

# History and Changes in the WIC Program

## Evolution of the WIC Food Packages 1974 - Present

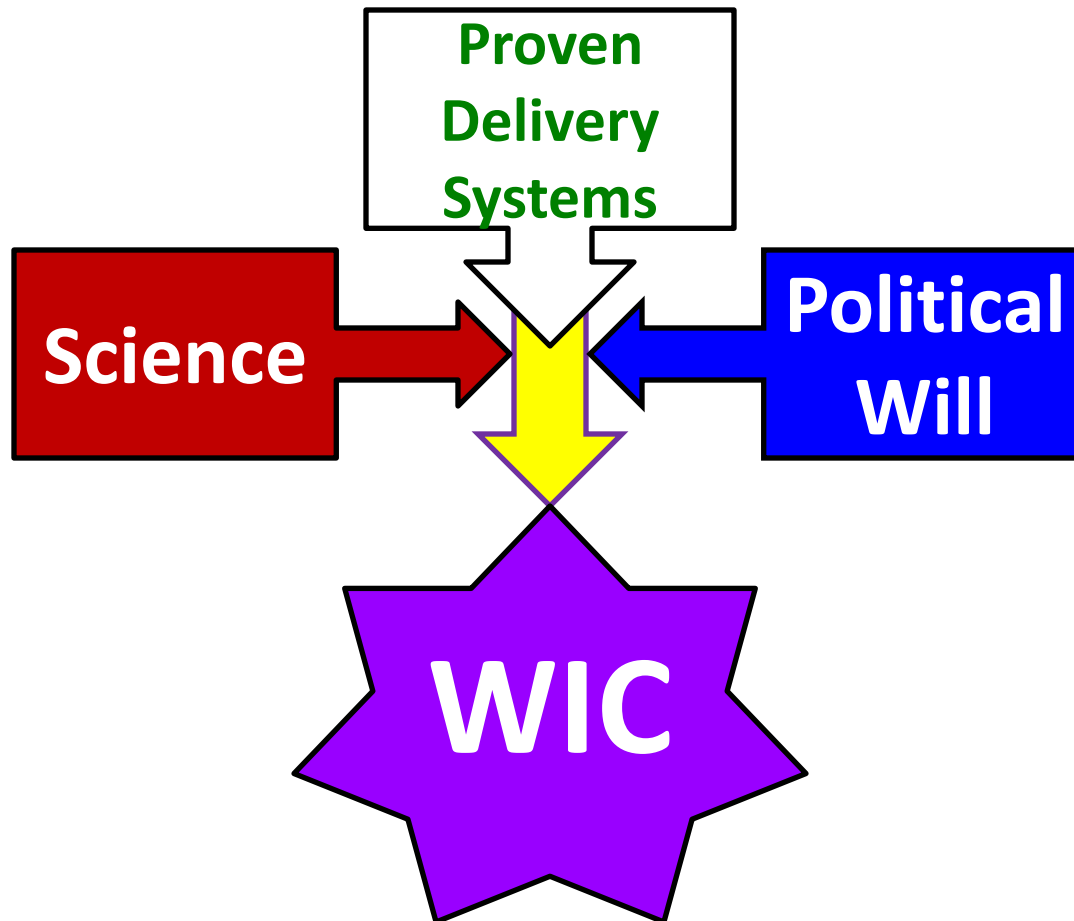
Presenters: Anne Bartholomew  
Patti Mitchell



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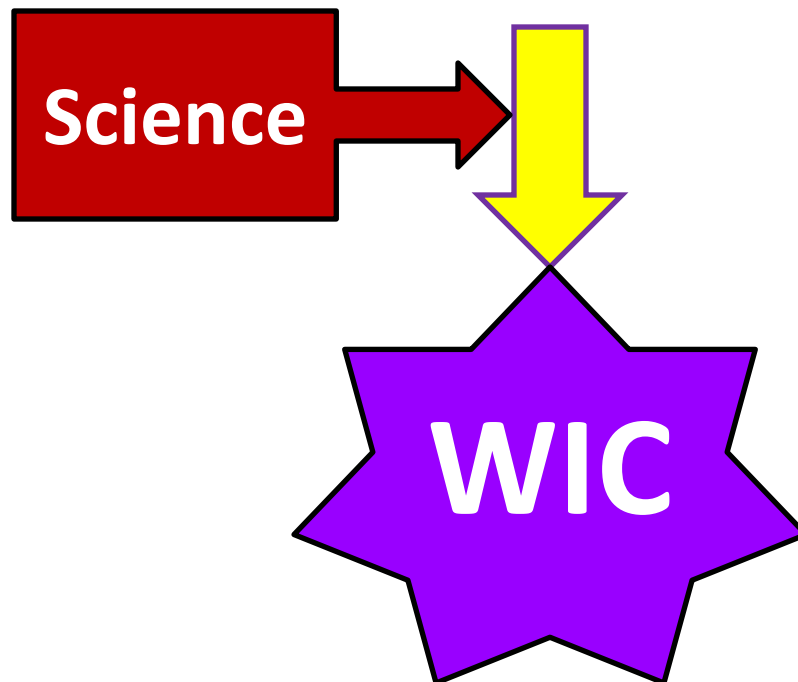


# The confluence of science, proven delivery systems and political will led to the WIC Program





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# Food Supplementation in Pregnancy First Found to Improve Outcomes

- 1941: J.H. Ebbs, F.F. Tisdall and W.A. Scott  
**“The Influence of Prenatal Diet on the Mother and Child”**
  - U. of Toronto Depts of Paediatrics and Obstetrics
  - Presented April 16, 1941 at the eighth annual meeting of the American Institute of Nutrition in Chicago
  - Published in the Journal of Nutrition 1941



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# Ebbs, Tisdall and Scott, 1941

- Dietary assessment of 380 low income pregnant women in 4<sup>th</sup> or 5<sup>th</sup> month of pregnancy
  - Classified into 2 groups: Poor v. Good diet
- Assigned “poor diet” women to 2 groups:
  - Poor Diet (control)
  - “Supplemented-to- Good” (intervention) (received free supplemental foods)



# Ebbs, Tisdall and Scott's Intervention (1940-41) Foods Delivered to Home

- **Daily**
  - 30 oz. fluid milk
  - 1 fresh egg
  - 1 fresh orange
  - Vitamin D capsule
- **Weekly**
  - 0.5 lb cheese
  - 32 oz canned tomatoes
- **Gave at clinic**
  - wheat germ (with malt + iron) to provide 0.5 oz/day
- Dietitian gave dietary advice to the **“Good”** and **“Supplemented-to-Good”** groups: diet + budgeting for food + *“switch to whole grain bread”*
- Social worker did home visit to Supplemented group to check consumption of foods delivered to the home





# Ebbs, Tisdall & Scott 1941

Percent of cases	Poor Diet (control)	Supplemented -to-Good	Good Diet
Anemia	28.6	16.1	21.6
Toxemia	7.6	3.4	3.0
Miscarriage	6.0	0	1.2
Stillbirth	3.4	0	0.6
Mastitis	4.5	1.1	2.0

