maryland
health services
cost review commission

597th Meeting of the Health Services Cost Review Commission
July 13, 2022

(The Commission will begin in public session at 11:30 am for the purpose of, upon motion and approval, adjourning into closed session. The open session will resume at 1:00pm)

EXECUTIVE SESSION
11:30 am

1. Discussion on Planning for Model Progression – Authority General Provisions Article, §3-103 and §3-104

2. Update on Administration of Model - Authority General Provisions Article, §3-103 and §3-104

3. Update on Commission Response to COVID-19 Pandemic - Authority General Provisions Article, §3-103 and §3-104

PUBLIC MEETING
1:00 pm

1. Review of Minutes from the Public and Closed Meetings on June 8, 2022 and June 21, 2022

2. Docket Status – Cases Closed
   2587R – Tidal Health Peninsula Regional
   2588R – Carroll Hospital
   2596N – UM Shore Emergency Center at Queenstown
   2597 – Johns Hopkins Health System
   2598A – Johns Hopkins Health System

3. Docket Status – Cases Open
   2589R – Shady Grove Medical Center
   2599A – University of Maryland Medical Center
   2600A – University of Maryland Medical Center

4. Presentation: University of Maryland Medical Center - Midtown

5. Long-Term Care Partnership Program - Final Report

6. Policy Update and Discussion

   a. Workgroup Update

7. Hearing and Meeting Schedule

H.S.C.R.C's CURRENT LEGAL DOCKET STATUS (OPEN)

AS OF June 5, 2022

A: PENDING LEGAL ACTION : NONE
B: AWAITING FURTHER COMMISSION ACTION: NONE
C: CURRENT CASES:

Docket Number	Hospital Name	Date Docketed	Purpose	Analyst's Initials	File Status
2589R	Shady Grove Adventist Medical Center	3/16/2022	CAPITAL	JS/AP	OPEN
2599A	University of Maryland Medical Center	6/30/2022	ARM	DNP	OPEN
2600A	University of Maryland Medical Center	6/30/2022	ARM	DNP	OPEN

PROCEEDINGS REQUIRING COMMISSION ACTION - NOT ON OPEN DOCKET

None

IN RE: THE APPLICATION FOR	*	**BEFORE THE MARYLAND HEALTH**	
ALTERNATIVE METHOD OF RATE	*	**SERVICES COST REVIEW**	
DETERMINATION	*	**COMMISSION**	
UNIVERSITY OF MARYLAND	*	**DOCKET:**	**202**
MEDICAL CENTER	*	**FOLIO:**	**2409**
BALTIMORE, MARYLAND	*	**PROCEEDING:**	**2599A**

Staff Recommendation

July13, 2022

I. INTRODUCTION

University of Maryland Medical Center ("Hospital") filed an application with the HSCRC on June 30, 2022, for an alternative method of rate determination under COMAR 10.37.10.06. The Hospital requests approval from the HSCRC for continued participation in global rates for solid organ transplant and blood and bone marrow transplants for one year with Aetna Health Inc. beginning August 1, 2022.

II. OVERVIEW OF THE APPLICATION

The contract will continue to be held and administered by University Physicians, Inc. ("UPI"), which is a subsidiary of the University of Maryland Medical System. UPI will manage all financial transactions related to the global price contract including payments to the Hospital and bear all risk relating to services associated with the contract.

III. FEE DEVELOPMENT

The hospital portion of the global rates was developed by calculating recent historical charges for patients receiving the procedures for which global rates are to be paid. The remainder of the global rate is comprised of physician service costs. Additional per diem payments were calculated for cases that exceed a specific length of stay outlier threshold.

IV. IDENTIFICATION AND ASSESSMENT OF RISK

The Hospital will continue to submit bills to UPI for all contracted and covered services. UPI is responsible for billing the payer, collecting payments, disbursing payments to the Hospital at its full HSCRC approved rates, and reimbursing the physicians. The Hospital contends that the arrangement between UPI and the Hospital holds the Hospital harmless from any shortfalls in payment from the global price contract.

V. STAFF EVALUATION

Staff reviewed the experience under this arrangement for the last year and found it to be unfavorable. This is the third year that the experience under this arrangement has been unfavorable. The Hospital has provided documentation that the losses were the result of extreme outlier cases. The Hospital has again renegotiated the arrangement. Staff recommends approval

of this arrangement. However, if the experience under the renegotiated arrangement during the next year continues to be unfavorable, staff will not recommend further approval.

VI. STAFF RECOMMENDATION

Based on the Hospital's favorable performance, staff recommends that the Commission approve the Hospital's application for an alternative method of rate determination for solid organ transplant, and blood and bone marrow transplant services, for a year beginning August 1, 2022. The Hospital will need to file a renewal application to be considered for continued participation.

Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospital for the approved contract. This document would formalize the understanding between the Commission and the Hospital and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, and confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.

IN RE: THE APPLICATION FOR	*	**BEFORE THE MARYLAND HEALTH**
ALTERNATIVE METHOD OF RATE	*	**SERVICES COST REVIEW**
DETERMINATION	*	**COMMISSION**
UNIVERSITY OF MARYLAND	*	**DOCKET: 2022**
MEDICAL CENTER	*	**FOLIO: 2410**
BALTIMORE, MARYLAND	*	**PROCEEDING: 2600A**

Staff Recommendation

July 13, 2022

I. INTRODUCTION

The University of Maryland Medical Center (the "Hospital") filed a renewal application with the HSCRC on June 30, 2022, for an alternative method of rate determination, pursuant to COMAR 10.37.10.06. The Hospital requests approval from the HSCRC to continue to participate in a global rate arrangement for solid organ and blood and bone marrow transplant services with OptumHealth Care Solutions, Inc. for a one-year period, effective August 1, 2022.

II. OVERVIEW OF APPLICATION

The contract will continue to be held and administered by University Physicians, Inc. (UPI), which is a subsidiary of the University of Maryland Medical System. UPI will manage all financial transactions related to the global price contract including payments to the Hospital and bear all risk relating to regulated services associated with the contract.

