WELL CHILD CARE

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DISCLOSURES

- I have no relevant financial disclosures

OBJECTIVES

- Explain the concept of well-child care including its importance in child development
- Identify the key components of well-child care including regular health check-ups, vaccinations, nutrition, health and developmental screenings.
- Emphasize preventative health measures including vaccinations, nutrition and anticipatory guidance and their role in preventing childhood diseases.
- Discuss challenges and barriers to effective well-child care including socioeconomic factors, healthcare access, education, etc.
- Highlight existing global initiatives and programs aimed at improving well-child care including the WHO's IMCI.

THE WELL CHILD CHECK

- A child coming to health facility at pre-determined intervals seeking preventative health services
  - Immunizations
  - Feeding Advice and nutrition
  - Growth and developmental monitoring
  - Education and anticipatory guidance
  - Health Screenings
  - Referrals to appropriate services

THE WELL CHILD CHECK

Per the WHO, there are over 200 million children under age 5 who are not developing to their full potential because they did not get simple and essential interventions to promote their development.

Care that children receive has powerful effects on their survival, growth, and development.

The key risk factors for development include issues like stunting, iron deficiency, iodine deficiency, frequent illness and difficulty learning new skills, understanding the world around them, solving problems and communicating with others.

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THIS CARE LOOKS LIKE…

- Regular check-ups at a medical home.
- Additional screening/evaluation when child presents for sick care
- School or community-based health screenings
- Community health workers or others visiting the home
- Finding creative, new ways to provide access to care

WHAT RESOURCES?

- Many resources exist to help guide these visits:
  - AAP Well Child Schedule and Bright Futures
  - WHO Integrated Management of Childhood Illness (IMCI)
  - AAFP
  - Country or state specific guidance based on where you practice.

Bright Futures™
prevention and health promotion for infants, children, adolescents, and their families™

IMCI
INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

AAFP
CHILD AND ADOLESCENT HEALTH

NMED

When are Well-Child Visits?

3-5 days
1 month
2 months

4 months
6 months

9 months
12 months

15 months
18 months

24 months
30 months
3 years

4 years
5 years
6 years
7 years

8 years
9 years
10 years
11 years
12 years

13 years
14 years
15 years
16 years
17 years

18 years
19 years
20 years
21 years

WELL VISIT INTERVAL

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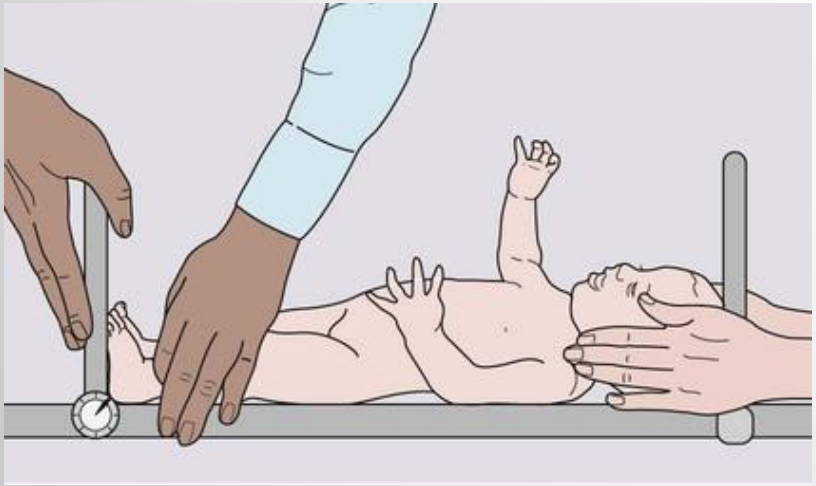
MONITORING GROWTH

- Child growth is an important marker of nutrition, overall heath, and social determinants of health.
- Growth requires the healthcare professional to consider the parent-child relationship and other familial dynamics.
- Growth and development can also reflect of larger economic, societal, or equity issues for the patient.

