This is not what Congress should be focused on.

Democrats and President Biden will stay focused on putting people over politics.

As such, I ask my colleagues to vote no on this shameful resolution.

The material previously referred to by Mr. MCGOVERN is as follows:

AN AMENDMENT TO H. RES. 918 OFFERED BY MR. MCGOVERN OF MASSACHUSETTS

At the end of the resolution, add the following:

SEC. 7. Immediately upon adoption of this resolution, the House shall proceed to the consideration in the House of the bill (H.R. 12) to protect a person's ability to determine whether to continue or end a pregnancy, and to protect a health care provider's ability to provide abortion services. All points of order against consideration of the bill are waived. The bill shall be considered as read. All points of order against provisions in the bill are waived. The previous question shall be considered as ordered on the bill and on any amendment thereto, to final passage without intervening motion except: (1) one hour of debate equally divided and controlled by the chair and ranking minority member of the Committee on Energy and Commerce or their respective designees; and (2) one motion to recommit.

SEC. 8. Clause 1(c) of rule XIX shall not apply to the consideration of H.R. 12.

Mr. COLE. Mr. Speaker, I yield back the balance of my time, and I move the previous question on the resolution.

The SPEAKER pro tempore. The question is on ordering the previous question.

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Mr. MCGOVERN. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this question are postponed.

WHOLE MILK FOR HEALTHY KIDS ACT OF 2023

GENERAL LEAVE

Ms. FOXX. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to insert extraneous material on H.R. 1147.

The SPEAKER pro tempore (Mr. DONALDS). Is there objection to the request of the gentlewoman from North Carolina?

There was no objection.

The SPEAKER pro tempore. Pursuant to House Resolution 922 and rule XVIII, the Chair declares the House in the Committee of the Whole House on the state of the Union for the consideration of the bill, H.R. 1147.

The Chair appoints the gentleman from Tennessee (Mr. DESJARLAIS) to preside over the Committee of the Whole.

□ 1355

IN THE COMMITTEE OF THE WHOLE

Accordingly, the House resolved itself into the Committee of the Whole House on the state of the Union for the consideration of the bill (H.R. 1147) to amend the Richard B. Russell National School Lunch Act to allow schools that participate in the school lunch program under such Act to serve whole milk, with Mr. DESJARLAIS in the chair.

The Clerk read the title of the bill.

The CHAIR. Pursuant to the rule the bill is considered read the first time.

General debate shall be confined to the bill and shall not exceed 1 hour equally divided and controlled by the chair and ranking minority member of the Committee on Education and the Workforce or their respective designees.

The gentlewoman from North Carolina (Ms. FOXX) and the gentleman from Virginia (Mr. SCOTT) each will control 30 minutes.

The Chair recognizes the gentlewoman from North Carolina.

Ms. FOXX. Mr. Chair, I yield myself such time as I may consume.

Mr. Chair, I rise in strong support of H.R. 1147. It is Christmastime across America. For many, the season brings with it the annual return of cherished Christmas traditions, such as leaving milk and cookies out for Santa Claus and his reindeer to enjoy.

As for my family, our traditional choice of dairy has always been whole milk. We want only the most nutritious option for Santa.

The nutrients in whole milk, like protein, calcium, and vitamin D, provide the fuel Santa needs to travel the whole globe in one night. Whole milk is the unsung hero of his Christmas journey.

Protein helps build and repair Santa's muscles. Hoisting heavy sacks of gifts up and down the chimney is no easy task.

Calcium is vital for strong bones. It is calcium that keeps Santa strong and sturdy as he dashes from rooftop to rooftop.

Vitamin D is essential to a strong immune system. Santa absolutely needs one as he braves the cold, wintry night. You see, it is not just the magic of the season that helps Santa deliver presents worldwide, it is also the fortifying nutrients in whole milk.

Reflecting on Christmas traditions this year begs the question: If whole milk is a good option to fuel Santa's extraordinary Christmas Eve journey, then why isn't it an option for American schoolchildren in their lunchrooms?

That is why I support Representative G.T. THOMPSON's Whole Milk For Healthy Kids Act, a bill allowing unflavored and flavored whole milk to be offered in school cafeterias.

Since 2012, the National School Lunch and Breakfast Program has allowed only low-fat and fat-free milk options for American schoolchildren. This means 2 percent and whole milk have been excluded from the daily diets of an entire generation of kids.

The USDA intends to finalize another rule which will further limit milk options. Anti-milk advocates advance one main argument against whole milk: that whole milk is bad for kids.

□ 1400

Rather, milk has 13 essential nutrients that are needed for children to live healthy lives and succeed in school. It is an essential ingredient to growth and development. Research shows that whole milk is associated with a neutral or lower risk of heart disease and obesity.

Moreover, the USDA contradicts itself by limiting milk options for young children. On one hand, it recognizes that children are at risk of underconsuming dairy, yet on the other, it creates policies that will only exacerbate the problem.

If Americans have learned anything from these past 3 years, it is that scientific authorities tend to contradict themselves. The truth is that whole milk is a significant source of vital nutrients for children's growth and development. The Federal bureaucracy should never stand between your children and a nutritious lunch.

The Whole Milk for Healthy Kids Act isn't about advocating for one type of milk over another. It is about providing parents, schools, and food service providers with the option to choose what is best for our children's nutrition.

This act does not aim to diminish the importance of other milk varieties. Rather, it seeks to restore the availability of a wholesome, natural option that has been a staple for generations. This bill is about choice. It is a chance to empower parents and schools to make informed choices about what goes into our children's diets.

Whether it is a nutritional foundation for Santa's journey or your child's math homework, let's not discount the benefits of whole milk.

Mr. Chair, I reserve the balance of my time.

Mr. SCOTT of Virginia. Mr. Chair, I yield myself such time as I may consume.

Mr. Chair, I rise in opposition to H.R. 1147, the Whole Milk for Healthy Kids Act.

School meals are critical to reducing child hunger and providing children with the healthy food they need. Milk, offered as part of these meals, can help deliver essential nutrients that are vital to a child's development. That is why it is so important that we provide students with the most nutritious milk options.

Child nutrition standards for school meals, including milk options, are guided by the science-based Dietary Guidelines for Americans, or the DGAs, which are periodically updated based on recommendations from child nutrition experts and input from the public.

The latest DGAs, along with the American Heart Association, American Academy of Pediatrics, the Physicians Committee for Responsible Medicine, the Academy of Nutrition and Dietetics, and over a dozen other public health advocates, agree that fat-free and low-fat milk are the healthiest options for children.

Regrettably, H.R. 1147 attempts to legislate nutrition standards and disregard the evidence-based recommendations made by the DGAs. Furthermore, the bill would undermine the Biden administration's ongoing rulemaking to better align school nutrition standards with the latest science.

This bill would allow schools participating in the National School Lunch Program to offer whole milk and reduced-fat milk, violating the current science-based standards that protect children's health.

Whole milk contains far more saturated fat, cholesterol, and calories than fat-free and low-fat milk. Conversely, fat-free and low-fat milk options offer the same vital nutrients, including calcium, vitamin D, vitamin A, protein, and potassium, as whole milk.

Nutrition standards must be guided by scientists, not politicians. If someone wants to offer one study or another to be considered, use the DGA process, not the political process. This bill needlessly inserts politics into a science-based process.

Lastly, I am disappointed by the majority's decision to depart from precedent by moving a child nutrition bill outside of a comprehensive child nutrition reauthorization. Rather than improve our Nation's child nutrition programs holistically, the majority has decided to prioritize interfering with evidence-based nutrition standards for our children's school meals.

For that reason, Mr. Chair, I oppose the bill, and I reserve the balance of my time.

Ms. FOXX. Mr. Chair, I would just like to tell my colleague something that I think will be easy to remember about why we are doing this. Scientists/experts built the Titanic, and amateurs built the ark.

Mr. Chair, I yield 2 minutes to the gentleman from Wisconsin (Mr. GROTHMAN).

Mr. GROTHMAN. Mr. Chair, I thank Ms. FOXX for making Biblical allusions. Last week, we were here talking about National Bible Week. One of the phrases that you run across again and again as you read the Bible is that God promised Abraham a land flowing of milk and honey. I will let the body decide what type of milk the Lord was promising Abraham. I think I know.

As somebody who has been drinking milk my whole life, I can tell you a better tasting milk, and a milk that I think is more likely to be consumed, is whole milk. For some reason, the current administration is waging war on milk. The USDA's current restrictions on school lunches are limiting nutritious options for kids. This comes at a time when it is found that 90 percent of Americans do not eat enough dairy to meet the dietary recommendations.

Drinking milk leads to better bone health and lower risk for type 2 diabetes and cardiovascular disease. Additionally, milk stands as a leading and accessible source of nine essential nutrients that children often fall short of.

Proposed guidelines such as limiting milk options by age group and counting milk fat against weekly saturated allowance threaten to deprive students of essential nutrients.

It is crucial that students have access to the nutritional benefits of milk. With these restrictions, they might choose to forgo milk entirely, if you have to drink the less tasty 1 percent, or even worse, fat-free milk.

These proposed restrictions ignore several recent research studies examining the effect of higher fat milk consumption which found that it is associated with lower childhood obesity and concluded that dietary guidelines that recommend reduced-fat milk versions might not provide a benefit in lowering the risk of childhood obesity, which we are all for.

I implore each of you to consider the Whole Milk for Healthy Kids Act of 2023 as a commonsense solution to ensure that we have healthy children.

Mr. Chair, I ask my fellow Members to vote ''yes'' on H.R. 1147.

Mr. SCOTT of Virginia. Mr. Chair, I yield such time as he may consume to the gentleman from Louisiana (Mr. CARTER).

Mr. CARTER of Louisiana. Mr. Chair, I thank Ranking Member SCOTT for his time and leadership in this matter.

I rise today in opposition to this bill. Monday night, the Rules Committee considered my amendment, amendment No. 16, to H.R. 1147, which would have provided an alternative, a healthy alternative to our young people, people that cannot digest milk.

I heard my colleagues on the other side of the aisle suggest that this was a choice. Well, if there were a choice, then why not add soy as a choice. Soy gives the equivalent of the nutritional values as whole milk, but it does not have the negative impact that whole milk has on a large swath of people in our community.

I will tell you those numbers. Ninety-five percent of Native Americans have lactose intolerance. Ninety percent of African Americans are lactose intolerant. Sixty-five percent of Latino Americans are, in fact, lactose intolerant. Asian Americans, 90 percent. These are real numbers. This is not about taste. This is not about profit. This is not about bottom line. This is not about a powerful lobby. This is about the safety, nutrition, and well-being of our young people.

We cannot ignore the impact that ingesting or attempting to digest things that your body cannot and what impact it has on one's ability to concentrate or do well in the classroom.

My colleagues and I formed a diverse group, represented by chairs of the Congressional Hispanic Caucus, the Asian Pacific American Caucus, and a vice chair of the Congressional Black Caucus respectively. We all firmly believe that the full House should be allowed to debate this important measure, making sure that we were given the opportunity on the floor to debate this amendment. I believe if given the opportunity to be heard, even the other side could have and would have been able to support.

What is most perplexing is how this amendment aligns with the purpose of the underlying bill, to expand choice and to deliver healthy beverages to the school counter. Our amendment is based on the text of my bill, H.R. 1619, the ADD SOY Act. It amends the Richard B. Russell National School Lunch Program to strike the onerous ''milk note'' requirement and to stipulate that the USDA reimburse school districts to make a plant-based dietary alternative that is nutritionally equivalent to cow's milk available in school. Yes, a choice, a real choice.

When Congress enacted the milk mandate 80 years ago, the United States was less diverse, and we did not understand the exact science surrounding lactose intolerance. Between 70 to 90 percent of African Americans today are lactose intolerant. Ninety percent of Asians, 95 percent of Native Americans, and 65 percent of Latinos are, in fact, lactose intolerant.

The National Institutes of Health reports the majority of all people have reduced ability to digest lactose after infancy, and it adds that it is also very common in people from West Africa, Arab, Jewish, Greek, and Italian descent.

Currently, if a student wants a nutritionally equivalent alternative to milk, they need to get a doctor's note or parent's note to obtain a plant-based beverage. Oftentimes, parents are working two jobs. Oftentimes, unfortunately, parents don't pay as much attention or are as in tune and have an opportunity to get to the school or even have healthcare to go to a doctor to get a note. Should that child still be punished and forced to drink something that their body simply cannot digest?

How do you concentrate in the classroom when you are drinking and attempting to digest something that your body cannot? What happens to that child when they belly up to the desk and have to study or pay attention but their body is telling them that they have eaten something that does not agree with them? It causes a problem. It causes ridicule. It causes the ability or inability to concentrate and perform at their highest level. Because of this high barrier to entry, kids often don't. Many skip school or don't do well in school as an alternative.

If 75 percent of African Americans are lactose intolerant, which is true in my family, why should three-quarters of kids have to get a note. It is not a medical disability to be African American. It is not a medical disability to be Vietnamese American. It is not a disability to be Native American. It is not a disability to be Latino.

Lactose intolerance is genetic. This isn't complicated. Kids should be given a healthy fluid beverage option that doesn't make them sick. Our amendment would have provided a sensible solution. Allow the USDA to reimburse school districts for soy milk, which so far is the only plant-based milk that has been recognized under the latest formulation of the 2020 American Dietary Guidelines to be healthy and nutritionally equivalent to cow's milk.

Moreover, there is a primary reason that more than half of all milk given to children is thrown into a cafeteria trash can unused, carton after carton after carton of discarded cartons of milk that have never been opened. At some point kids realize it isn't good for them and they don't drink it. Whatever nutritional value you thought you were affording by giving milk doesn't happen if young people can't consume or digest it.

Many kids don't want milk because it makes them sick. According to the USDA, 29 percent of cartons of cow milk served in our schools are thrown into the garbage unopened. This comes out to be somewhere around $300 million in annual waste of taxpayer funds for milk cartons. It is clear that not only is it a food waste issue but a failure on the NSLP to supply food to kids that are consumed and meet their daily nutritional requirement. The present rate of food waste and taxpayer losses is not acceptable.

□ 1415

Mr. Chair, I ask whether my Republican colleagues think it is a good policy. Is that good stewardship of our tax dollars? Is that delivering good health outcomes for all kids?

If they believe it is, then they should agree and recognize that adding a true alternative is a good thing. I remind my colleagues that it is not a medical condition to be Black, Latino, Asian, Jewish, or other ethnicities.

This is an issue of racial equity and inclusion, as well as tightening government spending and waste. It is both a matter of squandering tax dollars and a matter of fairness. The kids who have the least and who have the most difficulty raising their voices are being denied a food staple that they simply cannot stand.

We must fix this. Let us strive to do better for the next generation and equip them with the nutritional sustenance at the lunch counter that can give them an opportunity to not just survive but thrive.

Mr. Chair, I implore you to think about the children. Don't think about the profits. Don't think about the lobby. Don't think about the efforts of a winner or loser. Let's put children first.

Let's make sure that we, as a Congress, recognize the value of fighting for those who have not been given the opportunity to fight for themselves.

Add soy. Create true alternatives. Do not force people to digest things that their bodies simply cannot.

Mr. Chair, it is for this reason and this reason solely that I cannot support this measure without true alternatives.

Ms. FOXX. Mr. Chairman, I yield myself 1 minute.

Mr. Chairman, we are very concerned about waste. One of the reasons there is so much waste is because whole milk is not allowed, and children don't like the taste of skim milk.

We are putting children first. We are not excluding soy drink. It is not milk. It is a plant-based food. It isn't milk, so you can't call it soy milk. You can call it soy drink.

It was under our first African-American President in this country that this was designed this way. The First Lady pushed through these rules and regulations to exclude whole milk, which, by the way, my colleague says has an enormous amount more fat.

The fat content of whole milk is about 3½ percent. We are foisting on children 1½ percent milk, which doesn't have a very good taste to many of them. We are excluding them from 3½ percent. We do not exclude soy drink. This is about inclusion and equity. We want people to be able to drink the kind of milk they want to drink.

Mr. Chairman, I yield 2 minutes to the gentleman from Pennsylvania (Mr. SMUCKER).

Mr. SMUCKER. Mr. Chairman, I rise in support of H.R. 1147, the Whole Milk for Healthy Kids Act, and I urge my colleagues to support this bipartisan, bicameral, and ''udderly'' fantastic bill.

I proudly represent Pennsylvania's 11th District, which is one of the largest dairy producers in the Northeast. In 2022, 1,300 Lancaster County farms produced 2.1 billion pounds of milk.

I have visited many of those farms, and I have had many discussions with local school administrators about the importance of child nutrition. We all agree that milk is a key vehicle for delivering protein, potassium, calcium, phosphorus, and vitamins A and D, especially for children.

Let's not skim over the facts here. Whole milk is truly the cream of the crop in delivering these key vitamins and nutrients to growing children.

Sadly, our Nation's kids are not consuming enough dairy. We have seen a decline in receiving those essential vitamins and nutrients since we banned whole milk in our schools. We can only begin to ''cow-culate'' the impact that has on their long-term health.

Let's not curdle away the opportunity to expand dairy consumption in our Nation's schools and ensure our children are getting the nutrients necessary to grow strong bones and teeth.

Mr. Chairman, all milk puns aside, I urge my colleagues to support this legislation. Expanding the universe of options for children to consume vital nutrients and vitamins is important for their long-term health. It also helps these kids be prepared for school, develop into adulthood, and cultivate a 21st century workforce.

Mr. Chairman, healthy kids and supporting our dairy farmers are ''mootually'' important.

Mr. SCOTT of Virginia. Mr. Chair, I yield myself such time as I may consume.

Mr. Chairman, we received a letter from the National Alliance for Nutrition and Activity, which says in part that the passing of H.R. 1147 ''would be a departure from the longstanding tradition of establishing food and nutrition standards for Federal child nutrition programs based upon the findings of independent reviewers and the scientific community. There are evidenced-based strategies to increase school meal consumption—and, by extension, potentially school milk consumption—that do not involve weakening nutrition standards. Changes to school nutrition standards should be guided by the Dietary Guidelines, not special interests, and as such, we strongly urge you to put children's interests first and uphold the science-based process and oppose the Whole Milk for Healthy Kids Act of 2023. Our children deserve no less.''

