Rethinking Infant Nutrition:

“Let food be thy medicine” - Hippocrates
Preventable ailments related to infant food introduction practices?

1) Obesity
2) Iron deficiency
3) Constipation
4) Tooth decay
5) Vitamin D deficiency
Obesity

PROBLEM: Overconsumption of sugars and highly processed starches and the underconsumption of healthy proteins and fats.

SOLUTION: Recommend less processed starches, completely avoid added sugars, focus families on healthy proteins and fats.
Obesity
Iron Deficiency

PROBLEM: Underconsumption of foods high in iron and overconsumption of milk and iron deficient moms.

SOLUTION: Recommend foods high in iron at the onset of solid food introduction between 4 and 6 months of age. Make sure milk is NOT being overconsumed. Ensure pregnant moms are getting enough iron.
Iron Deficiency
Constipation

PROBLEM: Overconsumption of highly processed, fiberless foods. Underconsumption of high fiber foods.

SOLUTION: Eliminate highly processed fiberless foods and replace with unprocessed high fiber foods.
Constipation
Tooth Decay

PROBLEM: Consumption of sugary drinks and processed sugary snacks. Lack of topical and ingested fluoride.

SOLUTION: Eliminate sugary drinks and processed sugary snacks. Drink water and snack on real food like fruits, vegetables, beans, tofu and legumes. Ensure access to topical and ingested fluoride.
Tooth Decay
Vitamin D Deficiency

PROBLEM: Lack of sunlight. Absence of foods containing Vitamin D in the diet.

SOLUTION: Exposure to sunlight. Consume foods that contain Vitamin D. Consider mom’s Vitamin D intake.
Vitamin D Deficiency
The first 3 foods introduced to US babies are:

1) Iron fortified, highly processed rice cereal

2) processed, jarred fruit

3) processed, jarred fruit or veggie
What are the first 3 foods introduced to babies in Sri Lanka?

1) Rice
2) Lentils
3) Sprats

(plus 2 teaspoons of coconut oil)
13th Annual Pediatric Specialty Update for the Primary Care Physician
– Pediatric Metabolic Health & Nutrition Summit

Jan. 27-28, 2017
<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>Sri Lanka</th>
<th>WIC recs</th>
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<tr>
<td>cals</td>
<td>170 (26%)</td>
<td>252 (39%)</td>
<td>650</td>
</tr>
<tr>
<td>protein</td>
<td>2.5gms (11%)</td>
<td>1gms (100%)</td>
<td>11gms</td>
</tr>
<tr>
<td>fat</td>
<td>0.5gms (3%)</td>
<td>16gms (50%)</td>
<td>30gms</td>
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<tr>
<td>carb</td>
<td>37gms (39%)</td>
<td>27gms (20%)</td>
<td>95gms</td>
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<tr>
<td>Vit D</td>
<td>0%</td>
<td>120iu (30%)</td>
<td>400iu</td>
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<tr>
<td>iron</td>
<td>5mg (45%)</td>
<td>1mg (10%)</td>
<td>11mg</td>
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Think about foods that your population is familiar with:

In Caribou, Maine we get iron from moose and deer meat.

For Vitamin D we eat fish like trout and salmon & recommend intermittent sun exposure. In the winter we supplement because of the lack of accessible sunlight.

With WIC families eggs, peanut butter, legumes, tofu, and beans are useful. For milk allergic patients we can trade one quart of milk for one pound of tofu.
13th Annual Pediatric Specialty Update for the Primary Care Physician – Pediatric Metabolic Health & Nutrition Summit

Jan. 27-28, 2017

[Image: A child holding a fish with two other children in the background.]
“There is no love sincerer than the love of food.”
-George Bernhard Shaw
Rethinking Infant nutrition is NOT just rethinking what we recommend BUT how we recommend it.

Take time to ask moms, dads, and grandparents about their food traditions. Bond with families through reinforcing the healthy food traditions in their homes.
PRAISE the FAMILY GARDEN
PRAISE FISHING TRADITIONS
PRAISE FORAGING
Social Psychology

“There is no love sincerer than the love of food.”

1) Ask families about the healthy foods they love. LISTEN, CONNECT, & BOND on the topic of food.

2) PRAISE & REINFORCE healthy family food traditions.

3) Utilize MOTIVATIONAL INTERVIEWING & the FEEDBACK SANDWICH when preparing to give advice on change.
Curriculum for Junkfood Resistance

Mural by Erin Yoshi at Festival 21
Melbourne, Australia
WHO Growth Charts: United States
Weight-for-age percentiles: Girls, birth to 36 months
Today, by the time the average child in a developed country turns 8 years old, they’ve had more sugar in their lives than the average person did in their entire lifetime just one century ago.

PreventDisease.com
4 month Well Child Check
(start with the positive)

Ask families what healthy foods they love?

Recommend the family use those foods as first foods and give your reason (BE SPECIFIC)

Steer families towards high nutrient foods with protein and fat. Consider iron, fiber, and Vitamin D in your discussion.

Address fears about choking or allergy.
4 month Well Child Check

VS
4 Month Well Check
Having connected and bonded with the family on first foods... I move on to explain the KEY motivation behind the CURRICULUM FOR JUNKFOOD RESISTANCE

The Extraordinary Science of Addictive Junk Food

By MICHAEL MOSS  FEB. 20, 2013
4 Month Well Check

We do not want these companies to kidnap your babies taste buds with the unnatural flavor intensities found in processed food. We are trying to avoid the situation I see commonly (and that you have probably witnessed) ...

the one year old who chucks everything off his tray except chicken nuggets, french fries, and juice.
4 Month Well Check

Make FIRM & CONCRETE suggestions on how to avoid junkfood addiction.

