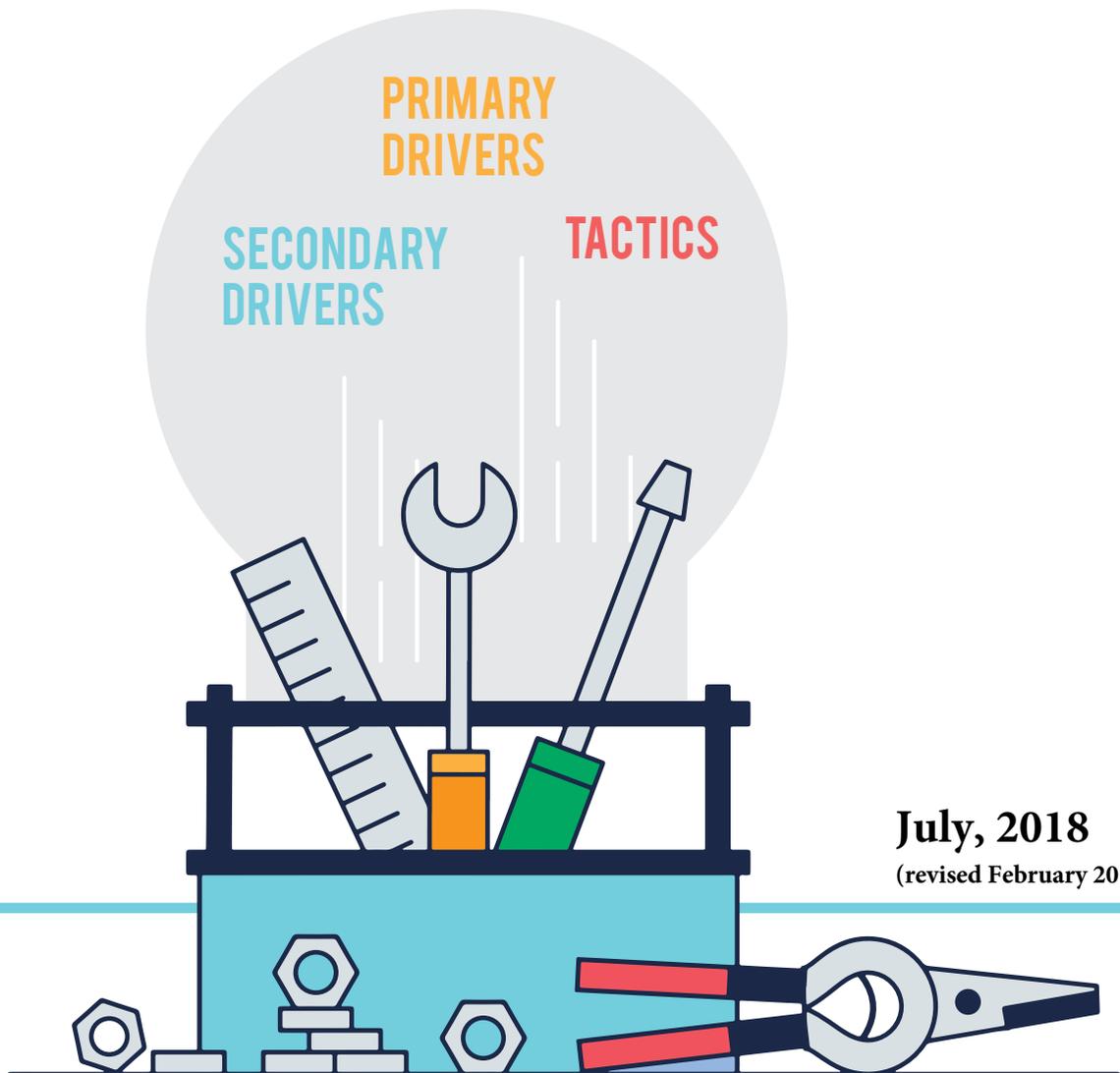


BUNDLED PAYMENTS FOR CARE IMPROVEMENT (BPCI) INITIATIVE:

PUBLIC TOOLKIT



Disclaimer: This document is a compilation of strategies, change concepts, tools, and tactics designed to help organizations implement process changes that accelerate their successful adoption of bundled payment strategies. Although every reasonable effort has been made to assure the accuracy of the information within these pages, the ultimate responsibility for creating change lies with the provider of services.

The Centers for Medicare & Medicaid Services (CMS) employees, agents, and staff make no representation, warranty, or guarantee that this compilation of strategies is error-free and will bear no responsibility or liability for the results or consequences of the use of this toolkit.

INTRODUCTION

The Bundled Payments for Care Improvement (BPCI) Initiative, established in 2013, was one of the first CMS Innovation Center episode-based payment model tests. During participation in this bundled payment model, participant organizations, referred to as Awardees, use various strategies to provide Medicare beneficiaries with coordinated, higher quality care at lower costs. Unlike the fee-for-service model which reinforces silos, bundled payments for all services in an episode of care are linked, leading to greater financial and performance accountability. Incentives for “hospitals, post-acute care providers, physicians, and other practitioners” are aligned, encouraging collaboration across all settings.¹

Recognizing that there is no single pathway to success as a BPCI organization, the CMS Innovation Center contracts with The Lewin Group, for the BCPI Learning System, to harvest these strategies and disseminate ideas. This toolkit compiles strategies, processes, and resources from the CMS Innovation Center BPCI Learning System to help BPCI organizations identify new insights that may aid them in their implementation of bundled payment strategies.

Research suggests that there are many “ingredients to success,” or factors, that drive strong performance in Clinical Episode Bundles. A driver diagram, also referred to as a logic model, depicts how different “drivers,” or core activities, come together to help an organization achieve its objectives. In the BPCI toolkit, the primary drivers, comprised of seven focus areas, provide a high-level plan to meet the overall goals of BPCI. Underlying each primary driver are secondary drivers that represent core activities to implement the primary drivers. Finally, these drivers are grounded by specific tactics that any organization can begin testing in a controlled environment to see if they result in meeting the goals of improved quality at lower costs.

Page 3 of this toolkit shows the primary and secondary drivers for success in bundled payments. Primary drivers and their associated secondary drivers and tactics may not be linear. Each organization may use various drivers and tactics at different times based on the episode, local community needs, and patient populations. Organizations are not expected to —nor should they—implement all the tactics.

To develop the toolkit, 35 high performing Awardees were identified for interviews based on select quality, utilization, and cost metrics. The analytical plan for identifying top performers was adapted from the Achievable Benchmarks of Care (ABC) method, first proposed by Kiefe and colleagues (1998).² The ABC method does not seek to measure the statistical significance of observed differences between Awardees. Because the intent is non-evaluative, it is not critically important to know whether an observed difference between an Awardee’s performance and the benchmark is statistically significant. Rather, ABCs are targets for process measurement, where the measures of the use of “best practices of care” by Awardees are the same across sites. The Awardee interviews followed a set of standard questions, and allowed for open dialogue to discuss key drivers and tactics that Awardees believed were instrumental to their success.

The toolkit also includes a variety of tools and resources that organizations use and those identified from peer-reviewed and grey literature. Examples of Awardees’ successful BPCI strategies for select episodes, in the form of short case studies, called Awardee Spotlights, can be found at the end of the toolkit. Strategies highlighted in these Awardee Spotlights correspond to several primary and secondary drivers, illustrating how they can be implemented in practice.

1 Centers for Medicare & Medicaid Services. (2018, February 16). [Bundled Payments for Care Improvement \(BPCI\) Initiative: General Information](#).

