iPOP-UP
Improving Pediatric Obesity Practice Using Prompts

iPOP-UP QI Learning Collaborative

Welcome Packet & Information

CPG
Evaluation & Treatment of Pediatric Obesity

Academic Pediatric Association

CORNET
Continuity Research NETwork

American Academy of Pediatrics
Institute for Healthy Childhood Weight

Dear iPOP-UP QI clinical champions,

We are thrilled to work with you and are excited to begin this improvement journey together. This packet contains basic information you will need throughout the project.

We realize that the work we are asking you to undertake represents a time commitment on your part. We have worked hard to keep this burden to a minimum.

Our aim is to make your participation in the project both productive and enjoyable. We welcome your feedback on the contents of this packet. If you have any questions, please contact Emily Benjamin Finn at e.finn@yale.edu.

We will do all we can to support your team to get off to a great start!

Best wishes,
The iPOP-UP Study Team and the Institute for Healthy Childhood Weight Team

About the iPOP-UP Study

iPOP-UP
Improving Pediatric Obesity Practice Using Prompts

Study Aim: To evaluate the implementation and effectiveness of EHR tools to improve the management of overweight/obesity in pediatric primary care in a cluster-randomized trial timed to follow the launch of the new AAP guidelines for the management of childhood obesity

NIH-NIMHD R01MD014853

Yale SCHOOL OF MEDICINE

Children's Hospital of Philadelphia

ESKENAZI HEALTH

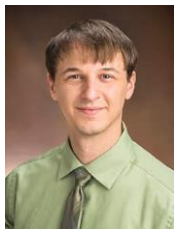
Academic Pediatric Association

American Academy of Pediatrics Institute for Healthy Childhood Weight

CORNET Continuity Research NETwork

Duke University School of Medicine

iPOP-UP Team



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APA CORNET

Carlin Aloe, MPH
Research Associate

iPOP-UP Tools

iPOP-UP
Improving Pediatric Obesity Practice Using Prompts

EHR tools tailored to patient with guidance from the 2023 AAP Guideline:

- **BPA (not a pop-up)**
- **Site-specific note template or dot phrase**
- **Elevated BMI SmartSet**

More info and video demonstrations of each EHR tool are available here:

Children's Hospital of Philadelphia

https://www.academicpeds.org/ipop-up/ipop-up-chop/

Duke University School of Medicine

https://www.academicpeds.org/ipop-up/ipop-up-duke/

ESKENAZI HEALTH

https://www.academicpeds.org/ipop-up/ipop-up-iu-eskenazi/

About the Institute for Healthy Childhood Weight

The **Childhood Obesity Treatment and Approach** QI Project is the second of two QI projects for primary care practices, based on the 2023 *Clinical Practice Guideline for the Evaluation and Treatment of Children and Adolescents With Obesity* (CPG). This innovative QI project is focused on improving evidence-based obesity evaluation and treatment in children ages 2 to 18 with overweight or obesity. This project will specifically focus on obesity treatment visits conducted by the practice, including longitudinal obesity care, regardless of whether obesity treatment is primarily provided internally or externally to the practice. The Institute has successfully supported over 130 practice teams across the country through their quality improvement goals. Your participation is important to us, as we learn from you and improve the project! We expect that you will have questions now and throughout the project, and we assure you that, as a staff team we will work hard to find answers as quickly as possible.

More about the Institute for Healthy Childhood Weight: The Institute for Healthy Childhood Weight serves as a translational engine for pediatric obesity prevention, assessment, management and treatment; and moves policy and research from theory into practice in American healthcare, community, and homes.

Mission

The Institute will empower pediatricians, families and children to:

- Better prevent, assess and treat obesity and its comorbidities
- Enhance partnerships with families to find and navigate individual pathways to healthy active living
- Catalyze stakeholders and communities to build and enhance capacity for healthy active living

American Academy of Pediatrics
Institute for Healthy Childhood Weight

Institute for Healthy Childhood Weight Staff

Jeanne Lindros, MPH
Director

Jeremiah Salmon, MPH
Manager, Clinical Initiatives

American Academy of Pediatrics
Institute for Healthy
Childhood Weight

Meet Your iPOP-UP Childhood Obesity QI Faculty

Duke University School of Medicine

Sarah C. Armstrong, MD, FAAP

Professor of Pediatrics, Family Medicine and Community Health
Professor in Population Health Sciences
Chief, Division of General Pediatrics and Adolescent Health
Director of the Duke Children's Healthy Lifestyles Program

Dr. Armstrong's clinical and research interests include pediatric nutrition and the treatment of childhood and adolescent obesity, along with related health problems. As director of the Duke Children's Healthy Lifestyles Program, Dr. Armstrong oversees a cohort of over 3000 overweight children and teenagers. She is a member of the Executive Committee for the American Academy of Pediatrics Section on Obesity and was a key member of the 2023 AAP Obesity CPG writing group. Dr. Armstrong's research focuses on leveraging innovative strategies to improve children's nutrition and activity, including mobile health interventions, community partnerships, and medication or surgical approaches.

Meet Your iPOP-UP Childhood Obesity QI Faculty

Victoria Rogers, MD, FAAP

Institute for Healthy Childhood Weight Associate Director

Dr Rogers is a pediatrician and Assistant Clinical Professor of Pediatrics at Tufts University School of Medicine & a national leader in the areas of both childhood obesity and healthcare quality. She is the Senior Director of *Let's Go!,* a multi-sector initiative aimed at fostering healthy active living behaviors in children and families through consistent messaging across community settings and the implementation of environmental and policy changes to support healthy choices.

Through her ongoing work in this area, Dr. Rogers has been integral to the development of several key AAP resources created to assist primary care pediatricians in integrating the most recent evidence for obesity prevention and management into their practices. A few notable examples include Next Steps and the 5210 Pediatric Clinical Decision Support Chart. Dr. Rogers has published several papers concerning strategies for reducing childhood obesity and has also coauthored a textbook chapter on quality improvement in pediatric primary care.

Meet Your iPOP-UP Childhood Obesity QI Faculty

Mona Sharifi, MD, MPH, FAAP

Yale SCHOOL OF MEDICINE

Associate Professor of Pediatrics and Health Informatics
Director, Yale Scholars in Implementation Science K12 Program, Pediatrics;
Co-Director, National Clinician Scholars Program at Yale, Pediatrics

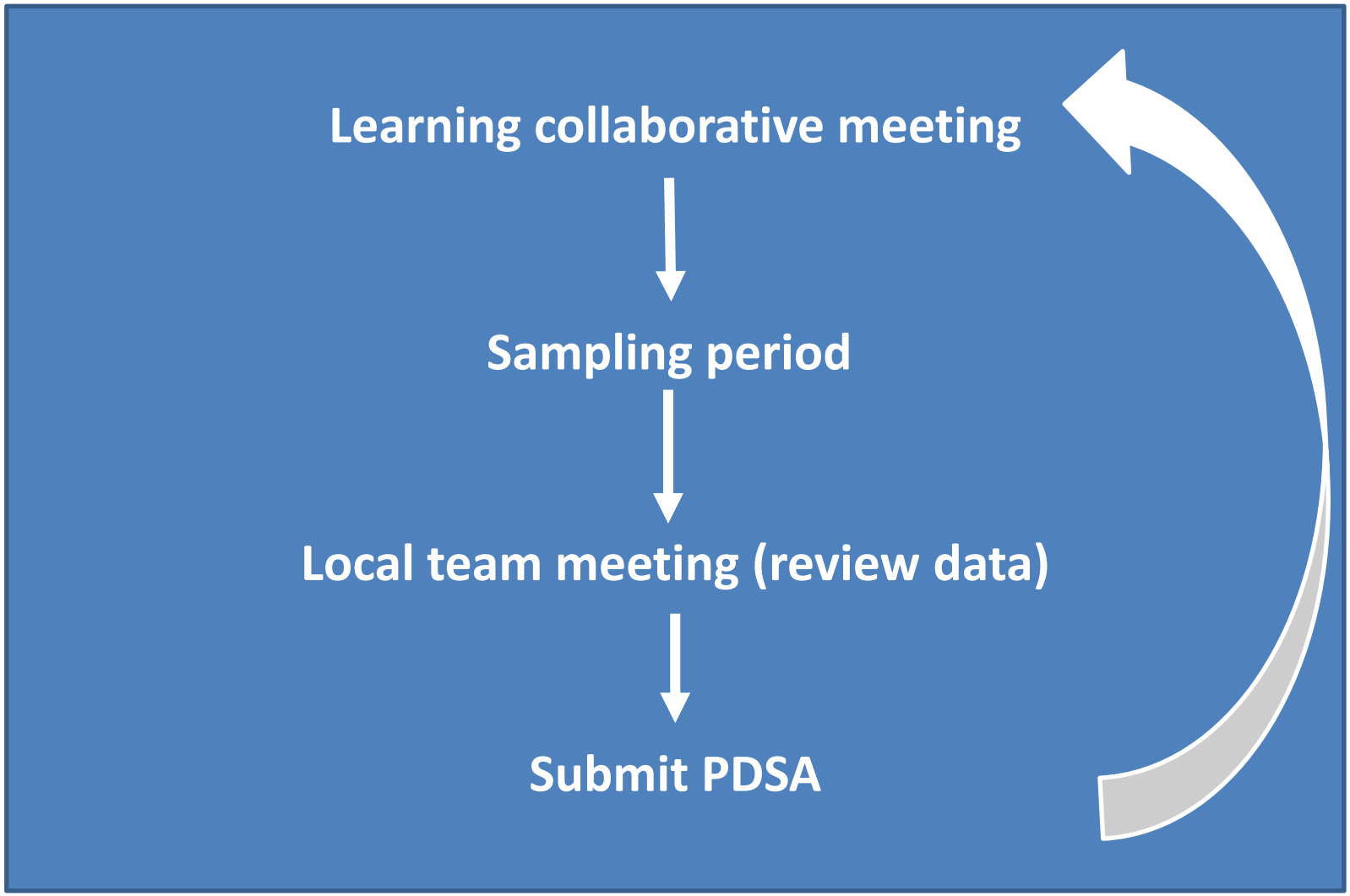
Email: mona.sharifi@yale.edu

Dr. Sharifi is an Associate Professor of Pediatrics (General Pediatrics) and Biostatistics (Health Informatics) and Principal Investigator for the NIH-funded IPOP-UP study. She is a board-certified general pediatrician practicing in pediatric primary care and a health services researcher focused on studying the implementation of interventions in pediatric primary care and community-based settings to prevent chronic diseases and promote equity, focusing on childhood obesity prevention and treatment. Dr. Sharifi served as the lead clinical informatician on the 2023 AAP Obesity CPG writing group.

