

MINUTES OF THE Senate COMMITTEE ON Agriculture

The meeting was called to order by Senator Allen at
Chairperson

10:10 a.m./~~p.m.~~ on March 5, 1985 in room 423-S of the Capitol.

All members were present except: Senator Doyen (excused)

Committee staff present: Raney Gilliland, Research Department
Jim Wilson, Revisor of Statutes Department

Conferees appearing before the committee: Dr. Larry Claypool, Mid America Dairymen
Ruthann Roepke, Registered Dietitian, Topeka
Sue Greig, Registered Dietitian, Manhattan
Harlan Page, Dairy Farmer, Ottawa
Becky Crenshaw, Kansas Farm Organizations
Steve Paige, Kansas Department Health and
Environment

Senator Allen called the committee to order at 10:10 a.m. for the purpose of the hearing on SB 165.

The chairman called on the first proponent, Dr. Larry Claypool. Dr. Claypool explained SB 165 would allow for a more standardized milk product for the consumer. (see attachment A).

When ask if this legislation being considered in surrounding states, Dr. Claypool answered yes and that Wisconsin has already enacted this legislation. Dr. Claypool stated federal legislation, like this bill, had been requested but it did not pass.

The second proponent was Ruthann Roepke, a Registered Dietitian. Ms. Roepke reported all Kansans would gain nutritionally by this bill and encouraged the committee approve the bill for passage. (see attachment B).

Sue Gregg, a Registered Dietitian, expressed support for SB 165. Ms. Gregg emphasized the bill, if approved, would allow for an increase in the nutrient content of lowfat and skim milk. (see attachment C).

Harlan Page, a proponent expressed support for SB 165. Mr. Page stated the benefit of this bill is better price for the dairymen and is better product for consumers. (see attachment D).

Becky Crenshaw speaking for the Kansas Farm Organizations expressed support for this bill.

Steve Paige from the Kansas Department of Health and Environment reported the department recommends that standards relating to the components of milk remain compatible with the appropriate code of Federal Regulations. (see attachment E).

Senator Allen announced the hearing on SB 165 closed and the committee adjourned at 11:00 a.m.

2015
2077
3/5/85

Senate Bill 165 proposes to increase the minimum solids-not-fat content for milk, lowfat milk, and skim milk. The solids-not-fat content of milk is the sum total of the protein, minerals (such as calcium, phosphorous, etc.), vitamins and lactose.

Senate Bill 165 serves the interest of consumers as well as the interest of Missouri Dairymen.

BENEFITS TO BE EXPERIENCED BY CONSUMERS

Provides a Uniform Product

Presently the solids-not-fat content of pasteurized milk is not standardized thereby resulting in products being marketed to the consumer which vary greatly. At any point in time variation can be observed from store to store with additional variation occurring with the season of the year. Studies conducted by the Federal Market Administration have shown the solids-not-fat to vary from a low of 7.63% to a high of 9.48%. Such variation significantly impacts upon the taste and nutritional properties of a glass of milk.

Senate Bill 165 would cause processors to standardize the solids-not-fat content of milk by utilizing Grade A nonfat dry milk or Grade A condensed skim milk and thereby provide products which are uniform in composition throughout the state and likewise be uniform throughout the year.

Provides a More Nutritious Product

The standardization of the solids-not-fat content as required by Senate Bill 165 would result in a significant increase in the nutritional value of milk, lowfat milk and skim milk.

The summary below describes the % increase which would be associated with the standardization of the solids-not-fat content of milk.

	<u>Average Solids Not Fat Content of Raw Milk</u>	<u>Solids-Not-Fat by S.B. 165</u>	<u>Amount of Nutritional Improvement</u>
Milk	8.56%	8.7%	1.5%
Lowfat Milk	8.71%	10.0%	14.8%
Skim	8.73%	9.0%	3.0%

Provide a Product which is Preferred by Taste

Consumer research and the marketing of milk in California wherein solids-not-fat are standardized as required in Senate Bill 165 have shown that consumers prefer milk products with the higher standardized solids-not-fat content.

