State of Alaska

Growth Screening & Referral: Guidelines for School Nursing Services

Division of Public Health

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INTRODUCTION

It is the position of the National Association of School Nurses (NASN) that the registered professional school nurse has the knowledge and expertise to address growth abnormalities, including overweight and obesity, in youth in schools. The school nurse collaborates with students, families, school personnel, and healthcare providers to promote healthy weight and identify youth who may be at risk for health problems. The school nurse can refer and follow up with students who may need to see a healthcare provider. The school nurse is also a vital member of a school wellness team as they educate and advocate for changes in school and district policies that promote a healthy lifestyle for all students.[1, 2]

Growth measurements directly correlate to nutritional status and can indicate whether a child's health and well-being are at risk. Deviations from normal growth patterns such as abnormal growth in stature or poor weight gain can be predictors of a variety of medical conditions. These include malnutrition, chronic illness psychosocial concerns, hormonal disorders, or syndromes. Growth that deviates above the norm (e.g. increased BMI) can also be indicative of or lead to medical problems with adverse consequences.[3] Early recognition and treatment are essential for both physical health and school success.[2]

Childhood obesity is the predominant public health threat facing Alaska today. One out of three Alaskan children are overweight or obese.[4] Obese children today suffer from serious conditions that used to occur only in adulthood, including type 2 diabetes, high blood pressure and high cholesterol. They are at increased risk for fatty liver disease, joint problems, asthma and sleep apnea.[5, 6] Overweight and obese children and adolescents have an increased risk of being overweight or obese as adults. Childhood obesity is also associated with greater risk for psychological problems, social stigmatization, discrimination and poor academic performance.[4] Health scientists project that, due to obesity, today's children may be the first generation to have a shorter life expectancy than their parents.[7]

BACKGROUND

In 2011, the State of Alaska Division of Public Health published Measuring Height/Weight and Calculating BMI: Guidelines for Schools to provide school staff with the necessary information and tools to successfully and accurately collect heights and weights and calculate BMI percentiles for the purpose of surveillance and/or screening.

Before a school or school district decides to adopt a growth screening or surveillance program, an assessment of the practices, policies and available resources that promote physical activity and healthy nutrition should be completed. A checklist for this assessment is offered in Appendix A.

Please note: The Growth Screening Guidelines for School Nursing Services is offered as best practice information for Alaska, from which school district policy and procedures may be based. They are not mandatory. Each school district may adopt the standards that best meet the needs of their student population.

Surveillance Programs

Surveillance programs assess the weight status of the school population to identify the percentage of students who are potentially at risk for weight-related health problems. Surveillance data can be used to create awareness among school and health personnel, community members and policy makers of the extent of the problem as well as measure the effectiveness of school policies, programs and practices aimed to improve school health.

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Screening and Referral Programs

Screening and referral programs assess the weight status of the individual students to identify those at risk and provide parents with information to help them take appropriate action. Because screening and referral programs go beyond obtaining measurements and compiling data, this document is offered as a toolkit for school nurses and other health professionals working in schools to assess the growth status of individual students. A model standard and procedure for identifying students and providing referrals for those who may be at risk is included. School nurses can use this guide as a resource when looking for ways to assist students who are overweight or obese, and their parents, as well as know when to refer for other growth abnormalities. Resources are identified to promote healthy diet and physical activity habits in all children as prevention and early intervention are crucial to reducing the number of children and adolescents at risk for serious health consequences.

Definition of Growth for Children and Adolescents

Growth, for children and adolescents, refers to an increase in size of an organ or structure. The change is measurable, such as an increase in height and weight. The overall picture of a child's increasing height and weight has implications for nutritional needs, developmental expectations and other physiological changes. The school nurse is an ideal healthcare professional to promote normal growth and identify potential alterations in growth and development.[8]

Growth charts consist of a series of percentile curves that illustrate the distribution of selected body measurements in children and have been used by pediatricians, nurses and parents to track the growth of infants, children and adolescents in the U.S. since 1977. In 2000, growth charts were revised by the U.S. Centers for Disease Control and Prevention (CDC) to more accurately reflect the growth of children and adolescents. To monitor a child's growth from ages two through 19, selection of the appropriate CDC charts should be based on age and sex and include: weight-for-age, stature-for-age, and BMI-for-age.[9]

Children ages three to six grow an average of 2.75 inches and gain 4.5 pounds per year. By age six boys and girls average 45 inches and weigh 45 pounds. Boys and girls from age six until puberty grow in height approximately two to three inches per year. The increase in height typically precedes the increase in weight.

After age six, girls gain six to eight pounds per year until puberty begins, at which time four pounds per year can be expected. Boys average a weight gain of four to six pounds per year during the elementary years; around age 10 their growth rate increases to add 10 to 12 pounds per year. From ages 10 to 14, 39 pounds for girls and 50 pounds for boys is the typical weight gain.[8] For weight, between the 5th and 85th BMI-for-age percentiles are considered to be in the healthy weight range. Above 85th percentile, the child may be overweight (see below, definition of overweight and obesity). Below the fifth percentile, a child may be underweight.

Children will generally follow their own curve on the growth chart. If a child is identified in the 75th percentile, he or she will likely remain in that percentile during periods of growth. Children should be referred to their healthcare provider if the school nurse detects a significant change in either the height or weight percentile from the student's normal growth pattern.[8]

Definition of Overweight and Obesity in Children and Adolescents

Body Mass Index (BMI), the ratio of weight in kilograms to height in meters squared, has been determined to be a reliable indicator of body fat for most children and teens. BMI does not measure body fat directly but research has shown it is correlated to more direct measures of body fat (i.e., skin fold thickness, bioelectrical impedance, under water weighing and duel energy X-ray absorptiometry).[10]

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A child's weight status is determined using an age- and sex-specific percentile for BMI rather than the BMI categories used for adults, because children's body composition varies with age and varies between boys and girls. The Centers for Disease Control and Prevention (CDC) growth charts are used to determine the corresponding BMI for age and sex percentile.

For children and adolescents (2-19 year of age):

- Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile for children of the same age and sex.
- Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex.[10]

Accounting for Difference in Race/Ethnicity

Although on average there are differences by race/ethnicity in the association of body mass index (BMI) with percent body fat, the obesity prevalence differences are in some cases larger than one might expect based on measurement differences. Also relevant, is that trends in the prevalence of obesity for certain race and ethnic groups continue to increase.[11]

Additionally, some race and ethnic groups face disproportionate health conditions that are related to overweight and obesity. It is important to identify these children and adolescents early in life and help decrease risk factors. Data on type 2 diabetes incidence confirm that obesity is of relatively greater concern in black and Hispanic compared to non-Hispanic white children. Incidence is 26.7/100,000 in African Americans, 17.2/100,000 in Hispanics, and only 4.5/100,000 in non-Hispanic whites ages 10-19 years.[12]

IMPLEMENTING A GROWTH SCREENING AND REFERRAL PROGRAM

Before implementing a growth screening and referral program the school nurse should assure a safe and supportive school environment, and notify school staff, community healthcare providers, and parents of the growth screening program. These and other suggested steps to consider before implementing a school-based student growth screening or surveillance program are found in Appendix A.

Assure a Safe and Supportive Environment

School-based growth screening programs must establish procedures that do not stigmatize students or lead to harmful behaviors. Before launching a height and weight measurement program, schools should attempt to minimize potential harm and maximize benefits by:

- assuring a safe and supportive environment for students of all body sizes (universal bullying – prevention programs that address weight discrimination, curricula fostering acceptance of healthy weight, professional development and resources in place for staff)
- implementing a comprehensive set of evidence-based strategies to promote physical activity and healthy eating in the school setting
- establishing safeguards that ensure respect for student privacy and confidentiality, protect students from potential harm, and increase the likelihood of a positive impact[13]

While it is important that height and weight measurements be done accurately, it is equally important that measuring and weighing be done in a respectful and sensitive manner. School districts who establish height/weight/BMI screening and/or surveillance programs should adhere to the following safeguards:

- ✓ introduce the program to school staff and community members and obtain parental consent
- ✓ train staff in administering the program (ideally, implementation will be led by a highly qualified staff member, such as the school nurse)

- ✓ establish safeguards to protect student privacy
- ✓ obtain and use accurate equipment
- ✓ accurately calculate and interpret the data
- ✓ develop efficient data collection procedures
- ✓ avoid using BMI results to evaluate student or teacher performance
- ✓ regularly evaluate the program and its intended outcomes and unintended consequences[13, 14]

Growth should be tracked annually to ensure that students are within their expected norms. The equipment and procedures for measuring height and weight are outlined in the State of Alaska Measuring Height and Weight and Calculating BMI Guidelines for Schools, 2011 found at: http://dhss.alaska.gov/dph/wcfh/Documents/school/assets/MeasuringBMI.pdf. These height and weight procedures are also available in this document in the model standard found in Appendix B.

Notify School Staff and Community Healthcare Providers

It is essential to communicate the goals and plans for the growth screening program with administrators, staff and community healthcare providers before commencing with screening. A clear understanding of the intent and process, confidentiality measures, referral protocols and communication strategies will ensure more successful implementation. Sample letters are provided in Appendix C and Appendix D.

Notify Parents of Growth Screening Program

Ensuring that parents have the ability to consent or opt out of the growth screening program for their child as well as offering a clear and respectful explanation of the results and appropriate follow up actions is important.[14] Sample pre-screening notification letters for parents are found in Appendix E and Appendix F. Appendix G contains a sample opt-out form.

COMMUNICATING RESULTS WITH PARENTS AND STUDENTS

Communicating with parents and guardians is an important component of the growth screening program.

Providing Parents Growth Screening Results

If providing growth screening results, both normal and abnormal results, there are two methods. The first method is to provide the result using the sample form found in Appendix I. The other option is to provide growth screening results along with other health screening outcomes such as vision and hearing. Providing parents all their child's health screening results in a letter helps families learn about the district's health promotion activities. A sample letter notifying parents of all health screening results is available in Appendix J. Regardless of the method for providing results to parents, utmost care must be taken to protect the privacy and confidentiality of the student. Screening results should never be handed to the student or sent home in the student's backpack. More information on follow-up conversations with parents and students can be found in the "Healthy Lifestyles Promotion" section below.