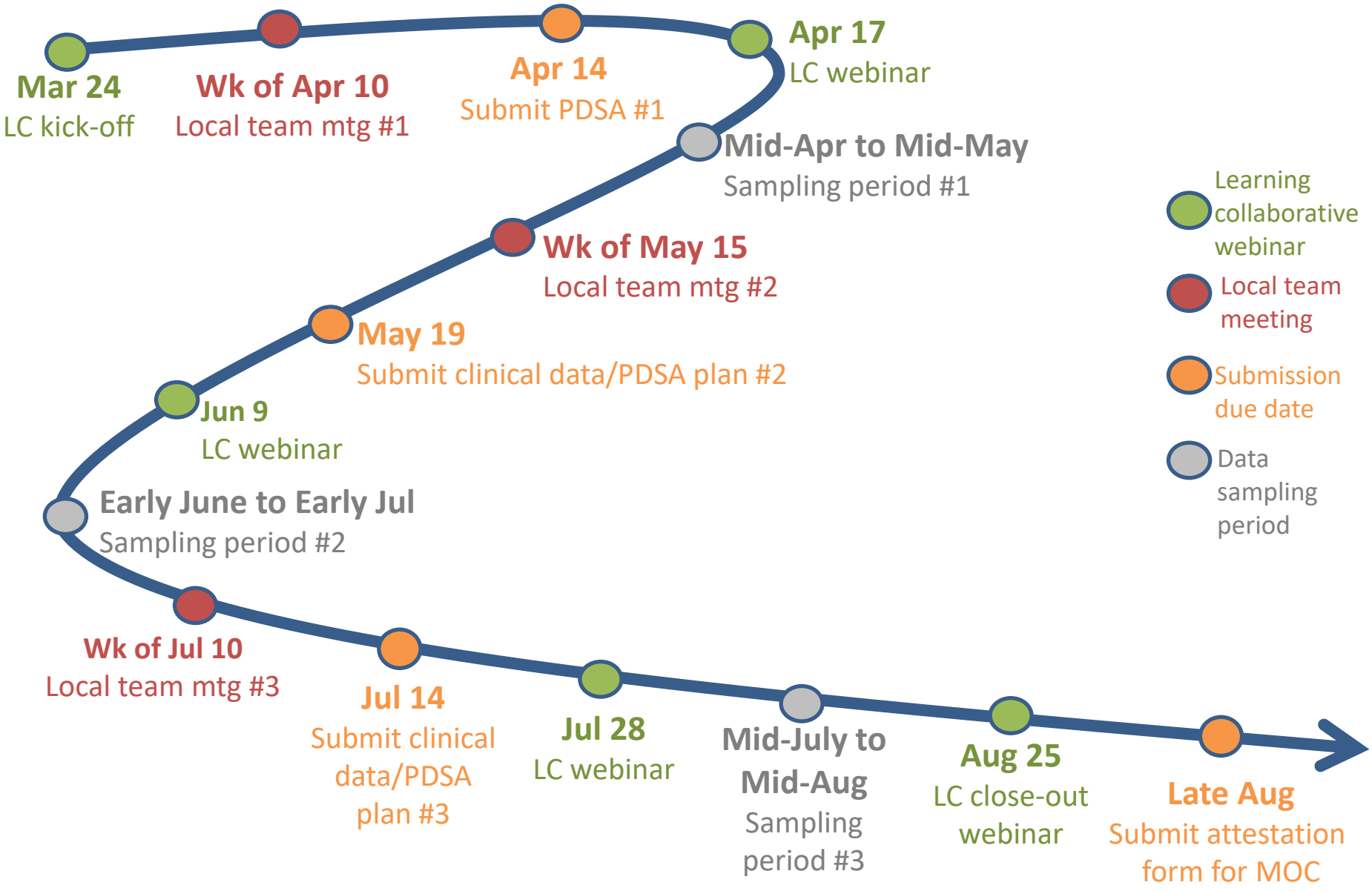
What's Inside

To help you navigate this document, you can use the links below to go directly to each section.

Overview


Learning collaborative meeting
Sampling period
Local team meeting (review data)
Submit PDSA

Project Timeline Overview



Detailed Timeline

Task or Event		Focus area	Due Date in 2023
	Learning Collaborative (LC) Kickoff webinar	Welcome & intros; orienting to the CDS tools and implementation support materials; reviewing the QI project	Fri March 24
	Local team meeting #1	Review baseline data, identify QI focus area and first PDSA plan	Mon April 10 – Fri April 14
	PDSA Plan #1	Clinical champion communicate focus area Submit PDSA	Fri April 14
	LC Webinar #1	Evaluation content from CPG & review of data/PDSA	Mon April 17
	Sampling period #1	--	Mid-April – Mid May
	Local team meeting #2	Review data, update PDSA plan	Mon May 15 – Fri May 19
	PDSA Plan Submission #2	--	Fri May 19
	LC Webinar #2	Treatment content from CPG & review of data/PDSAs	Fri June 9
	Sampling period #2	--	Early June – Early July
	Local team meeting #3	Review data, update PDSA plan	Mon July 10 – Fri Jul 14
	PDSA Plan Submission #3	--	Fri July 14
	LC Webinar #3	Sustainability and/or other requested content & review of data	Fri July 28
	Sampling Period 3	--	Mid July – Mid August
	Final LC Webinar	Close-out	Fri August 25
	Submit attestation form for MOC	--	Late August

Learning collaborative webinar

Local team meeting

Submission due date

Data sampling period

Pre-work Checklist

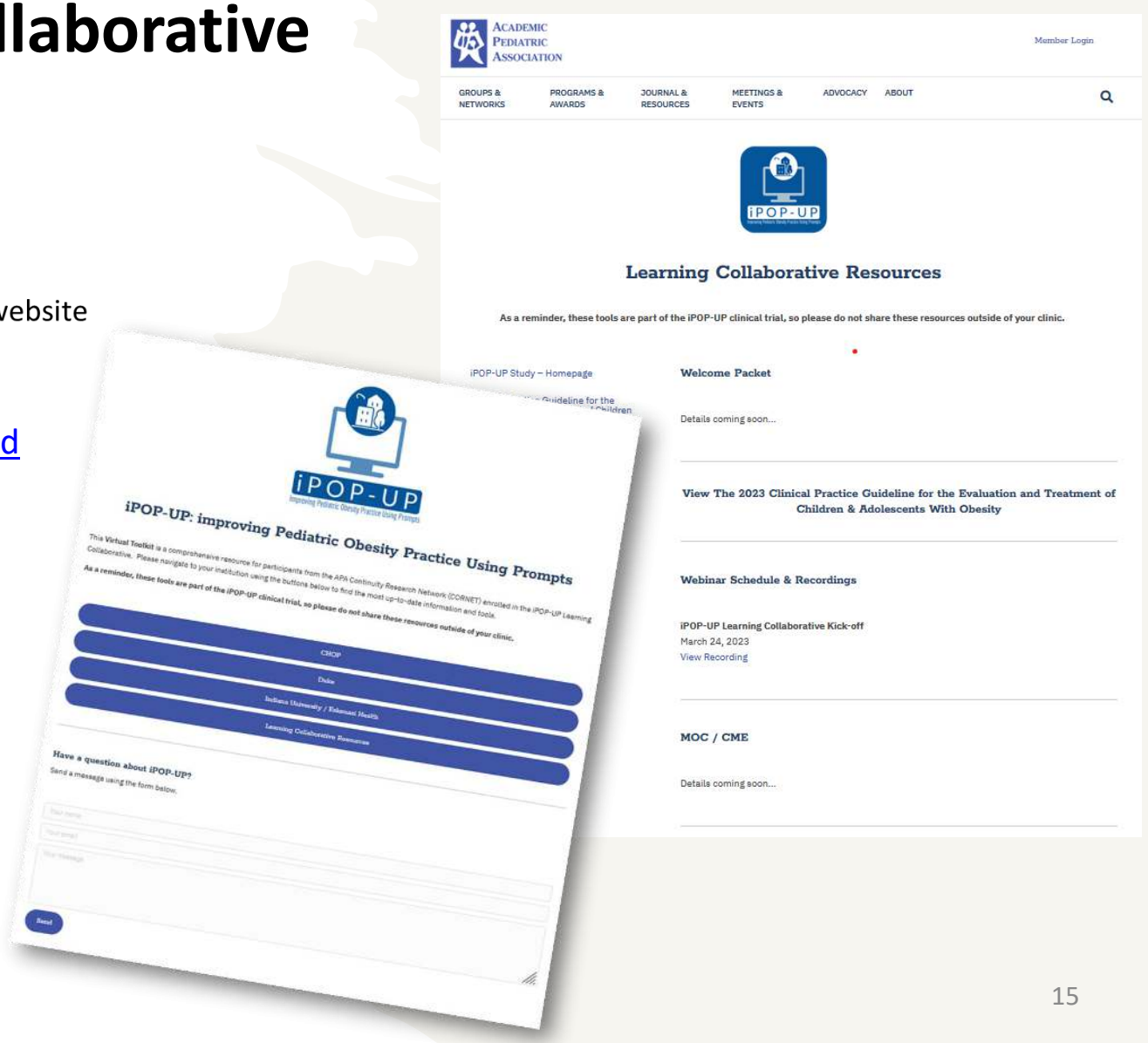
What?	By When?
Prework for Local QI Team Meeting #1: **Required:** • Read Clinical Practice Guideline Executive Summary **(30-45 min)** • Complete QI 101: The Model for Improvement module and take the brief quiz to confirm you have completed the module **(50 min)** • Review the project's Key Driver Diagram and Change Package slides in this welcome packet **(30-45min)**	Week of April 10th
Prework for Learning Collaborative (LC) #1: **Required:** Complete and pass CME modules: Assessment and Evaluation of Childhood Obesity **(1 hour)** **Highly Recommended:** Review the AAP policy statement: Stigma Experienced by Children and Adolescents with Obesity **(30-45 min)**	April 17th
Prework for LC #2: **Required:** Complete and pass CME modules: Obesity Treatment and Approach **(1.5 hours)** **Highly Recommended:** complete: Change Talk interactive Motivational Interviewing skill building module from change package **(1- 1.5 hours)**	June 9th

