

Big business vs little babies A history of infant formula

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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

MILK
the most
Most Dangerous Foods!

The epidemic was reported by SIR RICHARD THOMAS THOMAS THE FIRST
INSPECTOR of the LOCAL GOVERNMENT BOARD, in a lecture to the Royal British Nurses' Association, on the 2nd of December, 1900. He also stated that "25 out of 42 of the Board's cases had been slaughtered, as they were found to be suffering from Tuberculosis," that is to say their milk contained the germs of consumption, and that "70 out of every 100 milk cows in the country were diseased!"

A recent Royal Commission, the noble Medical Professor, Sir Starbuck, the Local Government Board, etc., is of opinion that all milk should be sterilized.

AYMARD'S PATENT MILK STERILIZER

In a simple and perfect Apparatus, and should be in every kitchen. It will save water for 4 hours, and the whole of the milk required for the next 24 hours can be freed from germs, and the whole of the cream and substance which forms the base of the milk can be preserved in its natural state, and is perfectly adapted to be used in all cases of infantile and general consumption. It is the most perfect and simple apparatus for the sterilization of milk, and is the only one that is so simple and so perfect.

MILK STERILIZED BY AYMARD'S STERILIZER

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By Dr. J. H. AYMARD AND JOHN HEDDAN, SENIOR
Manufacturers and Sole Proprietors of the
AYMARD PATENT MILK STERILIZER Co., in London & Paris, ENGLAND.

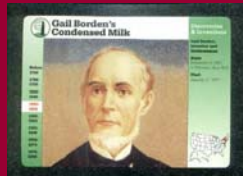
WEIGHTS	1 lb.	2 lb.	3 lb.	4 lb.	5 lb.	6 lb.	7 lb.	8 lb.	9 lb.	10 lb.
SIZES	10	12	14	16	18	20	22	24	26	28

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

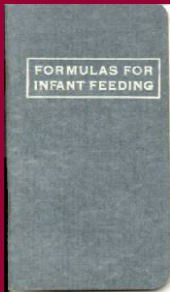


Early baby milk

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



Early 1900s USA



Doctors would customize artificial milk using *a formula*

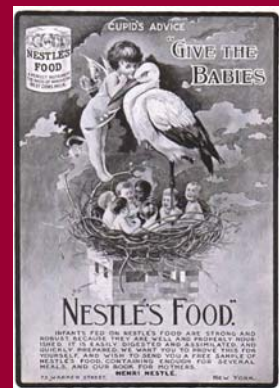
$$M = \frac{Qb - bC}{b} \quad C = \frac{L(b^2F - a^2P)}{ab^2 - a^2b} \quad C = (2F + S + P) \times 1/4Q$$

15 Highly-complicated formula used in infant feeding (Cited in Jelliffe, *Human Milk in the Modern World*)

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.

1900 ads




Babies Die

In nine cases out of ten because of improper feeding. In nine cases out of ten, Babies under a year old are fed on cow's milk in one form or another. The use of cow's milk is fraught with danger. Your doctor will confirm this statement.

There is a food for Babies which does not require the addition of cow's milk—a food possessing especial value in hot weather—a food which saves thousands of lives from Cholera Infantum every year. It requires the addition of water only in preparation. It is


Nestlé's Food.

A sample tin of Nestlé's Food will be sent on application.
Theo. Lanning & Co., Sole Agents,
117 Nassau St., New York.



In hot weather more infants die than in all the rest of the year. Why is this? Principally because they are fed on unsuitable food. Nestlé's Food is known as the safest diet and best preventive of Cholera Infantum and all summer complaints. Consult your doctor about this important fact. For fuller information write for our book "THE BABY," which will be sent free to any address. Please mention this magazine.
Nestlé, ANGLO-SWISS CONDENSED MILK CO., CHAM, SWITZERLAND.
NESTLÉ'S FOOD.

