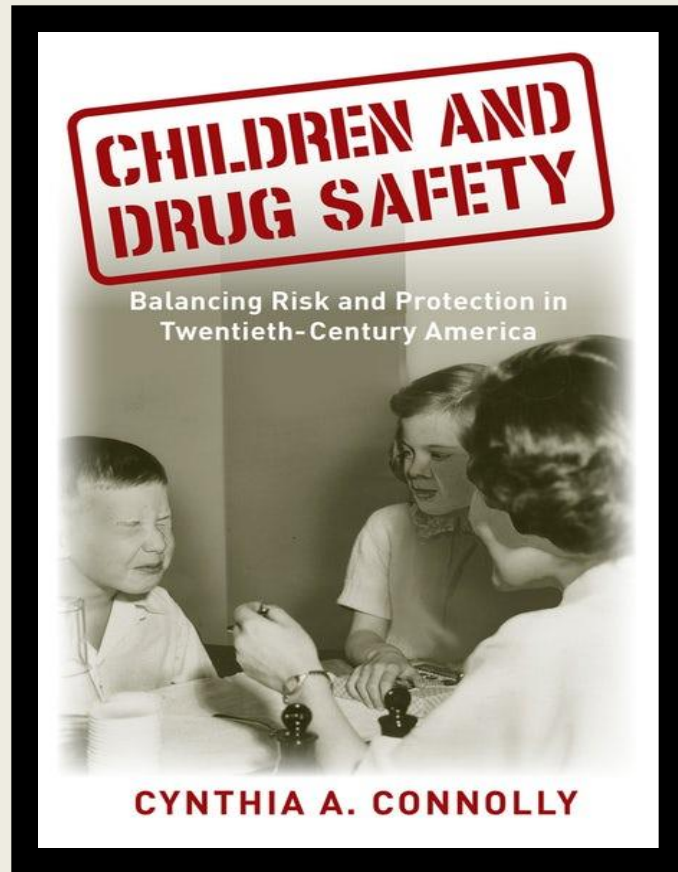


“A Case Study of Unintended Consequences:  
Children and “Candy” Aspirin in Twentieth Century America,”



*Cindy Connolly, PhD RN  
Professor of Nursing, Rosemarie B. Greco Endowed Term Chair in Advocacy  
University of Pennsylvania School of Nursing*

*1953, Eli Lilly “Juvenile Board of Medication Taste Testers”*

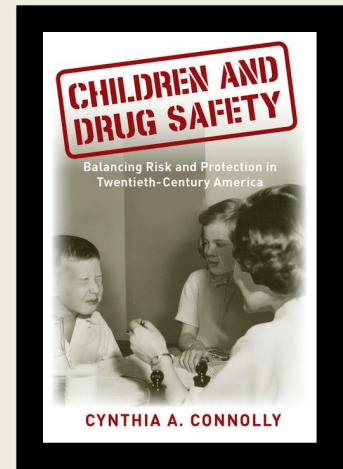


**“Let the kids decide for themselves what flavor they like” by “giving them a taste of their own medicine.”**

*Credit: American Institute for the History of Pharmacy, Madison, Wisconsin  
Courtesy: Eli Lilly & Co.*

# Thank You

- John Swann PhD, FDA History Office
- <https://www.fda.gov/about-fda/fda-history/fda-history-office>



Funding Acknowledgements: Robert Wood Johnson Foundation;  
National Endowment for the Humanities; American Institute for the History of  
Pharmacy;  
University of Pennsylvania Research Foundation;  
American Association for the History of Nursing; Trustees Council of Penn Women

# Parent's Magazine, 1949



**Mother...  
HERE'S THE ASPIRIN TABLET THAT "Fits"  
YOUR CHILD'S NEEDS**

IT'S ST. JOSEPH ASPIRIN FOR CHILDREN! Approved by mothers everywhere because it solves child dosage problems and eliminates all guesswork about correct dosage. *Easy To Give* because it's not necessary to cut or break tablets. *Assures Accurate Dosage* because each tablet contains  $1\frac{1}{4}$  grains of aspirin —  $\frac{1}{2}$  the regular 5-grain adult tablet. *Easy To Take* because it's orange flavored and sweetened to a child's taste. Bottle of 50 tablets, 35c.

Be sure to always ask for the original and genuine St. Joseph Aspirin For Children because there is no other product just like it! Buy it now!



