

# A Family-Centered Research Agenda for Improving Health Care Transitions for Children with Special Health Care Needs

December 7, 2021

### **Moderator**



### Christopher Stille, MD, MPH

Professor of Pediatrics and Section Head of General Academic Pediatrics, University of Colorado School of Medicine and Children's Hospital Colorado

Principal Investigator, Children and Youth with Special Health Care Needs National Research Network (CYSHCNet)

### **Today's Speakers**



**Megumi (Megie) Okumura, MD, MAS**Professor of Pediatrics, Internal Medicine, and Health Policy University of California, San Francisco



**Ifeyinwa (Ify) Osunkwo, MD, MPH**Professor of Medicine and Pediatrics, Atrium Health and
Director, Sickle Cell Disease Enterprise at Levine Cancer Institute



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Association of Maternal and Child Health Programs

# **Ask Questions!**

We look forward to a lively discussion with our audience. Submit your questions through the Q&A.

## National Health Systems Research Agenda for CYSHCN

 Developed as a major part of CYSHCNet's initial 5-year Cooperative Agreement with the Maternal and Child Health Bureau, Health Resources and Services Administration

#### Rationale:

- Number of CYSHCN is increasing, as is research on how to improve systems of care
- Outcomes are not improving, and research is not always well coordinated
- Needs of families are not always explicitly included in research priorities
- Core Outcomes (MCHB) and System Standards (AMCHP/NASHP) are well articulated
- Research needs to be aligned with outcomes, and efforts need to be coordinated

## **Development of National Research Agenda**

- Began in 2018 with multistakeholder priority-setting process: RAND
   Appropriateness Method (RAM) and published in 2020 (Coller et al., <u>Pediatrics</u>, March 2020)
- Additional stakeholder input to include more/diverse families, provider groups
- Six major areas identified, with research questions prioritized within each area:
  - Transitions of Care
  - Caregiving at Home/Caregiving Processes
  - Principles of Care
  - Child Healthcare
  - o Family Health
  - Financing

# Improving Health Care Transitions for Children and Youth with Special Health Care Needs

Megumi Okumura, MD, MAS Dennis Z. Kuo, MD, MHS Allysa Ware, MSW Mallory H. Cyr, MPH Patience White, MD, MA

#### ARTICLE IN PRESS

### Improving Health Care Transitions for Children and Youth With Special Health Care Needs

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#### **A**BSTRACT

Health care transitions (HCT) from pediatric to adult health care remain a challenge for children and youth with special health care needs (CYSHCN), their families and their clinicians. While the HCT literature has expanded, gaps remain in how to improve health outcomes during transitions. HCTs broadly encompass three key domain areas: transition planning, transfer to adult health care clinicians or an adult model of care, and integration into an adult care/model of care.

The CYSHCNet national research agenda development process, described in a previous article, prioritized several key research areas to address deficiencies in the HCT process. The highest priority questions identified were "What are the best models to accomplish youth-adult transition planning? How might this translate to other transitions (eg. to new clinicians, new settings, new schools, etc.)?" and "How do gaps in insurance and community supports during early adulthood effect CYSHCN health outcomes, and how can they be reduced?". Based upon

these priorities, we describe the current state of transition research and recommendations for future investigation.

Recommendations: The authors recommend 3 primary areas of investigation: 1) Understanding the optimal development and implementation of HCT service models in partnership with youth and families to improve transition readmess and transfer 2) Defining the process and outcome measures that capture adequacy of transition-related activities and 3) Evaluating fiscal policies that incentivize the processes of transition readiness development, transfer to adult health care services, and continuity of care within an adult health care setting. This article explores approaches within each research domain.

**KEYWORDS:** Transition from Pediatric to Adult Health Care; research agenda; stakeholder engagement; families; patients

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#### WHAT'S NEW

We add to the literature key areas for future transition research based on a RAM process of stakeholder engagement. Health care providers

SUMMARY OF EXISTING KNOWLEDGE ON HEALTH CARE TRANSITIONS FOR CHILDREN AND YOUTH WITH SPECIAL HEALTH CARE NEEDS

1. Barriers to health care transitions (HCT) experienced by CYSHCN are well studied and include patient-level barriers (insufficient preparedness, poor self-management skills), clinician-level barriers (lack of time in practice, lack of familiarity of disease) and system-level barriers (lack of infrastructure resources on the adult health care system including care coordination or developmentally

appropriate resources for youth/young adults and families).