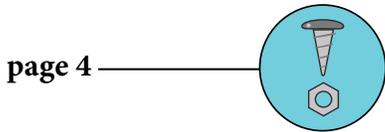
2 Kiefe CI, Weissmaqn NW, Allison JJ, Farmer RM, Weaver M, Williams OD. Identifying achievable benchmarks of care (ABCs): concepts and methodology. *International Journal for Quality in Health Care*. 1998 Oct; 10(5): 443-7.

BPCI DRIVER DIAGRAM

AIMS: IMPROVE QUALITY OF CARE, IMPROVE HEALTH OUTCOMES, & REDUCE COST OF CARE

PRIMARY DRIVERS

SECONDARY DRIVERS



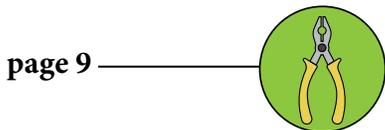
Strategic partnerships to promote care coordination and data sharing

- Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition



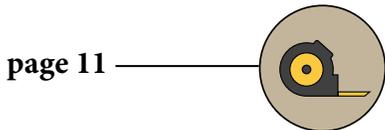
Efficient and appropriate staffing models

- Involve multidisciplinary teams in the idea generation and decision-making process
- Provide a learning and communication platform for clinicians and internal staff
- Offer standardized education to staff
- Designate an individual to follow the patient throughout the episode and be the point person for communications with all providers included in the patient's care team



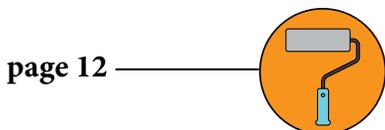
Patient identification and risk stratification

- Optimize strategy for effective clinical management of care
- Use technology to identify and monitor patients



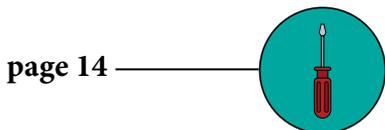
Effective clinical and financial management

- Care redesign/use of evidence-informed care protocols
- Identify internal cost saving opportunities and implement financial incentives



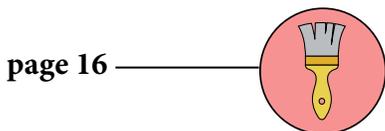
Patient and family engagement throughout the care continuum

- Communicate and engage with providers, patient, and family throughout the episode by providing ongoing care and support
- Create touchpoints throughout the care continuum to engage the patient and prevent avoidable readmissions
- Engage patient and family through education and shared decision-making in discharge planning and placement decisions to support patient rights and preferences



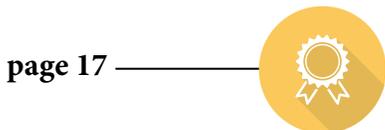
Data driven program management

- Collect and analyze process and outcome data to track progress toward quality improvement
- Use data to engage providers, monitor progress towards goals, and improve care strategies
- Make data actionable and transparent

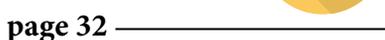


Continuous quality improvement

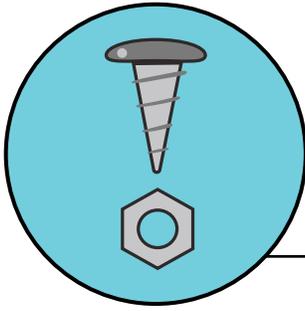
- Create lean quality improvement strategy that can be constantly tested and improved
- Connect with colleagues, both locally and nationally, to share best practices and resources



BPCI Awardee Spotlight



Appendix: Additional Resources



STRATEGIC PARTNERSHIPS TO PROMOTE CARE COORDINATION AND DATA SHARING



LITERATURE:

- [OhioHealth ‘saved about 250 lives’ by reducing its sepsis mortality rate. Here’s how.](#)
- [Hospital Postacute Care Referral Networks: Is Referral Concentration Associated with Medicare-Style Bundled Payments?](#)
- [How to Succeed in Bundled Payments for Total Joint Replacement](#)
- [Association Between Hospital Participation in a Medicare Bundled Payment Initiative and Payments and Quality Outcomes for Lower Extremity Joint Replacement Episodes](#)

SECONDARY DRIVER



Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.



TACTICS



Hold regular meetings with key stakeholders—including inpatient providers and post-acute care (PAC) providers—to ensure smooth transitions of care, identify best practices in care management, and share successes in improving quality of care and reducing costs.



Create a “preferred provider” network by implementing and enforcing a set of standards that acute and PAC providers must meet in order to receive referrals or be eligible for gainsharing.



Create and foster partnerships with PAC providers in the community, including institutional care providers, home care and home health providers, and care transitions programs.



Partner with a local fire department and/or paramedicine to have emergency medical services staff visit patients in their homes.



Establish a partnership with local pharmacies that may be able to provide free or low-cost medications to patients that have limited financial resources.



STRATEGIC PARTNERSHIPS TO PROMOTE CARE COORDINATION AND DATA SHARING

Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.



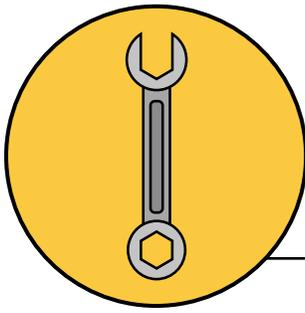
Create and deliver staff education regarding targeted conditions and their treatment to ensure standardized care protocols are understood and followed, and that the message is consistent among staff.



Share the comprehensive summary of the patient's care with acute and PAC providers.



Utilize data analytics to analyze claims data for clinical episodes and assist with care redesign and care coordination.



EFFICIENT AND APPROPRIATE STAFFING MODELS



LITERATURE:

- [Cost of Joint Replacement Using Bundled Payment Models](#)
- [Experience with Designing and Implementing a Bundled Payment Program for Total Hip Replacement](#)
- [How UCHHealth reduced sepsis mortality by 15 percent](#)
- [OhioHealth 'saved about 250 lives' by reducing its sepsis mortality rate. Here's how.](#)
- [How to Succeed in Bundled Payments for Total Joint Replacement](#)
- [Bundled payment success varies by condition](#)

SECONDARY DRIVER



Involve multidisciplinary teams in the idea generation and decision-making process.



TACTICS



Involve physicians as part of the multidisciplinary team to make collaborative decisions regarding care pathways, resources, and supply use (e.g., standard implant use for total joint replacement procedures).



Conduct multidisciplinary clinical team rounds (e.g., surgeons, nurses, anesthesiologists, physical therapists, case management, care navigators, pharmacists) to facilitate sharing of information and address issues as they are identified in real-time.



Deploy a rapid response team (e.g., intensive care unit nurse, lab technician, respiratory therapist, intensivist physician, care coordinator) for select high-risk clinical conditions (e.g. sepsis).



Involve a pharmacist to conduct medication teaching and to conduct bedside medication teaching prior to discharge to review their medications.



SECONDARY DRIVER ▶▶▶	Provide a learning and communication platform for clinicians and internal staff.
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TACTICS

-  Develop clinical steering committees or workgroups to determine best practices, establish protocols for change, and define relevant metrics to measure impact. Encourage teams to meet on a regular basis (e.g., daily, bi-weekly, monthly, quarterly) to maintain communication and sustain engagement in important initiatives.
-  Establish a process that enables emergency department (ED) staff to communicate with floor staff about urgent matters.
-  Garner the support of a “physician champion,” whom other providers listen to and trust (e.g., a clinical peer, department chair) and have them demonstrate their support for quality improvement initiatives.
-  Promote a culture of peer-review, where members of the care team (e.g., physicians, case management, quality teams) receive data driven feedback from their colleagues and are provided additional education if needed.
-  Create or hire “care coordination staff” that follow up directly with providers in the hospital, home health agencies (HHAs), and skilled nursing facilities (SNFs) to ensure smooth patient transitions and discharges.

