

SECTION A: COVER PAGE

APPLICANT: Ohio Chapter, American Academy of Pediatrics

TITLE: Implementation of MenB Vaccine Recommendations in Older Adolescents/Young Adults Quality Improvement (QI) Learning Collaborative

Grant ID#: 27290477

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ABSTRACT: This project will increase attendance at and the quality of adolescent well visits to improve the rate of administration of the meningococcal serogroup B (MenB) vaccine. Participants include 24 practices that immunize 16- to 23-year-olds, including pediatricians, family physicians, adolescent medicine specialists, nurses, and medical assistants, plus office staff in primary care offices, health departments, urgent care, and college health centers. Best practices in adolescent well care will focus on immunizations, including meningococcal vaccines. This project has the potential to reach 66,600 Ohio teens, plus adolescents and their health care providers via the Ohio AAP's new immunization mobile application and social media campaigns. Beneficiaries include adolescents, young adults, families, and primary care providers.

As a Model for Improvement Quality Improvement (QI) program, methods include recruiting, enrolling, training, and coaching healthcare providers. A practice coach will teach QI methodology/science knowledge; provide content on MenB vaccine science, immunization protocols, and lessons learned from Ohio AAP's TALK and TIES immunization programs; review pre-work and baseline data to identify practice strengths and gaps in benchmark data; outline data collection, and eliminate obstacles to program goals. QI experts will mentor the coach in academic detailing; improvement methodology; data review, analysis, and feedback; and sustainability. The Quality Improvement Data Aggregator, a real-time, HIPPA-compliant site, will collect, collate, and report QI data.

An in-person summit will share successes and sustainability at the project's conclusion. A Best Practices Guide for adolescent immunizations and an online Maintenance of Certification (MOC) Part 2 online self-assessment will be promoted nationwide.

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SECTION C.1 - OVERALL GOAL AND OBJECTIVES:

Goal: Increase the rate of attendance at and the quality of adolescent well visits in order to specifically improve the rate of administration of the meningococcal serogroup B (MenB) vaccine. The mechanism to accomplish this goal will be a two-pronged quality improvement (QI) program that emphasizes:

- System-based changes to promote attendance at well visits by providing patient reminders
- Reducing barriers and improving practice culture so that the Advisory Committee on Immunization Practices (ACIP) Category B recommendation for MenB vaccine can be implemented.¹

This goal aligns well with the focus of the Request for Proposals (RFP) and the mission of the Ohio Chapter, American Academy of Pediatrics (Ohio AAP), which is “to promote the health, safety and well-being of children and adolescents so they may reach their full potential.” The Ohio AAP accomplishes this mission by addressing the needs of children, their families, and their communities, and by supporting approximately 2,900 Chapter members through advocacy, education, research, service, and improving the systems through which they deliver care. Chapter members include pediatricians, pediatric medical specialists, pediatric surgical specialists, and physicians-in-training in Ohio.

In 2015, the Ohio AAP joined the American Board of Medical Specialties (ABMS) Multi-Specialty Portfolio Program. Physicians who are members of 20-member ABMS boards may participate in Ohio AAP quality improvement programs and earn Maintenance of Certification (MOC) Part 4 credit. In the fall of 2015, Ohio AAP launched an online, enduring MOC Part 2 self-assessment on Adolescent Immunizations. To date, this self-assessment has been completed by more than 100 physicians.

The Ohio AAP developed and is leading the **Transforming Adolescent Care Learning Collaborative (TALK)** program, which aims to increase the rate of comprehensive well-care visits for adolescents in primary care by improving office reminders, leveraging missed opportunities, and exploring how adolescents and their families view their health care. The overall goals:

- Improve adolescent attendance at comprehensive well visits through outreach via social media, electronic communications, tools and incentives for office staff, and using episodic care, acute care, and sports clearance to increase comprehensive well visits; and
- Improve the quality of care delivered at visits by utilizing provider education and screening tools around topics, such as vaccines. This program is aimed at changing the paradigm of how adolescents and families view their health care between the ages of 12-18 years.

The Ohio AAP also receives funding from the Ohio Department of Health to provide the **Teen Immunization Education Sessions (TIES)** program. TIES is a statewide program that educates physicians and vaccine providers on ways to improve adolescent vaccine rates, with a special

focus on human papillomavirus (HPV). The program provides evidence-based strategies to overcome barriers to immunization. The long-term goal of TIES is to lower the occurrence of vaccine-preventable disease among Ohio’s adolescent population.

Key Objectives:

- **Objective 1:** Increase provider, practice, and adolescent knowledge about vaccines and vaccine-preventable diseases, with a special emphasis on the MenB vaccine.
- **Objective 2:** Build systems to increase attendance quantity and quality of adolescent visits to health care providers.
- **Objective 3:** Implement system changes to increase reminders/recalls about immunizations in order to increase rates of MenB vaccine administration.

These key objectives will be used to establish the current need for this project in Ohio.

In **SMART** terms, the project is **Specific** to the issue of teen/adolescent MenB immunizations; **Measurable** in terms of the goals and objectives, number of practices to be recruited, number of youth to be reached, and project duration; **Attainable** given the Ohio Chapter’s success with many Quality Improvement and immunization programs; **Relevant** to Pfizer’s interests, the focus of the RFP, and the mission of the Ohio Chapter; and **Time-bound** in regard to the precise project timeline.