NO JUICE, NO CHOCOLATE MILK, or ANY OTHER SUGARY DRINK.... only breast milk, formula, or water.
4 Month Well Child

IF they are ready for more advice....

Examples of other teaching points.....

YOGURT
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<th>Serving per Container: 4</th>
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<td>Calories 170</td>
<td>Protein 9g</td>
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<tr>
<td><strong>Stonyfield Nonfat Vanilla</strong></td>
<td>Calories 170</td>
<td>Protein 9g</td>
</tr>
<tr>
<td>Total Fat 9g</td>
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<tr>
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<tr>
<td>Sugars 12g</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Protein 9g</td>
<td></td>
<td>18%</td>
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YOGURT

Stonyfield Whole Plain vs Stonyfield Nonfat Vanilla

Jan. 27-28, 2017
Peanut Butter

INGREDIENTS
PEANUTS, CONTAINS 1% OR LESS OF SALT.

NUTRITION FACTS
Serving Size: 2 Tbsp (32 g)
Servings Per Container About 14

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<th>Amount Per Serving</th>
<th>Calories 200</th>
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<td>Trans Fat 0g</td>
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<tr>
<td>Cholesterol 0mg</td>
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<td>Sodium 105mg</td>
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<td>Total Carbohydrates 6g</td>
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</tr>
<tr>
<td>Sugars 1g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein 8g</td>
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Peanut Butter VS Reduced Fat Jif

Nutrition Facts
Serving Size: 2 Tbsp (38g)
Servings Per Container

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
<th>Calories 190</th>
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<tbody>
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<td>Total Fat 12g</td>
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<tr>
<td>Trans Fat 0g</td>
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<tr>
<td>Polyunsaturated Fat 3.5g</td>
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<tr>
<td>Monounsaturated Fat 6g</td>
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<tr>
<td>Cholesterol 0mg</td>
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<tr>
<td>Sodium 200mg</td>
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<tr>
<td>Total Carbohydrates 15g</td>
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<td></td>
</tr>
<tr>
<td>Sugars 4g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protein 7g</td>
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</table>
6 Month Well Check

Ask what foods the families has introduced.

Listen, praise, bond, connect.

If no protein or fats yet, then ask the family about favorite healthy dinners and suggest adding those proteins.
6 Month Well Check

Ask about WATER

Is it city, well, or bottled? Do we know if it has fluoride? Use this opportunity to dispel fears on city water & to REMIND NO JUICE or SUGARY DRINKS
6 Month Well Check

Remind again about protecting the babies taste buds from being kidnapped by processed foods.
6 Month Well Check
ADDRESS FINGER FOODS
FINGER FOODS

Ask the family if they can think of some healthy choices for finger foods? LISTEN, PRAISE, BOND.

Consider a hand out with healthy finger food choices

Tofu, beans, peas, lentils, quinoa, avocado, salmon, diced shellfish, diced mollusks, shredded chicken, tiny pieces of meat, fruit, veggie

(address fears on choking)
9 Month Well Check

Ask about feeding.... LISTEN, PRAISE, BOND.

Angle families towards proteins, fats, and fiber filled carbs. Use the science, “food is thy medicine” satisfaction (better sleep), iron (less anemia, better brain development), fish (Vit D, Omega 3 FA), fiber (prevents constipation)
9 Month WCC

Check in on SNACKS & DRINKS.... be prepared to give a FEEDBACK SANDWICH

Remember to use the theme..... food companies are trying to kidnap your child’s taste buds & leave you with a picky eater.
Today, by the time the average child in a developed country turns 8 years old, they’ve had more sugar in their lives than the average person did in their entire lifetime just one century ago.

PreventDisease.com
Ask about feeding... LISTEN, PRAISE, BOND.
1 year Well Check

Ask if the child is imitating their behavior... PRAISE that milestone. Acknowledge the importance of being a role model.

Encourage ROLE MODELING healthy eating.

Encourage family mealtimes.
One Year Well Check

REMIND NO SUGARY DRINKS... acknowledge that WIC will be giving them juice.

Eliminate toting of bottles and sippy cups

Address condiments.
ONE YEAR and BEYOND....

DON’T forget your SOCIAL PSYCHOLOGY....

LISTEN, PRAISE, BOND

Consider a MOTIVATIONAL INTERVIEWING cme

Remember the FEEDBACK SANDWICH
ONE YEAR & BEYOND....
PREPARE FAMILIES for what is coming at schools and daycare....

School breakfast in the United States has an added sugar total of 13 tsp (Apple Jacks times 2 is 6 tsp, chocolate milk is 3 tsp, and peaches in heavy syrup is 4 tsp)
MAKE your JOB easier....

Ask the Ob service to discuss limiting added sugar/ sugary drinks with expectant moms.

Encourage your hospital system to remove all sugary drinks .

Work towards elimination of all flavored milks from local schools and daycares.

Disseminate a strong & clear message against sugar in your community (include WIC educators)
I MAKE YOU ... SICK

JUNK O-LOT MILK
Drinking 1 soda per day increases a child’s risk of becoming obese by 60%
Drinking 1 to 2 sodas per day increases your risk of type 2 diabetes by 25%
Treat sugary drinks like a VITAL SIGN
Education I recommend...

Dr. Lustig lecture, The Bitter Truth about Sugar on youtube

Fed Up.... available on Netflix

The Big Fat Fix with Dr. Aseem Malhotra