MONITORING GROWTH



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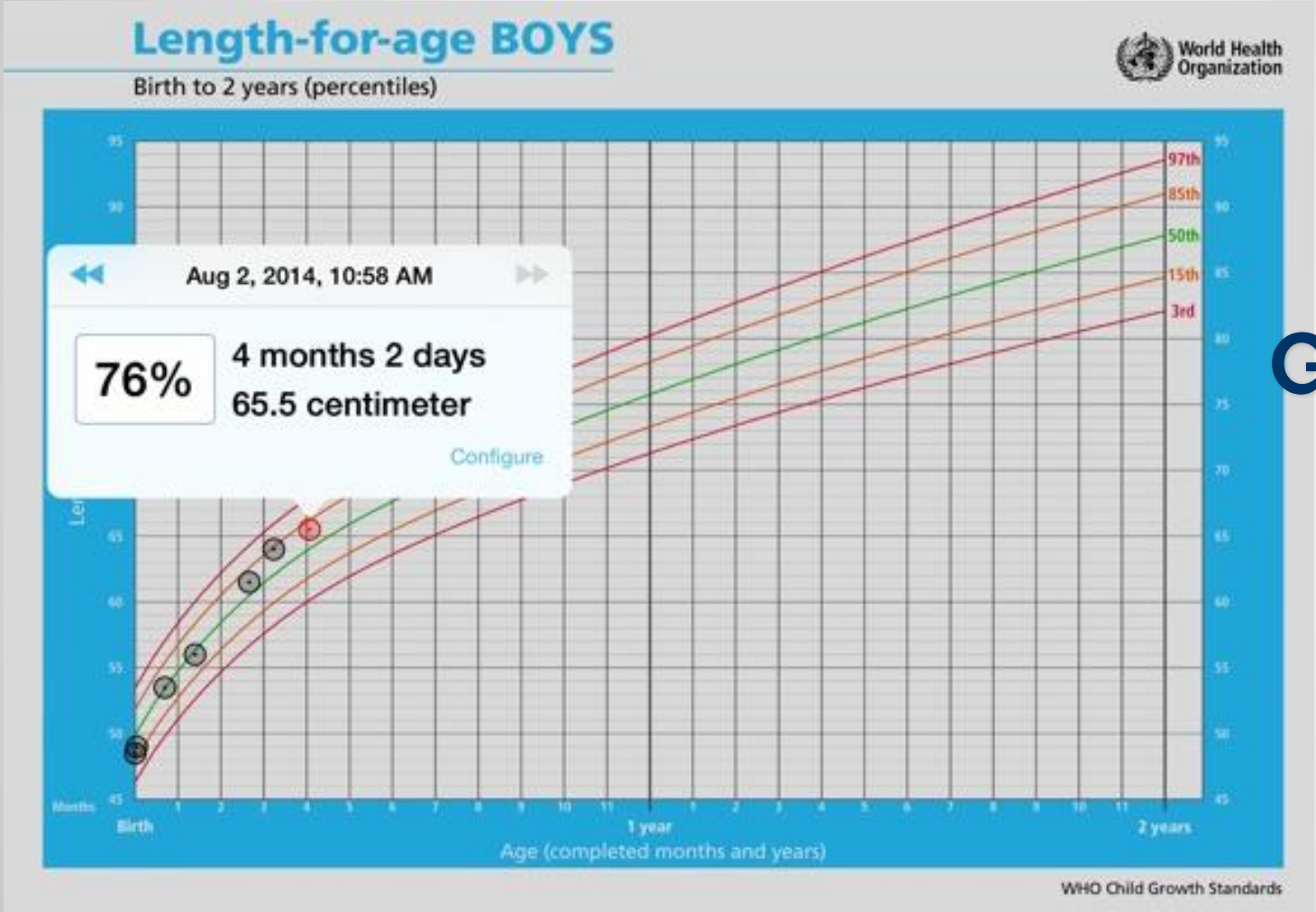

GROWTH CHART

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MONITORING GROWTH

- Monitor weight, length/height, and head circumference.
- The PCP calculates the weight and height/length for age as well as the weight for height (WFH) ratio.
  - Low weight for age = underweight
  - Low height for age = stunting
  - Low weight for height = wasting
- In many places, children will receive a monitoring booklet to track growth.