SECONDARY DRIVER ▶▶▶	Offer standardized education to staff.
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TACTICS

-  Create and deliver staff education regarding targeted conditions and their treatment to ensure standardized care protocols are understood and followed, and that the message is consistent among staff.
-  Develop pocket cards for physicians and nurses for standardized care protocols for targeted conditions.



EFFICIENT AND APPROPRIATE STAFFING MODELS

SECONDARY DRIVER



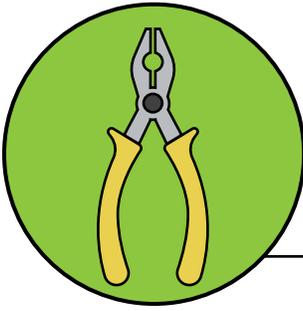
Designate an individual to follow the patient throughout the episode and be the point person for communications with all providers included in the patient's care team.



TACTIC



Hire a care/patient navigator, care coordinator, or transitional care specialist.



PATIENT IDENTIFICATION AND RISK STRATIFICATION



LITERATURE:

- [Improvement in Total Joint Replacement Quality Metrics: Year One Versus Year Three of the Bundled Payments for Care Improvement Initiative](#)
- [Physicians With Defined Clear Care Pathways Have Better Discharge Disposition and Lower Cost](#)

SECONDARY DRIVER



Optimize strategy for effective clinical management of care.



TACTICS



Use a risk assessment tool to tailor the care plan (e.g. number of follow-up calls, level of clinician interaction, referrals to services) for patients.



Develop a protocol to standardize processes for pre-, intra-, and post-operative phases (e.g., risk assessments, rounding frequency, early ambulation, initiation of discharge process, transfer of medication information).

SECONDARY DRIVER



Use technology to identify and monitor patients.



TACTICS



Flag BPCI patients in electronic health record (EHR) system when they are seen in the ED or admitted to the hospital.



PATIENT IDENTIFICATION AND RISK STRATIFICATION

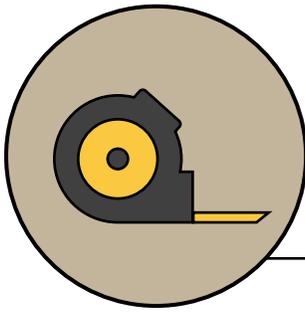
Use technology to identify and monitor patients.



Build logic into EHR to issue an alert if a patient illustrates a specific set of criteria. Deploy a charge nurse, nurse supervisor, or the coordinator to the bedside of the patient exhibiting these symptoms. Simplify the set of criteria whenever possible.



Use technology to monitor the patient after discharge (e.g. vital statistics such as weight, heart rate, blood pressure, and oxygen levels; use of telehealth technology for virtual visits).



EFFECTIVE CLINICAL AND FINANCIAL MANAGEMENT

SECONDARY DRIVER



Care redesign/use of evidence-informed care protocols.



TACTICS



Manage pre-existing chronic conditions.



Standardize patient care by developing and deploying protocols and care pathways (e.g., initiate “Code Sepsis”)



Expand successful care redesign strategies to include non-BPCI patients.

SECONDARY DRIVER



Identify internal cost saving opportunities and implement financial incentives.



TACTICS



Identify supply chain improvement opportunities and negotiate with vendors.



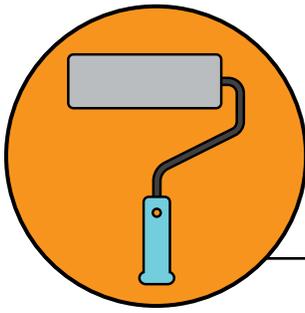
Use CMS resources and waiver authority to improve coordination of care throughout the episode, such as beneficiary incentive and three-day SNF waiver.



Reward clinicians for improved outcomes, such as through gainsharing.



Invest in ongoing infrastructure enhancements (including IT and communication infrastructure).



PATIENT AND FAMILY ENGAGEMENT THROUGHOUT THE CARE CONTINUUM



LITERATURE:

- [Improvement in Total Joint Replacement Quality Metrics: Year One Versus Year Three of the Bundled Payments for Care Improvement Initiative](#)

SECONDARY DRIVER



Communicate and engage with providers, patient, and family throughout the episode by providing ongoing care and support.



TACTICS



Establish a process for providers to follow up with the patient during post-discharge period.



Enable real-time sharing of patient information between providers and patients.

SECONDARY DRIVER



Create touchpoints throughout the care continuum to engage the patient and prevent avoidable readmissions.



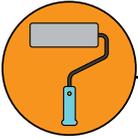
TACTICS



Develop a protocol to follow up with patients during the post-discharge period, such as through the use of a care coordinator/navigator or by creating designated touchpoints.



Use data tracking services and technologies, such as software that allows for video call capabilities between provider and patient and tracks information gathered during post-discharge follow-up calls and visits.



PATIENT AND FAMILY ENGAGEMENT THROUGHOUT THE CARE CONTINUUM

Create touchpoints throughout the care continuum to engage the patient and prevent avoidable readmissions.



Implement the use of a patient portal to provide patients access to care plan and data.



Prior to a surgery or procedure, identify a family member or caregiver who will be able to provide support to the patient at home post-discharge.



Use technology to monitor the patient after discharge (e.g. vital statistics such as weight, heart rate, blood pressure, and oxygen levels; use of telehealth technology for virtual visits).

SECONDARY DRIVER



Engage patient and family through education and shared decision-making in discharge planning and placement decisions to respect patient rights and preferences.



TACTICS



Educate and engage patients in self-care while respecting patient choice. Offer pre-education courses to discuss procedure, plan of care, and PAC. If patient/family is not able to or is uninterested in attending a pre-surgical education class, provide the materials online or send paper materials through the mail.



Set expectations upfront and inform patients of their options for PAC, including the identified benefits of preferred providers and partners.



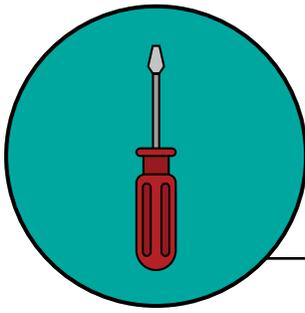
Ensure that the clinical team and the patient/family coordinate to develop a post-acute discharge plan. Understand what is important to the patient and their family to support shared decision-making, while providing them with the necessary information to make an informed decision (e.g., to discharge to an institutional PAC facility, home with home health care).



Use beneficiary incentives to support patients (e.g., providing transportation).



Designate patient volunteers to help with the development of educational materials, programs, or classes.



DATA DRIVEN PROGRAM MANAGEMENT



LITERATURE:

- [Transitioning From Volume to Value: A Strategic Approach to Design and Implementation](#)
- [Experience with Designing and Implementing a Bundled Payment Program for Total Hip Replacement](#)

SECONDARY DRIVER



Collect and analyze process and outcome data to track progress toward quality improvement.



TACTICS



Assess and build organizational capacity to track and review performance on quality measures in as real-time as possible (e.g., daily reports).



Ensure all relevant stakeholders are involved in the metric selection and assessment process.