It is signed by the Academy of Nutrition and Dietetics, Advocates for Better Children's Diets, American Academy of Pediatrics, American Heart Association, American Public Health Association, Ann & Robert H. Lurie Children's Hospital of Chicago, Balanced, Center for Biological Diversity, Center for Science in the Public Interest, Chef Ann Foundation, Friends of the Earth, Healthy Food America, Healthy Schools Campaign, Life Time Foundation, National WIC Association, and Public Health Institute.

Mr. Chair, I include in the RECORD a letter from the National Alliance for Nutrition and Activity.

NATIONAL ALLIANCE FOR NUTRITION & ACTIVITY,
December 11, 2023.

Hon. VIRGINIA FOXX,
Chair, House Committee on Education and the Workforce, House of Representatives.

Hon. ROBERT ''BOBBY'' SCOTT,
Ranking Member, House Committee on Education and the Workforce, House of Representatives.

DEAR CHAIRWOMAN FOXX AND RANKING MEMBER SCOTT: The undersigned members of the National Alliance for Nutrition and Activity, the nation's largest nutrition advocacy coalition, strongly urge you to oppose H.R. 1147/S. 1957, the Whole Milk for Healthy Kids Act of 2023. H.R. 1147/S. 1957 would allow school meals to offer full-fat (whole) and reduced-fat flavored and unflavored milk, and arbitrarily exempt full-fat and reduced-fat milk from current saturated fat limits in school meals, both of which are inconsistent with the recommendations of the 2020–2025 Dietary Guidelines for Americans (DGAs).

School meal standards, by law, must be aligned with the Dietary Guidelines for Americans, which are reviewed and revised every five years. The DGAs recommend full-fat (whole) milk only for children under the age of two, and fat-free and low-fat milk after that. In addition, the DGAs recommend saturated fat should account for less than 10 percent of calories per day. As such, both the National School Lunch Program (NSLP) and School Breakfast Program (SBP) meal patterns allow only fat-free and low-fat milk and require that less than 10 percent of calories in the meal come from saturated fat over the week. Earlier this year, the U.S. Department of Agriculture (USDA) proposed updates to the school nutrition standards to more closely align with the 2020–2025 DGAs, which did not change the saturated fat limit nor increase the milkfat allowed to be served in school meals. Singling out milk—in this case, whole and reduced-fat milk—to be exempt from the recommendations of the Dietary Guidelines is a slippery slope for allowing—special interests to carve out exemptions in school meal program rules. Allowing the change in the service of whole and reduced-fat milk will negate the progress that has been made in the planning and service of healthier foods to children in schools.

Milk is an important part of a well-balanced diet. Milk contains nutrients of concern, such as vitamin D and calcium. However, unlike fat-free and low-fat milk, full-fat milk contains too much saturated fat to be part of a healthy food pattern. According to USDA data, one cup of whole milk contains around 4.5 grams of saturated fat. Full fat milk is so high in saturated fat that the government prohibits its labels from claiming that calcium can reduce the risk of osteoporosis; fat-free and low-fat milk, however, can make these claims. By allowing full-fat milk in lunch and adjusting saturated fat allowances accordingly, H.R. 1147/S. 1957 would allow an additional 4.5 grams of saturated fat daily in school meals beyond the science-based limit that is currently in place.

School meal nutrition standards were strengthened significantly in 2012. These updates were an overwhelming success, particularly for children in who are part of households with fewer financial resources. A 2021 study found that school meals are the single most healthy source of nutrition for children—more nutritious than grocery stores, restaurants, worksites, and others. Yet even with the current nutrition standards that limit saturated fat in school meals, most children, on average, still consume more saturated fat than is recommended. According to the DGA, more than 80 percent of children ages 5–8 years, more than 85 percent of youth ages 9–13, and over 75 percent of youth ages 14–18 consume too much saturated fat. Allowing full-fat milk in schools would only worsen this problem.

The fat content of school milk is neither the cause nor the solution to the decades-long decline in fluid milk consumption in the United States and the struggles of the dairy industry. According to a 2013 Economic Research Service (ERS) report, younger generations consume less milk than preceding generations, but this trend is not exclusive to schoolchildren. According to the ERS economists, ''individuals born in the 1970s, for example, drank less milk in their teens, 20s, and 30s than individuals born in the 1960s did at the same age points. Those born in the 1980s and 1990s, in turn, appear likely to consume even less fluid milk in their adulthood than those born in the 1970s.'' Rather than acknowledging the fact that 36 percent of Americans experience lactose malabsorption, (with African Americans, American Indians, Asian Americans, and Hispanics/Latinos experiencing at higher rates than non-Hispanic White Americans), H.R. 1147 perpetuates the cumbersome requirement that students must obtain a doctor's note documenting a disability to receive a substitute for fluid milk, while arbitrarily increasing access to the less-healthy full-fat milk.

We thank you for your attention to this matter. Passing H.R. 1147/S. 1957 would be a departure from the long-standing tradition of establishing food and nutrition standards for federal child nutrition programs based upon the findings of independent reviewers and the scientific community. There are evidence-based strategies to increase school meal consumption—and by extension, potentially school milk consumption—that do not involve weakening nutrition standards. Changes to school nutrition standards should be guided by the Dietary Guidelines, not special interests, and as such, we strongly urge you to put children's interests first and uphold the science-based process and oppose the Whole Milk for Healthy Kids Act of 2023. Our children deserve no less.

Signed,

Academy of Nutrition and Dietetics, Advocates for Better Children's Diets, American Academy of Pediatrics, American Heart Association, American Public Health Association, Ann & Robert H. Lurie Children's Hospital of Chicago, Balanced, Center for Biological Diversity, Center for Science in the Public Interest, Chef Ann Foundation, Friends of the Earth, Healthy Food America, Healthy Schools Campaign, Life Time Foundation, National WIC Association, Public Health Institute.

Mr. SCOTT of Virginia. Mr. Chairman, I reserve the balance of my time.

Ms. FOXX. Mr. Chairman, I yield 5 minutes to the gentleman from Pennsylvania (Mr. THOMPSON), the author of this legislation.

Mr. THOMPSON of Pennsylvania. Mr. Chairman, I thank the chairwoman for her leadership and support.

Mr. Chairman, I rise today in strong support of my legislation, the Whole Milk for Healthy Kids Act, that supports students and dairy farmers across America.

Milk is an essential building block for a well-rounded and balanced diet, offering 13 essential nutrients and numerous health benefits.

Out-of-touch Federal regulations have imposed dietary restrictions on the types of milk students have access to in school meals.

Our ranking member is a dear friend of mine, and we have worked together. I have been here for 15 years and him a little longer. We have a great relationship and have had a lot of bipartisan bills together, like we marked up yesterday.

Mr. Chair, I have to say, the only special interest here is our kids. It is our kids who have been cheated out of the nutrition that they need. Case studies have shown that the rate of obesity and being overweight increased dramatically after access to whole milk and flavor was taken out of the schools in 2007–2008, which was a baseline. In 2010, a Democrat-led initiative demonized milk fat. In 2020–2021, there was a study of that same cohort, and obesity has gone up without this beverage.

Mr. Chairman, regarding my good friend from Louisiana, who just spoke, everybody is entitled to their own opinion but not their own facts. The facts are that it is the underlying law that was passed back in 2010 by a Democratic House and signed by a Democratic President that, quite frankly, required a physician prescription for health reasons.

That is a good part of the law, and we didn't touch that. We didn't address that in this bill, so I am not sure why he is talking about it. It is not germane to the topic we are talking about today. That is the underlying law.

The bottom line is that students and parents do have choice. There is a mechanism to honor that. The only choice they don't have, though, is access to the most nutritious beverage, which is whole milk—specifically, whole milk and flavor.

Mr. Chair, I appreciate the gentleman from Louisiana sharing how much waste there was and what that amounts to in cartons and half pints and what it amounts to in dollars. That is because of the taste experience. It is not that these kids are throwing the milk away because it is unhealthy for them. It is just a terrible taste experience when you are drinking low-fat or nonfat milk.

Students have been limited to fat-free or reduced-fat milk since the Healthy, Hunger-Free Kids Act was enacted in 2010.

While some of my friends on the other side of the aisle have argued that we should not reform individual aspects of child nutrition, it was that legislation more than a decade ago that singled out milk for regulation, which is why we are here today.

There are several reasons why these top-down regulations are harmful to students and school districts that are forced to comply with them.

First, we have seen students opt out of consuming milk altogether if they don't have access to a variety that they enjoy. According to the ''Scientific Report of the 2020 Dietary Guidelines Advisory Committee,'' more than two-thirds of school-age children failed to meet the recommended levels of dairy. No kidding. We took out most nutrition and most taste and made it inaccessible to them.

Let's face it, the only way to benefit from milk's essential nutrients is to consume it. We are not force-feeding anybody anything. This is about choice. When students turn away from milk, they often opt for far less healthy alternatives that are highly caffeinated, sugar-sweetened, or lack key nutrients.

These regulations also perpetuate baseless claims that milk is bad for our kids. Research has shown time and time again that whole and 2 percent milk are not responsible for childhood obesity and other health concerns. In fact, these beverages are so nutritious that research shows positive health outcomes for kids who consume whole milk.

Mr. Chairman, I include in the RECORD academic studies from researchers around the world, including from top institutions such as Boston University and Tufts, who have studied the health effects of full-fat dairy.

[From the American Journal of Clinical Nutrition]

WHOLE MILK COMPARED WITH REDUCED-FAT MILK AND CHILDHOOD OVERWEIGHT: A SYSTEMATIC REVIEW AND META-ANALYSIS

INTRODUCTION

Childhood obesity has tripled in the past 40 y, with nearly 1 in 3 North American children now overweight or obese (1–3). Over the same period, consumption of whole-fat cow-milk has halved (4). The American Academy of Pediatrics and the Canadian Paediatric Society recommend that children switch from whole-fat cow-milk (3.25%) to reduced-fat cow-milk (0.1 to 2%) at 2 y of age to limit fat intake and minimize the risk of childhood obesity (5, 6). European (7), British (8), and Australian (9) health authorities have provided similar recommendations. Healthcare providers (10) and families (11) frequently follow this guideline, and school and child-care nutrition policies (12–14) often reflect them. Since 1970 whole-cow-milk availability has dropped by 80% in North America, whereas reduced-fat milk purchases have tripled (15, 16).

Given that cow-milk is consumed daily by 88% of children aged 1 to 3 y and by 76% of children aged 4 to 8 y in Canada (17) and is a major dietary source of energy, protein, and fat for children in North America (17, 18), understanding the relation between cow-milk fat and risk of overweight or obesity is important. Systematic reviews and meta-analyses on the relation between total dairy consumption and child adiposity have had conflicting findings. According to these studies, higher cow-milk intake in children is associated with taller height and better bone and dental health (19–21). Although these studies evaluated total dairy consumption, they did not consider cow-milk fat specifically. The objectives of this study were to systematically review and meta-analyze the relation between whole-fat (3.25%) relative to reduced-fat (0.1 to 2%) cow-milk and adiposity in children.

METHODS

A systematic review and meta-analysis of the literature was conducted. The study was designed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (PRISMA–P) (22) and registered as a PROSPERO systematic review and meta-analysis (registration number: CRD42018085075).

INCLUSION CRITERIA

Types of studies

Studies included in the search were original works published in English in a peer-reviewed journal. Cross-sectional, cohort, case-control, and longitudinal studies, as well as intervention trials, both controlled and not controlled, were included in the search strategy. There were no restrictions on date or length of follow-up.

Population

Studies that included healthy children aged 1–18 y with ≥10 human subjects were considered. Studies that examined undernourished or disease populations (other than asthma) were excluded.

Exposures

The primary exposure was cow-milk fat, categorized as skim (0.1% fat), 1% fat, 2% fat, or whole or homogenized (3.25% fat). Measures of exposure included FFQ, multiday food record, 24-h food recall, or any other validated or nonvalidated measurement tool. Dietary pattern analyses were not included.

Outcomes

The primary outcome was childhood adiposity. These measures included BMI z-score (zBMI), BMI, weight for age, body fat mass, lean body mass, waist circumference, waist-to-hip ratio, body fat percentage. skinfold thickness, and prevalence of overweight or obesity as defined by the WHO (23), CDC (24), or International Obesity Task Force (IOTF)(25) cutoffs. When sufficient information was not available in the full text publication, study authors were contacted by email to obtain additional data.

Meta-analysis

Meta-analysis included studies that reported the number of children who consumed whole (3.25%), 2%, 1%, or skim (0.1%) milk regularly (a priori defined as typically, daily, or ≥4 times per week), as well as the number of children from each of these groups who were classified as either healthy weight, or overweight or obese (overweight and obese were included as 1 category) assessed using BMI standardized according to the WHO (23), CDC (24), or IOTF (25) criteria.

SEARCH METHODS

A comprehensive search strategy was developed by a research librarian (NT) with expertise in systematic reviews. From inception to August 2019, Embase, CINAHL (Cumulative Index to Nursing and Allied Health Literature), MEDLINE, Scopus, and the Cochrane Library were searched on March 23, 2018 and updated on August 2, 2019 using Medical Subject Headings (MeSH) and keywords (see Supplemental Methods for search strategies).

DATA EXTRACTION, MANAGEMENT, AND ANALYSIS

Study selection

To evaluate study eligibility 2 reviewers (MA and SMV) independently reviewed study titles, abstracts, and full texts if needed. Both reviewers applied inclusion and exclusion criteria and differences were examined and resolved by consensus, which was achieved 100% of the time. Full-text articles were retrieved for potentially eligible studies and reviewed. Characteristics of included full-text studies were summarized.

Data extraction

Two reviewers (MA and SMV) extracted data from eligible studies using standardized data extraction tables adapted from the Cochrane Data Extraction Template (26). Differences were resolved by consensus 100% of the time.

Data management

Covidence (27) software was used to select studies, review results, and resolve discrepancies between reviewers. All included study records were kept in spreadsheet format.

Data synthesis

Studies included in the analysis were described according to a standardized coding system that captured key elements of each study including descriptors of the study setting, population size and age (mean and range), exposure or intervention, comparator group, method of data collection, outcome measures, type of analysis, and results.

RISK OF BIAS AND STUDY QUALITY ASSESSMENT

Risk of bias was assessed using the Newcastle–Ottawa Scale (NOS) (28) for nonrandomized analyses, which expresses the risk of bias on a numerical scale ranging from 0 to 9; scores <7 are considered low risk. (NOS criteria can be found in Table 2.) The NOS-guided review included an examination of participant selection, comparability of children consuming whole or reduced-fat milk, and exposure and outcome measure ascertainment. To allow sufficient follow-up time for a meaningful change in adiposity to occur, the minimum acceptable follow-up time was prespecified as 1 y. Study comparability, defined as whether studies adjusted for similar confounding variables, was specified a priori as studies that adjusted for important characteristics including: birth weight or baseline weight (for prospective cohort studies), milk volume consumed, and parent BMI. Studies that adjusted for each of these factors were awarded 2 points, whereas 1 point was allocated if adjustment was performed using ≤4 other covariates. Reports were assigned 1 point for ascertainment of exposure only when structured interviews or medical records were used for data collection. Risk of bias was assessed by 2 reviewers (MA and SMV) and consensus was achieved 100% of the time.

STATISTICAL ANALYSIS

For each study, participant information, design, and results were summarized. We derived crude ORs and extracted adjusted ORs, whenever available, for overweight or obesity among children who consumed whole (3.25%) milk, compared with children who consumed reduced-fat (0.1–2%) milk regularly. A random effects model based on the restricted maximum likelihood estimator was decided a priori and used to separately pool crude and adjusted ORs of overweight or obesity. Each study was included as a random effect to account for between-study variation in this model. Sensitivity analyses were performed using the Knapp–Hartung method and inverse-variance weights. Because prospective cohort studies can reveal different relations than cross-sectional studies, we performed a subgroup analysis according to study design. Additionally, we analyzed studies in subgroups according to risk of bias (high compared with low) and age (1–5 y, 6–11 y, and 12–18 y). Subgroup analyses were accompanied by tests for interaction between each subgroup and the main effect from the random-effects metaregression, by using an interaction term in metaregression models for study design (cross-sectional compared with prospective cohort), risk of bias (high compared with low), and age group (1–5 y, 6–11 y, and 12–18 y). Heterogeneity across included studies was estimated using the I^2 statistic. Heterogeneity was considered low (<40%), moderate (40–60%), or high (>60%). Publication bias was assessed using a funnel plot and Egger test.

Finally, we conducted a dose-response metaregression to quantify the association between percentage of fat in cow-milk consumed and the odds of overweight or obesity. Only studies that reported group-specific odds for ≤3 types of cow-milk fat were included in this analysis. For the dose-response analysis, we first used a fixed-effect approach to estimate the dose-response relations within each study. Then, we used a random-effects approach to combine across studies the dose-response estimates that were generated in the first step for each study to obtain regression coefficients, and their respective standard errors. R software version 3.2.2 was used for all analyses, using the ''metafor'' package.

RESULTS

The database search identified 5862 potentially eligible studies. After exclusion of duplicates (n = 1861), 4001 reports underwent title and abstract review. Studies that did not meet inclusion criteria (n = 3915) were removed resulting in 86 published studies that underwent full text review. Reasons for exclusion included wrong exposure, wrong outcome, wrong patient population, dietary pattern analysis only, or wrong study design such as case reports or editorials. Twenty-eight studies met all inclusion criteria. Of these, 20 were cross-sectional and 8 were prospective cohort studies. No interventional studies were identified. Most studies (n = 23) compared consumption of whole milk (3.25% fat) with reduced-fat milk (0.1%, 1%, or 2% fat). Four studies (36–39) compared whole and 2% milk with 1% and skim milk. One study compared whole milk with 2% milk.

Nineteen studies used zBMI, 4 prospective cohort studies used percentage body fat change, and 5 studies used overweight or obesity categories as the primary adiposity outcome. Three studies used 2008 WHO growth standards, 14 studies used 2000 CDC growth standards, 7 used 2000 IOTF growth standards, and 4 studies either did not specify or used other standards for zBMI measurement.

Eighteen (36, 38, 39, 41–45, 47–49, 51, 52, 57, 58, 60, 63, 65) studies reported that higher cow-milk fat was associated with lower child adiposity. Ten studies (37, 40, 46, 50, 53–56, 59, 61) reported no association between cow-milk fat and child adiposity.

