The Adolescent Champion Model: Primary Care Becomes Adolescent-Centered via Targeted Quality Improvement

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Objective To evaluate the effects of implementing the Adolescent Champion model, a novel quality improvement program targeted at helping primary care sites become more adolescent-centered.

Study design Nine primary care sites from pediatrics, family medicine, and medicine–pediatrics implemented the Adolescent Champion model. Each site identified a multidisciplinary champion team to undergo training on adolescent-centered care, deliver prepackaged trainings to other staff and providers, make youth-friendly site changes, implement a standardized flow to confidentially screen for risky behaviors, and complete a quality improvement project regarding confidentiality practices. Adolescent patients, staff, and providers were surveyed at baseline, year-end, and 1-year follow-up to assess changes.

Results Adolescent patients' experiences with both their provider and the site overall significantly improved (*P* values from <.0001 to .004, N = 474 baseline, 386 year-end). Staff perceived an improvement in clinic practices relating to adolescents and in their ability to make institutional and personal change ($P < .0001$, N = 121 baseline, 109 year-end). The majority of changes were sustained 1-year postintervention. Frequently noted site improvements included: (1) initiating a method to gather feedback from adolescent patients; (2) adding trainings on confidentiality, cultural humility, and using a nonjudgmental approach; (3) updating immunizations at every visit; and (4) training providers in long acting reversible contraception via implant training.

Conclusions Implementing the Adolescent Champion model successfully helped primary care sites become more adolescent-centered. Further studies are needed to evaluate the effects of this model on patient outcomes. *(J Pediatr 2017;■■:■■-■■).*

Adolescence is a key opportunity for primary care providers to provide counseling, anticipatory guidance, and healthcare services to help patients establish life-long healthy habits.[1] Most adolescents are generally healthy but participate in risky behaviors, such as unsafe driving, violence, drug and alcohol use, and unprotected sex, at disproportionately high rates, which can lead to significant morbidity and mortality.[2-6]

Adolescents access primary care services at lower rates than all other age groups,[7] and services received may not reflect best practice guidelines. For example, less than one-half of adolescents receive a yearly preventive visit,[8] and most do not spend time alone with their provider during that visit,[8-10] limiting the number of topics addressed.[11] Adolescents often report concerns about confidentiality as a major barrier to accessing care.[6,7] Confidential screening of all adolescent patients for high-risk behaviors is recommended,[12-16] but in practice rates of screening and counseling adolescents ranges from 15% to 50%.[17-21]

There are a number of interventions designed to impact specific adolescent patient outcomes in a primary care setting, such as increasing depression screening[22,23] and human papillomavirus vaccination.[24,25] Several studies describe interventions designed to increase screening and counseling of adolescents for high-risk behaviors.[26-31] Svetaz el al focused on family-centered adolescent care in primary care settings.[32]

The University of Michigan Health System (UMHS) Adolescent Health Initiative (AHI) developed and implemented the Adolescent Champion model with an aim to improve broadly the care provided to adolescent patients seen in a primary care setting. The Adolescent Champion model is a structured, multipronged, quality improvement intervention specifically created to be implemented within a busy ambulatory care clinical site. This article describes the components of the Adolescent Champion model and the impact of its implementation in nine primary care sites. We sought to assess adolescents' experiences at the participating sites and changes in staff and provider attitudes and practices related to the care of their adolescent patients. The Standards for Quality Improvement

ACE	Adolescent-Centered Environment
AHI	Adolescent Health Initiative
MOC IV	Maintenance of Certification Part IV
PDSA	Plan, Do, Study, Act
UMHS	University of Michigan Health System

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Reporting Excellence guidelines, version 2.0 was used as a framework to describe the initiative and results.[33]

Methods

To define an Adolescent-Centered Environment (ACE), AHI used the World Health Organization's definition of Adolescent Friendly Health Services, summarized as services that "meet the needs of young people in this age range sensitively and effectively and are inclusive of all adolescents."[34] AHI uses the term "adolescent-centered" to indicate that youth also were consulted in the development and execution of the process. The model was created in collaboration with AHI's Teen Advisory Council, a group of 12 youth aged 15-22 years. This group was diverse in gender identity, race/ethnicity, socioeconomic status, educational status, and sexual orientation and was recruited via an open call for applicants announced to local physicians, schools, and other youth-serving community organizations.