Consider collecting a combination of quantitative data (e.g., claims, surveys, costs) and qualitative data (e.g., interviews, observations, document analysis) to understand what is happening, why it is happening, and what impact it is having.



Track process and outcome measures at both the individual provider and group level, depending on what seems most appropriate for a given measure.



SECONDARY DRIVER ▶▶▶	Use data to engage providers, monitor progress towards goals, and improve care strategies.
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TACTICS

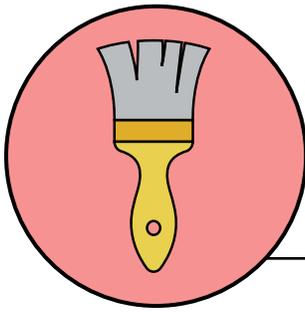
-  Develop a mechanism to regularly disseminate results to relevant stakeholders to inform quality efforts, programs, and policies.
-  Use performance improvement tools such as dashboards, scorecards, and the Plan-Do-Study-Act (PDSA) methodology to communicate data to executive leadership, physicians, and other providers as a way to promote change and ultimately improve patient care processes and outcomes.
-  Customize metrics and dashboards for target audiences (e.g., anesthesia, surgery, cardiology, inpatient, PAC providers, administrative, financial) so that the information is most relevant to them.
-  Share data to highlight data trends over time (e.g., length of stay, readmissions, clinical outcomes, discharge disposition) for preferred providers.

SECONDARY DRIVER ▶▶▶	Make data actionable and transparent.
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TACTICS

-  Use data to set specific performance expectations for providers using quality measures (e.g., use quality measures to initiate conversations about variations between referral patterns and the outcomes obtained from use of predictive tools, use quality measures to compare patient outcomes with different PACs).
-  Share performance data transparently (unblinded) across providers and/or facilities to facilitate open and honest dialogue about best practices, and promote a sense of collegial competition.



CONTINUOUS QUALITY IMPROVEMENT

SECONDARY DRIVER



Create lean quality improvement strategy that can be constantly tested and improved.



TACTICS



Adapt to and/or integrate with other quality improvement initiatives and value-based delivery systems (e.g., Accountable Care Organizations (ACOs), Quality Innovation Network Quality Improvement Organizations (QIN-QIOs), Health Information Exchanges (HIEs), Transforming Clinical Practice Initiative (TCPI), Accountable Health Communities (AHC)).



Perform continual process improvements and pilot studies or tests to evaluate the effectiveness of the bundled program, using qualitative data (feedback, patient experience data) and quantitative performance data to inform decisions.



Work with large employers to develop value-based care for their employees.



Hold calls with staff that are accountable for outcomes in their performance reviews.

SECONDARY DRIVER



Connect with colleagues, both locally and nationally, to share best practices and resources.



TACTICS



Review and disseminate peer-reviewed journal articles that discuss and evaluate BPCI programs or other bundled initiatives.

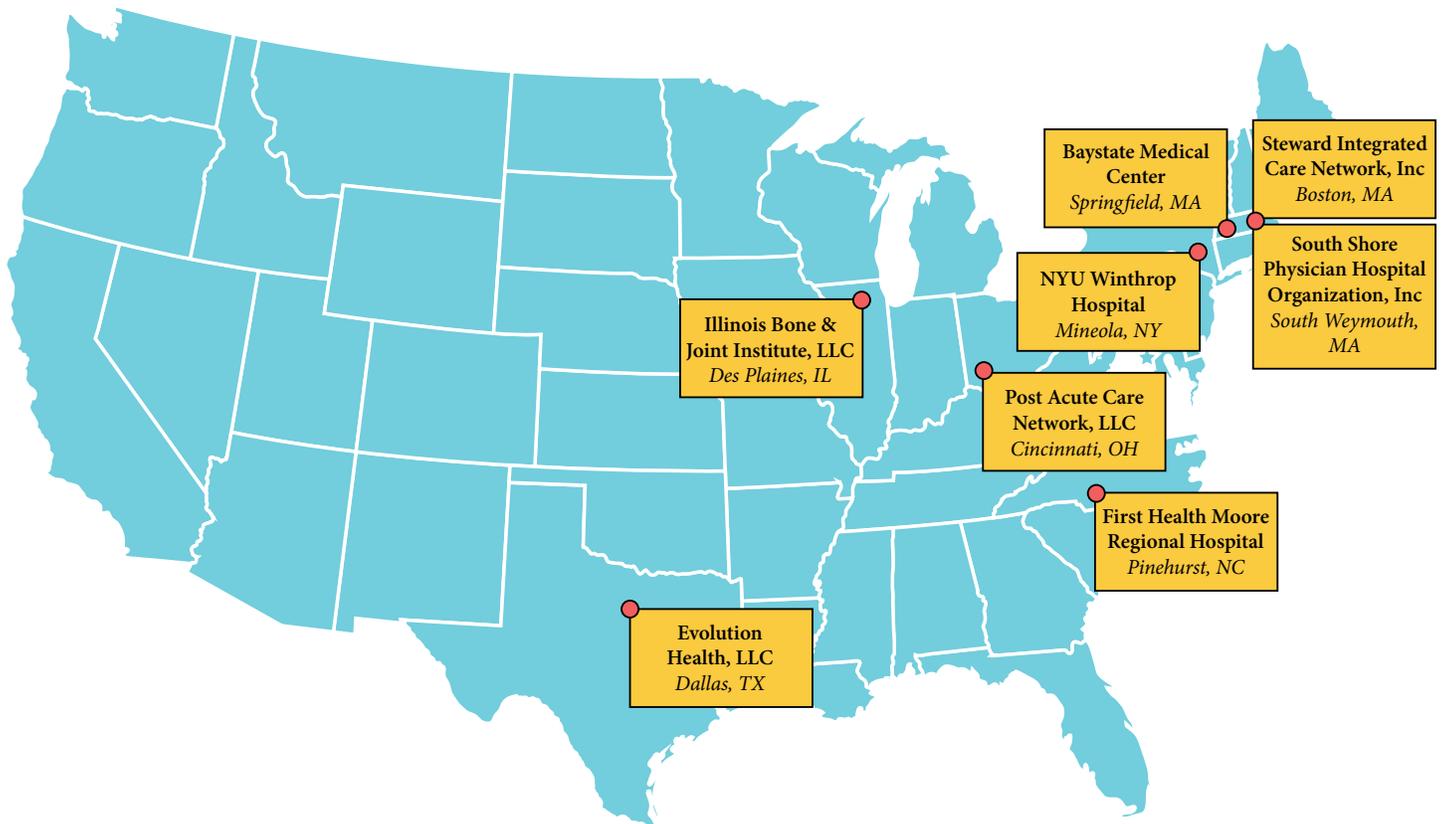


Attend conferences and network with colleagues doing similar work.



BPCI AWARDEE SPOTLIGHTS

Awardee Spotlights provide a deeper dive into high performing BPCI Awardees and their successful strategies to enhance quality of care, improve health outcomes, and reduce cost of care. Organizations highlighted in these Awardee Spotlights include Acute Care Hospitals, Designated Awardees, Awardee Conveners, and Physician Group Practices. Each Awardee Spotlight aligns with at least one primary driver, indicated by an icon at the top of the page, and includes the corresponding secondary drivers. Refer to **page 3** of this document for a list of the primary and secondary drivers. Read through the Awardee Spotlights below to learn more about the Awardee organization, their successful strategies, and high level outcomes related to their BPCI program.