RISK-OF-BIAS ASSESSMENT

Risk of bias assessed using the NOS suggested that 1 of 8 prospective cohort studies and 0 of 20 cross-sectional studies were low risk of bias. Common limitations that increased risk of bias included cross-sectional study design, nonstandardized dietary assessments that were either study specific or not validated, lack of adjustment for clinically important covariates (including volume of milk consumed, parent BMI, and child adiposity assessed prior to the outcome), and study duration too short to detect a meaningful change in adiposity (defined a priori as 1 y).

ASSOCIATION BETWEEN COW-MILK FAT AND CHILD OVERWEIGHT OR OBESITY

Fourteen (38, 42–44, 46, 47, 49, 51, 52, 57, 58, 60, 62, 65) studies met the meta-analysis inclusion criteria; 11 were cross-sectional and 3 were prospective cohort studies. All studies included in the meta-analysis compared whole (3.25% fat) milk with reduced-fat (0.1–2%) milk consumption, allowing an OR to be calculated. A total of 20,897 healthy children aged 1–18 y were included in the meta-analysis. Children were from 7 countries (United States, United Kingdom, Canada, Brazil, Sweden, New Zealand, and Italy). Anthropometric standards used to determine overweight or obesity categories included the WHO, CDC, or IOTF growth standards in 6, 5, and 3 studies respectively.

Crude analysis of all 14 studies revealed that among children who consumed whole milk compared with reduced-fat milk, the pooled OR for overweight or obesity was 0.61 (95% CI: 0.52, 0.72; $P < 0.0001$). Heterogeneity measured by the I^2 statistic was 73.8% ($P < 0.0001$). A sensitivity analysis using inverse-variance weights did not reveal different results. Subgroup analysis by study design revealed no significant interaction between cross-sectional and prospective cohort studies. For the 11 cross-sectional studies ($n = 9413$), the pooled OR of overweight or obesity was 0.56 (95% CI: 0.46, 0.69; $P = 0.0001$), and for the 3 prospective cohort studies ($n = 11{,}484$) it was 0.76 (95% CI: 0.63, 0.92; $P = 0.006$).

Risk of bias (high compared with low) and age group were also not significant modifiers of the relation between cow-milk fat and child adiposity. Analyses of 5 studies (49, 51, 52, 57, 58) that reported adjusted ORs did not show differences between crude and adjusted estimates (adjusted OR: 0.53; 95% CI: 0.44, 0.63; crude OR: 0.55; 95% CI: 0.46, 0.66). Results of the sensitivity analysis using the Knapp-Hartung method to pool the 14 studies (crude OR: 0.62; 95% CI: 0.52, 0.73) were similar to the main results (crude OR: 0.61; 95% CI: 0.52, 0.72)). Publication bias, visualized using a funnel plot was difficult to ascertain given the high heterogeneity ($I^2 = 73.8\%$) and relatively low number of included studies.

Data were available from 7 studies (38, 39, 44, 52, 57, 58, 65) which included 14,582 children aged 2 to 11 y, and demonstrated a linear association between higher cowmilk fat and lower child adiposity. For each 1% higher cowmilk fat consumed, the overall crude OR for overweight or obesity was 0.75 (95% CI: 0.65, 0.87; $P = 0.004$; $\tau^2 = 0.01$; $I^2 = 64\%$).

DISCUSSION

This systematic review and meta-analysis has identified that relative to reduced-fat cow-milk, whole-fat cow-milk consumption was associated with lower odds of childhood overweight or obesity. The direction of the association was consistent across a range of study designs, settings, and age groups and demonstrated a dose effect. Although no clinical trials were identified, existing observational research suggests that consumption of whole milk compared with reduced-fat milk does not adversely affect body weight or body composition among children and adolescents. To the contrary, higher milk fat consumption appears to be associated with lower odds of childhood overweight or obesity.

Findings from the present study suggest that cow-milk fat, which has not been examined in previous meta-analyses, could play a role in the development of childhood overweight or obesity. Several mechanisms have been proposed that might explain why higher cow-milk fat consumption could result in lower childhood adiposity. One theory involves the replacement of calories from less healthy foods, such as sugar-sweetened beverages, with cow-milk fat. Consumption of beverages high in added sugar has been associated with increased risk of overweight and obesity during childhood. Other theories involve satiety mechanism such that higher milk fat consumption might induce satiety through the release of cholecystokinin and glucagon-like peptide 1 thereby reducing desire for other calorically dense foods. Another possibility is that lower satiety from reduced-fat milk could result in increased milk consumption causing higher weight gain relative to children who consume whole milk, as observed in the study by Berkey et al.

Cow-milk fat might offer cardiometabolic benefits. The types of fat found in cow-milk, including *trans*-palmitoleic acid, could be metabolically protective. Higher circulating *trans*-palmitoleic acid has been associated with lower adiposity, serum LDL cholesterol and triglyceride concentrations, and insulin resistance, and higher HDL cholesterol in several large adult cohort studies. However, diets that replace dairy fat with unsaturated fatty acids might also offer cardiometabolic protection.

Confounding by indication and reverse causality are plausible alternate explanations. Parents of children who have lower adiposity might choose higher-fat milk to increase weight gain. Similarly, parents of children who have higher adiposity might choose lower-fat milk to reduce the risk of overweight or obesity. The majority of children included in this systematic review were involved in prospective cohort studies, in which the potential for reverse causality is lower than in cross-sectional studies. Results from these 11,484 children were consistent with the overall findings. Two of the included prospective cohort studies attempted to address confounding by indication by adjusting for baseline BMI; 1 of these repeated the statistical analysis only among participants with normal-weight BMI values, with similar findings. Clinical trial data would have provided better evidence for the directionality of this relation; however, none were available.

This study had a number of strengths. The meta-analysis included a large, diverse sample of children from around the world. The number of potentially eligible studies was maximized by the comprehensive search strategy and contact with authors to obtain missing data. Also, study selection, data collection, and risk of bias assessment were performed by 2 independent reviewers, which improved accuracy and consistency. All studies included in the meta-analysis used trained individuals to obtain anthropometric measurements, and weight status was standardized using growth reference standards (WHO, CDC, and IOTF). Using metaregression techniques, differences in study design, risk of bias, and age group were taken into account. Finally, a dose-response meta-analysis was conducted, which demonstrated a linear relation between higher cow-milk fat and lower child adiposity.

This study had a number of limitations. First, included studies were all observational. Only 1 study in this analysis was considered to have low risk of bias, and all studies in the meta-analysis had high risk of bias. Risk of bias included cross-sectional designs and lack of adjustment for clinically important covariates. For example, cow-milk volume was accounted for in only 11 of 28 studies in the systematic review, and in 5 of 14 studies in the meta-analysis. Adjustment for volume in future studies would allow for a clearer understanding of whether higher cow-milk fat protects against higher adiposity, or reduced-fat cow-milk increases adiposity. However, among these studies. comparison of adjusted compared with crude odds demonstrated consistent findings. Residual confounding by variables not accounted for in the individual analyses is also possible; this is a common limitation for meta-analyses of observational studies. Heterogeneity was relatively high ($I^2 = 73.8\%$), which might have been attributable to a variety of factors including varied methods of ascertainment of exposure and outcome, and differences in study design and follow-up duration. Although subgroup analyses of prospective cohort studies revealed results comparable to the overall metaregression, these comparisons might not have had sufficient power to detect clinically meaningful differences. However, 11,484 children were involved in prospective cohort studies making large differences in effect size unlikely. Although only studies with standardized dietary measurements were included, measurement error was possible due to recall bias or lack of validation of dietary assessment tool. Error in adiposity measurement could also have introduced bias. although weights and heights were measured by trained individuals and standardized protocols were used in all studies included in the meta-analysis. Differences in adiposity measurement (i.e., body fat percentage, zBMl, BMI), and different growth standards could have contributed to heterogeneity. For example, use of the WHO rather than IOTF or CDC standards could have resulted in a greater proportion of overweight or obese children being reported. Future studies using WHO growth standards, which are believed to represent optimal child growth, would help to minimize heterogeneity and overcome these limitations. Consideration for relevant outcomes such as cardiovascular risk should be included in future analyses to understand other effects of cow-milk fat. Publication bias was also possible as demonstrated by a funnel plot and Egger test.

In conclusion, observational evidence supports that children who consume whole milk compared with reduced-fat milk have lower odds of overweight or obesity. Given that the majority of children in North America consume cow-milk on a daily basis, clinical trial data and well-designed prospective cohort studies involving large, diverse samples, using standardized exposure and outcome measurements, and with long study duration would help determine whether the observed association between higher milk at consumption and lower childhood adiposity is causal.

[From the American Journal of Clinical Nutrition]

DAIRY FOODS, DAIRY FAT, DIABETES, AND DEATH: WHAT CAN BE LEARNED FROM 3 LARGE NEW INVESTIGATIONS?

(By Dariush Mozaffarian)

Dairy products are a major component of most diets, contributing ~10% of calories in the United States. Surprisingly, for such a major share of the food supply, their health effects remain remarkably uncertain, insufficiently studied, and controversial. Dietary guidelines on dairy remain largely based on theoretical considerations about isolated nutrients (e.g., theorized benefits of calcium or vitamin D; theorized harms of total fat or saturated fat) or short-term dietary pattern studies of surrogate markers, rather than on the mounting evidence on how milk, cheese, yogurt, butter, and other dairy foods relate to major clinical endpoints. Such evidence on health outcomes is crucial, because dairy products appear to be a heterogeneous class with complex effects dependent upon the interplay of diverse nutrients and processing characteristics (e.g. probiotics, fermentation, milk fat globule membrane, and more).

In this issue of the Journal, 3 new publications report on dairy consumption and risk of type 2 diabetes or mortality. Ardisson Korat et al. evaluated estimated dairy fat consumption and onset of diabetes in 3 cohorts of US health professionals. After adjustment for other risk factors, higher dairy fat intake, in comparison with carbohydrate, was associated with lower diabetes risk in 1 cohort of middle-aged women, and was not significantly associated with diabetes in the other 2 cohorts or among all 3 cohorts combined. In subgroup analyses, dairy fat intake was associated with lower risk of diabetes at younger ages (<65 y) and in women, the 2 subgroups among whom 70–80% of diabetes cases occurred—although these interactions by age and sex did not achieve statistical significance. When dairy fat was statistically compared with carbohydrate from whole grains, the latter was associated with lower risk of diabetes (per 5% energy, 7% lower risk), whereas, compared with other animal fats (largely form red meat and poultry) or with carbohydrate from refined grains, dairy fat consumption was associated with lower risk of diabetes (per 5% energy, 4–17% lower risk). Dairy fat consumption was not associated with incident diabetes when compared with vegetable fat, polyunsaturated fat (total, ω–6, or ω–3), or monounsaturated fat from plant sources. Because dairy fat in these cohorts was associated with several unhealthy lifestyle factors, including higher BMI, more current smoking, less physcial activity, fewer fruits and vegetables, and a less healthy overall dietary pattern, this suggests that residual confounding, if present—the major limitation of observational cohorts such as this one—would tend to cause bias toward dairy fat appearing more harmful (less beneficial) than it actually may be.

These findings add to a growing body of literature which call into question the soundness of conventional dietary recommendations to avoid dairy fat. As noted by Ardisson Korat et al., dairy fat contains a complex mix of different SFAs, other unsaturated and conjugated fatty acids, and other constituents, each with varying biological effects. Physiologic effects of dairy fat further vary according to content of milk fat globule membrane, which alters cholesterol absorption and perhaps skeletal muscle responses to exercise. Also, cheese, the major source of dairy fat in most diets, is a fermented food and a rich source of menoquinones which may improve insulin secretion and sensitivity through osteocalcin-related pathways. In a recent pooling project of de novo individual-level analyses from 16 prospective cohort studies across 4 continents (including 2 of the 3 US cohorts evaluated by Ardisson Korat et al.), objective blood biomarkers of odd-chain saturated fats and trans-palmitoleic acid, each found in dairy fats, were associated with significantly lower risk of diabetes. Together with these prior findings, the new results by Ardisson Korat et al. provide little support for metabolic harms of dairy fat, and indeed suggest potential benefits amoung younger adults, among women, and as a replacement for other animal fats or refined carbohydrates.

A second report in this issue of the Journal assessed how changes in dairy foods, assessed using serial questionnaires, related to incident diabetes in the same 3 US cohorts of health professionals. After multivariable adjustment, participants who decreased their total dairy intake by >1 serving/d over a 4-year period experienced 11% higher incidence of diabetes, compared with stable intake. Among dairy subtypes, changes in low-fat milk, whole milk, and cream were not significantly associated with diabetes, whereas decreases in ice cream, increases in some types of cheese, and decrease in yogurt were each associated wih higher risk. Several factors complicate the interpretation of this analysis. Foremost, none of these findings were symmetrical for increases compared with decreases in intake: i.e., when decreased consumption of total dairy or a dairy subtype was linked to diabetes risk, increased consumption was not linked in the opposing direction, and vice versa. This counters expected biology and the important Bradford Hill criterion of dose-response, which for example has been evidenced in these cohorts for dietary changes and long-term weight gain. In addition, results for each of the dairy subtypes appeared generally inconsistent across the 3 cohorts, with little uniformity (I^2 values were not reported). Some of the findings counter expected causal biology—e.g., that decreasing ice cream increases diabetes—raising concern for reverse causation. The dietary instrument was also variably reliable for assessing different dairy foods: for example, as compared with multiple dietary records, the FFQ reliably measured consumption of yogurt (r = 0.97), but not hard cheese (r = 0.38). In light of the 26 prior cohort studies which have reported on dairy consumption and incident diabetes, in sum suggesting lower risk from total dairy and especially yogurt consumption, the internal inconsistencies of the present findings for changes in dairy foods raise more questions than they answer.

In the third publication in this issue, Pala et al. investigated dairy consumption and death from cancer, cardiovascular disease, and all causes in a community-based Italian cohort. After adjustment for other risk factors, compared with no consumption, moderate milk intake (≤200 g or ~6.5 ounces per day) was associated with ~25% lower mortality, largely owing to ~50% lower cardiovascular mortality, but consumption at higher levels was not associated with lower risk. Findings were similar for low-fat comparew with whole-fat milk. Intakes of yogurt, cheese, and butter were not significantly associated with mortality. As the authors concluded, the lack of linear dose-response for milk raises questions about the validity of the observed benefits, but none of the findings support the hypothesis that milk, yogurt, cheese, or butter consumption increases mortality.

The global pandemics of obesity and type 2 diabetes, together with high rates of cardiovascular disease and cancer, have stimulated a new popular frenzy around healthier eating. Although the resulting attention on diet-related health impacts, economic burdens, and corresponding policy solutions has been positive, the craze of competing popular diets and their proponents have simultaneously fueled confusion, controversy, and skepticism. For example, ignoring the preponderance of evidence, some popular books and social media headlines claim that dairy foods are toxic. At the same time, prevailing dietary guidelines exacerbate the confusion, remaining mired in outdated conceptual frameworks and hesitating to acknowledge new paradigms of complexity.

As is always true in science, these 3 new investigations cannot by themselves definitively eliminate confusion or answer all questions. Yet, these studies aimed to address crucial questions on dairy and health in large and well-designed prospective cohorts. Together, the findings provide little support that consumption of total dairy, dairy subtypes, or dairy fat is harmful, and they continue to build the case for possible benefits. As recently reviewed, the dizzyingly complex characteristics and molecular effects of different dairy foods belie any simplistic overall summary or synopsis. These 3 new studies highlight this complexity and the urgent need for additional long-term prospective studies, interventional trials, and mechanistic investigations of dairy foods and health.

Mr. THOMPSON of Pennsylvania. Mr. Chairman, these studies show, among other things, that full-fat dairy foods have little to no association with high blood pressure, cardiovascular disease, type 2 diabetes, obesity, blood pressure, or cholesterol.

In fact, several of these studies show that full-fat foods help improve or lower negative health outcomes for children who drink more full-fat dairy beverages.

The Acting CHAIR (Mr. FULCHER). The time of the gentleman has expired.

Ms. FOXX. Mr. Chair, I yield an additional 2 minutes to the gentleman from Pennsylvania.

Mr. THOMPSON of Pennsylvania. Mr. Chairman, additionally, since whole milk was removed from school lunchrooms, the childhood obesity rate has increased, according to the CDC and several case studies. Whole milk is not the problem.

For our children to excel in the classroom and beyond, they must have access to more nutritious options, not fewer.

The Whole Milk for Healthy Kids Act will allow schools participating in the National School Lunch Program to serve all varieties of flavored and unflavored milk, including whole milk.

It is important to remember that this legislation does not require any student to drink, or any school to serve, whole milk. Rather, this legislation simply gives schools the flexibility to serve a broader variety of milk in the school lunchroom.

Additionally, if students have a documented medical condition or disability that prohibits them from safely or comfortably consuming milk, schools are required to offer them an alternative beverage. This legislation would not change that standard.

Mr. Chair, I am proud to have 134 bipartisan cosponsors from 44 States.

The bottom line is the Whole Milk for Healthy Kids Act is about ensuring students have the necessary nutrients to learn and grow.

Mr. SCOTT of Virginia. Mr. Chairman, may I inquire as to how much time is remaining on both sides.

The Acting CHAIR. The gentleman from Virginia has 17½ minutes remaining. The gentlewoman from North Carolina has 13½ minutes remaining.

Mr. SCOTT of Virginia. Mr. Chair, I yield myself such time as I may consume.

Mr. Chairman, the gentleman from Pennsylvania and I have enjoyed working together on many different bills, but on this bill, we happen to disagree. He has presented evidence on the floor that, instead of being considered by Members of Congress, really ought to be considered by the experts in the normal scientific process.

□ 1430

If the schoolchildren get the benefit of his studies, then tell it to the experts and not the politicians. I would hope that we would stick with the scientific process, as we are doing. Let's stick with the DGAs and not the political process in changing the process by trying to convince Members of Congress who are subject to political pressures on one side or another. So I would hope that we would stick to that process and not the political process.

If we have studies, then show it to the experts and not the politicians.

Mr. Chair, I reserve the balance of my time.

Ms. FOXX. Mr. Chair, I yield 2 minutes to the gentlewoman from Illinois (Mrs. MILLER), who is the vice chair of the Education and the Workforce Committee.

Mrs. MILLER of Illinois. Mr. Chair, I thank Ms. FOXX for yielding.

Mr. Chairman, I thank Chairman THOMPSON and Chairwoman FOXX for sponsoring this important legislation.

I rise in support of H.R. 1147, the Whole Milk for Healthy Kids Act. This crucial legislation recognizes the nutritional benefits of whole milk for our children.