III. FEE DEVELOPMENT

The hospital component of the global rates was developed by calculating mean historical charges for patients receiving the procedures for which global rates are to be paid. The remainder of the global rate is comprised of physician service costs. Additional per diem payments were calculated for cases that exceed a specific length of stay outlier threshold.

IV. IDENTIFICATION AND ASSESSMENT OF RISK

The Hospital will continue to submit bills to UPI for all contracted and covered services. UPI is responsible for billing the payer, collecting payments, disbursing payments to the Hospital at its full HSCRC approved rates, and reimbursing the physicians. The Hospital contends that the arrangement between UPI and the Hospital holds the Hospital harmless from any shortfalls in payment from the global price contract. UPI maintains that it has been active in similar types of fixed fee contracts for several years, and that UPI is adequately capitalized to the bear risk of potential losses.

V. STAFF EVALUATION

The staff found that the actual experience under this arrangement for the prior year has been unfavorable for the second year in a row. The unfavorable performance was the result of

extreme outlier cases. Prior to last two years the experience under this arrangement has been favorable FY 2015. Staff believes that the Hospital can still achieve favorable experience under this arrangement. If the experience continues to be unfavorable in the next, the Hospital will be informed that the arrangement must be modified in order to for staff to recommend that the approval be continued.

VI. STAFF RECOMMENDATION

Staff recommends that the Commission approve the Hospital's application to continue to participate in an alternative method of rate determination for solid organ and blood and bone marrow transplant services for a one-year period beginning August 1, 2022.

Consistent with its policy paper regarding applications for alternative methods of rate determination, the staff recommends that this approval be contingent upon the execution of the standard Memorandum of Understanding ("MOU") with the Hospital for the approved contract. This document would formalize the understanding between the Commission and the Hospital, and would include provisions for such things as payments of HSCRC-approved rates, treatment of losses that may be attributed to the contract, quarterly and annual reporting, confidentiality of data submitted, penalties for noncompliance, project termination and/or alteration, on-going monitoring, and other issues specific to the proposed contract. The MOU will also stipulate that operating losses under the contract cannot be used to justify future requests for rate increases.

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COVID-19 Long Term Care Partnership Funding Program

Final Report

July 2022

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Introduction

The Health Services Cost Review Commission (HSCRC) provided funding to hospitals through the Long-Term Care Partnership Funding Program (LTC Funding Program) to foster collaboration between hospitals and long-term care facilities and other congregate living facilities that serve vulnerable populations during the COVID-19 crisis. The LTC Funding Program was intended to provide critical short-term funding to hospitals to reduce the spread of COVID-19. Under the LTC Funding Program, hospitals and their long-term care/congregate living partners collaborated on data sharing, infection prevention and control, resource sharing, and patient management strategies to reduce the spread of COVID-19 in these settings. The program initially ran from July 1, 2020, through June 30, 2021. However, in recognition of the unprecedented nature of the pandemic, the HSCRC permitted hospitals to extend their program activities through December 31, 2021, with existing grant dollars. This report documents activities across the entire duration of the program.

Background

The LTC Funding Program was intended to support the development and enhancement of COVID-19 patient management, infection prevention, and infection control strategies. As the virus reached Maryland, the State took unprecedented steps to reduce community spread and anticipated surges of COVID-19 cases. A large proportion of the pandemic surge occurred among residents and patients living in congregate living facilities such as nursing homes, assisted living facilities, State and local facilities, group homes with ten or more occupants, and other long-term care settings. Given their congregate nature and residents served (e.g., older adults often with underlying chronic medical conditions), nursing home populations are at the highest risk of being affected by COVID-19. As of May 28th, 2020, the Maryland Department of Health (MDH) indicated that among Maryland's 227 nursing homes, more than 140 had confirmed cases of COVID-19.[1] As of June 2020, there were 6,697 confirmed COVID-19 cases among residents at nursing homes and 1,368 deaths among residents due to the virus.[2]

Hospitals act as important conveners and partners in care across the healthcare spectrum, especially under the TCOC Model. As such, hospitals can be proactive in reaching out to support local health care providers, including long-term care facilities. The HSCRC believes there are several areas where hospitals can provide support to partnering healthcare facilities. Given this, the HSCRC created the LTC

[1] Maryland Department of Health. Coronavirus Disease 2019 Frequently Asked Questions about "Strike Teams". Retrieved from https://phpa.health.maryland.gov/Documents/FAQ_covid19_strike_teams.pdf
[2] Maryland Department of Health. Maryland COVID-19 in Congregate Facility Settings. Retrieved from https://coronavirus.maryland.gov/pages/hcf-resources

Funding Program using the third previously unallocated funding stream of the Regional Partnership Catalyst Grants. The LTC Funding Program used the flexibility of the TCOC Model to deploy resources during the State of Emergency associated with COVID-19. The goal of the LTC Funding Program is to support connections between hospitals and long-term care facilities/congregate living facilities that serve vulnerable populations including skilled nursing facilities, assisted living facilities, nursing homes, and other long-term care settings.

The LTC Funding Program was narrowly focused to support activities associated with COVID-19 patient management, infection prevention, and infection control. The intent of the program was to leverage the strength of hospitals to assist long-term care facilities and congregate living facilities that serve vulnerable populations as they worked to become fully compliant with guidance from the Centers for Disease Control and Prevention (CDC), CMS, and MDH related to COVID-19 infection prevention and control.

Hospital and health system(s) awardees were required to partner with at least one licensed long-term care and/or congregate living facility serving vulnerable populations in Maryland. Only one hospital could receive funding for work with a particular long-term care or congregate living facility partner. Funding was not provided to multiple awardees to work with the same long-term care/congregate living partner.

