

# Children's Health Plan For the State of Tennessee FINAL



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# Introduction

- Final versions of the following Plans were requested by the State of Tennessee in the September 18, 2017 Terms of Certification, and were subsequently submitted on July 31, 2018. Feedback from multiple meetings and conversations with the state has been incorporated into these Plans.
  - Behavioral Health Plan
  - Children's Health Plan
  - Rural Health Plan
  - Population Health Plan
- The content of these Plans is consistent with requirements as outlined in the Terms of Certification governing the Certificate of Public Advantage and represent those actions to be taken by Ballad Health deemed by the State of Tennessee to constitute public benefit.

# Spending Requirements

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total:
<b>Expanded Access to HealthCare Services</b>	<b>Behavioral Health Services</b>	\$1,000,000	\$ 4,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 85,000,000
	<b>Children's Services</b>	\$1,000,000	\$ 2,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 27,000,000
	<b>Rural Health Services</b>	\$1,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 28,000,000
<b>Health Research and Graduate Medical Education</b>		\$3,000,000	\$ 5,000,000	\$ 7,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 85,000,000
<b>Population Health Improvement</b>		\$1,000,000	\$ 2,000,000	\$ 5,000,000	\$ 7,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 75,000,000
<b>Region-wide Health Information Exchange</b>		\$1,000,000	\$ 1,000,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 8,000,000
<b>Total:</b>		\$8,000,000	\$ 17,000,000	\$ 28,750,000	\$ 33,750,000	\$ 36,750,000	\$ 36,750,000	\$ 36,750,000	\$ 36,750,000	\$ 36,750,000	\$ 36,750,000	\$ 308,000,000

# Important Dates

## Plans Due in First Six Months (July 31, 2018)

- Behavioral Health Plan\*
- Children's Health Plan\*
- Rural Health Plan\*
- Population Health Plan\*
- Capital Plan

## Plans Due in First Twelve Months (January 31, 2019)

- HIE Plan
- Health Research/Graduate Medical Education (HR/GME Plan)

*\* Consistent with the The Commonwealth of Virginia Department of Health request, Ballad previously submitted draft versions (on June 30, 2018) of these Plans and provided those copies to the State of Tennessee. This document presents the final versions of these plans, incorporating feedback received from the State following review of the draft submissions during an on-site meeting at Ballad's corporate offices on July 10, 2018, submission of the updated plans on July 31, 2018, and a second review session at the Tennessee Department of Health offices on August 10, 2018.*

# Process for Plan Development

## Initiate

- Engaged Resources
- Named Executive Steering Team

## Plan

- Gathered Internal and External Stakeholder Input
- Developed Initial Plans/Prioritize

## Review

- Socialized Plans to Internal and External Stakeholders
- Provided Tennessee Department of Health (TDH) with Draft Plans Submitted to Virginia Department of Health (VDH)
- Reviewed Draft Plans with TDH and VDH

## Finalize

- Incorporated TDH and Stakeholder Feedback
- Finalized Investment Schedules
- Submitted Final Plans to TDH
- Make final revisions with State Input during 30 day state review and 30 day Ballad response period
- Obtain Ballad Health Board Approval

# Process and Participation for Plan Development

In developing these plans, Ballad has referenced previously developed plans and analyses and solicited extensive stakeholder input including:

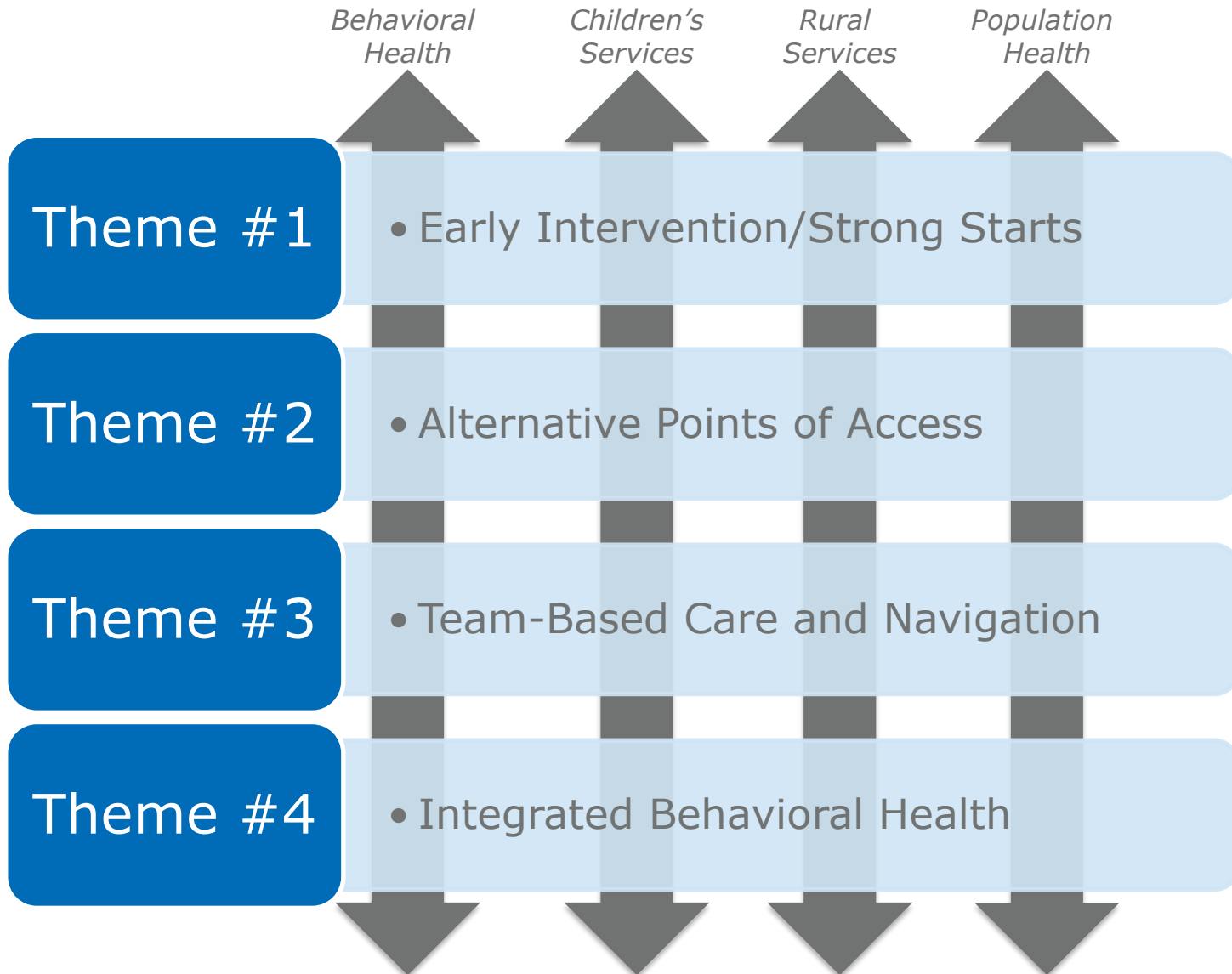
- Reviewing the following documents and plans:
  - Tennessee State Health Plan
  - Key Priorities for Improving Health in Northeast Tennessee and Southwest Virginia: A Comprehensive Community Report <sup>1</sup>
  - Legacy WHS and MSHA Community Health Needs Assessments
- Conducting approximately individual 150 interviews
- Holding approximately 40 meetings with external groups
- Convening the Population Health Clinical Committee
- Presenting the plan overview to a number of Ballad community boards in Tennessee and in an open meeting in Kingsport

<sup>1</sup> Report published by the East Tennessee State University College of Public Health

# Process and Participation for Plan Development (continued)

- Convening the Accountable Care Community Steering Committee
  - Healthy Kingsport and United Way SWVA were selected through an RFP process to co-manage this effort for both TN and VA
  - Obtained cross-state participation in initial meeting with discussion of metrics with special focus on those most amendable to community intervention
  - Conducting bi-weekly calls with lead organizations
- Provided draft Virginia plans to the State of Tennessee on June 30, 2018. Additionally, Ballad representatives and representatives from the State of Tennessee and the Virginia Commonwealth met on July 10, 2018 to review and discuss the draft plans. Feedback from that meeting and subsequent communications were incorporated into the July 31, 2018 plan submissions.
- Ballad representatives and representatives from the State of Tennessee and the Virginia Commonwealth met on August 10, 2018 to review and discuss the July 31 version of the plans. Feedback from that meeting has been incorporated into this submission.