**ST. JOSEPH ASPIRIN FOR CHILDREN**

Made by the  
St. Joseph As  
World's largest



**Mother...  
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... "the original aspirin for children" bearing the "St. Joseph" name.

**ST. JOSEPH ASPIRIN FOR CHILDREN**



**First Choice OF MILLIONS  
BECAUSE IT'S ASPIRIN AT ITS BEST**

St. Joseph Aspirin is pure as money can buy—fast, dependable. 36 tablets 25c, 100 tablets only 45c. Why pay more—or accept less than the "St. Joseph" guarantee of quality.



**St. Joseph ASPIRIN**



WORLD'S LARGEST SELLER AT 10¢



MRS. DEAN GOCHENOUR, Fort Wayne, Indiana, says:

*"My doctor prefers St. Joseph Aspirin For Children and I prefer its accurate dosage and safe, gentle action"*

St. Joseph Aspirin For Children assures the *best, safest, fastest* pain-relieving, fever-reducing help money can buy. With this *specialized* tablet you give dosage "just as the doctor orders"—no over-size tablets to cut or break, no messy liquids to measure. Millions of mothers prefer St. Joseph Aspirin For Children because it acts so gently *without stomach upset*. Children like its pure orange flavor. No wonder it's America's mother-and-child favorite!



*St. Joseph Aspirin For Children is approved by more doctors than any other brand*



MRS. J.E. ANDERSON, Denver, Colorado: "St. Joseph Aspirin For Children is the only brand I ever buy because it is easier on my children and me. With it I know I'm giving accurate dosage."



MRS. HARLAND EAGLE, JR., Atlanta, Ga.: "My doctor always prescribes St. Joseph Aspirin For Children. My children welcome its orange flavor, and I'm sure of giving dosage just as the doctor orders."



"For my family's adult aspirin needs,

I always buy regular St. Joseph Aspirin"

Have you asked yourself . . .

*“What’s  
The Best Aspirin  
I Can Give My  
Child?”*



Thousands of doctors answer by specifying  
*“St. Joseph Aspirin For Children”*



Doctors know this specialized tablet is right in every way for your child. So easy to give—each tablet is  $1\frac{1}{4}$  grains ( $\frac{1}{4}$  regular adult dose), the preferred standard of accurate dosage measure. Children like its pure orange flavor and take it willingly. That’s why it usually acts faster to bring relief.

Buy 39¢ size today. Your child may need it tonight.

A PLOUGH PRODUCT



*World’s Largest Selling Aspirin For Children*

*For Your Family’s Regular Aspirin Needs, Demand*

*St. Joseph  
ASPIRIN*

200 tablets 79¢  
100 tablets 49¢  
12 tablets 10¢

*“Children like its pure orange flavor....”* Parent’s Magazine, 1952



The Makers of Bayer Aspirin  
Announce

**NEW, FLAVORED**  
**CHILDREN'S SIZE**  
**BAYER ASPIRIN**

It Tastes Like Your Children's Favorite Candy...  
So Wholesome and Delicious Children Like to



**CHEW IT**  
—or let it melt on  
the tongue



**DRINK IT**  
dissolved in  
water



**MIX IT**  
with their  
food

Tastes Like your Children's Favorite Candy

Reading Eagle June 15 1952



# A Big Business Built for Little Customers

Plough, Inc., Memphis, Tennessee, employs almost every known automatic machine available for processing its products and handling a big volume of small orders profitably. Costs went down rapidly in newly opened plant and office

By Eugene Whitmore

FOR the first 9 months of 1951, sales figures for Plough, Inc., showed an increase of from \$11,800,000 to \$12,326,000—a gain

ing costs high, due to overcrowding, the necessity for small operating units, and a vast amount of handling and intercommunications