- Cholera is water-borne
- Suspected in 1849 per John Snow; confirmed per Robert Koch, 1883




NESTLÉ'S FOOD

A BLESSING TO LIFE'S SUNRISE

NESTLÉ'S Food is a *Healthful Food* for infants and invalids, because it is pure and perfectly nourishing. *Nestlé's Food* is easily digested and assimilated, and greatly improves the appetite. It requires the addition of water only for use, or prepared for use. It is the best food for infants, and is the only one of Nestlé's Food, containing enough for several meals, and is best for Mothers, babies and Invalids.


NESTLÉ, 117 Nassau St., New York.



From a 5 lb Skeleton to This

SMITH KLINE & FRENCH CO. PHILADELPHIA, PENN.

"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..."



Food for the Baby

If mother can't nourish it; if it is pale and thin, try

Somatose

Mother's Milk.

Somatose is a powder made from the most nourishing elements of meat, and used in proper proportion with sterilized milk forms the best substitute known for mother's milk. Send for formula, mailed free.

At drugists, in 2-oz., 1/2, 1/4 and 1/8 tin.

Also the following specialties, Somatose-Escal, Somatose-Cocoa, Somatose-Chocolate — each containing 1.0 per cent. Kibbles. Very convenient and palatable preparations. Preparing made by instruction at Co., New York, agents for Parthenofabrikas von. Frick, Bager & Co., Scherfeld.

Problems in bottleland.....

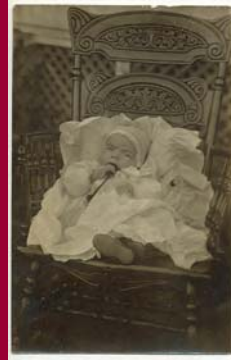
Prevention of Infant Mortality by Breastfeeding

- 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**



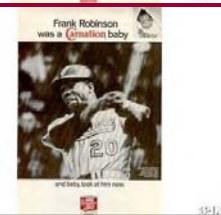
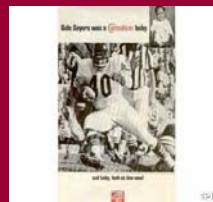
**The
contented
Carnation
baby**



**Wartime:
the husky
Carnation
baby**

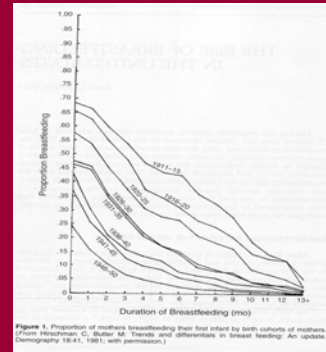


**The
superstar
Carnation
baby**



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

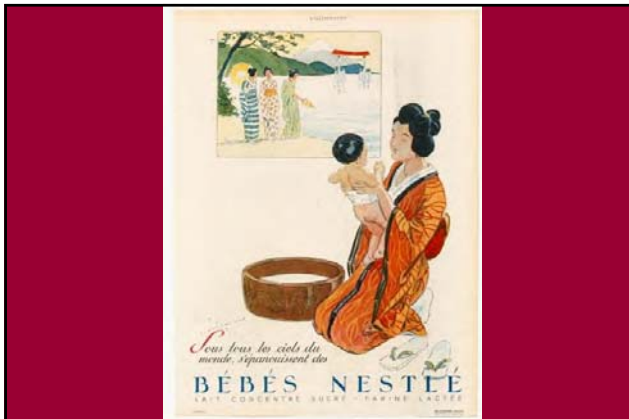
Senator Edward Kennedy, 1978

“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 (INFACT)
- 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

1981: The International Code of Marketing of Breast-milk Substitutes

- Adopted by the World Health Assembly
- The vote ...

118-1

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

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

Wazana A. Physicians and the Pharmaceutical Industry: Is a Gift ever just a Gift? JAMA 2000;282(3):373-380

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

Reinold JR, McCabe H, Nicholas AA. 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.”*