# Strategic Themes Across All Plans





# Strategic Themes Across All Plans (continued)

## 1. Early intervention and strong starts

- Efforts will be designed around the concept of primary, secondary and tertiary prevention, with a special population focus on children.
- Example: Prevent cervical cancer through HPV vaccinations AND detect in early stages through effective screening.

## 2. Alternative Points of Access

- Preventive and acute services must be easily accessible by the population and designed with their preferences and limitations in mind.
- Example: Mobile blood pressure and diabetes screening co-located at food assistance delivery sites.

# Strategic Themes Across All Plans (continued)

## 3. Team Based Care and Navigation

- Care teams should be designed around the needs of the whole person and include perspectives and skills from pharmacists, social workers, community health workers, navigators and case managers.
- Example: Embed behavioral health navigators in primary care practices to link patients with necessary behavioral health services at Ballad Health and our CSB partners.

## 4. Integrated Behavioral Health

- We should design a behavioral health perspective into all care processes and systems.
- Example: Perform Screening, Brief Intervention and Referral to Treatment on ED and Inpatient admits to identify behavioral health risk and initiate treatment in patients regardless of their presenting problem.

# Table of Contents for Each Plan

- Plan Overview
  - TN Certificate of Public Advantage Requirements
  - Key Metrics Assessed
  - Key Strategies
  - Crosswalk to Conditions
  - Investment Plan
  - Existing Partnerships and Collaborations
- Strategic Approach
- Implementation Roadmap

# Children's Health Plan

## *1. Plan Overview*



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## *Plan Overview*

# TN COPA Children's Health Plan Requirements

### TN COPA Requirement

1. Facilitate recruitment of pediatric sub-specialists in accordance with Niswonger Children's Hospital physician needs assessment
2. Develop Comprehensive Regional Pediatric Center at Niswonger, develop emergency rooms (with pediatric capabilities) in Kingsport, TN and Bristol, TN
3. Deploy pediatric telemedicine and/or rotating pediatric specialty clinics in Rural Hospitals, to achieve quick diagnosis and treatment of children in the Service Area in the right setting in close proximity to patients' homes.

# *Plan Overview*

## Children's Health Plan Key Metrics

C6: Pediatric Readiness of Emergency Department

C8: Specialist Recruitment and Retention

C17: Asthma ED Visits - Age 0-4

C18: Asthma ED Visits - Age 5-14

*Metrics from Exhibit C, per the Tennessee Terms of Certification Governing the Certificate of Public Advantage, September 18, 2017*  
ED = Emergency Department.

## *Plan Overview*

# Strategies for the 3-Year Children's Health Plan

**Strategy #1:** Develop Necessary Ballad Children's Health Services Infrastructure

**Strategy #2:** Establish ED Capabilities and Pediatric Specialty Centers in Kingsport and Bristol

**Strategy #3:** Develop Telemedicine and Rotating Specialty Clinics In Rural Hospitals

**Strategy #4:** Recruit and Retain Subspecialists

**Strategy #5:** Develop CRPC Designation at Niswonger Children's Hospital

# Plan Overview

## Strategies Related to TN COPA Children’s Health Plan Requirements

TN COPA Requirement	1. Children’s Health Infrastructure	2. ED Capabilities: Kingsport/ Bristol	3. Telemedicine and Specialty Clinics	4. Recruit/ Retain Subspecialists	5. Develop CRPC Designation
1. Facilitate recruitment of pediatric sub-specialists in accordance with Niswonger Children's Hospital physician needs assessment			Y	Y	Y
2. Develop Comprehensive Regional Pediatric Center at Niswonger, develop emergency rooms (with pediatric capabilities) in Kingsport, TN and Bristol, TN		Y		Y	Y
3. Deploy pediatric telemedicine and/or rotating pediatric specialty clinics in Rural Hospitals, to achieve quick diagnosis and treatment of children in the Service Area in the right setting in close proximity to patients’ homes.			Y	Y	

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# Plan Overview

## Children's Health Plan Estimated Investment Summary

Children's Health Plan	Year 1		Year 2		Year 3		Year 1-3 Total	
	Low	High	Low	High	Low	High	Low	High
#1 - Develop Necessary Infrastructure	\$130,000		\$270,000		\$280,000		\$680,000	
#3 - Develop Telemedicine and/or Rotating Specialty Clinics in Rural Hospitals	See Rural Health Plan		See Rural Health Plan		See Rural Health Plan		See Rural Health Plan	
#4 - Establish ED Capabilities and Pediatric Specialty Centers in Kingsport and Bristol	\$410,000		\$130,000		\$270,000		\$810,000	
#5 - Develop CRPC Designation	\$410,000		\$650,000		\$660,000		\$1,720,000	
<b>Sub-Total</b>	<b>\$950,000</b>		<b>\$1,050,000</b>		<b>\$1,210,000</b>		<b>\$3,210,000</b>	
#2 - Recruit and Retain Subspecialists	\$50,000	\$1,400,000	\$950,000	\$3,880,000	\$1,790,000	\$6,650,000	\$2,790,000	\$11,930,000
<b>Total</b>	<b>\$1,000,000</b>	<b>\$2,350,000</b>	<b>\$2,000,000</b>	<b>\$4,930,000</b>	<b>\$3,000,000</b>	<b>\$7,860,000</b>	<b>\$6,000,000</b>	<b>\$15,140,000</b>
<i>COPA-Mandated Minimum Expenditures</i>	\$1,000,000		\$2,000,000		\$3,000,000		\$6,000,000	
<b>Potential Funding Needed in Excess of Minimum Spending Requirements</b>	<b>\$0</b>	<b>\$1,350,000</b>	<b>\$0</b>	<b>\$2,930,000</b>	<b>\$0</b>	<b>\$4,860,000</b>	<b>\$0</b>	<b>\$9,140,000</b>

Specialist recruiting (see Strategy #4) expenditures are presented as a range, due the following uncertainties, which can have significant impacts on the actual annual investment expenditures:

- Timing – Due to the demand for pediatric sub-specialists, the amount of time necessary to successfully recruit a sub-specialist can vary dramatically.
- Economic considerations – Ballad has a robust compliance function that monitors matters pertaining to physician compensation and other economic relationships between the system and its medical staff. However, the limited number of pediatric sub-specialists completing residencies annually often results in rapidly changing economic demands among potential recruits.
- Possible partnership opportunities – As described in Strategies #3 and #4, Ballad is actively discussing partnership and joint venture opportunities with multiple other pediatric providers and medical schools. The partnerships and/or joint venture relationships that may emerge from those discussions may result in economic support for the sub-specialists currently included in the Ballad recruiting plan.

# Plan Overview

## Existing Partnerships and Collaborations

### Project ECHO

- This initiative involves partnership with East Tennessee State University (“ETSU”). In order to provide gap coverage and help decrease the work burden of our single providers, there has been a series of educational offerings to the rural pediatric providers. The first subspecialty explored was pediatric neurology. The Pediatric Neurologist is currently employed through a physician service agreement with ETSU and Legacy Mountain States Medical Group, and has developed educational materials for physicians in the community, enabling them to treat lower acuity neurologic conditions in their office. She has also developed treatment protocols for these conditions and those have been shared with the community providers as well.
- Next steps:
  - Continue to work with ETSU to offer educational sessions and CME credits to the community providers.
  - Expand the project to include other subspecialties, targeting 2 projects per year over the next 3 years.
  - Provide the educational information to the local emergency departments.
  - Augment the program with telemedicine services for the providers.

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# Plan Overview

## Existing Partnerships and Collaborations

### Families Thrive

- Families Thrive is operated within Niswonger Children’s Hospital (NsCH) through a local non-profit organization called Families Free, which specializes in addiction services for women. The program works in conjunction with the special care unit developed to serve babies experiencing neonatal abstinence syndrome. Families Thrive offers counseling services for moms who have babies in the hospital, relaxation activities, workshops geared toward the development of positive coping skills, and parenting classes. In preparation for discharge from the hospital, the counselors work to ensure that the moms are also linked in with community resources for a continuation of services.