Referring to a Healthcare Provider

Communication to parents or guardians that their child might have a growth concern should be handled in a sensitive, culturally relevant manner. A recent study on parents' perceptions of obesity indicated that parents would prefer a letter from the school nurse informing them of their child's screening results accompanied by an easy-to-read explanation of BMI. In addition, parents indicated they only want suggestions for weight control if they request it, but a referral to a healthcare provider may be appropriate. School nurses report

greater parental acceptance when information is included about recommendations for dietary intake and physical activity, as well as resources in the community.[8]

Referral Criteria [3, 15, 16]

Referrals to a healthcare provider for further evaluation of a potential growth problem should be considered when students have:

- A BMI ≥95th percentile
- A BMI 85th to 94th percentile, if they have any of the following:
  - a family history of diabetes, early cardiovascular disease, parental obesity, hypercholesterolemia
  - elevated blood pressure (see Appendix L for blood pressure values requiring further evaluation)
  - evidence of acanthosis nigricans (see Appendix M for acanthosis nigricans information)
  - evidence of other health concerns potentially related to unhealthy weight (see Appendix K for Healthy Weight Intake Form)
  - personal concern about their weight
- A BMI <5th percentile or a recent unexplained decrease in BMI percentile
- A large shift in percentiles (change across two or more percentiles), increase or decrease (i.e., not following individual growth curve)
- No growth progress on the BMI-for-age-and-sex, CDC stature or weight-for-age growth charts
  - Students who decline in stature percentiles or present with short stature (<5%) may need to be referred for further evaluation (i.e., for endocrinopathies, pubertal delay, boney dysplasias, or syndromes. Pubertal delays may be genetic/familial or be due to an underlying medical condition).
  - Students with a drop in weight percentiles by more than one large percentile line or who present with extreme underweight warrant further investigation (i.e. for malabsorption, renal disease, cardiac disorders, neurologic and pulmonary disorders, food or feeding abnormalities, family or environmental difficulties and chronic infections).

Obesity-related Medical Conditions that Influence Urgency of Referral

Because obesity-related medical conditions affect almost every organ system in the body, further information from the parent and/or student may assist in determining the urgency of referral to a healthcare provider for evaluation:

- **Sleep problems** – sleep apnea is one of the most serious problems that can occur; parents may notice loud snoring with pauses in breathing, restless sleep, daytime sleepiness.
- **Respiratory problems** – shortness of breath and exercise intolerance may be symptoms of asthma which occurs more frequently among obese children.
- **Gastrointestinal problems** – several common pediatric gastrointestinal problems including gastroesophageal reflux disease and constipation are exacerbated by obesity.
- **Endocrine disorders** – Type 2 diabetes mellitus is one of the most serious complications of childhood obesity. Current recommendations are for screening with fasting blood glucose test when a child is overweight and has additional risk factors beginning at puberty or age 10. Infrequent menses may be a sign of polycystic ovary syndrome in young women. Obese children tend to begin puberty earlier than children of normal weight. When puberty onset is truly premature (girls < age 7, boys < age 9), they may be at risk for endocrine disorders.

- **Nervous systems disorders** – headaches with photophobia can be a sign of a rare tumor where obesity is a risk factor and can lead to blurred or double vision and vision loss.
- **Cardiovascular risk factors** – blood pressure should be assessed as 13% of overweight children have elevated systolic blood pressure and 9% have elevated diastolic pressure. Lipid level abnormalities are among the most common obesity-related medical conditions.
- **Psychosocial disorders** – flat affect, anxiety, body dissatisfaction, excess eating, fatigue and difficulty sleeping can be signs of depression, which may be a co-morbidity of obesity. Bullying, low self-esteem, suicidal ideation, sexual and physical abuse, and school avoidance are other concerns associated with obesity. Youths with binge eating or purging behavior should be evaluated for eating disorders.
- **Orthopedic disorders** – visible bowing of the lower extremity, hip or knee pain and pain with walking may be indicative of conditions occurring more often among obese children. Fractures and musculoskeletal discomfort are reported more often in overweight children and adolescents.
- **Skin conditions** – acanthosis nigricans (occurring in 10% of obese white children and 50% in obese black children) may be associated with hyperinsulinemia. Chronic irritation and infection of skin folds especially in the lower abdomen and axilla may require systemic antibiotic therapy.
- **Genetic syndromes** – genetic testing may be a consideration for the obese child who is short and has a developmental delay.[6]

The healthy weight intake form, found in Appendix K can assist the school nurse in further evaluating a student whose weight status falls outside the norm in order to determine urgency of referral to a healthcare provider. A healthy lifestyles screening form is another tool for assessment of the family and student's current environmental factors potentially contributing to unhealthy weight. This tool is available in Appendix P. A sample healthcare provider referral form is found in Appendix N. Students diagnosed with obesity-related health concerns that impact safety, learning or attendance, should have an individualized healthcare plan (IHP) developed in collaboration with the student, parents and healthcare provider to outline the goals and interventions needed at school. A sample IHP is found in Appendix Q.

HEALTHY LIFESTYLES PROMOTION

The school nurse can provide families and students individual health advice and engage in a variety of school health promotion activities.

Talking to Students about Growth Screening Results

Some students may wish to discuss their screening results with the school nurse. This discussion should take place in a space that respects the student's privacy rather than during the initial screening. It is important to ask open-ended questions. The section on Motivational Interviewing may be helpful in structuring this discussion. As part of the assessment, the student's nutritional status, eating habits and physical activity patterns should also be evaluated; along with identifying risk factors for overweight/obesity, diabetes and cardiovascular disease within the family. Two suggested forms for facilitating this assessment are the Healthy Lifestyle Screening (Appendix P) and the Healthy Weight Intake Form (Appendix K).

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Helping Parents Talk with their Children about Growth Screening Results

When parents inquire how best to talk with their child about their weight there is an excellent guide created for parents with children between 7-11 years of age. The link to *Weigh In, Talking to Your Children About Weight + Health* and other resources for parents are available in Appendix R.

Individual Health Promotion

The most successful intervention for promoting a healthy weight is prevention. School level prevention efforts are highlighted below. Successful prevention programs for individuals:

- Target both parents and children for behavior change
- Emphasize the role of parents influence in young children's behaviors
- Use behavioral modification and education (not just education)
- Include strategies encouraging:
    - healthy eating behaviors
    - regular physical activity, essential to long term weight control
    - reduction of sedentary behaviors (e.g. watching television, non-academic use of the computer or other electronic devices)
- Maintain the treatment program over a long period of time[16]

School nurses can take numerous actions to promote healthy weight in children. Universal messaging strategies can be reinforced with families and students such as the 5-2-1-0 goals (see parent handout in Appendix P):

- ✓ 5 servings of fruits and vegetables daily
- ✓ 2 or less hours of screen time daily
- ✓ 1 or more hours of physical activity daily
- ✓ 0 sugary drinks daily

Motivational Interviewing

Motivational Interviewing (MI) is a technique that has shown promising results in terms of self-reported behavior changes for obesity prevention and is recommended by the American Academy of Pediatrics.[17] Motivational interviewing is an "empathic, person-centered counseling approach that prepares people for change by helping them resolve ambivalence, enhance intrinsic motivation and build confidence to change."[18]

Motivational Interviewing techniques can be helpful in a variety of situations, from phone consultations to help encourage small steps of action when sharing initial results with families to more in-depth individual sessions creating a follow-up plan with students and their families. Motivational Interviewing techniques are ideally learned and practiced in a workshop setting; nursing supervisors are encouraged to consider incorporating MI training into their professional development or staff in-service days. Nevertheless, this toolkit highlights some simple concepts to get started.

Open questions, affirmation, reflective listening and summary reflections (OARS) are the basic interaction techniques and skills that are used in the motivational interviewing approach. The goal for motivational interviewing used in helping overweight or obese youth is not weight loss or decrease in BMI, but rather

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behavior change to promote healthy lifestyles. The youth/family determines what they want to focus on and the healthcare provider (school nurse) uses reflective listening as the core intervention to guide them toward change. Other strategies include:

- Asking permission: Asking the parent and student's permission to begin a conversation about weight or healthy lifestyle discussion communicates respect. Example: "Can we talk about your daughter's most recent BMI measurement?" or "I noticed there has been a change in your weight since the last school year. Do you mind if we talk about some healthy changes you can make?"
- Evoking Change Talk: Rather than being told why they should make changes, eliciting change talk allows the student and/or parent to voice their concerns and provides the nurse with insights into what is personally important for change. Example: "What, if any, concerns do you have about your child's weight?" or "What would happen if you did not make changes to your current diet and exercise habits?"[15]

It is important to maintain sensitivity regarding overweight/obesity. Terms to consider:[19]

Instead of	Consider
Change	Small steps
Obesity	Overweight
Ideal weight	Healthier weight
Personal improvement	Family progress
Focus on weight	Focus on lifestyle
Diets of "bad foods"	Healthier food choices
Exercise	Physical activity

School nurses are encouraged to seek training and practice the use of motivational interviewing with students and families to assist them in making decisions related to healthy lifestyles, not just those related to unhealthy weight. For a tip sheet on motivational interviewing principles see Appendix O. To learn of further training opportunities, see Appendix R.

MEASURING PROGRESS

Individual Measures for Prevention and Progress

Measuring the individual progress of weight loss or management can be a frustrating and confusing task. While the ultimate goal may be a healthier BMI, there are other important ways to measure success that should not be ignored.

Included below are some ways to track success in individual weight management efforts.

- Knowledge: Gains in knowledge about healthful eating and physical activity practices indicate progress. Knowledge can be measured by asking students the same questions at the start and end of a session or starting a session by asking about knowledge shared in previous visits. For example, ask "Do you know how many cups of fruits and vegetables you need in a day to make sure you are healthy?"
- Behavior: Positive changes in eating and physical activity behaviors indicate progress. It may take some time for changes in behavior to affect weight. For example, increasing daily physical activity by 30 minutes may not result in a decrease of BMI right away, but this should still be considered a success. Use motivational interviewing concepts to assess changes in behavior.
- Attitude: A change of attitude can also be a sign of progress. Weight management can be stressful and overwhelming, especially at the start of a program. If a student's attitude slowly goes from being

closed-off and negative to open and cheerful when discussing weight management, this should be noted as a success. Measuring attitude is subjective. Acknowledging positive attitude changes and exploring these changes with the student, is one way to learn more about the student's intentions. It helps the nurse determine what stage of change the student is in and the messages that are most appropriate to that stage of change.