SECTION C.2 - CURRENT ASSESSMENT OF NEED IN TARGET AREA:

a. Need to increase attendance quantity of adolescent visits to health care providers

The current wave of the Ohio AAP’s Transforming Adolescent Care Learning Collaborative (TALK) program is focused on best practices to increase adolescent visits by engaging and educating front office staff to take the extra step to turn sports clearance and ill visits into comprehensive well-care visits (WCVs). Between March 2015 and February 2016, conversion of sports clearance visits to WCVs improved by 19% (Figure 1) and opportunities missed to convert ill visits to WCVs decreased by 47% (Figure 2).

Figure 1 – The TALK Learning Collaborative began in June 2015. Baseline data was collected retrospectively for March-May 2015 (ave. n= 29 patients). The final month of TALK was February 2016 (n=8).

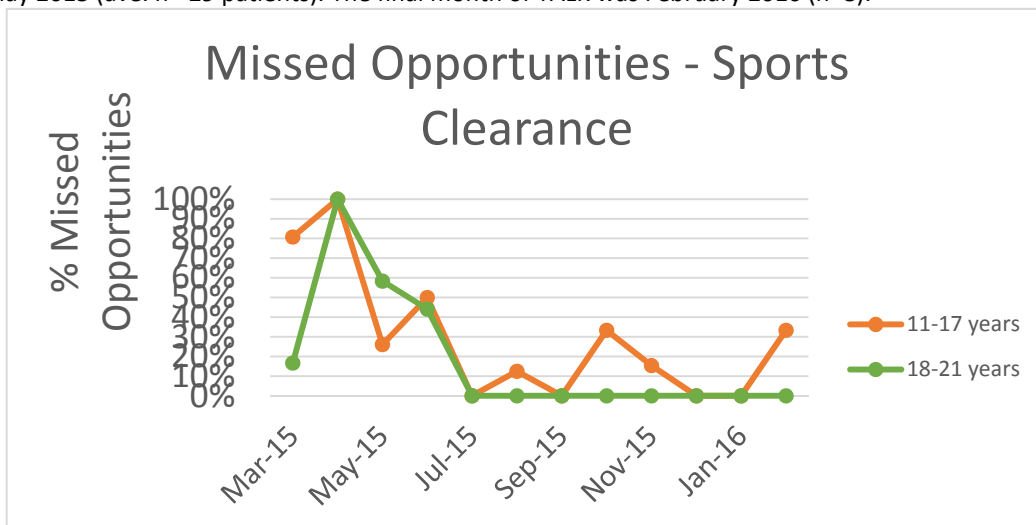
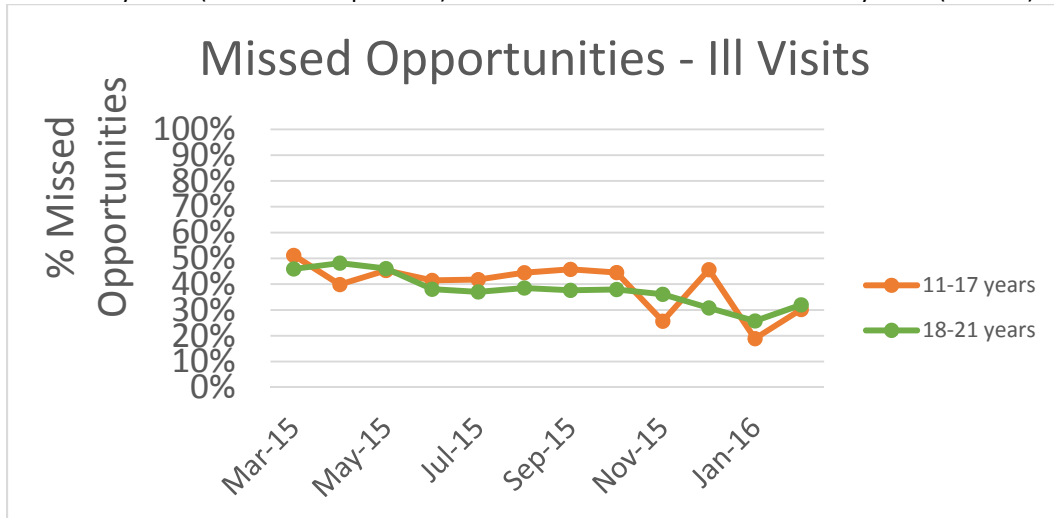
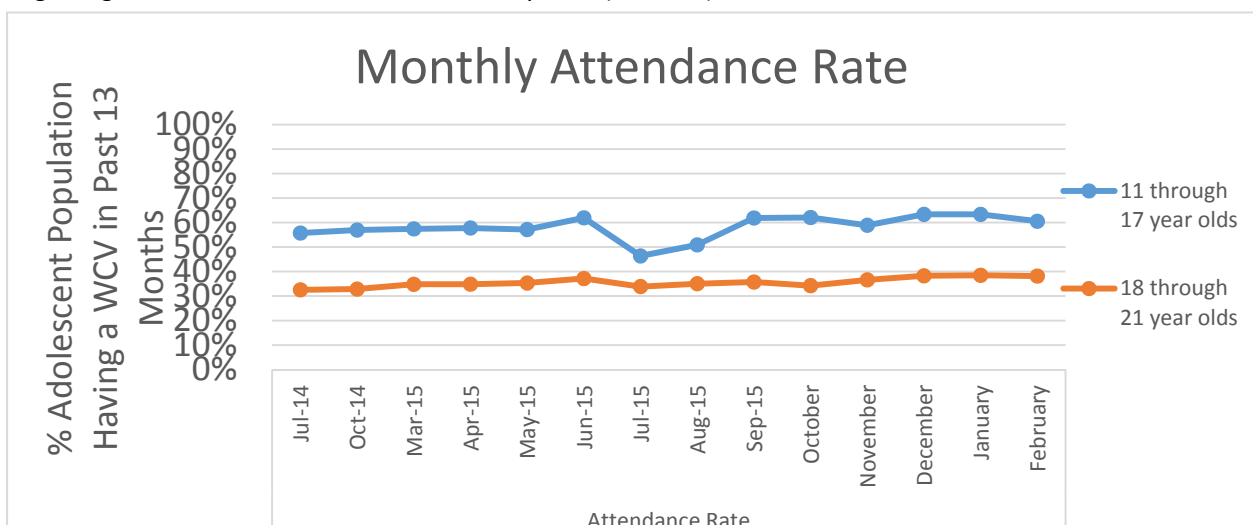