3/5/85 attachment A

BENEFITS TO BE EXPERIENCED BY MISSOURI DAIRYMEN

Marketing of a Product with Improved Acceptance

The primary benefit to Missouri Dairymen would be the marketing of milk in a form which is more uniform in composition, higher quality, and possesses a higher nutritional value; thereby creating the opportunity to market more milk.

Provides the Foundation for Component Pricing

Senate Bill 165 establishes a recognition for the economic value for the solids-not-fat content of milk. Dairymen favor a revision of present marketing procedures which establish the value for milk on the basis of only the total pounds of milk and pounds of milkfat contained in milk. The standardization of the solids-not-fat content in packaged pasteurized milk would cause a third economic factor to be included, a value for the solids-not-fat content of milk.

Provides Additional Market for Milk

Senate Bill 165 would cause more milk to be marketed; however, the real impact will not be from the added solids required for standardization but rather the increased consumption due to the improved quality.

ECONOMIC IMPACT RESULTING FROM STANDARDIZATION

The added solids-not-fat required for standardization will only slightly increase the cost of milk to the consumer. The cost for the added nonfat milk solids required for the standardization is calculated to be:

	<u>Additional Cost Per Gallon</u>
Milk	\$.0111
Lowfat Milk	\$.1022
Skim Milk	\$.0210

EFFECT OF PRICE INCREASE UPON CONSUMPTION

Various studies have indicated that the decreased consumption due to the increased price would be slight if any at all. Studies at Purdue and Virginia Polytechnic Institute indicate that a 1% increase in price could result in as little as 0.1% decrease in consumption to no more than .55%, assuming all factors remained constant. Dairymen are increasing their investments in promotional programs which should cause consumption of the standardized product

to increase rather than decrease even though a few extra cents per gallon were charged for the product.

LLC/srw

Testimony to the
Kansas Senate Agriculture Committee
Senate Bill 165

Submitted by:
Ms. Ruthann Roepke, R.D.
March 5, 1985

3/5/85 attachment B

In Support of SB 165
Senate Agriculture Committee

I am Ruthann Roepke, a registered dietitian representing the Kansas Dietetic Association and School Food Service. Thank you for the opportunity to appear before you to discuss the proposed changes in fluid milk called for in SB 165.

The Kansas Dietetic Association is a non-profit health professional organization. They support SB 165 because it will significantly increase the nutritional contribution of milk in the diets of Kansans.

The basic nutrition philosophy of the Kansas Dietetic Association is to encourage and promote the consumption of a wide variety of nutritious foods in order to maintain optimal health. We encourage individuals to obtain their nutrients from wholesome food. In Kansas, all of us enjoy an abundant array of nutritious foods provided by local farmers and ranchers.

Dietitians provide nutritional expertise in a wide variety of settings. We help to assess individual nutritional requirements. We develop, implement and evaluate the nutritional care of individuals and groups. We manage food and nutrition programs in schools, colleges and universities as well as many other types of food service operations. Dietitians provide reliable nutrition counseling and education to help prevent many health problems and to help cure existing health problems.

As a dietitian, I am employed as a School Food and Nutrition professional and I am particularly interested in the benefits that SB 165 will afford children and young adults.

In the last twenty years, soft drinks and other beverages have increasingly replaced milk in the diets of children, teenagers and young adults. A single half-pint of milk consumed with a school meal could be the only milk a student might consume during the day. Small children do not consume very large

quantities of milk at any given time; often less than one-half pint. Peer pressures among students will often decrease milk consumption and milk selection. Milk is not frequently chosen by children and young adults for their in-between snacks or a meal eaten away from home. A small increase in the nutritional value of the milk which is being consumed would logically be a prudent measure.