- Access the Obesity CME Course Series (**Assessment & Evaluation** and **Treatment**) through PediaLink.
- Use your normal AAP login (email and password) to log in to PediaLink. Non-AAP Members: click link to instructions for creating an AAP ID to claim CME credits.
- When you log-in, you will see the cost of the course is $5.00. Use promo code: **OBESITYQI** to access the modules for FREE.

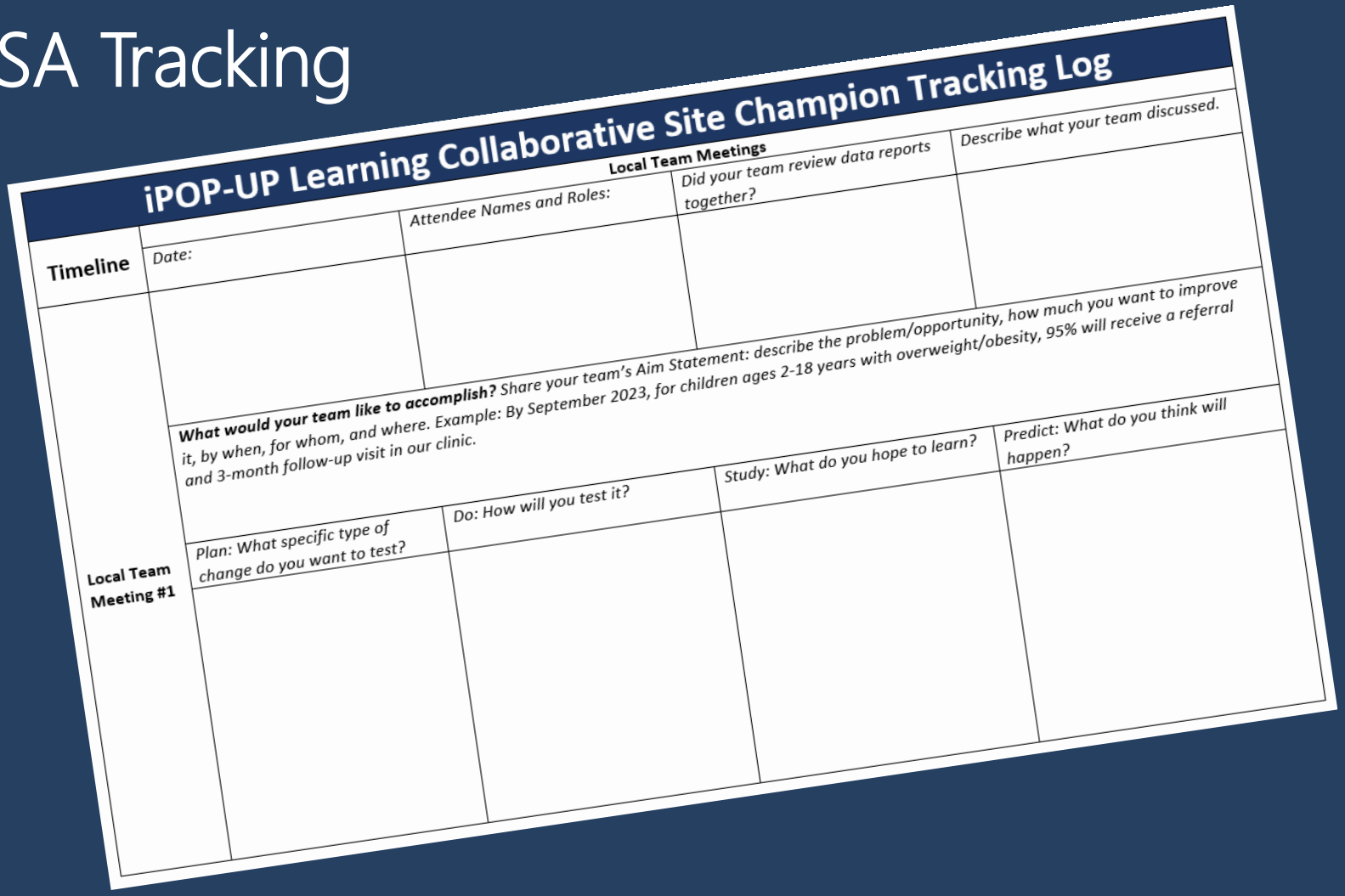
Resources for iPOP-UP Learning Collaborative Members

One-stop shop website

Link: https://www.academicpeds.org/ipop-up/ipop-up-lc-resources



PDSA Tracking



iPOP-UP Learning Collaborative Site Champion Tracking Log

Local Team Meetings

Timeline	Date:	Attendee Names and Roles:	Did your team review data reports together?	Describe what your team discussed.

What would your team like to accomplish? Share your team's Aim Statement: describe the problem/opportunity, how much you want to improve it, by when, for whom, and where. Example: By September 2023, for children ages 2-18 years with overweight/obesity, 95% will receive a referral and 3-month follow-up visit in our clinic.

	Plan: What specific type of change do you want to test?	Do: How will you test it?	Study: What do you hope to learn?	Predict: What do you think will happen?
Local Team Meeting #1				

One-stop shop website: https://www.academicpeds.org/ipop-up/ipop-up-lc-resources

Candidate EHR Quality Measures

The iPOP-UP team will provide access to a dashboard or reports with de-identified data aggregated at the clinic-level for 2-18yo patients a BMI ≥85th %ile at their most recent well-visit seen for a well-visit or weight follow-up

Domain	Level of analysis	Potential metric
Prevalence of elevated BMI	Patient	BMI percentile triggering Elevated BMI Best Practice Advisory (BPA)
Assessment and diagnosis of elevated BMI	Patient	Inclusion of relevant diagnosis code (E66 and z codes) in problem list
	Encounter	Inclusion of relevant diagnosis code in visit diagnosis
Evidence of health behavior/lifestyle counseling provided	Encounter	Counseling diagnosis z-codes, Goals updated, or Smart List selections
Follow-up/referral plan made	Encounter	Follow-up visit requested/made OR Referral made to intensive health behavior and lifestyle treatment / local or regional comprehensive multidisciplinary pediatric metabolic and bariatric surgery centers
Evaluation of co-morbidities	Encounter	Measurement of BP
	Patient	Dyslipidemia evaluation
	Patient	Diabetes evaluation
	Patient	Non-alcoholic fatty liver disease evaluation
Potentially unnecessary lab testing	Patient	Orders placed for insulin test
	Patient	Orders placed for thyroid lab test
Use of iPOP-UP EHR Tools	Encounter	Use of Elevated BMI BPA Use of Elevated BMI Smart Set Use of Goals

Suggestions for modifications/additions to candidate metrics welcome!

Office Hour/Technical Assistance Calls

Throughout the collaborative, there will be several optional, virtual office hour/technical assistance (TA) calls to support your team and foster peer-to-peer learning.

Monday, April 10: 12-1p ET
Monday, May 22: 12-1p ET
Monday, June 26: 12-1p ET
Friday, July 14: 12-1p ET
Monday, August 14: 12-1p ET

Meeting invitations with registration links will be sent to all learning collaborative members.

Part 4 MOC and CME/Part 2 MOC Completion Criteria

Each Site Champion is expected to:

- Attend four (live or recorded) Learning Collaborative Webinars
- Ensure that a core Quality Improvement (QI) Team is assembled at their practice
- Lead three local practice QI team meetings to review data and share learnings from learning collaboratives, identify and implement improvement strategies using PDSA cycles
- Complete Pre-Work Checklist
- Ensure that required team progress reports and assessments are submitted on time

Site Champions will be given a log to keep track of their accomplishments. This information will be helpful to attest to "meaningful participation" in the project and receive CME/MOC credit.*

*All practice staff are encouraged to participate in project offerings. Clinicians who want to qualify for both Part 4 MOC credit (25 points) and CME/Part 2 MOC credit (up to 11 points) for participating in the iPOP-UP QI Learning Collaborative, must meet the above requirements. See instructions for creating an AAP ID to claim CME credits.

Suggestions for Local QI Team Meetings

- Meet as a team **(45-60 min)** to review data reports provided by the iPOP-UP team and discuss the questions below:
  - Based on your review of the Key Driver Diagram and Change Package, what do you consider to be key assets and possible challenges at your practice with respect to achieving improvements in obesity evaluation and treatment?
  - Considering the overarching project goal of ensuring a non-stigmatizing physical and interpersonal environment for patients/families with overweight or obesity, what do you think your practice already does well, and in what ways might you improve?
  - Consider the demographics of your patient population in terms of project goals. What if any health equity issues come to mind? Are their strategies that you might consider to help mitigate these?
  - Consider the ultimate goal of ensuring that the improvements achieved by your project team will be sustained across your practice organization. Are there any strategies that you might consider to help ensure that achieved improvements are (spread, if applicable) and sustained?