Figure 2 - The TALK Learning Collaborative began in June 2015. Baseline data was collected retrospectively for March-May 2015 (ave. n= 1236 patients). The final month of TALK was February 2016 (n=1142).



Data from front office surveys noted the usefulness of text messages (50%) and telephone calls (32%) to remind patients of upcoming appointments. Practices were asked to keep a registry of patients contacted to schedule a WCV; these data were submitted twice during the collaborative over a 3-month period. (Scheduling and attendance rates will likely be higher when follow-up attempts are finalized – outside of the learning collaborative time frame.) Sixty-one percent (61%) of contact was through postcards, 14% via email and text messages, and 12% through telephone calls. Twenty-one percent (21%) of contacts were scheduled for a WCV, of which 70% attended the visit; all had not had a WCV in over 12 months. For the visits attended, 83% had received a postcard, and 17% were a result of telephone call and reminder attempts. In total, there has been a modest 6% increase in WCV attendance. While modest, the time lag from recall and reminder efforts may result in an additional increase in WCV attendance rates over subsequent months.

Figure 3. TALK collaborative data (seasonality and baseline July '14-May '15 (ave. n=14106 patients), intervention beginning in June 2015 and final month February 2016 (n=16706).



These Ohio data are in alignment with national data showing that 33% of adolescents 13-17 years reported no WCVs and 40% had only one WCV.² Only 22.6% of adolescents without health insurance had contact with a health care provider within the past year.³ Clearly, there is a need to improve adolescent WCV attendance.

b. Need to increase the quality of adolescent visits to health care providers

The Transforming Adolescent Care Learning Collaborative (TALK) program is also focused on improving the quality of the visit by improving physician competence in addressing mental health, nutrition, and other anticipatory guidance items. Outcomes to date are a 64% increase in completed referrals for nutrition counseling while depression screenings increased by 46% over the course of the 6-month learning collaborative.

Ohio AAP’s Teen Immunization Education Sessions (TIES) program trains public health nurses to deliver in-office, 1-hour CME presentations on adolescent vaccines. In 2014-2015, 194 TIES presentations were conducted with 1,682 health care providers in attendance; 138 trainings completed a baseline survey (prior to the presentation) and 62 completed a 1-month follow-up survey. There was a 6% increase (from 92% to 98%) from baseline to 1-month follow-up in practices using IMPACT-SIIS, Ohio’s statewide immunization registry, to look up vaccines and a 3% increase (from 81% to 84%) in nurse-only immunization visits (almost always/frequently). Materials available to address concerns (almost always/frequently) increased from 90% to 94%.

c. Need to increase rates of adolescent vaccine administration in Ohio

Table 1 shows the estimated vaccine coverage with selected vaccines and doses among adolescents ages 13-17 years, by age at interview—National Immunization Survey-Teen (NIS-Teen), United States, 2014 and compares Ohio to the USA as a whole.⁴

Table 1

Vaccine	USA % (95% CI)	Ohio % (95% CI)
Tdap ≥ 1 dose	87.6 (± 0.9)	83.0 (± 4.8)
MenACWY ≥ 1 dose	79.3 (± 1.1)	73.7 (± 5.4)
HPV vaccine coverage by doses:		
Females, ≥ 1 dose	60.0 (± 1.9)	61.0 (± 8.4)
Females, ≥ 3 doses	39.7 (± 1.9)	35.2 (± 8.3)
Males, ≥ 1 dose	41.7 (± 1.8)	36.8 (± 8.1)
Males, ≥ 3 doses	21.6 (± 1.6)	23.3 (± 7.3)

CI = confidence interval; Tdap = tetanus-diphtheria-acellular pertussis vaccine; MenACWY = meningococcal ACWY conjugate vaccine; HPV = human papillomavirus vaccine

d. Need to increase provider, practice, and adolescent knowledge about MenB vaccine

Because the ACIP recommendation for MenB vaccine is recent,¹ the CDC and Ohio Department of Health have not yet collected data on the frequency of vaccine administration. Anecdotal information from Cincinnati Children’s Hospital Medical Center, which recently added MenB

vaccine to its formulary, suggests very few doses have been administered. Additionally, most health department and provider offices have not yet added MenB vaccines to their protocols for vaccination of older adolescents and young adults. Therefore, a prime opportunity exists for education regarding the need and utilization of a MenB vaccine.