BPCI AWARDEE SPOTLIGHT

Baystate Medical Center
Model 2 Designated Awardee

PRIMARY DRIVERS:



Strategic partnerships to promote care coordination and data sharing



Efficient and appropriate staffing models



Data driven program management

SECONDARY DRIVERS:



Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.



Provide a learning and communication platform for clinicians and internal staff.



Collect and analyze process and outcome data to track progress toward quality improvement.



Use data to engage providers, monitor progress towards goals, and improve care strategies.

Participant type

Acute Care Hospital

State

Massachusetts

Geographic Location

Other Urban

Number of beds

682

Episodes

Major joint replacement of the lower extremity (MJRLE)

Coronary artery bypass graft (CABG)

Major bowel procedure

Dates of Participation

January 2014 - Present

Website

<https://www.baystatehealth.org>

Baystate Medical Center (Baystate) joined the BPCI Initiative in 2014 as a Model 2 Designated Awardee and has been working to promote collaboration between their acute and PAC providers. They have developed a list of preferred PAC providers based on several metrics, including CMS star ratings, onsite evaluations by team members, and—specific to their MJRLE episodes—infrastructure to accommodate the specific needs of total joint replacement patients. For the MJRLE episode, Baystate coordinates quarterly meetings with their preferred PAC providers and hospital physicians to facilitate dialogue among the entire care team. Topics of discussion during these meetings include performance data and expected clinical symptoms after discharge to avoid preventable readmissions. During these meetings, Baystate staff use dashboards to highlight data trends over time (e.g., length of stay, readmissions, clinical outcomes, discharge disposition) for their preferred providers. These meetings also provide an opportunity for hospital physicians to educate the PAC team about



BPCI AWARDEE SPOTLIGHT

Baystate Medical Center

patients' potential red flags—for example how to recognize a “significant” versus “normal” fever. For CABG and major bowel procedures, Baystate coordinates with PAC providers on specific educational sessions to improve care and reduce readmissions.

In addition, for the CABG bundles, Baystate has identified a physician champion to build relationships with the PAC providers and garner support for quality improvement efforts. The physician champion conducts daily rounds with the care team, and together, they ensure that patients have identified a primary support person (e.g., spouse, friend) and have adequate home support after the operation. This identification of post-operative support has helped patients transition to home more seamlessly and reduced readmissions. As a result, more patients are going home with home health.

Through increased communication and coordination with PAC providers, as well as physician engagement throughout the care continuum, Baystate has created successful care protocols for all of their patients, which has led to improved patient outcomes.



BPCI AWARDEE SPOTLIGHT

Evolution Health LLC
Model 3 Awardee Convener

PRIMARY DRIVER:



Data driven program management

SECONDARY DRIVERS:

- Collect and analyze process and outcome data to track progress toward quality improvement.
- Use data to engage providers, monitor progress towards goals, and improve care strategies.
- Make data actionable and transparent.

Participant type

Awardee Convener

Episodes

Major joint replacement of the lower extremity (MJRLE)

State

Texas

Dates of Participation

July 2015 - June 2017

Website

<https://www.evolution.net/>

Evolution Health LLC (Evolution) joined the BPCI Initiative in 2015 and is a physician services organization with 40,000 physicians in over 48 sites across California, New York, New Jersey, and Florida. Evolution’s approach to care redesign is to change the culture of how care is provided by making care more patient-centric and value- and evidence-based. To do this, they have focused heavily on tracking and sharing data with providers to support quality improvement efforts.

Evolution creates data dashboards to share data with providers, standardize care protocols, improve care networks, and establish goals. The dashboards include data on length of stay, readmissions, costs, and discharge locations that are stratified by episode, Diagnosis-Related Group (DRG), and providers. As a specific example, Evolution reviews the data on readmissions, by provider, with providers so that everyone can better understand the areas for improvement. Evolution felt that it was important to use data to engage providers and begin the discussion about care pathway redesign. Providers genuinely want to provide the best care they can for patients and appreciate seeing the data. Evolution shares the data and sets goals with them and their staff around key objectives.

Evolution views BPCI as an opportunity to put the data in the hands of the providers and better understand how care is provided across the community. To help providers better understand the data and make it more visually appealing, they have started using Tableau. The data is accessible to everyone and creates a sense of urgency to improve processes and patient outcomes.



BPCI AWARDEE SPOTLIGHT

First Health Moore Regional Hospital
Model 2 Single Awardee

PRIMARY DRIVERS:



Efficient and appropriate staffing models



Patient identification and risk stratification



Patient and family engagement throughout the care continuum



Data driven program management

SECONDARY DRIVERS:

- Designate an individual to follow the patient throughout the episode and be the point person for communications with all providers included in the patient’s care team.
- Provide a learning and communication platform for clinicians and internal staff.
- Optimize strategy for effective clinical management of care.
- Use technology to identify and monitor patients.
- Engage patient and family through education and shared decision-making in discharge planning and placement decision to respect patients rights and preferences.
- Use data to engage providers, monitor progress towards goals, and improve care strategies.

Participant type

Acute Care Hospital

State

North Carolina

Geographic Location

Rural

Number of beds

404

Episodes

Double joint replacement of the lower extremity (DJRLE)

Major joint replacement of the lower extremity (MJRLE)

Dates of Participation

January 2014 - Present

Website

<https://www.firsthealth.org/>

First Health Moore Regional Hospital (First Health Moore) joined the BPCI Initiative in 2014 and uses data to drive a collaborative approach with patients and providers. The core elements contributing to the success of their BPCI Initiative include: a nurse care navigator who follows the patient throughout the episode; pre-operative patient education; a risk assessment tool; standardized protocols and order sets for physicians; and data system for regular communications with providers.



BPCI AWARDEE SPOTLIGHT

First Health Moore Regional Hospital

The care navigator and physicians have worked together to develop a standard care pathway, pre-operative orders, and post-operative orders. First, before hospitalization, the care navigator and physical therapist provide education through in-person joint classes. If patients are unable to attend the class in-person, they have the option to take it online. This pre-operative education helps patients understand what to expect before, during, and after the procedure. The care navigator coordinates care and directly communicates with patients and PAC providers.

The navigator has developed a real-time data sharing platform that allows physicians to sign in at any time and determine where patients are in the continuum of care. The care coordinator produces a scorecard that shows data related to SNF length of stay, readmissions, and discharge disposition. The data are discussed during the quarterly SNF meetings and physicians use data to recommend the best care option for patients.

First Health Moore staff uses the Risk Assessment and Prediction Tool (RAPT) to promote communication and collaboration between physicians and families in order to have a discharge plan set prior to hospitalization. The RAPT score helps determine the most appropriate discharge disposition and allows the physician and patient to discuss viable options for post-discharge placement in order to support patient rights and preferences.

First Health Moore has implemented successful strategies to ensure patients are discharged to the most appropriate PAC setting and to monitor and measure the impact of the BPCI Initiative.



BPCI AWARDEE SPOTLIGHT

Illinois Bone and Joint Institute
Model 3 Designated Awardee

PRIMARY DRIVERS:



Patient identification and risk stratification



Strategic partnerships to promote care coordination and data sharing



Data driven program management

SECONDARY DRIVERS:



Optimize strategy for effective clinical management of care.



Use technology to identify and monitor patients.



Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.



Collect and analyze process and outcome data to track progress toward quality improvement.



Use data to engage providers, monitor progress towards goals, and improve care strategies.



Make data actionable and transparent.