- Attendance: A willingness to show up for discussions about weight management can be a sign of success. Arranging for a student/parent to meet to talk about weight management may be a difficult task. Every minute spent talking with a student about weight management is an opportunity to evoke change. Do not give up if progress is slow.[19]

School-wide Measures for Prevention and Progress

Another way to measure progress and make a positive difference is the school nurse's capacity to promote practices that impact the entire student body.

School nurses can engage in numerous other activities within the school environment and encourage the engagement of others. These may include:

- Participating as a member of the school/district wellness team/committee
- Serving as a role model of health and wellness for staff and students
- Promoting physical activity in the classroom and outside of school
- Encouraging children to walk or bike to school (where safe to do so)
- Recommending recess before lunch
- Encouraging the sale of healthy foods in vending machines and for competitive food/fundraiser activities
- Recommending nutrition and physical activity education be integrated in school curriculum
- Acting as a resource/presenter for health-related topics for classroom instruction
- Organizing physical activity and/or nutrition awareness functions within the school community
- Posting nutrition and physical activity promotion and educational materials around the school
- Providing health, nutrition, and physical activity information for school newsletters and parent materials using culturally relevant messaging[1]

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Appendix A CHECKLIST: Pre-Adoption of School Growth Screening or Surveillance Program

***Instructions*:** Before adopting a growth screening or surveillance policy, school district administration and school health services are encouraged to consider the following items. This checklist will help districts identify the pertinent steps and issues in implementing a school-based student growth screening or surveillance program. It is not necessary to check-off each bullet, but the more steps completed and issues addressed, the greater the possibility of successful implementation.

School District Administration and School Board
□ Approval and support from leadership, including School District Medical Director and/or advisor, if applicable
General Health Policies, Practices and Programs
The district has the following policies, practices and programs. Note: the CDC School Health Index is a recommended tool for assessing these policies and practices. □ District Wellness Policy □ Safe, supportive environment for students of all body types □ anti-bullying policies and programs □ curricula fostering acceptance of healthy weight □ professional development in related topics and resources in place for staff
School Wellness Team/School Health Council and Parental/Student Engagement
□The school district/schools actively maintain school wellness teams. □The school district/schools include parents and students on school wellness teams.
Community Linkages
□ The school district/schools/school nurses have identified and shared with students and families existing local community-based healthy eating, physical activity and obesity prevention efforts. □ Local healthcare providers and public health nurses are included in community linkages and will be notified initially of the growth screening and referral program and standards.
Classroom Instruction
□ School district health curriculum includes topics of healthy eating and physical activity behaviors. PE curriculum teaches skills for a lifetime of fitness. □ Health and PE instruction provided by appropriately trained school staff.
Student Growth (Height /Weight) Screening or Surveillance Practices
□ A standard (policy) and procedure for student collection of height and weights is current. □The standard includes parent/guardian pre-screening notification procedure and parental consent or ability to opt-out. □ School staff is notified of screening or surveillance program and its purpose. □ The standard contains the use and maintenance of up-to-date, accurate equipment. □ The standard includes conditions for confidentiality and privacy when conducting height/weight measurements. **If screening and referral program:** □ The standard includes a means of communicating with local healthcare providers, prior to screening, the intent to provide referrals and encourage family dialogue with their healthcare provider. □ The standard includes a confidential mechanism for providing parents with their child's results, as requested, and referrals for those students meeting referral criteria. □ Staff who oversees the screening program are qualified, such as a school nurse or public health nurse. □ Training is offered to school staff conducting the screenings which includes current screening practices, techniques, communication, confidentiality measures, equipment, referral provision, and resource identification. □ Data collection procedures are in place. □ Screening results are not be used to evaluate student or teacher performance. □ A system is in place for regular evaluation of the screening and referral program, its intended outcomes and any unintended consequences.

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Appendix B SAMPLE Standard/Procedure for Growth Screening and Referral

NOTE: This sample standard/procedure language is intended for school districts with school nursing services for placement in school nursing manuals. This sample is a guide only and represents suggested best practice for growth screening and referrals when the school district has policies, practices and programs in place supporting healthy weight in their student population. School districts may adopt the standards that best meet community expectations, the needs of their student population and are within reason for health services personnel to perform. It is always prudent to have proposed local policies and regulations reviewed by district administration and legal counsel.

A. Statement of standard

___[*name of district*]_____School District supports screening and surveillance for growth abnormalities that may impact student attendance and learning, school wellness policies, and the overall health of the student population and community. The district supports sharing of growth screening results and related educational and referral information with parents.

B. Purpose

To detect growth and development deviations that may indicate health risks, chronic or other concern, and may impact overall, life-long health and wellness. More specifically to:

- Identify students at risk for nutritional or health-related problems
- Identify students at risk for eating disorders
- Identify students who are underweight, overweight, or obese
- Encourage discussions between families and healthcare providers about their child's growth and development
- Promote healthy eating and physical activity in the school environment

C. Determinant/need for the standard

___[*name of district*]_____School District Health Services bases the growth screening and referral standard on best practice determinants from the following sources:

- Alaska State Law Sec. 14.30.070. Physical examination required
- State of Alaska *Measuring Height/Weight and Calculating BMI: Guidelines for Schools* School district policy (*if any*)
- Centers for Disease Control and Prevention (CDC)
- National Association of School Nurses (NASN)
- American Academy of Pediatrics
- American Public Health Association
- American Heart Association
- Institute of Medicine
- Past practice (*if any*)

D. Standard

1. Periodic evaluation of each student's growth pattern shall be documented through the measurement and assessment of height and weight. BMI values[1] will be calculated and percentiles determined by plotting on appropriate growth charts or computerized means. Growth charts that plot weight and stature for age and gender will be utilized when a student appears to be outside the chronological 'norms.'
   - Students must be weighed and measured in a setting that provides for privacy and confidentiality. No other students should be within sight or hearing of the student being screened.
   - Students' height/weight/BMI screening results are recorded in the student health record, remain strictly confidential and not be discussed with anyone other than the student and his/her parent or guardian.
2. Best practice growth screening intervals are:
   - Annually for Pre-K through 12th grade[2]
   - New-to-the-district students
   - Per teacher or parent concern
   - More frequent screening may be warranted on an individually established schedule for those students who display irregular growth patterns or who show extreme measurements on either side of the accepted height and weight/BMI graph curves (0-5% and 85-100%).
3. Personnel able to conduct screening include:
   - School nurse
   - Staff and/or volunteers trained by the school nurse
4. Parents, administrators/school staff and appropriate community members (e.g. healthcare providers) will be notified of upcoming growth screenings. Parents will be given the opportunity to opt out of growth screening for their child.
5. When providing screening results to parents/guardians, they will be notified in a meaningful, confidential format. Privacy of information will be ensured when selecting a method to communicate results.
6. Necessary referrals to a healthcare provider for students with screening results outside of established norms will be made based on further assessment of risk factors.
7. Educational materials and information may be provided to the parent and student when deemed beneficial and appropriate.
8. Referral follow-up may include setting goals with the family and student using motivational interviewing techniques.
9. Scales and stadiometers will be checked for accuracy (calibrated) at least annually.

E. Procedure

1. Equipment

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[1] BMI = (weight in kilograms) divided by (height in meters X height in meters)

[2] Healthy Alaskans 2020 childhood obesity data are based on a minimum standard measurement of K, 1, 3, 5, and 7 grade students. If unable to screen all students all years, consider prioritizing these grades first.

- Properly calibrated, high quality balance beam or electronic digital scale
- Portable or wall-mounted stadiometer (do NOT use generic height attachment from a balance beam scale)
- Calibration weights and length rods
- BMI for age and gender percentile growth charts. Use of a computer based system is recommended for consistent and correct calculations. A child and teen BMI calculator and Excel spreadsheet for calculating BMI is available at: http://www.cdc.gov/healthyweight/assessing/bmi/
- CDC weight-for-age or CDC statute-for-age growth charts available at: http://www.cdc.gov/growthcharts/

2. Communicate upcoming growth screening plans to building administrator, school staff, parents, local healthcare providers and other appropriate community members using any of the following measures:
    - Meetings
    - School newsletters
    - Student handbooks
    - School and/or district websites
    - Contained in registration information
    - Specific letters sent via mail or email (see Appendices C, D, E, F for sample letters)
3. Provide parents with an opportunity to opt out of growth screening for their child. Opt-out procedures can be outlined for parents using any of the above communication methods. See Appendix G for a sample Opt-Out form. [*district/school process for tracking Opt-Out forms here*]
4. Train personnel assisting with the growth screening process on proper technique, appropriate communication and confidentiality. Provide confidentiality agreement found in Appendix H.
5. Screen students with the following instructions for measuring weight
    - Set the scale at zero reading.
    - Have the student remove shoes, heavy outer clothing (jacket, vest, sweater, hat), and empty pockets (cell phones, iPods) to extent possible.
    - Have the student step on the scale platform, facing away from the scale read out, with both feet on the platform, and remain still with arms hanging naturally at side and looking forward.
    - Read the weight value to the nearest ¼ pound or 0.1 (1/10) kilogram.
    - Have the student step off the scale and take a second measurement, repeating the steps above (measurements should agree within 0.1 kilogram or ¼ pound; if not, re-measure until this standard is met).
    - For confidentiality and to avoid stigma or harassment, do not call out weight value.
    - Record the weight value immediately on the student health record or data log.
    - If using a balance beam scale, return the weights to zero position.
6. Screen students with the following instructions for measuring height
    - Have the student remove shoes, hat, and hair ornaments /buns/braids to extent possible.

