Healthy Weight Measures

National Improvement Partnership Network

These measures were prepared by AcademyHealth under contract with the National Improvement Partnership Network (NIPN)
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Introduction

As a step towards strengthening the reporting of Improvement Partnership (IP) outcomes, the National Improvement Partnership Network (NIPN) established a set of standard process measures for IPs. Establishing a set of core measures for each topic area is important for standardizing and measuring improvement across all IPs, and to aid in the reporting of outcomes and impact. The first four children and adolescent core measures for obesity are the Healthcare Effectiveness Data and Information Set (HEDIS)[1] measures concerning weight assessment and counseling specifications for nutrition and physical activity. The remaining measures are based on specifications of care from the Centers for Disease Control and Prevention (CDC), Bright Futures, the American Academy of Pediatrics (AAP), the U.S. Preventive Services Task Force, and the National Heart, Lung, and Blood Institute (NHLBI).[2,3]

These measures were developed in collaboration with IPs involved in NIPN, especially the IPs in Vermont, Oregon and Maine. They were selected because their measures are relevant, feasible and measurable.

Measures

Measures #1-7 are *core measures* for each IP healthy weight initiative. NIPN recommends that each IP initiating a healthy weight improvement project use, at a minimum, Measures #1-7 for tracking process data. Additional recommended measures #8-15 are provided for IPs that wish to more fully evaluate the impact of healthy weight initiatives.

Measures #1-9 are screening and prevention measures for all children and adolescents regardless of weight status, while measures #10-15 are diagnostic and treatment measures for those children and adolescents who are already overweight or obese.

Please note that the measures are categorized as “core” and “additional” only in terms of selecting what to measure in a healthy weight initiative. They terms “core” and “additional” are not meant to define what should happen at the clinical level or the standard of care.

Data Sources

Data for the measures included in this document can be obtained from:

- Conducting chart reviews
- Practices’ electronic health record (EHR)
- Claims for some measures if available

[1] National Committee for Quality Assurance (2012). Healthcare Effectiveness Data and Information Set: Technical Specifications for Health Plans. Volume 2.

[2] Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents: Summary Report. Peds 126:Suppl 6 (S1-S44) Dec 2011.

[3] Expert Committee Recommendations on the Assessment, Prevention, and Treatment of Child and Adolescent Overweight and Obesity, 2007: An Implementation Guide from the Childhood Obesity Action Network, NICHQ

Sampling Strategy

Based on collective experience and the methodology referenced below, many IPs approach data collection in the following manner. Data should be collected from 30 charts at the beginning of the project and at the end of the project (pre- and post-test data), with 10 charts selected for at least two review periods (10 charts reviewed one-third of the way through the project and then 10 charts reviewed two-thirds of the way through the project period) to gauge progress.[4] Many sites select 10 charts for review each month of the project, in order to increase the number of Plan-Do-Study-Act (PDSA) cycles and are able to demonstrate achievement gained by the project's end.

Target Goals

IPs and participating practices should agree on target goals for their healthy weight project. For core process measures (#1-7), sites should aim for achieving a high target goal, between 60% or 80% of each targeted measure, depending on baseline, since these are either HEDIS measures, measures recommended by Bright Futures, or measures recommended by the NHLBI and the US Preventive Services Taskforce. Measures #8-9 are newer recommendations, and may have lower baselines, so IPs should choose their targets accordingly.

The measures for overweight/obese patients (#10-15) are newer measures and IPs should choose the ones that make the most sense for their population. If practices are already doing well with core measures #1-7 for all patients, it would be worthwhile to choose from Measures #10-15 to improve care for patients who are already overweight or obese.

One method for choosing target goals for outcome measures is to adapt a method developed by the Minnesota Department of Health's Quality Incentive Payment System[5] and used by the Oregon Health Authority.[6] This methodology "requires participants to have had at least a 10 percent reduction in the gap between its baseline and the benchmark to qualify for incentive payments."[7] For example, if at baseline, a practice performs 50% on a particular measure, the IP may assign a target of 75%. There is a 25% difference between the baseline and the target, and the practice must reduce this gap by 10%, or by 2.5 % points (25 x 0.10) to meet the improvement target. In this example, the practice must improve to 52.5% to meet the improvement target.