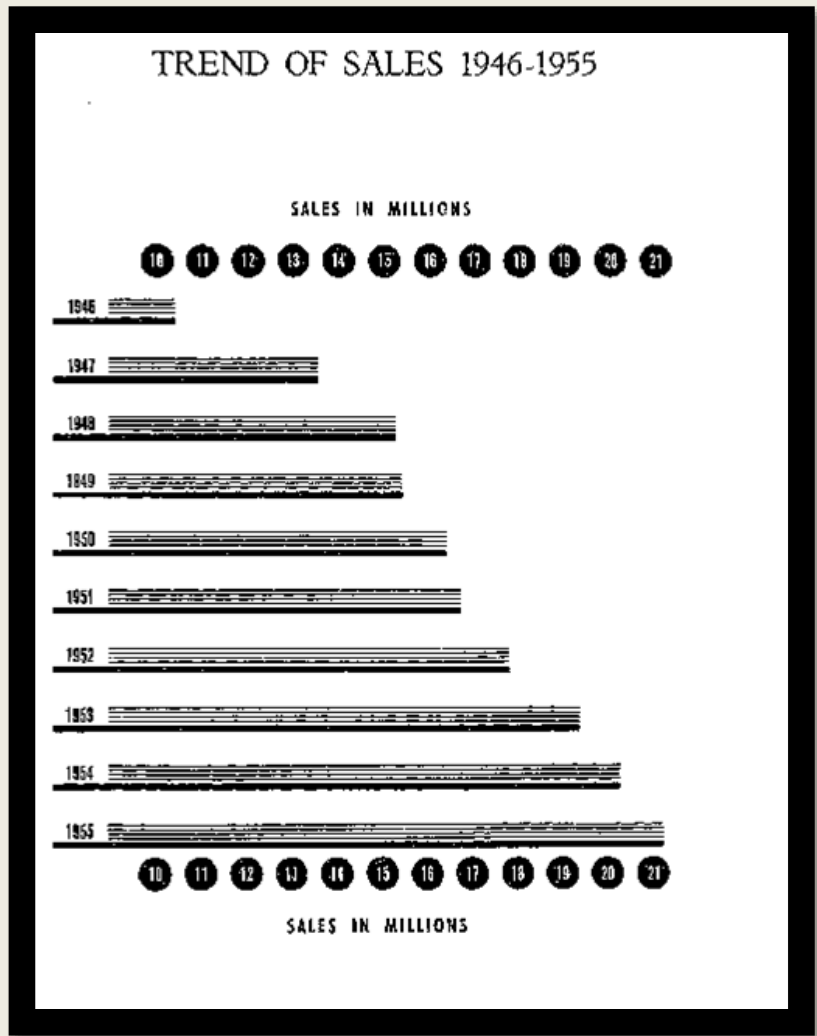
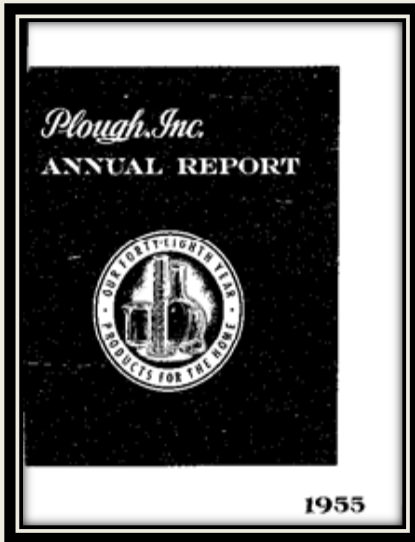
about 900 sales calls daily. Chain stores and wholesalers buy 55 per cent of the company's volume, and independent retail stores account for the remaining 45 per cent. There are 65,000 active, direct buying accounts on the books; these, 35,000 are retail druggists; the remainder is largely small general stores, variety stores and other retailers who handle one or more of the company's products.

There are 5,000 wholesale and chain-store customers. These 5,000 customers buy 55 per cent of the total production of the company, and the other 45 per cent goes to 65,000 direct small-customer accounts.

The 55 per cent of sales to chain

American Business, 1951





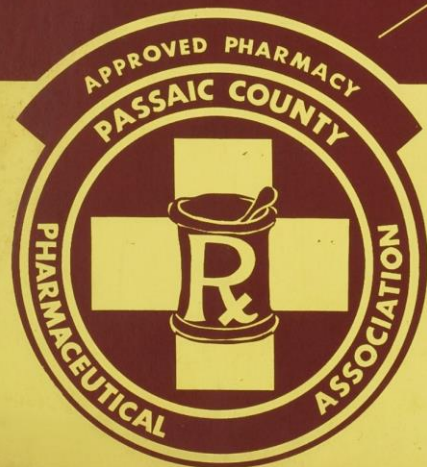
pg. 12  
**Plough Estimates 1956 Net  
 At New High, 50% Above 1955**

*Wall Street Journal, Feb. 25, 1957*

# SAVE YOUR CHILD

KEEP  
MEDICINES  
OUT OF REACH

"SAFE STORING  
SAVES LIVES!"



