Big business vs little babies
A history of infant formula

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March 1 2013

Objectives

- Discuss the origins of infant formula
- Describe the battle for breast milk
- Examine the infant formula business

Before the 1900s...

- Everyone was breastfed
- Wet nursing a profession: Status determined by whom you fed

Amenophis II and his wet nurse

- 7th Pharaoh of Egypt's 18th Dynasty
- Highly athletic, he could shoot an arrow through a copper plate while driving a chariot with the reins tied about his waist

From 1775-96, the Dublin Foundling Hospital used artificial feeding
Mortality was 99.6%
Early baby milk

- Gail Borden (USA) - condensed milk
- Evaporated milk
- Sweetened condensed milk

Early 1900s USA

Doctors would customize artificial milk using a formula

1867
Henri Nestlé

- German dealer of mustard, grains, oil lamps
- Created Nestlé’s Milk Food
- Sold 500,000 boxes in 1873
- 1905 merger with Anglo Swiss Condensed Milk Co.
• Cholera is water-borne
• Suspected in 1849 per John Snow; confirmed per Robert Koch, 1883

“Carnation Milk is......just pure fresh cow’s milk that has been reduced to the consistency of cream by evaporating part of the water ... is hermetically sealed...”

Problems in bottleland.....

Prevention of Infant Mortality by Breastfeeding
• 74% of infant deaths 2 wks -1 yr were bottle fed
• Breastfeeding all infants would have reduced infant mortality from 127/1000 to 71/1000
• Deaths among bottle fed babies “jumps up tremendously” Jul., Aug., Sept.
• Bottle fed infant >2 weeks 6 x more likely to die than breastfed infant

William Davis, MD, Boston Medical and Surgical Journal Feb 15, 1912
What was going wrong?

- Milk substitutes nutritional disasters:
  - High sugar content
  - No Vitamins A or D (added in 1950s)
- 1911 - British government placed warning label on sweetened condensed milk – not for babies
- High rates of infection around feeding method

1924

AMA committee formed to investigate infant food advertising

1939

Dr. Cicely Williams

- British pediatrician
- Saw epidemic of blind, rachitic infants in Asian nations
- Lack of vitamins in formula?
- “Milk and Murder” speech to Singapore Rotary Club

“If you are legal purists you may wish me to change the title of this address to Milk and Manslaughter. But if your lives were embittered as mine is, seeing day after day this massacre of the innocents by unsuitable feeding, then I believe you would feel as I do that misguided propaganda on infant feeding should be punished as the most miserable form of sedition, and that these deaths should be regarded as murder...

Anyone who, ignorantly or lightly, causes a baby to be fed on unsuitable milk, may be guilty of that child’s death.”

Dr. Cicely Williams, 1939
Milk and Murder Speech

Despite the issues, formula companies continued to grow. More and more infants were bottle fed. New marketing strategies were developed ...
1938 Carnation brochure with contented cows

The contented Carnation baby

Wartime: the husky Carnation baby

The superstar Carnation baby
1955 ad

"My doctor said Carnation"

2013

A trusted baby formula is within your reach

Transitioning from Breastmilk to Formula

Use this chart to make a gradual change from breastmilk to formula. If you would like to continue with some breastfeeding, you may stop transitioning at any point on the chart that’s right for you.
1950s-70s USA

- Breastfeeding rates decreasing
- Educated white moms moved to suburbs, washing machines, infant formula
- Bromocriptine
- Artificial baby milk feeding - the norm
- 1972 - all time low – only 22% of US mothers initiated breastfeeding

Meanwhile, in developing nations.....