In addition to AHI's Teen Advisory Council, the Adolescent Champion model was developed with input from a multidisciplinary team of physicians, social workers, public health professionals, and youth engagement experts. It is informed by evidence-based guidelines and applies tenets from Knowles' Adult Learning Principles,[35] the World Health Organization's Knowledge to Action Framework,[36] and the Plan, Do, Study, Act (PDSA) cycle.[37] The core components of the Adolescent Champion model are described below and in **Figure 1** (available at www.jpeds.com).

In the first year of the grant, AHI developed and implemented a pilot version of the model in 3 sites within UMHS. In year 2, 9 sites (7 academic UMHS sites and 2 private practices within family medicine, pediatrics, and medicine–pediatrics) implemented the fully developed model. This manuscript assesses the impact in the 9 sites in year 2. Evaluation of the Adolescent Champion model was granted "not regulated" status by the UMHS institutional review board as a quality improvement initiative.

Potential Adolescent Champion physicians were identified by clinical leadership within their institution as primary care providers with an interest in adolescent health and were recruited via targeted e-mail invitations. The incentives for participation included resources (teaching tools, health education materials, support for attending adolescent-focused conferences, etc), technical assistance, and the opportunity to gain leadership and expertise while improving the care of adolescents seen at their site. Nine of 13 physicians accepted the invitation to participate as an Adolescent Champion, representing sites varying in size from 6 to 23 providers (mean = 10.8, SD = 6.1), and serving between 1064 and 5194 adolescents yearly (mean = 1969.4, SD = 1294.4). The sites had a varied payer mix, with between 2% and 76% of patients enrolled in Medicaid (mean = 22.2%, SD = 22.1%). Once the Adolescent Champion physician committed to participating in the model, he or she recruited their health center manager and 1-3 other invested staff members (such as a medical assistant, social worker, or front desk staff member) to form their site's multidisciplinary Adolescent Champion team. Adolescent Champion team members signed a "position description" form outlining their roles and commitment to the project.

AHI staff met onsite with each Adolescent Champion team to facilitate the ACE assessment, AHI's clinic self-assessment tool, which is a comprehensive compilation of best practices in adolescent healthcare. With the ACE assessment, the Adolescent Champion team identifies strengths and deficits in the site's environment, policies, staff and provider behaviors, and services related to the care of adolescents. The Adolescent Champion team then selects priority areas for improvement over the course of the year. To measure change over time, ACE priorities and plans were revisited and modified at mid-year and year-end by the Adolescent Champion team (2 PDSA cycles). During these meetings, Adolescent Champion teams evaluated successes at their site, unintended consequences, performed root cause analysis to understand barriers to change in their specific context, modified their interventions, and outlined action steps for continued progress.

Over the first 6 months of implementing the model, Adolescent Champion teams gathered to attend 3 2-hour trainings (Continuing Medical Education credits provided). The trainings were designed to develop both capacity and expertise via core adolescent health information, clinical best practices, leadership skills, and strategies for successful organizational change. By attending trainings with Adolescent Champion teams from other sites, a community of practice was built to share successes and provide support when change was difficult. In addition, Adolescent Champion physicians were encouraged to complete 20 of their required 50 hours of Continuing Medical Education for the year on adolescent health–related topics.

AHI developed and provided Adolescent Champion teams with Sparks, 10- to 15-minute prepackaged mini-trainings on adolescent health content meant to ignite reflection and constructive dialogue about issues important in providing adolescent-centered care, with the goal of leading to behavior and/or clinic-wide change. Sparks contain a script for the Adolescent Champion team and a brief slideshow with case scenarios, video clips, and discussion prompts. Sparks include follow-up activities to support continued learning and reflection on the topics in the subsequent weeks. Sparks generally were performed at site meetings to reach as many staff and providers as possible. Although not all staff and providers attended each Spark, the follow-up materials, changes in processes, and subsequent conversations maximized the opportunity for all staff and providers to learn.

Adolescent Champion teams worked with staff and providers at their site to identify an evidence-based screening tool for high-risk behaviors and to instate a workflow to allow adolescents to complete the tool confidentially at well visits (described elsewhere[38]). Most sites chose the Rapid Assessment for Adolescent Preventive Services,[39] and other sites modified Guidelines for Adolescent Preventive Services[13] or Bright Futures[14] to best meet their needs. Adolescent Champion physicians were provided free registration to attend a half-day motivational interviewing course and were encouraged to share best practices in counseling youth on risk reduction with other providers at their site.

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