Change Package

- A Change Package is an evidence- and experience-based set of changes that are critical to the improvement of an identified care process.

- The **Childhood Obesity Treatment & Approach Change Package** below contains materials and resources that participating teams can use to make practice improvements.

ACTION ITEM: **QI team members seeking Part 4 MOC credit: Familiarize yourself with the Change Package (see subsequent pages) by April 10-14 as prework for Local Team Meeting #1**

Change Package: Key Driver Diagram (pg. 1)

Outcomes ←

Global Aim: To improve evidence-based primary care practice for pediatric patients 2-18 years of age concerning the prompt identification, evaluation, and treatment of obesity.

Specific Aims:

By the end of the 6-month collaborative period, during with children ages 2-18 years of age with overweight or obesity, practices will:

- assess BMI percentile and determine elevated BMI category
- conduct comprehensive patient history and medical exam, including assessing lifestyle behaviors, social determinants of health, and mental/behavioral health, and recommending additional labs or follow-up tests to evaluate comorbidities
- use Motivational Interviewing, assess previous patient goals, facilitate setting new goals, and make a plan with patients/families for continued obesity treatment
- discuss any recommended interim multidisciplinary obesity treatment visits or contact with community organizations to support health behavior/lifestyle goals and, as appropriate, discuss pharmacotherapy, and offer a referral to bariatric surgery
- build capacity for obesity treatment throughout the collaborative and will sustain these changes

Key Drivers

1. **APPROACH:** Provide tailored, equitable, non-stigmatizing, patient-centered care to all patients at every visit [KAS 9]

2. **BMI:** Accurately weigh, measure, and chart growth trajectory, based on age, sex, and weight status [KAS 1]

3. **MEDICAL EXAM:** Obtain a comprehensive patient history and physical exam to evaluate for obesity-related comorbidities and facilitate tailored care [KAS 2]

4. **LABS & TESTS:** Conduct appropriate laboratory and follow-up studies, based on patient weight status, risk factors, age, sex, exam findings, and previous lab results, to evaluate for obesity-related comorbidities [KAS 2 and KAS 3,3.1,5, 6, 7, and 8.]

5. **MI:** Use Motivational Interviewing with patients/families to establish an appropriate treatment plan for all children with overweight or obesity [KAS 10]

6. **TREATMENT:** Ensure that all children with overweight or obesity receive the best available intensive health behavior and lifestyle treatment, based on the evidence, available options, and patient circumstances [KAS 4 KAS 9,10, 11]

7. **ADJUNCTS:** Consider pharmaceutical and surgical adjuncts to treatment for relevant subsets of patients [KAS 12,13]

8. **CAPACITY:** Build and maintain the practice's capacity to provide or refer patients to evidence-based obesity treatment, including the management of pediatric subspecialists and qualified community partners as appropriate [KAS 2, 4, 9, 19,11,12 & 13]

Change Package: Key Driver Diagram (pg. 2)

Key Drivers	Change Concepts + Interventions
1. **APPROACH:** Provide tailored, equitable, non-stigmatizing, patient-centered care to all patients at every visit [KAS 9]	• Tailor care to patient/family concerns, preferences, and circumstances • Ensure a non-stigmatizing, family-centered physical and interpersonal environment for obesity care throughout the practice that acknowledges the biologic, social, and structural drivers of obesity. • Ensure a supportive healthcare environment for all patients, regardless of race, ethnicity, culture, literacy level, socioeconomic status, sexual orientation, gender identification/expression, or disability. • Facilitate the development of a positive, collaborative relationship between the family and provider/medical home
2**. BMI:** Accurately weigh, measure, and chart growth trajectory, based on age, sex, and weight status [KAS 1]	For all children ages 2-18: • Measure height and weight, calculate BMI, document, classify and track BMI percentile using age- and sex-specific CDC growth charts at least annually • Monitor growth trajectory for the crossing of BMI percentiles or rapid weight gain For children ages 2-18 with BMI ≥ 95th percentile: • Determine whether or not the child has severe obesity (defined as BMI>=120% above the 95th percentile for age and sex or ≥ 35 kg/m2, whichever is lower)

3. **MEDICAL EXAM:** Obtain a comprehensive patient history and physical exam to evaluate for obesity-related comorbidities and facilitate tailored care [KAS 2]	For all children ages 2-18:
	• Conduct an appropriate patient history and physical exam at every visit, including blood pressure if ≥3 years of age
	• Obtain an individual/family lifestyle behavior history (all of the following: nutrition, physical activity, recreational screen time, and sleep behaviors or routines)
	• Social determinants of health history (e.g., food security, economic security, or adverse childhood experiences (ACES))
	• Provide tailored counseling to facilitate or support healthy weight/lifestyle behaviors
	For children ages 2-18 with BMI ≥ 85th percentile
	• Conduct a comprehensive patient history, including assessments of:
	  • Chief complaint/patient/history of present illness
	  • Review of Systems (including signs of potential comorbidities)
	  • Family history of obesity/comorbidities: (all of the following: type2 diabetes, cardiovascular disease, hyperlipidemia, hypertension, & NAFLD)
	  • Medication history, including those associated with weight gain
	  • Social determinants of health (SDOH) history (e.g., food security, economic security, or adverse childhood experiences (ACES))
	  • Individual/family lifestyle behavior history (all of the following: nutrition, physical activity, recreational screen time, and sleep behaviors or routines)
	  • Mental and behavioral health (e.g., bullying, depression, anxiety, abuse, ADHD, or disordered eating)
	  • If ≥12 years old, screen annually for depression, using a formal tool
	• Conduct a complete physical exam with attention to potential signs of obesity-related comorbidities
	  • If ≥3 years of age, evaluate for hypertension

Change Package: Key Driver Diagram (pg. 3)

Key Drivers

Change Concepts + Interventions

4. **LABS & TESTS:** Conduct appropriate laboratory and follow-up studies, based on patient weight status, risk factors, age, sex, exam findings, and previous lab results, to evaluate for obesity-related comorbidities [KAS 2 and KAS 3,3.1,5, 6, 7, and 8.]

For all children ages 2-18:

- Screen for lipid abnormalities using a fasting lipid panel before puberty (ages 9-11) and again in late adolescence (ages 17-21)
    - Consider screening at younger ages or more frequently based on risk factors

For children ages 2-18 with BMI ≥ 85th percentile

- If 2-9 years old and BMI ≥ 95th percentile, evaluate for lipid abnormalities using a fasting lipid panel
- If ≥10 years old
    - If BMI ≥ 85th and ≤ 94th percentile, evaluate for lipid abnormalities using a fasting lipid panel, and, if risk factors, evaluate for abnormal glucose metabolism using fasting plasma glucose, OGTT or HbA1c and liver function using ALT
    - If BMI ≥ 95th percentile, evaluate for lipid abnormalities using a fasting lipid panel, abnormal glucose metabolism using fasting plasma glucose, OGTT, or HbA1c and abnormal liver function using ALT
- Clinical judgment about lab testing may be needed when there are changes in risk factors or other patient care issues.
- Conduct specific follow-up labs to comprehensively evaluate for comorbidities per guidelines based on age, sex, risk factors, weight status, and previous lab results
- Complete a comprehensive evaluation for comorbidities by obtaining specific follow-up studies (e.g., x-rays, sleep studies, etc.) per guidelines based on risk factors and exam or lab findings, including subspecialist referrals as needed

5. **MI:** Use Motivational Interviewing with patients/families to establish an appropriate treatment plan for all children with overweight or obesity [KAS 10]

- Assess the present availability and quality of possible local options for providing obesity treatment to patients/families
- Use Motivational Interviewing to:
    - Discuss patient medical evaluations and diagnosis, and engage in additional evaluations as needed
    - Discuss treatment recommendations and assess and help build patient/family readiness for treatment
    - Discuss and plan appropriate next steps for treatment, based on patient medical evaluations, available treatment options, and patient/family circumstances
- Document an appropriate treatment plan, including relevant problems/diagnoses and referrals as appropriate.

Change Package: Key Driver Diagram (pg. 4)

Key Drivers	Change Concepts + Interventions
6. **TREATMENT:** Ensure that all children with overweight or obesity receive the best available intensive health behavior and lifestyle treatment, based on the evidence, available options, and patient circumstances [KAS 4 KAS 9,10, 11]	• Treat children and youth with obesity as early as possible. • Employ obesity treatment strategies consistent with principles of the chronic care model and the medical home • Provide or refer children to intensive health behavior and lifestyle treatment (IHBLT) with the most contact hours possible, consistent with evidence (ideally ≥26 hours of face-to-face, family-based, multi-component treatment over a 3-12-month period) • Concurrently treat obesity and comorbidities with IHBLT through referral(s) to evidence-based programs or by coordinating care with a multidisciplinary team of relevant providers or specialists as available and appropriate • Assess individual, structural, and contextual risk and protective factors for obesity longitudinally, and refer families to community organizations, as appropriate, to address social drivers of health • Use Motivational Interviewing to identify priorities, jointly set relevant goals, and encourage ongoing participation in treatment and the use of supportive resources, to facilitate an evidence-based, non-stigmatizing, tailored approach to care • Conduct (or facilitate) repeat evaluations and laboratory or follow-up tests per guidelines to identity or monitor comorbidities, monitor obesity treatment outcomes, and adjust treatment strategy as appropriate
7. **ADJUNCTS:** Consider pharmaceutical and surgical adjuncts to treatment for relevant subsets of patients [KAS 12,13]	• For adolescents ≥12 years old with obesity, offer weight loss pharmacotherapy as an adjunct to health behavior and lifestyle treatment, according to medication indications, risks, and benefits. ○ For children 8-11 years old with obesity, use clinical judgment to consider offering weight loss pharmacotherapy as an adjunct to health behavior and lifestyle, according to medication indications, risks, and benefits. • For adolescents ≥13 years old with severe obesity, refer for evaluation for metabolic and bariatric surgery to local or regional comprehensive multidisciplinary pediatric metabolic and bariatric surgery centers.