### Trauma-Informed Hospital

- Development in conjunction with ETSU department of psychology and the Johnson City Police Department. Many patients and families visiting facilities for acute care services also experience some form of stress or trauma. This is particularly true for pediatric patients. Establishing NsCH as a trauma-informed hospital will offer the opportunity to better meet the emotional and behavioral needs of patients and families. The Children’s Resource Center within NsCH is working on this trauma-informed hospital initiative as part of its strategic plan.
- For example, the NsCH clinical team is evaluating Adverse Childhood Events (“ACEs”) screening tools to identify patients and families in need of trauma-informed care.

# Plan Overview

## Existing Partnerships and Collaborations

### School Partnerships

- Acute care telemedicine appointments are currently offered in 66 schools throughout Tennessee (*See Exhibit A*). This program works in conjunction with Niswonger Children's Hospital, Ballad Health urgent care, and the technology company, eMD Anywhere. This program allows efficient access to care for children at school in an effort to decrease absenteeism rates and ensure children receive sick care. Ballad is currently discussing ways to expand this program in the schools to include crisis behavioral health services and behavioral health visits. Ballad will also work closely with the Tennessee Coordinated School Health program to provide educational opportunities for school nurses. There will be an annual conference that focuses on care issues that affect their role in schools.

### Pediatric Advisory Council

- Ballad currently utilizes a multispecialty physician led clinical council to address all aspects of care improvement. As a subset of this council, Ballad is in development stages for a regional pediatric advisory council. This council will be led by the pediatric service line leader for Ballad and will include membership of physicians throughout the region. The role of this council will be to advise on decisions related to local children's health initiatives. This approach will allow Ballad to develop a care delivery model for the region that is comprehensive and utilizes community resources to their maximum potential.

# Plan Overview

## Existing Partnerships and Collaborations

### Philanthropy in Support of Niswonger Children's Hospital

- Because of the increased funding needed to support pediatric subspecialists, the Ballad Foundation is currently developing a plan for a capital campaign that allows Ballad the opportunity to endow positions for our physicians. *(See Exhibit B for Future Business Plan)*
- The Foundation is also developing a sustained giving campaign that will provide ongoing funds for physician support as well as equipment and supplies needs. This plan does include renovation efforts for the facility which involves Niswonger operating room space and the neonatal intensive care space.
- Ballad is also evaluating expansion of the physician clinic space as an effort to house all the subspecialty practices in a common location. This will help provide seamless visits for patients with complex medical needs.
- In the past, the legacy MSHA Foundation supported many capital needs at Niswonger Children's Hospital:
  - The initial campaign which funded the construction of the space now housing the Niswonger Children's Hospital on the Johnson City Medical Center campus
  - \$500,000 in support of the neonatal abstinence services unit, opened in May 2017
  - \$500,000 in support of the new Children's Resource Center – providing outreach programs to the community
  - Support for significant equipment purchases such as the new “smart pump” technology that provides safer medication delivery for children

# Children's Health Plan

## *2. Strategic Approach*



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# *Strategic Approach*

## Strategy #1: Develop Necessary Children's Health Infrastructure

### Why

- Building a coordinated children's health program across Ballad Health's service area and expanding Ballad's pediatric clinical capabilities will require a core support infrastructure, including additional leadership and partnerships.

### How

- **Internal/Management**
  - Effective with the merger, Ballad Health appointed an Assistant Vice President for Pediatric Services
  - Additionally, Ballad Health will be recruiting additional resources, including:
    - Pediatric Chief Medical Officer
    - Project Administrator
    - Clinical Data Analyst
- **Community and Other Resources**
  - Ballad Health will continue to build on existing relationships with other Children's Hospitals.

# Strategic Approach

## Strategy #1: Develop Necessary Children's Health Infrastructure

### How (continued)

- **Community and Other Resources (continued)**

- Ballad Health will continue to build relationships with community resources focused on pediatric health, including private practitioners, community organizations, and local and state governments.
- One such relationship effort will include the establishment of a Pediatric Advisory Council with Ballad and non-Ballad pediatricians to establish clinical protocols for inpatient, emergency department, urgent care and outpatient initiatives.
- The council's initial priority will be the implementation of standardized clinical care protocols for children with asthma.
  - A Ballad Medical Associates pediatric group is currently participating in a project with the Pediatric Healthcare Improvement Initiative of Tennessee (PHiIT). The learnings from this collaboration should provide a basis for revising and standardizing current protocols. *(See Exhibits C and D)*
  - The council will also explore opportunities to collaborate with other resources, such as working with Coordinated School Health staff to ensure asthma home plans are on file at the schools.



# Strategic Approach

## Strategy #1: Develop Necessary Children's Health Infrastructure

### Metrics Addressed

- C17: Asthma ED Visits - Age 0-4
- C18: Asthma ED Visits - Age 5-14

*Metrics from Exhibit C, per the Tennessee Terms of Certification Governing the Certificate of Public Advantage, September 18, 2017*  
ED = Emergency Department.

# Strategic Approach

## Strategy #2: Establish ED Capabilities and Pediatric Specialty Centers in Kingsport and Bristol

### Why

- Establishing pediatric specialty centers and ED capabilities in Kingsport and Bristol will allow pediatric patients to receive care closer to home.

### How

- Complete necessary renovations to one of Ballad Health's Kingsport hospitals and to Bristol Regional Medical Center in order to better accommodate pediatric patients and their families.
  - Ballad Health is currently studying the region's trauma needs and anticipates completion of this engagement by July 31, 2018.
  - Once complete, Ballad Health will be able to designate which emergency room in Kingsport will include the pediatric capabilities.
  - Ballad Health anticipates completing necessary facility renovations in Kingsport and Bristol within the 2019 fiscal year.
- Expand dedicated emergency medicine provider coverage for pediatrics to ensure 24/7 coverage.
- Implement operational changes including the development of a dedicated pediatric triage line, urgent care triage protocols, and transfer protocols to Niswonger ED.

# Strategic Approach

## Strategy #2: Establish ED Capabilities and Pediatric Specialty Centers in Kingsport and Bristol

### Metrics Addressed

- C6: Pediatric Readiness of Emergency Department
- C8: Specialist Recruitment and Retention

### Potential Barriers to Success

- The primary barrier to establishing expanded pediatric ED capabilities will be the availability of pediatric specialists for coverage.

### Potential Mitigation Tactics

- Identify new opportunities to partner with other Children's Hospitals through coverage agreements, co-recruiting of telemedicine and other options
- Utilize pediatric telehealth to expand access to limited resources
- Utilize pediatric readiness assessment data to ensure that all Ballad ED's are equipped to provide emergency care for the children of the region

*Metrics from Exhibit C, per the Tennessee Terms of Certification Governing the Certificate of Public Advantage, September 18, 2017*

## *Strategic Approach*

# Strategy #3: Develop Telehealth and Rotating Specialty Clinics In Rural Hospitals

### Why

- Access to Pediatric care through telemedicine and/or rotating clinics allows Niswonger specialty capabilities to expand to serve the pediatric populations in more rural areas of the region.

### How

- Pediatric telehealth gaps will be addressed through the installation of comprehensive telehealth equipment at all Ballad Health EDs (see Rural Health Plan). This will allow connectivity to Niswonger Children's Hospital from all Ballad Hospital EDs.
- In addition to the expansion of telehealth to all Ballad Health EDs, Ballad will also expand pediatric access to telehealth services for those in the service area unable to travel to a Niswonger pediatric specialty location. Such access will be provided through locations established at rural hospitals and Ballad Medical Associates locations.