PRESENTED  
IN THE INTEREST  
OF PUBLIC HEALTH  
by the

**PASSAIC COUNTY  
PHARMACEUTICAL ASSN.**

**“We do not know of a single instance wherein serious results have accrued even though we have been made aware of several instances of children taking a whole bottle.”**

Letter dated May 3, 1954 from H. B. Solmson Plough Executive Vice President to American Academy of Pediatrics  
Food and Drug Administration Archives, National Archives College Park, Maryland. RG 88, File Number 500.23 Box 1991



“....safety cap designed  
To prevent opening....”



**JAN STERLING**  
(Mrs. Paul Douglas),  
famous motion picture star,  
is also the mother of a  
handsome son, Aoki Douglas

With St. Joseph Aspirin For  
Children, I'm sure of giving  
dosage 'just as the doctor orders' "

—Jan Sterling

When you give St. Joseph Aspirin For Children there's no  
messy liquid, no inaccurate measuring of messy liquid.  
With St. Joseph Aspirin For Children, dosage is  
dependable. Its safety has been proved by  
years of use.  
The new! St. Joseph Aspirin For Children is first  
with a Safety Cap designed to prevent opening by  
children. Only St. Joseph brings you this safety feature.  
As a mother, children prefer the creamy texture and  
taste of this specialized tablet.  
St. Joseph Aspirin is prepared to ease childhood's aches, pains and  
fevers. It's the aspirin approved by more doctors than any  
other for children. Get America's mother-and-  
doctor-approved St. Joseph Aspirin For Children.



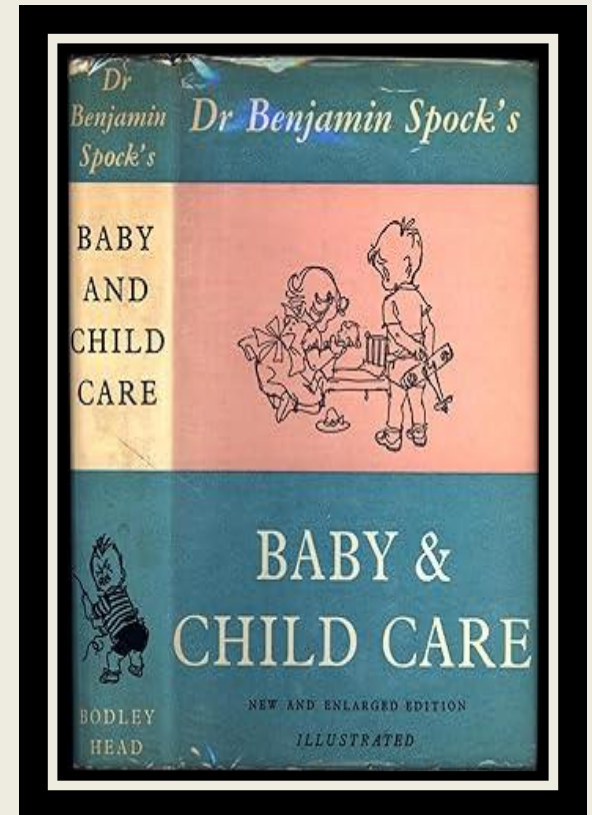
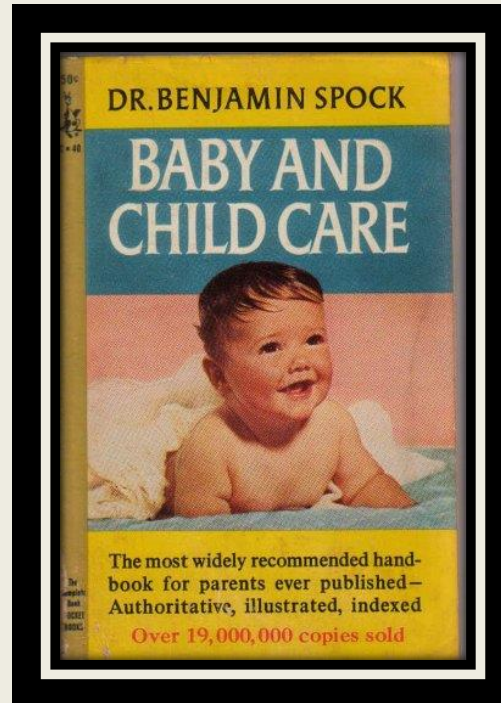
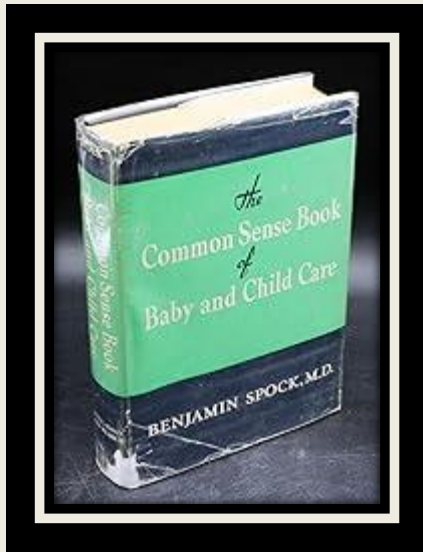
**ST. JOSEPH  
ASPIRIN  
FOR CHILDREN  
Is Approved  
By More  
Doctors  
Than Any  
Other!**