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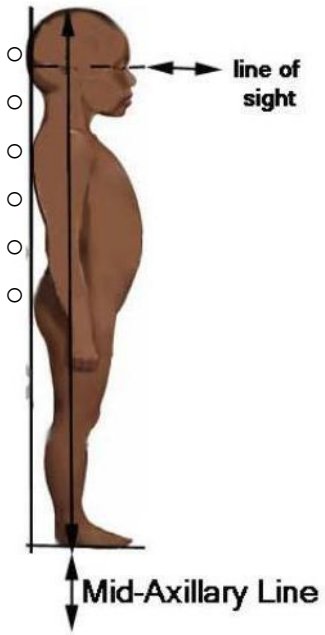
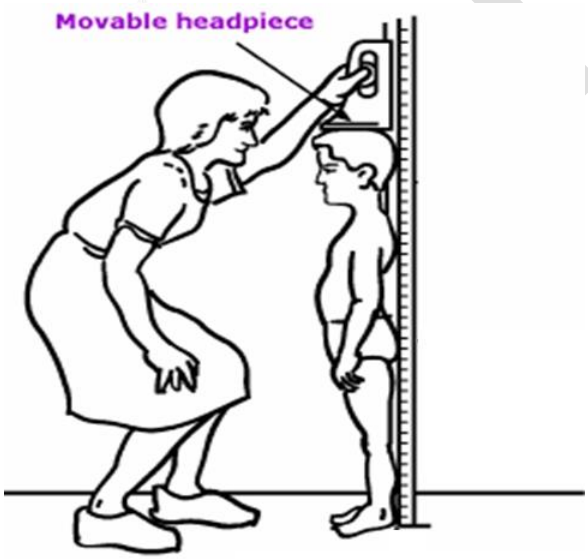
- Have the student stand on the footplate or uncarpeted floor with back against stadiometer rule.
- Have the student bring legs together (in contact at some point, whatever touches first).
- Assure student's legs are straight, arms are at sides, and shoulders are relaxed.
- Assure the back of the student's body touches/has contact with the stadiometer at some point, preferably with heels, buttocks, upper back and head touching the measuring surface.
- Assure that the student's body is in a straight line (mid-axillary line parallel to the stadiometer), see Figure #1.
- Assure the head is in the appropriate position (Frankfort plane) see Figure #2

Figure #1 Mid-axillary Line Figure #2 Frankfort Horizontal Plane





- Ask the student to breathe in and hold his/her breath while being measured.
- Lower the headpiece until it is touches the crown of the head firmly, compressing the hair.
- Position yourself so that your eyes are parallel with the head piece and read the measurement to the nearest 0.1 cm or 1/8 inch, make note of the first measurement.
- Move the headboard away, check the posture, and re-measure the student.
- Measurements should agree within 1 cm or ¼ inch, re-measure and select the average of the two measures that agree the most.
- Immediately record the results in the student health record or data log.

7. Calculate BMI using one of the following methods: [*district process here, if applicable*]
   - BMI calculation computer software
   - BMI Table, found online at the CDC website http://cdc.gov/nccdphp/dnpa/healthyweight/assessing/bmi/00binaries/bmi-tables.pdf
   - BMI Percentile Calculator for Child and Teen http://apps.nccd.cdc.gov/dnpabmi/
   - The Children's BMI Tool for Schools: http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/tool_for_schools.html
     - This Excel spreadsheet can be used by school, child care, and other professionals who want to compute Body Mass Index (BMI)-for-age for a group of up to 2000 children, such as for a school class room or grade.
   - Electronic health records [*if program available*]
8. Plot BMI values on appropriate CDC BMI-for-age and gender growth charts to obtain a percentile score using electronic health records, computer software or, if unable to access computer programs, manually. [*district process here, if applicable*] Appropriate growth charts can be found on the CDC website: http://www.cdc.gov/growthcharts/cdc_charts.htm. After graphing a set of measurements, check to see if they are consistent with those from previous measurements, if possible. A significant percentile change should be rechecked for errors in measuring, recording, or graphing.
9. Interpret the BMI-for age percentile score using electronic health records, computer software or the following table to classify the student's BMI percentile score for interpretation.

   BMI Classification for Children 2-20 Years Old

BMI for Age Percentiles	Weight Classification
<5th	Underweight
5th to <85th	Healthy Weight
85th to <95th	Overweight
≥95th	Obese

10. Plot student height or weight on appropriate CDC stature-for-age or weight-for-age growth chart if measurements are suspected to be outside the chronological 'norm' or deviating from the student's previous height or weight curve. Ensure the measurements are accurate, make sense, and are appropriately plotted.
11. Consider reporting all individual screening results to parents or guardians. A sample growth screening notification letter is found in Appendix I. Alternately, the sample form in Appendix J may be used to give all health screening results to parents. Utilize one of the following methods to distribute the results (DO NOT SEND HOME WITH STUDENT):
    - Mailings (NOTE: send via email only if the district has a secured means of transferring Personal Health Information [PHI])
    - Provide results to parents at parent/teacher conferences, Open Houses or other school events
    - Available for parent pick-up in the school health office after an identified date
    - Provide results to parents via access to their child's password protected web-based health screening information [*district process here, if applicable*]

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NOTE: If not providing results to all parents, notify parents that results are available upon request.

12. Utilize the Healthy Weight Intake Form, found in Appendix K, to further assess risk factors, the need for and the urgency of referral to a healthcare provider.
13. Use Motivational Interviewing (MI) skills (see Appendix O for information on MI) to determine family and student's readiness for change and acceptance of referral information and materials. Continue to use motivational interviewing techniques for goal setting and further interventions, as appropriate.
14. Provide referral information to parents, as indicated. A sample growth screening referral letter for the healthcare provider is found in Appendix N. This may be attached to parent notification letter (Appendix I or J). It may also be appropriate to attach the student's growth chart(s) or review it with parents.

    Referrals to a healthcare provider for further evaluation of a potential growth problem should be considered when students have:
    - A BMI $\geq$95th percentile
    - A BMI 85th to 94th percentile, if they have any of the following:
        - a family history of diabetes, early cardiovascular disease, parental obesity, hypercholesterolemia
        - elevated blood pressure (see Appendix L for blood pressure values requiring further evaluation)
        - evidence of acanthosis nigricans (see Appendix M for acanthosis nigricans information)
        - evidence of other health concerns potentially related to unhealthy weight (see Appendix K for Healthy Weight Intake Form)
        - personal concern about their weight
    - A BMI <5th percentile or a recent unexplained decrease in BMI percentile
    - A large shift in percentiles (change across two or more percentiles), increase or decrease (i.e., not following individual growth curve)
    - No growth progress on the BMI-for-age-and-sex, CDC stature or weight-for-age growth charts
        - Students who decline in two stature percentiles or present with short stature (<5%) may need to be referred for further evaluation (i.e., for endocrinopathies, pubertal delay, boney dysplasias, or syndromes. Pubertal delays may be genetic/familial or be due to an underlying medical condition).
        - Students with a drop in weight percentiles by more than one large percentile line or who present with extreme underweight warrant further investigation (i.e. for malabsorption, renal disease, cardiac disorders, neurologic and pulmonary disorders, food or feeding abnormalities, family or environmental difficulties and chronic infections).
15. Referral follow-up may include:
    - Providing resources for families, staff and students (*HealthTeamWorks* Healthy Lifestyles Screening, Childhood Action Plan to Promote Healthy and Fit Families, Patient and Parenting Tips are found in Appendix P).

- Providing opportunity for parent/student to ask questions, receive further support, and request more information.
- Requesting school based interventions suggested by healthcare provider, if any.

16. Develop an Individualized Healthcare Plan for student accommodation and interventions at school, when appropriate (see Appendix Q)
17. As indicated by district participation, collaborate with the Division of Public Health for population based surveillance and monitoring. [*district process here, if applicable*]
18. Calibrate scales and stadiometers according to the following instructions [*district process here, if applicable*]:

    Weight - Scales

    - Use known weights (a set of standard weights purchased from a sports store) on the scale or a professional service to check accuracy.
    - Send the scale for professional calibration if the standard weight and the scale weight are off by ¼ pound or more. For a digital scale, change the batteries and if it is still off after checking again with the standard weights, send scales for professional calibration and/or check the owner manual for scale instructions.
    - Re-calibrate if the scale has been moved to a different surface.
    - Portable digital scales, frequently moved, should be calibrated monthly.
    - For scales that are not moved or used excessively, calibrate at least annually.

    Height – Stadiometers

    - Check the stadiometer regularly to be sure the base is stable and measures are accurate.
    - Length rods, a standard measuring test rod, should be used to verify accuracy at least annually.
    - Portable stadiometers should be checked more frequently.
    - If a discrepancy is found in accuracy, contact the manufacturer for advice.
19. Further national and state resources for the school nurse may be found in Appendix R.

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Appendix C SAMPLE Pre-Growth Screening Notification to School Staff

[*School Letterhead*]

[*Date*]

Dear Faculty and Staff:

Our school/district has initiated a growth screening program. Growth screening is an important clinical tool in assessing the health and development of a child. The screening includes measurement of height and weight which are used to calculate the Body Mass Index (BMI) percentile.

The screenings will be conducted on *[insert dates]* in *[insert locations]*. Parents will be asked to notify me if they do not want their child to participate in this screening and will be asked to sign an "Opt Out" form. *Following the screening, all parents will receive their child's results*. They will be mailed or directly communicated in writing to the parents or guardians. The communication is offered to encourage discussion with their child's healthcare provider regarding healthy lifestyles and physical activity. The results of the growth screening are kept confidential in the student's individual school health records and will not be shared with anyone but the parent.

People come in many different sizes and shapes for many different reasons. Students may react in a variety of ways to the results of the growth screening in school. Staff members can help by being aware of the sensitivity of this screening and being objective and open about student concerns regarding height and/or weight in your responses.

Please contact me if you have any questions about this screening program or if you would like to be a part of our school's efforts to create a healthier environment for all. Together we can make a real difference in the health and wellness of our students!

Thank you for your time and consideration.

Sincerely,

School Nurse [*you may also consider having the principal co-sign the letter*]

Letter adapted from Massachusetts Department of Public Health

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Appendix D SAMPLE Pre-Growth Screening Notification to Local Healthcare Providers

NOTE: Depending on your district, this form may be sent as a district-wide initiative or by the individual school nurse.