Osteoporosis, or brittle bone disease, is commonly identified in individuals later in their life cycle. However, prevention can best be accomplished in the early formative years. The formation of larger, healthier bone mass in the youthful years of one's life has been found through late research to be helpful in fighting bone diseases in later years.

Many girls and young adults perceive milk to be fattening. Calories and weight control have become high-priority concerns for this group of individuals. Enhancing skim and lowfat milks with dried milk solids would have benefits for the calorie conscious. The number of calories in lowfat and skim milk would go up only about 10% while the amount of nutrients provided by the milks would be increased around 15%.

Frequent complaints of the lowfat milks are their watery appearance, mouthfeel, color and flavor. Increasing the dried milk solids in the milks would help solve these existing conditions and would thereby help increase consumption of lowfat and skim milk through increased palatability.

Lowfat milks are not only used in diets to lessen calories, but are used extensively to lower cholesterol consumptions as well. Butterfat found in whole milk is a main contributor of cholesterol in the diets of Kansans.

Currently guar gum, carogeenan and tapioca are added to some lowfat milks to improve palatability. Consumers rightly expect that milk will contain only milk. SB 165 would eliminate the need for such additives.

In conclusion, the major benefits of the proposed changes in SB 165 would be:

1. Significantly increase the calcium, protein, riboflavin and thiamin content of lowfat and skim milk.
2. A particularly important advantage to children and young adults since they are consuming less milk at an alarming rate.
3. Greatly enhance the body, taste, mouthfeel and appearance of lowfat and skim milk, thereby increasing its palatability.
4. To eliminate the need for the addition of non-milk substances such as guar gum, carogeenan and tapioca in the lowfat milks.

MS
copy
3/6

Testimony to the
Kansas Senate Agriculture Committee
Senate Bill 165

Submitted by:
Ms. Sue Greig, R.D.
March 5, 1985

attachment C
3/5/85

Hello,..I am Sue Greig, a registered dietitian and school food service director from Manhattan. I will be speaking to you today primarily from the area of dietetics.

I would like to thank you for the opportunity of appearing before you today to discuss proposed changes in SB 165. I would like to begin with a little background information on what a dietitian does and what our professional organization is. The Kansas Dietetic Association is an affiliate of the American Dietetic Association a non-profit professional organization of 50,000 members. The educational branch sets college level and internship requirements similar to A.M.A. Over 50 percent of these members work in hospitals, about 30 percent in consulting and private practice, 10 percent work in business and industry and about 3 percent in schools and other. Dietitians are specialists who provide nutritional care in a variety of settings. We assess, develop, implement and evaluate nutritional care of individuals and groups and we provide counseling and education to help prevent diet related health problems, to improve health status in existing health problems, and to maintain health.

The basic philosophy of this form of education and treatment is to encourage the consumption of a variety of foods to ensure the correct levels of nutrient intake, (as established by the Food and Nutrition Board, National Academy of Science/ National Research Council).

Dietitians recommend and encourage individuals to obtain their needed nutrients from foods. Many of these foods used in institutions in Kansas come from Kansas farmers. One of the main sources of nutrients of course is milk. Milk does make a significant contribution to all ages. As a practicing dietitian I support SB 165 because it will increase the consumption of nutrients needed for health and growth in Kansas. It will contribute both in the areas of wellness, in treatment to restore health, and in growth promotion in children.

I'm sure your concern is how this legislation will affect Kansas both the producer and consumer.

One of the diseases that could make it impossible for the elderly to remain in their homes is osteoporosis, the debilitating bone disease discussed by Dr. Heaney in his testimony.

The calcium provided by the milk served at nutrition centers is necessary for the elderly to maintain their current bone structure. The elderly need the same nutrients, in some cases in greater quantities than other adults; yet they need fewer calories because of their diminished activities. The provisions of SB 165 will help them obtain milk that tastes better than skimmed or 1% and provide extra nutrients for the amount of calories consumed.