# Surveys 1956-1970 Found Malnutrition

- **Analysis of data from all 20 North American surveys revealed similarities in the general pattern of nutritional problems encountered and the populations at risk.**
  - Dental caries
  - Goiter in females
  - Growth retardation in preschool children
  - Female obesity
  - Low levels of hemoglobin, vitamin A, thiamin and riboflavin



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# Maternal Nutrition and the Course of Pregnancy

Maternal  
Nutrition  
and the  
Course of  
Pregnancy

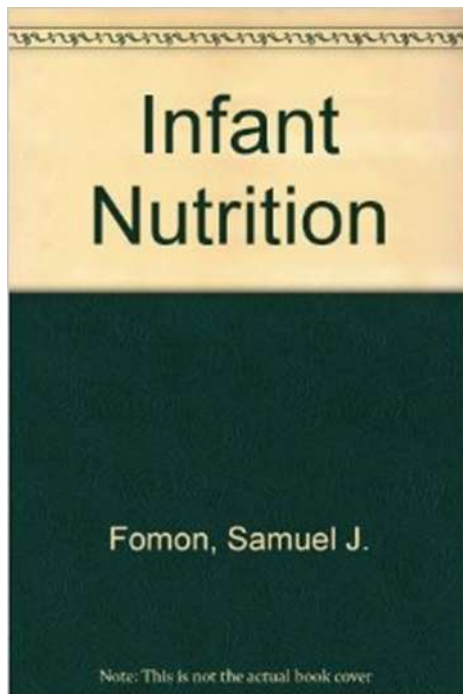
National Academy of Sciences

- 1966-1969 National Academy of Sciences, Food and Nutrition Board *Committee on Maternal Nutrition*
- Published in 1970



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# Infant Nutrition



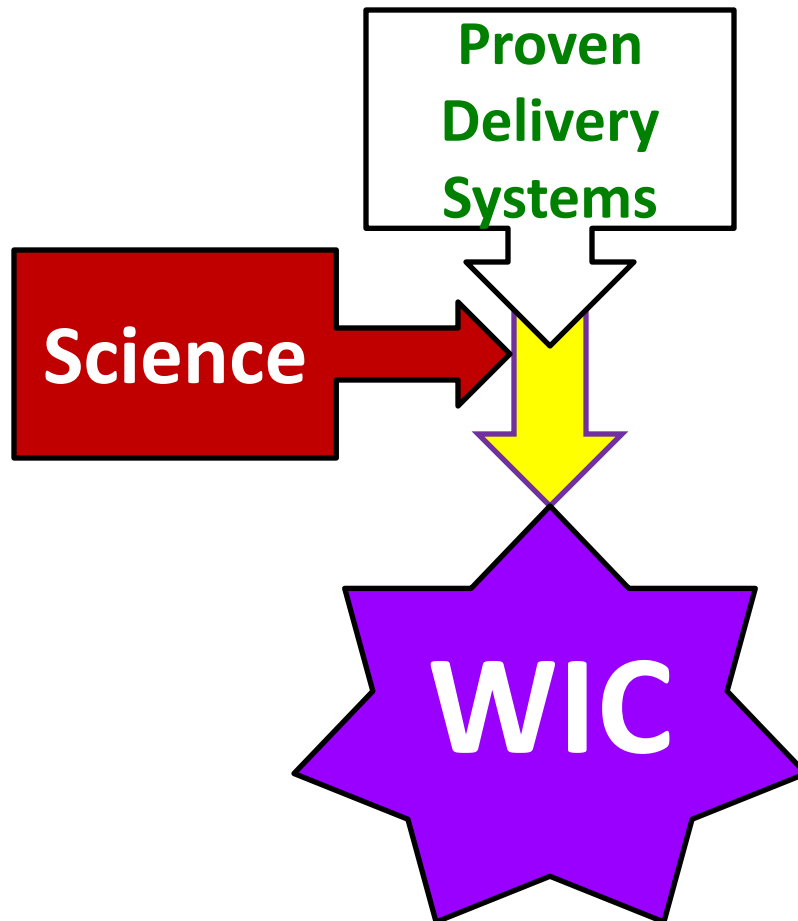
- Findings of rampant iron deficiency anemia
- “Infant Nutrition” by Samuel J. Fomon (1<sup>st</sup> edition, 1967)



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# Agnes Higgins

Director, Montreal Diet Dispensary



- In **1948**, began diet counseling for very poor pregnant women at the Montreal Diet Dispensary
- Began a study including counseling and supplemental food in 1963 – **eggs, oranges, milk.**
- Analyzed findings and was a vocal advocate for supplemental feeding of poor women during pregnancy



**Montreal Diet Dispensary  
Entrance (2004)**

# USDA Commodity Supplemental Food Program

- Started in 1968-69
- Administrative action by USDA. **Rod Leonard** key USDA player
- Served pregnant and postpartum women, infants and children under the age of 6 years



*Mother-Infant 0-6 mo*

 FEDERAL GOVERNMENT  
FOOD PRESCRIPTION PROGRAM  
SHOPPING LIST

CHEESE	
INFANT FORMULA	<u>3/1</u>
MALTED MILK	<u>2</u>
EGG STRIP	
MEAT	<u>1</u>
JUICE	<u>4</u>
INSTANT MEAT	<u>1</u>
FARINA	<u>1</u>
RICE CEREAL	<u>6</u>
VEGETABLES	<u>7</u>
FRUIT	
PEANUT BUTTER	<u>1</u>
EGG MIX	<u>2</u>
INSTANT POTATOES	<u>1</u>

F. D. NUMBER \_\_\_\_\_ DATE \_\_\_\_\_  
CLERK'S INITIALS \_\_\_\_\_



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# Donald Pinkel, MD

Director of St. Jude's Children's Research Hospital  
in Memphis, TN 1962-1973



- Found malnutrition in community.
- Established food program in Memphis for children and expectant mothers.
- Senator Hubert Humphrey initiated legislation to change the Child Nutrition Act using data supplied by St. Jude.