[*School Letterhead*]

[*Date*]

Dear Healthcare Provider:

The health and wellness of our children is a school district priority. With the current research about obesity, we are aware of the effect on academics and our students' present and future health. We want to actively reduce health risks by focusing on healthy lifestyles, encouraging healthy nutrition and providing families with information. One role in prevention is obtaining BMI and health information to promote healthy weight in all children. [*insert district YRBS or DPH Student Weight Status results here, if available*]

Our district's Growth Screening Program provides annual assessment of height, weight, and BMI. With yearly measurements, we are better able to assess for deviations from the child's normal growth pattern which may indicate the need for medical follow up. Results are communicated confidentially with parents and guardians, and we strongly recommend to parents that these results are shared and discussed with the child's primary healthcare provider. Results are also be used to guide school district policies and programs for a healthier school environment.

If you have any questions concerning the Growth Screening Program at *[insert school name]* School, please contact *[insert school nurse name]*, the school nurse at *[insert phone number]*.

We know that collaboration among schools, parents and healthcare providers can have a positive effect on the health of children and look forward to working with you in this endeavor. Thank you for your efforts to improve the health of Alaska's children.

Sincerely,

School Nurse [*you may also consider having the principal co-sign the letter*]

Letter adapted from Massachusetts Department of Public Health

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Appendix E SAMPLE Pre-Growth Screening Notice to Parents and Guardians

[*School Letterhead*]

[*Date*]

Dear Parent or Guardian:

In the [*insert name of school or district*] we know how important good health is to learning. We want our students to be healthy and have every advantage to achieve their potential. Our children's future health is at risk because of childhood obesity, poor nutrition and lack of physical activity. In our district, we address children's health and wellness with a comprehensive approach that includes health screenings such as our Growth Screening Program.

The purpose of the Growth Screening Program is threefold.

- To provide information about your child's growth pattern
- To encourage you to share this information with your healthcare provider
- To allow the district to evaluate the effects of changes made in schools in order to create a healthier environment [insert list of district/school initiatives such as providing healthier foods and encouraging students to be physically active]

Growth screening consists of height and weight measurements. These are used to calculate each child's Body Mass Index (BMI) percentile. BMI measures a child's "weight for height for age." The BMI can be a useful tool to identify possible health risks.

PLEASE NOTE: Height, weight, and BMI measurements do not tell the whole story about a child's health. Factors other than height and weight can influence your child's growth pattern such as family history or medical conditions. Your child's healthcare provider is in the best position to evaluate your child's health and can explain the results of the screening. The healthcare provider can also talk with you about further steps you can take to encourage healthy eating and physical activity.

The school nurse will supervise your child's screening, ensuring each child's privacy is respected at all times. The results of your child's height, weight, and BMI are private and strictly confidential – they will be kept in your child's school health record and given to you directly upon your request.

This year, the growth screening will take place in [*insert month of screening*]. Please feel free to call me at [*insert phone number*] with any questions you may have about growth screening or if you would like to opt your child out of the screening. For additional information about BMI for children and teens visit the Centers for Disease Control and Prevention website at: http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html.

Sincerely,

School Nurse [*you may also consider having the principal co-sign the letter*]

Letter adapted from Massachusetts Department of Public Health

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Appendix F SAMPLE Pre- General Health Screening Notification Letter to Parents and Guardians

[*School Letterhead*] **School Health Screening Information** [*Date*]

To: Parent(s)/Guardian(s)

Health screenings will be administered _____ to all preschool and students in grades _____as required by school district policy.

Why is health screening at school important?

The purpose of school health screenings is to detect any health concerns that might interfere with a child's education. If a child has poor, uncorrected vision or hearing, it makes it harder for them to succeed in school, sports, social situations, and in life. In addition, children with unhealthy growth patterns are at an increased risk for a variety of health problems. In [*name of school or district*], we address our children's health and wellness with a comprehensive approach that includes health screenings and [*insert list of initiatives*].

Health screenings will consist of one or more of the following:

- ✓ **Vision Screening**
  1. Distance visual acuity - ability to see objects far away
  2. Binocular vision - how well your child's eyes work together
  3. Photoscreening - ability to see far away, up close, and how well the eyes work together
  4. Color vision - ability to see colors
  5. Near visual acuity - ability to see objects up close
- ✓ **Hearing Screening**
  1. Hearing acuity – use of an audiometer to determine the clarity or clearness of hearing, a measure of how well a person hears
  2. Tympanometry – use of a machine to measure how easily the eardrum vibrates to detect fluid or pressure problems
  3. Otoscopic examination – use of an instrument to examine the ear canal and eardrum to observe for abnormalities or infection
- ✓ **Growth Screening**
  1. Measurement of height and weight to calculate an individual's Body Mass Index, or BMI, which is used to show a person's "weight for height for age" percentile; these measurements are also used to screen for deviations from normal growth patterns
  2. Screening for risks of developing diseases such as type 2 diabetes, cardiovascular disease, metabolic syndrome which consists of a visual inspection of the neck
- ✓ **Blood pressure screening**
  1. A measure of the pressure of the blood on the walls of the blood vessels

How will the results be shared?

- ✓ If there are no health concerns following screening, health screening outcomes will be made available upon request.
- ✓ If health concerns are apparent during screening (one or more health screenings are not within expected limits), your school nurse will contact you to share and discuss the results which may include recommendations for further evaluation by a healthcare provider when necessary.

Health screenings are not a substitute for a complete examination by healthcare provider such as family practitioner, pediatrician, eye care specialist or audiologist (hearing specialist). If you have any questions about the school health screening program please contact your school nurse.

_____School Nurse [*contact information*]

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Appendix G SAMPLE Parent/Guardian Opt-Out Form for Growth Screening

Dear Parent/Guardian,

Growth screening involves measuring height and weight to calculate Body Mass Index (BMI) and determine growth pattern deviations. The purpose of the Growth Screening Program is to give you information about your child's growth status. This information also helps [*insert name of school or school district*] address a comprehensive approach to the health and wellness. [*insert list of initiatives such as providing healthier foods and encouraging students to be physically active*].

Alaska Statute Article 02. Section 14.30.127 mandates that school districts provide student hearing and vision screenings for identification of possible unknown or unrecognized diseases or health impairments that may affect a student's education. While vision and hearing screenings are required, growth screenings are recommended by the Alaska Division of Public Health as another tool to evaluate the health of each child. Results are confidential. The growth screenings will take place in a private setting, supervised by the school nurse. Once completed, parents will be notified in writing of screening results by the school.

If you want your child to participate in the free growth screening offered by our school, you do not have to complete this form. If you do not want your child to receive growth screening services at school, please complete the form and return it to the school office.

To opt out of this screening, please complete and return this form to the school by [*what date*].

Student: _____ Date of Birth: _____

School: _____ Grade: _____

_____

Parent/Guardian Signature Date

If you have any questions, please contact [*name and contact information for school nurse, district nursing coordinator, and/or school principal*]

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Appendix H SAMPLE School Staff/Volunteers Confidentiality Agreement

Confidentiality Agreement

As a school staff/volunteer assisting with health screenings, the confidential nature of information concerning students must be respected. Confidentiality is the obligation not to disclose willingly any information obtained in confidence. In schools, student privacy and confidentiality is maintained in all written and verbal communications, in accordance with the federal Family Educational Rights and Privacy Act (FERPA) regulations.

Basic principles include:

- Respect for an individual's right to privacy
- Respect for human relationships in which personal information is shared
- Appreciation of the importance of confidentiality to both individuals and society
- Expectation that those who pledge to safeguard confidential information will do so

Therefore, as a school staff or volunteer assisting with health screenings, I agree to:

1. Not share any screening data (height/weight, vision, hearing, etc.) beyond the authorized personnel (school nurse).
2. Not leave reports, student service records, computer files or log books where unauthorized people can have access to them. Take care that individual student screening records are kept in a secure location.
3. Guard against sharing confidential information with authorized personnel in halls, classrooms, staff rooms or other public places where persons who do not need to know can overhear it.
4. Provide privacy for each individual student's screening. Allow no other students to enter the screening area. Do not verbally call out screening results. Clear previous screening results from equipment before allowing the next student's entry for screening, e.g. zero the scale between students.
5. Consult with the school nurse if in doubt regarding sharing of confidential information.

Print Name _____ School _____

Signed_____ Date _____

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Appendix I SAMPLE Growth Screening Results Notification to Parents and Guardians

[*School Letterhead*]

[*Date*]

Dear Parent or Guardian:

(Student Name)_____ was recently weighed and measured as part of our school's growth screening program. A Body Mass Index (BMI)-for-Age percentile was also calculated. The purpose of the Growth Screening Program is to give you information about your child's growth status. The results are strictly confidential and will not be discussed with anyone other than you.

Your child's measurements were: Weight _____Height_____ BMI% _____

The Centers for Disease Control and Prevention (CDC) guidelines for interpreting BMI percentiles in children state that:

Below the fifth percentile a child *may* be underweight.

Between the 5th and 85th percentiles a child is considered in the healthy weight range.

Between the 86th and 95th percentiles a child *may* be overweight.

Above the 95th percentile a child *may* be obese.

PLEASE NOTE: Height and Weight screening does not tell the whole story about your child's health status. Many factors other than height and weight can influence your child's growth pattern such as family history and medical conditions.

The best person to evaluate your child's growth pattern is your child's regular healthcare provider. We recommend that you talk with your child's healthcare provider to identify ways to ensure your child's optimal health. Ask your provider for advice about good nutrition and physical activity and more ways to keep your child healthy and physically active. The following is recommended for **all** children:

5 – Five servings of fruits and vegetables per day

2 – Less than 2 hours screen time per day

1 – One hour of physical activity per day

0 – Zero soda or sugared sweetened beverages per day

More information is available at:
http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html

If you do not have health insurance or access to health care, please contact me for information about possible medical services. If you have any questions, please call __[*insert school nurse name*]_____, School Nurse

[*Phone*] / [*email*]

Letter adapted from Massachusetts Department of Public Health

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Appendix J SAMPLE General Health Screening Results for Parents and Guardians

Health Screening Report to Parents

Child's Name_____ Date_____

Health screenings were administered to all preschool and students in grades_____as required by school district policy. These screenings are performed to detect any health concerns that might interfere with a child's education.

