

SNAP Decisions Health Impact Assessment

Proposed Illinois Legislation to Eliminate Sugar-Sweetened-Beverages from the Supplemental Nutrition Assistance Program (SNAP)

Full Report



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Introduction

In Illinois and across the country, legislators and other policymakers have called for changes to the Supplemental Nutrition Assistance Program (SNAP) that would limit the use of SNAP for purchasing unhealthful foods and beverages. The U.S. Department of Agriculture (USDA) oversees the SNAP program and would have to grant a waiver in order for any jurisdiction to make changes to the eligible food and beverage products. Bills have been proposed in Illinois in three consecutive legislative sessions - 2011, 2012, and 2013 - that would require the state's Department of Human Services to seek such a waiver from the USDA. None of the bills reached a vote, but the proposal continues to resurface every year. In two of those three years, the bills focused particularly on sugar-sweetened beverages (SSBs) as the category of products for which a waiver would be sought. In the 2012 bill, sugar-sweetened beverage is defined as "a liquid that contains more than 10 calories per fluid ounce, excluding fruit juices without added sugar, milk products and milk substitutes." The sugar-sweetened beverage category is generally described as including carbonated soda, sports drinks, fruit-flavored drinks, energy drinks, and sweetened tea and coffee drinks.

Dating back to 2004, several jurisdictions have sought waivers from the USDA to allow for exclusion of foods with minimal nutritional value from eligible purchases using SNAP benefits. The USDA denied Minnesota's 2004 request on the grounds that allowing different definitions of eligible food items in different states would increase administrative burden. The USDA also cited the potential for increased stigmatization of SNAP users, causing "confusion and embarrassment" at the store checkout (USDA, 2004). Maine was also denied a waiver in 2008. The USDA also denied New York City's 2010 request to implement a pilot or demonstration project to exclude SSBs from SNAP eligible purchases, expressing concerns about the viability and effectiveness of the demonstration, including: the large population affected and the potential negative consequences, operational challenges, lack of practical ways to determine product exclusion, point-of-sale confusion, stigma for SNAP participants and the inability to isolate the effect of the SNAP purchase restriction to determine obesity and health impacts. The USDA also said in this response letter that it has a "longstanding tradition of supporting and promoting incentive-based solutions to the obesity epidemic, especially among SNAP recipients" (USDA, 2011).

Despite the USDA's clear hesitancy to grant any waivers restricting eligible foods or beverages in SNAP, a number of states are considering requesting waivers. States where the issue has been publicly raised by decision-makers in 2013 include Illinois, Wisconsin, and South Carolina. In June 2013, mayors from eighteen large cities including Chicago sent a letter to the leaders of the U.S. House of Representatives on SNAP funding levels and included several possible avenues for improving the program including "test and evaluate approaches limiting SNAP's subsidization of products, such as sugar-sweetened beverages that are contributing to obesity."¹ Also in June 2013, the members of the American Medical Association adopted a new policy position at their annual meeting calling for "work to remove sugar-sweetened beverages from the SNAP program." Sponsors and supporters of proposed legislation in Illinois provide two primary rationales to eliminate SSBs from SNAP: (1) reduce obesity among low-income SNAP participants and maximize the nutritional benefit of SNAP by reducing the purchase of SSBs and (2) reduce taxpayer dollars spent on non-nutritious products. Due to time and resource limitations, the scope of this study focused only on the first of the above-mentioned rationales: whether or not the proposed ban would achieve the desired reduction in SSB consumption among SNAP participants. This study did not explore the implications of the proposed ban on the amount of taxpayer dollars spent on non-nutritious products.

While one of the primary rationales raised by proponents of eliminating SSBs from SNAP is to reduce obesity and promote health, there are actually multiple pathways through which the proposed policy could have positive and negative health impacts. In addition, across the country and in Illinois, public health advocates and food security advocates, who are often allies on policy matters, have in this case disagreed about advocating for a policy to eliminate SSBs from SNAP. The Illinois Public Health Institute applied for and received a grant from the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts, to conduct a Health Impact Assessment in order to analyze the range of potential positive and negative impacts. A key part of the assessment was to engage a range of stakeholders, including SNAP participants with different perspectives and expertise related to this policy issue.