LTC Funding Program Goals

The LTC Funding Program was designed to achieve the following:

- Foster partnerships between hospitals and long-term care and/or congregate living facilities
- Support statewide efforts to combat COVID-19 in long-term care and/or congregate living facilities
- Prevent the introduction of COVID-19 into a facility through entry screening and entry restrictions
- Rapidly identify persons with respiratory illness that may be COVID-19 positive
- Prevent the spread of COVID-19 within and among facilities
- Strengthen environmental cleaning and disinfection procedures
- Manage, isolate, and accommodate persons with suspected or confirmed COVID-19

Hospital Provided Support Areas

To achieve the LTC Funding Program goals, hospital awardees were expected to provide support to long-term care and/or congregate living partners (facility partners) in the areas of resource sharing, quality improvement consultation, and data/analytics.

Resource Sharing

Resource sharing support areas are defined as resources and/or operational support to facility partners and include such activities as: the provision of additional nursing staff to work with COVID-19 diagnosed patients, resource nurses to provide care management or discharge placement functions at the hospital and infection prevention and control at the nursing home, and/or access to physician specialists who work with the onsite nurse to evaluate patients/residents and initiate or change treatments. Additionally, hospitals could integrate facility personal protective equipment (PPE) needs into the hospital supply chain to ensure an adequate amount of PPE for nursing home staff. Finally, awardees could extend hospital lab services to facility partners to enable frequent and expedited COVID-19 testing of long-term care facility staff, residents, and visitors.

Quality Improvement Consultation

Quality improvement consultation support areas are defined as the use of quality improvement science to collaborate on systematic and continuous actions that can lead to measurable improvement in health and the health status of patients at congregate living facilities, improve infection prevention and infection control procedures, and better manage patients.[3] Hospital awardees should share best practices and provide training on processes designed to reduce facility risk, prevent symptomatic and pre-symptomatic transmission, provide ongoing testing of patients/residents and staff, isolate symptomatic patients, and protect healthcare personnel through protocols established by the CDC, CMS, and MDH. Consultation is individualized or incorporated into a formal learning collaborative process.

Data/Analytics

Data/analytics support areas are defined as access to data and/or technology that can be used to internally track, monitor, and manage information related to COVID-19 affected patients.

Activity Summary

The HSCRC awarded funding to ten hospital and health system(s) partnerships, totaling $8,217,983, as shown in Table 1. The awardees collaborated with 121 skilled nursing facilities, rehabilitation centers, and other community-based organizations to serve vulnerable populations during the COVID-19 crisis.

[3] U. S. Department of Health and Human Services Health Resources and Services Administration. Quality Improvement.
ttps://www.hrsa.gov/sites/default/files/quality/toolbox/508pdfs/qualityimprovement.pdf

Table 1: LTC Funding Program Awardees

Awardee	Award Amount
University of Maryland Medical System	$1,750,000
Johns Hopkins Health System	$1,409,936
Adventist HealthCare & Holy Cross Health	$1,209,000
Lifebridge Health System	$1,169,200
Frederick Health Hospital	$1,108,460
Luminis Doctors Community Health	$571,554
Luminis Anne Arundel Medical Center	$419,136
Meritus Medical Center	$274,951
TidalHealth	$242,596
UPMC Western Maryland	$63,150

Funding Recipient Characteristics

Funding recipients included health systems, individual hospitals, and in one instance collaborating health systems. Table 2 shows awardee characteristics including participating hospitals and types of facility partners.

Table 2: Awardee Characteristics

Awardee	Participating Hospitals	Facility Partners
University of Maryland Medical System	• Baltimore Washington Medical Center • Charles Regional Medical Center • University of Maryland Medical Center • Midtown • Harford Memorial Hospital • Prince George Hospital Center • University of Maryland Rehabilitation and Orthopaedic Institute • Shore Medical Center Easton • Shore Medical Center Chestertown • St. Joseph Medical Center • Upper Chesapeake Medical Center	• Skilled Nursing Facilities (SNFs)
Johns Hopkins Health System	• Johns Hopkins Hospital • Bayview Medical Center • Howard County General Hospital • Suburban Hospital	• Nursing Homes • Assisted Living Facilities (ALFs)
Adventist HealthCare & Holy Cross Health	• Adventist HealthCare Shady Grove Medical Center • Adventist HealthCare White Oak Medical Center • Holy Cross Germantown Hospital • Holy Cross Hospital	• SNFs
Lifebridge Health System	• Lifebridge Health Acute Care Hospital Subsidiaries	• Nursing Homes • SNFs • ALFs

Awardee	Participating Hospitals	Facility Partners
Frederick Health	● Frederick Health Hospital	● Nursing Homes ● SNFs ● ALFs ● Group Homes
Luminis Health	● Anne Arundel Medical Center ● Doctors Community Medical Center	● Nursing Homes ● SNFs
Meritus Medical Center	● Meritus Medical Center	● SNFs
TidalHealth	● Peninsula Regional	● Nursing Homes ● SNFs
UPMC Western Maryland	● UPMC Western Maryland	● SNFs

Summary of Intervention Types

Awardees implemented a range of interventions within the LTC Funding Program support areas of resource sharing, quality improvement consultation, and data/analytics. Almost all awardees incorporated interventions from all three support areas. Table 3 summarizes awardee interventions. Note that the Table does not capture all the detail awardees reported on their interventions.

For the **resource sharing** support area, awardees provided facility partners with equipment and supplies as well as staff time, education, and training. Multiple awardees reported sharing equipment and supplies such as PPE, fit testing resources, hand hygiene resources, supplies for testing and vaccination, and equipment to support telehealth. Staffing resources tended to include consultations by physicians and/or nurse practitioners to guide clinical care and transition management, and deployment of nurses to support clinical care and care management as well as testing and vaccination. Awardees' education and training resources kept partners apprised of State and national COVID-19 guidance and provided information on a range of topics important to infection prevention.

Awardees reported education and training interventions under the **quality improvement consultation** support area. Common training and education topics included donning/doffing, PPE use, hand hygiene, fit testing, and vaccine acceptance strategies. Another key element of quality improvement consultation was systematic support for needs assessment and prioritization, and development of action plans including

revision of policies, procedures, and workflows. Awardees also provided as-needed consultation and response to outbreaks. Additional interventions for quality improvement included tools such as development of an infection control daily checklist and working with the Maryland Patient Safety Center's Clean Collaborative to help reduce healthcare-associated infection rates including COVID-19.

