The Robert Larner, M.D. College of Medicine | Vermont Child Health Improvement Program

Pediatric to Adult Health Care Transitions: Lessons Learned from Quality Improvement in Vermont

September 2025

Executive Summary

While governing organizations provide a model for integrating transition from pediatric to adult care into the plan of care, many hospitals, specialty clinics, and primary care offices across the nation lack formal transition models and support structures. Preparing youth and providers through education and coaching, as well as providing a pathway for increasing access to adult care and welcoming youth to new adult clinics, supports successful pediatric to adult health care transitions.

Our work addresses some of the barriers adolescents and young adults face when transitioning to adult health care and supports engaged providers at the University of Vermont Medical Center working to improve the system of care.

Highlights of our work include:

- Building skills and knowledge for youth and young adults to support self-management.
- Building a workforce knowledgeable on how to provide high quality youth supported health care.
- Supporting pediatric and adult partnerships to improve the coordination and communication between clinical teams.
- Building capacity of interdisciplinary teams to utilize quality improvement methodology to implement system improvements.

Our work with adolescents and young adults, families, clinical and community partners pointed us to many needs. Our improvement efforts have highlighted the following recommendations and next steps:

- Address the transition to adulthood in a wholistic approach, engaging clinical and community partners.
- Improve payment strategies to support healthcare transition services.
- Strengthen care coordination supports.
- Advance technology.
- Mitigate health disparities.

The lessons learned from this effort, and outlined in this report, can provide a template for transitions efforts statewide.

This report provides an overview of efforts in Vermont, led by the Vermont Child Health Improvement Program (VCHIP), to develop and support effective systems for transitions of care for adolescents and young adults (AYA) moving from pediatric to adult health care settings. We provide background on the challenge of AYA transitions, provide an overview of activities in the state to date to develop a system to support transitions, and review lessons learned and recommendations that can be used to expand efforts to other areas across the state.

Background

Adolescents and young adults (AYA) are unique and diverse and benefit from an approach that acknowledges their differences and developmental complexities (*AAFP, 2025*). In Vermont, an estimated 43,500 adolescents are between the ages of 12-17 (*National Survey of Children's Health, 2023*), and 33 percent of those adolescents have a special health need (*Data Resource Center for Child and Adolescent Health, 2023*). Many adolescents, both those who are generally healthy and those who have a special health care need, are confronted with challenges that impact how they access and navigate adult health care. Adolescence is a time when many are experiencing several life changes and transitions. Care gaps may be common among this population, and when they do present for care, they may experience limited or delayed access to services.

The National Center for Health Care Transition *(Got Transition*) is the leading center supporting pediatric to adult health care transitions. Their Six Core Elements of Health Care Transition (*Fig. 1*) has become the best practice for health care systems and providers, offering structured guidelines and timelines for introducing core concepts at pediatric and adult primary care, specialty care and family medicine (*White et al., 2019*).

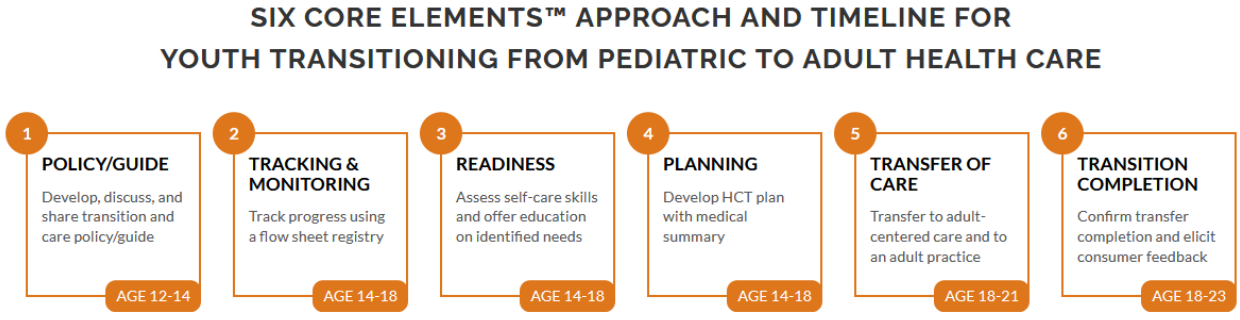

***Figure 1**: Got Transitions Six Core Elements*

Despite the existence of numerous reports and publications from governing organizations that support a model for integrating transition into the plan of care, formal transition models and support structures are lacking at most hospitals, specialty clinics and primary care offices across the country (*White et al., 2019*). Although all AYA benefit