- 2. There has been guidance from numerous professional organizations, most recently the American Academy of Fediatrics/American Academy of Family Practitioners and American College of Physicians (AAP/AAFP/ACP) in the 2018 Clinical Report. This guideline includes a literature review, a framework called the Six Core Element approach, and clinical recommendations in infrastructure, education, payment and research.
- 3. Several clinical models have been investigated, but these studies are limited to single targets rather than comprehensive approaches using available frameworks. Disease-specific outcomes have improved with some clinical models. Unfortunately, these interventions lacked descriptions of the theoretical target/ mechanism for the desired outcomes as there is a

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## **Background**

- The transition and transfer from pediatric to adult care is a vulnerable time for adolescents and young adults with special health care needs
- Adolescents experience lower continuity of care and higher morbidity
  - High attrition rates post-transfer
  - Higher Hba1c
- Well-developed research describes numerous barriers experienced on patient, provider, system, and policy levels
  - Developmental concerns for young adults
  - o Provider access and knowledge
  - System barriers to knowledge transfer and follow up
  - Insurance and reimbursement practices that does not support health care transition (HCT)

## **Background**

- To address barriers to HCT, multiple academic societies, such as the American Academy of Pediatrics, American College of Physicians, Adolescent Medicine, and subspeciality groups have advocated for improving the transition process
- Health systems have been working on trying to improve this "transition process" to improve quality of care delivery to these adolescents and young adults
- Unfortunately, there is not a clear evidence on how to ensure optimal HCT outcomes

### **Stakeholder Questions**

"What are the best models to accomplish youth-adult transition planning? How might this translate to other transitions (e.g., to new providers, new settings, new schools, etc)?"

"How do gaps in insurance and community supports during early adulthood effect CYSHCN health outcomes, and how can they be reduced?"

# The Gap: "Fixing" HCT

- Barriers to HCT are complex and the way to address barriers to HCT requires a multi-modal approach with input from patients and families
- No single "magic bullet" that addresses all the barriers identified
- There continues to be significant research gaps in HCT that we address in the paper

### Recommendations

- Understanding the optimal development and implementation of HCT service models
- Defining the process and outcome measures that capture adequacy of transition-related activities
- Evaluating fiscal policies that incentivize the processes of transition readiness development, transfer to adult health care services, and continuity of care within an adult health care setting

# Addressing the Gap: Include Patients and Families

- Most studies do not engage families or youth in the research process
- Disconnect between family/youth goals and provider goals for HCT serves as a source of continuing failure to improve HCT
- Aligning the goals of families, youth, and providers provides opportunities to advance the field by defining appropriate process and outcome measures and generating creative solutions

# Addressing the Gap: Look Beyond Healthcare

- Many interventions focus on clinic-based interventions, and yet young adults and their families don't live their lives in the clinics
- Strategies that work with community engagement, schools, and outside programs that fulfill needs of youth (e.g., vocational attainment) will likely allow youth to grow and develop their health care management skills
- Working with community programs will also facilitate additional barriers to healthcare, and bring cultural and social competencies

# Addressing the Gap: Rigor and Real World

- Greater use of randomized controlled trials and quasi-experimental methods that would help evaluate measurement and outcomes are needed
- Currently much of the research has been driven by single academic center pilots but do not use theoretically driven models or evaluations that allow for greater generalizability
- Using implementation science strategies to see what "works" is critical to change health systems nationally

# Addressing the Gap: Addressing Policy

- Funding and funding strategies are key to implement sustainable transition programs
- Projects describing cost effectiveness and strategic funding strategies have not been performed
- State and federal demonstration projects would help advance how best to fund incentives and programs to ensure high quality HCT