It isn't just the current elderly who would benefit from the provisions of this legislation. Calcium, one of the primary nutrients supplied by milk, is viewed by adults as a mineral needed chiefly by growing children and pregnant or nursing women. It is now the nutrient of most concern. Its role in bone health has been detailed in popular women's magazines, in newspaper articles and on television programs for all ages. Children have two concentrated growth periods in their years between birth and 18 years. The first is birth to age 4. The second is 12 to 18 years. Bone growth is very rapid during these years.

It is important that sufficient calcium be supplied during formative years. Children age 6 months to one year need 360 mg. and from age 1-4 years 800 mg. then it levels off until age 11 to 18 when it jumps to 1200 mg. per day. Calcium is needed in large amounts during these growth periods and never drops below 800 mg. for any age. Calcium has many other functions as controlling excitability of nerves and muscles; blood coagulation, heart function, muscle contractibility and as a cellular cement.

Although osteoporosis has been identified with the elderly it starts in younger years when the proper level of bone mass is developed. Now that people are living for a longer period of time it is even more important.

SB 165 relates directly to these concerns as it would increase the calcium content of lowfat and skim milks, all Kansans whether six or 60, would benefit. And not only would they benefit from the increased calcium -- they would also benefit from the increased protein, lactose, potassium, riboflavin, niacin, thiamin, vitamins B-6 and B-12, folacin, phosphorous, magnesium and zinc content of the product.

Current research at MIT and Cornell University have determined that Vitamins B-6 and B-12 as well as two amino acids also found in milk are necessary for brain development and function. As for the public sector, they are becoming more health conscious. Much information is presented to them through public media on the need for less fat in the diet. Obesity has become recognized as a major health factor in five of the leading causes of death.

Because SB 165 would decrease the percentage of calories which come from fat in whole, lowfat and skim milks, it would allow consumers to comply more easily with such recommendations of only 30% of daily calories from fat.

In recent diet recommendations from the American Heart Association, much of the protein comes from skim milk and lowfat dairy products. Skim milk is recommended because of its low fat content, coupled with its excellent protein and calcium content. Low cholesterol, low fat diets are frequently a part of the treatment of cardiac patients. Patients on low fat milk diets frequently complain that skim milk is watery, it looks blue and it has no taste. Adding wholesome dried milk to skim milk seems to address the problems of mouthfeel, color and flavor as well as improved nutrition. Lactose has the benefit of improving the absorption of calcium. This could be a benefit in the treatment of heart disease.

Pregnant, lactating and very young women are also likely to be positively affected by the provisions of SB 165. Calories and weight control are a high-priority concern for these women. Many young women perceive whole milk to be very fattening and are more likely to choose lowfat or skim milk, if they choose milk at all. While the number of calories in lowfat and skim milk would go up about 10%, the amount of nutrients provided by the milks would increase about 15% under the provisions of SB 165. Dietitians and physicians have the responsibility to educate these very young women about the value of milk in providing so much nutrition for so few calories.

Finally, the benefits most affecting customers is the nutritive value and palability. Customers may be able to identify quality differences in brands but they do not expect identifiable additives such as guar gum, carageenan or tapioca which is currently being added to some 1% lowfat milks to improve appearance mouthfeel and taste. The addition of milk solids would eliminate these additives and thus improve nutrient value while not increasing cost to the producer who may be

using these additives.

To summarize, the major benefits of changes in SB 165 will be:

Significant increase in the nutrient content of lowfat and skim milk without excessive cost. Less fat and more calcium, protein, riboflavin, thiamin and potassium. This could greatly benefit children in their formative years, elderly persons and people on low fat diets.

Enhance the body, taste and mouthfeel of lowfat and skim milks; making them more palatable thus more likely to be consumed. A nutritious product which isn't consumed is of no value. If we make this product available perhaps more people will choose lowfat milk in preference to less nutritious beverages.

Make fluid milk products more uniform; by eliminating the need for additives of non-milk substances thus conforming with consumer expectations.