# Strategic Approach

## Strategy #3: Develop Telemedicine and Rotating Specialty Clinics In Rural Hospitals

### How (continued)

- Additionally, Ballad Health is committed to participating in other provider/academic partnership agreements as necessary to achieve this Plan. Ballad Health currently enjoys partnership with both ETSU and East Tennessee Children’s Hospital (“ETCH”), among others, and is committed to exploring similar affiliation opportunities with institutions in Virginia, such as the University of Virginia Health System (“UVA”) and Virginia Commonwealth University (“VCU”).
- Niswonger Children’s Hospital will evaluate opportunities to leverage existing telemedicine services within select TN school systems to provide behavioral health counseling services (*see Exhibit A for listing of existing telemedicine sites*). Expansion opportunities may include increasing the number of schools with access to these telemedicine services (4 new schools are currently considering initiating the service) and the potential placement of behavioral health counselors within school district zones to maximize coverage. Initial conversations with local TN school representatives indicate strong support for such coverage. Currently, Ballad is:
  - Working with local partners to frame the service
  - Evaluating programs in Georgia and Massachusetts to determine how the services can be integrated in the schools
  - Developing a financial plan for counselors to be provided for each school system
  - Exploring expansion of the use of current telemedicine services in schools to include behavioral health services

## *Strategic Approach*

# Strategy #3: Develop Telemedicine and Rotating Specialty Clinics In Rural Hospitals

### Potential Barriers to Success

- Development of telemedicine and/or rotating specialty clinics is dependent on access to needed pediatric subspecialists.

### Potential Mitigation Tactics

- Identify new opportunities to partner with other Children's Hospitals through coverage agreements, co-recruiting of telemedicine and other options

## *Strategic Approach*

# Strategy #3: Develop Telemedicine and Rotating Specialty Clinics In Rural Hospitals

### Other Considerations

- The Rural Health Plan includes incremental investments into telehealth services. See additional details in Rural Health Plan
- Ballad Health continues to explore opportunities to partner with other providers to provide additional access points through the use of telehealth services

### Metrics Addressed

- C6: Pediatric Readiness of Emergency Department
- C8: Specialist Recruitment and Retention

*Metrics from Exhibit C, per the Tennessee Terms of Certification Governing the Certificate of Public Advantage, September 18, 2017*

# Strategic Approach

## Strategy #4: Recruit and Retain Subspecialists

### Why

- Access to pediatric subspecialists meets community need and supports CRPC certification.

### How

- Recruit or partner for access to pediatric subspecialists, guided by Niswonger provider workforce needs assessment (*see Exhibit E for Future Business Plans and Exhibit F for Pediatric Sub-Specialty Locations*), established referral patterns, coverage requirements necessary for CRPC designation, and other market conditions.
- Survey employed pediatric subspecialists to understand perception of workload, satisfaction, and perceived needs to help retention and support recruiting efforts.
- Reassess (at least every three years) workforce analyses to ensure recruiting and retention remain focused on community need areas.
- Explore relationship with East Tennessee State University (“ETSU”) and East Tennessee Children’s Hospital (“ETCH”) to support Niswonger pediatric subspecialty coverage. Additionally, explore relationships with the University of Virginia (“UVA”) and Virginia Commonwealth University (“VCU”) to develop pediatric subspecialty access points in Virginia. (*See Exhibit G for Future Business Plans*)
- Work with State of Tennessee on CRPC guidelines for rural geographies.

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# Strategic Approach

## Strategy #4: Recruit and Retain Subspecialists

### Metrics Addressed

- C8: Specialist Recruitment and Retention

### Potential Barriers to Success

- Timing and complexity of negotiating affiliation coverage agreements with external entities
- The primary barrier to implementation of this strategy is the ability to recruit pediatric subspecialists - who are in high-demand nationally
- CRPC designation constraints in rural geographies

### Potential Mitigation Tactics

- Identify new opportunities to partner with other Children's Hospitals through coverage agreements, co-recruiting of telemedicine and other options
- The Behavioral Health Plan will include focus on team-based care models in pediatric practices and on recruiting behavioral health specialists, including psychiatrists

*Metrics from Exhibit C, per the Tennessee Terms of Certification Governing the Certificate of Public Advantage, September 18, 2017*

# Strategic Approach

## Strategy #4: Recruit and Retain Subspecialists

### Specialties Required for CRPC

Specialty	Incremental FTEs
Pediatric Surgery	2.0
Pediatric Gastroenterology	1.0
Pediatric Pulmonology	2.0
Pediatric Neurology	1.0
Pediatric ENT	1.0
Pediatric Urology	1.0
Pediatric Critical Care/Intensivist	1.0
Pediatric Neurosurgery	1.0
Pediatric Ophthalmology	1.0
Child Abuse	0.5
<b>Total</b>	<b>11.5</b>

- Ballad Health's focus for specialist recruitment will be on specialists required to meet CRPC requirements.
- Ballad Health will commit to increasing access to necessary specialties to build its CRPC program over the next three to five years.
- There is a shortage for many of these specialties, so the exact timing of recruitment will vary.

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## *Strategic Approach*

# Strategy #5: Develop CRPC Designation at Niswonger Children's Hospital

### Why

- CRPC designation establishes the Niswonger ED as the regional hub for treating pediatric trauma patients without the need to transfer out of the area

### How

- Recruit and retain pediatric subspecialists per Strategy #4
- Address additional operational and service needs as detailed in CRPC gap assessment (e.g., transfer agreements, data tracking, transport team)
- Hire additional administrative and clinical personnel as necessary per CRPC gap analysis

# Strategic Approach

## Strategy #5: Develop CRPC Designation at Niswonger Children's Hospital

### Metrics Addressed

- C6: Pediatric Readiness of Emergency Department
- C8: Specialist Recruitment and Retention

### Potential Barriers to Success

- Availability of pediatric specialists for coverage
- Ability to partner with other children's hospitals for coverage
- CRPC designation constraints for rural geographies

### Potential Mitigation Tactics

- Identify new opportunities to partner with other Children's Hospitals through coverage agreements, co-recruiting of telemedicine and other options
- Utilize pediatric telehealth to expand access to limited resources

*Metrics from Exhibit C, per the Tennessee Terms of Certification Governing the Certificate of Public Advantage, September 18, 2017*

# Children's Health Plan

## *3. Implementation Roadmap*



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# Implementation Roadmap

## Milestones and Metrics for Measuring Strategies: 2019

### Implementation Milestones and Metrics: Q1 and Q2

Strategies	Q1 Milestones	Q1 Metrics	Q2 Milestones	Q2 Metrics
<b>1. Develop Infrastructure</b>	<ul style="list-style-type: none"> <li>Finalize evaluation of infrastructure needs and staff capabilities to clarify gaps</li> </ul>	<ul style="list-style-type: none"> <li><i>Summary gap analysis including infrastructure needs and staff capabilities</i></li> </ul>	<ul style="list-style-type: none"> <li>Develop job descriptions</li> <li>Begin recruiting</li> </ul>	<ul style="list-style-type: none"> <li><i>List of positions to add and budget</i></li> <li><i>Evidence of active recruiting</i></li> </ul>
<b>2. Establish Ped ED in Kingsport &amp; Bristol</b>	<ul style="list-style-type: none"> <li>ID Kingsport pediatric ED location</li> <li>Begin facility planning</li> </ul>	<ul style="list-style-type: none"> <li><i>Kingsport location identified</i></li> <li><i>Facility planning begun</i></li> </ul>	<ul style="list-style-type: none"> <li>Finalize facility planning</li> <li>Approve final plans/budgets</li> <li>Develop operational plan and budget</li> </ul>	<ul style="list-style-type: none"> <li><i>Final facility plans</i></li> <li><i>Approved budgets</i></li> <li><i>Operational plans</i></li> </ul>
<b>3. Develop Telemedicine/ Specialty Clinics in Rural Hospitals</b>	<ul style="list-style-type: none"> <li>Initiate development of a plan to expand rural hospital ED telehealth capabilities for pediatric specialties</li> <li>Evaluate opportunities to provide access to behavioral health specialists through existing school-based telemedicine resources</li> </ul>	<ul style="list-style-type: none"> <li><i>Summary results of gap analysis and telemedicine plan</i></li> <li><i>Evaluation analysis</i></li> </ul>	<ul style="list-style-type: none"> <li>Complete plan to expand rural hospital ED telehealth capabilities for pediatric specialties</li> <li>Identify pilot sites for implementation of behavioral health specialists through existing school-based telemedicine resources</li> </ul>	<ul style="list-style-type: none"> <li><i>Priority listing of sites for installation of telehealth equipment</i></li> <li><i>Pilot sites identified</i></li> </ul>
<b>4. Recruit and Retain Subspecialists</b>	<ul style="list-style-type: none"> <li>Initiate recruiting of year 1 subspecialists</li> <li>Begin relationship discussions with ETSU, ETCH, UVA, and VCU</li> </ul>	<ul style="list-style-type: none"> <li><i>Annual recruitment priorities/plan</i></li> <li><i>Report on status of partnerships discussions with other pediatric hospitals</i></li> </ul>	<ul style="list-style-type: none"> <li>Finalize support staff needs</li> </ul>	<ul style="list-style-type: none"> <li><i>Physician recruitment status - % of plan achieved</i></li> <li><i>Support staff recruitment status</i></li> <li><i>Report on status of partnerships discussions with other pediatric hospitals</i></li> </ul>
<b>5. Develop CRPC Designation at Niswonger Children's Hospital</b>	<ul style="list-style-type: none"> <li>Review quality indicators/gaps</li> <li>Identify support staffing needs</li> </ul>	<ul style="list-style-type: none"> <li><i>Assessment summary: quality indicators, staff needs, gaps</i></li> </ul>	<ul style="list-style-type: none"> <li>Develop comprehensive CRPC plan</li> </ul>	<ul style="list-style-type: none"> <li><i>Comprehensive CRPC plan completed</i></li> </ul>