from a structured approach to transitioning to adult health care, AYA with special health care needs may require more support and care coordination (*Lemke et al., 2018*). Over 20 years of the National Survey of Child Health show that youth with special health needs do not receive the support they need as they move from pediatric to adult focused care. According to the 2023 National Survey of Children's Health (*Fig. 2*), fewer than 30 percent of Vermont's adolescents with special health needs reported receiving services to prepare for transition to adult health care, leaving an estimated 70 percent in need of services, but not receiving them (*Data Resource Center for Child and Adolescent Health, 2023*).

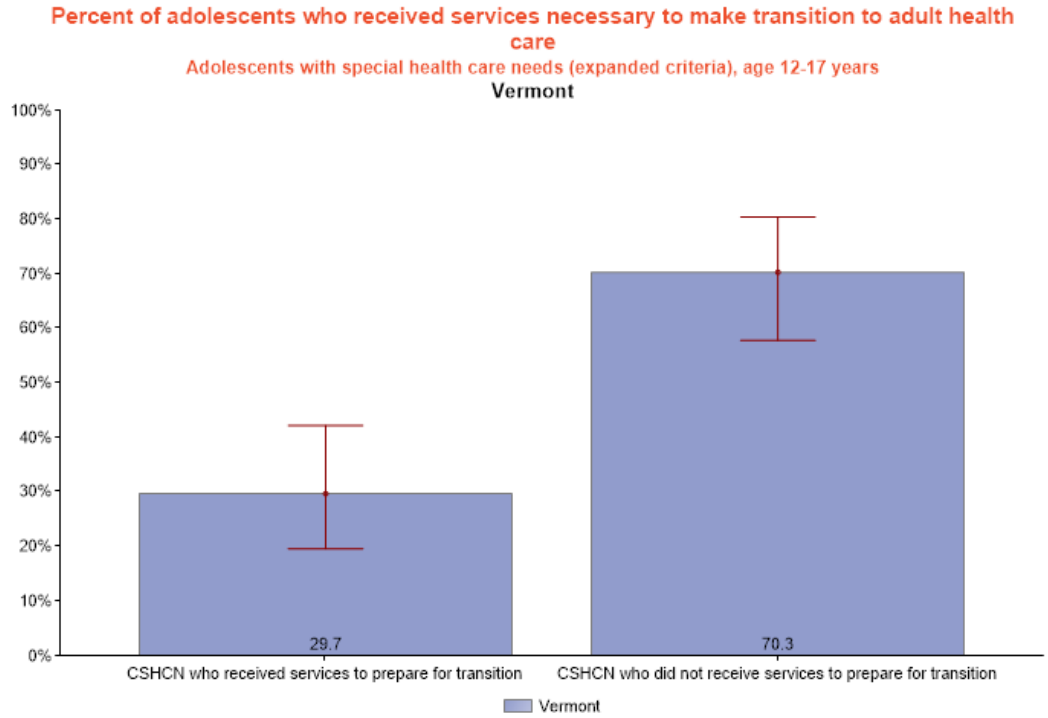

Figure 2: Percent of Vermont adolescents who received services necessary to make transition to adult health care **Data Source**: National Survey of Children's Health, Health Resources and Services Administration, Maternal and Child Health Bureau. https://mchb.hrsa.gov/data/national-surveys

AYA may typically transfer to adult health care between the ages of 18-22, which is a time that many youths are filled with emerging independence yet may need support as they navigate life transitions, which can make them vulnerable (*Fig. 3*). During this period, they may be susceptible to worsening or emerging chronic conditions, increasing risk-taking behaviors, limited health literacy, or changing health insurance coverage, all the while utilizing health care services with less frequency (*White et al., 2019*).