Oregon has added improvement "floors" to cases where the improvement target is minimal. Under this option, the IP could institute a floor of 1 to 3 percentage points improvement, depending on the measure. In this example, if the IP chose an improvement floor of 3 percentage points, the practice would need to improve from 50% to 53% to meet the improvement target, rather than to 52%.

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[4] Thirty charts were chosen based on sample size calculations using the following assumptions: 1) Power of 0.80; 2) P-value of 0.05; Standard deviation of 0.50; and 3) Effect size of 0.40. The calculation uses the sample size formula provided in, "Kadam, P., & Bhalerao, S. (2010). Sample size calculation. International journal of Ayurveda research, 1(1), 55" and the assumptions were based on results reported in, "Shaw, J. S., Norlin, C., Gillespie, R. J., Weissman, M., & McGrath, J. (2013). The National Improvement Partnership Network: State-Based Partnerships That Improve Primary Care Quality. Academic pediatrics, 13(6), S84-S94." If estimated effect sizes are below 0.36, a larger sample size will be necessary.

[5] Additional details on this report are available online here.

[6] Oregon Health Authority. June 20, 2013. CCO Incentive Measures Methodology. Available here.

[7] Oregon Health Authority. June 20, 2013. CCO Incentive Measures Methodology; page 3.

Definitions

Body Mass Index (BMI) is a statistical measure of a person's weight scaled according to height.

BMI Percentile is the percentile ranking based on the CDC's BMI-for-age charts. This ranking indicates the relative position of the person's BMI number among others of the same gender and age**.**

Counseling for Physical Activity documentation in the medical record**,** which must include a note indicating the date and at least one of the following:

- Discussion of current physical activity behaviors (e.g., exercise routine, participation in sports or other physical activities.)
- Checklist indicating physical activity was addressed
- Counseling or referral for physical activity
- Person received educational materials on physical activity
- Anticipatory guidance for physical activity

Counseling for Nutrition documentation in the medical record**,** which must include a note indicating the date and at least one of the following:

- Discussion of current nutrition behaviors (e.g., eating habits, dieting behaviors)
- Checklist indicating nutrition was addressed
- Counseling or referral for nutrition education
- Person received education materials on nutrition
- Anticipatory guidance for nutrition

Weight Classification documentation in the medical record, which must include one of the following categories:

1. Underweight: BMI in less than 5th percentile
2. Normal weight: BMI in the 5th to less than the 85th percentile
3. Overweight: BMI in the 85th to less than the 95th percentile
4. Obese: BMI percentile equal to or greater than the 95th percentile[8]

Readiness to Change documentation *in the medical record*. As noted in Bright Futures: "Before a person is ready to change a behavior, he or she needs to be aware of a problem, then plan to address it, and finally actually begin the new behavior. A health professional can help children, adolescents and their families move along these stages rather than prescribe a new behavior to those who are not ready."[9] Questions to address readiness for change should be directed to the patient and/or family's level of concern, as well as their level of confidence, such as:

- "On a scale of 1 to 10, with 1 being not at all concerned and 10 being extremely concerned, how concerned are you about your/your child's weight?
- "On a scale of 1 to 10, with 1 being not at all confident and 10 being extremely confident, how confident are you in you/your family's ability to make changes in behaviors of eating, nutrition or activity?"[10]

Self-Management Goal Documentation. An effective self-management program allows patients to have a central role in determining their care and fosters a sense of self-responsibility for their own health and well-being. Collaborative self-management programs encourage dialogue and agreements between the provider and patient/family that define problems, set priorities, establish goals, create treatment plans, and solve problems.[11]

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[8] Department of Health and Human Services. Centers for Disease Control and Prevention. "Body Mass Index: Considerations for Practitioners" available at: http://www.cdc.gov/obesity/downloads/bmiforpactitioners.pdf

[9] Bright Futures. http://brightfutures.aap.org

[10] American Academy of Pediatrics, Tennessee chapter available at : http://www.tnaap.org/healed/guidelines.htm

[11] Community Health Association of Mountain Plains States (CHAMPS) at: www.champsonline.org. See Patient Self Management tools at: http://www.champsonline.org/ToolsProducts/ClinicalResources/PatientEdTools/PatientSelfMgmtTools.html#printable

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Core Process Measures

The core process measures #1-7 below are recommended for use in all healthy weight quality improvement initiatives. These measures are screening and prevention measures for all children and adolescents regardless of weight status.