# Implementation Roadmap

## Milestones and Metrics for Measuring Strategies: 2019

### Implementation Milestones and Metrics: Q3 and Q4

Strategies	Q3 Milestones	Q3 Metrics	Q4 Milestones	Q4 Metrics
<b>1. Develop Infrastructure</b>	<ul style="list-style-type: none"> <li>Continue recruiting / hire new staff</li> <li>Establish Pediatric Advisory Council</li> </ul>	<ul style="list-style-type: none"> <li><i>Evidence of recruiting / staff hired</i></li> <li><i>Report on membership of Pediatric Advisory Council</i></li> </ul>	<ul style="list-style-type: none"> <li>Continue hiring as necessary</li> <li>Pediatric Advisory Council to identify any additional priorities other than children's asthma</li> </ul>	<ul style="list-style-type: none"> <li><i>Evidence of staff hired</i></li> <li><i>Pediatric Advisory Council priorities</i></li> <li><i>Y2 milestones and metrics accepted</i></li> </ul>
<b>2. Establish Ped ED in Kingsport &amp; Bristol</b>	<ul style="list-style-type: none"> <li>Begin construction</li> <li>Develop pediatric ED program protocols</li> </ul>	<ul style="list-style-type: none"> <li><i>Begin construction</i></li> <li><i>Initiate protocol development</i></li> </ul>	<ul style="list-style-type: none"> <li>Finalize construction</li> <li>Complete remediation of all identified pediatric ED gaps at Kingsport and Bristol sites, including telehealth capabilities</li> </ul>	<ul style="list-style-type: none"> <li><i>Construction complete</i></li> <li><i>Y2 milestones and metrics accepted</i></li> </ul>
<b>3. Develop Telemedicine/ Specialty Clinics in Rural Hospitals</b>	<ul style="list-style-type: none"> <li>Begin implementation of plan to expand rural hospital ED telehealth capabilities for pediatric specialties</li> <li>Initiate school-based behavioral health pilots</li> </ul>	<ul style="list-style-type: none"> <li><i>Initiate implementation plan</i></li> <li><i>Pilots initiated</i></li> </ul>	<ul style="list-style-type: none"> <li>Complete implementation for rural hospital ED telehealth capabilities for pediatric specialties</li> </ul>	<ul style="list-style-type: none"> <li><i>Services initiated</i></li> <li><i>Children treated through school-based behavioral health telemedicine</i></li> <li><i>Y2 milestones and metrics accepted</i></li> </ul>
<b>4. Recruit and Retain Subspecialists</b>	<ul style="list-style-type: none"> <li>Hire subspecialists as identified and available</li> <li>Continue affiliation conversations</li> </ul>	<ul style="list-style-type: none"> <li><i>Physician recruitment status</i></li> <li><i>Report on status of partnerships discussions</i></li> </ul>	<ul style="list-style-type: none"> <li>Hire subspecialists as identified and available</li> <li>Continue affiliation conversations</li> </ul>	<ul style="list-style-type: none"> <li><i>Recruitment status update</i></li> <li><i>Report on status of partnerships discussions</i></li> <li><i>Y2 milestones and metrics accepted</i></li> </ul>
<b>5. Develop CRPC Designation at Niswonger Children's Hospital</b>	<ul style="list-style-type: none"> <li>Hire according to CRPC plan</li> </ul>	<ul style="list-style-type: none"> <li><i>Evidence of recruitment and hiring according to CRPC plan</i></li> </ul>	<ul style="list-style-type: none"> <li>Hire according to CRPC plan</li> </ul>	<ul style="list-style-type: none"> <li><i>Evidence of recruitment and hiring according to CRPC plan</i></li> <li><i>Y2 milestones and metrics accepted</i></li> </ul>

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# Implementation Roadmap

## Milestones and Metrics for Measuring Strategies: 2020

Strategies	2020 Milestones and Metrics
<b>1. Develop Infrastructure</b>	<ul style="list-style-type: none"> <li>Review/evaluate further infrastructure needs and implement if necessary</li> <li>Pediatric Advisory Council plans to address priorities</li> </ul>
<b>2. Establish Ped ED in Kingsport &amp; Bristol</b>	<ul style="list-style-type: none"> <li>Evaluate operations initiated in 2019 and refine</li> <li><i>Number of pediatric ED visits in Kingsport</i></li> <li><i>Number of pediatric ED visits in Bristol</i></li> </ul>
<b>3. Develop Telemedicine / Specialty Clinics in Rural Hospitals</b>	<ul style="list-style-type: none"> <li>Initiate specialty telemedicine program(s)</li> <li>Study feasibility of specialty clinic rotations and other e-visit strategies based on currently available physicians</li> <li>Review pilot results to evaluate expansion opportunities for increased access to school-based behavioral health resources, including additional telemedicine sites, potential on-site resources by school zone, and external funding support</li> <li><i>Number of pediatric telemedicine visits</i></li> </ul>
<b>4. Recruit and Retain Subspecialists</b>	<ul style="list-style-type: none"> <li>Continue to recruit and hire candidates as available</li> <li>Establish formal relationships as applicable with partners</li> <li><i>Number of specialists accessible through new partnerships</i></li> </ul>
<b>5. Develop CRPC Designation at Niswonger Children's Hospital</b>	<ul style="list-style-type: none"> <li>Plan and initiate Child Abuse Program</li> <li>Continue to address ongoing CRPC needs</li> </ul>



# Implementation Roadmap

## Milestones and Metrics for Measuring Strategies: 2021

Strategies	2021 Milestones and Metrics
<b>1. Develop Infrastructure</b>	<ul style="list-style-type: none"><li>• Review/evaluate further infrastructure needs and implement if necessary</li><li>• Pediatric Advisory Council continues to implement, refine and track plans to address priorities</li></ul>
<b>2. Establish Ped ED in Kingsport &amp; Bristol</b>	<ul style="list-style-type: none"><li>• Evaluate operations initiated in 2020 and refine</li><li>• <i>Number of pediatric ED visits in Kingsport</i></li><li>• <i>Number of pediatric ED visits in Bristol</i></li></ul>
<b>3. Develop Telemedicine/Specialty Clinics in Rural Hospitals</b>	<ul style="list-style-type: none"><li>• Continue to expand pediatric specialty telemedicine program</li><li>• Implement specialty clinic rotations as feasible based on currently available physicians</li><li>• Continue to partnership with local schools to expand access to behavioral health resources</li><li>• <i>Number of pediatric telemedicine visits</i></li></ul>
<b>4. Recruit and Retain Subspecialists</b>	<ul style="list-style-type: none"><li>• Continue to recruit and hire candidates as available</li><li>• Establish formal relationships as applicable with partners</li><li>• <i>Number of specialists accessible through new partnerships</i></li></ul>
<b>5. Develop CRPC Designation at Niswonger Children's Hospital</b>	<ul style="list-style-type: none"><li>• Continue to address ongoing CRPC needs</li></ul>

# Children's Health Plan

*Exhibits*



It's your story. We're listening.