Awardees reported on several **data/analytics** tools to support sharing of information and facilitate monitoring to improve care management and discharge planning and reduce avoidable readmissions. Awardees conducted regular reviews of trends and provided feedback to their facility partners. Several grantees deployed Real Time Medical interventional analytics to support early detection and intervention for COVID-19. Other tools included sharing Epic Care Link to connect providers to the EHR, development of a shared COVID-19 dashboard, and updated audit tools for hand hygiene and PPE use. One awardee described the provision of onsite support to improve the accuracy of partner data entry.

Table 3: Summary of Awardee Interventions

AWARDEE	RESOURCE SHARING	QUALITY IMPROVEMENT CONSULTATION	DATA/ANALYTICS
University of Maryland Medical System	● PPE ● Disinfectant wipes ● Monitoring/screening devices ● Respirators ● Fit testing resources ● Hand hygiene training kits ● Electronic resources available beyond the funding period, e.g., education and signage, audit and assessment tools, federal and State guidance ● Staff resources in support of testing, training, compliance audits, fit testing	● Site assessment based on State and federal requirements to guide recommendations during site visits and tracking of progression towards best practices. ● Infection prevention and control training following from site assessment, e.g., donning/doffing, PPE use, hand hygiene ● Respiratory protection program education and train the trainer, e.g., fit testing ● Education on PPE utilization ● Recommendations/education on workflow and environment of care ● Vaccination acceptance strategies ● Support visits and close-out meetings to create COVID mitigation plan	● Multiple data analytics tools made available ● Update of existing audit tools, including for hand hygiene and PPE ● Quarterly meetings to review metrics
Johns Hopkins Health System	**Infection prevention:** ● Weekly e-news updates on national and State guidance	**Infection prevention:** ● As needed expert consultation ● As needed outbreak response	**Infection prevention:** ● Site-specific analysis and feedback on monthly hand hygiene reports

AWARDEE	RESOURCE SHARING	QUALITY IMPROVEMENT CONSULTATION	DATA/ANALYTICS
	● Monthly live and recorded education sessions ● N95 fit testing ● Hand hygiene supplies and installation ● LTC-specific infection prevention and control signage **Remote Telemedicine Consultation & Visits:** ● Team available for scheduled appointments ● Hospitalist consultative guidance ● Hospitalist post-discharge virtual rounds	● Worked with partners on action plan completion of partner-prioritized recommendations ● Implemented monitoring of hand hygiene compliance **Remote Telemedicine Consultation & Visits:** ● Hospitalist discharge and readmission review	● Observation, feedback, and training of partner safety assistants **Remote Telemedicine Consultation & Visits:** ● Hospitalist patient-level review of data and analysis of how readmission could have been prevented
Adventist HealthCare & Holy Cross Health	● Real Time Medical interventional analytics integrated into SNF EHRs to reduce hospital readmissions, manage care coordination, and identify early warning signs of infectious disease	● Real Time Medical case managers address early signs of COVID-19 for early intervention, reducing readmissions and hospital transfers	● Real Time Medical interventional analytics integrated into SNF EHR for early alerts and RN case manager review ● Review of trends/ improvements
Lifebridge Health System	● Train the trainer fit testing ● Fall prevention education/ training ● COVID-19 precautions ● National and State guidance ● Respiratory management training	● Hand hygiene ● Facility assessments during outbreaks ● Ongoing weekly assessments ● Review IP policies and provide recommendations	● Hand hygiene observations ● IP/IC real time observations ● Support of partners' monthly reporting

AWARDEE	RESOURCE SHARING	QUALITY IMPROVEMENT CONSULTATION	DATA/ANALYTICS
	● Multidisciplinary process/review to educate staff on complex patient care ● Instruction on point of care testing for ● COVID-19 vaccine administration for patients ● Hand hygiene observation and training ● Wound assessment and RN documentation ● Monthly newsletter on IP/IC		
Frederick Health Hospital	● Geriatrician and 2 NPs operate 24/7 Tele-supportive Services, with visual assessments possible via tablet ● Provision of PPE ● Provided staff vaccination	● Resource nurse training on e.g., donning/doffing, train the trainer fit testing, managing challenging behaviors	● Tracking of transfers and follow up on trends
Luminis	● PPE supplies ● Enhanced lab services, deployment of clinical nurse, provision of test strips ● Nursing staff work with patients and provide care management, discharge planning ● Administrative support for dedicated COVID Unit ● Data review, analysis, training on data collection	● Implemented Real Time Medical ● Data analysis for gap identification and process improvements ● Deployed Epic Care Link ● Leverage Clean Collaborative framework of the Maryland Patient Safety Center to improve surface cleanliness and decrease surface transmitted infections	● Real Time Medical early identification and proactive responses to infection ● Supported data analysis and sharing to improve discharge data accuracy; access to lab results for early detection; monitoring for readmissions, care management, and discharge planning ● PPE inventory and supplies ● Monitoring of participation in trainings

AWARDEE	RESOURCE SHARING	QUALITY IMPROVEMENT CONSULTATION	DATA/ANALYTICS
	● Tablets to facilitate education and communication ● Maryland Patient Safety Center webinars and trainings		● Monthly review of trends ● Dashboard of readmissions
Meritus Medical Center	● Weekly teleconferences for updates/education ● PPE ● NPs and Medical Directors worked with patients and addressed exposure reduction ● Staffing strategies/incentives ● Transportation ● Lab testing	● Training on PPE fit testing ● Training on nebulizer guidelines ● Infectious disease consultation ● Education on vaccinations	● Coordination of CRISP data entry ● Onsite support for data entry accuracy
TidalHealth	● PPE ● Housekeeping and nursing support ● Testing ● Transitions of care communication ● Hospitalists provided education to SNFs during rounding and observation ● Daily clinical call for dedicated SNF unit ● Daily calls ● Hospitalist clinical management	● Expert staff provided training with creation of Education Council ● Sharing of case management resources ● Updated policy and procedures manuals ● Online training modules ● Development of IC daily checklist	● Developed/shared COVID dashboard