As a result of the radical Obama Administration policies led by Michelle Obama, only fat-free and low-fat milks can be served in school meals.

H.R. 1147 would end this practice and allow schools to serve whole milk. Whole milk is a rich source of essential nutrients, including calcium and vitamin D, which are vital for developing strong bones and a healthy immune system.

Studies have also shown that whole milk can contribute to healthier weight in children. I raised my seven children on whole-fat milk, and they are all within normal weights. I also have recognized that children who have high-fat diets stay full longer.

I am proud to support this bill on behalf of parents, and I want to thank America's dairy farmers for producing milk for our families.

Ms. FOXX. Mr. Chair, I include in the RECORD two scientific articles.

[From the Friedman School of Nutrition Science and Policy]

DAIRY FOODS, OBESITY, AND METABOLIC HEALTH: THE ROLE OF THE FOOD MATRIX COMPARED WITH SINGLE NUTRIENTS

(BY DARIUSH MOZAFFARIAN)

INTRODUCTION

Conventional dietary guidelines from around the globe have focused on individual nutrients to maintain and improve health and prevent disease. This is due to the historical focus, developed in the last century, on single nutrients in relation to clinical nutrient deficiency diseases. However, this reductionist approach is inappropriate for translation to chronic diseases.

A look back at the history of modern nutrition science provides important perspectives on the origins of the reductionist approach to nutrition. In 1747, the British sailor and physician James Lind tested whether citrus fruits prevented scurvy, but it was not until 1932 that vitamin C was actually isolated, synthesized, and proven to be the relevant ingredient. The period of the 1930s to 1950s was a golden era of vitamin discovery, when all the major vitamins were identified, isolated, and synthesized, and shown to be the active constituents of foods relevant for nutrient deficiency diseases such as pellagra (niacin), beriberi (thiamine), rickets (vitamin D), and night blindness (vitamin A). This scientific focus on nutrient deficiencies coincided with global geopolitics, in particular the Great Depression and World War II, which accentuated concerns about insufficient food and nutrients. For example, the birth of RDAs was at the National Nutrition Conference on Defense in 1941, which focused on identifying the individual nutrients needed to prevent nutrient deficiencies in order to have a population ready for war. Together, these scientific and historical events led to the concept of food as a delivery system for calories and specific isolated nutrients.

It was not until the 1980s that modern nutrition science began to meaningfully consider nutrition in association with chronic diseases, such as obesity, type 2 diabetes, cardiovascular disease (CVD), and cancer. Intuitively, the reductionist paradigm that had been so successful in reducing the prevalence of nutrient deficiency diseases was extended to chronic diseases. Thus, saturated fat became ''the'' cause of heart disease, whereas now, excess calories and fat are ''the'' causes of obesity.

What recent advances in nutrition science have demonstrated, however, is that although a single-nutrient focus works well for prevention of deficiency diseases, such as scurvy or beriberi, this approach generally fails for chronic diseases such as coronary artery disease (CAD), stroke, type 2 diabetes, or obesity. For such complex conditions, the focus should be on foods.

CALORIES IN/CALORIES OUT

The US obesity epidemic is a recent phenomenon, starting in the mid-1980s, and the rise of obesity globally is even more recent. The strategies to address this epidemic have not yet caught up with advances in nutrition science. Most current dietary recommendations and policies across the globe remain calorie and fat focused, recommending foods based on these reductionist metrics rather than their complex, empirically determined effects on health. For example, nearly all guidelines recommend low-fat or nonfat dairy foods to reduce calories, total fat, and saturated fat in the diet, based on the theory that this will help maintain a healthy weight and reduce the risk of CVD. This is seen, for example, in the 2015–2020 US Dietary Guidelines; National School Lunch Program, NIH Dietary Guidelines for Kids; and CDC Diabetes Prevention Program.

However, foods are not simply a collection of individual components, such as fat and calories, but complex matrices that have correspondingly complex effects on health and disease. Recommendations based on calorie or fat contents fail to consider the complex effects of different foods, independent of their calories, on the body's multiple, redundant mechanisms for weight control, from the brain to the liver, the microbiome, and hormonal and metabolic responses. This growing evidence indicates that different foods, calorie-for-calorie, have different effects on the risk of long-term weight gain and success of weight maintenance.

DAIRY FOODS AND WEIGHT

Although dairy products contribute ~10 percent of all calories in the US diet, until recently, little direct research had evaluated the health effects of different dairy foods. The complex ingredients and matrices of different dairy foods, from milk to yogurt to cheese, appear to have varying effects on weight.

Although considerable research has focused on optimal diets for weight loss among obese individuals (secondary prevention), fewer studies have evaluated determinants of gradual weight gain (primary prevention). Among nonobese US adults, the average weight gain is ~lb (0.45 kg) per year. This represents a very slow, modest increment, but when sustained over many years, this small annual weight gain drives the obesity epidemic. This gradual pace also makes it difficult, if not impossible, for individuals to identify specific causes or remedies.

To identify specific dietary factors associated with long-term weight gain, we performed prospective investigations among 3 separate cohorts that included 120,877 US men and women who were free of chronic disease and not obese at baseline. We examined weight gain every 4 y, for up to 24 y of follow-up, and its association with the increased intake of individual foods. Within each 4-y period, participants gained an average of 3.35 lb. On the basis of increased daily servings of different foods, those strongly linked to weight gain were generally carbohydrate-rich, including potato chips (per daily serving, 1.69 lb greater weight gain every 4 y), other potatoes/fries (1.28 lb), sugar-sweetened beverages (1.00 lb), sweets (0.65 lb), and refined grains (0.56 lb). Other foods were not linked to weight gain, even when then intake was increased, including cheese, low-fat milk, and whole milk. Other foods were actually related to less weight gain: the more they were consumed, the less weight was gained. This included vegetables (−0.22 lb), whole grains (−0.37 lb), fruits (−0.49 lb), nuts (−0.57 lb), and yogurt (−0.82 lb) When sweetened vs. plain yogurt were evaluated, each was associated with relative weight loss, although when sweetened, about half the benefit was lost.

What could explain these findings? We hypothesize that different foods have varying effects on multiple redundant mechanisms for weight gain, including effects on hunger and fullness, glucose, insulin and other hormonal responses, de novo fat synthesis by the liver, gut microbiome responses; and the body's metabolic rate.

Based on these findings, certain foods, when consumed over the long term can have relatively neutral effects on weight, others promote weight gain, whereas still others promote weight loss.

Interestingly, although we found that cheese, low-fat milk, and whole-fat milk were each unassociated with weight change, there is evidence that dairy foods may promote healthier body composition. Consistent with our findings, a systematic review and meta-analysts of 37 randomized clinical trials with 184,802 participants, which assessed the effect of dairy consumption on weight and body composition, found that overall, dairy consumption had little effect on BMI. Body composition, however, changed significantly. Dairy consumption led to a reduction in fat mass (0.23 kg) and an increase in lean body mass (0.37 kg). Overall, high-dairy intervention increased body weight (0.01, 95 percent CI: −0.25, 0.26), and lean mass (0.37, 95 percent CI: 0.11, 0.62); decreased body fat (−0.23, 95 percent CI: −0.48, 0.02) and waist circumference (−1.37 95 percent CI: −2.28, −0.46).

In subgroup analyses, such effects appeared larger in trials also having energy restriction, but such subgroup findings should be interpreted cautiously The types and frequency of dairy products consumed varied among these trials, making it difficult to make distinctions in this meta-analysis about the effects of different types of dairy products such as low-fat or whole fat, or milk, yogurt, or cheese. When viewed in combination with our long-term observational findings, the joint results suggest that dairy foods do not promote weight gain, that dairy consumption may reduce body fat and augment muscle mass, and that the type of dairy product (milk compared with cheese compared with yogurt) may be more important for preventing long-term weight gain than the dairy fat content.

DAIRY FOODS, PROBIOTICS, AND THE MICROBIOME

Many pathways appear relevant to the concept that foods cannot be judged on calorie content alone for risk of obesity. Among these, the gut microbiome is particularly interesting. Substantial evidence demonstrates that the quality of the diet strongly influences the gut microbiome. Among different factors, probiotics have been studied for their effect on the microbiome; as well as potential benefits of fermented foods, which may be greater than the sum of their individual microbial, nutritive, or bioactive components.

For example, in an experimental model, mice genetically predisposed to obesity were provided control diets or a ''fast-food'' chow with and without probiotic-containing yogurt or a single probiotic (Lactobacillus reuteri) in water. Without probiotics, mice on the fast-food chow gained significant weight. However, the addition of either probiotic-containing yogurt or water prevented this weight gain. Crucially, the probiotics did not appear to reduce the amount of calories consumed; rather, the benefits appeared related to changes in microbiome function and inflammatory pathways. The results support weight benefits of probiotics and, more importantly, provide empiric evidence that challenges the widely accepted conventional wisdom that the effects of different foods on obesity depend largely on their calories.

Consistent with this animal experiment, a recent systematic review and meta-analysis of 15 randomized controlled trials examined the effects of probiotics, either in foods or as supplements, on body weight and composition in overweight and obese subjects. Administration of probiotics significantly reduced body weight percent (−0.60 kg), BMI (−0.27 kg/m^2), and fat percentage (0.60 percent), compared with placebo. A separate meta-analysis of randomized clinical trials demonstrated that consumption of probiotics in foods or supplements significantly improves blood glucose, insulin, and insulin resistance. The trials in these two meta-analyses were neither long-term nor large—in all, a total of about 1,000 subjects were included in each meta-analysis, with trial durations ranging from 3 to 24 wk and with varying designs in terms of controls, disease conditions, and composition of probiotic preparations evaluated. Nonetheless, together with observational and experimental evidence, these studies provide compelling evidence to support weight and metabolic benefits of foods rich in probiotics.

DAIRY FOODS, CVD, AND DIABETES

Although an important risk factor for type 2 diabetes and CVD, growing research suggests that specific foods may also directly alter disease risk. In a meta-analysis of 29 prospective cohort studies including 938,465 participants who experienced 93,158 deaths, 28,419 incident CAD events, and 25,416 incident CVD events, neither total dairy nor milk consumption was significantly associated with total mortality, CAD, or CVD. Notably, findings were similar when total whole-fat dairy, or low-fat dairy were separately evaluated. In contrast, the intake of fermented dairy products (predominantly cheese, plus yogurt and fermented milk) was associated with modestly lower risk of total mortality and CVD, with about 5 percent lower risk of each per 50 g daily serving. In addition, the consumption of cheese alone, the dairy product with the highest amount of dairy fat, was associated with a significantly lower risk of both CAD and stroke.

In the Multi-Ethnic Study of Atherosclerosis cohort, including 5209US adults with Caucasian, Asian, black, and Hispanic backgrounds, different food sources of saturated fat were analyzed for their relation with subsequent CVD risk, adjusted for sociodemographics, medical history, and other dietary and lifestyle factors. A higher intake of saturated fat from dairy sources was associated with significantly lower CVD risk (per each 5 g/d, RR = 0.79, 95 percent CI = 0.68, 0.92), whereas a higher intake of saturated fat from meat sources was associated with higher CVD risk (per each 5 g/d, RR = 1.26, 95 percent CI = 1.02, 1.54). Intakes of saturated fat from other sources, such as butter and plant oils/foods, were too low to identify any associations.

These findings suggest that saturated fat from different food sources may have varying effects on CVD risk. This may partly relate, for example, to differences in the types of saturated fatty acids in meat compared with dairy. Compared with meat, dairy has a greater proportion of short-chain and medium-chain saturated fatty acids, with correspondingly less palmitic and stearic acids. Compared with their longer chain fatty acids, growing evidence suggests that shorter and medium-chain triglycerides have different physiology, including potential benefits on metabolic risk, weight gain, obesity, and the gut microbiome.

In addition, cardiometabolic effects of different dairy foods appear to vary depending on other characteristics, such as fermentation or the presence of probiotics. The large European Investigation into Cancer and Nutrition (EPIC) cohort across 8 European countries evaluated the consumption of different dairy foods and risk of diabetes among 340,234 participants with 12,403 new cases of diabetes during follow-up. In the fully adjusted model including adjustment for estimated dietary calcium, magnesium, and vitamin D, the consumption of milk (low-fat and whole-fat) was not significantly associated with type 2 diabetes. Individuals who consumed more yogurt or thick fermented milk experienced a nonsignificant tend toward lower risk (across quintiles: RR = 0.89, 95 percent CI = 0.77, 1.03; *P*-trend = 0.11), whereas individuals who consumed more cheese had significantly lower risk of diabetes (RR = 0.83, 95 percent CI = 0.70, 0.98, *P*-trend = 0.003). A higher combined intake of fermented dairy products (cheese, yogurt, and thick fermented milk) was also associated with a lower risk of diabetes (RR = 0.85, 95 percent CI = 0.73, 0.99, *P*-trend = 0.02).

Similarly, in the Malmö Diet and Cancer Cohort following 26,930 participants over 14 y, different food sources of fat and saturated fat had very different associations with incidence of diabetes. Overall, low-fat dairy consumption was associated with a higher risk of diabetes (across quintiles: RR = 1.14, 95 percent CI = 1.01, 1.28; *P*-trend = 0.01), whereas whole-fat dairy consumption was associated with a substantially lower risk RR = 0.77, 95 percent CI = 0.68, 0.87, *P*-trend < 0.001). However, relations varied further by subtype. For example, nonfermented, low-fat milk was associated with higher risk; nonfermented, whole-fat milk was not associated with risk; and fermented, whole-fat milk was associated with lower risk. Cheese intake showed a nonsignificant trend toward lower risk (RR = 0.92, 95 percent CI = 0.81, 1.04; *P*-trend = 0.21), whereas red meat intake was associated with significantly higher risk (RR = 1.36, 95 percent CI = 1.20, 1.55; *P*-trend < 0.001). When estimated intakes of individual fatty acids were evaluated, intakes of saturated fatty acids with 4–10 carbons, lauric acid (12:0), and myristic acid (14:0) were associated with decreased risk (*P*-trend = 0.01).

In addition to the consumption of whole foods such as milk, cheese, or yogurt, significant amounts of dairy fat can be consumed as relatively ''hidden'' ingredients in creams, sauces, cooking fats, bakery desserts, and mixed dishes such as casseroles containing butter, milk, or cheese. Self-reported questionnaires may miss many of these sources, leading to inaccurate measurement of true dairy fat consumption in individuals. Biomarkers can partly reduce this mismeasurement. In a global consortium combining de novo individual-level analyses across 63,602 participants in 16 separate cohort studies, higher blood concentrations of odd-chain saturated fatty acids (15:0, 17:0) and a natural ruminant *trans* fatty acid (*trans*-16:1n–7), objective circulating biomarkers of dairy fat consumption, were evaluated in relation to onset of diabetes. Each fatty acid was associated with lower incidence of diabetes, with ~20–35% lower risk across the interquintile range of blood concentrations. It is unclear whether such lower risk is related to direct health benefits of specific dairy fatty acids, or to other aspects of foods rich in dairy fat. For example, the major source of dairy fat in most diets is cheese, a fermented food rich in vitamin K2 (menoquinone) which is converted from vitamin K by the action of bacteria. Menoquinone, which cannot be separately synthesized by humans, is linked to lower risk of type 2 diabetes in prospective observational studies, with supportive experimental evidence for potential benefits on glucose control and insulin sensitivity. The biologic mechanisms that could explain metabolic and diabetes benefits of dairy foods and dairy fat have been recently reviewed.

Based on all the evidence, the relation of dairy foods to obesity, CVD, and diabetes does not consistently differ by fat content, but rather appears to be more specific to food type. In particular, neither low-fat nor whole milk appear strongly related to either risks or benefits, whereas cheese and yogurt (as well as other fermented dairy such as fermented milk) may each be beneficial. These findings suggest that health effects of dairy may depend on multiple complex characteristics, such as probiotics, fermentation, and processing, including homogenization and the presence or absence of milk fat globule membrane.

HOLISTIC DIETARY RECOMMENDATIONS

Conventional dietary guidelines generally recommend 2–3 daily servings of low-fat or nonfat dairy foods, without regard of type (yogurt, cheese, milk); largely based on theorized benefits of isolated nutrients for bone health (e.g., calcium, vitamin D) and theorized harms of isolated nutrients for obesity and CAD (e.g., total fat, saturated fat, total calories). Advances in science indicate that updated dietary guidelines must incorporate the empirical evidence on health effects of different dairy products on weight, body composition, CVDs, and diabetes. These findings suggest that recommendations for milk, cheese, and yogurt should be considered separately, based on their differing relations with clinical outcomes. These findings further suggest that whole-fat dairy foods do not cause weight gain; that overall dairy consumption increases lean body mass and reduces body fat; that yogurt consumption and probiotics reduce weight gain; that fermented dairy consumption including cheese is linked to lower CVD risk; and that yogurt, cheese, and even dairy fat may protect against type 2 diabetes.

Based on the current science, dairy consumption is part of a healthy diet, and intakes of probiotic-containing yogurt and fermented dairy products such as cheese should be especially encouraged. Based on little empiric evidence that low-fat dairy products are better for health, and at least emerging research suggesting potential benefits of foods rich in dairy fat, the choice between low-fat compared with whole-fat dairy should be left to personal preference, pending further research. Such recommendations are consistent with a growing focus on and understanding of the importance of foods and overall diet patterns, rather than single isolated nutrients.

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EFFECT OF WHOLE MILK COMPARED WITH SKIMMED MILK ON FASTING BLOOD LIPIDS IN HEALTHY ADULTS: A 3-WEEK RANDOMIZED CROSSOVER STUDY

(By Sara Engel, Mie Elhauge, and Tine Tholstrup)

INTRODUCTION

Dairy is a source of saturated fat (SFA) and dietary recommendations for choosing low-fat dairy products are mainly based on predicted effects of macronutrients, such as SFA, which are known to increase LDL cholesterol concentration in the blood. However, there is disagreement between dietary guidelines and results from meta-analysis of prospective cohort studies reporting no association between dairy and risk of cardiovascular disease (CVD) and an inverse association with type 2 diabetes (T2D). A meta-analysis including studies comparing diets of equal SFA content from cheese and butter reported a beneficial effect of cheese on LDL cholesterol. Moreover, a comparison between regular and reduced fat cheese found no difference in effect on LDL cholesterol and risk markers of the metabolic syndrome, although a significantly higher SFA content in the regular fat cheese diet. This could suggest that the expected effect on LDL cholesterol was mediated by a combination of nutrients or bioactive components in the cheese matrix. Every day, people make a choice between whole milk and skimmed milk in the super market. Thus, a comparison between these high and low-fat dairy products is a real-life practical issue for the consumer that makes it possible to further examine the effect of milk fat on health. Two studies compared milk with different fat content and found no difference in changes in LDL and HDL cholesterol; one between two control diets with semi-skimmed and skimmed milk (1.9 vs. 0.3%) and another between whole milk and skimmed milk (3.4 vs. 0.2%) but with only eight participants and therefore underpowered. Current evidence from randomized controlled trials (RCTs) indicate that milk consumption has no effect on risk of T2D in terms of fasting insulin and glucose concentrations, although not consistently. The aim of this study was to investigate the effects of whole milk compared with skimmed milk on serum total, LDL, and HDL cholesterol, and triacylglycerol concentration and secondarily on glucose and insulin concentrations in healthy subjects. We hypothesized that whole milk would increase fasting blood cholesterol concentration moderately compared to skimmed milk.

