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Txt4toc: Improving the transition process for youth with special health needs

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Background

Pediatric patients who have special health needs require guidance, education and support through the transition process from their pediatric specialty provider to their adult specialty provider.^{1,2} 83% of children in the United States with special health needs do not meet the national healthcare transition performance measures.²

Core elements of the pediatric to adult transition process include:

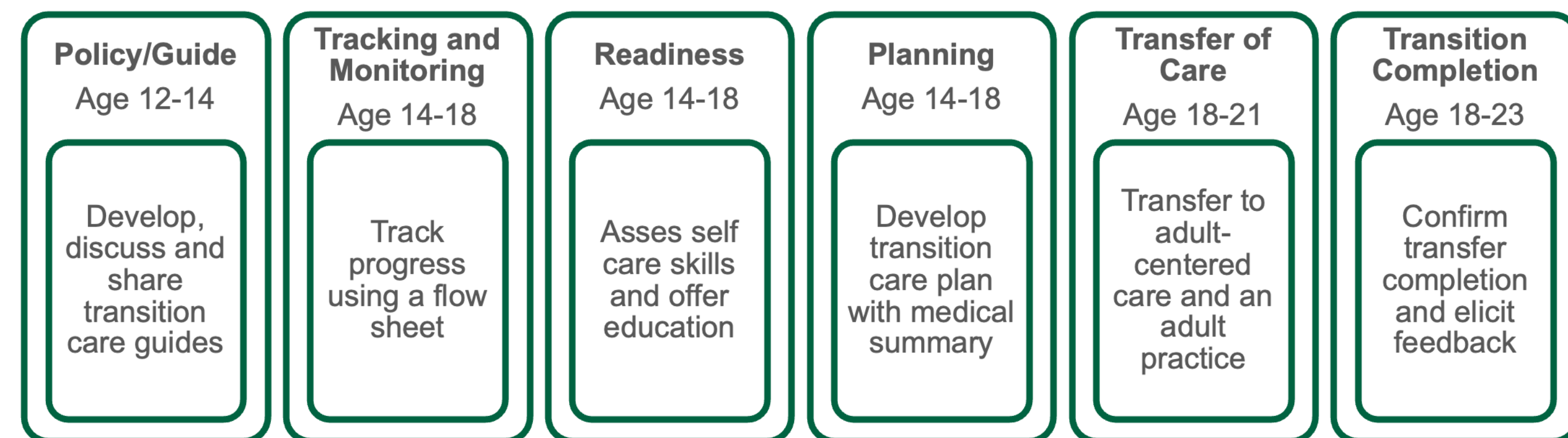


Figure 1: Six Core Elements of Transition Care adapted from Got Transition³

Purpose and Aims

Without support and guidance throughout this transition process, youth are at risk for encountering challenges including:

- poor disease self-management
- decreased medication adherence
- discontinuity of care
- higher emergency department and hospital use, and a
- higher cost of care.^{2,4}

In a small pilot study in this clinic, approximately 97% of participants interacted with the text-message platform.⁴

The aim of this project was to demonstrate at least 80% engagement with youth that were connected to the project by specialty nurses and nurse practitioners.