SECTION C.3 - TARGET AUDIENCE

a. Pediatricians, family physicians, adolescent medicine specialists, nurses, medical assistants, and office staff in primary care offices, health departments, urgent care, and college health centers who are working to immunize the 16-23-year-old population will be recruited.

Approximately 24 practices will participate in a MOC Part 4 program developed by the Ohio AAP that will focus on best practices in adolescent well care with a focus on immunizations, including meningococcal vaccines. The Ohio AAP will provide ongoing support to 24 practices during the 18-month learning collaborative. Support will include assistance in the enrollment process, the registry database and tailored education.

b. The target audience has been chosen to encompass the gamut of providers and environments of care where adolescents and young adults receive immunizations. The Ohio AAP estimates, based on previous work with our TALK program, that this program has the potential to reach at least 66,600 Ohio teens. In addition to the target audience who directly participates in this QI program, the program will also reach other adolescents and their health care providers through the Ohio AAP's new immunization mobile application and social media public awareness campaigns aimed at the adolescent population regarding the importance of well care and vaccines.

c. Reaching these outcomes will directly benefit adolescents, young adults, their families, and primary care providers. The Ohio AAP will use the QI Data Aggregator (QIDA) System, a web-based system owned by the AAP to collect, analyze, and report the improvement data from this project. This data will be used for future programming and will be transparent for sharing with partners in immunization and adolescent health across the state and nation. Ohio AAP prioritizes the transparent sharing of all child health data that impacts pediatrician and patient outcomes.

SECTION C.4 – PROJECT DESIGN AND METHODS

The program will support practices using QI methods to improve outcomes using a “practice coaching” model, guiding participating providers, in their unique clinical settings, as they work to improve adolescent attendance of well visits and provision of the new ACIP Category B recommendation to administer the MenB vaccine. The practice coaching model⁵ offers in-person, in-house expertise tailored to each practice's existing skill sets while reducing the barriers of travel, closing the office, and expenses that may prevent a practice from participating in a traditional quality improvement model, such as the Institute for Healthcare Improvement's Breakthrough Series Learning Collaborative model.⁶ This model and project design seeks to redesign the clinical setting to support integration of best practices, recommendations, evidence within the literature for adolescent well care, embracing the real-world setting and its inherent challenges and strengths. Practice data collection and report out

on improvement efforts will be discussed with practices by the practice coach throughout the program. Providers who participate in this program and complete its requirements will have the opportunity to receive Maintenance of Certification (MOC), Part 4 credits; MOC is a form of lifelong learning to be completed on a 5-year cycle by pediatricians, comprised of four core competencies: professional standing, lifelong learning, cognitive expertise and performance in practice (Part 4).⁷ Similar accreditation is available through other provider boards.

Practice Coach Training - The practice coach will be clinically trained in immunization and adolescent health, QI principles, and communication/interpersonal skills prior to engaging with practices. Quality improvement training will use the Model for Improvement, demonstrated to effectively change outcomes in primary care in the last two decades. Two quality improvement experts will work closely with the practice coach in the first 12 months to mentor and guide the coach in methods of academic detailing, improvement methodology, data review, analysis and feedback, and sustainability. The final three regional cycles will be monitored “from a distance.” Throughout the program’s regional rollouts, the QI experts and practice coach will meet regularly.

Recruitment - Recruitment materials will be sent to all pediatric and family practice providers in Ohio. This will be accomplished through postcards, letters, email blasts, personalized emails, physician outreach by phone and email, and advertisements in trade publications. In addition to casting a wide net within Ohio AAP’s members and Ohio’s family doctors, practices will be targeted by geography, rates and type of practice (single, low resources) to be enrolled in a tiered format. Special attention will be paid to the Appalachian counties and other areas of Ohio that are determined to be areas of adolescent immunization disparity.⁸

Enrollment - Once a practice has expressed interest, they will be enrolled in the program. The practice coach will distribute pre-work surveys, schedule the in-person program orientation meeting, and register the practice and its providers with the Quality Improvement Data Aggregator (QIDA). QIDA is a web-based system that collects, collates and reports quality improvement data for multiple quality improvement projects from the American Academy of Pediatrics, of which there will be a unique site developed for this program (with the evaluation plan described below). Additionally, QIDA is a secure, HIPPA-compliant site that reports data in real time to facilitate improvement conversations by the practice coach. By entering data into QIDA, practices will meet one of the requirements for their MOC Part 4 credit. At this point, it is important to the success of the program that the practice identifies staff and providers who will be instrumental to the improvement process and engage them. This group of individuals will comprise the core quality improvement team and will be responsible for adapting information to their clinical setting, patient population and providers.