TAKING A HISTORY

- Health Care provider tries to get a sense of the child's history, and the child and family's overall health and day to day activities.
  - Birth, medical and surgical history
  - Family history
  - Prior screenings: hearing, vision, dental, behavioral
  - Diet and Nutrition
  - Sleep
  - Day to Day behaviors, schooling, etc.
  - Social History

TAKING A HISTORY

CHECK THE CHILD'S IMMUNIZATION STATUS (Circle immunizations needed today)

BCG	DPT+HIB-1	DPT+HIB-2	DPT+HIB-3	Measles1	Measles 2	Vitamin A
OPV-0	OPV-1	OPV-2	OPV-3			Mebendazole
Hep B0	Hep B1	Hep B2	Hep B3			
	RTV-1	RTV-2	RTV-3			
	Pneumo-1	Pneumo-2	Pneumo-3			

Return for next immunization on: _____ (Date)

ASSESS FEEDING if the child is less then 2 years old, has MODERATE ACUTE MALNUTRITION, ANAEMIA, or is HIV exposed or infected

FEEDING PROBLEMS

- Do you breastfeed your child? Yes ___ No ___
  - If yes, how many times in 24 hours? ___ times. Do you breastfeed during the night? Yes ___ No ___
- Does the child take any other foods or fluids? Yes ___ No ___
  - If Yes, what food or fluids?
  - How many times per day? ___ times. What do you use to feed the child?
  - If MODERATE ACUTE MALNUTRITION: How large are servings?
  - Does the child receive his own serving? ___ Who feeds the child and how?
- During this illness, has the child's feeding changed? Yes ___ No ___
  - If Yes, how?

ASSESS OTHER PROBLEMS: Ask about mother's own health

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NUTRITIONAL ASSESSMENT

- Globally, ~45% of “younger than 5 deaths” are attributed to undernutrition – most of which are preventable.
- It is noteworthy that to observe that nutrition-related factors including maternal deficiencies, IUGR, post-natal growth and stunting accounted for most of the risk factors for poor development
- Primary care is a critical link in this prevention

NUTRITIONAL ASSESSMENT

- First, assess daily feeding habits and routines for the child—always seek to understand
- Before giving advice—build confidence. Avoid judgement or being dismissive of cultural or religious practices that affect diet or are unfamiliar to you.
- Counsel according to age, focusing on the ages where new nutritional habits occur (ex: 6 mos.)
- Explain recommendations and make suggestions if not being followed.

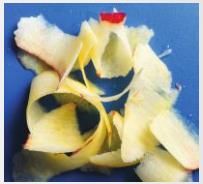
NUTRITIONAL ASSESSMENT

Finger Foods

Fruits and vegetables make great finger foods for your child. You can prepare them in ways that meet his or her age and ability. Talk to your pediatrician about what is right for your child.

Most babies transition to finger food between 9-12 months, starting with steamed and mashed and progressing to other small, soft, chewable pieces as their ability permits.

These food preparations are for older children. Children don't learn to chew with a grinding motion until they're about four years old.

	STEAMED & MASHED	STEAMED & DICED	SHREDDED & STEAMED	RAW & DICED	RAW & RIBBONED
Apples					
Zucchini					
Carrots					

Safety is the priority when feeding your baby, toddler, and child. Be sure to discuss choking prevention and food allergies with your pediatrician. Make sure all foods you give your baby are soft, easy to swallow, and cut into small pieces. Fruits and vegetables should be mashed or cooked until they are soft. Foods that are hard, round or sticky, or are difficult to chew and swallow should not be given to children under 4 years. All babies, toddlers, and children should be safely seated and supervised by an adult when eating.