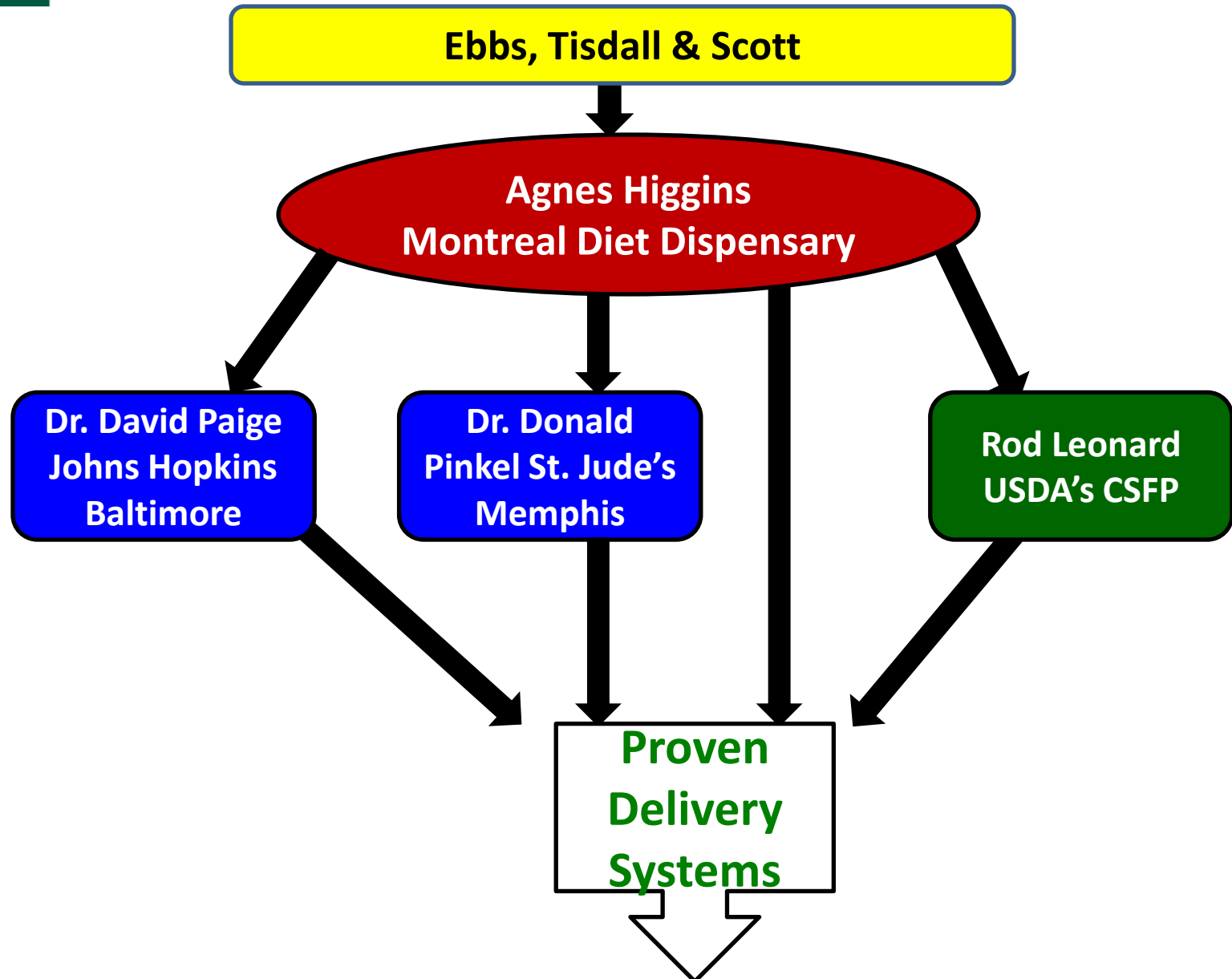
# David Paige, MD, MPH

Johns Hopkins Univ.



- Dr. Paige started a program distributing food vouchers to women, infants and children at Johns Hopkins University Hospital in Baltimore, MD
- He has been called “The grandfather of WIC”

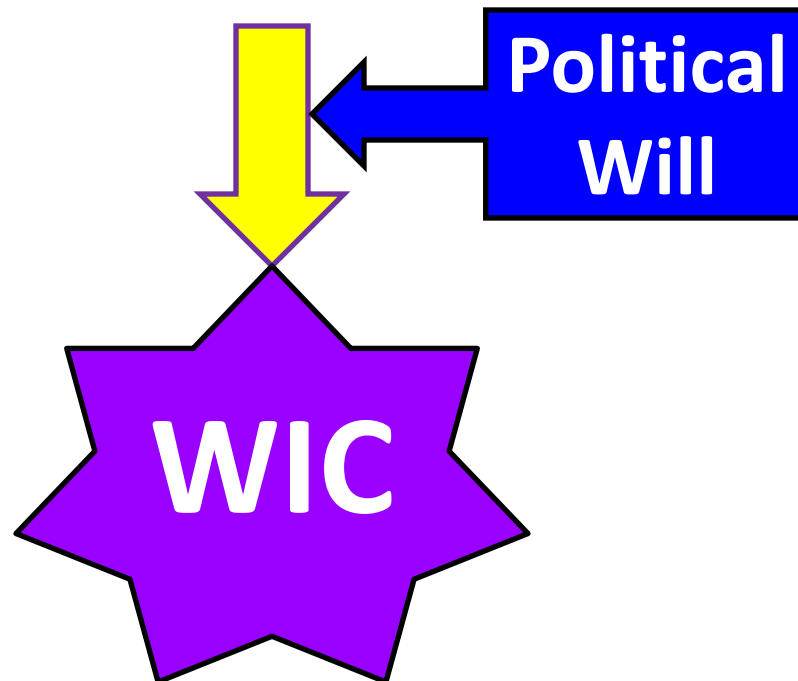
# The Roots of WIC's Supplemental Food Prescription Model







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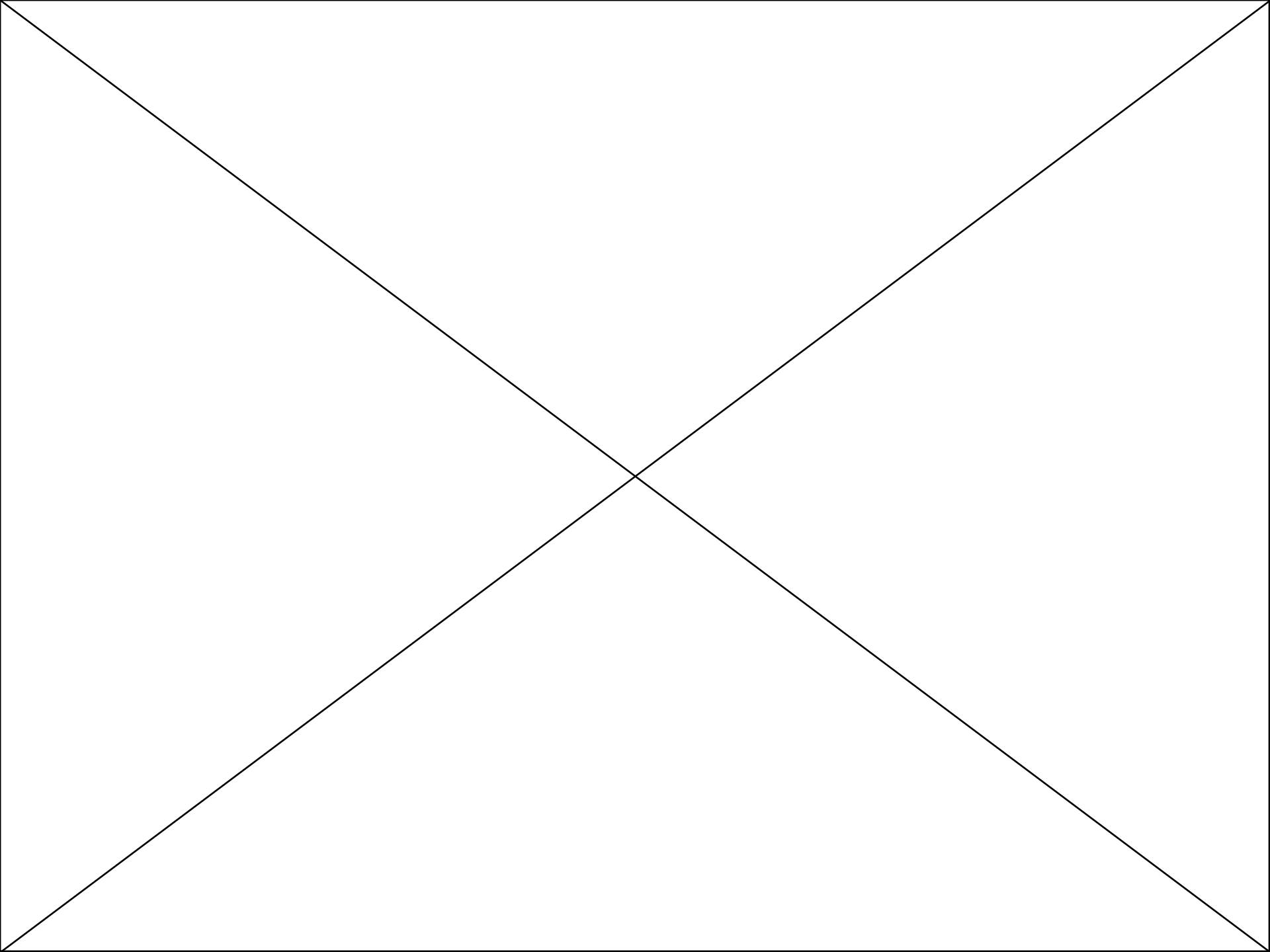