Program Orientation Meeting – The focus of this meeting will be four-fold: 1.) deliver or refresh practice quality improvement methodology and science knowledge (a quality improvement webinar is also available to provide more in-depth background for those individuals new to quality improvement); 2.) provide content on Serogroup B Meningococcal vaccine science (epidemiology of MenB disease, gaps in coverage, vaccines available), immunization protocols,

and lessons learned from the improvement efforts of TALK and TIES; 3.) review pre-work and baseline data to identify practice strengths and gaps in benchmark data and outline data collection requirements moving forward; and 4.) develop individual timelines for improvement strategizing tests of change that will close identified gaps to reach program goals. Practices will receive a toolkit comprised of scripts to address well visit completion and conversion of sports clearance visits to comprehensive well visits, information and handouts on all recommended adolescent vaccines and reminder/recall resources.

Action Period – Practices will participate in this program for at least 9 months to observe preliminary indicators of change as a result of recall/reminder efforts captured via the practice registry and to quantify change in well visit attendance rates, quality of visit, and administration of the MenB vaccine. (Length of participation may be longer based on practice gaps, effect of improvement efforts and practice resources.) The practice coach will be available to address practice concerns via email and phone in addition to monthly scheduled meetings with each practice. Data on the latter three items will be reviewed within QIDA, discussed, and used to inform subsequent month’s improvement efforts. In typical QI fashion, practice data will be presented as run/line, time series charts. Practice participation will be closely monitored through a Project Director’s Report to ensure requirements for MOC Part 4 are fulfilled. Practice engagement will be qualitatively evaluated during on-site meetings and discussed during team calls between the practice coach and two QI experts.

Fidelity - The practice coaching model individualizes mechanisms by which and when practices can approach and improve core topics of competency. However, core competencies addressed will be standardized across all practices to ensure program fidelity and assist practices in meeting program goals; each item being addressed during monthly meetings with the practice coach. Core competencies will include:

ACIP Recommendations	Reduce missed opportunities	Ohio Immunization Registry
Patient confidentiality	Engagement of front office staff	Patient Engagement
Recall/reminder systems	Vaccine hesitancy/refusal strategies	Reimbursement & Vaccines for Children
Sustainability – staff turnover, data collection, measurement & evaluation, office flow		

A measures table and set of definitions will accompany the chart review and practice audit tools, standardizing the data gathered and submitted to the practice coach, QIDA and program team. Further, the practice coach will serve as another degree of program fidelity, assisting in data collection. While practices will have the option to select whether they want to enter data themselves, the practice coach will randomly audit data entry to ensure its integrity and adherence to the defined measures and qualifying criteria.

Content for this program builds on lessons learned through adolescent-specific and immunization-based efforts of the Ohio AAP. However, given the recent addition of the MenB vaccine to ACIP schedule it is unlikely that programs exist to promote provision of MenB within the adolescent visit – filling the large gap between recommended care and current standard

practice. Tools utilized in TALK, such as the practice registry, will be adapted to this program to collect data on and evaluate changes in well visit scheduling and attendance rates as a result of specific recall reminder strategies (e.g., postcards, emails, and telephone calls). Similarly, TALK’s practice audit will be used to capture well visit attendance and missed opportunities. Together, the practice registry, practice audit, and a chart review will collectively capture practice progress in the program and assist in identifying competencies the practice coach should explore with the practice to close gaps in care.

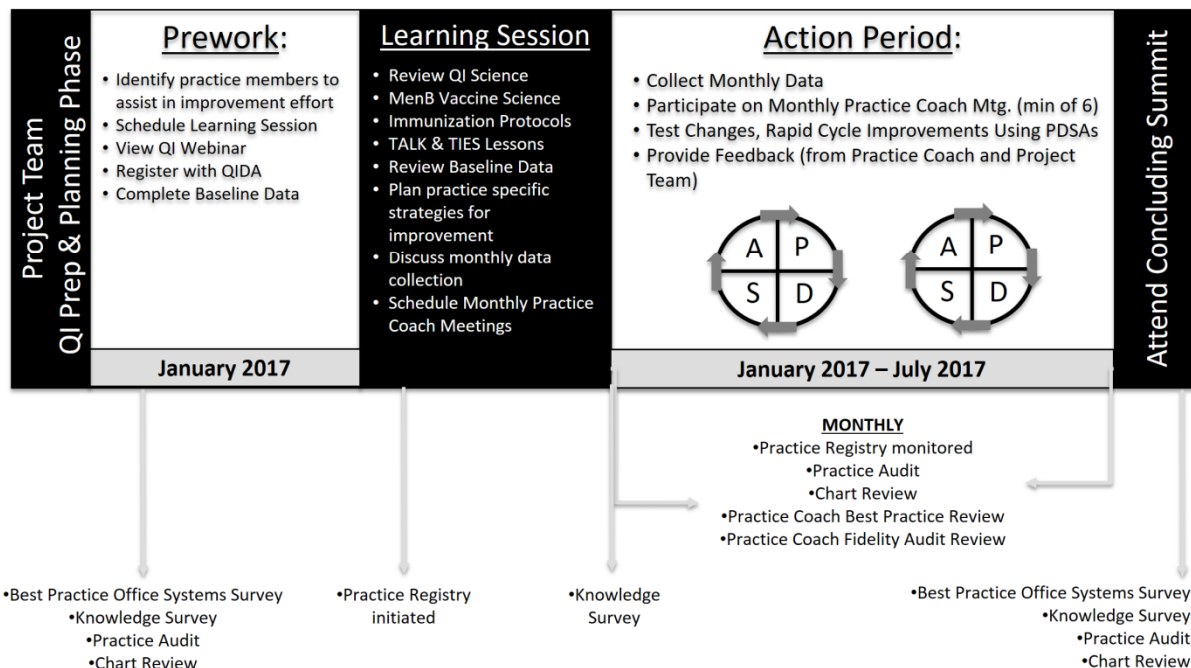
Program Concluding Summit – Once all 24 practices have completed the program, an in-person summit, with virtual attendance options, will convene to share successes, pitfalls, and strategies for sustainability and spread. The project team will summarize information and develop a Best Practices Guide for adolescent immunizations and create an online Maintenance of Certification (MOC) Part 2 online self-assessment to be promoted nationwide.