CHOP CHOP FAMILY

American Academy of Pediatrics Institute for Healthy Childhood Weight

Bright Futures

NUTRITIONAL ASSESSMENT

IMPORTANT TO INCLUDE ALL FOOD GROUPS

- Cereals, roots, and tubers: rice, wheat, maize, millet, sorghum, cassava, yams, potatoes
- **Foods of animal original and legumes:** meats, chicken, fishes, eggs, milk products (milk, cheese and yoghurt), chickpeas, lentils, beans, cowpeas
- **Green leafy and orange-fleshed vegetables:** carrots, pumpkins, avocados, leafy greens
- **Fruits:** mangoes, oranges, bananas, all locally available fruits, given mashed
- **Oils, fats, sugar, and honey:** Diets need adequate fat content, including oils (preferably seed oils like groundnuts, cashew, pumpkin, and sunflower), margarine, butter, or lard

IMPORTANT VITAMINS AND RECOMMENDED FOODS

IRON	Green leafy vegetables, fish, meat, chicken, liver or kidney, eggs
ZINC	Fish, meat, chicken, liver or kidney, eggs
VITAMIN A	Dark coloured fruits and vegetables, red palm oil
VITAMIN C	Many fruits, vegetables, and potatoes
B VITAMINS: RIBOFLAVIN	Liver, egg, dairy products, green leafy vegetables, soybeans
B VITAMINS: VITAMIN B6	Meat, poultry, fish, banana, green leafy vegetables, potato and other tubers, peanuts
B VITAMINS: FOLATE	Legumes, green leafy vegetables, orange juice

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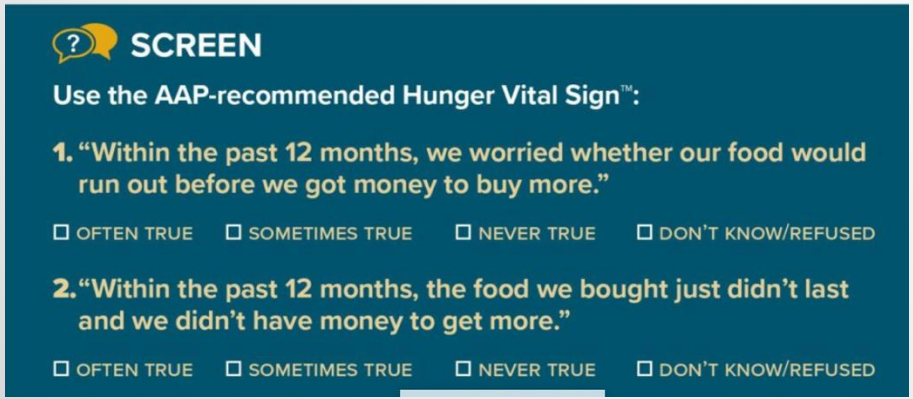
HUNGER SCREENING



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NUTRITIONAL ASSESSMENT

- If feeding issues are identified, intervene with education right away.
- Refer to appropriate resources
- Ensure close follow up and monitoring, especially in the setting of malnutrition.
- Ensure safe sources of water and ask about safe food storage.
- Reiterate handwashing practices and give anticipatory guidance on feeding while sick.

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DEVELOPMENTAL ASSESSMENT

- Assessing for developmental milestones is different at each age/stage of development.
- Much of basic pediatric assessment is occurring during your entire interaction.
  - Smiling with or engaging infants with a toy or object.
  - Pick up the infant, see if they can hold their head unsupported, sit, etc. during physical examination.
  - Looking for expected stranger anxiety, etc.
  - Looking for curiosity and interaction from older children.
  - Assessing attachment

Your Child's Early Development is a Journey

These are just a few of many important milestones to look for. For complete checklists for your child's age visit www.cdc.gov/Milestones or download CDC's free *Milestone Tracker* app.