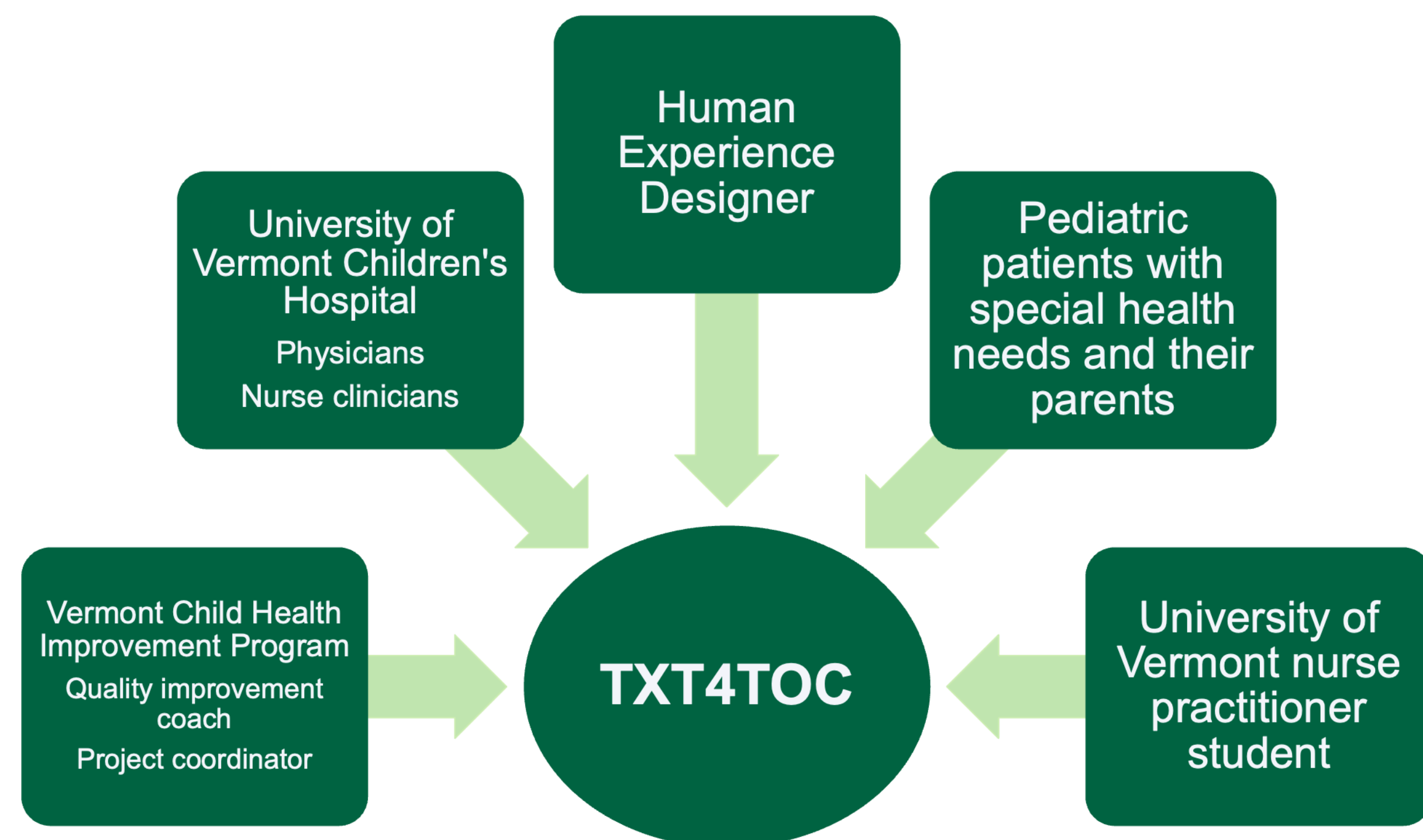


Figure 2: Multidisciplinary approach to Txt4TOC

Intervention

A 16-week texting program included patients aged 13-21 who were seen in the pediatric specialty clinics. Nurses and nurse practitioners identified patients and were referred to the platform in clinic at appointments, via telephone, or through the online patient portal.



Figure 3: Chatbot "Jordi"

Methods

Patients were recruited by pediatric specialty nurses who had established relationships with patients in clinic visits and handouts. Patients and guardians were consented to the program at time of enrollment using REDcap.

The chatbot sent 1 text message per week via Twilio with questions and links about the following transition topics:

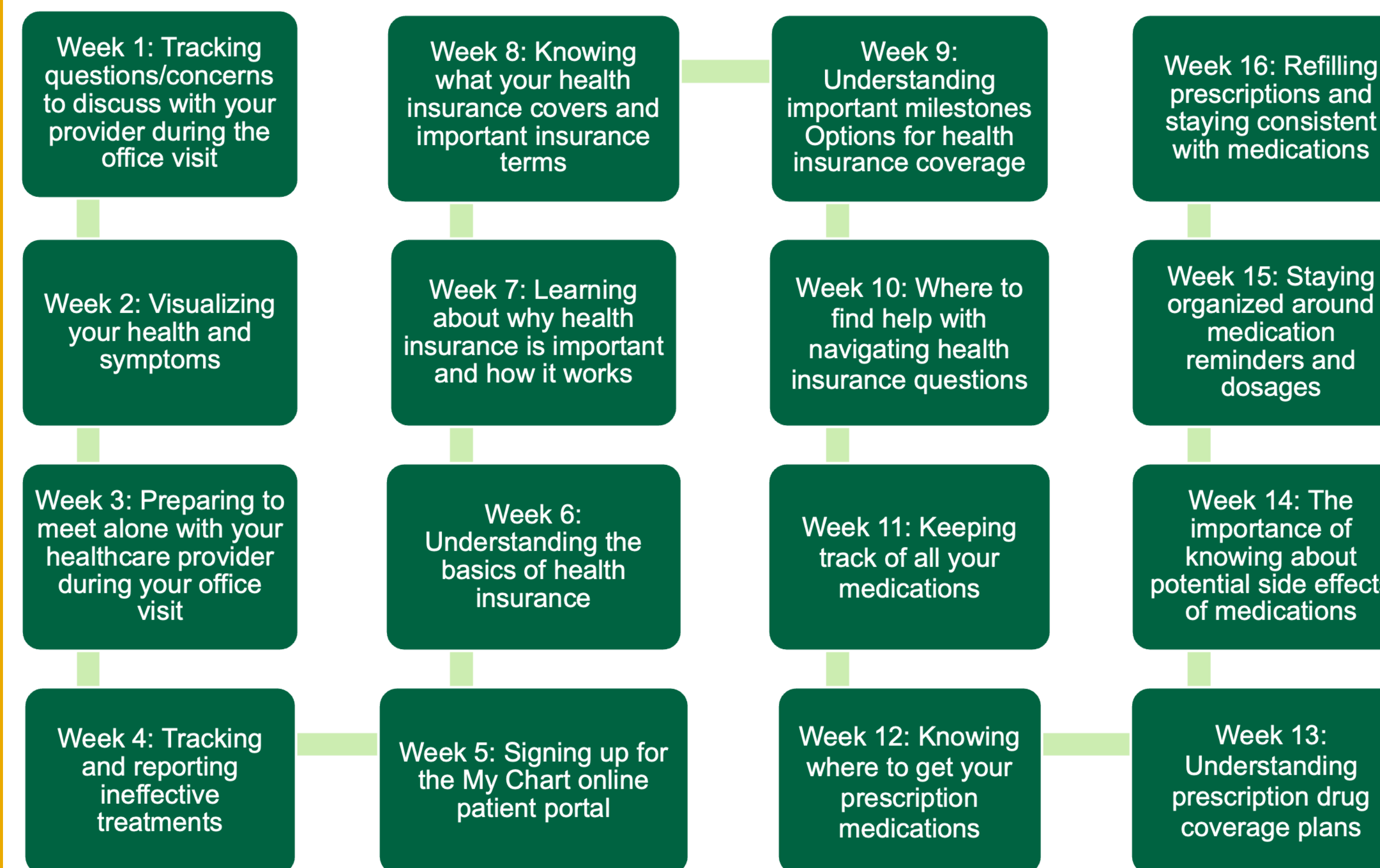
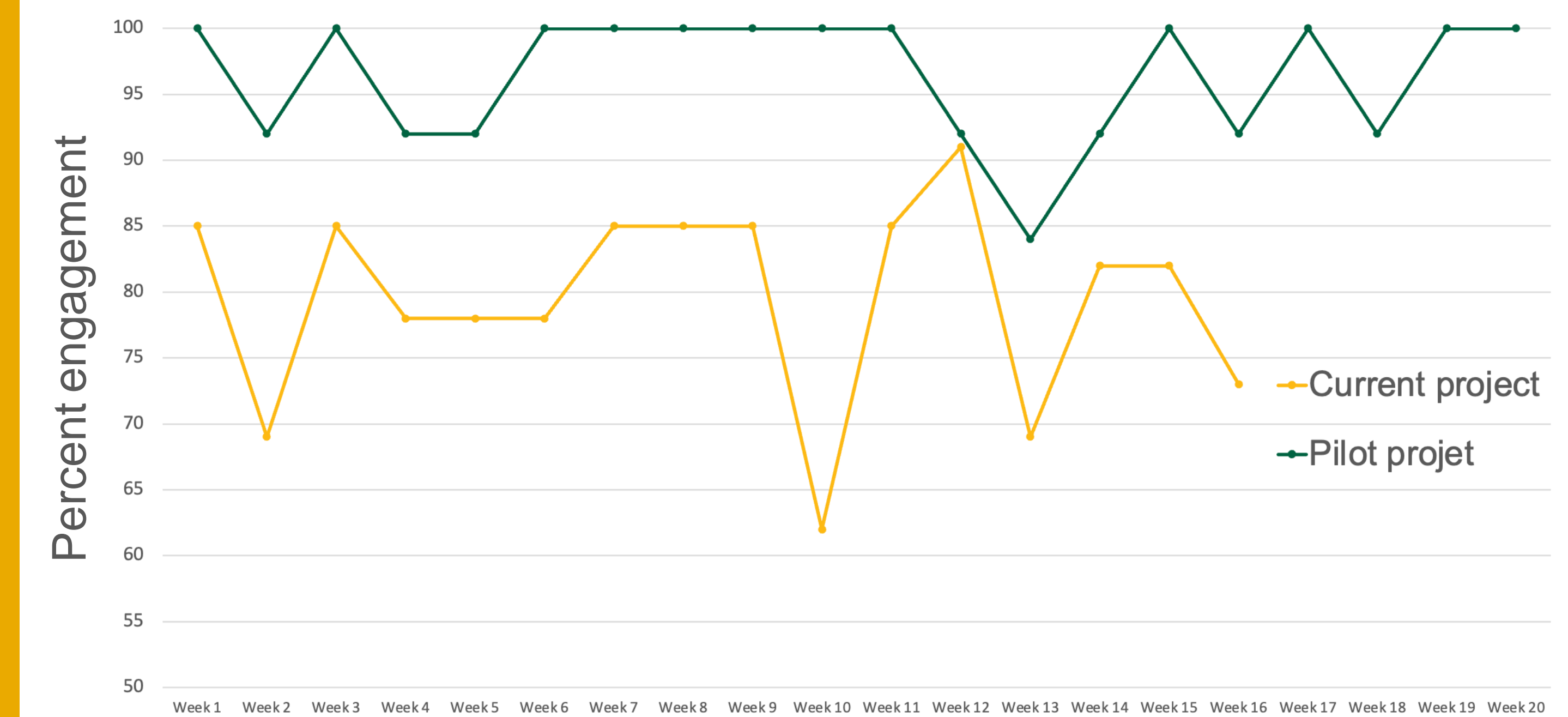