Measure	#	Measure Steward	Core Measure Definitions	Ages	Target Goal
Body Mass Index (BMI) Percentile documentation	**1**	Based on HEDIS (WCC)	Percentage of children aged 2 to 21 who had a Well Child visit with a PCP (Primary Care provider) and who had the following during the defined measurement period: Body Mass Index (BMI) Percentile documentation. **Numerator:** Number of children aged 2 to 21 who had a Well Child visit with a PCP and who had Body Mass Index (BMI) Percentile documentation during the defined measurement period. **Denominator:** Number of children/youth aged 2 to 21 years of age who had a Well Child visit with a PCP during the defined measurement period.	2 to 21	
Counseling for Nutrition documentation	**2**	Based on HEDIS (WCC)	Percentage of children aged 2 to 21 years of age who had a Well Child visit with a PCP and who had the following during the defined measurement period: Counseling for Nutrition documentation in the medical record**,** which must include a note indicating the date and at least one of the following: ▪ Discussion of current nutrition behaviors (e.g., eating habits, dieting behaviors) ▪ Checklist indicating nutrition was addressed ▪ Counseling or referral for nutrition education ▪ Person received education materials on nutrition ▪ Anticipatory guidance for nutrition **Numerator:** Number of children 2 to 21 years of age who had a Well Child visit with a PCP and who had Counseling for Nutrition documentation in the medical record during the defined measurement period. **Denominator:** Same as # 1 above	2 to 21	
Counseling for Physical Activity documentation	**3**	Based on HEDIS (WCC)	Percentage of children aged 2 to 21 years of age who had a Well Child visit with a PCP and who had the following during the defined measurement period: Counseling for Physical Activity documentation in the medical record, which must include a note indicating the date and at least one of the following: ▪ Discussion of current physical activity behaviors (e.g., exercise routine, participation in sports or other physical activities.) ▪ Checklist indicating physical activity was addressed ▪ Counseling or referral for physical activity ▪ Person received educational materials on physical activity ▪ Anticipatory guidance for physical activity	2 to 21	

<table>
<tr><th>Measure</th><th>#</th><th>Measure Steward</th><th>Core Measure Definitions</th><th>Ages</th><th>Target Goal</th></tr>
<tr><td></td><td></td><td></td><td>Numerator: Number of children aged 2 to 21 years of age who had a Well Child visit with a PCP and who had Counseling for Physical Activity documentation in the medical record during the defined measurement period.

Denominator: Same as #1 above.</td><td></td><td></td></tr>
<tr><td>Wrap-up of BMI Percentile, Counseling for Nutrition and Counseling for Physical Activity documentation</td><td>4</td><td>Based on HEDIS (WCC)</td><td>Percentage of children aged 2 to 21 years who had a Well Child visit with a PCP and who had wrap-up documentation in the medical record during the defined measurement period, indicating the date of ALL of the following:
1) BMI Percentile AND
2) Counseling for Nutrition AND
3) Counseling for Physical Activity

Numerator: Number of children aged 2 to 21 years who had a Well Child visit with a PCP and who had wrap-up of BMI Percentile, Counseling for Nutrition and Counseling for Physical Activity documentation during the defined measurement period.

Denominator: Same as #1 above.

Note: The HEDIS measure is only counted for patients 3 to17</td><td>2 to 21</td><td></td></tr>
<tr><td>Weight classification documentation</td><td>5</td><td>CDC</td><td>Percentage of children aged 2 to 21 who had a Well Child visit with a PCP and had weight classification documentation based on Body Mass Index (BMI) Percentile according to the following categories:
<table>
<tr><th>Percentile Ranking</th><th>Weight Status</th></tr>
<tr><td>Less than 5th percentile</td><td>Underweight</td></tr>
<tr><td>5th percentile to less than 85th percentile</td><td>Healthy Weight</td></tr>
<tr><td>85th percentile to less than 95th percentile</td><td>Overweight</td></tr>
<tr><td>Equal to or greater than the 95th percentile</td><td>Obese</td></tr>
</table>
Numerator: Number of children aged 2 to 21 who had a Well Child visit with a PCP and had weight classification documentation during the defined measurement period.