# Children's Health Plan

*Exhibit A – Listing for Current School-Based  
Telemedicine Sites*



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# Exhibit A

## Listing of Current School-Based Telemedicine Sites

### Bristol City, TN

- Anderson Elementary
- Avoca Elementary
- Fairmount Elementary
- Haynesfield Elementary
- Holston View Elementary
- Vance Middle School
- Tennessee High School

### Greene Co, TN

- Baileyton Elementary
- Camp Creek Elementary
- Chuckey Elementary
- Chuckey Doak Middle
- Chuckey Doak High
- Debusk Elementary
- Doak Elementary
- Glenwood Elementary
- McDonald Elementary
- Mosheim School
- Nolachuckey Elementary
- North Greene High School
- Ottway Elementary
- South Greene High School
- Thomas Howard McNeese Education Center
- West Greene High School
- West Pines Elementary

### Kingsport City, TN

- Abraham Lincoln Elementary
- Andrew Jackson Elementary
- Andrew Johnson Elementary
- Cora Cox Academy
- Dobyms-Bennett High School
- George Washington Elementary
- Jefferson Elementary
- John Adams Elementary
- John F. Kennedy Elementary
- John Sevier Middle School

- Palmer Early Learning Center
- Ross N Robinson Middle School
- Theodore Roosevelt Elementary

### Elizabethton City, TN

- East Side Elementary
- Elizabethton High School
- Harold McCormick Elementary
- TA Dugger Jr. High
- West Side Elementary

### Hawkins Co, TN

- Bulls Gap School
- Carter's Valley Elementary
- Cherokee High School
- Church Hill Elementary
- Church Hill Intermediate
- Church Hill Middle School
- Clinch School
- Hawkins Elementary
- Joseph Rogers Primary
- Kepler Elementary
- McPheeter's Bend Elementary
- Mooresburg Elementary
- Mt. Carmel Elementary
- Rogersville Middle School
- St. Clair Elementary
- Surgoinsville Elementary
- Surgoinsville Middle School
- Volunteer High School

### Unicoi Co, TN

- Love Chapel Elementary
- Rock Creek Elementary
- Temple Hill Elementary
- Unicoi Elementary
- Unicoi Middle School
- Unicoi County High School

# Children's Health Plan

*Exhibit B – **Future Business Plan** - Ballad  
Foundation*



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# Children's Health Plan


*Exhibit C – PHiiT Information*



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# Exhibit C

## PHiIT Information



Pediatric Healthcare Improvement Initiative for Tennessee

American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN™  
Tennessee Chapter



### PHiIT/TNAAP Asthma Education and Practice Improvement Project

**PROJECT SUMMARY**

This educational and practice improvement project is designed for primary care providers. This project will present, incorporate and sustain the use of high-value, chronic-care management processes for asthma. These key processes include

- frequent chronic-care visits that mirror the trigger pattern for patients,
- appropriate use of inhaled corticosteroids in persistent asthmatics,
- updated asthma action plans,
- regular asthma control testing,
- annual spirometry and
- influenza prevention.

**ASTHMA IMPACT**

Approximately 140,000 children in Tennessee have asthma. Asthma is the third leading cause of hospitalizations among Tennessee children 1-17 years old. Each year, there are approximately 1,900 inpatient hospitalizations and 14,200 emergency department visits for asthma among children aged 1-17 years old. In 2012, the total hospital charges for asthma was \$53.7 million. Asthma is the number one reason children miss school and adults miss work in most Tennessee counties.

**PROJECT BACKGROUND**

In 2007, the National Asthma Education and Prevention Program released the Expert Panel Report 3. This guideline was an effort to standardize best asthma practices. Nationally, provider incorporation of these recommendations has been slow. Morbidity from asthma and high emergency room utilization continue to be a problem. This project focuses on the core elements of the EPR3 and will assist each practice in implementing and sustaining improvements in practice to decrease the negative impact of asthma on patients' lives.

**PROJECT STRUCTURE**


This project is presented by the Pediatric Healthcare Improvement Initiative for Tennessee (PHiIT). This program is a state wide pediatric practice improvement partnership funded by the State of Tennessee and administered by the Tennessee Chapter of the American Academy of Pediatrics (TNAAP).

PHiIT offers **Quality Improvement services** for all Tennessee pediatric and family practice providers. For this project, practices will schedule a visit with the **PHiIT Quality Coach**. This visit will include a detailed presentation of the program, assessment of the practices improvement experience and assistance with the development of a QI Team.

(615) 383-6004 | [www.tnaap.org/phiit](http://www.tnaap.org/phiit) | PO Box 159201 Nashville TN, 37215-9201

# Exhibit C

## PHiIT Information



Public Health Improvement Initiative for Tennessee

American Academy of Pediatrics  
DEDICATED TO THE HEALTH OF ALL CHILDREN™  
Tennessee Chapter

Once in the project, the participating providers will watch a series of **web-based video presentations on asthma topics**. These include

- Asthma Identification and Diagnosis;
- Spirometry;
- Determination of Severity, Risk and Control;
- Establishing Family Partnership and
- Medication Use and the Action Plan.

CME credit is available for these videos.

PHiIT has developed a **web-based data collection system** called QI Teamspace. When a practice joins the project, the QI Team will enter baseline data on practice performance in regards to a short set of asthma-specific metrics. The QI Team and the other members of the practice will begin working on implementing the recommended process changes. The Plan, Do, Study, Act (PDSA) model is coached as the practice works on quarterly PDSA cycles. These cycles are submitted regularly to PHiIT to document the innovative work each practice is completing.

PHiIT provides **office visits** and **monthly support calls** to assist each practice in the challenging but important work of integrating high value chronic-asthma care into the unique environment of the individual practice.

The practice will enter quarterly follow up data to track the uptake and maintenance of practice changes. PHiIT provides **effective communication tools** for the practice to visualize performance, value the process improvement work and better serve patients.

The project will run for one year. At the end of one year, each practice will present the PDSA cycle topics that the QI Team has worked on, project data, project challenges and lessons learned to the other practices participating in a learning collaborative.

Part IV MOC will be awarded to providers completing project requirements.

**CONTACT**  
Becky Brumley, PHiIT Program Director [becky.brumley@tnaap.org](mailto:becky.brumley@tnaap.org)  
Becca Robinson, PHiIT Quality Coach [rebecca.robinson@tnaap.org](mailto:rebecca.robinson@tnaap.org)  
Darcy Knowles, PHiIT Quality Coordinator [darcy.knowles@tnaap.org](mailto:darcy.knowles@tnaap.org)  
Jennifer McGuire, PHiIT Administrative Assistant [jennifer.mcguire@tnaap.org](mailto:jennifer.mcguire@tnaap.org)  
Allen Coffman, PHiIT Medical Director [allen.coffman@tnaap.org](mailto:allen.coffman@tnaap.org)

(615) 383-6004 | [www.tnaap.org/phiit](http://www.tnaap.org/phiit) | PO Box 159201 Nashville TN, 37215-9201



# Children's Health Plan

*Exhibit D – Pediatric Asthma Patient Packet*



It's your story. We're listening.

# Exhibit D

## Pediatric Asthma Patient Packet

**Asthma and Your Airways** COPY

**Types of Therapy**

**Daily or Preventive** – Used everyday and may be increased when sick

- Inhaled Corticosteroid** – Small amount of steroid inhaled into the airway. Decrease swelling and limit side effects from taking intravenous or oral steroids
  - + Mometazone + Budesonide + Ciclesonide
  - + Fluticasone + Beclomethasone
- Long Acting Bronchodilators** – Relax airway muscles that decrease airway size
  - + Salmeterol
  - + Formoterol
- Leukotriene Receptor Antagonist**– Decrease swelling in the airway
  - + Montelukast


**Acute or Rescue Medicines** – These are only used when asthma symptoms are present

**Short Acting Bronchodilators** – Relax airway muscles that squeeze small airways during acute asthma attacks


- + Albuterol + Levalbuterol + Ipratropium Bromide

# Exhibit D

## Pediatric Asthma Patient Packet




### What Causes or Triggers Asthma?




**Respiratory Illness (most common)**

- + colds
- + flu (influenza)
- + sore throats
- + sinus infections
- + pneumonia




**Allergies (Allergic Asthma)**

- + dust mites
- + cockroach
- + pollens
- + molds
- + pet dander
- + rodents




**Irritants in the Air**

- + smoke from cigarettes
- + air pollution
- + wood or charcoal fires
- + strong fumes, vapors, or odors
- + dusts and particles in the air
- + chemicals




**Feeling and Expressing Strong Emotions**

- + anger
- + fear
- + excitement
- + laughter
- + yelling
- + crying




**Exercise**

Exercise—especially in cold air—is a frequent asthma trigger. With proper treatment, you do not need to limit your physical activity.