Participant type

Physician Group Practice

State

Illinois

Episodes

Major joint replacement of the lower extremity (MJRLE)

Double joint replacement of the lower extremity (DJRLE)

Major joint replacement of the upper extremity (MJRUE)

Revision of the hip or knee

Spinal fusion (non-cervical)

Dates of Participation

January 2014 - Present

Website

<https://www.ibji.com/>

Illinois Bone and Joint Institute (IBJI) joined the BPCI Initiative in January 2014. They see about 2,500 BPCI patients a year and use a care coordination strategy that targets patients who deviate from their expected care plan. The most important elements contributing to the success of their BPCI Initiative include: (1) use of a pre-operative risk assessment questionnaire, (2) creation of a customized post-operative rehabilitation care plan, (3) establishment of a partner provider care network, and (4) active case management of patients observed deviating from the expected individualized care plan and/or functional progression markers.

The pre-op assessment includes identification of patient medical comorbidities as well as social, emotional, and physical barriers to optimal recovery. This individualized assessment and information-gathering process in the pre-operative



BPCI AWARDEE SPOTLIGHT

Illinois Bone and Joint Institute

setting improves patient engagement, permits improved education, and creates an opportunity to introduce patients to the available partner provider network to support an optimized care continuum.

Key to the timely management of these patients is the use of a data platform supporting transparent care coordination across a partner provider, patient, and surgeon network. The data platform helps identify patients “on plan” or “off plan” and three nurse care coordinators focus on “off plan” patients, using their knowledge to evaluate contributing factors that force patients “off plan.” The care coordinators engage partner PAC providers to report and track patient progress to guide recovery. Functional progression markers establish identified goals for each care setting and these functional criteria permit patient advancement within the rehabilitation care network.

IBJI uses the data to transparently report surgeons/care team as well as PAC provider performance. This program performance data is shared quarterly to continually improve their network of preferred PAC providers. Regular meetings with surgeons and providers permitting performance review (i.e. resource utilization and re-admissions) and promoting BPCI Initiative goals.

IBJI’s BPCI reconciliation generated data from 2014 to 2016 demonstrates:

- Decreased SNF initiation by 19%
- Decreased mean SNF length of stay by 25%
- Decreased hospital readmission rates from 11.5% to 6.3%



BPCI AWARDEE SPOTLIGHT

NYU Winthrop Hospital
Model 2 Single Awardee

PRIMARY DRIVERS:



Strategic partnerships to promote care coordination and data sharing



Efficient and appropriate staffing models

SECONDARY DRIVERS:

- Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.
- Involve multidisciplinary teams in the idea generation and decision-making process.
- Designate an individual to follow the patient throughout the episode and be the point person for communications with all providers included in the patient's care team.

Participant type

Acute Care Hospital

State

New York

Geographic Location

Large Urban

Number of beds

510

Episodes

Major joint replacement of the lower extremity (MJRLE)

Dates of Participation

January 2014 - Present

Website

<http://www.winthrop.org/>

NYU Winthrop Hospital (Winthrop) joined the BPCI Initiative in 2014 and sees about 300 MJRLE patients in BPCI a year. They have focused their efforts on developing a strong transitional care program, which includes:

- implementing a nurse navigator role to improve care coordination and patient education;
- increasing communication with their orthopedic surgeons and other providers;
- implementing an early mobility program; and
- creating structured relationships with high-quality SNFs in their community.

Winthrop has a dedicated nurse navigator who conducts pre-operative home visits to educate the patient about the procedure, conducts a home safety evaluation, medication reconciliation, and addresses several other needs of the patient and family throughout the episode of care. In-hospital transitional care consists of interdisciplinary care team coordination and an emphasis on early mobility, which Winthrop credits with its decreased hospital length of stay. Postoperative patients are followed as needed determined by their risk factors. The nurse navigator remains in contact with the patient and team throughout the episode of care.



BPCI AWARDEE SPOTLIGHT

NYU Winthrop Hospital

Partnerships are an essential component of Winthrop's program. After identifying to which SNFs their patients were most frequently discharged, Winthrop formed partnerships with the commonly-used SNFs and has since been working with them to set goals and expectations of quality. Winthrop meets quarterly with the facilities to set goals and present quality metrics. Through focusing on these enriched formal partnerships with high-quality institutions and close follow up with home care, Winthrop has been able to cut their 90-day readmissions in half and lowered the SNF length of stay considerably since joining the BPCI Initiative. Not only have they been able to improve relationships with PAC providers, but Winthrop has increased provider engagement by engaging orthopedic surgeons in the patient education process, both before and after surgery.

Through increased coordination and highly patient-centered care, Winthrop has seen early successes with its BPCI orthopedic patients.



BPCI AWARDEE SPOTLIGHT

Post Acute Care Network, LLC
Model 3 Awardee Convener

PRIMARY DRIVERS:



Strategic partnerships to promote care coordination and data sharing



Data driven program management

SECONDARY DRIVERS:

- Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.
- Collect and analyze process and outcome data to track progress toward quality improvement.
- Use data to engage providers, monitor progress towards goals, and improve care strategies.

Participant type

Awardee Convener

State

Ohio

Episodes

All 48 episodes

Dates of Participation

April 2015 - Present

Website

<http://postacutecarenetwork.com/>

Since joining the BPCI Initiative in 2015 as an Awardee Convener, Post-Acute Care Network (PACN) has strengthened organizational data tracking and analytic capacity and created standardized care pathways and protocols to consistently provide high-quality care at the best value to their hospital partners. By institutionalizing communication forums such as monthly care management team calls and quarterly hospital data presentations, PACN is able to constantly improve their processes and relationships, educate partners about their services and software capabilities, and discuss performance improvement opportunities. The data presentations with the episode-initiating hospitals in their network provide an opportunity to disseminate results to both hospital leadership and clinical teams to ensure all stakeholders are aware of current performance, including reconciliation data, care coordination program outcomes, and audit results, and to inform action around potential process improvements.

As part of their effort to improve patient care pathways, PACN has also established a relationship with the care transitions program that is provided through a community-based organization. Episode initiators can contract with this program to provide care transitions services for higher risk patients. The program includes services such as post-discharge home visits for medium- and high-risk patients, along with weekly follow-up phone calls, weekly calls for lower risk patients, and linkages to other community services. Information sharing between community-based and clinical staff is facilitated by the use of CareLink, a care transitions data platform through Archway that allows providers to estimate lengths of stay in order to determine the most appropriate post-discharge services for each patient. This capacity to share patient data real-time among providers improves both care coordination and patient outcomes.

By placing performance data at the center of their care delivery model, PACN has successfully reduced costs and resource utilization for their episodes while significantly reducing readmissions and improving the patient experience across all facilities.



BPCI AWARDEE SPOTLIGHT

South Shore Physician Hospital Organization
Model 2 Awardee Convener

PRIMARY DRIVERS:



Patient identification and risk stratification



Efficient and appropriate staffing models



Strategic partnerships to promote care coordination and data sharing

SECONDARY DRIVERS:

- Optimize strategy for effective clinical management of care.
- Involve multidisciplinary teams in the idea generation and decision-making process.
- Provide a learning and communication platform for clinicians and internal staff.
- Designate an individual to follow the patient throughout the episode and be the point person for communications with all providers included in the patient's care team.
- Promote collaboration and coordination between hospitals, clinicians, and other care settings for smooth patient transition.