- Billboards (“Lactogen and Love”)
- Newspaper ads
- Radio ads (for the illiterate)

Using formula in developing nations

- Buy it (boat? Walk 10 miles?)
- Find water (rain barrel, stream)
- Gather wood, make a fire
- Boil water
- Mix formula
  - Read the directions (literacy)
  - Make it last (dilute a little?)
- Find clean bottle and nipple
- Repeat 6 x a day if no refrigeration
- Buy more

Senator Edward Kennedy, 1978

“Can a product which requires clean water, good sanitation, adequate family income, and a literate parent to follow printed directions be properly and safely used in areas where water is contaminated, sewage runs on the streets, poverty is severe and illiteracy is high?”

Formula in developing nations

- Diarrhea
- Diarrhea
- Dehydration
- Diarrhea
- Dehydration
- Death
1974

- *The Baby Killer*
- Pamphlet by War on Want (British charity)
- Within 2 months translated:
  - Nestlé Totet Babys
  - Nestlé Kills Babies
- Libel suit filed by Nestlé
- Nestlé won but judge gave stern warning

1975

- *Bottle Babies*
- A film by Peter Krieg
- Visual image of mother scooping dirty water from stagnant pool to be mixed with powdered infant formula

1977

- **Nestlé Boycott**
- Outrage over Nestlé marketing strategies in developing countries
- Launched by Infant Action Coalition (INFAC)
- Grass roots effort by women’s groups and church groups in USA, Canada, Europe, New Zealand

1977-1984

- **Nestlé Boycott**
- International media coverage
- Cost Nestlé $millions$, damaged reputation
- Ended in 1984 - Nestlé agreed to change some marketing strategies
1988 - ongoing
Boycott reinstated

• Extensive violations
• Boycott reinstated against Nestlé and American Home Products (Wyeth Labs)

1979

• Mounting concerns
• WHO and UNICEF
• International meeting on infant and young child feeding

Recommendation

• Develop an international standard/code
• Goal: Control inappropriate marketing practices of infant formula and other products used as breastmilk substitutes


• Adopted by the World Health Assembly
• The vote …

The Code

• No advertising of infant formula
• No free samples or supplies
• No promotion of products through health care facilities; no free or low cost formula
• No contact between marketing personnel and moms
• No gifts or personal samples to health workers
The Code

- No words/pictures idealizing formula feeding, no pictures of infants, on product labels
- Information to health workers scientific & factual only
- All information on formula feeding, and on labels, to explain benefit/costs/risks

The Code

- Unsuitable products not to be promoted for babies
- All products to be high quality and take account of climatic and storage conditions of the country where they are used

No Vote - USA

- Reagan Administration
- Heavy lobbying by US formula manufacturers:
  - Ross
  - Mead Johnson
  - Wyeth
- Infringed on free speech and restrained trade

1994

President Clinton reversed the US vote on the Code

The Business of Infant Formula
Infant formula sales
- $6-8 billion dollars sold around the world
- $2.5 billion (1/3) sold in the US
- US is a formula feeding nation….

Pharmaceutical business
- $11 billion promoting, marketing products annually
- $5 billion to sales rep force
- $8000-$13,000 per year per MD


Pharmaceutical business
- In 2000 Merck spent $161 million advertising Vioxx
  - Pepsico spent $125 million advertising Pepsi
  - Anheuser-Busch spent $146 million advertising Budweiser.

National Institute for Health Care Management, Research and Educational Foundation

Pharmaceutical business
- 1 study found 96% of physicians and staff had taken samples for personal or family use the previous year

Westfall JM, McCabe H, Nicholas RA. Personal use of drug samples by physicians and office staff. JAMA. 1997;278:141-143

Larry (the Ross salesman at BMC)
- “He is such a nice guy.”
- “We don’t want to hurt his feelings.”
- Larry’s marketing strategies:
  - Talk to you
  - Get to know you; listen to your issues
  - Give gifts to you
  - Give lots of gifts to you
  - Get you to use his product
  - Get you (the health professional/expert) to give out his product
Do you really support breastfeeding or are you working for Larry?

Ross employee manual

“Never underestimate the role of nurses. If they are sold and serviced properly they can be strong allies. A nurse who supports Ross is like another salesperson.”