Below is an overview of a typical workload for a participating practice as well as the evaluation strategy employed (and described below).

Figure 4

High Level Project Overview

Overview depicts evaluation strategy as it applies to an example practice who begins during the first enrollment cycle. This will be replicated in subsequent cycles, for all participating practices



SECTION C.5 – EVALUATION DESIGN

The success of the program will be evaluated using a focused and balanced set of measures (Table 2) employed through a set of data collection tools with the global purpose of demonstrating improved administration of the MenB vaccine. Success of the program will be evaluated as changes are made sequentially and build upon previous achievements and lessons learned, the hierarchy of accomplishments are as follow and will be explained in detail in latter paragraphs:

- 1.) Increased provider, practice, and adolescent knowledge about vaccines and vaccine-preventable diseases, with a special emphasis on the MenB vaccine.
- 2.) Systems built to increase attendance quantity and quality of adolescent visits to health care providers.
 - a. Increased reminder recalls
 - b. Increased scheduling of well visits
 - c. Increased attendance at well visits
- 3.) System changes implemented to increase reminders/recalls about immunizations in order to increase rates of MenB vaccine administration
 - a. Increased identification of adolescents eligible for MenB vaccination
 - b. Increased offering of MenB, vaccine information sheets, and information to those who refuse the vaccine
 - c. Increased administration of the MenB vaccination

Following in adult learning principles and behavior change theories, change in knowledge must first occur. Bloom’s Taxonomy of learning⁹ will guide question development of the pre- and post-surveys that participating providers will complete to evaluate change in vaccine knowledge; questions will be comprised primarily of the first two levels: “remembering” and “understanding” as higher levels of learning will be applied and evaluated through other evaluation mechanisms. While the majority of MenB vaccine knowledge will be delivered at the program orientation meeting, additional knowledge and learning will occur throughout the action period; hence knowledge will be evaluated at three time points: baseline prior to the kickoff meeting, immediately after the program orientation meeting, and at the end of the program.

A series of systems to support increases in the quantity and quality of adolescent visits will be built, refined and maintained during the course of the program. One specific measure is not adequate to capture these systems so a set of measures will collect information for this objective. The practice coach will review **baseline, pre-work surveys** and continue to evaluate progress on which office systems a practice employs through the use of a **practice checklist** while the quality and integrity of those systems and their performance levels will be evaluated from baseline and on a monthly basis as data are entered in the practice registry, practice audit, and chart reviews. Examples of supportive office systems include use of reminder systems, use of recall systems, use of a registry/tracking system, and checking and documenting vaccine status. As practices work to establish these office systems, outcomes of system use will be evaluated concurrently through the practice registry, audit and chart reviews.

Pre-work surveys will also address factors and beliefs regarding sustainability of programmatic components, perceived barriers and challenges to adolescent well care and immunizations (specifically MenB), practice reach and impact, and practice and patient demographics. Together this information will inform the practice coach and program team on how to fine-tune and individualize delivery of content, quality improvement efforts, and data to the needs of each practice.

The **practice registry** will evaluate use of a recall reminder system, capturing the mechanism of outreach (e.g., phone call, text message, patient portal interaction, postcards), dates of visits scheduled as a result of outreach, and dates of visits attended on a subset of patients with the ultimate purpose of determining the most effective form of outreach for their clinical setting, patient population and resources. Once the most effective form of outreach has been determined, it will be used to provide reminder recalls specific to MenB vaccination.

While the practice registry will provide preliminary indicators that process measures for support office systems have been established and are producing successful results, the **practice audit** will capture the actual improvements made in attendance rates of adolescent well visits. Data will be collected from the three months preceding the program orientation meeting to establish a clear picture of baseline adolescent well visit attendance. Practices will also submit data from the three seasons prior to the kickoff meeting; this will help monitor seasonal changes and better depict program effect size of improvements. Additionally, the practice audit will evaluate missed opportunities (sports clearance only or acute visits) for when an adolescent was seen in the office but was not up-to-date on well visit care and immunizations.

Progression from supportive office systems, reminder recalls to adolescent patient families, scheduling and attendance of well visits and reduction of missed opportunities for well visit care equates to more opportunities to improve the quality of the well visit and its components, specifically immunizing against MenB. A **chart review tool** will inform providers of their baseline levels of offering MenB, administration of MenB to eligible patients, and documentation of refusal of MenB and provision of vaccine information sheets and refusal information to identify the gap for practice improvement. Baseline data will be collected as a three-month retrospective review of well visit encounters the three months preceding program enrollment. Chart review data will be entered into QIDA at baseline and on a monthly basis for program duration.