Thank you for your time and interest in SB 165.

###



MID-AMERICA DAIRYMEN, INC.

HARLAN PAGE

ROUTE 3, OTTAWA, KANSAS 66067

A.C. 913/242-3797

I am Harlan Page, a producer of Grade "A" Milk in Franklin County. My milk is marketed thru Mid-America Dairymen Inc., in the Kansas City area. As a producer I am concerned about the taste of milk to the consuming public.

Consumers would benefit from increased solids in milk because it would enhance the body, taste and mouth feel of the product. In many cases, the solids-not-fat content of fluid milk products is below that of the producer milk from which the products are made.

In the Greater Kansas City area the solids-not-fat test for 1984 averaged 8.75. That was from over 900 Grade "A" Producers.

Here are the figures from three Holstein herds in the Kansas city area: Franklin Co. average 8.84

Johnson Co. average 8.75

Leavenworth Co. average 8.89

attachment D
3/5/85

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

TESTIMONY ON SENATE BILL 165

PRESENTED TO SENATE AGRICULTURE COMMITTEE - MARCH 5, 1985

This is the official position taken by the Kansas Department of Health and Environment on S.B. 165.

BACKGROUND INFORMATION:

Senate Bill 165 as introduced would establish the milk solids not fat content of milk 8.7%. This bill will also redefine low fat milk to prohibit milk solids not fat concentrations of less than 10%. Similar bills have been introduced in other states.

STRENGTHS:

None

WEAKNESSES:

Passage of this bill as introduced would be in conflict with K.A.R. 28-21-90a, 28-21-98a and 28-21-99a. These regulations were adopted by the Secretary becoming effective in 1980 adopting by reference the requirements contained in the Code of Federal Regulations. The CFR's were adopted by the Food and Drug Administration establishing standards of identity for different milk products. The standards prohibit the milk solids ~~of~~ not fat content ^{to} be less than 8.25% for milk or low fat milk.

In addition, the Interstate Milk Shippers Agreement may be jeopardized by adopting standards other than those contained in the Code of Federal Regulations.

Other states in which bills of a similar nature have been introduced contain provisions allowing such requirements to become operative only when all contiguous states have in effect identical milk content requirements.

DEPARTMENT'S POSITION:

The Kansas Department of Health and Environment recommends that standards relating to the components of milk remain compatible with the appropriate Code of Federal Regulations.

3/5/85 attachment E

Page 11/1/85
copy

2015
copy
2/18/85
C. J. ...

STATEMENT OF ROBERT P. HEANEY, M.D.

In support of Senate Bill 165

Committee on Agriculture

Kansas State Legislature

Session of 1985

My name is Robert P. Heaney. I am a physician, a medical scientist, and a faculty member at Creighton University in Omaha, Nebraska. I have devoted my research for the past 30 years to the problems of human bone disease, and have given special emphasis to the disorder known as osteoporosis, a common problem which causes most of the fractures in the elderly. I have written a book and well over 100 scientific articles on this topic and have recently been the chairperson for several national committees and commissions evaluating the impact of nutritional factors on bone health in the elderly. Osteoporosis is predominantly a problem of women, but it does affect men as well. It is estimated that osteoporosis cost this nation \$3.8 billion in 1983. It not only cripples, but it kills, too: about one-sixth of all hip fracture patients die as a result of their injury.

I will concentrate these remarks on the matter of calcium intake. There is increasing conviction among the scientific community that inadequate calcium intake is a principal factor predisposing to osteoporosis. There is now a substantial body of evidence which indicates that calcium intake ought to be kept at high levels throughout life. The National Institutes of Health of the U.S. Public Health Service last April convened one of a series of Consensus Conferences on the problem of osteoporosis in the U.S. These conferences attempt to translate the results of

scientific progress into practical applications and to make them promptly available to the general public. The consensus of the panel of experts assembled for this purpose was that women in their middle years should eat a diet containing 1000 mg calcium per day if they still have female hormones, and 1500 mg per day if they do not (that is if they are past menopause and are not receiving female hormones from their personal physicians). This recommendation represents a substantial increase above the current Recommended Dietary Allowance of 800 mg per day for all adult women. It reflects the growing realization that it is important for bone health to maintain adequate calcium intake throughout life.