Health Impact Assessment (HIA) defined

HIA is a six-step process that can be used to engage stakeholders in assessing policy and planning proposals and making recommendations to improve health outcomes associated with those proposals. The goal of HIA is to ensure that health and health inequities are considered in decision-making processes using an objective and scientific approach, and engaging stakeholders in the process.

HIA Process:

- Screening determine whether a HIA is warranted and would be useful in the decision-making process.
- Scoping determine which health impacts to evaluate, the methods for analysis, and a workplan for completing the assessment.
- Assessment gather existing conditions data and predict health impacts using qualitative and quantitative research methods.
- Recommendations engage partners in prioritizing evidence-based proposals to mitigate negative health impacts and maximize positive health impacts.
- Reporting communicate findings.
- Monitoring evaluate the effects of a HIA in the decision-making process.

Appendix A provides more information about how the screening and scoping phases of this HIA were conducted.

During the scoping phase of this Health Impact Assessment (HIA), we identified five main health impact pathways:

- a. Changes in diet and nutritional intake.
- b. Changes in health particularly obesity, chronic disease and oral health associated with changes in diet.
- c. Changes in food security and economic hardship associated with change in diet and changes in accessibility/availability of retailers and products.
- d. Changes in stigma and stress.
- e. Changes in health associated with budget impacts from administrative costs to the state.

Due to a lack of existing evidence and insufficient time and resources, pathway "e" fell outside the scope of this HIA. Nonetheless, impacts on state administrative costs are important to consider in relation to this proposed policy. The project partners encourage groups with expertise on public sector budgeting to look into the implications of this policy for administration and budgeting, with a particular focus on how the changes might affect SNAP benefit amounts or other programs that serve lowincome households.



Fig 1. Health Pathway Diagram for this HIA

The project explored these pathways with the guidance of an advisory committee comprised of a variety of stakeholders including health advocates, poverty and food security advocates, SNAP experts, researchers and state agency staff. The HIA was conducted according to standard HIA processes, and included a comprehensive literature review, focus groups with SNAP recipients, key informant interviews, and analysis of existing datasets. More detail on these methods, including data collection instruments and a summary of the scoping and screening process can be found in the appendices.

- Per-capita sugar consumption increased dramatically over the latter half of the 20th century in the United States –Americans consumed an average of 43 pounds, or 39% more sugar per year in 2000 than they did on average between 1950 and 1959.²
- Consuming more than recommended amounts of sugar has been shown to contribute to increased prevalence of diabetes, oral health problems, and obesity and thus obesity related health conditions such as heart disease, stroke and some cancers.
- More than half of all added sugars in the American diet are from SSBs.
- SNAP is a vital program for supporting food security for one in five households in Illinois.
- Youth exposure to poor nutrition, both in terms of food insecurity and unhealthy eating, is associated with serious health risks throughout life related to cognitive and physical development, mental health, educational outcomes, obesity and related chronic conditions, and oral health. In Illinois, nearly half (46%) of SNAP participants are children, and 71% of all households using SNAP have at least one child under the age of 18.^{3,4}
- The cost of healthy foods and beverages, access to healthy food, and targeted marketing of unhealthy foods and beverages are substantial barriers to healthy eating for low-income households.
- There is inconsistent evidence on whether SNAP participants purchase or consume SSBs more frequently than the overall population. While the USDA cites research showing similar patterns of consumption across economic groups, more recent studies show that purchase and consumption of sugary drinks are higher in lowincome populations than the population as a whole.
- Most SNAP households spend significantly less on SSBs than they spend out-ofpocket overall on food and beverages in a month. This suggests that if restrictions were in place, SNAP participants could shift from SNAP to cash out-of-pocket to purchase SSBs. Focus group participants also reinforced this finding suggesting that in general they thought that SNAP recipients would shift how they pay for SSBs, if the proposed ban were implemented. These substitutions would undermine the proposed policy's goal of reducing SSB purchases to improve health.
- Both retailers and SNAP participants interviewed for this study cited consumer education and the cost of foods and beverages as barriers to healthier eating. Both groups were concerned about how to make healthy foods more affordable.