AWARDEE	RESOURCE SHARING	QUALITY IMPROVEMENT CONSULTATION	DATA/ANALYTICS
	● Education/rounding for nursing and rehab staff for e.g., donning/doffing, PPE, hand hygiene, fit testing ● Readmission reviews ● Training and screening tools for COVID		
Western Maryland	● Enhanced telehealth equipment to avoid ED ● Hospital SNF Transitionist ● Vaccinations for staff and residents	● Hospital SNF Transitionist/ Physician review of cases ● Ongoing education	

Addressing COVID-19 in LTC Facilities

Common Challenges

Awardees reported on a range of challenges faced in the implementation of their intervention activities, summarized below.

Staffing Shortages

The most predominant challenge cited by awardees was related to partner staffing, in both administrative leadership and direct care. Many facility partners had turnover in leadership positions, impacting the ability to build relationships, establish buy-in, prioritize collaboration, and support sustainability efforts. Relationship building was described as essential to grant activities, as facility partners were initially hesitant to request assistance. In some cases, key positions such as the infection prevention specialist were vacant. Leadership was also affected by changes in facility ownership, which occurred for multiple facilities.

Direct care staff experienced high turnover, shortages, and illness. This interfered with the ability to complete intervention activities such as education, reporting, and fit testing. COVID-19 fatigue and burnout led to noncompliance with best practices for infection prevention. One awardee also described instances of a lack of a culture of accountability for infection prevention and control practices. Mandatory vaccine policies combined with vaccine hesitancy among staff further exacerbated staffing shortages.

It was also noted that facility credentialing processes can be lengthy, delaying the ability to provide onsite support.

Supply Chain Shortages

Most awardees described challenges stemming from supply chain shortages. This included problems obtaining PPE as well as resources to perform regular fit testing. Constraints on testing availability and length of time to receive results to validate patient COVID-19 status were also challenges. Awardees also mentioned lack of access to vaccines.

Managing Fluctuating Status Across Partners

Awardees needed to manage the evolving status and demands of the pandemic across their multiple different partners, which proved challenging. They had to adapt to frequent changes across hospital and facility policies on the acceptance of, transporting, and caring for patients as well as changes in infection-related precautions. The variety of factors to be monitored included vaccination status of staff and patients, frequency of testing of staff and patients, and COVID-19 surges experienced by facility partners. At some

times awardees needed to manage limited facility bed availability. At other times they shifted intervention activities to reflect decreasing demand for remote consultative support as cases decreased. The frequently changing nature of the pandemic required flexibility among awardees.

Data Reporting and Health Information Technology

Awardees discussed challenges related to facility data reporting compliance, timeliness, and accuracy. Staffing shortages and corporate and leadership changes complicated the fulfillment of data reporting. Support needs, for example education on required metrics and data entry, were more intensive than anticipated. From the perspective of facility partners, data reporting required crucial direct care staff to be redirected to reporting functions that were duplicative as they were already being tracked by other entities. Lack of access to data analytics hindered progress.

Challenges related to health information technology included disparate EHR systems between hospitals and facilities, with minimal visibility into partners' EHRs. Structuring enhanced telehealth interventions took time, and there were barriers with regard to adoption and connectivity.

Solutions and Identified Best Practices to Address COVID

Awardees reported on a number of solutions, strategies, and best practices to successfully implement intervention activities. These are described below.

Open and Ongoing Communication

The most common strategy awardees described was open and ongoing bidirectional communication with their facility partners to assess COVID-19 related needs and identify solutions. Awardees relied on consistent outreach and structured regular (for example monthly) meetings, with additional meetings, outreach, and communication as needed. Calls with facility partners were as frequent as daily, particularly early on to identify barriers. A structured communication schedule was valuable to build relationships with facility leadership, given that some partners were initially hesitant to ask for assistance. Awardees relied on layered strategies for gathering input, with regular meetings across partner facilities as well as one-on-one interaction and surveys. Both helped identify concerns and problem solve. Convenings of multiple partners provided opportunities for facilities to share best practices amongst themselves.

Successful communication strategies emphasized the collaborative nature of the LTC Funding Program. The partnership approach was demonstrated with onsite presence. Awardees also focused on *assisting* facilities in implementing activities rather than presenting facilities with recommendations to be completed *independently*. Effective communication helped awardees understand facility needs, to refine intervention

activities for optimal support. Continued conversations regarding readmissions and ongoing gap analyses supported high-quality patient outcomes.

Direct Provision of Resources and Support

Awardees provided partners with a range of resources and support to overcome supply chain resources. This built trust and strengthened relationships. Resources provided included PPE, fit testing kits, hand hygiene products, and signage for infection prevention and control. One awardee noted that providing a free-standing kiosk for COVID-19 testing and screening enabled the facilities to conserve needed space. In addition to physical products, awardees provided expertise and support through a variety of ways, including vaccine clinics, utilizing hospital laboratory capabilities to improve test result turnaround time, consultation on infection prevention and control, education on use of monoclonal antibodies, education on handling dementia patients' challenging behaviors to increase good infection control practices, and outreach to PCPs to help resolve conflicting patient orders.

Progress in the Face of Staffing Challenges

To help alleviate the widespread staffing shortages and turnover faced by facilities, awardees provided support to offload some of the demand on facility staff. Examples include hiring consultant-run fit testing clinics, assisting with collecting N95 medical clearance forms, tracking staff completion of fit testing and training, developing automated reporting tools, and supporting audits. The education provided by awardees assisted with the training of new staff. One awardee described consulting with its facility partner on consolidating units to improve staffing ratios and providing staff incentives. At the corporate level, awardees conducted outreach and education for corporate leaders to provide information on the LTC Funding Program's goals and progress. One awardee increased staff engagement with the use of Glo Germ powder as a visual tool to demonstrate the importance of hand hygiene and thorough cleaning of high touch surfaces. Another awardee encouraged the use of paid time off and Employee Assistance Programs when available to promote staff retention.