Next I should like to call your attention to what calcium consumption really is in the United States. The U.S. Public Health Service has twice surveyed calcium intake by women throughout the United States in studies known as the Health and Nutrition Examination Surveys, I and II. The first study was performed in 1971 through 1974 and the second from 1976 through 1980. Thousands of persons were polled, men and women, young and old, rich and poor, black and white, rural and urban. Figure 1 shows the median calcium intake for all women in the United States, at all ages, in each of these studies. (The horizontal line represents the 1980 Recommended Dietary Allowance of 800 mg per day for adults and 1200 mg per day for adolescents.) You will note that from age 12 onwards women in this country fall far short of even those relatively modest recommendations. Their intakes are not even remotely close to the new, higher recommendations that I just cited. Many scientists feel that this lifelong, low calcium intake among American women represents a ticking time bomb which will someday explode in the form of innumerable hip fractures and other broken bones in the elderly.

One of the reasons why our calcium intake is less than it might be (and once was)

is the fact that we eat less food today than we did in the past. The United States Department of Agriculture, in its periodic Nationwide Food Consumption Surveys, notes that total caloric intake in women in their middle years fell by 10% from 1965 to 1977. This is a quite remarkable change in just 12 years, and it reflects a long-term, much larger trend. Intake is less because we burn fewer calories, and we burn fewer calories because we work less hard. We drive more and walk less. We have more labor-saving devices. Being weight conscious, we then have to watch how much we eat. I don't realistically feel we can change that, but at least we need to be aware of what is happening so that we can adapt to it. Eating less, we get not only fewer calories but less calcium as well. It seems important, therefore, to take steps which will increase the concentration of calcium in the foods we do eat. As you know, dairy products are the principal source of calcium in the modern American diet. (My concern for ensuring adequate calcium intake explains my appearing before this Agriculture committee in connection with a bill dealing with milk standardization.)

This matter of concentration of important substances in our foods is something that nutritionists call "nutrient density." If we are to maintain health while at the same time decreasing total food intake, then we need to take steps to insure a higher nutrient density in the foods we do eat. We recognize, for example, that a woman in her middle years has great difficulty obtaining enough iron to maintain healthy blood, and thus some form of iron fortification or supplementation is common in our society. I understand that many of our 50 states have fortification standards for iron in white bread. Further, we recognize that, left to their own devices, many persons will not get enough vitamins A and D. So we fortify milk in the United States with A and D. We recognize that an average diet would not provide enough iodine to maintain healthy thyroid function, and so for many years we have fortified

salt with iodine. And many communities, as you know, have chosen to fortify the drinking water with fluoride because of the dental benefit this produces.

Senate Bill 165, because it proposes to increase the solids content of various kinds of milk, will increase the calcium content as well. It is not a very large change in each instance, but it is in the right direction, and, for the reasons I have discussed, it will produce a health benefit for the citizens of Kansas. As has been pointed out to you in other testimony, the largest increase in the nutrient content of the milk will occur in the low fat categories. This is precisely the type of beverage where the weight-conscious adult is most likely to place his or her emphasis. Further, the proposed change in the solids content of skim milk, in addition to its nutritional effect, may well improve its palatability as well. Many weight-conscious persons avoid whole milk because of its fat content and, since they often don't like the "mouth feel" of skim milk, many tend to avoid milk as a beverage entirely. Thus the proposed change could get some weight-conscious persons to drink milk who might otherwise not have done so.