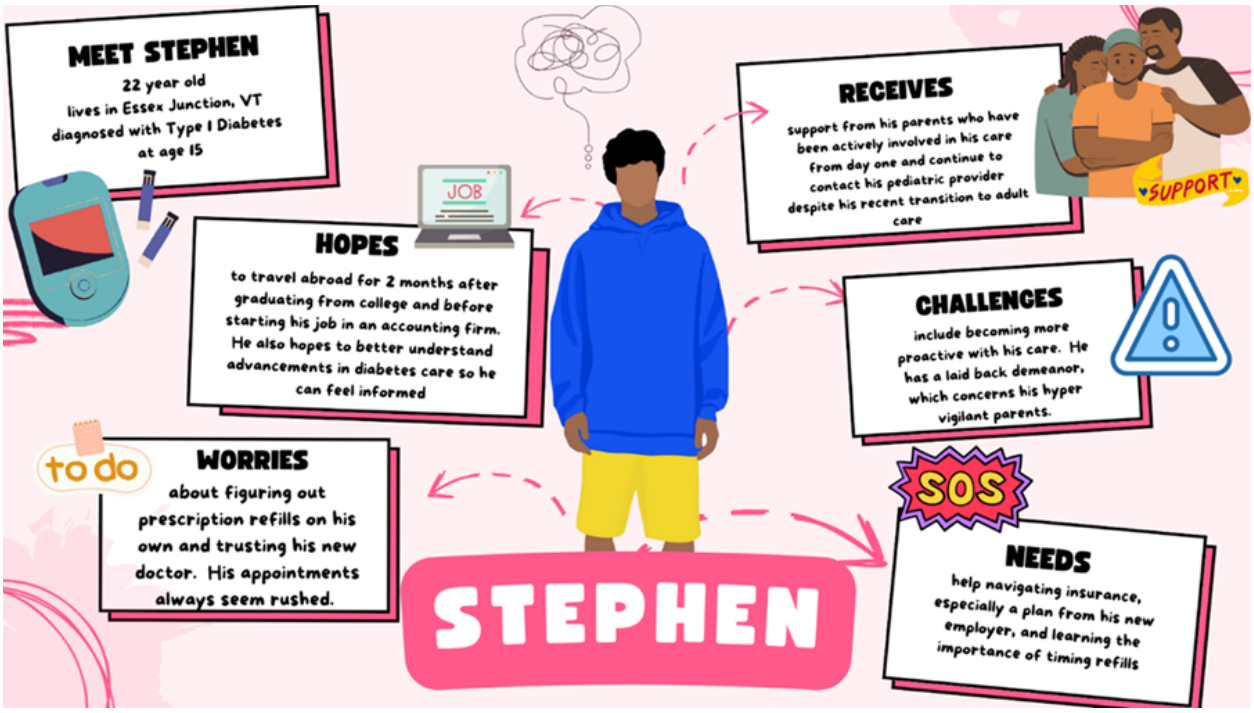

Figure 3: Journey Map *This illustrates the experiences of Stephen, a 22-year-old young adult living with Type 1 diabetes.* Their experience transitioning from pediatric to adult care represents the challenges many young people face. *Journey Map created by VCHIP Transitions Project and is a visual representation based on a hypothetical patient.*

There has been little research looking at long-term outcomes from coordinated transition programs, but without support there can be several problems that are encountered, including (*Gabriel et al., 2017*):

- Lack of medication/treatment adherence
- Medical complications
- Discontinuity of care
- Patient dissatisfaction
- Expensive health care utilization (Emergency Dept.; Urgent Care)
- Reduced quality of care
- Medical errors

For AYA with special health needs, these problems are only exacerbated as they navigate not only primary care transitions but also transitions from their specialty care and/or support services (i.e. special educational supports). Coordinated transitions can help ensure young adults have support in place prior to the actual transfer to reduce and even prevent problems listed above. As described earlier, many do not experience a coordinated transfer and may follow one of several pathways as they transition to adult

care (*Fig. 4*), including:

Figure 4: Current ways youth experience transitions of care (*Gabriel et al., 2017*)

Structured transition planning and interventions often result in positive outcomes. As we consider the barriers for youth accessing health care services, there is an opportunity to create systems designed to support AYA, especially AYA who identify in marginalized groups (such as AYA with chronic conditions, health complexities or disabilities).

Collaborative AYA Transitions Efforts in Vermont

The Vermont Child Health Improvement Program (VCHIP), a population-based family and child health services research and quality improvement program based at the Larner College of Medicine at the University of Vermont, provided the organizational structure that brought together several partners including: VCHIP, the Vermont Department of Health (VDH), the University of Vermont Medical Center (UVMMC), the UVM Children's Hospital, and the Larner College of Medicine's Department of Pediatrics and Department of Medicine. Another partner, hiCOlab, (Healthcare Innovation Collaboratory), a design and innovation lab embedded in the UVM Health Network Medical Group, collaborated with VCHIP to help facilitate participatory research (semi-structured interviews and observations), coupled with co-designed processes with patients and families (*Fig. 5*) to explore how we might support AYA, with an interest in youth with special health needs, through the transition journey. These activities yielded nuanced detail and richness to aid our understanding of the complex issues adolescent patients face as they transition, while engaging partners as participants in our design processes (*Beaudry et al., 2019*).