METHODS

Subjects

Subjects were recruited through postings on the Internet and around university campus area in Copenhagen. A total of 25 subjects were screened through telephone calls, 19 were assessed for eligibility, 18 were enrolled in the study, and 1 subject dropped out after randomization. Exclusion criteria were: previous or current CVD, diabetes, or other severe chronic disease: BMI (in kg/m^2) <18.5 and >30; age <20 years and >70 years; pregnancy or planning of pregnancy during study period; excessive physical activity (>10 h/wk); milk allergy or lactose intolerance; blood donation <1 mo prior to and during study period; use of supplements, lipid-lowering medication, as well as medicine that might affect study outcomes; known or suspected abuse of alcohol, medication, or drugs; blood pressure >140/90 mmHg; and inability to follow study protocol. After receiving oral and written information about the study all subjects gave their informed consent in writing and completed a lifestyle questionnaire including questions about current and previous disease.

STUDY DESIGN

The study was a crossover RCT. The two intervention periods of whole milk and skimmed milk (in random order) were 3 weeks long with no wash-out period, as the lipids in the blood are known to adjust after 2 weeks. The study was not blinded as the appearance of the test beverages could not be concealed. However, analyses of blood samples as well as statistics were done blinded. Sample size was based on a previous study on dairy fat in which butter significantly increased LDL cholesterol compared with olive oil (control) (difference in concentration 0.17 mmol/L). Thus with a standard deviation (SD) of 0.19 mmol/L, a total of 12 subjects had to be included in order to detect a similar difference (assuming a significance level of 5 and 80% power). The study was carried out at the Department of Nutrition, Exercise, and Sports, Faculty of Science, University of Copenhagen, Frederiksberg, Denmark from 3 October to 17 December 2015. The study was approved by the Municipal Ethical Committee of Copenhagen (Report H–15011908) and conducted according to the Helsinki Declaration.

INTERVENTION

The test foods were provided to the study subjects, consisting of 0.5 L conventional skimmed milk (0.1%, Arla Foods, Denmark) and whole milk (3.5%, Arla Foods, Denmark) from cows and from the same season. The energy content and macronutrient composition of the milks are shown in Table 1. Subjects were instructed not to consume yogurt, icecream, or milk besides the test milk. For other dairy products such as cheese and butter and for cooking oils subjects were instructed to keep the same dietary pattern throughout the intervention. Apart from the test foods and restrictions in dairy intake the remaining diet was self-selected and study subjects were asked to maintain their usual diets and their regular level of physical activity throughout the intervention periods. Subjects were instructed in how to substitute the test foods for food items from their habitual diets (usually the milk they normally drank). Weekly subjects visited the department to collect the milk and for weighing and follow-up making sure they adhered to the test diet and kept a stable body weight during intervention periods. Compliance was measured as a percentage of milk consumed according to a diary kept throughout the intervention compared with the milk handed out. Subjects completed 3-d dietary records the last week of each period and were instructed to include 1 weekend day and 2 weekdays to take account of differences in nutrient intake. Dietary intake was assessed using Dankost Pro dietary assessment software (Dankost).

CLINICAL INVESTIGATIONS

Fasting blood samples were taken at baseline, after 3 weeks and after 6 weeks. Prior to the blood sampling subjects fasted (12 h) and were asked to refrain from smoking (12 h), extreme sports (36 h), alcohol or medicine (24 h). Blood samples were drawn for assessment of following: serum lipids (total, LDL, and HDL cholesterol and triacylglycerol), insulin, and plasma glucose. Samples for assessment of blood lipids and insulin were collected into dry tubes, and samples for glucose were collected into tubes with a 1 × 3 mL-fluoride citrate mixture. To coagulate blood samples were stored at room temperature for 30 min. Further, blood samples for assessment of blood lipid and insulin concentrations were centrifuged at 2754 × g for 10 min at 4 °C and stored at − 80 °C until the concentration was analyzed. For glucose, samples were centrifuged at 2754 × g for 10 min at 20 °C and stored at − 80 °C until the concentration was analyzed. LDL and HDL cholesterol concentrations were assessed by enzymatic colorimetric procedure (ABX Pentra LDL Direct CP and ABX Pentra HDL Direct CP, respectively; Horiba ABX). Concentration of total cholesterol was assessed by enzymatic photometric test (CHOD–PAP from ABX Pentra Cholesterol CP). Triacylglycerol and glucose concentrations were assessed by enzymatic colorimetric procedure (ABX Pentra Triglycerides CP and ABX Pentra Glucose HK CP; Horiba ABX, respectively). Blood lipid concentration was analyzed on an ABX Pentra 400 Chemistry Analyzer (Horiba ABX). Interassay CVs for total, LDL and HDL cholesterol, triacylglycerol, and glucose were 2.2, 2.7, 2.0, 2.6, and 2.5%, respectively. Intra-assay CVs for total, LDL and HDL cholesterol, triacylglycerol, and glucose were 0.9, 0.7, 1.2, 3.8, and 1.1%, respectively. Insulin concentrations were assessed by the solid-phase enzyme-labeled chemiluminescent immunometric assay with an Immunlite 2000 XPi (Siemens Medical Solutions Diagnostics). Interassay and intra-assay CVs for insulin were 3.5 and 4.2%, respectively.

Insulin resistance was evaluated by using homeostasis model assessment—insulin resistance (HOMA–IR) with the following formula: HOMA–IR = Fasting serum insulin (μU/mL) × fasting plasma glucose (mmol/L)/22.5.

Fasting body weight was measured at baseline, 3 and 6 weeks to the nearest 0.1 kg wearing light clothing and having emptied their bladder in advance. Height, body weight for BMI calculation, and waist circumference were also measured at screening. Height was measured without shoes to the nearest 0.5 cm with a wall-mounted stadiometer (Seca) and waist circumference was measured horizontally at the midpoint between the bottom rib and the top of the hip bone.

STATISTICAL ANALYSIS

Statistical differences for outcome measures were analyzed with linear mixed models that incorporated systematic effects of period and treatment and their interaction. Approximate F-tests were used to evaluate the interaction between time and treatment and if non-significant to evaluate a time-independent treatment effect. Baseline values and relevant covariates: sex, age, waist circumference, and baseline-BMI were included. Subject-specific random effects were included to account for inter-subject variability and to adjust for non-specific differences that could not be explained by the explanatory variables included. For dietary records statistical differences were based on paired t-test or Wilcoxon Signed Rank test for non-parametric variables. Treatment differences were reported in terms of unadjusted mean levels with corresponding standard errors. All models were validated by graphical assessment of normal quantile plots and residual vs. fitted plots. When departure was detected logarithmic transformation of the variables were made. Variance homogeneity was visually inspected and showed similar variance. Concentration of glucose and insulin were correlated to blood lipid responses using Pearson correlation test or Spearman correlation test for non-parametric variables. A two-tailed P-value < 0.05 was considered significant. The statistical software R version 3.1.3 2015 was used for all statistical evaluations.

RESULTS

Subjects

Of the 18 recruited subjects, 1 dropped out in the first period because of inability to follow study protocol. Baseline characteristics of the 17 subjects who completed the study are outlined in Table 2. No difference was observed in body weight during the intervention between whole milk and skimmed milk periods (P = 0.59). The compliance for intake of milk during the first and second period was 99.7 and 98.5%, respectively.

BLOOD LIPIDS

Results from fasting blood lipid measurements at the end of each period are listed in Table 3. HDL cholesterol was significantly higher with whole milk than with skimmed milk (P < 0.05). There were no significant differences between the periods for any of the other blood lipids. For total cholesterol there was a tendency for a higher concentration with whole milk than with skimmed milk (P = 0.06).

INSULIN AND GLUCOSE

Results of glucose and insulin concentrations measured at the end of each period as well as calculated HOMA values are listed in Table 3. There were no significant differences between the periods for any of these outcomes. However, correlation analysis with skimmed milk showed that insulin and LDL cholesterol were moderately positively correlated (r = 0.54, P < 0.05) and with whole milk that glucose and HDL cholesterol were moderately negatively correlated (r = 0.52, P < 0.05).

DIETARY INTAKE

Total energy intake was significantly higher with whole milk than with skimmed milk (P < 0.05). Fat intake (in grams and percentage of energy) was significantly higher with whole milk than with skimmed milk (P < 0.001). Also, the intake of saturated, monounsaturated, and polyunsaturated fat was significantly higher with whole milk than with skimmed milk (P<0.001, P<0.05, and P<0.05, respectively). Intake of carbohydrate was significantly higher with skimmed milk than with whole milk (P<0.01). There were no differences between the periods for intake of protein, calcium, alcohol, and dietary fiber.

DISCUSSION

In the present study we showed that a daily intake of 0.5 L whole milk for 3 weeks did not increase LDL cholesterol compared to an equal intake of skimmed milk in healthy subjects. Moreover, although small, a significant increase in HDL cholesterol concentration was shown with whole milk compared to skimmed milk, which was significantly, moderately, and negatively correlated with glucose concentration. None of the other outcome measurements showed a difference between the periods. The increase in HDL cholesterol following intake of whole milk was expected due to the higher content of SPAs known to increase HDL and LDL cholesterol concentrations. The Nordic Nutrition Recommendations as well as the American Dietary Guidelines advice that SFA should be limited to less than 10E%, due to the predicted effect on LDL cholesterol. In comparison, the amount of SFAs in the whole milk diet was almost 5 E% above and in the skimmed milk diet close to recommendation (14.4 and 11.3 E%, respectively), according to the dietary records. Thus, the result of no difference in LDL cholesterol was unexpected and opposite to the dietary guidelines and our hypothesis, despite of the dominating macronutrient content of SFA with whole milk. Studies of the association between HDL cholesterol concentration and CVD has shown that HDL is protective. However, it is necessary to be cautious when interpreting low concentration of HDL cholesterol as a CVD risk factor. Mendelian randomization studies have shown that genetically decreased HDL cholesterol was not associated with increased risk of myocardial infarction, questioning the causality of an association between low HDL concentration and CVD. Still, HDL cholesterol concentration, as a marker of cardiovascular health, should be taken into consideration when interpreting the effect of dairy or SFAs in the diet.

Our results are in line with two previous intervention studies from 2009 and 1994 comparing milk of different fat content that also showed no effect on total and LDL cholesterol concentration after 12 months and 6 weeks with similar milk intake (500 and 660 ml/d, respectively); however, contrary to our results also no effect on HDL cholesterol. Fonolla et al. compared semi-skimmed milk and skimmed milk and therefore a smaller difference in milk fat (1.9 vs. 0.3%), which could explain the lack of difference in HDL cholesterol compared to the present study. Steinmetz et al., the more comparable study and of good quality, also compared skimmed milk with whole milk in a crossover design, but in a background diet designed to meet the AHA recommendations. Steinmetz et al. reported a significantly higher concentration of total and LDL cholesterol with whole milk compared to skimmed milk. However, the statistical analysis was not adjusted for baseline measurements, and thus not adjusted for differences between periods, and in addition the sample size was small (n = 8). Still, the analysis of difference in change from baseline between the two diets was also reported which showed no difference between total and LDL cholesterol, in line with our results. Nevertheless, the study reported higher Apolipoprotein B concentrations with whole milk compared to skimmed milk known to be a predictor of cardio metabolic risk.

Although the dietary records showed a significantly higher energy intake with whole milk compared to skimmed milk, it seems that the study subjects compensated for the extra energy with whole milk by lowering their intake of carbohydrate which was significantly lower compared to skimmed milk. The content of calcium and protein were similar in the two milk types, but whole milk has a higher content of milk fat globule membranes (MFGM), which encloses the fat. A possible matrix effect of MFGMs was suggested in a recent study showing an impaired lipoprotein profile after a butter oil diet, low in MFGMs, compared with a whipping cream diet, high in MFGMs. One proposed mechanism, based on a mice study, is through lowering of cholesterol absorption by inhibition of cholesterol micellar solubility possibly due to presence of sphingomyelin in MFGM fragments. Thus, one could speculate that an expected higher LDL cholesterol concentration after whole milk may be modified by a dairy matrix effect of MFGM.

The strength of the present RCT was the imitation of real-life settings by not matching the diets for energy content or macronutrient composition, which made it possible to directly compare whole milk and skimmed milk as whole foods. The free-living design of the study was a limitation, thus allowing the presence of potential confounding by other lifestyle and dietary factors. However, the crossover design minimizes this potential confounding as study subjects were their own control,

In conclusion, the results indicate that intake of 0.5 L/d of whole milk does not adversely affect fasting blood lipids, glucose, or insulin compared to skimmed milk in healthy adults. Moreover, intake of whole milk increased HDL cholesterol concentration compared to skimmed milk. These findings suggest that if the higher energy content is taken into account, whole milk can be considered as part of a healthy diet among the normocholesterolemic population.

Ms. FOXX. Mr. Chairman, I yield 1½ minutes to the gentleman from Tennessee (Mr. ROSE).

Mr. ROSE. Mr. Chair, today I rise in support of the Whole Milk for Healthy Kids Act which will allow schools to offer both unflavored and flavored whole milk for students.

Whole milk provides children with 13 essential nutrients for growth, development, immunity, and brain function. Whole milk also serves as the top source of protein, calcium, potassium, and vitamin D for children.

I am a proud cosponsor of this vital legislation, and I thank my good friend, Chairman THOMPSON, for introducing this commonsense bill.

For too long, poor Federal policy has kept whole milk out of our school cafeterias. This commonsense legislation puts the health and well-being of our children first. As the father of two young sons myself, I am proud to support this bill, and I urge my colleagues to join me in doing so.

Also as a father, I would note that I see every day the illustration of how my children react to whole milk versus skim milk. I would just give that first-hand impression.

I also would say the science supports it.

Mr. Chairman, I include in the RECORD these scientific studies, as well.

COMPARISON OF THE DASH (DIETARY APPROACHES TO STOP HYPERTENSION) DIET AND A HIGHER-FAT DASH DIET ON BLOOD PRESSURE AND LIPIDS AND LIPOPROTEINS: A RANDOMIZED CONTROLLED TRIAL

INTRODUCTION

The Dietary Approaches to Stop Hypertension (DASH) dietary eating pattern, which emphasizes fruit and vegetables, low-fat dairy foods, and whole grains, is one of the most widely prescribed dietary modifications for reducing blood pressure (BP) and cardiovascular disease risk. Notably, in the Nurses' Health Study, self-reported greater adherence to a DASH-style diet was associated with a lower risk of coronary artery disease and stroke. Because LDL cholesterol is lower with the consumption of the DASH diet than with a typical Western diet due in part to its limitation of saturated fatty acids, it is believed that its lower saturated fat content may contribute to reduced risk of cardiovascular disease.

The degree of dietary adherence strongly determines the efficacy of dietary interventions. A recent review of 9 trials of the DASH diet with objective measures of compliance reported poorer adherence when dietary advice rather than foods was provided. A common reason for low adherence or high attrition is the difficulty of following prescribed diets. In the original DASH trial, lack of menu variety was a primary reason for lapses in dietary adherence. This suggests the potential value of providing options for the DASH diet that permit variation in macronutrient composition while preserving benefits on BP and lipid risk factors.

One such variation is the substitution of fat for carbohydrate. Appel et al. reported that the replacement of 10% of energy from carbohydrate with unsaturated fat (primarily monounsaturated) in a DASH-like diet resulted in a reduction in triglycerides and an increase in HDL cholesterol, with no change in LDL cholesterol, and a further reduction in the Framingham risk score. There is evidence that long-term compliance to diets with reduced saturated fat is poor, even with intensive counseling, and that moderate-fat diets may yield better dietary adherence than low-fat diets. Furthermore, the mean intake of individuals who consumed the DASH diet in the ENCORE (Exercise and Nutrition Interventions for Cardiovascular Health) study failed to meet the low total fat and saturated fat targets.

The effects on lipids and BP of replacing carbohydrates with saturated fats within a DASH-like diet have not been reported, to our knowledge. In the present study we tested the effects of substituting full-fat dairy products for nonfat and low-fat dairy foods (thereby increasing saturated fat from 8% to 14% of energy) in conjunction with a reduction of 12% of energy in carbohydrate, primarily from sugars.

METHODS

Study design and diets

A 3-period randomized crossover study in free-living participants was conducted between August 2011 and December 2013 at our clinical research center in Berkeley, California. The participants consumed a 1-wk run-in diet, consisting of a mixture of 2 or 3 d of each experimental diet, and then consumed in random order a control diet, a standard DASH diet, and a higher-fat, lower-carbohydrate modification of the DASH diet (HF-DASH diet) for 3 wk each. Each experimental diet was separated by a 2-wk washout period, during which participants ate their own foods but continued to abstain from alcohol. Participants were assigned their diet sequence in randomly determined blocks of 3, 6, 9, or 12 individuals by using a uniform random-number generator. Diet sequences were kept in sealed envelopes and assigned to the participant by the study nutritionist 1–2 d before starting the first experimental diet. Participants were blinded to diet order, but because of the nature of the diets they were likely able to identify each diet. Clinic personnel were not blinded to diet order. Laboratory personnel and investigators were blinded to diet order, and unblinding was performed after data collection before analysis. Participants met with study staff weekly for counseling, to receive study foods, and to be weighed. At the end of each experimental diet, participants visited the clinic on 2 consecutive days for clinical and laboratory measurements. In addition, a fasting blood sample was taken after each washout period to document a return to baseline for standard lipid and BP measurements.