Thus, while it will not, all by itself, solve the country's calcium deficiency problem, Senate Bill 165 can be expected to produce a worthwhile and important bone health benefit for an increasingly elderly population.

Thank you.

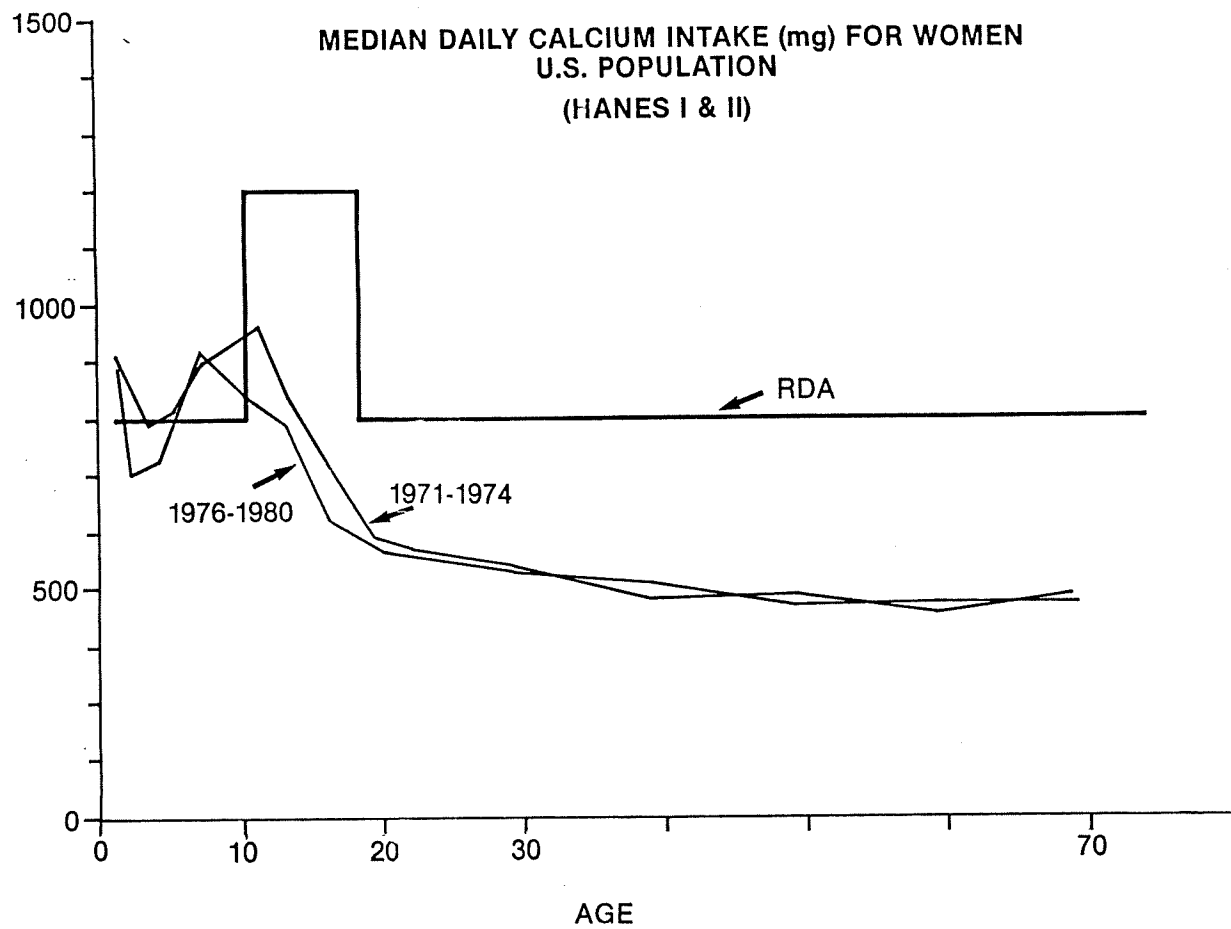


Figure 1