### Conclusion

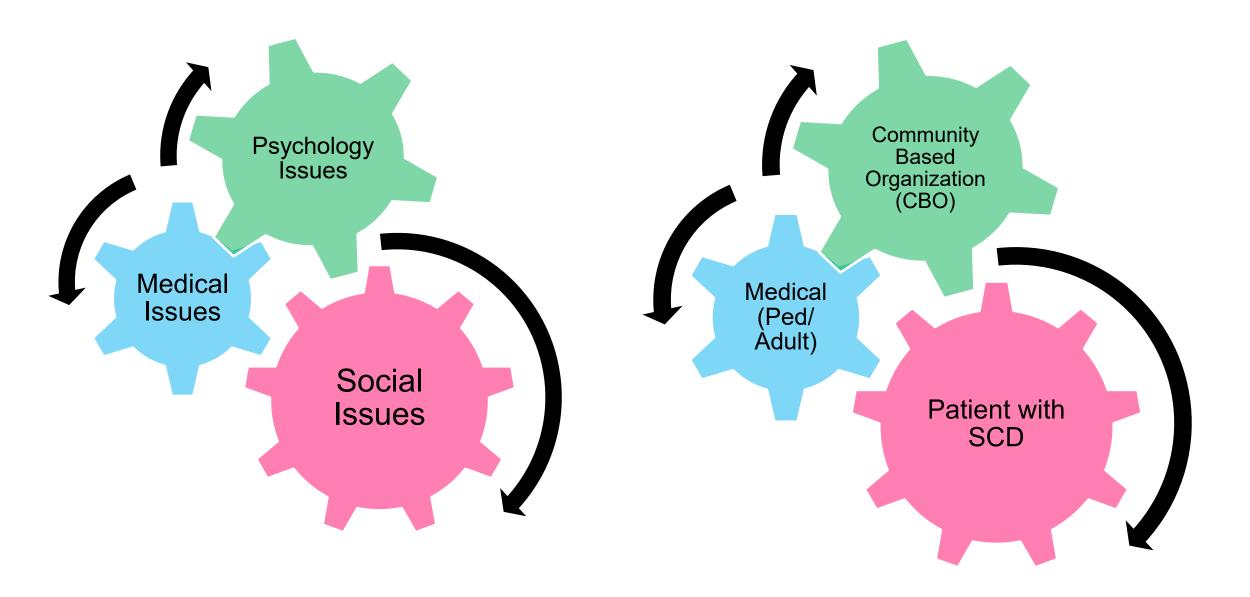
- Funding agencies are now increasingly prioritizing HCT research
  - National Institute of Mental Health
  - National Institute of Child Health and Human Development
  - Patient-Centered Outcomes Research Institute
- Robust development of transition measures and key outcomes are still needed
- Theory-driven interventions that are disease agnostic and rigorously tested are critical to changing the way we go about the HCT process

### **Faculty disclosures**

Ifeyinwa Osunkwo reports consultancy for Novartis, GBT, Cyclerion, Cheisi, Acceleron, Emmaus, Agios and FORMA Therapeutics; Speakers' bureau for Novartis, and GBT; Advisory board participation for Novartis, GBT, Acceleron, Cyclerion, Cheisi and FORMA Therapeutics; Grants from HRSA, PCORI, NC DPH and CDC; DSMB membership for Micella Biopharma; Editor-In Chief for Hematology News, Editorial Board of The Hematologist.



## [SCD] Transition is Complex; The TRIAD Approach is Critical



# Community Input Should [MUST] Guide Research Agenda

Care Standardization

- Consistency
- Pathways
- Communication
- SCD Action Plan

Provider Education

- Understanding Patient Pain
- Building Partnerships
- Comfort and Confidence

Community Engagement

- Education
- Partnering with Schools, Healthcare, Employers

Patient-Provider Relationship

4

- Improved Communication
- Skilled Listening
- Patient Navigation/ Peer Mentor

Patient Education and Resources

- Understanding Self-Care
- Support Resources
- Networks of Care

### ST3P- UP Sickle Cell Trevor Thompson Transition Project



Jan 05, 1968 - Nov 10, 2016

- A PCORI-sponsored \$9.8m prospective, double arm, unblinded, cluster randomized study of a structured education-based transition program +/virtual peer mentoring
- 14 sites (peds +adult program + community-based organizations)
- Standard arm
  - Structured transition process
  - Implementation using quality improvement (QI)
    - Change across pediatric and adult clinics and CBO