Figure 5. A patient creating their own visual map to a successful transition of care journey. Photo courtesy of Beaudry et al., 2019

VCHIP provided project management and quality improvement expertise to develop a quality improvement project designed to build a sustainable model for supporting health care transitions for AYA who are transitioning from pediatric to adult subspecialty, primary care, and family medicine.

Our work began by engaging with several pediatric and adult specialty care practices within the UVM Medical Center, followed by a recent expansion into family medicine, pediatric and adult primary care.

Approach

Through extensive research and engagement with key partners, we focused our efforts on several core areas:

- Training and Education: Pediatric and adult providers must understand AYA to support them along the transition journey and overcome the many obstacles they may face.
- Engagement: Youth engagement leads to better clinical outcomes and is integral to our work.
- Partnerships: Direct partnering with pediatric and adult primary care, specialty care, and family medicine supports a team-based approach while encouraging shared learning.
- Framework: Finally, the coupling of Got Transitions framework with quality improvement tools and coaching methodology promotes a process that is efficient and well-tested (*Fredericks et al., 2015 & McManus et al.,2015*).

Below we provide additional details on activities within each of these core areas.

Youth & Family Engagement

Build skills and knowledge to support self-management

Training and Education

Build workforce knowledgeable on how to provide high quality youth supported care

Strengthening partnerships

Supporting Pediatric and Adult collaboration to improve coordination and communication

Clinical implementation of Got Transitions

Interdisciplinary teams utilizing quality improvement methodology to implement transition improvements

Youth and Family Engagement

- **Youth feedback** provided through surveys and discussions with the VT RAYS, a youth advisory council, allowed youth to provide input on systems of care and opportunities to co-create new materials and/or processes. Young adult advisors also facilitated "Lunch and Learn" sessions to share their lived experiences with clinical teams and offer recommendations for improving the transition to adult care.
- **Implementation of a Transition Readiness Assessment** tool, the *Transition Readiness Assessment Questionnaire (TRAQ)*, a validated assessment tool, provided coaching opportunities during clinical encounters. Use of these tools engages youth in interactive discussion and supports skill building (*Johnson et al., 2021*). Continuing these interactions supports youth and provides space for practicing skills and identifying areas for increased support.
- **"Welcome to Transition" letters and youth designed "Welcome Packets"** provided youth and caregivers with information about the transition journey and what to expect for education and support provided by the clinical teams.
- **Utilization of technology,** a natural part of a youth's life, provided in-person and virtual opportunities to interact with care teams and the health care system, increasing youth engagement (*Beaudry et al., 2019*). We used telemedicine visits to offer flexibility in scheduling and Patient Portals to support improved communication between AYA and providers. Providing technology-based resources also taught essential self-care skills to engaged adolescents (*Beaudry et al., 2019*).

Strengthening Partnerships

- **Pediatric and adult partnerships** encouraged a team-based approach. These partnerships improved coordination, and adult providers felt supported when consultation with pediatric providers was necessary.
- **Leveraging care coordinators and care coordination processes**, such as care conferences, also supported a team-based approach and encouraged warm handoffs where AYA, families, pediatric providers, and adult providers discussed a pending transition to ensure successful integration to adult care. This was particularly effective for young adults with health complexities.
- Pediatric and Adult Endocrinology continues the **Use of Transition Clinics**, which is the last visit with the pediatric provider. During this visit, the adult endocrinologist joins the patient and family during their visit with the pediatric endocrinologist as a way of welcoming the youth to adult care. From there, the youth will leave with an appointment scheduled in the adult endocrine clinic, at the appropriate interval. Transition clinics occur three to four times a year. The pediatric and adult endocrinologists review patients prior to the visit, and there is also the opportunity to meet with a social worker to discuss insurance issues, which may include loss of coverage concerns. The adult endocrinologist sends his original consult note to the pediatric clinic after the youth's first visit to the adult clinic to prevent care gaps.