Participant type

Awardee Convener

State

Massachusetts

Geographic Location

Large Urban

Number of beds

348

11 Episodes, including:

Acute myocardial infarction

Chronic obstructive pulmonary disease (COPD) bronchitis, asthma

Major joint replacement of the lower extremity (MJRLE)

Sepsis

Simple pneumonia and respiratory infections

Dates of Participation

July 2015 - Present

Website

<http://www.southshorehospital.org/sspho>

South Shore Physician Hospital Organization (South Shore) joined the BPCI Initiative in July 2015 and has focused on making bundled payments a system-driven model by creating the infrastructure and process changes needed to improve quality of care across their patient population. One reason for South Shore's successes has been their Care Progression and Transitional Care Team, which includes registered nurse (RN) case managers, discharge specialists, and social workers.

A risk assessment is conducted early on in the hospitalization so the case management staff can begin to prepare for and assist the patient with discharge. South Shore's risk stratification strategy incorporates disease state, history of ED visits, history of readmissions, and psychosocial factors to target high- and highest-risk patients for comprehensive follow-up services. A care coordinator follows the identified high-risk patients as they are discharged to a SNF. There is also a



BPCI AWARDEE SPOTLIGHT

South Shore Physician Hospital Organization

care coordinator who outreaches telephonically to patients who are discharged home with or without the Visiting Nurse Association. All high-risk patients are followed for a 90-day period.

Transition points are critical to South Shore's process, so they focus on making sure that the information flow is timely and accurate. When a patient is discharged to a SNF or acute rehabilitation facility, the hospital does a "warm handoff." The bedside RN taking care of the patient on day of discharge contacts the facility nurse to discuss special aspects of the patient's case using a shared tool that was developed with input from both South Shore nursing and SNF nursing. There are weekly care coordination meetings at the SNF in which the care team discusses ongoing clinical and skilled needs, projected length of stay, and barriers to transition. Also, there are quarterly operational meetings with the SNF during which the team reviews metrics and discusses any issues or new ideas to enhance care. They also optimized the IT platform that they use to coordinate the long-term management of patients, including documentation and requested outreach efforts to other providers. The team uses a case management communications tool to document interactions with patients and discharge planning. The goal is to better engage SNFs in the clinical management of patients, move patients along the care continuum as clinically appropriate, and resource them as quickly as possible.

Through the use of data to engage providers, knowledge sharing, and regular communication with everyone, South Shore has achieved improved patient outcomes.



BPCI AWARDEE SPOTLIGHT

Steward Integrated Care Network
Model 2 Awardee Convener

PRIMARY DRIVERS:



Efficient and appropriate staffing models



Patient and family engagement throughout the care continuum



Data driven program management

SECONDARY DRIVERS:

- Designate an individual to follow the patient throughout the episode and be the point person for communications with all providers included in the patient’s care team.
- Communicate and engage with providers, patient, and family throughout the episode by providing ongoing care and support.
- Create touchpoints throughout the care continuum to engage the patient and prevent avoidable readmissions.
- Collect and analyze process and outcome data to track progress toward quality improvement.
- Use data to engage providers, monitor progress towards goals, and improve care strategies.
- Make data actionable and transparent.

Participant type

Awardee Convener

State

Massachusetts

17 Episodes, including:

Chronic obstructive pulmonary disease (COPD) bronchitis, asthma
 Congestive heart failure
 Hip & femur procedures except major joint
 Major joint replacement of the lower extremity (MJRLE)

Dates of Participation

January 2015 - Present

Website

<https://steward.org/>

Steward Integrated Care Network (Steward) joined the BPCI Initiative in 2015. In order to provide consistent, high quality care to their patients and succeed under BPCI, Steward not only redesigned patient protocols, but also uses data to engage internal, clinical and non-clinical staff, and external partners.

As part of the collaboratively redesigned patient protocol and care pathway for major joint replacement surgery, patients meet with a care coordinator, physical therapist, home care provider, and surgeon before their surgery. Patients receive extensive education prior to any elective surgery about recovery time, likely discharge disposition, and length of stay. Rather than wearing hospital gowns while recovering from joint surgery, inpatients wear their own clothes and shoes to encourage early and frequent ambulation. Many patients are also provided access to a digital platform throughout the course of their care. The digital platform provides pre- and post-operative educational videos and opportunities to interact



BPCI AWARDEE SPOTLIGHT

Steward Integrated Care Network

with the care coordinator (including the ability to attach pictures to messages). A care coordinator follows up with the patient within 48 hours of the surgery and also conducts follow-ups at SNFs or the patient's home.

Steward also develops and shares comprehensive data reports with the eight facilities in their network so each facility can compare their performance metrics to others within the network. Internal hospital staff present the data to providers to ensure buy-in, as they are familiar with the hospital and its staff and can speak to the unique factors influencing the data. They identify which facilities have had favorable outcomes and encourage sharing of best practices across facilities. Steward also performs a deeper dive into data with post-acute providers, including SNFs, specialty providers, and HHAs, especially when readmission rates or lengths of stay are higher than expected. The deeper dive allows facilities and community providers to work together to improve the process for patients before, during, and after the hospital stay.

Through promoting collaboration and coordination with key community providers, developing a pre-operative education program to engage beneficiaries and families, and focusing on data and results in their community, Steward has not only achieved measureable outcomes, but changed the culture of their community to one focused on enhanced patient care. They have experienced reductions in readmissions and discharges to SNF, and an increase in discharge to HHAs.

APPENDIX: ADDITIONAL RESOURCES

Disclaimer: This table is a compilation of tools (articles, case studies, videos, and other resources) that may assist organizations with the implementation of strategies outlined in this document. The Centers for Medicare & Medicaid Services (CMS) is not endorsing the use of these particular products. The purpose of this list is to provide readers with an overview of different types of tools and resources that are available. CMS employees, agents, and staff make no representation, warranty, or guarantee that this compilation of tools is error-free and will bear no responsibility or liability for the results or consequences of the use of these tools.

Category	Type	Tool/Resource	Description
Advancing Care Coordination	Webinar	Innovation in Care Coordination	This presentation from CMS and CareSource highlights who CareSource is, how to coordinate care for the newly insured, and innovations in care coordination.
Care Protocols	Video	Get With The Guidelines - Heart Failure	Dr. Adam DeVore, MD, provides an analysis and discussion on hospital performance based on 30-day standardized mortality and long-term survivability after heart failure hospitalizations, and improvements in care for patients with heart failure. “Get with the Guidelines” is a nationwide program sponsored by the American Heart Association that focuses on trying to improve care for patients hospitalized with acute heart failure through improvements in quality measures.
Care Protocols	Video	What is a Cardiac Rehabilitation Program?	Stephanie Rejc, MS, Exercise Physiologist and Cardiac Rehab Manager, explains what happens during cardiac rehab and how it benefits people who have had a heart attack, chronic chest pain, heart surgery, valve repair, or stent procedure. Patients are monitored while they strengthen their hearts to prevent future cardiac events.
Care Protocols	Video	Chronic Obstructive Pulmonary Disease (COPD) - Management	Dr. Gail Weinmann, MD, provides information on COPD management. This video outlines several options for slowing the progression of COPD and ways to manage its symptoms.
Care Protocols	Video	Management and Treatment of COPD	This video explains the main types of medications used to treat COPD, as well as important lifestyle changes that can help patients better manage their COPD.
Clinical Care Transition and Management	Tool/Program	INTERACT	Interventions to Reduce Acute Care Transfers (INTERACT) is a quality improvement program that focuses on the management of acute change in resident condition. It includes clinical and educational tools and strategies for use in every day practice in long-term care facilities.