# 1960s

- Civil Rights Movement
  - People's March on Washington
- 1968 Documentary *Hunger in America*

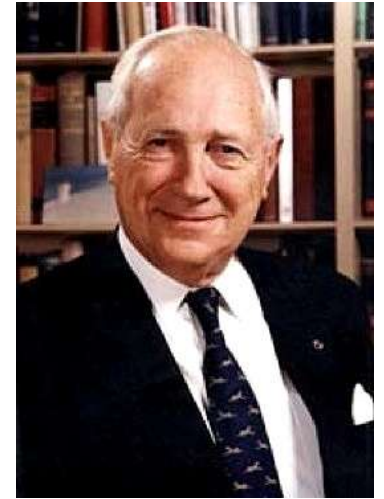


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# White House Conference on Food, Nutrition and Health



June 1969:

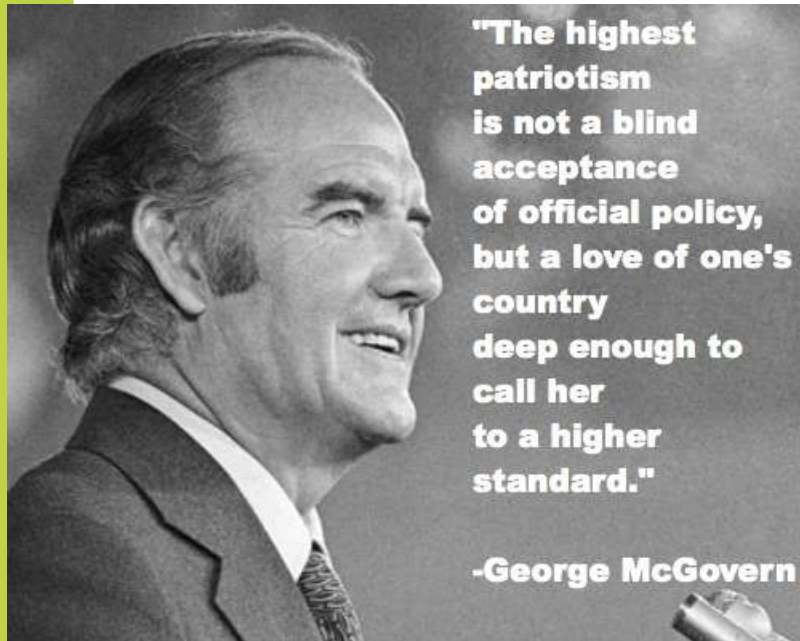
Pres. Nixon appoints **Dr. Jean Mayer**  
to organize the conference

(Quote from Nixon's appointment letter to Mayer)

- “The White House Conference on Food, Nutrition and Health ...will assemble the Nation’s best minds and expertise, from our business, labor and academic communities. I shall ask them to consider the following questions:
  - **“2. What should be done to improve the nutrition of our more vulnerable groups—the very poor, pregnant and nursing mothers, children and adolescents, the aging, and those such as Indians for whom we have a direct and special responsibility?”**
  - Conference held Dec. 2-4, 1969 with 475 participants

# George McGovern

Presidential Candidate 1972; Senator (D-SD)



- Founder & Chair, Senate Select Committee on Nutrition and Human Needs 1968-1977



# Senate Select Committee on Nutrition and Human Needs

- Membership 1969 and 1970 (eight D + five R):
  - **George McGovern (D-SD), chair**
  - Allen Ellender (D-LA)
  - Herman Talmadge (D-GA)
  - Ralph Yarborough (D-TX)
  - Philip Hart (D-MI)
  - Walter Mondale (D-MN)
  - Edward M. Kennedy (D-MA)
  - Claiborne Pell (D-RI)
  - Jacob Javits (R-NY)
  - Charles Percy (R-IL)
  - Peter H. Dominick (R-CO)
  - Marlow Cook (R-KY)
  - **Robert Dole (R-KS)**



- Later members of the committee included
  - **Hubert H. Humphrey (D-MN)**
  - Patrick Leahy (D-VT)
  - Edward Zorinsky (NE),
  - Richard Schweiker (PA)
  - Gaylord Nelson (WI)
  - Henry Bellmon (OK)
  - Alan Cranston (CA)
  - Mark Hatfield (OR)