Training and Education

- **Project champions** served as advocates and helped recruit other champions at sites to support this work. Using this model, the project team increases the number of locations and providers accepting new young adult patients to improve access.
- **Our "Lunch and Learn" Educational series** provided opportunities to come together and discuss youth and young adult friendly approaches to healthcare, especially during the transition journey.

Clinical Implementation of Got Transitions

- **Monthly Quality Improvement meetings** provided updates on quality improvement initiatives, shared learnings, and opportunities for brainstorming change ideas to overcome barriers, and support with developing cycles of change.
- **Clear workflows**, designed with Quality Improvement advisors, physician leads, and additional staff, guided clinical teams in implementing processes and addressing any needed counseling/education.

- **Standardizing an internal (UVMMC) e-referral** improved access to adult care while streamlining the process. This workflow utilizes the electronic health record (EHR) to create a referral to a Primary Care Adult Medical Home generated electronically by the pediatrician and sent directly to the scheduling staff at the adult medical home.
- **Standardizing EHR documentation** improved communication and documentation of the Transition Readiness Assessment responses, receipt of Welcome Packets, and other elements of Got Transitions framework. This documentation supported communication across care teams throughout the transition process.
- **Measurement tools,** including Got Transitions practice-based assessments, guided improvement areas and allowed practices to assess their level of progress towards implementing the Six Core Elements (*Got Transitions, 2025*). These assessments were administered annually to engaged teams.

Lessons Learned

Our experiences working with AYA, families, clinical and community partners as well as outcomes from our improvement work pointed us to many needs to support effective transitions.

Patient/Family level

- **Youth centered care is equitable care.** AYA are a unique population with unique needs and require an approach that recognizes this. There are numerous transitions as youth become adults, and many support services and even health insurance status can fluctuate during this time.
- **Peer to peer mentorship** opportunities are of interest to AYA through the transition journey. Our young adult partners shared desires for connecting with peers who may be navigating similar transitions for support.
- **Set expectations** about the transition journey early and often. Our young adult partners, and caregivers, recognized that pediatric and adult care approaches, environments, and even office cultures are different, and they expressed a need for providing ongoing discussions during the transition planning process to reduce anxiety and fear.
- **Youth readiness indicators and identifying knowledge gaps** are important drivers to successful transitions. Using Transition Readiness Assessments supported AYA's adherence to treatment guidelines, knowledge of disease, and confidence in managing their own healthcare. Health insurance was highlighted as an area for increased training and education.
- **Self-Advocacy** is an essential soft skill necessary for AYA. Our young adult advisors indicated when they felt comfortable talking with providers, they had increased confidence in asking questions and engaging in their care.
- **Caregivers (including parents, guardians, or other supportive adults)** are important partners and can engage AYA in discussions about transitions.

Caregivers interviewed during the project implementation identified a need to provide caregivers with resources and tools to support them through the journey.

Clinical/Staff Level

- **Shared learning** helped pediatric and adult care teams understand what clinical teams are doing to support the transition of care journey and what resources they need to increase partnerships, collaboration, and success. Process mapping and redesigning care pathways are some tools that are used to facilitate these discussions.
- **Communication and care coordination** improved efficiency throughout the transition journey, particularly for AYA with special health needs or health complexities. Coordination also supported staggered transitions (i.e., transitioning to specialty care before or after primary care transitions).
- **Training and education** established consistent processes and practices for addressing the transition of care with AYA and families. It also improved provider knowledge and comfort with caring for AYA, particularly those with health complexities.
- **Motivational interviewing and coaching** principles embedded into clinical care can be effective in engaging and empowering youth during routine clinical encounters.
- **A multi-disciplinary approach** emphasized team-based care and provided clinical support for not only AYA and their families but also eases the burden on any one clinical team member.

Health System Level

- **Workforce training and standardizing processes** helped overcome some of the barriers during the transition process due to workforce shortages and staffing turnover.
- **Executive leadership support** is essential to foster innovation and work towards finding strategic, collaborative solutions. Examples include creating consistency with new patient access policies and providing flexibility to clinical teams to test innovative strategies for increasing scheduling efficiencies.
- **Community engagement and collaborations** promoted a wholistic approach to transitions and support families as they navigate all transitions, both non-health and health related transitions.
- **Process improvement** is required for sustained change and must be integrated into clinical practice.
- **Data reporting and timely access to data** helped drive improvement.