Start Here

2 MONTHS

- Looks at your face
- Reacts to loud sounds

- Smiles when you talk to or smile at her
- Holds head up when on tummy

6 MONTHS

- Knows familiar people
- Takes turns making sounds with you
- Reaches to grab a toy he wants
- Rolls from tummy to back

- Plays games with you, like pat-a-cake
- Calls a parent "mama" or "dada"

12 MONTHS

- Puts something in a container, like a block in a cup
- Pulls up to stand

18 MONTHS

- Points to show you something interesting
- Tries to say three or more words besides "mama" or "dada"
- Copies you doing chores, like sweeping with a broom
- Tries to use a spoon

2 YEARS

- Looks at your face to see how to react in a new situation
- Says at least two words together, like "More milk."
- Tries to use switches, knobs, or buttons on a toy
- Kicks a ball

30 MONTHS

- Says about 50 words
- Uses things to pretend, like feeding a block to a doll as if it were food
- Shows you what she can do by saying, "Look at me!"
- Jumps off the ground with both feet

3 YEARS

- Talks with you in conversation
- Draws a circle, when you show him how
- Notices other children and joins them to play
- Uses a fork

4 YEARS

- Answers simple questions like "What is a coat for?"
- Names a few colors of items

- Unbuttons some buttons
- Likes to be a "helper"

5 YEARS

- Follows rules or takes turns when playing games with other children
- Uses or recognizes simple rhymes
- Writes some letters in her name
- Hops on one foot

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PHYSICAL EXAMINATION

- Head to toe physical exam at every well visit.
- All body systems assessed including:
  - General appearance/Skin
  - HEENT
  - Cardiovascular
  - Respiratory
  - Gastrointestinal
  - Genitourinary
  - Musculoskeletal

TIPS FOR THE PEDIATRIC EXAM

- Make the patient feel safe and secure
- Have all the supplies and equipment you need ready and in hand
- Give Choices
- Be Flexible
- Always use a tongue depressor
- Let the child engage with instruments – touch otoscope light, put stethoscope bell on toy/stuffie prior to use on them. Consider mock exam on self, stuffie, or parent.
- Don't skip the genital exam.
- Have parents palpate or help localize any pain prior to your exam.
- Have parents help position for the ear exam,

  which can be the hardest.

IMMUNIZATIONS

- Important part of preventative health
- **The recommended vaccine should be given when the child reaches the appropriate age for each dose**.
- If vaccination is administered **too early**, protection may not be adequate.
- If there is any **delay** in giving the appropriate vaccine, this will increase the risk of the child developing the disease.