# Hubert H. Humphrey

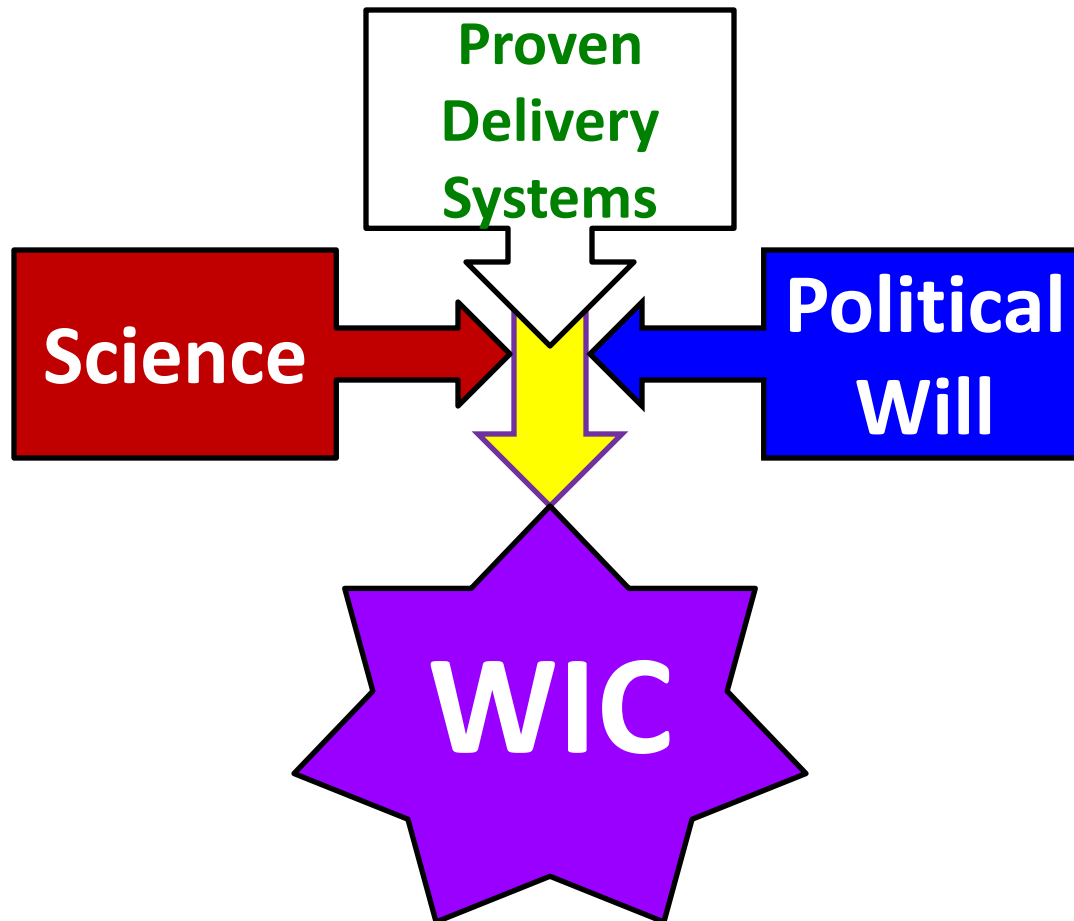
Vice President; Senator from MN



- Sponsor of original WIC Legislation (P.L. 92-433) for a 2-year WIC pilot.
  - Used Johns Hopkins voucher program as model.
  - To be administered by USDA
  - Nutrition risk requirement



# The confluence of science, proven delivery systems and political will led to the WIC Program





# WIC's Beginnings

- **Sept. 26, 1972:** P.L. 92-433 authorizes 2 year pilot \$20m/yr for cash grants to health agencies and requires medical evaluation of pilot
- **Mar. 6, 1973:** USDA/FNS establishes Special Task Force to Design the WIC Pilot & Evaluation



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# Charge to the Special Task Force to Design the WIC Pilot & Evaluation

1. Develop program regulations
2. Determine supplemental foods
3. Develop Request for Proposals for medical evaluation of WIC pilot
4. Establish system of application by local health agencies for funding
5. Review procedures for implementing local programs



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# Evaluation of WIC Pilot

- 1973: Contract for pilot evaluation awarded to Univ. North Carolina-Chapel Hill (Edozien study)
- Infants found to have increased
  - weight and height
  - head circumference
  - mean hemoglobin
- Decreased anemia



Joseph Edozien



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# Jan. 15, 1974: WIC opens in Pineville, KY



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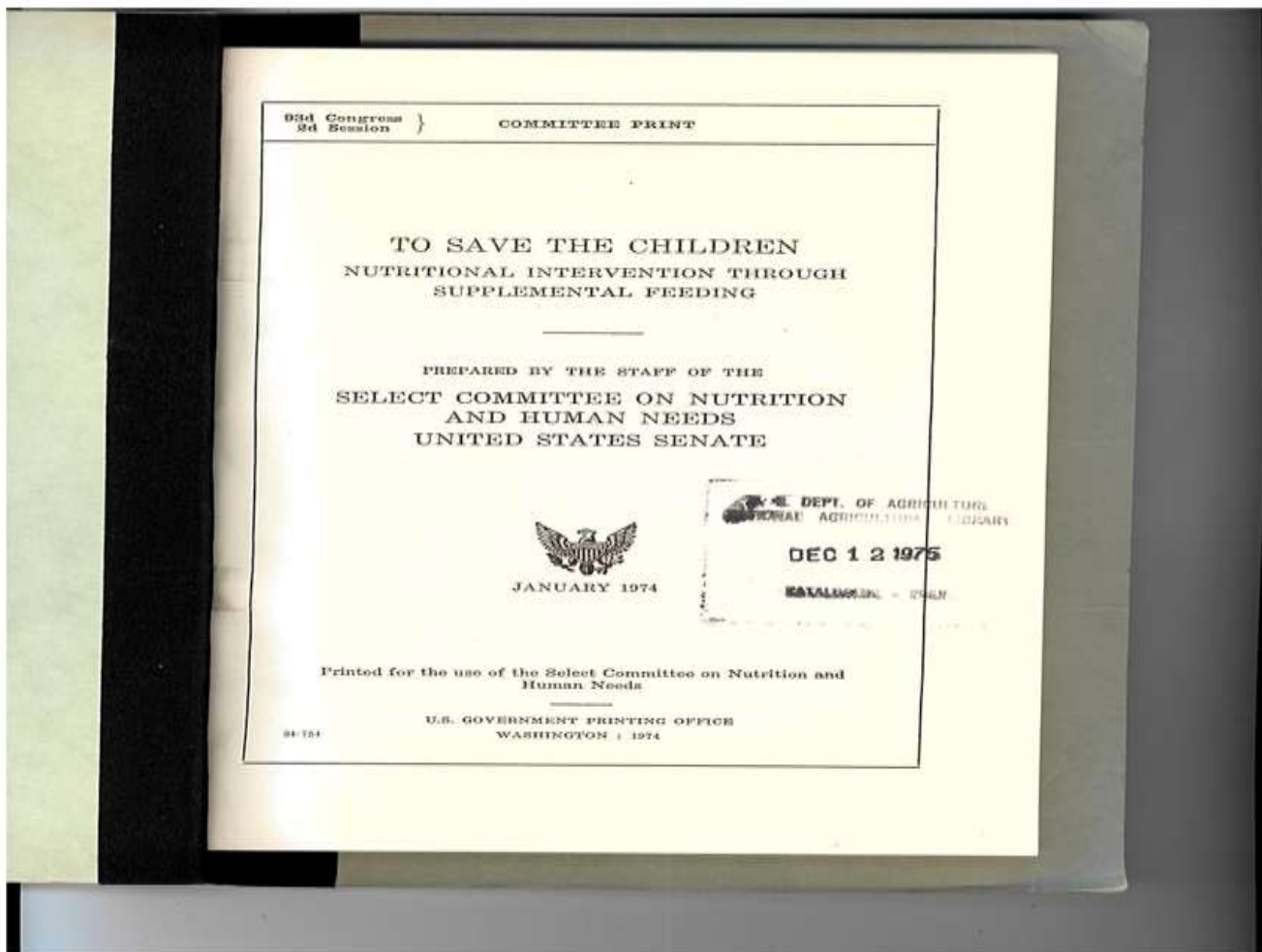
# WIC Becomes Permanent 1975!

- On October 7, 1975, P.L. 94-105 established WIC as a permanent program
- Nationally the program served approximately 344,000 at-risk women, infants, and children up to the age of five with \$83 million in funding.