**JAN STERLING ALSO SAYS:**  
"For my family's adult  
aspirin needs, I always  
buy regular St. Joseph  
Aspirin"

Why pay extra for buffering or strong  
combination drugs—why pay more  
for higher priced aspirin—when regu-  
lar St. Joseph Aspirin is the best you  
can buy? Not "loaded" with starch  
filler. Yet ready to go to work faster  
than any other pain reliever tested. You  
get more when you buy St. Joseph  
Aspirin! 100 tablets... only 49¢.

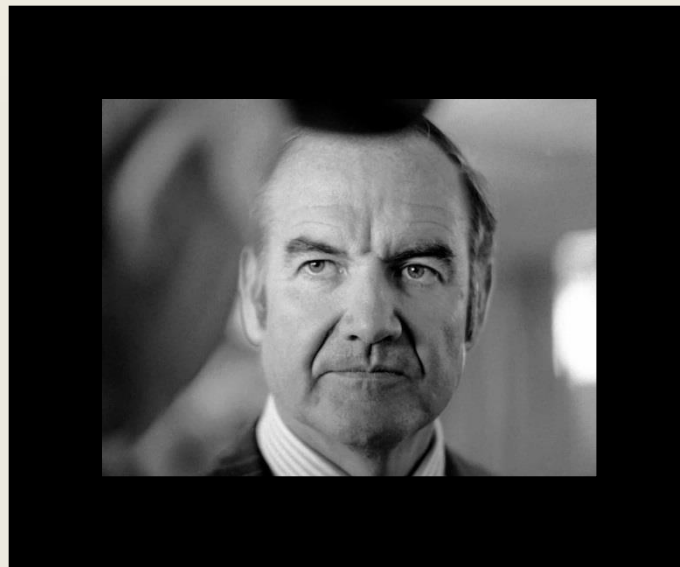
THIS BUY ST. JOSEPH ASPIRIN FOR CHILDREN... FOR ADULTS BUY REGULAR ST. JOSEPH ASPIRIN... THE "FAMILY ASPIRIN PAIR" 3

# Benjamin Spock



# Sen. McGovern Urges Controls On Sale of Aspirin for Children

Washington Post, August 16, 1965 p A.3





**CHILD SAFETY ACT AND PERSONNEL TRAINING**

**HEARINGS**  
BEFORE THE  
**SUBCOMMITTEE ON PUBLIC HEALTH  
AND WELFARE**  
OF THE  
**COMMITTEE ON**  
**INTERSTATE AND FOREIGN COMMERCE**  
**HOUSE OF REPRESENTATIVES**  
EIGHTY-NINTH CONGRESS  
SECOND SESSION

ON

**H.R. 13884, H.R. 14634**

BILLS TO PROTECT THE PUBLIC HEALTH BY AMENDING THE FEDERAL FOOD, DRUG, AND COSMETIC ACT FOR THE PURPOSE OF STRENGTHENING AND FACILITATING MUTUAL COOPERATION AND ASSISTANCE, INCLUDING TRAINING OF PERSONNEL, IN THE ADMINISTRATION AND ENFORCEMENT OF THAT ACT AND OF STATE AND LOCAL LAWS RELATING TO FOOD, DRUGS, DEVICES, OR COSMETICS, AND FOR OTHER PURPOSES