Table 2 – Evaluation outline and timeline

Item Evaluated	Expected Outcome	Mechanism	Timing
1.) Change in provider vaccine knowledge	25% improvement from baseline knowledge	<ul style="list-style-type: none"> • Knowledge Survey via SurveyMonkey 	<ul style="list-style-type: none"> • Prior to orientation meeting • Post-immediate orientation meeting • End of program

2.) Number of office systems to support quantity and quality of attendance at adolescent well visits	Practices employ 80% of best practice office systems	<ul style="list-style-type: none"> • Best Practice Office Systems Survey via SurveyMonkey • Practice Coach, in-office checklist 	<ul style="list-style-type: none"> • Prior to orientation meeting (survey) • Monthly (checklist) • End of program (survey)
3.) % of adolescent well visits scheduled as a result of reminder/recall outreach	50% of adolescents contacted will schedule an appointment	<ul style="list-style-type: none"> • Practice Registry • Entered into QIDA System 	<ul style="list-style-type: none"> • Introduced at orientation meeting
4.) % of adolescent well visits attended as a result of reminder/recall outreach	50% of adolescents contacted will attend their scheduled appointment	<ul style="list-style-type: none"> • Practice Registry • Entered into QIDA System 	<ul style="list-style-type: none"> • Introduced at orientation meeting
5.) Adolescent well-visit attendance rates	10% improvement from baseline in attendance of well visits	<ul style="list-style-type: none"> • Practice Audit • Entered into QIDA System 	<ul style="list-style-type: none"> • Seasonal data (dependent on program enrollment, 1 month of data from 3 seasons preceding orientation meeting) • Data from 3-months prior to orientation meeting • Monthly • End of program
6.) Missed opportunities	25% decrease from baseline in visits that an adolescent was not up to date on well visit care and immunizations	<ul style="list-style-type: none"> • Practice Audit • Entered into QIDA System 	<ul style="list-style-type: none"> • Data from 3-months prior to orientation meeting • Monthly • End of program
7.) Immunization Process Measures	90% of charts reviewed will contain appropriate documentation	<ul style="list-style-type: none"> • Chart Review • Entered into QIDA System 	<ul style="list-style-type: none"> • Data from 3-months prior to orientation meeting • Monthly • End of program • Fidelity – Practice Coach random audit of charts entered
8.) Administration of MenB Vaccine	25% improvement from baseline in administration of MenB	<ul style="list-style-type: none"> • Chart Review • Entered into QIDA System 	<ul style="list-style-type: none"> • Data from 3-months prior to orientation meeting • Monthly • End of program • Fidelity – Practice Coach random audit of charts entered

Data entered into QIDA will be displayed in run/line chart format in real time. Practices along with the practice coach and program team will be able to view progress on improvement efforts as teams progress through the program. Final statistical analyses will be performed to determine effect size, percent improvements from pre to post, and potentially evaluate differences between practice and patient populations.

Similar to other projects of the Ohio Chapter, a final report will summarize statistical analyses as they apply to practice improvement efforts and information from the end of program summit. The Ohio Chapter will use the final report and Best Practices Guide to create an online Maintenance of Certification (MOC) Part 2 online self-assessment to be promoted nationwide that will remain on the Ohio AAP website and be updated as needed.

SECTION C. 6 – DETAILED WORKPLAN AND DELIVERABLES SCHEDULE

The Ohio AAP will begin the program with an initial planning meeting in August 2016 and monthly meetings thereafter to detail an overview of the program, assign responsibilities, plan Practice Coach training, develop the change package (measures, key driver diagram, Charter, develop the online data portal), obtain MOC Part 4 approval and create recruitment strategy and materials. All aspects of the project will be vetted through the Ohio AAP’s internal physician approval committee. During the program action period from January 2017 – June 2018, the project team will hold monthly calls for updates on data, enrollment and recruitment and the practice coach will conduct in-person on-site learning sessions and monthly calls or meetings with enrolled practices. The performance period will end on June 30, 2018, when the project team will conduct a comprehensive data study, conclusion mapping and plan for the Program Conclusion Summit. This summit will include attendance of all practices that completed the program and will review data, discuss successes, pitfalls and strategies for sustainability and spread. The project team will use this information to develop a Best Practices Guide for adolescent immunizations that will be then used to create an online MOC Part 2 module on adolescent immunizations to be available to a national audience. See table below for a full schedule.

Workplan	Responsible	Timeline
PLANNING, PREWORK, RECRUITMENT		August 15 - December 30, 2016
Planning team holds initial planning meeting for overview of program, assign responsibilities, plan Practice Coach training	All	August 15, 2016
Develop measures, key driver diagram, and charter	Sam Anzeljc	September 1 - 30, 2016
Vet measures, key driver diagram and charter through internal physician approval committee	Melanie Farkas	September 1 - 30, 2016