Recommendations

We have identified several areas for continued exploration. Some recommendations and opportunities are based on findings from our improvement efforts, while other recommendations are extensively supported in literature and governing bodies.

Create multi-disciplinary partnerships to address the transition to adulthood in a wholistic approach.
Transition to adulthood includes changes in all aspects of a young person's life – school, healthcare, and even their living situation. Schools, vocational programs, state agencies, public health entities, and healthcare systems are all working to support youth, and there is an opportunity to unite partners to advance this work. Working together to stagger transitions (e.g. primary care and specialty care) can also alleviate stress on AYA and families. While initial work in this area is beginning to be realized in Vermont, continued support and engagement from all partners will be needed to promote team-based care and provide wrap around support for youth and families.

Improve payment strategies to support transition services.
Lack of time and payment are recognized as barriers to providing comprehensive transition planning and care. Aligning health care transition delivery systems with payment incentives and establishing payment models to incentivize and support health care teams may promote the consistency of healthcare transition services (*White et al., 2019)*. There are several transition related CPT codes that align with Got Transitions recommendations and service delivery; however, many clinical partners are unfamiliar with their use, and many codes may not be recognized by payors. Engaging payors may provide a critical role in developing the infrastructure to support a structured approach to health care transitions.

Strengthen care coordination support within adult health care.
Care coordination is a common feature associated with improved transition planning and outcomes (*Sharma et al., 2018*). Inconsistent resources within adult health care models can lead to inadequate coordination of care support for AYA as they transition to adult care. This may have a greater impact on those with high medical complexity compared with less medically complex youth. An interdisciplinary team approach during the transition journey can prevent care gaps and improve the transition experience.

Continue education for youth and caregivers.
Improving health care knowledge and self-care skills continue to be areas of additional focus. Exploring innovative strategies and partnership opportunities will advance this work to ensure young people understand how to navigate the health system effectively.

Advance technology.
Nearly all teens (95%) have a smartphone with many reporting text messaging as their primary method of communication and close to half saying they are online "almost constantly" (*Pew Research Center, 2024*). Bi-directional communication, such as HIPAA compliant texting platforms, and EHR integration provides safeguards for clinical teams to communicate with young people in their preferred modalities, creating efficiencies in communication and may even improve coordination of care.

Mitigate health disparities.
All youth and young adults benefit from coordinated health care transitions; however, some populations may experience greater challenges during the transition journey. Special populations may not represent the majority, but in aggregate, they include those most vulnerable to poor health outcomes and higher health care costs (White et al., 2019). Some of these populations include AYA with developmental and/or intellectual disabilities, AYA with medical or behavioral health complexities, AYA experiencing social complexities including housing instability and foster care, and AYA with linguistic or cultural differences that may impact how they access health services.

Limitations
An important limitation is that our work builds on the engagement of one health care organization, The UVM Medical Center. The UVM Medical Center serves as the academic medical center and tertiary care center for the University of Vermont Health Network as well as rural communities in Vermont. The University of Vermont Children's Hospital Children's Specialty Center is the only children's specialty care center in the region that provides access to pediatric subspecialists.

The following clinical areas have been integral to our work:

- UVM Children's Hospital Pediatric Endocrinology
- UVM Children's Hospital Pediatric Rheumatology
- UVM Children's Hospital Pediatric Pulmonology
- UVMMC Adult Endocrinology
- UVMMC Adult Pulmonology
- UVM Children's Hospital Pediatric Primary Care practices (Burlington and Williston locations)
- UVMMC Burlington Adult Primary Care (BAPC)
- UVMMC South Burlington Family Medicine (SBFM)

The scope of our work did not include the financial impact of improvements throughout the transition journey. Studies measuring healthcare utilization costs of young adults, with and without chronic conditions, during the transition process are needed to inform timing of transition and transfer interventions (Vaks et al., 2015) as well as return on investment.

Conclusions

This work addresses a well-known problem by moving ideas into action. We are strengthening the collaboration between pediatric and adult care teams, as well as other partners. Our work includes several activities designed to address some of the barriers AYA face when transitioning to adult health care and support clinical teams that are building best practices in transition to adult care through youth engagement. The long-term success of the transition journey depends on the participation of many others to make the work more sustainable.

The Authors

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VCHIP's Peds to Adult Transition Project
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