One awardee noted that historical staffing challenges limited the long-term care industry's ability to absorb disaster response plan implementation. Hospital teams helped fill this gap with site coordinators and technicians, and by working to modify workflows and provide associated education. The hospital teams included staff with frontline healthcare expertise to set up processes aligned with federal, State, and local guidance for infection control. Onsite support enabled facilities to act upon recommendations without pulling staff from standard operations.

Awardees took a number of steps to address vaccine hesitancy among facility staff. These included the creation of educational videos discussing the development and efficacy of the vaccines, including describing the mechanism of mRNA vaccines, the current research related to pregnancy and COVID-19, and addressing vaccine hesitancy among communities of color. Other educational resources included flyers addressing myths about COVID -19 and information about community promotions, including free rides for vaccinations. Awardees offered on-site conversations with staff to discuss their concerns individually and provided updates and information to help build vaccine confidence.

Education and Consultation Strategies

Flexibility and persistence helped awardees maximize the effectiveness of the LTC Funding Program. In the education and consultation support areas, awardees implemented:

- Train the trainer models to promote sustainability;
- Repeat trainings and communication about changing processes to address staff turnover and to avoid pulling too many staff from the floor at once;
- Availability of CEUs to nursing home administrators and nurses free of charge;
- A unit champion strategy to engage front-line staff;
- Engagement of all staff in regular conversation; and
- Trainings timed at shift splits to include both night and evening staff.

Data Reporting and Analytics Strategies

Awardees took a number of measures to support data reporting compliance, timeliness, and accuracy. This included education on HSCRC metrics and facilitation of access to CRISP. This was particularly important given the high rate of leadership turnover at facilities. Awardees worked with facilities to obtain accurate data and provided on-site support and tools for data entry, as well as data analyst support to help maintain compliance. Creating lead time ahead of data reporting deadlines allowed time for outreach and extra support for completion of data templates. One awardee provided access and training to front-line staff for the Speedy Audit monitoring tool for hand hygiene. Another awardee made enhancements in Epic to document test results for every patent prior to discharge to a SNF. Awardees utilized Real Time Medical interventional analytics to detect symptoms in the SNF population and identify early intervention treatment plans to lower the risk of patients needing to go to the hospital. Alerts from the Real Time platform enabled case managers to use data to improve patient care and reduce hospital readmissions. Real Time identified trends and areas for coaching and education on disease specific improvement opportunities within SNFs.

Leveraging Additional Partnerships

Awardees leveraged their partners outside of the LTC Funding Program to manage limited resources during the pandemic. For example, awardees worked with larger facilities outside of the LTC Funding Program to identify placements for patients with COVID-19 and then transferred them back after their isolation period. A partnership with an outside larger SNF also assisted in staffing and transport needs.

Several awardees leveraged the MPSC Clean Collaborative to assist facilities in strategically identifying areas of focus to ensure surfaces are clean and free from contaminants in order to decrease infections. Follow-up and repeat education and the provision of tools such as ATP machines and tablets for training supported this.

Process and Impact Measures

In addition to mid-year and final narrative and financial reports, awardees were required to submit monthly reports to CRISP on COVID-19 activities. Partner LTC facilities reported monthly resident and staff counts, as well as the number of residents and staff tested for COVID-19 each month. Facilities were required to report only on the number of *individuals* tested for COVID-19 in each month, not the number of tests performed. Over the 19 months of the program, LTC facilities reported the following numbers on testing:

Table 4: Staff and Resident Testing Totals

Staff/Resident Testing	Sum of Monthly Totals
Total Number of Residents Tested for COVID-19	135,662
Total Number of Staff Tested for COVID-19	200,561

Measuring program-wide impact is difficult since there is inadequate baseline data for the program and challenges identifying a comparison group. Given the urgent need for support in long-term care facilities during the public health emergency, staff did not require retroactive reporting prior to the start of the program. Additionally, while all post-acute care facilities are required to regularly report on testing, the mandatory reporting and HSCRC-required program reporting requested information at different frequencies and formats which limits analytic opportunity and value.

Some awardees reported findings in addition to the required CRISP reporting. One indicator of LTC Funding Program success is the level that infection prevention and control recommendations and best practices were adopted and sustained by facilities. One awardee reported that acceptance of hospital team recommendations by partner facilities increased from 89% at baseline to 97% in the fourth quarter (UMMS).

That awardee found that facilities' average score on the tool for assessing infection prevention best practices increased from 70% at baseline to 78% in the fourth quarter (UMMS). By the second quarter, the partner facilities sustained 73% of strategies, although this dropped to 50% by the fourth quarter. (UMMS) Similarly, another awardee (JHHS) reported that of 50 performance infection prevention and control recommendations, 80% were completed by the close of the grant.

Self-reported findings indicate improvements related to vaccination. One awardee reported that 91% of residents and 73% of staff were fully vaccinated during the grant period. Another awardee reported that vaccine acceptance among LTC staff increased from a baseline of 64% to 91% by the conclusion of the fourth quarter.

There were also improvements in hand hygiene compliance, increasing from 70% to 91% according to one awardee (JHHS). The highest performing of these partner sites were the most engaged and had sustained front-line monitors as well as leadership involvement. These factors appeared integral to the success of the program.