### ST3P-UP Study Design Informed by TRIAD

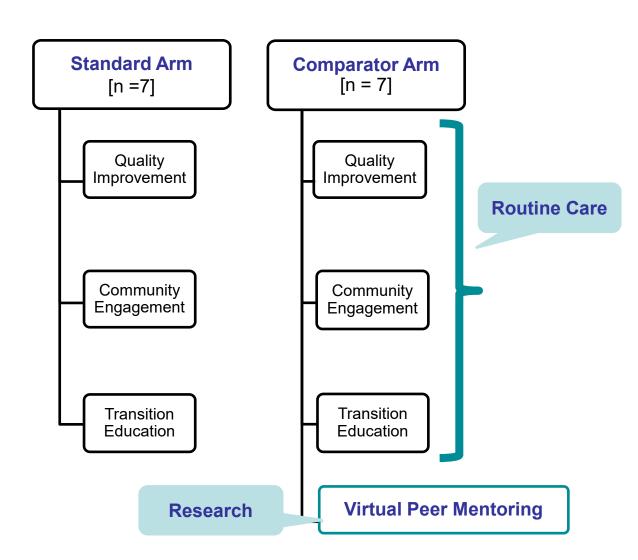
# **Standardize Process of Transition Planning and Education**

- Use <u>www.gottransition.org</u> model
- QI Model for Improvement, implement practice change
- QI Coach to oversee work with each site
- Transition Coordinator = Transition Quarterback
- Work in a TRIAD along with CBO
- Every patient in practice benefits



#### Addition of peer mentors will improve outcomes

- Acute Care Reliance = Acute care utilization / All healthcare encounters
- Quality of Life Self Efficacy
- Remaining in adult care for 1 year or more (regular visits)
- Process and Outcomes (QI, patient engagement, etc)



## Transition QI Collaborative (SMART) Aim Statement

Sickle cell disease (SCD) is a complex chronic disease that results in significant morbidity, mortality, and poor quality of life for teens and young adults.

A successful transition from pediatric care to adult care has great impact on the health and lives of these patients.

We aim to improve the health of teens and young adults with SCD by implementing an evidence-based transition program in pediatric and adult SCD programs.

We will accomplish this by December 30, 2021, using the Model for Improvement and the Got Transition Six Core Elements.

### SCD Transition QI Measures – Patient Centered

#### **Outcome Measures**

#### Standardized Transition Readiness Assessment [TIP-RFT]

- Standardized assessment
- Helps identify gaps in readiness
- Focus intervention and support
- Update annually
- Goal 75%

#### Provide Detailed Transition Specific Medical Summary

- Address medical & psychosocial factors
- Personal info relevant to care
- Update, share with patient, caregiver, adult provider
- Goal 100%

# Individualized Emergency Care Plan / Disease Management Pan

- Plan for managing SCD plus Pain
- Acute care Emergency Department / Hospital
- Plan for home pain management
- Update regularly (annually)
- Goal 75%

#### **Process Measure**

#### SCD Transition Process Measurement Tool [6CE]

- Transition Policy
- Tracking/Monitoring
- Readiness and Orientation
- Planning/Integration
- Transfer/Initial visit
- Transfer Completion /Ongoing care
- Goal 90%

### QI Process Measurement Tool (PMT) Peds & Adult



#### Health Care Transition Process Measurement Tool for Transitioning Youth to Adult Health Care Providers



Each of the Six Core Elements can be scored according to whether some or all of the implementation steps have been completed. Possible scores for each step vary depending on complexity or importance. For example, developing a written transition policy has a possible score of 5; that is, if this step is completed (yes), a practice or network would receive a score of 5. If it is not completed (no), the score is 0. Educating staff about transition policy has a possible score of 4 (yes), and similarly, not posting it would be a 0 (no). No partial scores.