**Weather**

Dry wind, cold air, hot and/or humid climate, rain, or sudden changes in weather can sometimes bring on an asthma episode.



**Medicines**

- + If you are sensitive to aspirin and NSAIDs (nonsteroidal anti-inflammatory drugs)
- + If you take medicines known as beta blockers for high blood pressure



**Other Asthma Triggers**

- + sulfites in food
- + hormonal changes during the menstrual cycle
- + other medical problems like reflux and obstructive sleep apnea

### Resources

**Information**

**What is asthma?** In English  
<http://www.nhlbi.nih.gov/health/health-topics/topics/asthma>

**What is asthma?** In Spanish  
<http://www.nhlbi.nih.gov/health-spanish/health-topics/temas/asthma>

**What triggers asthma?**  
<http://www.aafa.org/page/asthma-triggers-causes.aspx>

More information on asthma, asthma trigger and help finding an allergist from the American College of Allergy, Asthma & Immunology  
<http://acaai.org/asthma/about>

**One-hour online training module**  
<http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/asthma-education-advocacy/asthma-basics.html>

**Inhalers and Spacers**

Videos in English and Spanish on inhalers and spacers use from the Centers for Disease Control and Prevention  
[http://www.cdc.gov/asthma/inhaler\\_video/default.htm](http://www.cdc.gov/asthma/inhaler_video/default.htm)

**Inhaler and Spacer Tip Sheets in English**  
[http://www.nhlbi.nih.gov/files/docs/public/asthma\\_tipsheets.pdf](http://www.nhlbi.nih.gov/files/docs/public/asthma_tipsheets.pdf)

**Inhaler and Spacer Tip Sheets in Spanish**  
[http://www.nhlbi.nih.gov/files/docs/public/asthma\\_tipsheets-sp.pdf](http://www.nhlbi.nih.gov/files/docs/public/asthma_tipsheets-sp.pdf)

**Asthma Education Games**

**Lung Defender**  
<http://pbskids.org/arthur/games/lungdefender/asthma.html>

**Lungtropolis**  
<http://www.lungtropolis.com/lungtropolis/play/>

**Quest for the Code**  
<http://asthma.starlight.org>

**American Academy of Pediatrics**  
DEDICATED TO THE HEALTH OF ALL CHILDREN  
 Tennessee Chapter  
This project is funded under an agreement with the State of Tennessee.

# Exhibit D

## Pediatric Asthma Patient Packet

National Asthma Education and Prevention Program (NAEPP) Guidelines<sup>1</sup>

### Classifying asthma severity in children 5–11 years of age



Assessing severity and initiating therapy in children who are not currently taking long-term control medication

#### Components of severity

#### Classification of asthma severity (5–11 years of age)

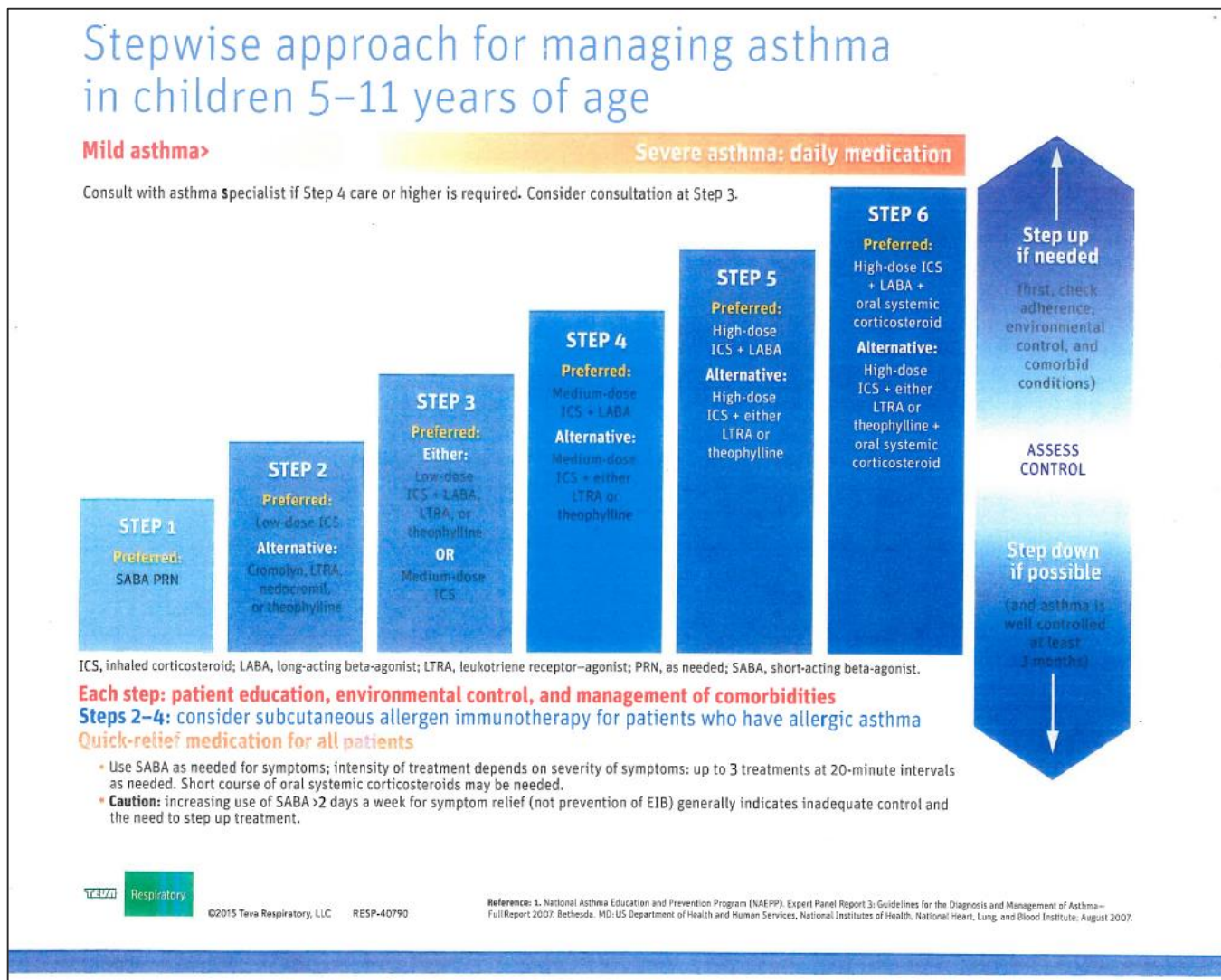
		Intermittent	Mild	Persistent Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	≤2x/month	3–4x/month	>1x/week but not nightly	Often 7x/week
	SABA use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
Risk	Lung function	<ul style="list-style-type: none"> <li>• Normal FEV<sub>1</sub> between exacerbations</li> <li>• FEV<sub>1</sub> &gt;80% predicted</li> <li>• FEV<sub>1</sub>/FVC &gt;85%</li> </ul>	<ul style="list-style-type: none"> <li>• FEV<sub>1</sub> ≥80% predicted</li> <li>• FEV<sub>1</sub>/FVC &gt;80%</li> </ul>	<ul style="list-style-type: none"> <li>• FEV<sub>1</sub> = 60%–80% predicted</li> <li>• FEV<sub>1</sub>/FVC = 75%–80%</li> </ul>	<ul style="list-style-type: none"> <li>• FEV<sub>1</sub> &lt;60% predicted</li> <li>• FEV<sub>1</sub>/FVC &lt;75%</li> </ul>
	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2/year		
Recommended step for initiating therapy		Step 1	Step 2	Step 3, medium-dose ICS option and consider short course of oral systemic corticosteroids	

In 2–6 weeks, evaluate level of asthma control that is achieved, and adjust therapy accordingly

EIB, exercise-induced bronchospasm; FEV<sub>1</sub>, forced expiratory volume in 1 second; FVC, forced vital capacity; ICS, inhaled corticosteroid; SABA, short-acting beta-agonist.