Implementation of Real Time Medical as part of the LTC Funding Program was associated with decreased hospital utilization. One of these awardees (Luminis) reported ED visits for infections and hospital admissions were reduced by 45% and 34% respectively. In addition, six partner facilities experienced decreased readmission rates, ranging from 7% to 35%. There was a correlation between each facility's use of Real Time Medical and its readmission rate: the facilities with higher Real Time Medical page views had lower readmission rates. The more facilities accessed Real Time, the more quickly they were able to intervene and decrease admissions. The other awardee (HCH) implementing Real Time Medical reported a 27% decrease in COVID-19 hospitalizations and a 100% decrease in 30-day COVID-19 readmissions. The awardee noted improved COVID-19 rates relative to the community average. Real Time Medical enabled facilities to promptly identify COVID symptoms and treat and quarantine patients, preventing additional cases. Real Time Medical predictive analytics identified clinical indicators that led to interventions to adjust insulin, blood pressure and blood thinning medication, replace missed medication orders, and facilitate palliative care consults and associated changes in code status. Benefits of the analytic tools extended beyond COVID-19, leading to earlier diagnosis of urinary tract infections, pneumonia, C-difficile, and deep vein thrombosis.

Expenditures Summary

Awardees provided summaries of total program expenditures against the budgets approved in their approved applications. These amounts were itemized into three broad categories of 1) Workforce/Staff, 2)

IT/Technology, and 3) Indirect Costs. The below table shows aggregate program expenditures as reported by hospitals in their final report.

Table 5: Total Program Expenditures

Category	Total Actual Expenditures
Workforce/Staff	$5,843,540.42
IT/Technologies	$913,014.21
Indirect Costs	$216,741.71
TOTAL EXPENDITURES	**$6,973,296.34**

HSCRC staff conducts financial audits of all special funding program expenditures to verify spending. Unspent monies by the end of the program are removed in future hospital rate orders.

Table 6: Awardee Expenditures

Awardee	Expenditures by Category	Total Expenditures
University of Maryland Medical System	• **Workforce** expenditures in the amount of approximately **$1.5 million** to staff five drop teams, composed of patient care technicians, site coordinators, and infection preventionists. • **IT/Technologies** expenditures in the amount of **$200K** for fit testing resources, kits to support hand hygiene and environmental cleaning trainings, and technology for the program data analyst. • **Other indirect costs** expenditures in the amount of **$71K** to address travel costs for program staff to travel to facilities across state.	**$1.74 million**
Johns Hopkins Health System	• **Workforce** expenditures in the amount of **$931K** to fund hospitalist costs for remote consults and administrative coordination costs, infection prevention staff, and other remote consult staffing support.	**$987K**

	• **IT/Technologies** expenditures in the amount of **$4K** to fund technology to track hand hygiene and PPE observations. • **Other indirect costs** expenditures in the amount of **$52K** to fund support for onboarding and training of staff and additional telemedicine supports.	
Adventist HealthCare & Holy Cross Health	• **Workforce** expenditures in the amount of **$617K** to staff five RNs to provide case management and quality improvement activities for outbreak prevention. • **IT/Technologies** expenditures in the amount of **$591K** to support programming for COVID-19 monitoring, infection management, and clinical/financial data.	**$1.2 million**
Lifebridge Health System	• **Workforce** expenditures in the amount of **$565K** to hire six new staff members including RN Managers of Clinical Integration & Operations and RN Coordinators. • **IT/Technologies** expenditures in the amount of **$48K** to fund purchases of TP (Hygenia) swabbing systems for several facilities. • **Other indirect costs** expenditures in the amount of **$20K** to fund transportation onboarding and training of staff, and additional FIT testing supplies.	**$633K**
Frederick Health Hospital	• **Workforce** expenditures in the amount **of $692K** to staff health care providers, social workers, program coordinators, and Maryland Patient Safety Center Staff. • **IT/Technologies** expenditures in the amount of **$18K** to fund telemedicine software and devices. • **Other indirect costs** expenditures in the amount of **$70K** to fund PPE equipment, data management, and administrative costs.	**$780K**

Luminis Doctors Community Health & Anne Arundel Medical Center	• **Workforce** expenditures in the amount of **$961K** to fund existing/new staff, contract services, and COVID-19 unit. • **IT/Technologies** expenditures in the amount of **$2K** to fund new iPads and printed material.	**$963K**
Meritus Medical Center	• **Workforce** expenditures in the amount of **$327K** to fund weekly calls, quality hotline, staff, and infectious control. • **IT/Technologies** expenditures in the amount of **$300** to fund a WebEx License. • **Other indirect costs** expenditures in the amount of **$700** to fund PPE equipment and transportation costs.	**$328K**
TidalHealth	• **Workforce** expenditures in the amount of **$231K** to fund partners, hospitalist, infection prevention, and staff composed of transitional care services manager, community wellness CRNP, and analysts. • **IT/Technologies** expenditures in the amount of **$44K** to allocate for testing kits, Vivify Go Platform, fees, and new devices and materials. • **Other indirect costs** expenditures in the amount of **$3K** to fund educational videos and meeting/training expenses.	**$278K**

Sustainability and Collaboration

Impact of Program on LTC Partnership

Awardees pointed to a number of benefits of the LTC Funding Program, described in the sections below.

Strengthened Relationships, Improved Communication

All awardees referred to the positive impact of the LTC Funding Program on strengthening relationships between hospitals and long-term care facilities. The goodwill created through the LTC Funding Program enhanced trust among partners. Collaborative problem solving facilitated improved patient transitions and

patient care. One awardee noted that the teamwork resulting from the LTC Funding Program created an environment inspiring shared knowledge, resources, and skills, and encouraged self-improvement.
A key aspect of the strengthened relationships between hospitals and facilities was improved bidirectional communication and transparency. Improvements included clearer expectations around communication standards and cadence, and development of streamlined communication processes. A better understanding of needs led to increased efficiency, for example:

- On daily calls DME representatives were forthcoming about shortages, enabling overburdened case management staff to pivot to other options.
- A funding program manager began reaching out to a facility administrator to understand and address barriers to facilities being able to accept patients ready for discharge.
- Hospitals were better able to understand family members' requests for residents to be sent to the hospital, enabling the hospital and facility to work through these cases together.

Enhanced technology helped to improve communication. New telehealth equipment enabled facilities to take on more complex patients through effective virtual consultation. Increased use of video conferencing allowed for greater collaboration among partners. For several awardees, use of Real Time Medical alerts was central. Real Time Medical alerts were communicated with the facility, providers, and nursing staff to quickly intervene when needed, and were used in daily rounds and to support care coordination.