- There is a lack of knowledge among some consumers regarding the healthiness of various categories of SSBs. The SNAP participants who participated in the focus groups understood that soda is unhealthy. Many of those same individuals believed other drinks that have comparable amounts of added sugar such as fruit drinks, sports drinks, and energy drinks, were healthier than soda. Likewise, this holds true for parents in the general population, not just SNAP recipients. The Yale Rudd Center for Food Policy Sugary Drinks F.A.C.T.S. report found that, "parents believe that drinks like Capri Sun, Sunny D, Gatorade, and Vitamin Water are healthful products to serve their children."⁵
- Recently released guidance for SNAP-Ed (the SNAP nutrition education program) provides new opportunities to utilize SNAP-Ed dollars for education on the harms of SSBs, and for implementing broader initiatives to change consumption behaviors in communities; however, in January 2013 funding for the program was cut by \$110 million.
- Policies to eliminate SSBs from SNAP are more likely to improve nutritional intake and decrease SSB consumption if combined with incentives and a strong education component. While most SNAP participants in the focus groups were against restricting SSB purchases in SNAP, many were more open to the idea when paired with an incentive or bonus for not purchasing SSBs. This is similar to what was found in a survey conducted by Harvard University and the Center for Science in the Public Interest.⁶
- There is substantial evidence that stigma and negative perceptions of the SNAP program exist overall, and stigma is associated with significant negative health effects. There is little empirical evidence about whether an SSB restriction would create additional stigma-related health concerns or not. The grocers interviewed for this HIA indicated that stigma has been reduced since the introduction of electronic benefit transfer (EBT) payment systems that make SNAP transactions appear similar to a debit or credit card transaction. The grocers expressed concern that an SSB restriction would create confusion at the cash register and undermine these gains.
- In general, the experience of stigmatization can have a profound detrimental impact on both mental and physical health. Stigma has been demonstrated to lead to increased psychological distress, depression, and anxiety. These mental health conditions are often accompanied by physical comorbidities including diabetes and cardiovascular disease. Also, psychological distress is associated with a decrease in health-protective practices, leading to poorer health overall.

Conclusions

Based on the evidence we collected, and our findings from it, we came to the following conclusions:

- Reducing consumption of SSBs would have positive health effects, but lack of knowledge about the health risks associated with regular consumption of SSBs and the flexibility for SNAP recipients to shift payment for SSBs to cash suggest that a SSB restriction on its own might be ineffective.
- Given this, it is important to take a multi-pronged approach to improving nutrition in the SNAP program that includes education and incentives.
- To ensure nutritious food is affordable for low-income households in Illinois, SNAP benefits and the SNAP-Ed program must be funded at adequate levels.
- The indication that a ban may be ineffective at reducing SSB purchase and consumption patterns suggests an opportunity to test this strategy through a geographically small-scale pilot to determine its efficacy.
- Given the high consumption of SSBs across all population groups, implementing a policy that singles out one group of people, especially low-income people who already face significant hurdles to good health and well-being, raises significant equity concerns.

Policymakers, researchers and health advocates in Illinois have proposed other approaches to reducing the negative health impacts of SSBs that take a more universal approach (rather than focusing on a particular population, such as SNAP recipients). Although assessing these alternatives is beyond the scope of this HIA, it may be worth further exploration of the effectiveness of more universal alternative policies

For example, emerging research shows that excise taxes on SSBs have the potential to reduce consumption, improve health outcomes and generate revenue for public health prevention initiatives. Most researchers agree that the tax needs to be substantial in order to affect consumer behavior; recommended minimum tax levels range from 1 cent an ounce to 20% of market price.^{7,8,9,10,11,12} Several researchers predict that taxes at that level would result in population health improvements in terms of obesity and related chronic conditions. Researchers also point out that the tax revenue, if invested back in public health and obesity prevention, could generate even more health improvements over time. A study in Illinois found that a state excise tax of one cent per ounce on SSBs would result in a 23.5% decrease in SSB consumption in Illinois, reduce health care costs by \$180 million per year, and generate more than \$600 million in new revenues.¹³