Study population

Participants included generally healthy men and women >21 y of age with an average diastolic BP between 80 and 95 mm Hg and systolic BP <160 mm Hg for 2 screening visits. Exclusion criteria included the following: use of nicotine products or recreational drugs, history of coronary artery disease, diabetes, or other chronic disease, use of hormones or medications known to affect lipid metabolism or BP; use of dietary supplements within the past 3 mo; unwillingness to refrain from alcoholic beverages during the study; BMI (in kg/m^2) ≥35; total and LDL cholesterol >95th percentile for sex and age; fasting triglycerides >500 mg/dL; fasting glucose ≥126 mg/dL; and abnormal thyroid-stimulating hormone concentration. Participants were recruited primarily through our database of previous study participants, Internet advertisements, and community health events. The protocol was reviewed and approved by the Institutional Review Board of Children's Hospital and Research Center Oakland. All participants provided written informed consent.

Dietary provision

The Bionutrition Core of the University of California, San Francisco, Clinical and Translational Science Institute developed and prepared diets for a 3-d cycle menu at 5 levels of energy intake (1800, 2100, 2600, 3100, and 3600 kcal). Participants whose energy needs were between main-menu calorie levels received unit foods (100 kcal) that matched the macronutrient and mineral content of the experimental diets. The control and DASH diets were designed to match the characteristics of the diets used in the original DASH trial. The higher-fat and lower-carbohydrate content of the HF–DASH diet was achieved by replacing nonfat and low-fat dairy with full-fat dairy products, mostly in the form of whole milk, cheese, and yogurt, and by reducing sugars, mostly from fruit juices, which constituted 59% of total fruit intake in the DASH diet. The DASH and HF–DASH patterns were otherwise developed by using similar recipes and foods, provided in different amounts to meet each diet specification. As in the original trial design, emphasis was placed on an abundance of fruit and vegetables, increased whole grains and dairy products; limited servings of meat, poultry, and fish, and inclusion of nuts, seeds, and legumes several times weekly. The nutrient composition of the diets was initially assessed by using Nutrition Data System for Research Software (NDSR 2010; Nutrition Coordinating Center, University of Minnesota) and validated by compositional analysis of g the 3-d cycle menus (Covance Laboratories). The sodium, potassium, magnesium, calcium, and fiber contents of the DASH and HF–DASH patterns were similar; the diets differed only in the amount of total fat, saturated fat, cholesterol, and carbohydrate they provided.

Dietary control was achieved by providing participants with 2 standardized entrées and accompanying side dishes daily (lunch, dinner, and some snacks), representing ~50% of total energy. Detailed menus, shopping lists, and food preparation instructions were provided for the remaining food items (mostly dairy, produce, and cereal products) to be purchased and prepared at home. Participants were required to come to the clinic weekly to pick up study foods, submit receipts documenting study food purchases, and to meet with the nutritionist to assess compliance with the dietary protocol and adjust energy intake to maintain a stable weight (within 3% of baseline, at ±10 pounds maximum). They were also required to maintain their usual physical activity levels during the study and to monitor daily steps by pedometer. Compliance was assessed by measuring 24-h urinary potassium at the end of the second week of each experimental diet. Twenty-four-hour urinary sodium was measured as an indicator of sodium intake.

Experimental measurements

After each 3-wk dietary period, body weight and waist and hip circumference were measured and the percentage of body fat was assessed by bioimpedance (TBF 551 body-weight scale; Tanita). BP was measured at the clinic by using a Dinamap monitor (GE Pro 100 or Critikon Pro 300) after the second week of each diet and on 2 consecutive days at the end of each experimental diet, and the 3 values were averaged. At each instance, BP was measured in a sitting position after 5 min rest 3 times, and the last 2 measurements were averaged. Participants were also provided with a portable BP cuff (Model BP791IT, Omron Healthcare, Inc) and were instructed to self-measure BP twice in the morning and twice in the evening for the last 7 d of each experimental dietary period. Data were automatically recorded on the BP instrument and downloaded for analyses. Urinary potassium and sodium were measured in 24-h urine collections by an outside clinical laboratory (Quest Diagnostics).

Fasting plasma samples collected on 2 consecutive days at the end of each experimental dietary period were analyzed for plasma lipids and lipoproteins, glucose, and insulin. Total cholesterol, HDL cholesterol, triglycerides, and glucose were measured by enzymatic end-point measurements with the use of enzyme reagent kits (Ciba-Corning Diagnostics Corporation) on an AMS Liasys 330 Clinical Chemistry Analyzer. LDL cholesterol was calculated by using the Friedewald equation. Total cholesterol, HDL cholesterol, and triglyceride concentrations were monitored throughout by the CDC-National Heart, Lung, and Blood Institute Lipid Standardization Program. Apolipoprotein B (apoB) and apolipoprotein A-I (apo A-I) were measured by immunoturbidimetric assays (Batton Assay Systems; AMS Liasys 330 analyzer).

Lipoprotein particle concentrations and LDL peak diameter were measured by gas-phase electrophoresis (ion mobility), as previously described, with a modified procedure for initially separating the lipoproteins from other plasma proteins. Lipoprotein intervals were defined as previously described.

Statistical analysis

The primary objective was to compare the DASH and HF-DASH diets for lipid and lipoprotein measurements. At 80% power, an n of 36 would yield a minimum detectable difference between diets of 0 14 mmol/L for LDL cholesterol (SD of response = 0.30 mmol/L), 0.04 g/L for apoB (SD of response = 0.09 g/L), 0.03 mmol/L for HDL cholesterol (SD of response = 0.07 mmol/L), 4.1 mm Hg for systolic BP (SD of response = 8.6 mm Hg), and 2.2 mm Hg for diastolic BP (SD of response =

5.3 mm Hg). The detectable changes in BP were sufficient to confirm the differences observed in the original DASH trial. Treatment differences were determined by ANOVA for a 3-treatment crossover design. Pairwise comparisons between diets were adjusted by the Bonferroni method for 3 group comparisons (HF-DASH diet compared with control diet, HF-DASH diet compared with DASH diet, and DASH diet compared with control diet), and $P < 0.017$ corresponding to an overall 2-tailed $P < 0.05$ was considered significant. ANOVA and paired t tests were used to compare triglycerides and total, LDL, and HDL cholesterol after each of the 2 washout periods with baseline to test for the effectiveness of the washout period for normalizing plasma lipids. The analyses were restricted to those subjects who completed all 3 diets.

RESULTS

Study participants

Thirty-six participants completed all 3 experimental diets and are included in analyses. Fasting plasma triglycerides and total, LDL, and HDL cholesterol measured after each of the 2 washout periods showed no significant differences between screening values and their values after the first or second washout period (analyses not shown), indicative of their return to baseline concentrations.

As expected, 24-h urinary potassium excretion was significantly higher with the DASH and HF-DASH diets than with the control diet ($P < 0.0001$ for both, adjusted for period) and did not differ between the DASH and HF-DASH diets (mean ± SE: HF-DASH diet, 81.5 ± 3.5; DASH diet, 83.5 ± 3.5; and control diet, 50.5 ± 3.5 mmol), consistent with good dietary compliance. Urinary sodium excretion did not differ between diets (mean ± SE: HF-DASH diets, 116.6 ± 7.8; DASH diet, 119.3 ± 7.8; and control diet, 129.0 ± 7.8 mmol; $P = 0.49$, adjusted for period). Body weight remained stable throughout the study and there were no differences by diet (mean ± SE: HF-DASH diet, 79.7 ± 0.1; DASH diet, 79.6 ± 0,1; and control diet, 79.8 ± 0.1 kg; P-treatment = 0.62).

Effects of diets on BP

Table 3 presents the statistical evaluation of the crossover design's treatment, period, and sequence effects along with the adjusted treatment means and their SEs. Significant treatment effects were observed for systolic and diastolic BP, such that the DASH and HF-DASH diets produced significant and comparable reductions relative to the control diet, with no differences between the DASH and HF-DASH diets.

There were no significant sequence effects, but there were significant carry-forward effects for both systolic and diastolic BP and a significant period effect for systolic BP. The carry-forward effect appeared to be due to lower systolic and diastolic BP after the HF-DASH diet compared with the DASH, control, or no previous diet. Mean BPs were, in fact, lower at the end of the washout period after the HF-DASH diet than after the other diets for systolic (mean ± SE: −4.1 ± 1.7 mm Hg; $P = 0.02$) and diastolic (−0.9 ± 1.1 mm Hg; $P = 0.40$) BPs. The carry-forward effect did not appear to be the result of any individual participant.

Both morning and evening systolic and diastolic BPs measured by the participants at home were similarly reduced with the DASH and HF-DASH diets compared with the control diet, confirming the treatment effect of the DASH and HF-DASH diets on BP. There were no significant sequence, period, or carry-forward effects for home BP measurements.

Effects of diets on plasma lipids and lipoproteins

Significant treatment effects were observed for plasma concentrations of triglycerides, total cholesterol, LDL cholesterol, and HDL cholesterol, apo A-I, LDL peak diameter, large and medium VLDL, intermediate-density lipoprotein (IDL), and large LDL concentrations.

For the primary comparison of the DASH and HF-DASH diets, the latter resulted in significantly lower plasma triglycerides, large and medium VLDL concentrations, and significantly higher LDL peak particle diameter. There were no significant differences between the DASH and HF-DASH diets for any other lipid or lipoprotein measurement after Bonferroni correction.

Both the DASH and the HF-DASH diets significantly reduced total cholesterol compared with the control diet. The DASH diet also significantly decreased LDL cholesterol, HDL cholesterol, apo A-I, IDL concentrations, large LDL concentrations, and LDL peak diameter compared with the control diet. Except for lower total cholesterol, none of the lipid and lipoprotein measurements differed significantly between the HF-DASH and control diets after Bonferroni correction.

There were no significant sequence effects for any of the lipid and lipoprotein variables examined. None of the variables that showed a significant treatment effect exhibited significant carry-forward or period effects.

DISCUSSION

The DASH diet, which was developed and validated as a means for lowering BP, was formulated to include low-fat and nonfat dairy foods. In this study, we tested whether the BP benefit, as well as a favorable lipid and lipoprotein profile, could be maintained by the HF-DASH diet that includes full-fat dairy foods, with a corresponding increase in total and saturated fat, and a reduction in carbohydrate achieved primarily by reducing fruit juices and sugars, because sugar intake is associated with detrimental effects on cardiovascular disease risk factors. The HF-DASH diet lowered both systolic and diastolic BP to an extent similar to the DASH diet, indicating that the diet components responsible for the BP reduction were retained in the HF-DASH diet. Although the sodium content of the control diet was slightly higher than that of the 2 experimental diets, this difference was similar to that observed in the original DASH trial. Furthermore, 24-h urine sodium measurements were similar on all 3 diets, indicating that the BP reductions with the DASH and HF-DASH diets were not attributable to lower sodium intake.

When substituted for carbohydrates or unsaturated fats, saturated fats have been consistently shown to increase LDL cholesterol. We previously showed that with limitation of carbohydrate intake, the increase in LDL cholesterol induced by saturated fat is due primarily to large, cholesterol-rich LDL particles and not small, dense LDL particles. Indeed, in the present study, we found that the reduction in LDL cholesterol with the DASH diet compared with the control diet occurred in conjunction with lower concentrations of large LDL particles as well as of IDL particles, which both contribute cholesterol content to the standard LDL-cholesterol measurement. However, despite a 6% of energy higher saturated fat content to the HF-DASH diet compared with the DASH diet, there were no significant differences in LDL cholesterol or any of the LDL subclasses between these diets. There may be features of the DASH diet that mitigate the increase in LDL cholesterol that is typically observed with higher saturated fat intake.

It is of interest that there was a significantly higher LDL peak particle diameter with the HF-DASH diet compared with the DASH diet. Although this difference was of relatively small magnitude, it corresponded to a trend, albeit nonsignificant, for relatively higher concentrations of larger LDL particles and lower concentrations of smaller LDL particles with the HF-DASH diet with no net difference in total LDL particle concentrations. This change in the distribution of LDL particles may be more easily detected by the peak diameter than the individual subtractions. The shift toward larger LDL particles with the HF-DASH diet may be attributed at least in part to the lower carbohydrate content of this diet compared with the DASH diet, because a shift from smaller to larger LDL particles was previously shown to correlate with reductions in plasma triglyceride and VLDL concentrations resulting from reduced carbohydrate or sugar intake. The reductions in triglycerides and VLDL particle concentrations with the HF-DASH diet compared with the DASH diet observed in the present study were relatively modest as might be expected from the moderate difference in carbohydrate content between the diets (43% compared with 55% of energy). It is possible that these differences were not of sufficient magnitude to elicit the significant reductions in small, dense LDL particles as well as in apoB (an index of LDL particle number) that have been observed previously with more substantial reductions in carbohydrate intake.

The present study confirmed previous observations that the DASH diet lowers HDL cholesterol, which is consistent with a significant reduction in apo A-I compared with the control diet. These changes were not observed with the HF-DASH diet, although the differences between the effects of the HF-DASH and DASH diets did not reach significance. The basis for the reduction in HDL cholesterol with the DASH diet is not known, although it is noteworthy that this effect was not associated with a change in HDL particle concentrations, suggesting that it may represent a change in HDL composition.

Other investigators have also tested modifications of the DASH diet on BP or lipid risk factors. The OmniHeart trial tested the replacement of 10% of energy from carbohydrate in a DASH diet with 10% of energy from unsaturated, primarily monounsaturated, fat or 10% of energy from protein. The protein and monounsaturated fat diets yielded similar or greater reductions in BP compared with the standard, high-carbohydrate DASH diet. Replacing carbohydrate with monounsaturated fat reduced total cholesterol and triglycerides and increased HDL cholesterol with affecting LDL cholesterol. Replacing carbohydrate with protein reduced total, LDL, and HDL cholesterol and triglycerides. The Beef in an Optimal Lean Diet Study found that the inclusion of lean beef in a low-saturated-fat DASH-like diet resulted in comparable effects on lipid and lipoprotein measures compared with a standard DASH diet. Sayer et al. recently showed that a DASH-style diet containing either lean pork or chicken and fish similarly reduced BP. Together with results from the present study, the above findings provide evidence that aspects of the DASH diet can be modified without compromising its benefits on BP or LDL-cholesterol lowering, offering flexibility in food choices for individuals following the DASH diet.

The crossover design of this trial was largely successful in that lipids and lipoprotein returned to baseline concentrations and there were no significant sequence effects and no carry-forward effects for most of the variables. The exceptions were the clinic measurements of systolic and diastolic BPs, whose reductions showed significant carry-forward on the HF-DASH diet, an unexpected and unexplained effect because there was no such carry-forward effect for the home BP measurements.

Strengths of our study include high dietary compliance as measured by urinary biomarkers and lack of weight change as a potential confounder. Limitations include a relatively small sample size and a short intervention duration.

In conclusion, the results of this study indicate that modification of the DASH diet to allow for more liberal total and saturated fat intake in conjunction with moderate limitation of carbohydrate intake, primarily from fruit juices and sugars, results in lower concentrations of triglycerides and VLDL particles, with no increases in total or LDL cholesterol and no attenuation of the favorable BP response to the standard DASH diet. Therefore the modified HF-DASH diet studied here presents an effective alternative to this widely recommended dietary pattern, with less-stringent dietary fat constraints, which may promote even broader implementation.

Mr. SCOTT of Virginia. Mr. Chairman, I reserve the balance of my time.

Ms. FOXX. Mr. Chair, I yield 1½ minutes to the gentleman from Pennsylvania (Mr. JOYCE).

Mr. JOYCE of Pennsylvania. Mr. Chair, I thank Dr. FOXX for yielding.

Mr. Chair, I rise in support of the Whole Milk for Healthy Kids Act. As a doctor, I know the benefits of whole milk, and I know that whole milk can have benefits for Americans of all ages.

Whole milk is 96½ percent fat-free. According to a study that was conducted that lasted for more than 15 years and was published in The Lancet journal of medicine, individuals who consume more than two dairy products each day have a lower risk of cardiovascular disease. There is lower morbidity associated with those who have whole milk and whole milk products in their diet.

The 13 essential nutrients that are found in milk are vital to the development of bones, muscles, and even brain tissue in our Nation's children.

By banning healthy milk products from our schools, misguided policies that were crafted and implemented by the Obama administration, that has led students to turn away from milk and dairy products and turn to highly caffeinated and sugary drinks. Those drinks have very little nutritional value.

Pennsylvania's 13th Congressional District is home to the most number of dairy cows in our Commonwealth. Recently, I had the chance to visit Galliker's Dairy Company in Johnstown, Pennsylvania.

For the past four generations, Galliker's has processed milk from 46 regional family dairy farms for retailers, grocery stores and schools across the Northeast.

The Whole Milk for Healthy Kids Act will ensure that the whole and 2 percent milk processed at facilities like Galliker's will make its way into school lunchrooms across the country.

Mr. Chair, I urge all of my colleagues to vote for nutrition by supporting this legislation.

Mr. SCOTT of Virginia. Mr. Chair, I reserve the balance of my time.

Ms. FOXX. Mr. Chair, I yield 1½ minutes to the gentleman from Wisconsin (Mr. VAN ORDEN).

Mr. VAN ORDEN. Mr. Chair, I thank the gentleman from Louisiana for painting a vivid and completely disingenuous picture of junior high school students being held down and having milk forced down their throats in a school cafeteria.

I will also take the opportunity—I can't believe I am doing this—the milk fat content of whole milk is actually 3.25 percent making it 96.7 percent fat-free.

So when we look at the science, we read this definition: Milk means the lacteal secretion practically free from colostrum obtained by the complete milking of one or more healthy cows.

The reason soy milk is not in there is because it is not milk. Neither is almond milk. Milk comes from a mammal.

Mr. Chair, I strongly support this bill, and I am looking forward to having our children have healthy and nutritious choices in their schools.

Mr. SCOTT of Virginia. Mr. Chair, I reserve the balance of my time.

Ms. FOXX. Mr. Chair, I yield 1½ minutes to the gentleman from New York (Mr. MOLINARO).

Mr. MOLINARO. Mr. Chair, I am proud to cosponsor the Whole Milk for Healthy Kids Act, and I urge my colleagues to support its adoption.

After over 10 years of schools having to comply with a nonsensical ban, I am excited to work on this bill to provide full-favor, nutrient-dense milk to kids once again. Parents and physicians have known the benefits of milk for generations. Nearly 70 percent of milk consumed at home is whole or 2 percent because it actually tastes good. It is packed with vitamins, and, most importantly, kids actually love it. I know my four do.