Denominator: Same as #1 above.</td><td>2 to 21</td><td></td></tr>
<tr><td>Blood Pressure Screening documentation</td><td>6</td><td>AAP/ Bright Futures</td><td>Percentage of children aged 3 to 21 years who had a Well Child visit with a PCP and who had Blood Pressure Screening documentation during the defined measurement period.

Numerator: Number of children aged 3 to 21 years who had a Well Child visit with a PCP and who had Blood Pressure Screening documentation during the defined measurement period.

Denominator: Number of children/youth aged 3 to 21 years of age who had a Well Child visit with a PCP during the defined measurement period.</td><td>3 to 21</td><td></td></tr>
</table>

Measure	#	Measure Steward	Core Measure Definitions	Ages	Target Goal
Blood Pressure Percentile documentation	**7**	AAP/ Bright Futures	Percentage of children aged 3 to 21 years who had a Well Child visit with a PCP and who had Blood Pressure Percentile* documentation during the defined measurement period. **Numerator:** Number of children aged 3 to 21 years who had a Well Child visit with a PCP and who had Blood Pressure Percentile documentation during the defined measurement period. **Denominator:** Same as #6 above. **Note: For further details, see blood pressure Percentile chart in footnote #2 (Expert Panel Report)*	3 to 21	

Additional Recommended Process Measures

In order to more fully evaluate progress and measure the impact of healthy weight initiatives, additional recommended measures #8-15 are provided below. Measures #8-9 apply to all children and adolescents.

Measure	#	Measure Steward	Additional Recommended Process Measure Definitions	Ages	Target Goal
Advice regarding Media Exposure	**8**	AAP	Percentage of children aged 2 to 21 who had a Well Child visit with a PCP and who had advice regarding Media Exposure during the defined measurement period. **Numerator:** Number of children aged 2 to 21 who had a Well Child visit with a PCP and who had advice regarding Media Exposure during the defined measurement period. **Denominator:** Same as #1 above.	2 to 21	
Universal Lipid Screening	**9**	Based on NHLBI/AAP	Percentage of children aged 9 to 11 and 17 to 21 who had a Well Child visit with a PCP and who had appropriate Lipid Screening (non-HDL cholesterol or fasting lipid profile) measured at least once during the age interval. **Numerator:** Number of children aged 9 to11 and 17 to 21 who had a Well Child visit with a PCP and who had appropriate Lipid Screening measured at least once during the age interval. **Denominator:** Number of children aged 9 to11 and 17 to 21 who had a Well Child visit with a PCP during the defined measurement period	9 to 11 and 17 to 21	

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Measures for Patients Identified as Overweight/Obese

Measures #10-15 are recommended for patients identified as overweight or obese.