Implementation Requirement	Yes or No	Possible	Actual	Possible Documentation
1. Transition Policy				
Developed a written transition policy/statement that describes the practices' approach to transition with input from youth and family		Yes = 5		Transition policy/Number of consumer reviewer
Included information in policy/statement about privacy and consent at age 18 and expected age of transfer		Yes = 5		Transition policy
Displayed policy/statement (public clinic spaces, practice websites, etc.)		Yes = 5		Photo/Screenshot
Educated staff about transition policy/statement and delineated staff's role in transition process		Yes = 4		Dates of education
Developed a process to share policy/statement with youth and family during first conversation about transition to an adult provider		Yes = 5		Description of process used
Transition Policy Implementation	n Subtotal	24		
2. Transition Tracking and Monitoring				
Established criteria and process for identifying transitioning target population		Yes = 4		Description of population and process used
Developed a transition registry that tracks progress through and completion of all Six Core Elements		Yes = 5		Registry screenshot
Transition Tracking and Monitoring Implementatio	n Subtotal	9		
3. Transition Readiness				
Adopted readiness assessment tool for use in practice		Yes = 5		Readiness assessment
Incorporated readiness assessment into clinical processes (a clear process for how the readiness assessment is given to youth and how results are incorporated into patient medical record)		Yes = 5		Description of clinic process used
Developed a process to track the completion of readiness assessments during at least two visits prior to transfer		Yes = 5		Description of process used
Created an educational process to address readiness assessment needs (e.g. discussion/pamphlets/educational groups)		Yes = 5		Registry screenshot
Transition Readiness Implementatio	n Subtotal	20		
4. Transition Planning				
Developed plan of care template that includes the youth's and family's goals and prioritized actions related to health care transition		Yes = 4		Plan of care template
Incorporated patient's readiness assessment needs in plan of care		Yes = 5		Plan of care template
Established clinical process to assess need for decision-making support before age 18		Yes = 4		Description of clinic process used
Developed a medical summary and emergency care plan (ECP) with youth and family		Yes = 5		Medical summary/ECP template
Established process to identify and communicate with adult clinician		Yes = 5		Vetted list of adult clinicians
Transition Planning Implementation	n Subtotal	23		
5. Transfer of Care				
Have mechanism to send medical records to adult clinician for transferring youth		Yes = 4		Description of mechanism used
Have mechanism to collect and send transfer package (with introduction letter, medical summary, emergency care plan, talest readiness assessment, transition qoals, and if needed, legal documents) to adult clinician prior to first visit		Yes = 5		Transier package checklist/ Description of mechanism used
Practice staff communicated directly with adult clinician (e.g. letter, email) confirming the pediatric clinician's responsibility for care until youth is seen in the adult practice		Yes = 5		Registry screenshot
Transfer of Care Implementation	n Subtotal	14		
6. Transfer Completion				
Developed mechanism to systematically obtain anonymous feedback from young adults about transition process		Yes = 5		Survey or interview questions
Documented first appointment with adult clinician in medical record		Yes = 5		Registry screenshot
Transfer Completion Implementation	n Subfofal	10		•



#### Health Care Transition Process Measurement Tool for Integrating Young Adult to Adult Health Care Providers



Each of the Six Core Elements can be scored according to whether some or all of the implementation steps have been completed. Possible scores for each step vary depending on complexity or importance. For example, developing a written transition policy has a possible score of 5; that is, if this step is completed (pes), a practice or network would receive a score of 5. If it is not completed (no), the score is 0. Educating staff about transition policy has a possible score of 4 (yes), and similarly, not posting it would be a 0 (no). No partial scores.

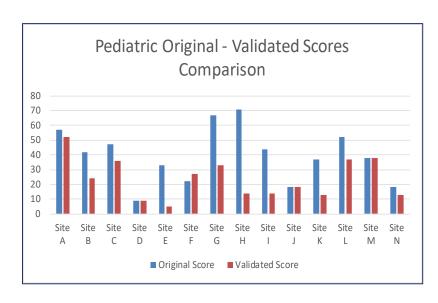
Yes or No	Possible	Actual	Possible Documentation
	Yes=5		Transition policy/Number of consumer reviewers
	Yes = 4		Transition policy
	Yes = 4		Photo/Screenshot
	Yes = 4		Dates of education
	Yes=5		Description of process used
on Subtotal	22		
	Yes = 4		Description of population and process used
	Yes = 5		Registry screenshot
on Subtotal	9		
	Yes = 5		Welcome materials/Number of consumer reviewers
	Yes=5		Description of process
	Yes = 4		Vetted list of adult clinicians
on Subtotal	14		
	Yes = 5		Registry screenshot
	100-4		Text/email template
on Subtotal	9		
	Yes = 4		Self-care assessment
	Yes=5		Description of process used
	Yes = 4		Registry screenshot
	Yes = 4		Plan of care template
	Yes = 5		Description of content/ Number of consumer reviewers
	Yes=5		Medical summary/ECP template
	Yes=5		Registry screenshot/materials
on Subtotal	32		
	Yes=5		Registry screenshot
	Yes = 4		Resource list
	Yes=5		Survey or interview questions
on Subtotal	14		
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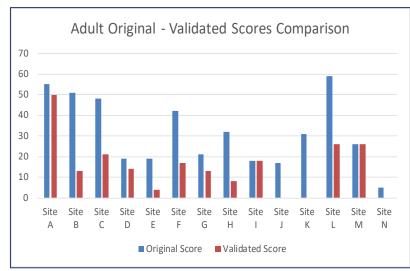
## **Emergency Care Plan Tool - Home & Acute Care**