**H.R. 13886, H.R. 14557, H.R. 14632**

BILLS TO PROTECT CHILDREN AND OTHERS FROM ACCIDENTAL DEATH OR INJURY BY AMENDING THE FEDERAL FOOD, DRUG, AND COSMETIC ACT WITH RESPECT TO ASPIRIN INTENDED FOR CHILDREN, SAFETY CLOSURES ON DRUG CONTAINERS, AND CAUTIONARY LABELING OF CONTAINERS OF ARTICLES SUBJECT TO THE ACT WHERE NECESSARY TO THAT END, AND BY AMENDING THE FEDERAL HAZARDOUS SUBSTANCES LABELING ACT TO BAN HAZARDOUS TOYS AND ARTICLES INTENDED FOR CHILDREN, AND OTHER ARTICLES SO HAZARDOUS AS TO BE DANGEROUS IN THE HOUSEHOLD REGARDLESS OF LABELING, AND TO APPLY TO UNPACKAGED ARTICLES INTENDED FOR HOUSEHOLD USE, AND FOR OTHER PURPOSES

JUNE 24; AUGUST 15, 29; SEPTEMBER 12, 19, 1966

**Serial No. 89-43**

Printed for the use of the Committee on Interstate and Foreign Commerce

U.S. GOVERNMENT PRINTING OFFICE

66-965

WASHINGTON . 1966



## THE CHILD SAFETY ACT

Children must be our first concern. They are our hope and our future. Too many children now become seriously ill--too many die--because of accidents that could be avoided by adequate labeling and packaging of dangerous substances. This is senseless and needless tragedy....

“.....limit the amount of children's aspirin available in retail packages...”

# Rendezvous with Destiny

By JAMES F. HOGE

The Following Article Was Presented at the Second General Session of the 85th Annual Meeting of the Proprietary Association in White Sulphur Springs, West Virginia, on May 18, 1966. Mr. Hoge is General Counsel of the Proprietary Association and a Member of the New York Bar.

THE DRUG INDUSTRY THIS YEAR has come to what may be its rendezvous with destiny. Its future is being cast in circumstances of scientific, political and social change; and also—as pertaining particularly to it—in circumstances of unfortunate events and unsympathetic attitudes. New laws have been enacted and more are proposed—laws designed to change the industry's relationship to the public and to the government. Saying that he was “aware of pressures to bring the drug industry under tighter federal control,” Commissioner Goddard—who may be the catalyst of our destiny—last month told the Pharmaceutical Manufacturers' Association (PMA):

There is a real danger that the pharmaceutical industry as you and I know it today may be altered significantly, altered beyond your present fears, and altered beyond recall.

The Commissioner related this danger to industrial irresponsibility. He gave that as his diagnosis of a disease which can undermine an industry, and he based his diagnosis on an enumeration of symptoms, including poorly prepared Investigational New Drugs (IND's) and New Drug Applications (NDA's), and improper labeling and advertising.

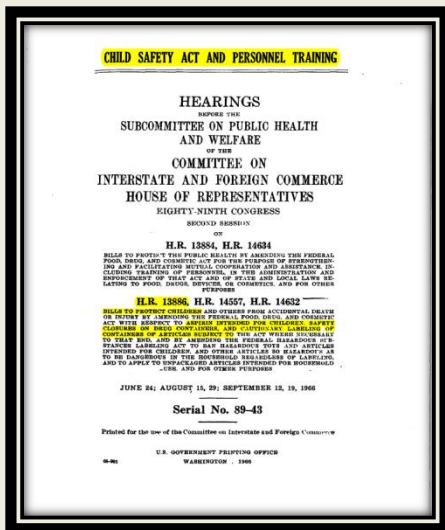
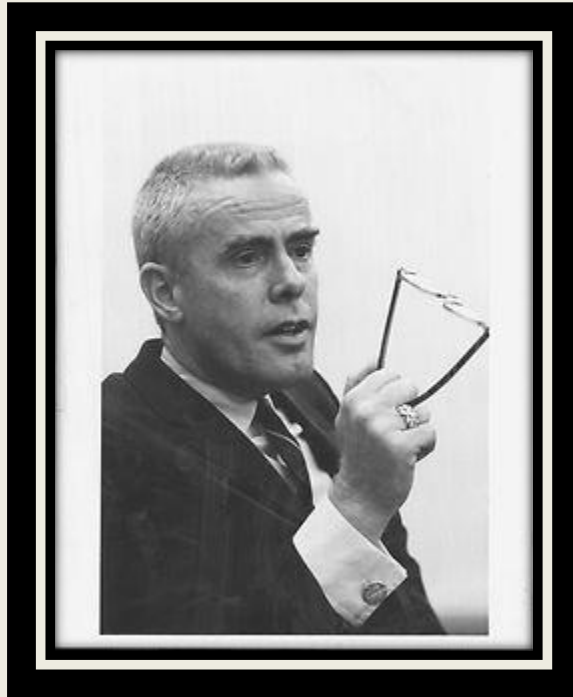
Taking that as a starting point, let me say that my long experience in this field does not support a charge of irresponsibility, or any comparable generalization. But it does impel me to say that the Commissioner is ever so right in associating these symptoms with the dangers of tighter federal control.