Your child had the following health screening(s) performed (check all that pertain):

	Screening	Results	Comments
	Vision screening	Right /20 Left ___/20	
	Hearing screening	Right _____ Left _____	
	Growth screening	Height ____Weight ____ BMI% ____	
	Blood pressure screening	Right Arm ____ Left Arm ____	

Health screenings are not a substitute for a complete examination by healthcare provider such as family practitioner, pediatrician, eye care specialist or audiologist. If any screening results indicate need for additional follow up, you will be contacted by the school nurse. We further encourage you to share all screening results with your child's healthcare provider. If you have any questions about the school health screening program please call your school nurse.

Please direct any questions to your school nurse at _____.

NOTE: use the comment section to note whether screening results are within normal limits or a referral for further evaluation is attached.

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Appendix K Healthy Weight Intake Form

Healthy Weight Intake Form

Student: _____ DOB: _____ Gender _____ School: _____ Grade_____

Parent: _____ Phone: _____ Phone: _____ Language: _____

Screening Results:
- ☐ Ht:_____ Wt:_____
- ☐ BMI: _____%
- ☐ Blood Pressure: _____
  Percentile: _____ (see chart)
- ☐ Acanthosis Nigricans: _____
- ☐ Other: _____

Psychosocial History
- ☐ Bullying
- ☐ Low self-esteem
- ☐ School avoidance (missed more than 5 days in last 3 months)
- ☐ Depression
- ☐ Suicidal ideation
- ☐ Family Resources (homeless/ poverty/crisis)

Medical History
- ☐ Asthma
  Has asthma health care plan __Y __N
- ☐ SOB with activity
- ☐ Thyroid Problem
- ☐ Heavy/irregular menstrual cycle
- ☐ Other: _____

Inappropriate sleep patterns
- ☐ Hours of sleep per night _____
- ☐ Nighttime awakening/restless/snoring
- ☐ Difficulty awaking in the morning
- ☐ Daytime somnolence, Napping

Academic concerns – (parent and teachers)
- ☐ Decreased concentration
- ☐ Poor school performance
- ☐ School avoidance/poor attendance
- ☐ Other: _____

Other:
- ☐ Odor complaints
- ☐ Bowel or bladder accidents
- ☐ Skin or wound problems

Orthopedic pain
- ☐ Pain in groin, hip, thigh, knee, leg, feet (circle areas of pain)
- ☐ Limping without known injury
- ☐ Describe current school PE/Sport participation_____
  - If No activity, explain_____
  - Teacher reports active participation? ___ yes ___ no
- ☐ Describe outside school physical activities _____

Other
- ☐ Frequent headaches (describe)_____
- ☐ Headache worse when lying down
- ☐ Blurry vision
- ☐ Frequency of complaints:_____

Decision re: Medical Referral and/or Individualized Plan of Care

Immediate Medical Referral and IHP (Individual Health Plan for school)
- ☐ Severe psychological issue
- ☐ Orthopedic Hip/Leg Pain
- ☐ Notify parent/ guardian and refer to PCP for immediate medical evaluation
- ☐ _____

Medical Referral
- ☐ Elevated BP percentile *Refer to Chart*
- ☐ Elevated BMI percentile >95%
- ☐ Socio-Emotional impact of obesity
- ☐ Bowel or Bladder Incontinence
- ☐ Disturbed Sleeping Patterns

- ☐ Notify parent/guardian and refer to PCP for medical evaluation
- ☐ Assist with establishing medical home if needed
- ☐ Individual Health Plan (IHP) for school

Type II DM is uncommon, even amongst obese children. If concerned for type II DM recommend PCP perform fasting blood sugar and hemoglobin A1C level

Reassess in 6 months
- ☐ Acanthosis Nigricans
- ☐ Normal vital signs
- ☐ No emotional crisis

Universal Messages
- ☐ Provide positive 5-2-1-0 message
- ☐ Breakfast 7 days a week
- ☐ Sleep 10 hours a night
- ☐ Advocate for physical activity in the school environment and community
- ☐ Advocate for healthy school nutrition programs
- ☐ Provide healthy living community resource sheet

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Appendix L Blood Pressure Values Requiring Further Evaluation According to Age and Gender

	MALE		FEMALE	
Age	Systolic	Diastolic	Systolic	Diastolic
3	100	59	100	61
4	102	62	101	64
5	104	65	103	66
6	105	68	104	68
7	106	70	106	69
8	107	71	108	71
9	109	72	110	72
10	111	73	112	73
11	113	74	114	74
12	115	74	116	75
13	117	75	117	76
14	120	75	119	77
15	120	76	120	78
16	120	78	120	78
17	120	80	120	78
18 or >	120	80	120	80

(Kaelber, D.C. & Pickett, F., 2009).

These values represent the lower limits for abnormal blood pressure (BP) ranges, according to age and gender. Any blood pressure reading equal to or greater than these values represents a blood pressure in the pre-hypertensive, stage 1 hypertension or stage 2 hypertensive range and should be evaluated further.

If the student's BP value indicates further evaluation, obtain at least two additional BP readings. Since this chart does not factor in height it may produce false positive identification of abnormal pediatric BP values for taller children.

Utilize the National Heart, Lung, and Blood Institute chart to further evaluate the student's blood pressure reading in order to determine referral. http://www.nhlbi.nih.gov/files/docs/guidelines/child_tbl.pdf.

Follow the instructions in the Fourth Report on Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents. http://www.nhlbi.nih.gov/health/prof/heart/hbp/hbp_ped.htm.

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Appendix M Acanthosis Nigricans Reference for School Nurses

What it is

Acanthosis nigricans is characterized by a darkening (pigmentation change) and/or thickening (textural change) of the skin, often found to appear on the nape of the neck but may also appear in other areas including the axilla, knuckles, groin and skin folds.

What it means

Chronic high levels of blood insulin stimulates the skin cell to produce the classic darkening and thickening. Clinically, acanthosis nigricans is a marker for insulin resistance among individuals who are overweight or obese. Screening students who are overweight or obese may identify a subset who may have metabolic changes that are associated with the risk for diabetes, cardiovascular disease and metabolic syndrome.

Acanthosis nigricans as a screening tool

Acanthosis nigricans is not intended to be diagnostic; rather the school nurse may use it as a screening tool to identify students who require further assessment by a healthcare provider. Referral and early intervention by a pediatrician/healthcare provider is the best way to identify impending health risks and initiate changes to lifestyle habits to help mitigate future health risk. NOTE: rarely, acanthosis nigricans may also be present among normal weight individuals which may be indicative of an internal malignancy and requires immediate evaluation by a healthcare provider.

Acanthosis nigricans screening tips for school nurses

1. Provide adequate lighting.
2. Provide privacy.
3. Bend neck forward.
4. Pull the hair up toward the neckline.
5. Look for color differences in the crevices of the skin.
6. Feel for textural changes.
7. Follow up suspicious lesions by cleaning the neck (soap & water or alcohol swab). Commonly acanthosis nigricans is mistaken for a “dirty neck.”

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Referral process for acanthosis nigricans

1. Screen in conjunction with height, weight and BMI identification.
2. Screen the overweight or obese child or adolescent with suspected acanthosis nigricans for blood pressure elevation. Elevated blood pressure at or above the 90th percentile should be retested the same day. Confirm the finding on a subsequent day for those with blood pressures at or above the 95 percentile. (See Appendix L for Blood Pressure Values Requiring Further Evaluation)
3. Notify the parents/guardian of screening results.
4. Recommend referral for further evaluation by a pediatrician/healthcare provider if acanthosis nigricans markers identified. Fasting blood glucose test, fasting lipid profile, tests for liver functions may be warranted.

Further resources

- Center for Healthy Weight and Nutrition http://www.nationwidechildrens.org/center-for-healthy-weight-nutrition

- National Association of School Nurses http://www.nasn.org/ToolsResources/ChildhoodObesity
    - Includes online continuing education modules:
        - Childhood Overweight and Obesity: Overview
        - Height/weight and BMI Screening, Resources and Interventions
        - Acanthosis Nigricans – School Nurse Educational Program

- Acanthosis Nigricans Screenings/The ANTES Project http://www.utpa.edu/dept/tmbhco/tmbhco/antes.htm

- Scott, L.K. & Hall, L.M. (2012). Reliability and validity of the Acanthosis Nigricans screening tool for use in elementary school-age children by school nurses. *Journal of School Nursing, 28*(6), 442-447. DOI: 10.1177/1059840512455364.

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Appendix N Sample Growth Screening Referral to Healthcare Provider

[*School Letterhead*] [*Date*]

Dear Healthcare Provider:

This letter is to notify you that your patient, *[insert student name],* was assessed during [*insert school name]* School's Growth Screening Program.

The results were: Ht____ Wt_____ BMI Percentile ____ Other Health Concerns _____

_____

_____

We welcome your feedback and any recommendations you may have to assist in in planning for this child's school program. If you have any questions concerning the Growth Screening Program at *[insert school name]* School, please contact *[insert principal name],* the school principal at *[insert principal's phone]* or *[insert school nurse name],* the school nurse at *[insert nurse's phone].*

Thank you for your efforts to keep your patients and our students healthy.

Sincerely,

School Nurse

✂ - - - - - - - - - - ✂ - - - - - - - - - - ✂ - - - - - - - - - ✂ - - - - - - - - ✂ - - - - - - - - -

HEALTHCARE PROVIDER: Please complete and return to [*insert school nurse, school & address]*

I have checked (child's name) _____ on (date) _____

with the following findings:

Ht____ Wt_____ BMI: _____ Percentile: _____

School-based recommendations:

_____

_____

_____

Signature/Title: _____Date: _____

Parent authorization for release of information
I, the parent/guardian of the above named child, authorize the exchange of information between my child's healthcare provider and my child's school/school nurse. I understand this form will be faxed to the school nurse so s/he may assist with the above recommendations. Parent/guardian signature_____Date_____

Return to school nurse	
FAX Form to:	**From:**
School Nurse	Healthcare Provider
School Address	Address
Phone	Phone
Email Address	Email Address
FAX	FAX

Letter adapted from Massachusetts Department of Public Health

DRAFT

HealthTeamWorks
Building Systems. Empowering Excellence.

Motivational Interviewing: Brief Overview

Spirit and Guiding Principles

** Express empathy **

1. Collaborate with the person.
2. Support autonomy and self-efficacy.
3. Evoke a person's *own* reasons to change.

Goals:

Explore and resolve ambivalence about change.