Change Package: Key Driver Diagram (pg. 5)

Key Drivers

8. **CAPACITY: B**uild and maintain the practice's capacity to provide or refer patients to evidence-based obesity treatment, including the management of pediatric subspecialists and qualified community partners as appropriate [KAS 2, 4, 9, 19,11,12 & 13]

Change Concepts + Interventions

- As a team, regularly meet and reassess the availability and quality of local options for providing comprehensive obesity treatment relative to evidence-based standards, and, if appropriate, develop a feasible plan for building additional capacity
- Assessments/plans may consider:
  - Patient/family (or population) needs and preferences
  - Available and needed internal capacity for providing recommended treatment (e.g., staff experience/training, physical space/equipment, informational/data systems, leadership/policy support, organizational culture, fiscal resources).
  - Available and needed community programs or partners to help provide treatment or supportive services
  - Available and needed medical subspecialists or subspeciality programs to partner in care
- Set up systems to coordinate care provided within the practice (e.g., across well and follow-up visits or during follow-up visits with multiple providers) and with key external community or subspecialist partners.
- To facilitate effective collaboration with key external (or siloed) partners:
  - Clarify roles and develop a deep understanding of one another's processes (e.g., scheduling, eligibility criteria, services delivered, etc.).
  - Develop and implement detailed plans for regular and ad hoc communication (who, what, when, & how)
- Establish and implement processes to support patient engagement and retention in treatment during visits or touchpoints (e.g., facilitate patient/family understanding of care plan and realistic outcome expectations, ensure delivery of tailored, patient-centered, non-stigmatizing, equitable, and coordinated care, etc.)
- Develop systems to monitor and support key aspects of treatment:
  - For any (internal or external) follow-up visits
    - Participation/engagement and barriers encountered by patients/families
    - Type, dosage, and longitudinal history of illness and treatment
    - Individual, structural, and contextual risk and protective factors for obesity
    - Consistency of obesity care (e.g., non-stigmatizing, coordinated approach) across the practice and partners
    - Quality of visits or services (based on standards, patient/family satisfaction, etc.)
  - For internal follow-up visits:
    - No shows/late cancellations/reminders
    - Barriers/facilitators to payment for services or cost efficiency

Change Package Resources: Multiple Key Drivers & Change Concepts

- CPG Executive Summary
- Clinical Practice Guideline
- CPG KAS table
- CPG Consensus Recommendation Table
- CPG Algorithm
- FIHR resource (Fast Healthcare Interoperability Resource) (Link)
- Clinical Flow Sheets:
- Assessment & Evaluation
- Treatment & Approach
- CME Modules:
- Assessment & Evaluation
- Treatment & Approach
- Technical Reports
  - Appraisal of Clinical Care Practices for Child Obesity Treatment. Part I: Interventions
  - Appraisal of Clinical Care Practices for Child Obesity Treatment. Part II: Comorbidities
- Billing Coding Card
- Conversations about Care Podcasts
- Obesity Treatment Explainer Videos
  - Treatment Can Be Effective
  - Comprehensive Treatment
  - Pediatricians' Role
  - Improved Outcomes

Key Driver 1: **APPROACH**: Provide tailored, equitable, non-stigmatizing, patient-centered care to all patients at every visit

Change Concept	Essential Tools/Resources	Additional Tools/Resources

▪ Tailor care to patient/family concerns, preferences, and circumstances
 	
▪ Ensure a non-stigmatizing, family-centered physical and interpersonal environment for obesity care throughout the practice that acknowledges the biologic, social, and structural drivers of obesity.
 	
▪ Ensure a supportive healthcare environment for all patients, regardless of race, ethnicity, culture, literacy level, socioeconomic status, sexual orientation, gender identification/expression, or disability.
 	
▪ Facilitate the development of a positive, collaborative relationship between the family and provider/medical home
	• CPG Executive Summary
	• Clinical Flow Sheets:
	  • Assessment & Evaluation
	  • Treatment & Approach
	▪ CME Modules:
	  ▪ Assessment & Evaluation
	  ▪ Treatment & Approach
	▪ Stigma and Bias Self-Assessment
	▪ Rudd Center Office Checklist
	▪ AAP policy statement: Stigma Experienced by Children and Adolescents with Obesity
		• Bright Futures Guidance
		• Bright Futures Health Equity Resources
		• UConn Rudd Center for Food Policy and Obesity: Weight Bias and Stigma Resources for Healthcare Providers (training modules, toolkit, handouts, scripts, etc.)
		• Conversations About Care podcast: Going Beyond Race (episode 16); Weight Bias & Stigma (episode 11)
		• AAP Policy: Poverty and Child Health in the United States
		• AAP Policy: The Impact of Racism on Child and Adolescent Health
		• AAP Policy: Providing Care for Children in Immigrant Families
		• AAP Policy: Ensuring Comprehensive Care for Transgender Youth
		• AAP Policy: Office-based Care for LGBTQ Youth
		• AAP Clinical Report: Shared Decision-making and Children with Disabilities
		• AAP Clinical Report; Parent-provider-community Partnerships: Optimizing Outcomes for Children with Disabilities
		• Fighting Racism to Advance Child Health Equity online course (free to members)
		• Health Leads webinar series: Intentionally Integrating Equity Into SDOH Interventions
		• HHS: A Physician's Practical Guide to Culturally Competent Care

Key Driver 2: **BMI**: Accurately weight, measure, and chart growth trajectory, based on age, sex, and weight status

Change Concept	Essential Tools/Resources	Additional Tools/Resources
For all children ages 2-18: ▪ Measure height and weight, calculate BMI, document, classify and track BMI percentile using age- and sex-specific CDC growth charts at least annually ▪ Monitor growth trajectory for the crossing of BMI percentiles or rapid weight gain For children ages 2-18 with BMI ≥ 95th percentile: ▪ Determine whether or not the child has severe obesity (defined as BMI>=120% above the 95th percentile for age and sex or ≥ 35 kg/m2, whichever is lower)	▪ CDC BMI-for-age/sex growth charts ▪ New CDC Extended BMI-for-age growth charts (for severe obesity) ▪ Obesity Assessment and Evaluation CME Module ▪ Assessment and Evaluation Clinical Flow (PDF) ▪ CPG Algorithm (PDF) ▪ CPG FHIR resource (Link) ▪ BMI in Children (healthychildren.org article in English and Spanish under Patient & Family Resources)	• CDC on-line training modules on growth charts • Getting Started: Extended BMI-for-Age Growth Charts for Children and Adolescents with Severe Obesity • HRSA online training for accurately weighing and measuring

Key Driver 3: **MEDICAL EXAM**: Obtain a comprehensive patient history and physical exam to evaluate for obesity-related comorbidities and facilitate tailored care

Change Concept	Essential Tools/Resources
For all children ages 2-18: ▪ Conduct an appropriate patient history and physical exam at every visit, including blood pressure if ≥3 years of age ▪ Obtain an individual/family lifestyle behavior history (all of the following: nutrition, physical activity, recreational screen time, and sleep behaviors or routines) ▪ Social determinants of health history (e.g., food security, economic security, or adverse childhood experiences (ACES)) ▪ Provide tailored counseling to facilitate or support healthy weight/lifestyle behaviors For children ages 2-18 with BMI ≥ 85th percentile ▪ Conduct a comprehensive patient history, including assessments of: ○ Chief complaint/patient/history of present illness ○ Review of Systems (including signs of potential comorbidities) ○ Family history of obesity/comorbidities: (all of the following: type2 diabetes, cardiovascular disease, hyperlipidemia, hypertension, & NAFLD) ○ Medication history, including those associated with weight gain ○ Social determinants of health (SDoH) history (e.g., food security, economic security, or adverse childhood experiences (ACES)) ○ Individual/family lifestyle behavior history (all of the following: nutrition, physical activity, recreational screen time, and sleep behaviors or routines) ○ Mental and behavioral health (e.g., bullying, depression, anxiety, abuse, ADHD, or disordered eating) ○ If ≥12 years old, screen annually for depression, using a formal tool ▪ Conduct a complete physical exam with attention to potential signs of obesity-related comorbidities If ≥3 years of age, evaluate for hypertension	▪ Obesity Assessment and Evaluation CME Module ▪ CPG Algorithm ▪ Obesity Assessment and Evaluation Clinical Flow ▪ 5-2-1-0 Healthy Habits questionnaires ▪ Food Security Policy Statement Screening Tools/Resources (Table 2-3) ▪ CPG Table 3. Selected Examples of Commonly Prescribed Medications and Weight Gain in Pediatric Practice ▪ Page 2 Assessment and Evaluation Clinical Flow

Key Driver 3 (continued): **MEDICAL EXAM**: Obtain a comprehensive patient history and physical exam to evaluate for obesity-related comorbidities and facilitate tailored care

Additional Tools/Resources

SDOH Screening:

- Safe Environment for Every Kid (SEEK)
- Accountable Health Communities (AHC) Health-Related Social Needs (HRSN) Screening Tool
- AAP and FRAC Food Insecurity Toolkit

Mental Health Screening

- Overall: Pediatric Symptom Checklist
- Depression: Patient Health Questionnaire
- (PHQ 2 or PHQ 9)
- Anxiety: General Anxiety Disorder (GAD-7) or Screen for Child Anxiety Related Disorders (SCARED) assessments
- ADHD: Vanderbilt ADHD Rating Scales (VADRS)
- Disordered eating: Table 2, AAP Clinical report, "Identification and Management of Eating Disorders in Children and Adolescents"