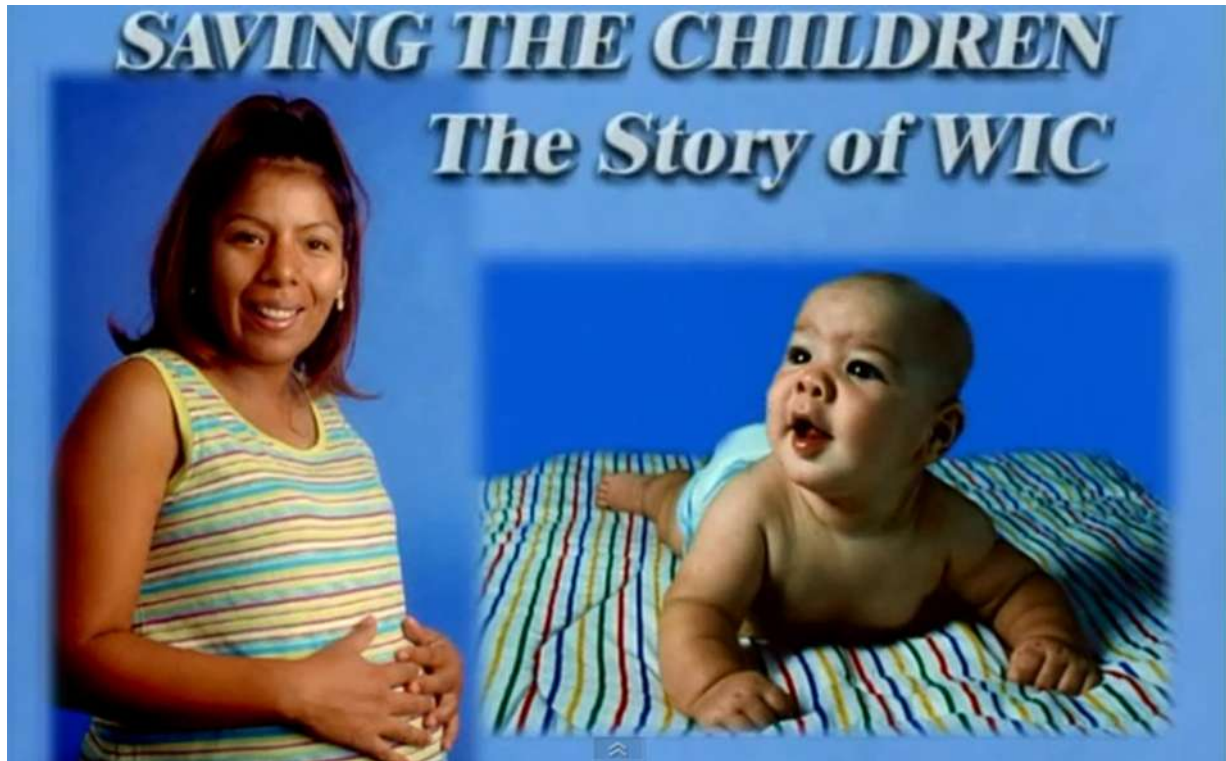
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# “To Save The Children: Nutritional Intervention Through Supplemental Feeding”



# Maryland WIC Program

## Saving the Children: The Story of WIC



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C-1924

Research can further clarify the relationship between nutrition and human development, but even without such precise knowledge both common sense and common decency require us to support efforts to improve diets of mothers, infants and children, and indeed for all who for want of adequate income subsist on diets that may compromise health and a genuine sense of well-being.

Dr. Julius Richmond  
Assistant Secretary for Health &  
Surgeon General

# Hunger In America: The Federal Response

by Nick Kotz

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BELTSVILLE, MD 20705



# History of WIC Foods and Food Packages



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# Prescription Food Program

From beginning, WIC intended to be a prescription food program to meet the needs of high-risk individuals to prevent malnutrition.

**What is Your Baby Eating?**

Mark "X" for each food usually eaten daily and when first tried

Food	How many times a day?			Age in months when first tried		
	0	1-2	3+	0-4	5-7	8-12
Juice <input type="checkbox"/> infant <input type="checkbox"/> adult						
Fruits <input type="checkbox"/> baby food <input type="checkbox"/> table food						
Vegetables <input type="checkbox"/> baby food <input type="checkbox"/> table food						
Cereal <input type="checkbox"/> infant <input type="checkbox"/> adult						
Crackers, bread, or toasting biscuits						
Noodles, rice, or pastas						
Milk						
Childs or yogurt						
Plain meats <input type="checkbox"/> baby food <input type="checkbox"/> table food						
Meats mixed with vegetables or noodles <input type="checkbox"/> baby food <input type="checkbox"/> table food						
Dried beans or peas						
Egg yolk						
Whole egg						
Peanut butter						
Hot dogs						
Home-made or canned soups						
Desserts <input type="checkbox"/> baby food <input type="checkbox"/> table food						
Ice cream or pudding						
Cake, cookies, or pie						
Kool-aid, fruit punch, tea, or soft drinks						
Snack foods (potato chips, pretzels, etc.)						
Other foods (raisins, popcorn, candy)						



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# Early WIC Food Legislation



- 1972 legislation
  - the term “supplemental foods” defined to mean foods containing nutrients known to be lacking in the diets of the population at nutritional risk.
  - Legislation identified five target nutrients: **high-quality protein, iron, calcium, vitamins A and C.**



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# 1974 WIC Food Package Regulations

## § 246.13 Supplemental foods.

(a) The following kinds and specifications of foods shall be available under the WIC Program:

(1) For infants:

(i) Iron fortified infant formula with at least 10 milligrams of iron per liter of formula at standard dilution (which supplies 67 kilocalories per 100 milliliters, i.e., 20 kilocalories per fluid ounce).

*Substitutes.* Whole fluid milk fortified with 400 International Units of vitamin D per quart; or evaporated milk fortified with 400 International Units of vitamin D per reconstituted quart; or, in Puerto Rico, the Virgin Islands and Alaska only, dried whole milk fortified with 400 International Units of vitamin D per reconstituted quart, may be substituted for not more than 50 percent of the quantity of iron fortified infant formula authorized for any infant after six months of age.

(ii) Infant cereal which contains a minimum of 45 milligrams of iron per 100 grams of dry cereal.

(iii) Fruit Juice which contains at least 30 milligrams of vitamin C per 100 milliliters.

(2) For children and pregnant or lactating women:

(i) Whole fluid milk fortified with 400

International Units of vitamin D per quart; or evaporated milk fortified with 400 International Units of vitamin D per reconstituted quart; or skim or low fat milk fortified with 400 International Units of vitamin D and at least 1500 International Units of vitamin A per fluid quart or the minimum amount required by the Food and Drug Administration, whichever is greater; or nonfat dry milk fortified with 400 International Units of vitamin D and 2000 International Units of vitamin A per reconstituted quart; or, in Puerto Rico, the Virgin Islands and Alaska only, dried whole milk fortified with 400 International Units of vitamin D per reconstituted quart; or cheese (Swiss, Natural cheddar or pasteurized process American).

(ii) Cereal (hot or cold) which contains a minimum of 30 milligrams of iron per 100 grams of dry cereal.

(iii) Fruit or vegetable juice, or both, which contains a minimum of 30 milligrams of vitamin C per 100 milliliters.