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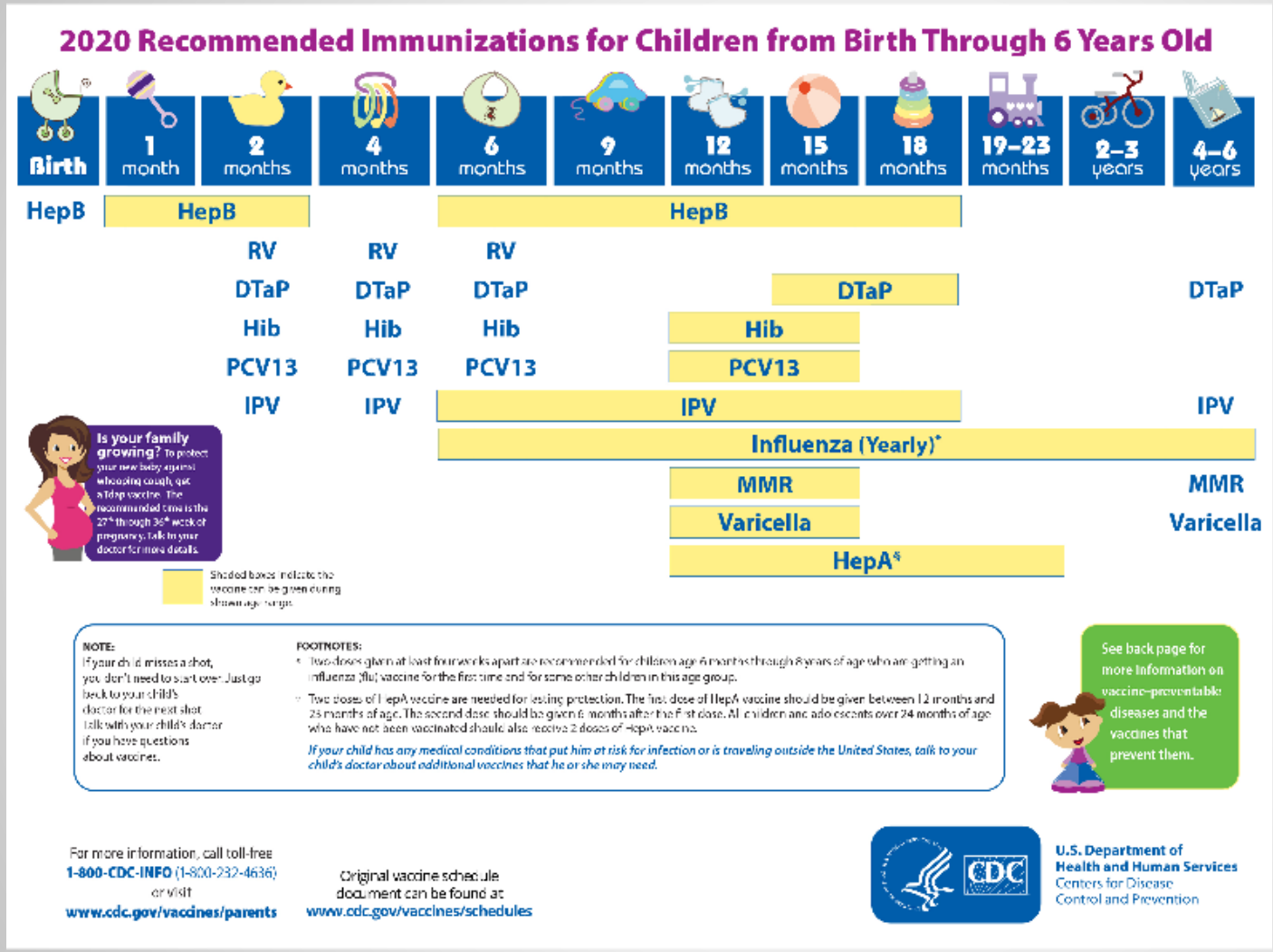

IMMUNIZ-ATIONS

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IMMUNIZATIONS

IMMUNIZATION SCHEDULE: Follow national guidelines

AGE	VACCINE				
Birth	BCG*	OPV-0	Hep B0		
6 weeks	DPT+HIB-1	OPV-1	Hep B1	RTV1	PCV1***
10 weeks	DPT+HIB-2	OPV-2	Hep B2	RTV2	PCV2
14 weeks	DPT+HIB-3	OPV-3	Hep B3	RTV3	PCV3
9 months	Measles **				
18 months	DPT				

VITAMIN A SUPPLEMENTATION

Give every child a dose of Vitamin A every six months from the age of 6 months. Record the dose on the child's chart.

ROUTINE WORM TREATMENT

Give every child mebendazole every 6 months from the age of one year. Record the dose on the child's card.

**Children who are HIV positive or unknown HIV status with symptoms consistent with HIV should not be vaccinated.*

***Second dose of measles vaccine may be given at any opportunistic moment during periodic supplementary immunization activities as early as one month following the first dose.*

****HIV-positive infants and pre-term neonates who have received 3 primary vaccine doses before 12 months of age may benefit from a booster dose in the second year of life.*