	rolinas HealthCare System D Pain Action Plan				Tier: Diagnose:		Date:				
	Break-Through Pain Medicines	How	Much to Take	How	Often		er Instructions				
						we	If this medicine is needed often ( Times per week), call physician				
						If this medicine is needed often ( Times per week), call physician					
						If this medicine is needed often (Times per week), call physician					
			Much to Take	How	Often	Other Instructions					
	(Use Every Day to Control Pain)										
	CHECK TEMPERATURE BE	FOR					3.3C), Go to ED				
			PREVENT Syn								
			1) Take long ac Medicat			ons EVERY DAY: Much to Take	Directions				
	Pain Under Control (VAS 0 – 3	3)	Medicat	1011	now	Much to Take	Directions				
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	wild Fair to Uncomfortable										
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	<b>G</b>		6) Contact with friends/social support 7) Monitor stress level								
			8) Practice Mind-Body/ relaxation Strategies (Deep breathing and Listen to Music)								
			9) Other distract	ting activi	ies						
			CAUTION! Take Action! CONTINUE ALL ACTIVITIES FROM (GREEN ZONE)								
	Pain Uncomfortable (VAS 4 - 6) Not feeling well, Moderate / Distracting/		Start taking break-through medication for pain:     Medication								
ш	Distressing										
=	Always have pain but can still do no	rmal									
=		n									
3	activities. Can work through the pai	but must rest or give up some activities.			2) Increase Fluid Intake at least 128oz or 16 cups (8oz)						
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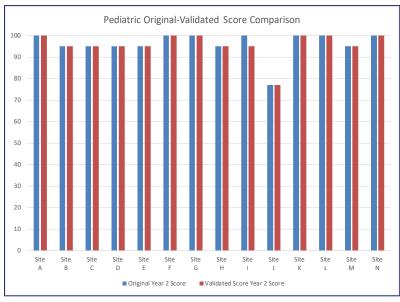
	_									
					Name: MRN #: DOB:					
					Tier:	DOB:				
Cal	rolinas HealthCare System				Diagnose:					
	D Pain Action Plan				Diagnose	5.				
130				Ц	w Offen	Other Instructions				
	break-fillough Fall Medicines	Much to Take	How Often		If this medicine is needed often ( Times per					
						week), call physician If this medicine is needed often (Times per				
						week), call physician				
						If this medicine is needed often ( Times per week), call physician				
$\overline{}$	Long Acting Control Medicines	How	Much to Take	Но	w Often	Other Instructions				
<u> </u>	(Use Every Day to Control Pain)									
Oth	er:									
			ED:							
	Pain Unmanageable! (VAS 7-	10)	1) IV Dilaudid/N	/orphine	mg q2	0-30 min, up to 3 doses. If > 3 doses needed,				
	Unmanageable, intense, Severe,	,	please admit fo			agement.				
	Immobilizing		2) IV Toradol _ 3) IVF Hydratio			in ml/hr				
	Cannot sleep, do activities, work or		IP:	ii wiai D	3 /2 INS at lai	.e				
RED ZONE	hobbies; Unable to think about anyth		1) ATC Dilaudio							
0	else, or even talk; unable to move, m go to the ER, cannot get out of bed.	iust			(Basal r	ng, Bolus mg q min, with max lock				
2	Continue until pain VAS is ≤ 6 for	r 24	out mg/4hr 2) ATC IV Tora		mg g8hrs f	or 72hrs				
Щ	hours then initiate Yellow Zone		3) For itching: E	Benadryl	/Atarax/Sarna	a lotion/other				
<u>~</u>			4) For nausea:							
			5) Continuous I							
			Methadone / O			ations (For example Fentanyl patch /				
				•						
		7) Initiate incentive spirometry and constipation prevention     8) Early ambulation								
			Initiate Pain Weaning Protocol:							
	Pain Uncomfortable (VAS 4 - 0	5)	Start home oral pain regiment ATC. After the second dose of oral medication, start reduction protocol of IV medications.							
빌	Not feeling well, Moderate / Distracti	ng/	Reduce IV Dilaudid/Morphine dose by 25% every 12 hrs until IV is completely							
Ó	Distressing		discontinued. For PCA, discontinue basal dose. Reduce the demand dose by							
Z	Always have pain but can still do no		25% every 12 hrs. 3) Continue home long acting medications (For example Fentanyl patch /							
ELLOW ZONE	activities; can work through the pain must rest or give up some activities;		Methadone / O							
	have to give up many activities and									
ᆸ	sleep	5) Continue constipation prevention, ambulation, and incentive spirometry								
>	➢ Continue until off of IV pain									
	medications for 24hrs then initia	ite								
	Green Zone Plan									
			Assess for dis			at home:				
			If the patient on long acting opioid at home:     Continue long acting at home							
		<ul> <li>Take break-through medications with NSAIDs ATC X 3 days. Then as</li> </ul>								
ш	Pain Under Control (VAS <4)	needed after								
Z	No pain to minimal pain	If the patient has been on IV opioid for < 7 days:     Take break-through medications with NSAIDs ATC X 24-48hrs. Then as								
Z	Mild Pain to Uncomfortable needed after.									
z		<ol> <li>If the patient has been on IV opioid for &gt; 7 days:</li> </ol>								
Ш	Patient is ambulating		ation, taper over 2 weeks after discharge by							
SREEN ZONE	Patient is tolerating PO meds			decreasing dose by 25% every 3 days  Take break-through medications ATC alternating with NSAIDS.						
			Set follow up appointment with PCP and Hematologist:							
	Tier I: W/I 2 weeks with PCP; Hematologist appointment as previous scheduled Tier II: W/I 2 weeks with PCP; Hematologist W/I 4-6 weeks									
						CP; Hematologist W/I 2-4 weeks				
Pat	Patient Signature: Provider signature:									
	Date / Time: Date/ Time Revised:									
	natologist/Sickle Cell Provider		c Number: _							
Prir	Primary Care Provider Clinic Number:									