The Commissioner's remarks were directed specifically to the pharmaceutical part of the industry. But the proprietary part is not

President's “consumer message” and related to it. One of them, H. R. 13884, pertains to federal and state cooperation in the enforcement of federal, state and local laws. Another, H. R. 13885, would be called the “Drug Safety Act of 1966.” As to proprietary drugs, it would amend existing law so substantially as to swallow up and replace nearly all other labeling requirements. The third, H. R. 13886, pertains primarily to the protection of children, dealing specifically with aspirin products and hazardous substances.

The “evil genius” of these bills is that they are embodied in

# James L. Goddard MD, FDA Commissioner, 1966-1968



Products among "Top 10" substances which were reported 100 or more times, July 1959 to December 1961

Product	Cases	Percent <sup>1</sup> hospitalized	Product	Cases	Percent <sup>1</sup> hospitalized
1. Aspirin.....	15,546	13.9	19. "Comet".....	169	0.0
2. "Clorox".....	1,855	14.3	20. "Harris Famous" roach tablets.....	168	5.6
3. Kerosene.....	1,656	39.5	21. "6-12" insect repellent.....	168	8.5
4. "Ex-Lax".....	1,021	6.0	22. "Poly-Vi-Sol".....	166	0.0
5. "Drano".....	989	50.9	23. "Mr. Clean".....	162	13.8
6. Ammonia.....	420	40.8	24. "Sani-Flush".....	161	22.5
7. "Pride" furniture polish.....	360	32.6	25. "Carter's Little Pills".....	161	7.5
8. "Lysol".....	356	29.0	26. "Roman" cleanser bleach.....	158	6.5
9. "Old English" polishes.....	303	50.3	27. "Joy".....	145	5.7
10. "Gator Roach Hives".....	275	21.3	28. "Chocks" vitamins.....	127	0.0
11. "Lestoll".....	262	27.9	29. "Ajax".....	121	13.6
12. Lye.....	245	55.1	30. "I lily's" ant cup.....	119	27.3
13. "Purex".....	240	13.0	31. "Easy-Off" oven cleaner.....	101	29.8
14. "Pine-Sol" disinfectant.....	212	31.5			
15. "Black Flag".....	200	25.5	Total "31".....	26,425	20.1
16. "Real-Kill".....	194	25.3	Total cases with trade name specified.....	34,653	20.0
17. "Raid".....	192	22.7			
18. "Windex".....	173	3.1			

Substances most frequently ingested by children under 5 years of age, reported by poison control centers,<sup>1</sup> 1959-62

Type of substance	1962		1961		1960		1959	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Aspirin.....	8,799	21.6	6,968	21.8	5,930	20.5	2,901	19.0
Bleach.....	2,155	5.3	1,417	4.4	1,055	3.6	527	3.4
Soaps, detergents, cleaners.....	1,727	4.2	1,384	4.3	1,417	4.9	728	4.8
Insecticides (excluding mothballs).....	1,678	4.1	1,687	5.3	1,413	4.9	941	6.1

# Aspirin Industry Response

## 1966 Child Protection Act Hearings

- Deny the problem/data
- Blame parents (and children)
- Regulation harms children's interests and American business

# A Model Public Private Partnership?

**“The process of development of the use of these closures may be viewed as a model for other areas of accident prevention.”**

Lorne K. Garrettson, “The Child Resistant Container: A Success and a Model for Accident Prevention,” *American Journal of Public Health* 67 (February 1977): 135–136.

# Considerations for 2023

- Is there data available to suggest that “candy-like” features accelerate a trend toward their use?
- Do adults perceive more palatable medications as safer?
- Is there evidence that candy/palatability marketing shapes consumer behavior?
- Was the “candy-like” formulation to blame for the increase in poisoning?