Image: WHO/UNICEF IMCI

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TABLE 2

Screening Recommendations for Children from Birth to 6 Years of Age

Screening	Preferred Method	USPSTF recommendation	AAP recommendation
Autism	Modified Checklist for Autism in Toddlers	Insufficient evidence to screen children without clinical concerns (Grade I)[9]	Screen at 18- and 24-month visits (SOR C)[10]
Dental care	Fluoride supplementation and varnish	Oral fluoride supplementation if water is fluoride deficient (Grade B)[11] Primary care physicians apply fluoride varnish to primary teeth beginning at tooth eruption (Grade B)[11]	Fluoride supplementation (SOR B)[12] Apply fluoride varnish in primary care setting to primary teeth beginning at tooth eruption (SOR B)[12]
Development	Ages and Stages Questionnaire, Parents' Evaluation of Developmental Status, Parents' Evaluation of Developmental Status-Developmental Milestones, Survey of Well-Being of Young Children	Insufficient evidence to screen for speech and language delays without clinical concerns (Grade I)[13]	Screening at 9-, 18-, and 30-month visits (SOR C)[14]
Dyslipidemia	Fasting lipid panel	Insufficient evidence (Grade I)[15]	Risk-based screening at 2, 4, and 6 years of age (SOR C)[16]
Hypertension	Measure blood pressure	Insufficient evidence (Grade I)[17]	Screen annually beginning at 3 years of age (SOR C)[18]
Iron deficiency	Complete blood count	Insufficient evidence (Grade I)[19]	Screen at 12 months; consider supplements for preterm or exclusively breastfed newborns (SOR C)[3]
Lead poisoning	Lead level	Insufficient evidence to recommend screening in children 1 to 5 years of age without increased risk (Grade I)[20] Recommend against screening in children 1 to 5 years of age with average risk (Grade D)[20]	Screen high-risk individuals 6 months to 6 years of age (SOR C)[21]
Maternal depression	Standardized depression screening (Patient Health Questionnaire-2 or Edinburgh Postnatal Depression Scale)	Screen postpartum women (Grade B)[22]	Screen at 1-, 2-, 4-, and 6-month visits (SOR B)[23]
Psychosocial assessments	No standardized tool; may consider Baby Pediatric Symptom Checklist, Preschool Pediatric Symptom Checklist, Strengths and Difficulties Questionnaire	Insufficient evidence to recommend screening for depression (Grade I)[24]	Screen for mental health disorders and perform psychosocial assessment at each well-child visit (SOR C)[25]
Vision	Visual acuity test	Insufficient evidence to screen before 3 years of age (Grade I)[26] Screening once between 3 and 5 years of age (Grade B)[26]	Instrument-based screening at 12 to 24 months of age (SOR C)[27] Screen annually beginning at 3 years of age (SOR B)[27]

ROUTINE SCREENINGS

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ROUTINE SCREENINGS

- If practicing in resource-limited areas, consider Vitamin A supplementation and deworming.
- Vitamin A deficiency (VAD) is a public health problem in many countries. It is the leading cause of preventable blindness in children. It also increases the risk of disease and death from severe infections particularly measles, diarrhea, and pneumonia.
- Routine supplementation of vitamin A every 6 months is recommended for all children aged 6–59 months.

ROUTINE SCREENINGS

- Intestinal worms (helminths): transmitted through soil, are a serious public health problem in tropical climates where there are conditions of inadequate sanitation and hygiene.
- Worm infestations are associated with a significant loss of micronutrients in a child. Infestations negatively affect physical fitness and appetite which contributes to anemia, poor growth, and malnutrition.
- 3 types of worms are most prevalent and have the most damaging effect on the health of children. These are roundworms (*Ascaris lumbricoides*), hookworms (*Ancylostoma duodenale* and *Necator americanus*), and whipworms (*Trichuris trichiura*).

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ROUTINE SCREENINGS

Medicine	Give as a single dose every 6 months		
	0–1 year	1–2 years	2–5 years
Albendazole (400 mg tablets)	None	½ tablet (200 mg)	1 tablet (400 mg)
Mebendazole (500 mg tablet)	None	½ tablet (250 mg)	1 tablet (500 mg)

- Consider chewable and good tasting options in children when deciding treatment.
- All children 12 months or older should have been given a dose of Mebendazole or Albendazole in the previous 6 months.
- If not, give a dose as indicated above.