# Exhibit D

## Pediatric Asthma Patient Packet



# Exhibit D

## Pediatric Asthma Patient Packet

### Asthma Attack

Use this guide only if a doctor has told you your child has asthma

#### Symptoms of an Asthma Attack

- Wheezing
- Cough
- Tight chest
- Trouble breathing
- 


#### Causes (Triggers) of Asthma Attacks

- Infections that affect breathing (like colds or the flu)
- Pollens (trees, grass and weeds)
- Animals (like cats or rabbits)
- Tobacco smoke
- Irritants (such as smog, car exhaust, menthol vapors, barns, dirty basement)
- Food Allergy (Serious). Asthma attacks caused by food allergy can be life-threatening (anaphylaxis). Examples are nuts or fish.

#### Asthma Attack Scale

- **Mild:** No Shortness of Breath (SOB) at rest. Mild SOB with walking. Can talk normally. Speaks in sentences. Can lay down flat. Wheezes not heard or mild. (Green Zone: Peak Flow Rate 80-100% of normal rate)
- **Moderate:** SOB at rest. Speaks in phrases. Wants to sit (can't lay down flat). Wheezing can be heard. Retractions are present (ribs pull in with each breath). (Yellow Zone: Peak Flow Rate 50-80% of normal rate)
- **Severe:** Severe SOB at rest. Speaks in single words. Struggling to breathe. Wheezing may be loud. Rarely, wheezing is absent due to poor air movement. Retractions may be severe. (Red Zone: Peak Flow Rate less than 50% of normal rate)
- **Peak Flow Meter:** A peak flow meter measures Peak Flow Rates (PFR). It tells us how well a person can move air out of the lungs. A PFR can be used in children 6 years and older.

**If your child is having an asthma attack, please refer to the asthma action plan for treatment. If you do not have an asthma action plan in place, please reach out to your child's primary care physician to get one in place.**



# Exhibit D

## Pediatric Asthma Patient Packet

### The Dangers of Secondhand Smoke

Secondhand smoke is a well-known **asthma trigger**. If you smoke, consider quitting, especially if your child has asthma. Secondhand smoke can harm the lungs, cause long-term breathing problems, and make existing breathing problems worse



#### Kids with asthma who live in a household with smokers:

- May have flare-ups more often
- Are more likely to have to go to the emergency room with severe asthma flare-ups
- Are more likely to miss school because of their asthma
- Must take more asthma medicine
- Have asthma that's harder to control, even with medicine

Cigarette smoke can also get absorbed into upholstery, clothing, and carpeting, leaving carcinogens that **can't** be washed away with soap and water. Kids who touch, mouth, play on, or breathe near contaminated surfaces may develop breathing problems from this kind of "third-hand" smoke.



- Don't allow guests to smoke in your house or car
- Avoid smoky restaurants and parties. Choosing the nonsmoking section is not enough protection.
- Ask friends and relatives not to smoke around your child.
- Choose caregivers who don't smoke or, if they do, ask them not to smoke around your child.
- Encourage family members who smoke to quit.

**If you do continue smoking, don't smoke in the house or car.**

# Exhibit D

## Pediatric Asthma Patient Packet



[www.smokefree.gov](http://www.smokefree.gov)

Quit Smoking  
**TODAY!**  
We Can Help

### About Smokefree.gov

**Smokefree.gov** is intended to help you or someone you care about quit smoking. Different people need different resources as they try to quit. The information and professional assistance available on this Web site can help to support both your immediate and long-term needs as you become, and remain, a nonsmoker.

**Smokefree.gov** allows you to choose the help that best fits your needs, including

- Step-by-step quit smoking guide
- Information about a wide range of topics related to smoking and quitting
- Interactive U.S. map highlighting smoking information in your state
- LiveHelp, National Cancer Institute's instant messaging service
- National Cancer Institute's telephone quitline, **1-877-44U-QUIT**
- Local and state telephone quitlines, **1-800-QUIT-NOW**
- Publications to download, print, or order

  
NIH...Turning Discovery into Health  
NIH Publication No. 18-7675 Printed May 2012





# Children's Health Plan

*Exhibit E – **Future Business Plan** -  
Niswonger Provider Needs Assessment*



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# Children's Health Plan

*Exhibit F – Pediatric Sub-Specialty Locations*



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# Exhibit F

## Pediatric Sub-Specialty Locations

Specialty	Practice Name	Practice Address	City	State	Zip	County	Employed by Ballad
Adolescent Medicine	ETSU Physicians and Associates - Pediatrics	325 N State of Franklin Rd, Ground Floor	Johnson City	TN	37604	Washington, TN	N
Child Abuse Pediatrics	ETSU Physicians and Associates - Pediatrics	325 N State of Franklin Rd, Ground Floor	Johnson City	TN	37604	Washington, TN	N
Genetics	ETSU Physicians and Associates - Pediatrics	325 N State of Franklin Rd, Ground Floor	Johnson City	TN	37604	Washington, TN	N
Pediatric Allergy & Immunology	Regional Allergy, Asthma, & Immunology Center	2995 Fort Henry Dr, Suite 100	Kingsport	TN	37660	Sullivan, TN	N
Pediatric Allergy & Immunology	The Allergy, Asthma & Sinus Center	1410 Tusculum Blvd, Suite 2300	Greeneville	TN	37745	Greene, TN	N
Pediatric Cardiology	ETSU Pediatrics	325 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	N
Pediatric Cardiology	Tri-City Pediatric Cardiology PC	2312 Knob Creek Rd	Johnson City	TN	37604	Washington, TN	N
Pediatric Cardiology	Tri-City Pediatric Cardiology PC	935 Wilcox Ct	Kingsport	TN	37660	Sullivan, TN	N
Pediatric Critical Care	Niswonger Children's Hospital	400 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	Y
Pediatric Dermatology	Tri-Cities Skin & Cancer	1009 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	N
Pediatric Emergency Medicine	Niswonger Children's Hospital	400 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	Y
Pediatric Endocrinology	MSMG Pediatric Endocrinology	408 N State of Franklin Rd, Suite 318	Johnson City	TN	37604	Washington, TN	Y
Pediatric Gastroenterology	MSMG Pediatric Gastroenterology	408 N State of Franklin Rd, Suite 31E	Johnson City	TN	37604	Washington, TN	Y
Pediatric Hospitalist	Niswonger Children's Hospital	400 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	Y
Pediatric Hospitalist	Johnston Memorial Hospital	16000 Johnston Memorial Dr	Abingdon	VA	24210	Washington, VA	Y
Pediatric Infectious Disease	ETSU Physicians and Associates - Infectious Disease	325 N State of Franklin Rd, Ground Floor	Johnson City	TN	37604	Washington, TN	N
Pediatric Nephrology	ETSU Physician and Associates - Nephrology	325 N State of Franklin Rd, Ground Floor	Johnson City	TN	37604	Washington, TN	N
Pediatric Neurology	MSMG Pediatric Neurology	408 N State of Franklin Rd, Suite 32C	Johnson City	TN	37604	Washington, TN	Y
Pediatric Oncology	St Jude Tri-Cities Affiliate Clinic	400 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	Y
Pediatric Orthopedics	MSMG Pediatric Orthopedics	410 N State of Franklin Rd, Suite 130	Johnson City	TN	37604	Washington, TN	Y
Pediatric Psychiatry	ETSU Physicians and Associates - Psychiatry	1 Lake Dr, Building 52	Mountain Home	TN	37684	Washington, TN	N
Pediatric Psychiatry	Frontier Health	various locations				Washington/ Sullivan/Carter/Un icoi/Greene	N
Pediatric Psychiatry	MSMG Behavioral Health - Johnson City	403 N State of Franklin Rd	Johnson City	TN	37604	Washington, TN	Y
Pediatric Pulmonology	ETSU Physician and Associates - Pulmonology	325 N State of Franklin Rd, Ground Floor	Johnson City	TN	37604	Washington, TN	N
Pediatric Surgery	ETSU Physicians and Associates - Surgery	325 N State of Franklin Rd, 3rd Floor	Johnson City	TN	37604	Washington, TN	N

# Children's Health Plan

## *Exhibit G – Future Business Plans*



It's your story. We're listening.

# Children's Health Plan For the State of Tennessee FINAL



It's your story. We're listening.