Awardees noted the LTC Funding Program strengthened other relationships: it created stronger relationships between SNFs and the Local Health Department and created a more cohesive environment within the local SNF community. For several health systems, cross-system collaboration and resource management were benefits of the LTC Funding Program. Open communication and ongoing dialogue among these systems were valued for sharing strategies for engaging post-acute stakeholders. This collaboration was instrumental in connecting facilities with vaccine resources.

The benefits of collaboration went beyond COVID-19. One awardee described its efforts to provide training and education to facilities on managing Candida Auris, a highly transmissible disease. The precautions and processes are similar to those required to mitigate the spread of COVID-19. In another example, the trust built through the LTC Funding Program enabled a hospital system to swiftly implement another partnership with long term care facilities. This initiative uses software to share clinical, admission, discharge, and transfer data bidirectionally between EHRs. The program also provides RN clinical oversight and monitoring of discharged patients.

Better Care Transitions

Awardees reported on ways that the LTC Funding Program supported better care transitions. The partnerships stemming from the LTC Funding Program demonstrated the shared goals of both hospitals and facilities in achieving high quality care for patients. Staff brought together through the LTC Funding Program were able to take a more unified approach to patient care. For example, an awardee described an increased sense of accountability for both the hospital and SNF when sending patients to the ED. The hospital shared information with the SNF to enhance understanding of the implications of sending residents to the ED. Awardees described gaining insight into communication challenges during patient transfers, for example understanding and addressing points at which information can be lost. Enhanced telehealth and consultation offerings gave awardees better insight into discharges to facilities and provided opportunities for physicians to conduct in-depth readmission reviews. Specific LTC Funding Program activities with the potential to improve transitions include the establishment of transition of care teams, readmission calls, complex care calls, and other recurring touch points.

Activities continuing beyond program

Awardees are continuing some intervention activities beyond the LTC Funding Program period.

Regular Communication

Most awardees are continuing their regular multidisciplinary calls with facility partners to facilitate ongoing communication and collaborative problem solving around patient discharges and transitions of care. These meetings help identify quality improvement opportunities and are viewed as a way to support facilities in increasing their ability to care for patients with complex needs. Communication is expanding to include ED providers and inpatient teams to problem solve immediately. While hospitals and long-term care partners had regular meetings predating the pandemic, the stronger relationships developed under the LTC Funding Program and greater understanding of one another's workflows and challenges helped renew those meetings to be more meaningful.

Ongoing Resource Sharing and Consultation

Within the **resource sharing** support area, awardees will continue providing partners with selected equipment and supplies. For example, educational tools were provided electronically and in paper for continued use. In some cases, fit testing resources were provided to support sustainable fit testing programs. The train the trainer model employed by awardees also supports sustainability of best practices in infection control. Some facilities indicated they will continue routinely swabbing high touch surfaces.

Support is also continuing in the **consultation** support area, with staff time and education and training on quality improvement and infection prevention and control. The pandemic highlighted the need to provide disease management and disaster response expertise to the long-term care industry. Some awardees are expanding the universe of post-acute providers with whom they partner. Hospital and health system providers will continue to provide support within facilities, for example through:

- Nurse practitioner telehealth supportive services available 24/7,
- Nurse practitioners available to discuss hospital transfers and provide geriatric consult consistent with the "4 Ms,"
- Transitional care RNs available to bridge services for discharged patients to home and nursing homes,
- Resource RNs available to provide information on infection control and help navigating local resources,
- Care coordinators to support facilities in further decreasing readmissions,
- Support for patients discharged to facilities with complex needs, and
- Review of readmissions with facilities.

Continued education and training initiatives will include topics such as wound management, frontline safety, complex tracheostomy and ventilator dependent patients, behavioral health needs, and handling challenging behaviors in patients living with dementia.

Awardees are conducting analyses to inform sustainability plans, for example investigating reimbursement options for telemedicine visits between hospitalists and facilities. Others are looking to sustain programs in anticipation of a new Medicaid program that will support similar interventions next fiscal year.

Data/Analytics

Awardees working with Real Time Medical interventional analytics are continuing their efforts to share data and implement alerts to improve efficiency and outcomes and reduce readmissions. One awardee is implementing Real Time alerts with its outpatient infusion center to provide services for patients anticipated to require transfusions to decrease ED utilization. Additional efforts to share data with existing and expanded partners are planned.

Lessons and Insights

Based on experience with the LTC Funding Program, awardees highlighted a number of lessons and insights for improving patient care and outcomes into the future:

- Facilities benefit from employing a full-time infection prevention staff person.

- Utilize metrics facilities are already reporting via CRISP and the CDC's National Healthcare Safety Network (NHSN) to streamline reporting and improve compliance.
- Flexibility under the grant helped awardees respond nimbly to the constantly changing pandemic environment and improved staff morale.
- Convening awardees helps to share best practices; in the future HSCRC can initiate this through a meeting and sharing of contact information.
- Regular (e.g., bi-annual) reporting of facility contacts to CRISP or another information portal would provide valuable updated contact information to hospitals.
- HSCRC participation in program calls would signify the importance of initiatives and encourage engagement by partners.
- Hospital staff benefit from information about the differential services provided by facilities (e.g., SNFs versus ALFs) and facility corporate policies for required transfers.

Conclusion

Long-term care facilities were hit particularly hard by the COVID-19 pandemic, which was unprecedented in our recent history. The LTC Funding Program enabled the long-term care industry to benefit from the expertise of hospital and health system infection prevention and control and patient management. The flexibility provided to awardees under the LTC Funding Program allowed hospitals and health systems to support facility partners amidst the changing nature of the pandemic, including different COVD-19 surges and the availability of the vaccine. The trust, relationships, and communication pathways forged under the LTC Funding Program between the hospital and long-term care industries have the potential to improve patient care and outcomes into the future.