(iv) Eggs.

(b) Supplemental foods shall be authorized by a competent professional in accordance with the individual needs of each eligible participant in amounts up to the following maximum quantities:





# 1974 WIC Food Package Regulations

Foods	Units <sup>1</sup>	Maximum number of units per month	
		Infants	Children and pregnant or lactating women
Iron fortified infant formula.....	13 fl. oz. can of conc. liquid <sup>2</sup>	31.....	
Whole fluid milk.....	Fluid quart.....	( <sup>2</sup> ).....	31.
Evaporated milk.....	13 fl. oz. can.....	May be substituted for whole fluid milk at rate of the one can per quart of whole fluid milk.	
Skim or low fat milk.....	Fluid quart.....		May be substituted for whole fluid milk on a quart-for-quart basis.
Non-fat dry milk.....	4 lb. pkg.....		One package may be substituted for each 20 quarts of whole fluid milk.
Dry whole milk.....	1-pound can.....	In Puerto Rico, the Virgin Islands and Alaska, may be substituted for whole fluid milk at the rate of one can per three quarts of whole fluid milk.	
Cheese.....	Pound.....		May be substituted for whole fluid milk at the rate of one pound per three quarts.
Eggs.....	Dozen.....		2½. <sup>4</sup>
Infant cereal.....	8 oz. pkg.....	3.....	
Cereals (hot or cold).....	8 oz. pkg.....		4.
Juice, single strength <sup>5</sup> .....	46 fl. oz. can.....	2 <sup>6</sup> .....	6.

<sup>1</sup> Different size units may be made available provided that the total volume or weight per month remains the same.  
<sup>2</sup> Dry or ready-to-use forms may be made available in equivalent amounts.  
<sup>3</sup> May be substituted for not more than 50 percent of the quantity of formula beginning at age six months at the rate of one quart per can of concentrated formula.  
<sup>4</sup> An equivalent amount of dried egg mix (two pounds) may be substituted.  
<sup>5</sup> Frozen, concentrated fruit juices may be made available in 12 oz. cans at the same rate or in an equivalent volume in other size cans.  
<sup>6</sup> 15-4 oz. cans of infant juices may be substituted.



# First WIC Foods for Infants 1974

- infant formula (iron fortified) or whole milk or evaporated milk
- infant cereal (iron fortified)
- fruit juice (vitamin C fortified)



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# First WIC Foods 1974 Children & Women

## Vegetable & Fruit Juice

Vegetable and fruit juices in the WIC package contain vitamin C. The body uses this vitamin to help hold body cells together.

In addition, vitamin C strengthens the walls of the blood vessels and helps fight infection.

Drink your vegetable or fruit juice as a snack or as part of your breakfast or other meals.

## Eggs

Eggs have protein, iron, and some vitamin A. Protein helps the baby grow and build muscles and blood. Iron also builds blood and helps prevent a blood condition called anemia. You need vitamin A for healthy eyes and skin.

Fix your eggs many different ways — fried, hard or soft boiled, poached, or scrambled — for any meal. Try an omelette sometimes. Have a hard boiled egg for a snack.

## Iron-Fortified Cereal

Iron-fortified cereals give you the iron you need for building blood and preventing anemia. They also have the B vitamins needed for a healthy nervous system, a good appetite, and good digestion.

Have cereal with milk for breakfast or as a snack. Try adding fresh, dry or canned fruits like sliced bananas, raisins, or peaches to it.

## WIC Foods for Pregnant & Nursing Women

## Milk & Cheese

Milk and cheese give you and your baby calcium, protein, vitamin A, and B vitamins. Calcium helps build strong bones and teeth, and helps muscles and nerves work well. You have to have protein for the baby to grow and develop.

Protein also helps build muscles and blood. Vitamin A helps keep eyes and skin healthy.

You need B vitamins for the nervous system, and to help you have a good appetite and digest your food well.

Drink your milk plain, put it in pudding, or fix yourself a milkshake or eggnog. Eat cheese by itself or on crackers, melt it on toast or tortillas, or put it in scrambled eggs.



# Early Regulations



- In 1974, final regulations **reduced the required iron fortification of infant and adult cereals** to allow additional cereals to be used in the program.
- In 1977 a special food package for children with special dietary needs was authorized **(Food Package III)**



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# Standardized Packages

- In 1977, USDA grouped food items into **three** standardized packages
- In 1980, reorganized into **six** standardized packages.



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# Public Law 95-627, 1978 Removed Specific Nutrients



- 1978 legislation removed requirements for specific nutrients (protein, iron, calcium, vitamins A and C).
- Added more general language—
  - “nutrients determined by nutritional researchers to be lacking in the diets of the targeted population.”



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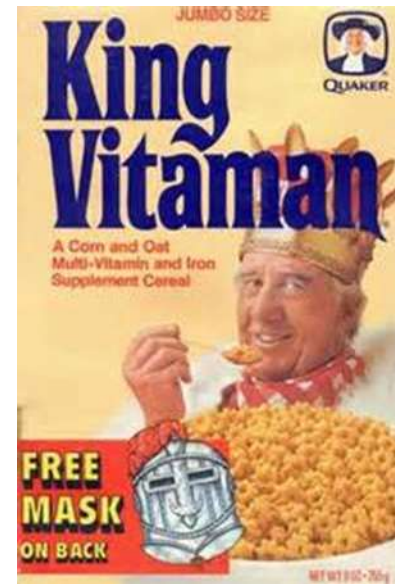
# First Cereals

In 1975 only 5 authorized WIC cereals:

*Product 19; Kellogg's Concentrate;  
Total; Corn Total; King Vitaman*

**30 mgs** of iron per 100 grams of dry cereal.

No sugar limit!



# Food Package Regulations 1980



- Added Beans and Peanut Butter



- Set sugar cap for cereals at 6 grams per serving



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# Some Things Haven't Changed

- In 1980, commenters were in opposition to adding whole wheat bread to the food packages due to administrative considerations such as vendor and participant monitoring.



“Vendors and participants could be confused by the labeling on various types of bread and it would be easy for them to mistakenly select a bread with a label which implies 100 percent whole wheat, but which does not qualify.”

- Sound familiar?

# Food Package Regulations 1980

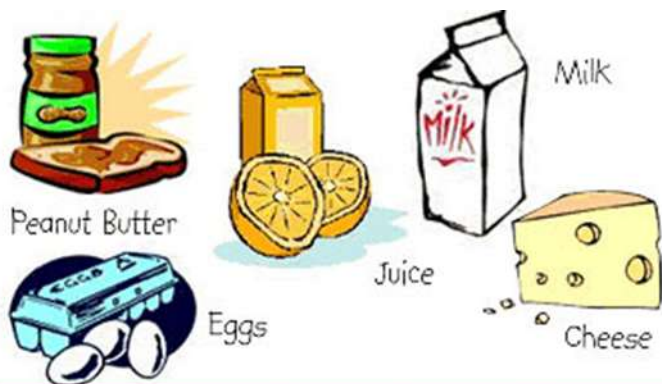


- In 1980 WIC regulations were revised to disallow whole milk for infants.
- Previously whole milk was authorized for infants 6-12 months in lieu of up to 50% infant formula.