Full-fat milk gives parents alternatives to soda that their kids actually want to drink, but kids have been barred—strangely barred—from having their favorite milk choices in schools.

The result has been a decline in milk consumption in schools, and when kids are drinking less milk, they are losing out on nutrients that are critical for their healthy development.

Milk is the top source of protein, calcium, phosphorus, and vitamin D for kids. It provides seven of the 14 nutrients the American Academy of Pediatrics recommends for brain development.

The bottom line is that limiting milk in schools reduces consumption of essential nutrients, pushes kids towards sugary alternatives, and has led to less healthy kids.

As the Representative for hundreds of family-owned dairy farms in New York, and as a parent to four kids, I have one special interest: the health standard of the kids growing up in our communities.

I am excited to take this long overdue action to repeal a ridiculous ban. I am grateful to Chairman THOMPSON for his leadership to get the full-fat milk back in schools.

Mr. Chair, I encourage my colleagues to vote for this bipartisan bill.

Mr. SCOTT of Virginia. Mr. Chairman, I reserve the balance of my time.

Ms. FOXX. Mr. Chair, I yield 2 minutes to the gentleman from California (Mr. COSTA), who is my classmate.

Mr. COSTA. Mr. Chair, I thank the gentlewoman and my classmate for yielding.

Mr. Chair, let me speak in favor of this important bipartisan legislation. The Whole Milk for Healthy Kids Act is an investment, I believe, in our children's health and future.

This proposed legislation, let's be clear, does not change the underlying law. For the 19 years that I have been on the House Agriculture Committee, the school lunch and breakfast program has been and should be a focus of attention by the House of Representatives and the Congress.

Why?

It is because we provide the support for the school lunch and breakfast programs.

And why else?

It is because we want our children to have the most nutrition possible from lunch and breakfast.

In addition, we want to deal with issues of obesity and issues of allergies. It is important for a healthy future.

Now, let me say that I know a little bit about this. My family and I have been involved in the dairy business in California for three generations, since the early 1920s. Dairy plays a critical role in the nutritional diet of children as a leading food source for nutrients that are critical for development and growth. We must provide healthy nutrient-packed options that children will actually choose to consume, ranging from nonfat to whole.

Milk provides 13 essential nutrients, as has been mentioned, including three of the four nutrients of public health concern that involve calcium, potassium, and vitamin D.

A few months ago I visited the Fresno Unified Nutrition Center. Fresno Unified is the third largest school district in California with 73,000 students. They prepare 45,000 lunches a day and 15,000 breakfasts at 85 school centers. It is a big undertaking for this nutritional program.

What we know is that for many of the kids, the breakfast or the lunch they get is sometimes the best meal they get in a day, so, therefore, we need to be focused on this. Our schools must be equipped with nutritional school milk options. We must be available and flexible to new scientific developments that are made.

The Acting CHAIR. The time of the gentleman has expired.

Ms. FOXX. Mr. Chair, I yield an additional 1 minute to the gentleman from California.

Mr. COSTA. Mr. Chair, our schools must be equipped with nutritional school milk options, and this is what this legislation attempts to try to do.

When kids like their school milk options that are flavorful and tasty, they consume them in the levels that they should. When kids, I think, like their choices for lunch or breakfast, America succeeds.

Let me close by saying that every body needs milk.

Mr. SCOTT of Virginia. I am prepared to close, and I reserve the balance of my time.

Ms. FOXX. Mr. Chair, we are waiting for one more speaker to come, so I will yield myself 1 minute.

Mr. Chairman, I want to reiterate some points that were made before. We are not being driven by any special interest group lobby. We are being driven by the special interest group of children. We want children in school to have access to whole milk, which, as my colleagues have pointed out, is 96.75 percent fat-free, but it provides one of the most nutritious meals that children can have.

We are seeing tremendous waste in the schools. We are not excluding soy drink. The policy that we are trying to overcome here by providing whole milk to children was a policy passed under the Obama administration. We are not trying to harm minorities in any way whatsoever. We want everybody to have the choice to drink a soy drink, whole milk, skim milk, 1 percent milk, whatever.

The Acting CHAIR. The time of the gentlewoman has expired.

Ms. FOXX. Mr. Chair, I yield an additional 15 seconds to myself.

Ms. FOXX. Mr. Chairman, this bill has been terribly mischaracterized by our colleagues on the other side of the aisle. It is about healthy choices for children.

Mr. Chair, I reserve the balance of my time.

Mr. SCOTT of Virginia. Mr. Chairman, may I inquire how much time is remaining on both sides.

The Acting CHAIR. The gentleman from Virginia has 16½ minutes remaining. The gentlewoman from North Carolina has 3¼ minutes remaining.

Mr. SCOTT of Virginia. Mr. Chair, I reserve the balance of my time.

□ 1445

Ms. FOXX. Mr. Chair, I yield 1 minute to the gentleman from Pennsylvania (Mr. MEUSER).

Mr. MEUSER. Mr. Speaker, I thank Chairwoman FOXX very much for her leadership on this very important issue.

Mr. Chair, kids love milk, but our schools have been prohibited from providing children whole milk since 2010 and, frankly, it was based upon false science.

Milk is a healthy choice for our children. It has 13 essential nutrients that kids need—calcium, protein, iron, vitamin D, potassium, and more. Compared to soda or iced tea, which kids will turn to without a healthy alternative, a carton of milk has only one-third of the sugar as a can of Coca-Cola.

We, as adults and Representatives, need to give our children and grandchildren the options to make healthy choices. We need this legislation to put whole milk back in our schools.

Mr. Chair, would you be surprised to know that whole milk is 96.75 percent fat free? To say whole milk is unhealthy for kids is, if you will, ''udderly'' ridiculous.

Let's do the right thing by our children, families, and dairy farmers by passing the Whole Milk for Healthy Kids Act. It is time to ask American schoolchildren if they, once again, ''Got Milk?''

Mr. SCOTT of Virginia. Mr. Chair, I yield myself the balance of my time.

Mr. Chair, I am disappointed that my Republican colleagues are attempting to make school meals less healthy by ignoring the latest science and undermining President Biden's work to strengthen school meal nutrition.

The latest DGAs have already made clear that fat-free milk and low-fat milk are the healthiest options for children. If anybody has studies or research to the contrary, they should submit it to the experts in the normal process rather than politicians.

This bill goes against the dairy industry's recent commitment to ensuring students have access to the healthiest dairy options consistent with the DGAs.

Mr. Chairman, we should be committed to ensuring that students have access to the healthiest dairy options in accordance with science-based guidelines, but H.R. 1147 contradicts this commitment by interfering with the independent process that aligns child nutrition standards with the latest science.

I am also disappointed that we are considering a bill that does nothing to meaningfully address child nutrition or hunger. This is in stark contrast to the comprehensive science-based reauthorization of the Federal child nutrition programs that committee Democrats advanced last Congress to, among other things, strengthen evidence-based nutrition standards for school meals beyond just milk.

The bottom line is that Congress should not inject politics into child nutrition standards at the expense of nutritious meals that our children need to grow healthy.

Mr. Chair, I, therefore, urge my colleagues to oppose H.R. 1147, and I yield back the balance of my time.

Ms. FOXX. Mr. Chair, I yield myself the balance of my time.

Mr. Chair, I have seen a lot of bills mischaracterized on this floor in my time here, but I think this is one of the worst.

Passing the Whole Milk for Healthy Kids Act would be a critical step toward empowering parents and securing our children's well-being. Whole milk isn't just a beverage; it is a vital source of nutrients essential for children's growth. Denying access to its calcium, vitamin D, and protein threatens to inhibit their development.

To the anti-milk advocates, I have one thing to ask of you: What do you have against milk?

If you scrutinize them closely, you might be convinced that Democrats are waging a war on dairy. The Democrat administration has presided over a 15 percent milk price increase in the grocery store.

A Democrat proposal, the Green New Deal, calls for the elimination of cows for their so-called greenhouse gas emissions.

A Democrat policy is slashing the milk available to newborns through the Special Supplemental Nutrition Program for women, infants, and children by four quarts.

A Democrat interest group, PETA, has called milk a so-called white supremacist symbol. How patently absurd.

Let's end the war on milk and pass the bill.

Together, we can ensure that our children have access to the nutritional foundation they need to thrive and become the healthy, vibrant leaders of tomorrow.

Mr. Chair, I urge all my colleagues to vote ''yes'' on this bill, and I yield back the balance of my time.

The Acting CHAIR (Mr. MOOLENAAR). All time for general debate has expired.

Pursuant to the rule, the bill shall be considered for amendment under the 5-minute rule.

The amendment in the nature of a substitute recommended by the Committee on Education and the Workforce, printed in the bill, shall be considered as adopted. The bill, as amended, shall be considered as an original bill for purpose of further amendment under the 5-minute rule and shall be considered as read.

H.R. 1147

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Whole Milk for Healthy Kids Act of 2023''.

SEC. 2. WHOLE MILK PERMISSIBLE.

Section 9(a)(2) of the Richard B. Russell National School Lunch Act (42 U.S.C. 1758(a)(2)) is amended—

(1) by amending subparagraph (A) to read as follows:

''(A) IN GENERAL.—Lunches served by schools participating in the school lunch program under this Act—

''(i) shall offer students a variety of fluid milk;

''(ii) may offer students flavored and unflavored whole, reduced-fat, low-fat and fat-free fluid milk and lactose-free fluid milk; and

''(iii) shall provide a substitute for fluid milk for students whose disability restricts their diet, on receipt of a written statement from a licensed physician that identifies the disability that restricts the student's diet and that specifies the substitute for fluid milk.''; and

(2) by adding at the end the following:

''(D) SATURATED FAT.—Milk fat included in any fluid milk provided under subparagraph (A) shall not be considered saturated fat for purposes of measuring compliance with the allowable average saturated fat content of a meal under section 210.10 of title 7, Code of Federal Regulations (or successor regulations).''.

The Acting CHAIR. No further amendment to the bill, as amended, shall be in order except those printed in House Report 118–308. Each such further amendment may be offered only in the order printed in the report, by a Member designated in the report, shall be considered as read, shall be debatable for the time specified in the report equally divided and controlled by the proponent and an opponent, shall not be subject to amendment, and shall not be subject to a demand for division of the question.

AMENDMENT NO. 1 OFFERED BY MRS. LUNA

The Acting CHAIR. It is now in order to consider amendment No. 1 printed in House Report 118–308.

Mrs. LUNA. Mr. Chair, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 3, line 6, insert ''**ORGANIC OR NON-ORGANIC**'' before ''**WHOLE MILK**''.

Page 3, line 17, insert ''organic or non-organic'' after ''unflavored''.

The Acting CHAIR. Pursuant to House Resolution 922, the gentlewoman from Florida (Mrs. LUNA) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentlewoman from Florida.

Mrs. LUNA. Mr. Chair, I yield myself such time as I may consume.

Mr. Chair, I am happy to be here today to draw attention to something that is important to our children's health, parental choice, and the many farmers across our Nation.

For years, America's school lunches have lagged behind other countries' programs in terms of health and nutrition. European and Asian students often have access to fresher and healthier meals than students in the United States.

This problem has been worsened by the Federal Government's overregulating what schools are allowed to serve our children, in particular, preventing schools from offering whole milk to students. The Whole Milk for Healthy Kids Act would allow students who participate in the National School Lunch program to serve their students whole milk, but my amendment goes a step further by ensuring schools may also offer their students to use organic milk as well.

The food we give our children and where it comes from is incredibly important. My amendment empowers parents and the ability that they have to decide what is healthiest for their children.

As many parents know, high-quality nutrition is closely related to better academic and behavioral outcomes in children. Allowing parents to choose organic milk is a step in the right direction.

Studies have also found that organic milk contains more omega-3 fatty acids and antioxidants than nonorganic milk, which helps with brain function, heart health, and fighting disease, respectively.

Of course, it is vital that we also know where this milk comes from, organic or not. Far too often, Congress listens to special interest and big ag lobbyists and ignores the countless family farmers who are the backbone of our country.

Our organic family farmers and the countless unseen families who feed our Nation are invaluable to our country. These farmers work many long, thankless hours to bring us nutrient-rich, high-quality milk.

Mr. Chair, on behalf of my family and I, I thank them. I am thankful to be able to be here today to continue to empower and fight for our children, and I thank those that are helping to bring organic milk to our country.

Mr. Chair, I reserve the balance of my time.

Mr. SCOTT of Virginia. Mr. Chair, I claim the time in opposition to the amendment.

The Acting CHAIR. The gentleman is recognized for 5 minutes.

Mr. SCOTT of Virginia. Mr. Chair, I yield myself such time as I may consume.

Mr. Chair, nothing in this bill prevents schools from offering organic milk under current law. As the main barrier for schools offering organic milk is cost, nothing in this amendment provides additional funding or support to help schools offer organic milk, if they prefer.

Fundamentally, this amendment does not fix the flaws of the underlying bill. It invites Congress to legislate on specific foods served in school meals at the expense of evidence-based recommendations from experts.

According to those experts, milk is the top source of saturated fat in American diets. Whole and 2 percent milk can raise bad cholesterol, the cause of heart disease, and contains more fat, saturated fat, cholesterol, and calories than 1 percent and fat-free milk.

This has led to organizations such as the CDC to recommend nutrient-rich 1 percent or fat-free milk instead of 2 percent or whole milk.

For children aged 2 and up, the inclusion of whole milk in the bill disregards the healthy dietary patterns backed by the dietary guidelines for Americans, the scientific, evidence-based comprehensive set of nutrition recommendations.

Over 60 organizations have expressed concerns over attempts to bring whole milk back into school meal programs. Regardless of whether milk is organic, inclusion of whole milk in this bill is detrimental to American youths' health and well-being, and the amendment fails to alter that fact.

Mr. Chair, I oppose the underlying bill and oppose the amendment, and I reserve the balance of my time.

Mrs. LUNA. Mr. Chair, may I inquire as to the time remaining.

The Acting CHAIR. The gentlewoman from Florida has 3 minutes remaining.

Mrs. LUNA. Mr. Chair, I yield myself the balance of my time.

Mr. Chair, I hear a lot from my colleagues across the aisle on the experts, but I also wonder how many people in Congress have had to use National School Lunch programs; and, frankly, I have been one of those people.

When I hear people speak in opposition to this saying that it is going to hurt minorities, it is going to hurt those of us who have actually had to use the program, I find it ironic. Frankly, I think that we need more people in office that have had rougher upbringings to bring a different lens and perspective.

To hear that whole milk is bad for children, to hear the arguments against organic milk, and to hear the arguments that are coming from across the aisle, I don't know that it represents, necessarily, the best interests of the American people other than political spite.

Mr. Chair, I yield back the balance of my time.

Mr. SCOTT of Virginia. Mr. Chair, I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentlewoman from Florida (Mrs. LUNA).

The amendment was agreed to.

AMENDMENT NO. 2 OFFERED BY MR. MILLS

The Acting CHAIR. It is now in order to consider amendment No. 2 printed in House Report 118–308.

Mr. MILLS. Mr. Chair, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 4, line 10, strike the period and quotation mark at the end and insert the following:

''(E) PROHIBITION ON CERTAIN PURCHASES.—The Secretary shall prohibit schools participating in the school lunch program under this Act from purchasing or offering milk produced by China state-owned enterprises.''.

The Acting CHAIR. Pursuant to House Resolution 922, the gentleman from Florida (Mr. MILLS) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentleman from Florida.

Mr. MILLS. Mr. Chair, this amendment prohibits schools from participating in the school lunch program under the act from purchasing or offering milk produced by Chinese state-owned enterprises that may be operating here within the United States or elsewhere.

As many of us know, in 2008, the melamine scandal exposed systemic corruption and disregard for the safety standards within China's own dairy industry. This scandal resulted in the death of six infants and sickened thousands more, highlighting the devastating consequences of lax regulations and unethical practices.

The evidence is clear: These enterprises pose a serious threat to our consumers' health, our economic security, and our national interests. We can't allow CCP enterprises to export their dangerous practices to our school lunches.

This is an issue of maintaining American control of critical supply chains. Chinese state-owned enterprises have no business being in our schools.

Florida is one of the largest cattle producers in America, and there is no way I will allow producers in my State to be compromised by the CCP or the PRC. If we fail to act, we risk losing our family farms and jeopardizing the livelihoods of thousands of Americans.

This is not about trade isolationism; it is about protecting our children in schools from unsafe products, ensuring fair competition for American producers, and safeguarding our national security.

The potential consequences of inaction are simply too great for me to ignore. The quality and safety of food that we provide to our children is paramount, and we cannot compromise on these standards. We must be vigilant about our source and production practices of the products that are present in our educational institutions and safeguard them from adversaries that do not share our same interests.

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By prohibiting schools from purchasing or offering milk produced by China's state-owned enterprises operating in the United States and elsewhere, we aim to send a clear message about our commitment to health and the safety of our children.

Last year, over 30 million schoolchildren relied on school lunches for their nutrition. We have seen how the CCP has approached other industries, and we cannot allow such an important sector to become vulnerable in a time of crisis.

Therefore, I urge you to join me in preventing the CCP-supported entities from infiltrating school lunches and a key American supply chain. This is a necessary step to protect the health and well-being of our citizens, safeguard our economy, and defend our national interests. Let us send a clear message that we will prioritize the safety and security of our Nation's schoolchildren above all else.

Mr. Chairman, I reserve the balance of my time.

Mr. SCOTT of Virginia. Mr. Chairman, I claim the time in opposition.

The Acting CHAIR. The gentleman is recognized for 5 minutes.

Mr. SCOTT of Virginia. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, nobody disputes that the dairy industry is a crucial part of domestic supply chains and provides an important economic benefit to the tune of over $753 billion to the U.S. economy.

In 2022, just five States—California, Wisconsin, Idaho, Texas, and New York—collectively produced more than 50 percent of the U.S. annual milk supply.

School breakfast and school lunch programs are already required to purchase domestic agricultural commodities and food products. Although exemptions exist, milk is produced in sufficient quantities in the U.S. and at competitive prices to severely restrict the ability of any school to purchase foreign-produced milk.

To this end, the amendment does not fix the flaws in the underlying bill and makes no meaningful improvements to buy-American policies.

We can make sure that Chinese milk is not breaching our supply chain with continued monitoring and enforcement of present law. A recent report found that Chinese seafood has been served in schools, highlighting the need for additional diligence in enforcing present law.