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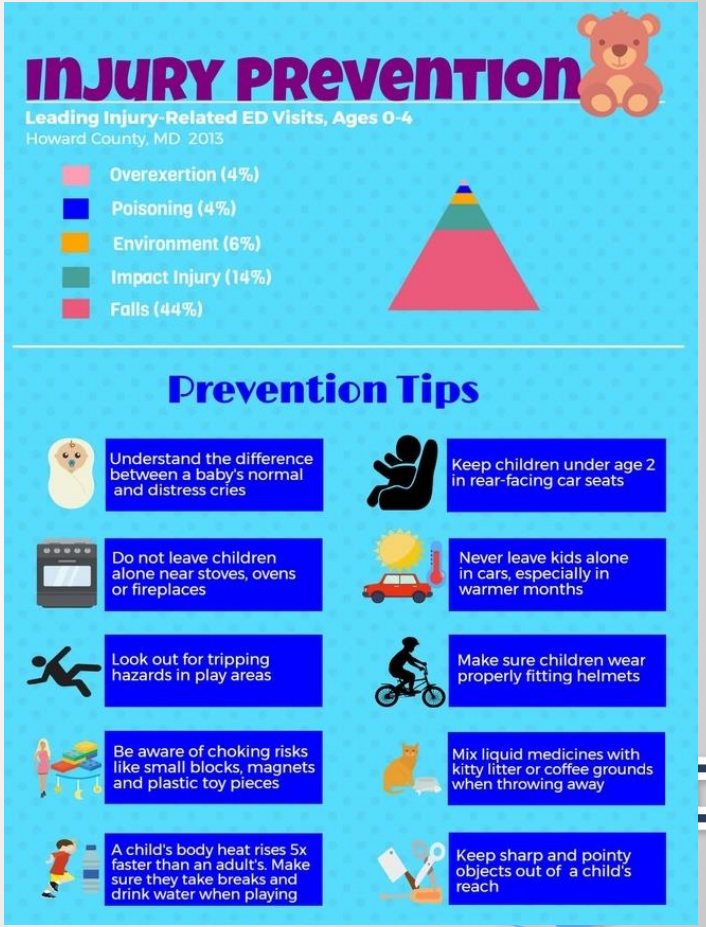
ANTICIPATORY GUIDANCE

- Safe Sleep
- Choking safety
- Car seat safety
- Accident-proof the home
  - Burns, Falls, Poisonings
- Proper safety equipment for sports and activities
- Pool and water safety
- Safety in and around cars



ANTICIPATORY GUIDANCE

- Seatbelts, distracted driving
- Drug, alcohol use
- Social Media and Screen Time
- Healthy Sexual behaviors
- Adolescent Sleep habits
- Mental Health/Depression
- Suicide
- Home access to weapons.

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DETERMINANTS OF HEALTH

	Strengths and Protective Factors	Risk Factors
Parents	• Ability to access concrete support in times of need • Social connections • Knowledge of parenting and child development • Personal resilience • Ability to enhance social and emotional competence of children • Ability to foster nurturing and attachment	• Parental dysfunction, separation, or divorce • Few social or community connections • Limited knowledge of parenting • Difficulty with nurturing or fostering attachment
Families	• Nurturing adults who sensitively and consistently respond to their children's needs • Stable, predictable, and consistent physical, social, and emotional family environments • Freedom from fear and protection from physical or psychological harm	• Few adults who can provide a nurturing and responsive environment • Family tobacco, alcohol, or drug use • Abuse or neglect • Unstable physical, social, and emotional family environments
Communities	• Safe neighborhoods • Safe and high-quality schools • Stable and safe housing • Access to nutritious food • Access to job opportunities and transportation • Access to medical care, including behavioral health and wellness care	• Poverty • Food insecurity • Housing insecurity • Unsafe neighborhoods • Unsafe and low-quality schools • Limited employment and transportation opportunities • Lack of access to medical care and social services

GLOBAL PRIMARY HEALTH CARE

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THE WORLD NEEDS YOU

- Many of the leading causes of death for children in the world are preventable.
- We have a calling and commitment to do all we can.
- Increases in primary care is one tool in our box to improve child health

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THANK YOU