Figure 4: Weekly education topics

Two emails were sent to parent/guardians with information about the pediatric transition process and specific information surrounding the weekly modules. A handout was provided to families that included the links sent to the patients throughout the project.

Results

Figure 5: Engagement rate, pilot project and current project



	Current (16 weeks)	Pilot (20 weeks)
Mean engagement rate	79.5%	97%
Sample size (n)	14	13

Conclusions and Next Steps

This project provides framework for supporting nurses and nurse practitioners in engaging youth with special health needs outside of the walls of the clinic in an interactive electronic format that allows for dissemination of transition-specific information for developing skills that young adults need to be successful in managing chronic illness. Leveraging connections that nurses and nurse practitioners have with pediatric patients and can help facilitate educational opportunities and discussions surrounding transitions.¹

Next steps include:

- Program sustainability – identify responsibility for maintaining the program, who in clinic is responsible for identifying and consenting patients, periodic updates
- Costs – how to quantify costs associated with program maintenance and potential healthcare cost savings
- Stakeholders – engage those involved with short- and long-term transition planning within and beyond the specialty clinics and into primary care; leveraging additional nursing and nurse practitioner support
- Workflow integration – utilize technology more efficiently through automation and potential integration into electronic health record

References

1. Daley, A. M., Lestishock, L., & White, P. H. (2020). Pediatric Nurse Practitioners' Perspectives on Engaging Adolescents to Shift from Pediatric to Adolescent-Focused Health Care Services. *Journal of Pediatric Health Care: Official Publication of National Association of Pediatric Nurse Associates & Practitioners*, 34(6), 550-559. <https://doi.org/10.1016/j.pedhc.2020.06.007>
2. White, P. H., Cooley, W. C., Group, T. C. R. A., Pediatrics, A. A. O., Physicians, A. A. of F., & Physicians, A. C. O. (2018). Supporting the Health Care Transition From Adolescence to Adulthood in the Medical Home. *Pediatrics*, 142(5). <https://doi.org/10.1542/peds.2018-2587>
3. GotTransition.org. 2022. *Got Transition® - Six Core Elements of Health Care Transition™*. [online] Available at: <<https://www.gottransition.org/six-core-elements/>> [Accessed 21 February 2022].
4. Beaudry, J., Consigli, A., Clark, C., & Robinson, K. J. (2019). Getting Ready for Adult Healthcare: Designing a Chatbot to Coach Adolescents with Special Health Needs Through the Transitions of Care. *Journal of Pediatric Nursing: Nursing Care of Children and Families*, 49, 85-91. <https://doi.org/10.1016/j.pedn.2019.09.004>
5. Hingle, M., Nitcher, M., Medeiros, M., & Grace, S. (2013). Texting for Health: The Use of Participatory Methods to Develop Healthy Lifestyle Messages for Teens—*Journal of Nutrition Education and Behavior*. 45, 1, 12-19.