I do not support the underlying legislation, and I oppose the amendment as being unnecessary.

Mr. Chairman, I reserve the balance of my time.

Mr. MILLS. Mr. Chairman, it is interesting, and I understand that facts, for whatever reason, seem to sink in a lot slower on the left than they do in America's party, so I will say this once more.

In 2008, the melamine scandal exposed systemic corruption and disregard for our complete safety in milk and other dairy products produced by China, so it is interesting that the gentleman says they are not actually weakening anything when they had infants and children by the thousands who died or were sickened by their actual production capacity capabilities or incapabilities.

Again, facts are a very finicky thing. They oftentimes slowly leak in on the left, but you can't dispute that China's production of dairy has been less safe and less put under the regulations of rigorous streams than they do in American production with the FDA.

Mr. Chairman, I yield back the balance of my time.

Mr. SCOTT of Virginia. Mr. Chairman, I yield myself the balance of my time to close.

I just reiterate that present law requires domestic purchase, and so this is unnecessary. If Chinese milk has gotten into the supply, we need to monitor that. It violates present law. To suggest that we are ignoring science, the underlying bill ignores science. That is the purpose of the underlying bill.

I hope that we reject this amendment and reject the underlying bill.

Mr. Chairman, I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentleman from Florida (Mr. MILLS).

The amendment was agreed to.

AMENDMENT NO. 3 OFFERED BY MR. TIFFANY

The Acting CHAIR. It is now in order to consider amendment No. 3 printed in House Report 118–308.

Mr. TIFFANY. Mr. Chair, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 4, line 10, strike the period and quotation mark at the end and insert the following:

"(E) LIMITATION ON AUTHORITY.—The Secretary may not prohibit any school participating in the school lunch program under this Act from offering students the milk described in subparagraph (A)(ii).".

The Acting CHAIR. Pursuant to House Resolution 922, the gentleman from Wisconsin (Mr. TIFFANY) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentleman from Wisconsin.

Mr. TIFFANY. Mr. Chair, first of all, merry Christmas.

My bipartisan amendment prevents the USDA from issuing any rule that bans any of the milk covered in this bill, including chocolate milk. This would ensure that all types and flavors of milk are available to schoolchildren and not subject to bureaucratic rulemaking.

Some may ask why are we focusing on this issue. Unfortunately, it is because the USDA has set its sights on getting rid of chocolate milk in schools. It is now up to us to act.

This summer, it was reported that the Department of Agriculture is considering a ban on chocolate milk in elementary and middle schools. USDA issued a proposed rule that would set a new nutrition standard for school meals. These new standards could limit the availability of flavored milk, like chocolate and strawberry, in high schools while children in elementary and middle schools would have no access at all.

For those of you with young children or grandchildren, go and ask them what they think about USDA's new rule. I think I can speak for most folks when saying that when I was young, chocolate milk was usually the highlight of having lunch at school, but this new rule would mean that roughly 30 million students who participate in the USDA's school meal programs would no longer be able to have chocolate milk, or any flavored milk for that matter.

According to the Journal of the American Dietetic Association, removing flavored milk from schools resulted in a 62 to 63 percent reduction in milk consumption by kids in kindergarten through fifth grade, including a 50 percent reduction in sixth through eighth grades.

Milk is full of rich nutrients that support bone growth and development, and millions of children enjoy drinking it. We should not allow rules that would limit our children's access to delicious and nutritious products like milk and its varieties covered in this great bill.

Mr. Chair, I say to the USDA, come and take it.

I urge my colleagues to vote "yes" on this bipartisan amendment, and I reserve the balance of my time.

Mr. SCOTT of Virginia. Mr. Chairman, I claim the time in opposition.

The Acting CHAIR. The gentleman is recognized for 5 minutes.

Mr. SCOTT of Virginia. Mr. Chairman, I yield myself such time as I may consume.

Mr. Chairman, current law requires that school meals and beverages offered under the school meal programs be consistent with the dietary guidelines for Americans, the DGAs, which are drafted by an advisory committee of experts. These are evidence-based recommendations set to provide nutritional guidance to ensure children receive the most nutritious meals possible.

This amendment would effectively undermine the unbiased evidence-based guidelines of DGAs by prohibiting USDA from doing its work and replacing that process with a process where evidence will be presented to politicians and we get to decide the science. It is critical that actual scientists and experts make the recommendations and guide the process in determining options in schools and that regulations are updated to align with current DGAs.

Experts, not Members of Congress, should be the ones determining the nutrition standards to ensure that our children get the healthiest meals possible.

This amendment, like the underlying bill, reinforces the precedent for Congress to legislate on specific foods, at the behest of one industry or another, that would be served in schools.

There is a reason that the school lunch program does not contain specific nutrition standards for foods and beverages, and that is to ensure that nutrition standards can adapt to the latest science and expert recommendations. Both this amendment and the underlying bill upset this policy and open the program to politicization in favor of district interests and single-food lobbies over the health and well-being of our children.

Dozens of organizations, including the Academy of Nutrition & Dietetics, the American Academy of Pediatrics, American Heart Association, and a lot of others have urged Congress not to interfere with that process and to respect the science-based process.

For these reasons, I urge a ''no'' vote on the amendment, and I reserve the balance of my time.

Mr. TIFFANY. Mr. Chairman, oh, those experts, those experts have done us so well in the United States of America. Why are we $33 trillion in debt? Why do we have childhood obesity that is off the charts at this point?

Oh, those experts serve us so well, those experts that told us that butter is not good for us. Remember that a number of decades ago? Growing up on a dairy farm in western Wisconsin, I couldn't believe the experts were telling us that butter is not good for us. Well, all of a sudden, they are changing their tune on that.

They told us that we shouldn't possibly drink whole milk. They are beginning to turn on that also and saying maybe that is good for our children.

Yeah, the experts, they have done us so well.

The reason I bring this before the House of Representatives is I did listen to experts, those people who run the school lunch programs.

I will never forget a day about a decade ago when I stopped at a local gas station in northern Wisconsin, and a school lunch director came up to me—I didn't even know her—she said, at that time, Senator TIFFANY, would you tell the Federal Government to get out of our school lunch program? We are throwing away so much food.

Remember Michelle Obama's school lunch dictates that she put in place? The school lunch director said, Don't do that to us. I had multiple school lunch directors across northern Wisconsin, in my district, asking the Federal Government to stay out of their school lunch programs: We know what we are doing, we are trained in what we are doing, and we see what happens in our schools.

Mr. Chair, I urge my colleagues to vote in favor of this amendment, and I yield back the balance of my time.

Mr. SCOTT of Virginia. Mr. Chairman, I yield myself the balance of my time to close.

I include in the RECORD a letter signed by dozens of organizations opposing this changing the science and the process.

MARCH 20, 2023.

Hon. PATTY MURRAY,
Chair, Committee on Appropriations, U.S. Senate, Washington, DC.
Hon. MARTIN HEINRICH,
Chair, Committee on Appropriations, Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, U.S. Senate, Washington, DC.
Hon. SUSAN COLLINS,
Ranking, Committee on Appropriations, U.S. Senate, Washington, DC.
Hon. JOHN HOEVEN,
Ranking, Committee on Appropriations, Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, U.S. Senate, Washington, DC.
Hon. KAY GRANGER,
Chair, Committee on Appropriations, House of Representatives, Washington, DC.
Hon. ANDY HARRIS,
Chair, Committee on Appropriations, Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, House of Representatives, Washington, DC.
Hon. ROSA DELAURO,
Ranking, Committee on Appropriations, House of Representatives, Washington, DC.
Hon. SANFORD BISHOP JR.,
Ranking, Committee on Appropriations, Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, House of Representatives, Washington, DC.

DEAR CHAIRS MURRAY, HEINRICH, GRANGER, AND HARRIS, AND RANKING MEMBERS COLLINS, HOEVEN, DELAURO, AND BISHOP: As you craft the fiscal year (FY) 2024 Agriculture, Rural Development, Food and Drug Administration, and Related Agencies spending bill, the undersigned organizations urge you to oppose any policy riders blocking implementation of stronger nutrition standards in the National School Lunch and School Breakfast Programs.

We strongly support the U.S. Department of Agriculture (USDA)'s proposed rule to strengthen nutrition standards consistent with the 2020 Dietary Guidelines for Americans (''Child Nutrition Programs: Revisions to Meal Patterns Consistent With the 2020 Dietary Guidelines for Americans''). We must preserve and build on the progress schools and the food industry have made over the past decade to meet science-based nutrition standards. These improvements are an amazing success story and one of the most important public health achievements in a generation. For children in poverty, the risk of obesity declined substantially each year after implementation of stronger nutrition standards in 2012 such that obesity prevalence would have been 47 percent higher in 2018 if the nutrition standards had not been updated. Additionally, a 2021 study found that school meals are the single most healthy source of nutrition for children—more nutritious than grocery stores, restaurants, worksites, and others. Research shows that children like the healthier school meals and while food waste remains a problem in this country, the amount of food wasted in schools has not changed since the standards were updated in 2012, according to the USDA's largest and nationally representative study of school meals. For many children participating in the program, school breakfast and lunch are the only meals they receive that day.

Despite the overwhelming success of the nutrition standards, improvements are still needed to align school meals with the Dietary Guidelines, which the current proposed rule aims to do. The USDA issued a proposal that is pragmatic, flexible, gradual, and most important—achievable. The rule proposes, for the first time, to reduce added sugars, with product-based limits for the top sources of added sugars beginning School Year 2025–2026, and to phase into a limit of added sugars averaged over the week beginning School Year 2027–2028. These standards are critical: among children, excessive intake of added sugars has been associated with poor diet quality, cavities, and increased risk of cardiovascular disease, yet more than 92 percent of schools exceed the Dietary Guidelines limit for added sugars for breakfast and 69 percent exceed it for lunch.

Further, sodium reduction is paramount to protect children's health: nine out of ten children consume too much sodium, putting them at risk of hypertension and cardiovascular disease into adulthood. The USDA proposes new, gradual 10-percent sodium reduction levels every two school years for breakfast (through School Year 2027–2028) and lunch (through School Year 2029–2030). The USDA also maintains at least 80 percent of the weekly grains offered are whole grain-rich.

The rule aims to align dietary patterns for sodium and whole grains with the recommendations of the Dietary Guidelines, but the USDA recognized that a gradual, incremental approach to meeting those recommendations is more feasible for schools and the food industry to implement. For instance, children up to age 8 would still consume close to their day's worth of sodium (83 percent) from just breakfast and lunch combined. Sodium and whole grain-rich standards have been the subject of many riders over the past decade, causing confusion and stymying industry innovation and improvements to children's health. The USDA has listened to Congress; the proposals in this rule on sodium and whole grains are within the spirit of those previous riders.

This gradual, incremental approach was crafted by the USDA to be feasible for schools and the food industry. And these standards are feasible. The largest food companies have many K–12 products that meet the USDA's proposed added sugars, sodium, and whole grain-rich standards. Further, schools have been able to meet, and in some cases, exceed the current nutrition standards during the pandemic. In the first-of-its-kind study, a nationally representative study of elementary schools found that meals were meeting existing nutrition standards in 2022, and for sodium, average sodium decreased and the vast majority of schools were close to or already meeting future sodium-reduction levels on par with this rule. There are plenty of examples where schools have reduced sodium beyond the USDA's requirements or provided more whole grains and still been able to serve healthy, delicious, and culturally-relevant foods to their students.

Opponents of the rule claim that the meal nutrition standards cannot be strengthened due to labor shortages, supply chain disruptions, and other issues facing school food service programs. These are real challenges but require different solutions than stalling progress for healthier school meals. Over the past decade, the USDA and Congress have learned that schools need the additional assistance to meet stronger standards and they have also recognized current pandemic-related constraints, and therefore have committed millions of dollars to helping schools provide healthier meals while weathering these challenges. In September 2022, the USDA launched its $100 million Healthy Meals Incentive Initiative with the stated goal of improving the nutritional quality of school meals. Of that, $30 million is available for small and rural schools and $50 million will go toward working with food manufacturers on innovative solutions to increase the availability of nutritious school foods. Congress has also increased technical assistance funding each year for the past three fiscal years (FY) ($1 million in FY 2021; $2 million in FY 2022 and 2023), with $1 million of that funding being directed to assist with sodium reduction efforts in FY 2022–2023. These investments will be transformational, but the impact of inflation on school nutrition programs means schools still struggle to make ends meet. Therefore, increased meal reimbursement rates will be critical to the future success of school meals programs.

Beyond riders blocking implementation of the new proposed standards, there are other ongoing attempts to undermine evidence-based nutrition standards. For instance, the proposed rule allows for potatoes to be served in breakfast up to four out of the five school days, if a school chose to serve vegetables in place of fruit in breakfast. Therefore the existing breakfast potato rider—which allows schools to serve potatoes before other vegetables at breakfast—does not need to be included in the spending bill. Further, we are similarly concerned about attempts to bring whole milk into the school meals program. The Dietary Guidelines is explicit in its recommendation that everyone 2 years and older should limit their intake of saturated fat and choose fat-free or 1-percent low-fat milk instead of 2-percent reduced-fat or whole milk. The proposed rule reiterates this, while providing flexibilities for flavored 1-percent milk. Yet continued industry attempts to circumvent the science persist.

Finally, there are evidence-based strategies to increase school meal consumption that do not involve weakening nutrition standards, for instance, enabling students to have sufficient time to eat (at least 20 minutes of seat time) with longer lunch periods, having recess before lunch, serving lunch at an appropriate time of day, presenting food in an appetizing and easily eaten way, making the cafeteria inviting, and limiting competitive foods (snacks and beverages sold in vending machines and a la carte) during the school day. While some of these strategies cannot be addressed at the federal level, we encourage you to support these efforts.

In conclusion we urge you to oppose any riders that block or weaken stronger nutrition standards for children.

Sincerely,

Academy of Nutrition & Dietetics; Advocates for Better Children's Diets; Alianza Nacional de Campesinas, Inc.; American Academy of Pediatrics; American Cancer Society Cancer Action Network; American Heart Association; American Institute for Cancer Research; American Public Health Association; Ann and Robert H. Lurie Children's Hospital of Chicago; Association of State Public Health Nutritionists; Balanced; California Association of Food Banks; Center for Digital Democracy; Center for Science in the Public Interest; Chef Ann Foundation; Chilis on Wheels; Coalition for Healthy School Food; Colorado Children's Campaign; Community Food Advocates; Council on Black Health, Inc.; Cultiva la Salud; DC Greens.

Dolores Huerta Foundation; Environmental Working Group; FARE (Food Allergy Research and Education); Farm to Table-New Mexico; Food Research & Action Center (FRAC); FoodCorps; Friends of the Earth; From Now On Fund; Healthy Food America; Healthy School Food Maryland; Healthy Schools Campaign; Hope Community Services Youngstown; Illinois Public Health Institute; Independent Restaurant Coalition; Interfaith Center on Corporate Responsibility (ICCR); Johns Hopkins Center for a Livable Future; Latino Farmers of the Southeast; National Association of Pediatric Nurse Practitioners; National Association of School Nurses; National Education Association; National Farm to School Network; National League for Nursing; National PTA; National WIC Association.

Nebraska Appleseed; North American Society for Pediatric Gastroenterology, Hepatology and Nutrition; Northeast Ohio Black Health Coalition; Northwest Coalition for Responsible Investment; Office of Kat Taylor; Oklahoma Black Historical Research Project, Inc.; Public Health Advocates; Public Health Institute; Redstone Global Center for Prevention and Wellness; Roots of Change; Rural Advancement Fund of the National Sharecroppers Fund, Inc; Rural Coalition; Seventh Generation Interfaith Coalition; Sisters of Charity of Saint Elizabeth; Sisters of St. Francis of Philadelphia; Society for Nutrition Education and Behavior; Society of Behavioral Medicine; Springfield Food Policy Council; Stanford Medicine Children's Health; The Laurie M. TIsch Center for Food, Education and Policy, Teachers College, Columbia University; The Praxis Project; Trust for America's Health; UnidosUS; Union of Concerned Scientists; Urban School Food Alliance.

Mr. SCOTT of Virginia. Mr. Chair, this amendment would make it impossible to update the science based on new evidence. We should be basing our decisions on science, not what somebody tells us at the gas station. I hope that we defeat the amendment and the underlying bill, and I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentleman from Wisconsin (Mr. TIFFANY).

The amendment was agreed to.

The Acting CHAIR. There being no further amendments, under the rule, the Committee rises.

Accordingly, the Committee rose; and the Speaker pro tempore (Mr. KILEY) having assumed the chair, Mr. MOOLENAAR, Acting Chair of the Committee of the Whole House on the state of the Union, reported that that Committee, having had under consideration the bill (H.R. 1147) to amend the Richard B. Russell National School Lunch Act to allow schools that participate in the school lunch program under such Act to serve whole milk, and, pursuant to House Resolution 922, he reported the bill back to the House with sundry further amendments adopted in the Committee of the Whole.

The SPEAKER pro tempore. Under the rule, the previous question is ordered.

Is a separate vote demanded on any amendment reported from the Committee of the Whole? If not, the Chair will put them en gros.

The amendments were agreed to.

The SPEAKER pro tempore. The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

The SPEAKER pro tempore. The question is on passage of the bill.

The question was taken; and the Speaker pro tempore announced that the ayes appeared to have it.

Ms. FOXX. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this question will be postponed.

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ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE

The SPEAKER pro tempore (Mr. MOOLENAAR). Pursuant to clause 8 of rule XX, the Chair will postpone further proceedings today on motions to suspend the rules on which a recorded vote or the yeas and nays are ordered, or votes objected to under clause 6 of rule XX.

The House will resume proceedings on postponed questions at a later time.

CONDEMNING ANTISEMITISM ON UNIVERSITY CAMPUSES AND THE TESTIMONY OF UNIVERSITY PRESIDENTS IN THE HOUSE COMMITTEE ON EDUCATION AND THE WORKFORCE

Ms. FOXX. Mr. Speaker, I move to suspend the rules and agree to the resolution (H. Res. 927) condemning antisemitism on University campuses and the testimony of University Presidents in the House Committee on Education and the Workforce.

The Clerk read the title of the resolution.

The text of the resolution is as follows:

H. RES. 927

Whereas, on October 7, 2023, the world witnessed Hamas terrorists perpetrate the deadliest attack against the Jewish people since the Holocaust;