Measure	#	Measure Steward	Additional Recommended Process Measure Definitions	Ages	Target Goal
Readiness to change documented	**10**	Bright Futures	Percentage of children aged 2 to 21 who had a Well Child visit with a PCP AND who are defined as overweight or obese, who had readiness to change (for patient and/or family)documented during the defined measurement period: **Numerator:** Number of children aged 2 to 21 who had a Well Child visit with a PCP, AND who are defined as overweight or obese, who had readiness to change documented during the defined measurement period. **Denominator:** Number of children aged 2 to 21 who had a Well Child visit with a PCP during the defined measurement period, AND who are defined as overweight or obese	2 to 21	
Self-management goal documented	**11**		Percentage of children aged 2 to 21 who had a Well Child visit with a PCP AND who are defined as overweight or obese, who had a self-management goal (for patient and/or family) documented during the defined measurement period. **Numerator:** Number of children aged 2 to 21 who had a Well Child visit with a PCP and who are defined as overweight or obese, who a self-management goal had documented during the defined measurement period. **Denominator:** Same as # 10 above.	2 to 21	
Fasting Lipid Profile for Obese Patients aged 2 to 8	**12**	Based on NHLBI/ AAP	Percentage of children aged 2 to 8 with a BMI $\geq$ 95%* who had a Well Child visit with a PCP and who had a Fasting Lipid Profile** measured within the last year***. **Numerator**: Number of children aged 2 to 8 with a BMI $\geq$ 95% who had a Well Child visit with a PCP and who had a Fasting Lipid Profile** measured within the last year. **Denominator**: Number of children aged 2 to 8 with a BMI $\geq$ 95% who had a Well Child visit with a PCP during the defined measurement period. **Note that there are risk factors other than elevated BMI that would prompt obtaining a Fasting Lipid Profile, such as Other Health Condition (diabetes, hypertension) OR Family History (FH of MI, angina, CABG/stent/angioplasty at <55 years in a male first degree relative and <65 years in a female first degree relative, OR parent with TC>240 or parent with dyslipidemia).* ***Note that current recommendations are Fasting Lipid Profile, but obtaining a non-fasting lipid profile and repeating a fasting study if abnormal may be appropriate for some populations.* *** There is currently no recommendations for when to repeat the test if the results are abnormal. It is recommended that there be documentation of a plan about how to follow up the abnormal result for that individual patient.*	2 to 8	

Measure	#	Measure Steward	Additional Recommended Process Measure Definitions	Ages	Target Goal
Fasting Lipid Profile for Overweight and Obese Patients aged 12 to 21	**13**	Based on NHLBI/ AAP	Percentage of children aged 12 to 21 with a BMI ≥ 85%* who had a Well Child visit with a PCP and who had a Fasting Lipid Profile** measured within the last year***. **Numerator**: Number of children aged 12 to 21 with a BMI ≥ 85% who had a Well Child visit with a PCP and who had a Fasting Lipid Profile** measured within the last year. **Denominator**: Number of children aged 12 to 21 with a BMI ≥ 85% who had a visit with a PCP during the defined measurement period. **See notes in #12 above.* ***See notes in #12 above.* ****See notes in #12 above.*	12 to 21	
Fasting Plasma Glucose	**14**	Based on NHLBI/ AAP	Percentage of children ≥ 10 years old (or at onset of puberty, if younger than 10) with BMI ≥ 85% **PLUS** any 2 of the following: ▪ Family history of Type 2 Diabetes Mellitus in 1st or 2nd degree relative ▪ Race/ethnicity: Native American, African American, Latino, Asian American, Pacific Islander ▪ Signs of insulin resistance (acanthosis nigricans, hypertension, dyslipidemia, polycystic ovary syndrome) who have been seen for a Well Child visit and have had a Fasting Plasma Glucose measured in the past 2 years (can substitute Hgb A1C if patient is not fasting)* **Numerator**: Number of children ≥ 10 years old with the above risk factors who have been seen for a Well Child visit by the PCP during the defined measurement period who have had a fasting plasma glucose (or Hgb A1C) measured in the past 2 years **Denominator:** Number of children ≥ 10 years old with the above risk factors who have been seen by the PCP during the defined measurement period. **Note: For further details, see footnote #2 (Expert Panel Report)*	≥10	
LFTs (screening for Non-Alcoholic Fatty Liver Disease)	**15**	Based on NHLBI/ AAP	Percentage of children ≥ 10 years old AND BMI ≥ 95% (or BMI ≥ 85% with other risk factors) who were seen for a Well Child visit by the PCP during the measurement period and had LFTs (ALT and AST) measured in the last 2 years* **Numerator**: Number of children ≥ 10 years old AND BMI ≥ 95% (or BMI ≥ 85% with other risk factors) who were seen in the PCP office in the measurement period and had LFTs (ALT and AST) measured in the last 2 years **Denominator:** Number of children ≥ 10 years old and BMI ≥=95% (or BMI ≥=85% with other risk factors) who were seen in the PCP office during the defined measurement period. **Note: For further details, see footnote #2 (expert Panel Report)*	≥10	