Increase confidence about making a change.

Key Techniques

- Ask permission to give advice.
- Talk less, listen more.
- Use more open than closed questions.
- Affirm strengths, intentions, efforts, choice.
- Reflect back and summarize what you hear.

You are <u>not</u> listening to me when:

- You say you understand.
- You say you have an answer before I finish telling you my story.
- You cut me off before I have finished speaking.
- You finish my sentences for me.
- You tell me about yours or another person's experiences, making mine seem unimportant.
- Your response is not consistent with what I said.

You <u>are</u> listening to me when:

- You really try to understand, even if I am not making much sense.
- You grasp my point of view, even when it's against your own view.
- You allow me the dignity of making my own decisions, even when you feel they may be wrong.
- You do not take my problem from me but allow me to deal with it in my own way.
- You hold back the desire to give advice (or only offer it with permission).
- You give me room to discover what is really going on.

(Author unknown)

BE CURIOUS

Ask about:

- Goals and values
- Strengths and challenges
- Reasons to change or not change
- How they see and understand the situation

LISTEN FOR CHANGE TALK

Change Talk:

D esire
A bility
R easons
N eed

REMEMBER:

Commitment is necessary for change to happen.

To get someone talking about change:

Ask for it!

Why might you want to make this change?

If you decided to change, how would you do it?

What would be the best reasons to change?

How will your life be better if you change?

Explore pros and cons...of the behavior and of changing

What are the good things about smoking?

...and what are the not so good things about smoking?

So, on the one hand...

And on the other hand...

Assess importance and confidence

*On a scale from 0-10, how **important** is it to you to _____?*

*On a scale from 0-10, how **confident** are you that you will be able to_____?*

0-10 Ruler to Assess Importance and Confidence:

Followed by:

"What makes you a 4?"
(for importance)

"What would help you feel more confident?"
(for confidence)

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Appendix P Healthy Lifestyle Screening

HealthTeamWorks

Healthy Lifestyle Screening

Obesity is preventable.

Healthy Lifestyle Screening

Has anyone in your family ever been diagnosed with:			
Diabetes / Gestational diabetes	No ❑	Yes ❑	Who:_____
High blood pressure	No ❑	Yes ❑	Who: _____
Heart disease (heart attack, stroke, high cholesterol)	No ❑	Yes ❑	Who: _____
Overweight	No ❑	Yes ❑	Who: _____

5	How many servings (1 serving = 1/2 cup) per day of fruits and vegetables does your child eat?	**0-1 servings**	**2-3 servings**	**4-5 servings**	**More than 5 servings**
2	In total, how many hours per day does your child watch TV or movies, play video or computer games?	**More than 4 hours**	**3-4 hours**	**1-2 hours**	**1 hour or less**
1	How many days per week is your child physically active, outside of school time, for at least 60 minutes? (walking, running, biking, swimming, playing outside, dancing, etc.)	**0-1 days**	**2-3 days**	**4-5 days**	**6-7 days**
	How many times per week does your family do something active together?	**0-1 days**	**2-3 days**	**4-5 days**	**6-7 days**
0	How many times per day does your child drink any of the following: juice, soda, sports drinks, energy drinks, flavored milk, lemonade, sweetened tea or coffee drinks?	**4 or more times**	**3 times**	**1-2 times**	**0 times**
OTHER	How many times per week does your child eat breakfast?	**0-1 times**	**2-3 times**	**4-5 times**	**6-7 times**
	How many times per week does your child eat food outside the home/school?	**6-7 times**	**4-5 times**	**2-3 times**	**0-1 times**
	How many days per week does your family eat dinner together at the table?	**0-1 times**	**2-3 times**	**4-5 times**	**6-7 times**
	Are you ever worried that food will run out before you get more money to buy more?	**Often**	**Sometimes**	**Rarely**	**Never**
	Is your child having difficulty with sleeping or snoring?	**Often**	**Sometimes**	**Rarely**	**Never**
	How worried are you about your child's health?	**8-10 (Very)**	**5-7**	**2-4**	**0-1 (Low)**
	How worried are you about your child's weight?	**8-10 (Very)**	**5-7**	**2-4**	**0-1 (Low)**
	Is now a good time to work on family eating and activity habits?	**8-10 (Definitely)**	**5-7 (Yes)**	**2-4 (Maybe)**	**0-1 (No)**

HealthTeamWorks

Childhood Action Plan to Promote Healthy and Fit Families

Goals are most successful when all family members participate and support one another.

Choose one or two goals your family will work to achieve:

5 servings of fruits and vegetables daily

- ❑ Include at least one fruit or vegetable with every snack or meal
- ❑ Add color: make ½ your plate fruits or vegetables at most meals
- ❑ Add extra vegetables to tacos, stews, burritos, soups, etc.

2 or less hours of screen time daily

- ❑ Remove TV and screens from bedrooms
- ❑ Enjoy time outside: daily green hour without any screens
- ❑ Unplug the family for 1-2 weeks, plan activities without screens
- ❑ Join after school activities or community centers
- ❑ Turn off TV during meals

1 or more hours of physical activity daily

- ❑ Walk or bike to school (or at least the last 5 blocks)
- ❑ Join a sports team, dance group or outdoor club
- ❑ Play outside daily: invent games, jump in leaves, build snow forts, etc.
- ❑ Sign up for a recreation pass as a family or with friends
- ❑ Spend family time together hiking, playing a sport or other activities

0 sweetened beverages daily

- ❑ Drink nonfat milk, water, or water flavored with fruit
- ❑ Save money: do not buy soda, sports drinks, fruit drinks
- ❑ Reduce amount of soda, sports drinks, fruit drinks to____/week

Other

- ❑ Eat breakfast daily
- ❑ Eat dinner as a family____times/week
- ❑ Serve smaller portions (see mypyramid.gov)
- ❑ Eat out/take out less than ____times/week
- ❑ Additional goal:_____

Signatures

Patient _____ **Date** _____

Parent or Caregiver _____ **Date** _____

Provider _____ **Date** _____

For resources on how to achieve your family goals, please visit **www.healthteamworks.org**.

HealthTeamWorks

Patient and Parenting Tips

Obesity is preventable.

5 servings of fruits and vegetables daily

2 hours or less of screen time

1 hour or more of physical activity daily

0 sweetened beverages

Nutrition

Feeding Practices

- Eat and buy foods you want your child to eat.
- Enjoy regular mealtimes together.
- Reward with activity and reading rather than food.
- Children eat different amounts from day to day. Let your child decide how much to eat.
- New foods need to be offered as many as 10 times or more before being accepted.
- Eating breakfast improves attention and grades, and decreases the risk of obesity.
- When eating out choose grilled, steamed, and baked foods instead of fried foods.

Food Choices

- Use the plate method: fill ½ your plate with fruits and vegetables, ¼ whole grain, ¼ lean protein.
- Eat dark green and orange vegetables every day. Try fresh, frozen or canned vegetables.
- Encourage whole fruit instead of juice, and serve fresh fruit that is in season.
- Whole grain foods include: brown rice, oatmeal, bran cereal, whole grain breads, and whole grain pasta.
- Choose lean protein: beans, fish, poultry, eggs, pork, beef.
- Serve nonfat milk with meals and water between meals.

Physical Activity

(Minimum of 60 minutes throughout the day)

- Play and have fun together as a family or with peers.
- Improve your health and the planet's health: walk, bike or use public transit when possible.
- Find physical activities your child/teen enjoys, i.e. sports, dance, outdoor activities.
- Join a recreation center, YMCA or boys and girls club.
- Television and screens in bedrooms interfere with sleep and increase usage.
- Enjoy nature and activities as a family: get outside!
- Toddlers and preschool children need several hours of unstructured movement every day in addition to 30 minutes of structured daily activity. Avoid periods of inactivity more than 60 minutes at a time.

Resources

Nutrition

- www.letsmove.gov
- www.mypyramid.gov
- http://wecan.nhlbi.nih.gov
- www.operationfrontline.org
- www.eatrightcolorado.org

Physical Activity

- www.nwf.org/Get-Outside
- www.bgca.org
- www.bam.gov
- www.naturefind.com
- www.fitness.gov/funfit/kidsinaction.html

For additional resources, visit www.healthteamworks.org.

This guideline is designed to assist the primary care provider in the prevention and treatment of childhood obesity. It is not intended to replace a clinician's judgment or establish a protocol for all patients.
For national recommendations, references, and additional copies of the guideline go to www.healthteamworks.org or call (720) 297-1681. This guideline was supported through funds from The Colorado Health Foundation.

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Appendix Q Individual Health Care Plan for Healthy Weight

Individualized Health Care Plan for Healthy Weight

(To customize, visit http://www.cde.state.co.us/healthandwellness/snh_healthissues to download word document)

Student:	DOB:	School/Center:	Grade:

School Nurse:	Phone:	Cell:	Bus:
Parent Name:	Phone:	Cell:	
Home Address:			
Emergency Contact and Phone:			
Primary Care Provider:		Phone/ Fax:_____	
Specialist:		Phone/Fax: _____	
Current Health Issue:			
Pertinent Health History:			
Allergies:			
Diet Restrictions:			
Current Medication(s):			
School Medication (s):			
Equipment needs: Water Bottle at Desk			
Activity Restrictions: Allow Bathroom Privileges: _____ No Activity Restrictions _____			

HEALTH PROBLEMS:	**At risk for dehydration**
GOAL:	Support student to maintain hydration
ACTIONS:	1. Allow water bottle at desk, allow 2-3 refills a day 2. Allow liberal bathroom privileges 3. _____
HEALTH PROBLEMS:	**At risk for activity intolerance**
GOAL:	Increase physical activity and healthy eating at school for all children.
ACTIONS/ RESOURCES:	1. Encourage modified active participation in recess and PE. 2. Notify School Nurse if student reports inability to participate due to pain, shortness of breath, or any other physical complaints.
PROBLEM:	**At risk for the following problems related to weight issues**
GOAL:	School staff recognize and report concerns.