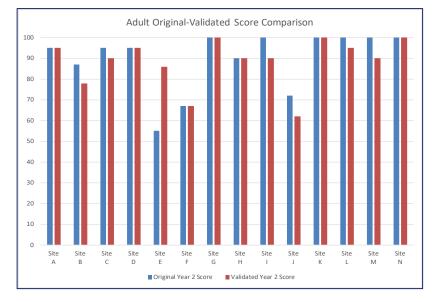
### Self vs Validated Score for Process Measurement Tool Score





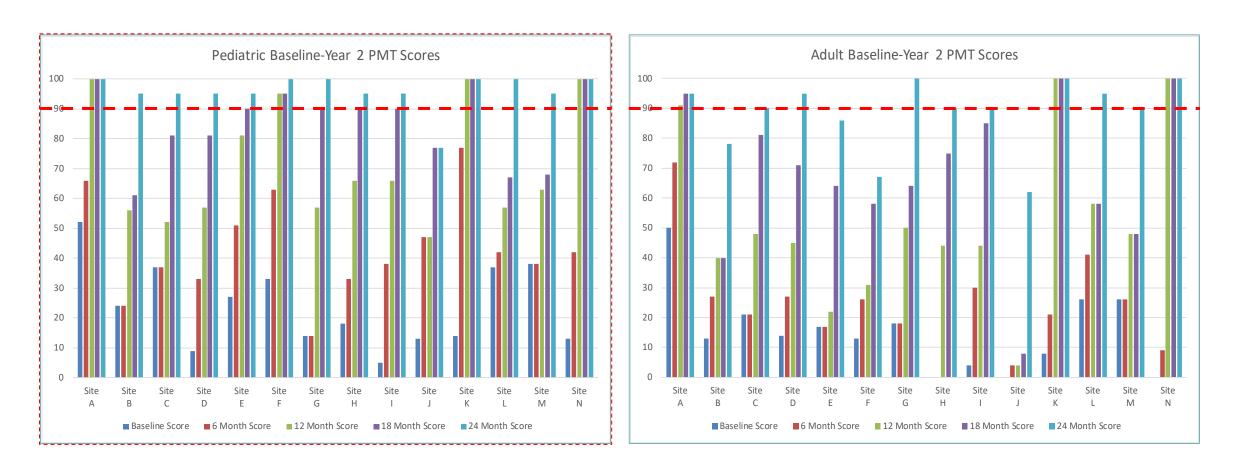
PMT Score at Baseline





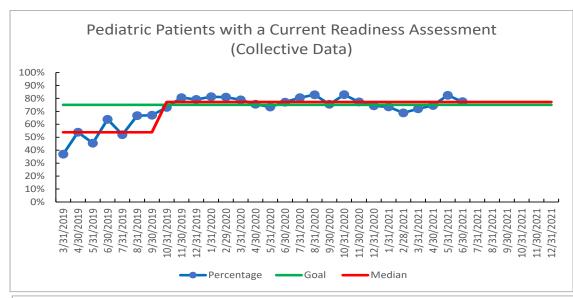
PMT Score at 24 mo

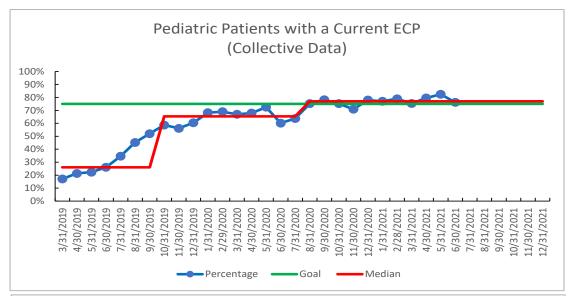
### We Did It@@@!! PMT Scores over 24 months

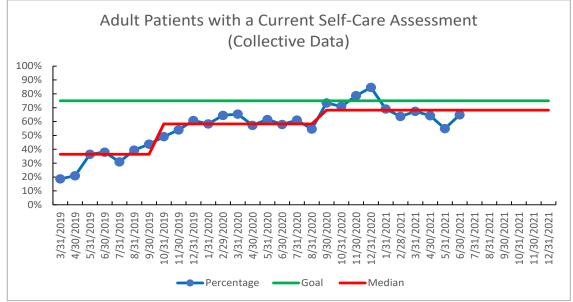


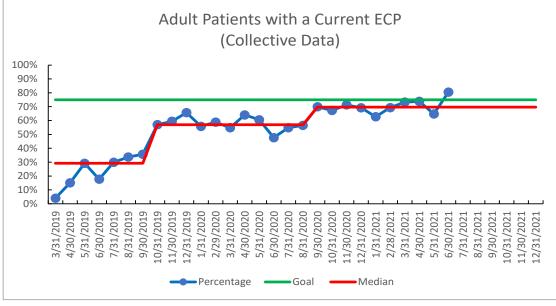
13/14 (92.9%) Pediatric clinics and 10/14 (71.4%) Adult clinics achieved PMT goal of ≥90% by 24 mo

### **Collaborative Aggregate Outcome Measures (June 2021)**









### **Lessons Learned**



Transition from pediatric to adult care is a major concern for persons living with sickle cell disease.



A standardized transition program can and should be implemented in both pediatric and adult clinics using QI. When using a PMT tool, information received must be validated for accuracy and consistency.



All 14 participating **pediatric and adult sites** showed significant progress over two years of implementing a structured HCT process aligned with the Six Core Elements.



Community partnerships are a critical part of the transition process as life happens outside the medical system.



The Transition Coordinator is the most vital "glue" for success.

## Mallory Cyr, MPH

Program Manager, Children and Youth with Special Health Care Needs, Association of Maternal and Child Health Programs

- Transition is more than a doctor's appointment. How are we researching what happens outside the clinic, or after the transition discussion is had?
- Remember social determinants existing research fails to address WHY transition may not occur or be sustained.
- Cultural components What does "transition" and "family" look like?
- Often transition doesn't occur because patients cannot be safely cared for on the adult side.
- Especially during COVID, "youth" may stay or return to where they have natural supports in place.
- Families and caregivers are more than "parents of CYSHCN."
- It takes a village stop the blame game!
- Youth and families can plan and prepare, but there must be something on the other side to support them.

### The Truth About Transition...

- 5 Primary Care Physicians in 6 Years
  - o Changes in insurance
  - Not responsive to needs
  - o I'm not a science experiment
- Moving to a new state as a "transition expert,"...Nobody's interested
- How do we educate and incentivize adult providers to take on medically complex ADULTS as patients?
  - o Begin by infusing within education and training
- Involve ADULTS with disabilities and medical complexities to inform the discussion of what is on the other side of the bridge within the adult health care system.



# **Ask Questions!**

We look forward to a lively discussion with our audience. Submit your questions through the Q&A.

# We pursue a system that works for children with special health care needs.

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