Related AAP Policy

- AAP Conversations about Care Podcasts: (e.g., Food Insecurity Episode 2)
- AAP Food Insecurity Policy Statement
- AAP Perinatal Depression Policy Statement
- AAP Preventing Childhood Toxic Stress Policy Statement
- AAP Trauma-informed Care in Child Health Systems Policy Statement
- AAP Psychosocial Factors in Children and Youth with Special Healthcare Needs Policy Statement
- AAP Clinical Practice Guideline: Screening and Management of High Blood Pressure
  - BP Table 4: BP Updated Definitions of BP Categories and Stages (Obesity CPG Table 12)
  - BP Table 4: BP Levels for Boys by Age and Height Percentile
  - BP Table 5: BP Levels for Girls by Age and Height Percentile
- AAP Policy: Fruit Juice
- AAP Policy: Media and Young Minds
- AAP Clinical Report: Power of Play-

Other Resources:

- Food Insecurity: Toolkit for Pediatricians
- Bright Futures Guidance & Periodicity Schedule
- Bright Futures: Integrating Social Determinants of Health Screening into Health Supervision Visits
- U.S. Department of Agriculture summer food service program finder
- Webinar: Empowering Families to Make Healthier Food Choices Through WIC
- American Dietetic Association: Family Nutrition and Physical Activity survey
- AAP STAR Center Webinars & Podcasts
- AAP STAR Center Resources
- AAP Pediatric Mental Health Minute Series

Key Driver 4: **LABS & TESTS**: Conduct appropriate laboratory and follow-up studies, based on patient weight status, risk factors, age, sex, exam findings, and previous lab results, to evaluate for obesity-related comorbidities

Change Concept	Essential Tools/Resources	Additional Tools/Resources
For all children ages 2-18: ▪ Screen for lipid abnormalities using a fasting lipid panel before puberty (ages 9-11) and again in late adolescence (ages 17-21) ▪ Consider screening at younger ages or more frequently based on risk factors For children ages 2-18 with BMI ≥ 85th percentile ▪ If 2-9 years old and BMI ≥ 95th percentile, evaluate for lipid abnormalities using a fasting lipid panel ▪ If ≥10 years old ▪ If BMI ≥ 85th and ≤ 94th percentile, evaluate for lipid abnormalities using a fasting lipid panel, and, if risk factors, evaluate for abnormal glucose metabolism using fasting plasma glucose, OGTT or HbA1c and liver function using ALT ▪ If BMI ≥ 95th percentile, evaluate for lipid abnormalities using a fasting lipid panel, abnormal glucose metabolism using fasting plasma glucose, OGTT, or HbA1c and abnormal liver function using ALT ▪ Clinical judgment about lab testing may be needed when there are changes in risk factors or other patient care issues. ▪ Conduct specific follow-up labs to comprehensively evaluate for comorbidities per guidelines based on age, sex, risk factors, weight status, and previous lab results ▪ Complete a comprehensive evaluation for comorbidities by obtaining specific follow-up studies (e.g., x-rays, sleep studies, etc.) per guidelines based on risk factors and exam or lab findings, including subspecialist referrals as needed	▪ Obesity Assessment and Evaluation CME Module ▪ CPG Algorithm ▪ Obesity Assessment and Evaluation Clinical Flow ▪ FHIR Resource ▪ CPG KAS Table ▪ CPG CR Table	▪ Obesity CPG Tables 8-11 ▪ Treatment Clinical Flow ▪ CPG Appendix 3 ▪ Endocrine Society Guidelines (lipids) ▪ American Diabetes Association Guidelines ▪ North American Society for Pediatric Gastroenterology, Hepatology and Nutrition Guidelines (NAFLD) ▪ Bright Futures Guidance & Periodicity Schedule

Key Driver 5: **MI**: Use Motivational Interviewing to establish an appropriate treatment plan for all children with overweight or obesity

Change Concept	Essential Tools/Resources	Additional Tools/Resources
▪ Assess the present availability and quality of possible local options for providing obesity treatment to patients/families ▪ Use Motivational Interviewing to: ▪ Discuss patient medical evaluations and diagnosis, and engage in additional evaluations as needed ▪ Discuss treatment recommendations and assess and help build patient/family readiness for treatment ▪ Discuss and plan appropriate next steps for treatment, based on patient medical evaluations, available treatment options, and patient/family circumstances ▪ Document an appropriate treatment plan, including relevant problems/diagnoses and referrals as appropriate.	▪ Change Talk—interactive module—healthy lifestyle behaviors ▪ Obesity Treatment CME Module ▪ Obesity Treatment Clinical Flow ▪ Healthychildren.org articles in English and Spanish (under Patient & Family Resources): ○ Obesity is a Complex Disease ○ Body Mass Index in Children ○ What Should My Family Expect from Obesity Treatment ○ What is Intensive Health Behavior and Lifestyle Treatment (IHBLT) ○ Is Weight-Loss Surgery Right for My Child	▪ Recorded Workshop: Counseling During a Brief Clinical Encounter (the four processes of MI) – Dr Sarah Armstrong ▪ UConn Rudd Center for Food Policy and Obesity: Weight Bias and Stigma Motivational Interviewing Resources ▪ Bright Futures: Tips to Link Your Practice to Community Resources (pdf)

Key Driver 6: **TREATMENT**: Ensure that all children with overweight or obesity receive the best available intensive health behavior and lifestyle treatment, based on the evidence, available options, and patient circumstances

Change Concept	Essential Tools/Resources	Additional Tools/Resources
▪ Treat children and youth with obesity as early as possible. ▪ Employ obesity treatment strategies consistent with principles of the chronic care model and the medical home ▪ Provide or refer children to intensive health behavior and lifestyle treatment (IHBLT) with the most contact hours possible, consistent with evidence (ideally ≥26 hours of face-to-face, family-based, multi-component treatment over a 3-12-month period) ▪ Concurrently treat obesity and comorbidities with IHBLT through referral(s) to evidence-based programs or by coordinating care with a multidisciplinary team of relevant providers or specialists as available and appropriate ▪ Assess individual, structural, and contextual risk and protective factors for obesity longitudinally, and refer families to community organizations, as appropriate, to address social drivers of health ▪ Use Motivational Interviewing to identify priorities, jointly set relevant goals, and encourage ongoing participation in treatment and the use of supportive resources, to facilitate an evidence-based, non-stigmatizing, tailored approach to care ▪ Conduct (or facilitate) repeat evaluations and laboratory or follow-up tests per guidelines to identity or monitor comorbidities, monitor obesity treatment outcomes, and adjust treatment strategy as appropriate	▪ Obesity Treatment CME Module ▪ CPG Algorithm ▪ Treatment Clinical Flow ▪ Clinic visit goal sheet/checklist (under Patient and Family Resources) ▪ Behavioral Targets Table (from CPG Table 18 and Treatment & Approach Clinical Flow) ▪ Obesity Treatment Explainer Videos ▪ Treatment Can Be Effective ▪ Comprehensive Treatment ▪ Pediatricians' Role ▪ Improved Outcomes ▪ FHIR Resource ▪ Billing Coding Card (PDF) ▪ Bookshelf of evidence based IHBLT programs ▪ Lists of Multidisciplinary Obesity Treatment Clinics and Metabolic and Bariatric Surgery Centers (under Assessing and Building Capacity)	▪ AAP Conversations about Care Podcasts (CPG Series (episodes 1-5) and Partnering with an Endocrinologist (episode 13) ▪ US Preventive Task Force Recommendation Statement ▪ Parent Guide to Healthy Weight Programs (JAMA)

Key Driver 7: **ADJUNCTS**: Consider pharmaceutical and surgical adjuncts to treatment for relevant subsets of patients

Change Concept	Essential Tools/Resources	Additional Tools/Resources
▪ For adolescents ≥12 years old with obesity, offer weight loss pharmacotherapy as an adjunct to health behavior and lifestyle treatment, according to medication indications, risks, and benefits. ▪ For children 8-11 years old with obesity, use clinical judgment to consider offering weight loss pharmacotherapy as an adjunct to health behavior and lifestyle, according to medication indications, risks, and benefits. ▪ For adolescents ≥13 years old with severe obesity, refer for evaluation for metabolic and bariatric surgery to local or regional comprehensive multidisciplinary pediatric metabolic and bariatric surgery centers.	▪ Treatment CME Module ▪ CPG Algorithm ▪ CPG Treatment Clinical Flow ▪ Lists of Multidisciplinary Obesity Treatment Clinics and Metabolic and Bariatric Surgery Centers (under Assessing and Building Capacity)	▪ AAP Policy on Surgery

Key Driver 8: **CAPACITY**: Build and maintain the practice's capacity to provide or refer patients to evidence-based obesity treatment, including the engagement of pediatric subspecialists and qualified community partners as appropriate

Change Concept	Essential Tools/Resources	Additional Tools/Resources
▪ As a team, regularly meet and reassess the availability and quality of local options for providing comprehensive obesity treatment relative to evidence-based standards, and, if appropriate, develop a feasible plan for building additional capacity Assessments/plans may consider: ▪ Patient/family (or population) needs and preferences ▪ Available and needed internal capacity for providing recommended treatment (e.g., staff experience/training, physical space/equipment, informational/data systems, leadership/policy support, organizational culture, fiscal resources). ▪ Available and needed community programs or partners to help provide treatment or supportive services	▪ CPG Billing Coding Card ▪ FHIR Resource ▪ Patient retention Toolkit ▪ Capacity Considerations (checklist)	▪ AAP Conversations about Care Podcasts (CPG Series (episodes 1-5) and Partnering with an Endocrinologist (episode 13)

Key Driver 8 (continued): **CAPACITY**: Build and maintain the practice's capacity to provide or refer patients to evidence-based obesity treatment, including the engagement of pediatric subspecialists and qualified community partners as appropriate