Category	Type	Tool/Resource	Description
Clinical Care Transition and Management	Tool/Program	Project RED	Project Re-Engineered Discharge (RED) is a research group that develops and tests strategies to improve the hospital discharge process in a way that promotes patient safety and reduces re-hospitalization rates. The RED intervention is founded on 12 discrete, mutually reinforcing components and has been proven to reduce rehospitalizations and yields high rates of patient satisfaction.
Clinical Care Transition and Management	Tool/Program	CTI	The Care Transitions Intervention (CTI) is a 4-week program where patients with complex care needs and family caregivers receive specific tools and work with a Transitions Coach to learn self-management skills that will ensure their needs are met during the transition from hospital to home. This is a low-cost, low-intensity, evidence-based intervention comprised of a home visit and three phone calls.
Clinical Care Transition and Management	Slides	Transitions of Care: Atrial Fibrillation	A presentation from the Heart Rhythm Society, American College of Cardiology, and The Mended Hearts, Inc. highlights what is Transitions of Care, efficacy of Transitions of Care approach, patient and provider roles, and resources.
Clinical Care Transition and Management	Article	Scaling Up: Bringing the Transitional Care Model into the Mainstream	This issue brief describes two projects that identified the essential elements of effective care management interventions for this population and the facilitators of translating one such intervention, the Transitional Care Model (TCM), into mainstream practice. Together these projects demonstrate that successful translation of the TCM, which incorporates both in-person contact and a nurse-led, interdisciplinary team approach, can effectively interrupt patterns of frequent rehospitalizations, reduce costs, and improve patient health status.
Clinical Care Transition and Management	Tool/Program	BOOST Care Transitions Resource	Better Outcomes for Older adults through Safe Transitions (BOOST) resources help analyze current workflow processes, select effective interventions, redesign workflow and implement interventions, educate your team on best practices, promote a team approach to safe and effective discharges, evaluate your progress, and modify your interventions accordingly.
Clinical Care Transition and Management	Tool/Program	PinpointCare	PinpointCare allows organizations to develop a value-based care strategy. Their data analytics tools help organizations understand their patient populations and optimize partnerships, stratify risk, leverage PAC networks, improve efficiency, and customize technology solutions to enhance workflows.

Category	Type	Tool/Resource	Description
Multidisciplinary Staffing Collaboration	Article	The Role of Patient Navigators in Eliminating Health Disparities	This article describes the role of care navigators and how they can facilitate improved health care access and quality for underserved populations through advocacy and care coordination and address deep-rooted issues related to distrust in providers and the health system that often lead to avoidance of health problems and non-compliance with treatment recommendations.
Patient and Family/Caregiver Support	Tool/Program	PAM	The Patient Activation Measure (PAM) assesses a person's skills, knowledge, and confidence to manage one's health. It identifies where an individual falls within four different levels of activation. It reliably predicts future ER visits, hospital admissions and readmissions, medication adherence, and more.
Patient and Family/Caregiver Support	Tool/Program	CareLink	CareLink Personal enables real-time sharing of patient information between providers and patients. It allows patients to collect information from their insulin pump, continuous glucose monitoring (CGM) device, and blood glucose meter to evaluate their glucose control through a free, web-based software. These reports can be used during office visits to discuss therapy changes with their healthcare provider. They can also monitor their progress to improve glycemic management.
Patient and Family/Caregiver Support	Tool/Program	Stoplight (Red-Yellow-Green) Tools for Patients with Asthma or Diabetes	Stoplight tools assist patients with monitoring and managing their chronic condition by dividing various signs and symptoms into "green," "yellow," and "red" management zones. The Stoplight charts can be adapted for standards of care in their setting.
Patient and Family/Caregiver Support	Tool/Program	Krames Patient Education	Krames Patient Education is renowned for its effectiveness in increasing patient understanding. It includes booklets, brochures, workbooks and tear sheets for health care professionals. They can engage patients throughout the continuum of care, motivate behavior change and build self-care skills, and support shared decision making and informed consent.
Patient and Family/Caregiver Support	Tool/Program	Educational Tools for Patients with Heart Disease and Stroke	The Centers for Disease Control and Prevention (CDC) provides tools for patients with heart disease and stroke. Resources include fact sheets, websites, videos, and more.
Patient and Family/Caregiver Support	Tool/Program	Surviving Sepsis Campaign	The Surviving Sepsis campaign provides numerous resources aimed at increasing awareness and providing education. The campaign provides presentations and videos that offer information about the science and methods behind spreading sepsis interventions.

Category	Type	Tool/Resource	Description
Patient and Family/Caregiver Support	Video	Heart Failure Patient Education	The American Association of Heart Failure Nurses (AAHFN) presents an informative video highlighting important topics for the patient with heart failure and their caregivers.
Quality Improvement Strategies	Tool/Program	Trideo	Trideo is a US-based, web-deployed Risk Management Information System (RMIS) that brings claims teams together, including healthcare, claims and defense counsel personnel, in a secured electronic environment 24/7. Trideo's event reporting module helps frontline reporters reduce the time it takes to report incidents, near misses and unsafe conditions while improving data accuracy. Real-time alerts, workflows and notifications empower key personnel to respond to high-priority occurrences. Comprehensive analytics turn data into actionable insights and pinpoint risk drivers to improve patient safety and outcomes.
Quality Improvement Strategies	Tool/Program	CMS Quality Conference	The CMS Quality Conference attracts thought leaders in American health care quality improvement. The conference explores how patients, advocates, providers, researchers, and the many leaders in health care quality improvement can develop and spread solutions to some of America's most pervasive health system challenges.
Risk Assessment and Stratification	Tool/Program	RAPT	The Risk Assessment and Prediction Tool (RAPT) is used to predict the discharge destination of patients undergoing elective hip and knee arthroplasty surgery. Predictions are based on objective factors and provide confidence in decision making regarding discharge for patients and staff.
Risk Assessment and Stratification	Tool/Program	PROMIS	Patient-Reported Outcomes Measurement Information System (PROMIS) is a set of person-centered measures that evaluates and monitors physical, mental, and social health in adults and children. It can be used with the general population and with individuals living with chronic conditions.
Risk Assessment and Stratification	Tool/Program	LACE Index Scoring Tool	The LACE Index Scoring Tool identifies patients that are at risk for readmission or death within thirty days of discharge. LACE stands for: Length of stay, Acuity of admission, Comorbidities, and Emergency department visits.
Risk Assessment and Stratification	Tool/Program	RADAR Report	RADAR is a web-based, resident-level clinical and predictive risk management tool. It includes resident profile scores, quality measures alerts, and resident historical data from MDS history. One benefit of RADAR is that it identifies residents with clinical and risk concerns and aids with risk management and care planning.

Category	Type	Tool/Resource	Description
Risk Assessment and Stratification	Tool/Program	Hospital Guide to Reducing Medicaid Remissions Toolbox	The Agency for Healthcare Research and Quality (AHRQ) Hospital Guide to Reducing Medicaid Readmissions toolbox accompanies the Hospital Guide to Reducing Medicaid Readmissions. The tools are adaptations of best-practice approaches to make them more relevant to the Medicaid population.
Risk Assessment and Stratification	Tool/Program	STAAR	The STate Action on Avoidable Rehospitalizations Readmissions (STAAR) Diagnostic Worksheet tool allows hospital staff to conduct in-depth reviews of the last five rehospitalizations to identify opportunities for improvement. This includes conducting chart reviews of the last five readmissions as well as interviews with recently readmitted patients and their family members.