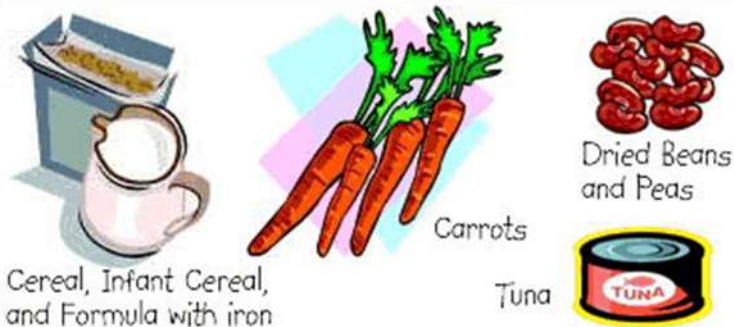


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# New Food Package Added in 1992



Foods you can buy with a WIC check ...



- 1992—An enhanced WIC food package (food package VII) was established for women who exclusively breastfeed their infants, to encourage breastfeeding among WIC mothers (Federal Register, November 27, 1992).



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# Changes in the WIC Program Since WIC's Beginnings

- Advances in nutrition knowledge and its application.
- Expanded food supply
- Changes in dietary patterns
- Dramatic growth of Program
- More culturally diverse population
- Obesity major public health problem



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# Shirley Watkins

USDA Under Secretary for Food, Nutrition and  
Consumer Services 1997-2001



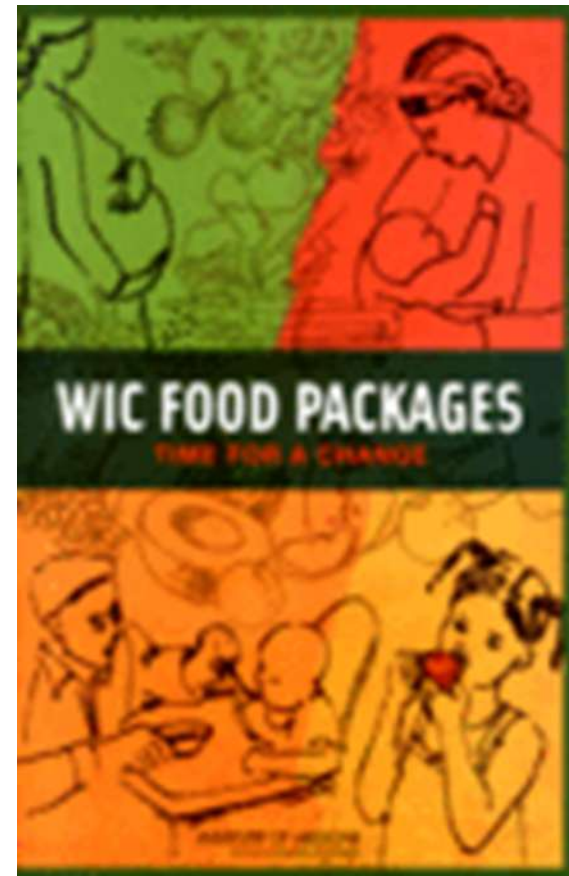
Under Secretary Watkins directed WIC to consolidate all needed changes to the WIC Food Packages into a single update to the regulations



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# Institute of Medicine Report with Recommendations 2005

## WIC Food Packages: Time for a Change



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# Criteria Used by IOM to Guide Selection Of New WIC Food Packages

- ✓ Reduce the prevalence of inadequate and excessive nutrient intakes.
- ✓ Contribute to dietary pattern consistent with the *Dietary Guidelines for Americans*.
- ✓ Contribute to dietary pattern consistent with dietary recommendations for infants and children < two years of age, including encouragement and support for breastfeeding.



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# A New Approach for the WIC Food Packages for Breastfeeding Dyad



- Institute of Medicine recommendations:
  - Increase dollar value and attractiveness of packages
  - Address differences in nutrition needs of breastfed and formula fed infants
  - Minimize the amount of formula to breastfed infants



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# Rulemaking Process to Revise WIC Food Packages – Proposed Rule 2006

- Largely reflected recommendations made by the IOM
- Over 46,000 comments received.
- In general, proposed provisions garnered broad support from public commenters.



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# Rulemaking Process to Revise WIC Food Packages – Interim Rule 2007

- Provisions based on public comment on proposed rule and further review and determination by FNS.
- An **interim** rule allowed USDA to obtain feedback on the changes while allowing implementation to move forward.



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# Interim Rule 2007

## First Comprehensive Revision in 3 Decades!



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# Summary of Major Changes to WIC Food Packages – Interim Rule 2007

- Revised infant food packages
- Added:
  - cash value-vouchers (\$6 or \$10) for fruits and vegetables for children and women
  - soy-based beverage and tofu as milk alternatives
  - whole grains (cereals, bread, and other whole grains, e.g. tortillas)
- Reduced quantities of milk, eggs and juice.



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# Summary of Major Changes Breastfeeding Food Packages – Interim Rule 2007

- Minimize early supplementation with infant formula to help mothers establish milk supply.
  - No routine issuance of infant formula in birth month to breastfeeding infants.
  - Partially breastfed infants receive less formula to allow mothers to feed more breastmilk to infants.
- Breastfeeding mothers receive greater quantity and variety of foods than those who formula feed.



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# Interim Rule 2007

- All WIC participants began receiving new and improved food packages by October 1, 2009.
- Comment period ended 2/2010.
  - Approximately 7,700 comments received



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# Final Rule March 4, 2014

## Summary of Major Changes

- Increases fruit and vegetable voucher for children from \$6 to **\$8** per month
- Requires “split tender transactions” with CVV
- Requires nonfat and lowfat (1%) milks as the standard issuance for children  $\geq$  24 months of age and women.
- Allows the CPA to determine the need for soy-based beverage/tofu for children & women.



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# Final Rule March 4, 2014

## Summary of Major Changes

- Allows the CPA to determine need for fat-reduced milks for 1-year old children based on an individual nutritional assessment and consultation with the child's health care provider if necessary.
- Allows infants 9 months through 11 months of age to receive a cash-value voucher for fresh fruits and vegetables in lieu of a portion of commercial jarred infant food fruits and vegetables.



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# Final Rule March 4, 2014

## Summary of Major Changes

### New Food Substitutions (at State agency option)

- **Whole wheat pasta** added to the list of whole grain options for children and women.
- **Yogurt** added to the list of partial milk substitutes in the food package for children and women.
- **Jack mackerel** added to the list of canned fish options for women in Food Package VII.



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# Are the New Food Packages Benefiting WIC Participants?

- **WIC changes have improved the availability of healthy foods in the community.**
- Researchers have identified WIC food package changes as *possible* contributors to positive public health trends:
  - Preschool obesity leveling off
  - Increased intake of whole fruit in children
  - Increased breastfeeding rates
- More research is needed to draw conclusions.



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# The Future of the WIC Food Packages

## Next Steps



- A comprehensive scientific review of the WIC food packages is required at least every 10 years.
- FNS has started the process for next review.
- Institute of Medicine awarded a contract to begin next comprehensive review.



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