Practice coach consultant and quality improvement consultants hold trainings with Practice Coach via webinar and conference calls.	Jen Powell, Sam Anzeljc, Beth Barker	September 1 - 30, 2016
Develop online data portal for practices, test and finalize function.	Sam Anzeljc	September 1 - 30, 2016
Recruitment and enrollment materials developed, website created	Melanie Farkas	September 1 - 30, 2016
Project manager secures fully executed contracts for all staff	Melanie Farkas	September 15, 2016
Project team monthly planning call - team develops comprehensive, multi-tiered marketing plan to target disparity areas in Ohio	All	September 15, 2016
Obtain Maintenance of Certification Part 4 approval	All	November 1, 2016
Practice Recruitment begins with Ohio AAP and OAFP membership-wide communication via mail, email and social media	Melanie Farkas	November 1, 2016
Project team monthly planning call	All	November 15, 2016
Targeted Recruitment begins with disparity areas via mail, email, social media and personal calls	Melanie Farkas	December 1, 2016
Project team monthly planning call	All	December 15, 2016
ACTION PERIOD		January 2017 - June 2018
Program deployment - Rolling enrollment begins with pre-work surveys, enrollment in QIDA data system and scheduling of monthly meetings	All	January 1, 2017
Project team monthly planning call	All	January 15, 2017
Practice coach conducts initial on-site program orientation with enrolled practices	Beth Barker	January 1 - 30, 2017
Practice coach conducts initial on site learning sessions with newly enrolled practices	Beth Barker	February 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	February 1 - 30, 2017
Project team monthly planning call	All	February 15, 2017
Practice coach conducts initial on-site program orientation newly enrolled practices	Beth Barker	March 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	March 1 - 30, 2017
Project team monthly planning call	All	March 15, 2017

Practice coach conducts initial on-site program orientation with newly enrolled practices	Beth Barker	April 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	April 1 - 30, 2017
Project team monthly planning call	All	April 15, 2017
Practice coach conducts initial on-site program orientation with newly enrolled practices	Beth Barker	May 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	May 1 - 30, 2017
Project team monthly planning call	All	May 15, 2017
Practice coach conducts initial on-site program orientation with newly enrolled practices	Beth Barker	June 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	June 1 - 30, 2017
Project team monthly planning call	All	June 15, 2017
Practice coach conducts initial on-site program orientation with newly enrolled practices	Beth Barker	July 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	July 1 - 30, 2017
Project team conducts monthly planning call and quarterly data analysis and then transitions to quarterly call structure	All	July 15, 2017
Practice coach conducts initial on-site program orientation with newly enrolled practices	Beth Barker	August 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	August 1 - 30, 2017
Practice coach conducts initial on-site program orientation with newly enrolled practices	Beth Barker	September 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	September 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	October 1 - 30, 2017
Project Team Quarterly Call and data analysis	All	October 15, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	November 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	December 1 - 30, 2017
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	January 1 - 30, 2018
Project Team Quarterly Call and data analysis	All	January 15, 2018

Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	February 1 - 30, 2018
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	March 1 - 30, 2018
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	April 1 - 30, 2018
Project Team Quarterly Call and data analysis	All	April 15, 2018
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	May 1 - 30, 2018
Practice coach conducts monthly calls or meetings with enrolled practices	Beth Barker	June 1 - 30, 2018
Performance Period Ends		June 30, 2018
Comprehensive Data study and conclusion mapping will be conducted. Project team will hold meeting to analyze and plan the Program Conclusion Summit.	All	June 1, 2018
Program Conclusion Summit - all practices invited to participate in person or via webinar to discuss successes, pitfalls, and strategies for sustainability and spread. Project team will summarize information and develop a Best Practices Guide for adolescent immunizations.	All	September 1, 2018
Best Practices Guide used to create an online Maintenance of Certification (MOC) Part 2 Online Module to be advertised online and available to a national audience		September 1, 2018
Program Concludes		September 30, 2018

SECTION D. REFERENCES

1. Centers for Disease Control and Prevention. *Use of serogroup B meningococcal vaccine in adolescents and young adults: recommendations of the Advisory Committee on Immunization Practices*, 2015. MMWR Morb Mortal Wkly Rep 2015 October 23;64(41):1171-1176.
2. Nordin JD, Solberg LI, Parker ED. *Adolescent primary care visit patterns*. Ann Fam Med 2010;8(6):511-516.
3. Irwin CE, Adams SH, Park MJ, Newacheck PW. *Preventive care for adolescents: few get visits and fewer get services*. Pediatrics 2009;123(4):e565-e572.
4. Centers for Disease Control and Prevention. *National, regional, state, and selected local area vaccine coverage among adolescents aged 13-17 years—United States, 2014*. MMWR Morb Mortal Wkly Rep 2015 July 31;64(29):784-792.
5. *Practice Facilitation Handbook*. (2013 June). Agency for Healthcare Research and Quality, Rockville, MD. Retrieved from <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/index.html>
6. *The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement*. IHI Innovation Series white paper. Boston: Institute for Healthcare Improvement; 2003. (Available on www.IHI.org)
7. American Board of Pediatrics. *Core Competencies of MOC*. <https://www.abp.org/content/core-competencies-moc>. Accessed June 16, 2016.
8. Reiter PL, Katz ML, Paskett ED. *HPV vaccination among adolescent females from Appalachia: implications for cervical cancer disparities*. Cancer Epidemiol Biomarkers Prev 2012;21(12):2220-2230.
9. Bloom, B.S. (ed.) (1956) *Taxonomy of Educational Objectives, the classification of educational goals – Handbook I: Cognitive Domain* New York: McKay