Change Concept	Essential Tools/Resources	Additional Tools/Resources
▪ Available and needed medical subspecialists or subspeciality programs to partner in care ▪ Set up systems to coordinate care provided within the practice (e.g., across well and follow-up visits or during follow-up visits with multiple providers) and with key external community or subspecialist partners. To facilitate effective collaboration with key external (or siloed) partners: ▪ Clarify roles and develop a deep understanding of one another's processes (e.g., scheduling, eligibility criteria, services delivered, etc.). ▪ Develop and implement detailed plans for regular and ad hoc communication (who, what, when, & how) ▪ Establish and implement processes to support patient engagement and retention in treatment during visits or touchpoints (e.g., facilitate patient/family understanding of care plan and realistic outcome expectations, ensure delivery of tailored, patient-centered, non-stigmatizing, equitable, and coordinated care, etc.)	▪ CPG Billing Coding Card ▪ FHIR Resource ▪ Patient retention Toolkit ▪ Capacity Considerations (checklist)	▪ AAP Conversations about Care Podcasts (CPG Series (episodes 1-5) and Partnering with an Endocrinologist (episode 13)

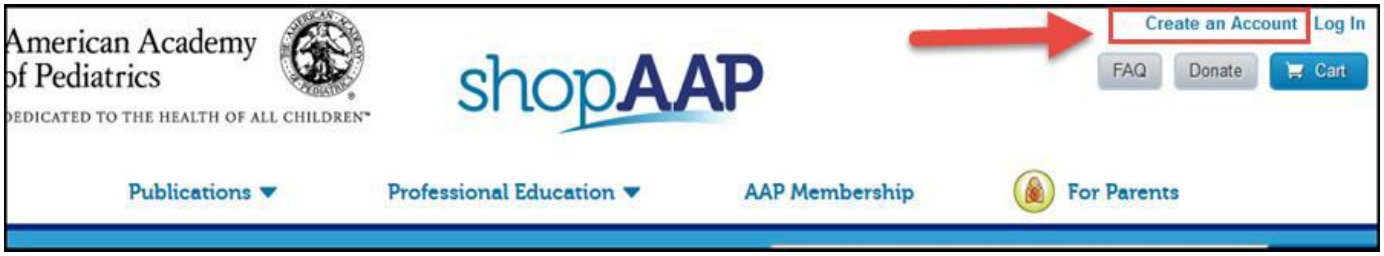
Key Driver 8 (continued): **CAPACITY**: Build and maintain the practice's capacity to provide or refer patients to evidence-based obesity treatment, including the engagement of pediatric subspecialists and qualified community partners as appropriate

Change Concept	Essential Tools/Resources	Additional Tools/Resources
Develop systems to monitor and support key aspects of treatment: ▪ For any (internal or external) follow-up visits ○ Participation/engagement and barriers encountered by patients/families ○ Type, dosage, and longitudinal history of illness and treatment ○ Individual, structural, and contextual risk and protective factors for obesity ○ Consistency of obesity care (e.g., non-stigmatizing, coordinated approach) across the practice and partners ○ Quality of visits or services (based on standards, patient/family satisfaction, etc.) ▪ For internal follow-up visits: ○ No shows/late cancellations/reminders ○ Barriers/facilitators to payment for services or cost efficiency	▪ CPG Billing Coding Card ▪ FHIR Resource ▪ Patient retention Toolkit ▪ Capacity Considerations (checklist)	▪ AAP Conversations about Care Podcasts (CPG Series (episodes 1-5) and Partnering with an Endocrinologist (episode 13)

AAP ID Instructions to Claim CME Credit

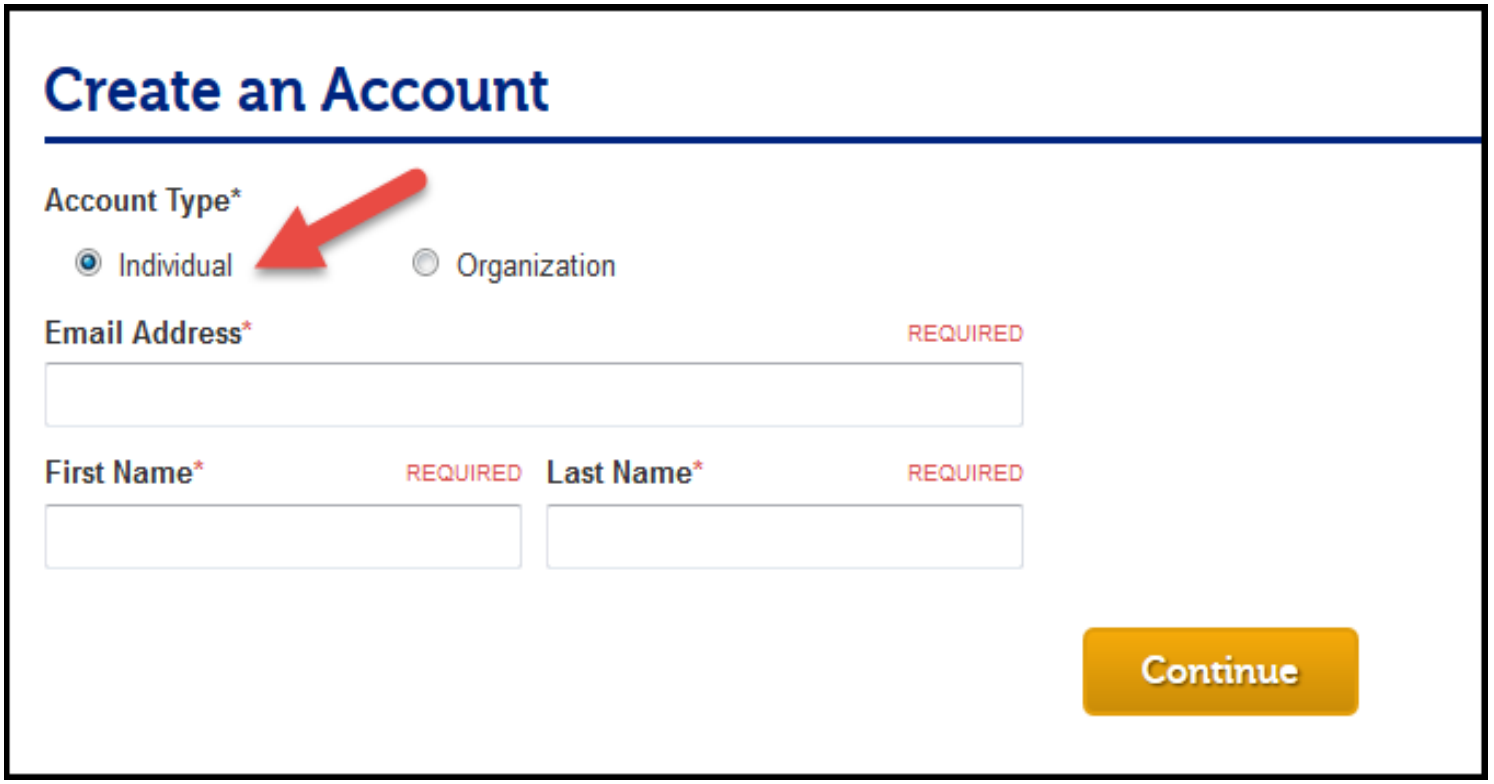
For AAP members and non-members, an AAP ID will be needed to receive CME credits, download certificates, have access to the Academy's Quality Improvement Data Aggregator (QIDA) to enter data and access the project materials. If you don't currently have an AAP ID, please use the instructions below to create your account:

1) Go to https://shop.aap.org
2) Click **Create an Account**



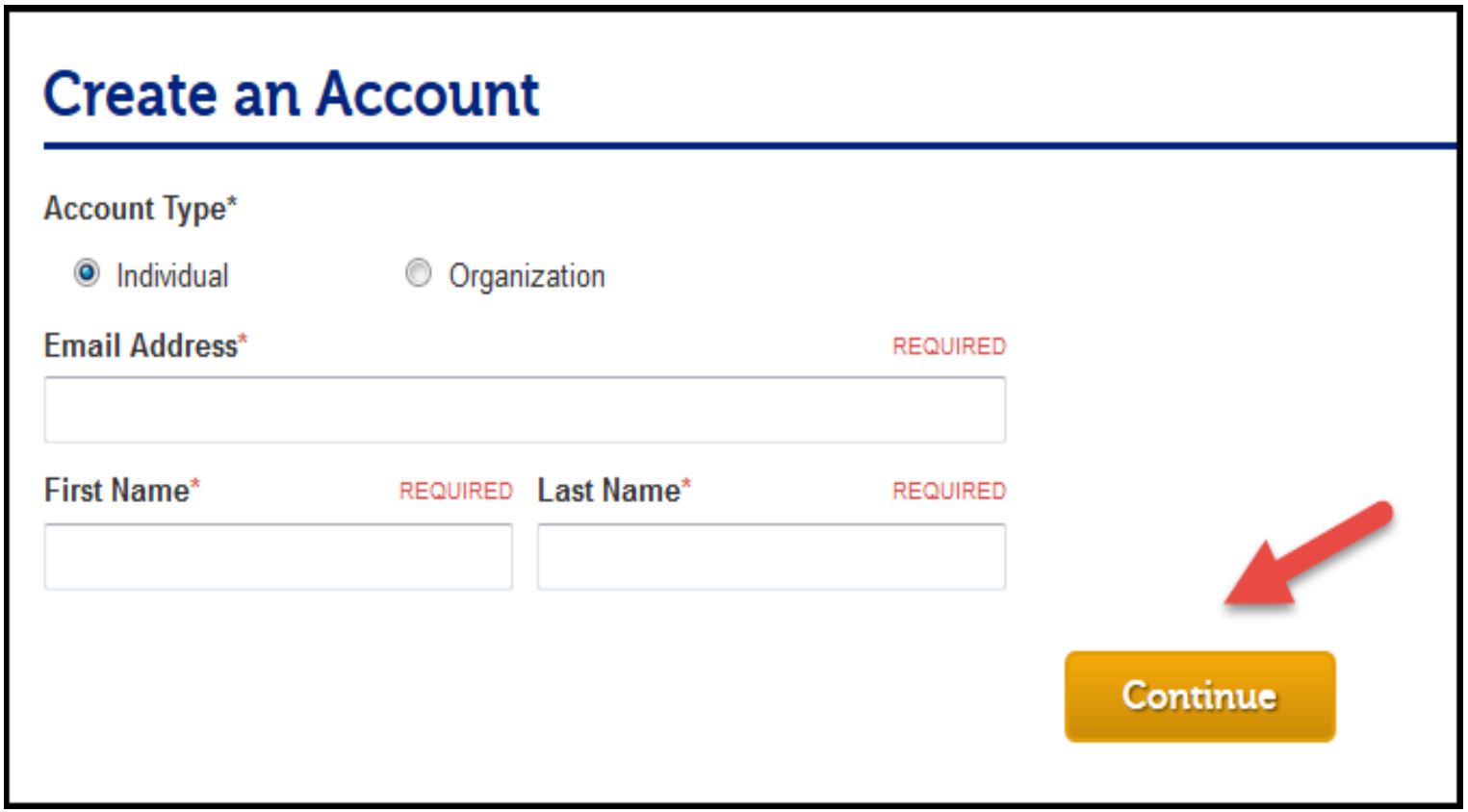
AAP ID Instructions, cont'd.

