

Pediatric Preventive Healthcare

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Goals

- Definition: Preventive Healthcare
- Overview of screening and preventive interventions in children
- Two sample screens
- Proposal for universal screening in the school population on Guam

Preventive Healthcare

- Identification of potential health problems
- Selection of screening tools
- Screening of selected population
- Interventions
- Evaluation of effectiveness of intervention

Overview

- Infants (0-1)
- Toddlers & Preschoolers (1 to 4)
- Early grade school (5 to 8)
- Late grade school (9-11)
- Middle school (12 to 14)
- High School (14-18)

Overview

- Potential health problems and risk factors
 - Screening tools
 - Interventions
 - Evaluation

Infants

- Genetic diseases
- Growth disorders
- Developmental delays
- Nutritional problems
- Vaccine preventable disease
- Communicable disease
- Sudden Infant Death Syndrome
- Accidents
- Environmental risk factors

Infants—Genetic Disease

- Rare inborn errors of metabolism
 - Newborn “metabolic” screens
 - Confirmation of abnormal
- Familial Disease
 - Focused family history
 - Focused screening
- Syndromes
 - Genetic counseling
 - Specific health monitoring

Infants—Growth Disorders

- Failure to thrive
 - Height curves
 - Must be interpreted by ethnicity
 - Must be adjusted for prematurity
 - “Fixed” by 18 months
 - Weight curves
 - Weight for height
 - Breast feeding
 - Underweight does not equal undernourished or malnourished

Infant—Growth Disorders

- Head Growth
 - Growth is head (forehead) size plus brain growth.
 - Position due to head size
 - Growth rate due to brain growth
 - Microcephaly
 - Hydrocephaly
- Special Norms
 - Premature or low birthweight
 - Cerebral palsy
 - Down’s syndrome

Infant-Developmental delays

- Many etiologies
 - Routine well baby checks
 - Guam Early Intervention
 - Ages and Stages
 - Bright Futures

Infant—Nutritional Problems

- Breast Feeding
- Formula choice
 - Prematurity
 - Colic
 - Cow milk protein intolerance
- Feeding schedules
- Supplements (fluoride, iron, Vitamin A, Vitamin D)

Vaccine Preventable Disease

- Hepatitis B
- Tetanus
- Meningitis
- Pneumonia
- Pertusis
- Influenza

Communicable Disease

- Hand washing
- Public places
- Sick people in the home
- Daycare

Sudden Infant Death

- “Back to Sleep”
- Not in parents’ bed
- No blankets
- Second hand smoke

Infant--Social Risk Factors

- Maternal bonding
 - Depression
 - Young age
 - Poor health knowledge
 - Anxiety
- Paternal bonding
- Guardianships
- Siblings

Infants—Accident Prevention

- Car seat—must be adjusted
- Falls
- Choking
- Suffocation

Infants—Environmental Risks

- Temperature—hot or cold
- Sun
- Cigarette smoke
- Pets
- Brown tree snakes
- Mosquitoes and ants
- Mold, Mildew and fungus
- Fire

Infants

- Genetic diseases
- Growth disorders
- Developmental delays
- Nutritional problems
- Vaccine preventable disease
- Communicable disease
- Sudden Infant Death Syndrome
- Social risk factors
- Accidents
- Environmental risk factors

The Sixth Grade Child

- Physical health
- Mental health
- Social health
- Spiritual health

- Identification of potential health problems

6th Grade—Physical Health

- Height and growth spurt
- Weight and BMI
 - Overweight
 - Underweight
 - Weight change
- Blood Pressure
- Vision
- Hearing

6th Grade—Physical Health

- Tonsils
 - Sore throats
 - Sleep apnea
- Teeth
 - Brushing and flossing
 - Prophylaxis
 - Orthodontics
 - Recent cavities

6th Grade—Physical Health

- Thyroid
 - Hypothyroid
 - hyperthyroid
- Heart
 - Valve disease (rheumatic)
 - Congenital heart disease
- Lungs
 - Asthma by history
- Liver and spleen

6th Grade—Physical Health

- Skin
 - Acne
 - Multiple nevi
 - Warts
 - Corns and calluses
 - Fungal infections
 - Bruising

6th Grade—Physical Health

- Skeletal system
 - Rib cage
 - Back—scoliosis
 - Knees
 - Feet

6th Grade—Physical Health

- Exams not routinely done
 - Breast
 - Genital
 - Hernia
 - Detailed neurologic

6th Grade—Mental Health

- Attention Deficet Disorder
- Anger Management
- Depression
- Anxiety
- Anorexia
- Autism
- Learning Disabilities
- Pyschosis

6th Grade—Social Health

- Relationships
 - Relationship to parents
 - Parent's relationship
 - Sibling stress
 - Peer friendships
 - "Bullying"
 - Sexual abuse
 - Group interactions
 - Fights and gangs

6th Grade—Social Health

- Risk taking (experimenting!)
 - Smoking
 - Alcohol
 - Drugs
 - Challenging authority
 - Testing danger

6th Grade—Social Health

- Accident prevention
 - Car and pedestrian safety
 - Helmets
 - water safety
 - Swimming, surfing, kayaking, fishing, reef walking
 - Guns
 - Falls

6th Grade—Social Health

- Audio-Visual Entertainment
 - Computers
 - Electronic games
 - Television
 - Movies
 - Music
 - Cards

Summary

- Preventive health involves:
 - Identifying all potential threats to wellness—physical, mental, social and spiritual
 - Discovering which threats are actually present
 - Intervening to eliminate or reduce risk of bad outcomes

What If?

Children are required to have a physical to get into school

- most forms have no doctor's history
- only required once per school time
- no standard forms

Children are required to have a physical to get into sports

- no history
- minimal or no physical

Neither lead to preventive interventions

- All children required to have preventive examination for entry to:

- Day care or Preschool
- Kindergarten
- 3rd Grade
- Middle School
- High School

- Complete doctor obtained history
 - Including physical, social and mental risk factors
- Appropriate physical screening
- Appropriate lab screening
- Appropriate social screening
- Detailed diagnosis
- Interventions
- Indicated follow up

- Standardized forms
 - One for each level
 - Specific history questions
 - Specific physical findings
 - Specific laboratory findings
- Diagnosis
 - Pass/fail on specific problems
 - Pass/fail on recommended intervention

- Would require follow up by school
- Would require creative interventions
- Would require competent examiners
- Would require quality medical records

What
If?