Individualized Health Care Plan for Healthy Weight

(To customize, visit http://www.cde.state.co.us/healthandwellness/snh_healthissues to download word document)

Student:	DOB:	School/Center:	Grade:

ACTION:	**Please report to school nurse/ parent the following issues:** • Excessive daytime sleepiness • Inattention • Poor school performance • Poor school attendance • Emotional health concerns • Exercise intolerance (inability to walk down hall or participate in sports) • Persistent headache, complaint of blurry vision • Difficulty with mobility /limping/joint pain
HEALTH PROBLEMS:	If you want to cut and paste more health problems, please refer to the *"Additional Sections to Individualize Healthy Weight, Health Care Plan for the Medically Complex Student"*
GOALS:	
ACTIONS:	

TO THE PARENT/GUARDIAN: If Child's Name experiences a change in his/her health condition (such as a change in medication or a hospitalization) please contact the School Nurse so that this Health Care Plan can be revised, if needed. Parent/guardian signature indicates permission to contact the child's health care provider(s) listed above, as needed. I understand that the School Nurse may delegate this health care plan to unlicensed school personnel. I give permission for school personnel to carry out this care plan for him/her. I also understand that this information may be shared with necessary school personnel on a need-to-know basis to help ensure this child's safety and well being while at school or during school related activities.

Parent/Guardian Signature: (Required)_____ Date _____

Physician/Health Care Provider Signature: (Preferred)_____ Date _____

School Nurse Signature: (Required)_____ Date _____

Administrator Signature: (Preferred)_____ Date _____

_____ _____

Reviewed/revised School Nurse Consultant Date

_____ _____

Reviewed/revised Parent/Guardian Date

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Appendix R National and State Resources

Growth Resources for Parents

About BMI and Growth

- About BMI-for-age for Children and Teens
  http://dhss.alaska.gov/dph/Chronic/Documents/Obesity/pubs/BMI-for-age_Children_Teens.pdf

- About BMI for Children and Teens
  http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html

- Your Child's Growth – includes information about normal growth, BMI, growth charts, healthy eating, keeping portions under control, encouraging a healthy body image
  http://kidshealth.org/parent/growth/growing/childs_growth.html?tracking=P_RelatedArticle#cat162

About Physical Activity

- Healthy Weight – it's not a diet, it's a lifestyle!
  http://www.cdc.gov/healthyweight/physical_activity/index.html

- Tips for Parents – Ideas to Help Children Maintain a Healthy Weight
  http://www.cdc.gov/healthyweight/children/index.html

- Let's Move! America's Move to Raise a Healthier Generation of Kids http://www.letsmove.gov/
- Presidential Active Lifestyle Award (PALA+) Challenge
  https://www.presidentschallenge.org/challenge/active/index.shtml

- Parents Take Action – 5 Simple Steps to Success http://www.letsmove.gov/parents

- Healthy Futures Challenge http://dhss.alaska.gov/dph/PlayEveryDay/Pages/challenge.aspx

- Get Out and Play Every day Campaign http://dhss.alaska.gov/dph/PlayEveryDay/Pages/default.aspx

- How much physical activity do children need?
  http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html

About Nutrition

- Healthy Eating for a Healthy Weight http://www.cdc.gov/healthyweight/healthy_eating/index.html

- USDA Choose MyPlate http://www.choosemyplate.gov/
- Eating on a Budget - The 3 P's (Plan Prepare Purchase)
  http://www.choosemyplate.gov/downloads/PlanPurchasePrepare.pdf

- Smart Shopping Tips http://www.choosemyplate.gov/food-groups/downloads/TenTips/DGTipsheet9SmartShopping.pdf

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- Sample Menus http://www.choosemyplate.gov/healthy-eating-tips/sample-menus-recipes.html

- 5 A Day The Alaskan Way
  http://dhss.alaska.gov/sites/takeheart/SiteCollectionDocuments/ESA_AK_5aDay.pdf

- Alaska Traditional Food Resources
  http://dhss.alaska.gov/sites/takeheart/Documents/TraditionalFoods.pdf

Other Resources

- 5-2-1-0 Be A Healthy Hero – resources suggestions for eating healthy and getting active
  http://www.beahealthyhero.org/Getstarted/tabid/75/Default.aspx

- National Eating Disorders Association website includes general information about eating disorders, contributing factors and prevention, treatment basics and a parent toolkit with further materials.
  http://www.nationaleatingdisorders.org/learn

- Alaska Obesity Facts: No. 1 Children's Health Issue
  http://dhss.alaska.gov/dph/Chronic/Documents/Obesity/pubs/factsheet_No1ChildHealthIssue.pdf

- Weigh In, Talking to Your Children About Weight + Health – a publication from the Alliance for a Healthier Generation offers likely situations and suggestions for how to respond to questions about overweight and obesity in a factual, practical and caring manner. The information is specifically created for parents with children who are 7-11 years old. Available at:
  www.stopobesityalliance.org/ebook/weighin.

Growth Resources for School Nurses

- Action for Healthy Kids - http://www.actionforhealthykids.org/
- Alliance for A Healthier Generation - https://www.healthiergeneration.org/
- Alaska Division of Public Health –
  - Obesity Prevention and Control Program -
    http://dhss.alaska.gov/dph/Chronic/Pages/Obesity/default.aspx
  - Student Height/Weight Surveillance/Screening archived webinar
    http://anthc.adobeconnect.com/p3bundbielk/
- American Academy of Pediatrics
  - Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report (2007) -
    http://pediatrics.aappublications.org/content/120/Supplement_4/S164.full.pdf
  - Recommendations for Prevention of Childhood Obesity (2007) -
    http://pediatrics.aappublications.org/content/120/Supplement_4/S229.full.pdf

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- Bright Futures Handbook Performing Preventive Services: Assessing Growth and Nutrition - http://brightfutures.aap.org/pdfs/Preventive%20Services%20PDFs/Forward%20and%20Introduction.pdf
- Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents: Promoting Healthy Weight - http://brightfutures.aap.org/pdfs/guidelines_pdf/5-promoting_healthy_weight.pdf
- The Role of the Pediatrician in Primary Prevention of Obesity (July 2015) - http://pediatrics.aappublications.org/content/early/2015/06/23/peds.2015-1558.full.pdf

- Arkansas Center for Health Improvement
  - Guiding Principles for BMI Reporting in Children and Adolescents When Performed in a School Setting - http://www.achi.net/Pages/OurWork/Project.aspx?ID=27
- Centers for Disease Control and Prevention (CDC)
  - Growth Charts - http://www.cdc.gov/growthcharts/
  - Use and Interpretation of the WHO and CDC Growth Charts for Children from Birth to 20 Years in the United States - http://www.cdc.gov/nccdphp/dnpa/growthcharts/resources/growthchart.pdf
  - Childhood Obesity Facts –
  - http://www.cdc.gov/HealthyYouth/obesity/facts.htmSchool Health Guidelines to Promote Healthy Eating and Physical Activity - http://www.cdc.gov/healthyyouth/npao/strategies.htm
  - About BMI for Children and Teens - http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html
  - Adverse Childhood Experiences (ACE) Study - http://www.cdc.gov/ace/index.htm
- Colorado Healthy Weight Toolkit: Empowering the School Nurse to Make a Difference in Addressing Childhood Obesity (2014) - http://www.cde.state.co.us/healthandwellness/obesitytoolkitcomplete1-9-15
- Dietary Guidelines for Americans - http://www.health.gov/DietaryGuidelines/
- Fuel Up to Play 60 - http://www.fueluptoplay60.com/
- Healthy People 2020 Topics and Objectives - http://www.healthypeople.gov/2020/topicsobjectives2020/default.aspx
- Missouri Resource Guide: School Nurse Interventions to Promote Healthy Weight - http://health.mo.gov/living/families/schoolhealth/pdf/SchoolNurseInterventionstoPromoteHealthyWeight.pdf
- Motivational Interviewing
  - Introduction to Motivational Interviewing: https://www.youtube.com/watch?v=s3MCJZ7OGRk
  - American Academy of Pediatrics Change Talk – http://www.kognito.com/changetalk
  - MI Training Videos (Dr. Keri Bolton Oetzel) (http://www.bing.com/videos/search?q=motivational+interviewing+keri+bolton+oetzel&qs=n&form=QBVR&pq=motivational+interviewing+keri+bolton+oetzel&sc=0-30&sp=-1&sk=#view=detail&mid=7D6CCC037C2883FD39717D6CCC037C2883FD3971)
  - Psychology Tools Worksheets - http://psychology.tools/Motivational-Interviewing.html
  - Motivational Interviewing Network of Trainers (Alaska trainers) http://motivationalinterviewing.org/ustrainers/Alaska

- National Association of School Nurses
    - Position Statement: Overweight and Obesity in Youth in Schools – The Role of the School Nurse (2013) - http://www.nasn.org/Portals/0/positions/2013psoverweight.pdf
    - Childhood Obesity - http://www.nasn.org/ToolsResources/ChildhoodObesity
    - School Nurse Childhood Obesity Toolkit (SCOT) - http://www.nasn.org/ContinuingEducation/LiveContinuingEducationPrograms/SchoolNurseChildhoodObesityToolkit
    - Online Continuing Education Modules - https://live.blueskybroadcast.com/bsb/client/CL_DEFAULT.asp?Client=74&PCAT=8461&CAT=6370
        - Childhood Overweight and Obesity: Overview
        - Height/Weight and BMI Screening, Resources and Interventions
        - Acanthosis Nigricans – School Nurse Educational Program
- National Eating Disorders Association - http://www.nationaleatingdisorders.org/
- National Education Association
    - Breakfast in the Classroom Toolkit - http://www.neahin.org/educator-resources/breakfast-in-the-classroom.html
    - Bag the Junk: Improving Competitive Food Policy to Create Healthier, Smarter School Environments - http://www.neahin.org/bagthejunk/
- National Heart, Lung, and Blood Institute-
    - The 4th Report on the Diagnosis, Evaluation, and Treatment of High Blood Pressure in Children and Adolescents - http://www.nhlbi.nih.gov/health/prof/heart/hbp/hbp_ped.pdf
    - We Can! - Ways to Enhance Children's Activity and Nutrition - http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/
- Physical Activity Guidelines for Americans - http://www.health.gov/paguidelines/
- Safe Routes to Schools (SRTS) Alaska - http://www.dot.state.ak.us/stwdplng/saferoutes/
- Stop Bullying.gov - http://www.stopbullying.gov/

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