3) Select **Individual** and complete the form



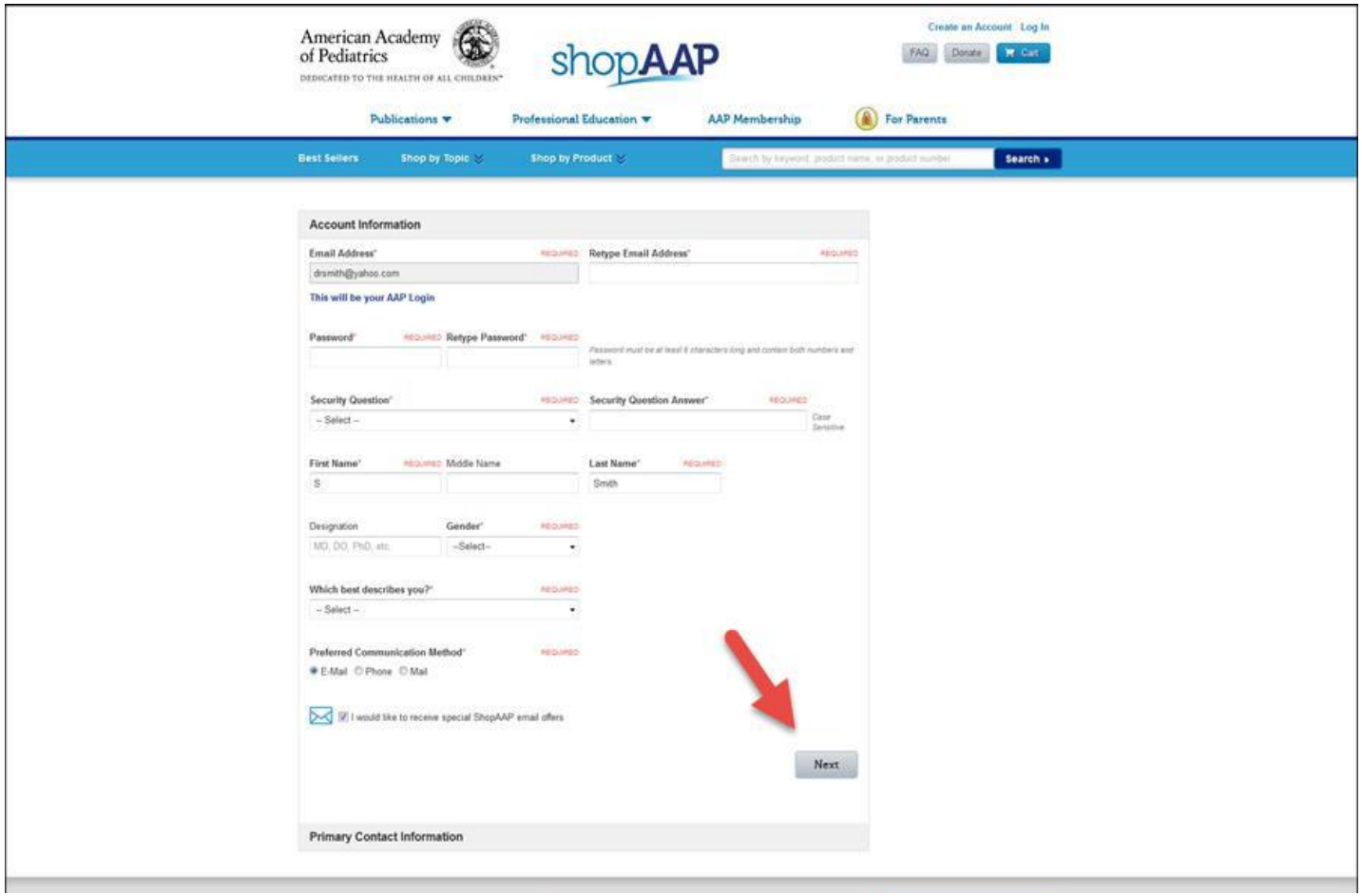
AAP ID Instructions, cont'd.

4) Click **Continue**



AAP ID Instructions, cont'd.

5) Enter all required account information

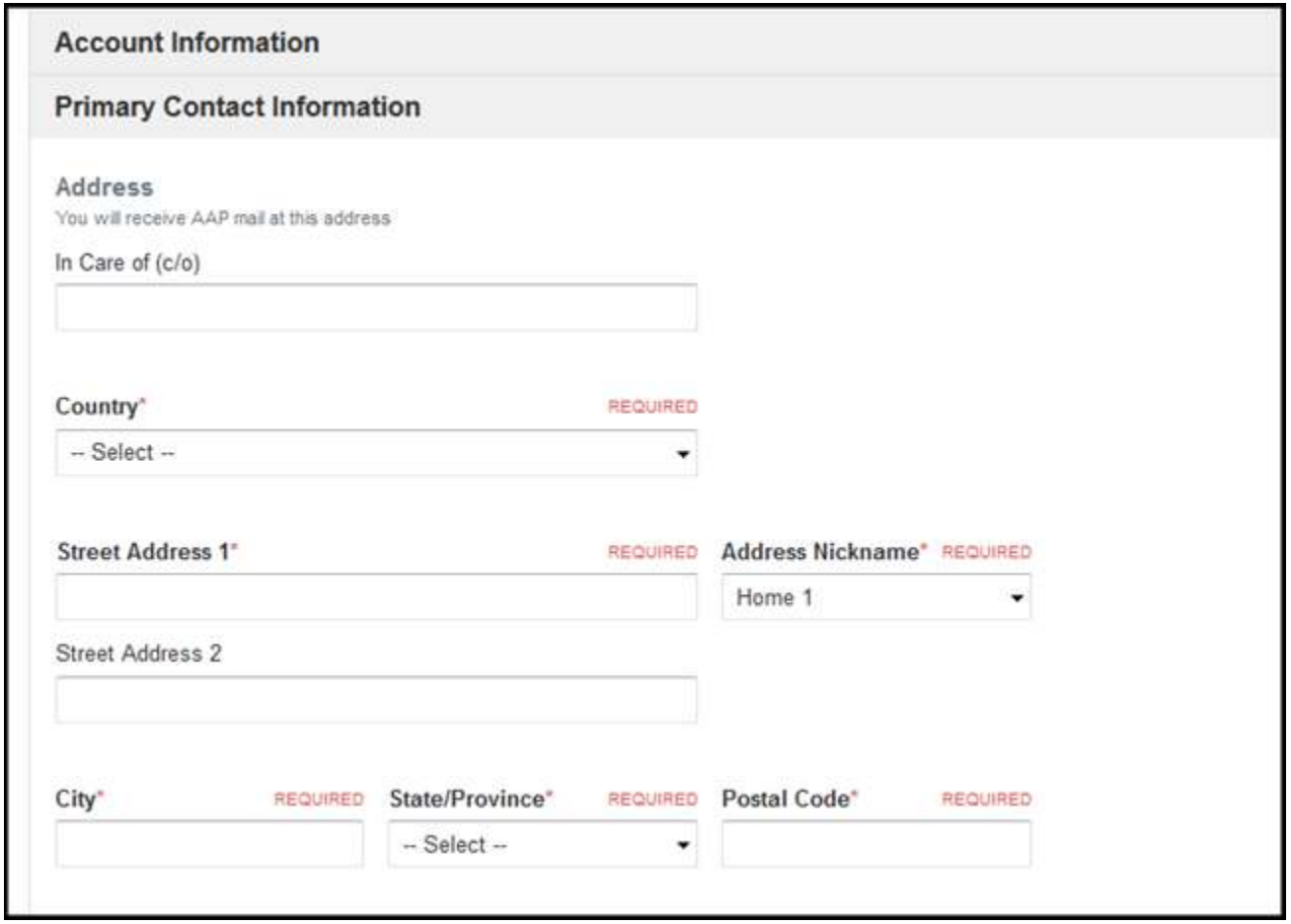


6) Click **Next** at the bottom of the screen

AAP ID Instructions, cont'd.

7) You are now on the Account Information Primary Contact Information page.

Continue to fill in the required fields



QUESTIONS?

If you have questions about the Project Packet, please ask!

Contact Emily at e.finn@yale.edu with any questions.