The review of the evidence reveals a very complex set of issues related to a potential policy to restrict the use of SNAP for SSBs, including whether such a policy would be effective and concerns about singling out low-income people for a society-wide problem. These are contrasted by the clear health harms associated with SSB consumption, and the desire to identify policy approaches that can have a measurable effect on healthy nutrition in the SNAP population and the population as a whole. Clearly, there is no "silver bullet" that will solve all the issues related to obesity and malnutrition in the U.S. or the specific issues related to SSB consumption. Obesity and related chronic diseases are driving health care costs and impairing quality of life on an unprecedented scale. Simply exhorting people to eat right and exercise has proven inadequate to solve the problem. Effective policy levers need to be explored as part of the solution.

Recommendations

As a result of these findings and conclusions, the SNAP Decisions Health Impact Assessment proposes the following approaches to address that complexity in a way that maximizes health improvement and minimizes health risks of SSBs through the SNAP program.

Policy Recommendations	Policy/Decision maker
1. Rather than seek a waiver for restricting SSBs in SNAP as a standalone approach, if policy makers want to address SSBs in SNAP, our evidence suggests that a more effective approach would be to combine restrictions with incentives and education. This could be tested through a comprehensive, geographically-small pilot initiative to improve nutrition in the SNAP program and reduce consumption of sugar-sweetened beverages (SSBs) among SNAP participants that:	Illinois General Assembly; Illinois Department of Human Services; Illinois Department of Public Health; USDA
 Offers SNAP participants a choice of two programs: a) the current program that allows the purchase of SSBs; or b) a pilot program that does not allow purchase of SSBs and provides additional SNAP funds as an incentive for participation; Strengthens and expands SNAP-Ed, with an emphasis on implementing new guidance on providing information that SSBs, including fruit-flavored drinks, are not healthy; Leverages new SNAP-Ed guidelines to implement community-wide public health 	

 negative health effects of SSBs; Improves access to healthy foods among retailers who accept SNAP, especially in communities with many convenience stores and limited access to full-service grocery stores; Evaluates the initiative, with a strong focus on understanding the health impacts of the whole program, as well as discrete components of the pilot; and Measures the administrative costs to the state and retailers to understand whether the proposed changes to SNAP would negatively impact program resources or retailer participation rates. 	
2. Engage SNAP participants in designing policies intended to improve the nutritional aspects of the SNAP program.	Illinois Department of Human Services; USDA; all stakeholders
3. Increase outreach and education about the health effects of drinking SSBs and what qualifies as an SSB (our focus groups revealed a particular need for education about fruit drinks and sport drinks). This education is needed across the board at all income levels.	USDA; Illinois Department of Human Services; Illinois Department of Public Health
 Implement comprehensive community- based environmental change strategies for obesity prevention that are encouraged under SNAP-Ed as of FY2013. 	
4. Since the negative health impact of consuming of SSBs is high for the general population, not just SNAP recipients, assess whether or not there are alternative, more effective policies that take a universal approach to addressing the negative health effects of SSBs, such as an excise tax on SSBs which economic modeling predicts will significantly reduce SSB consumption, obesity, diabetes, and health care costs in Illinois.	Illinois General Assembly; Governor; local municipal leaders
Research Recommendations	
5. Data about the types and quantities of foods and beverages purchased with SNAP should be collected on an ongoing basis by the USDA and then made available to researchers.	USDA
 Groups with expertise on public sector budgeting should analyze the implications of this policy for program administration costs, with a particular focus on how the changes 	Illinois Department of Human Services; Governor's Office of Management and Budget;

might affect SNAP benefit amounts, retailer participation rates, or other programs that serve low-income households.	Academic researchers
7. Fund further investigation of the stigma and stress that SNAP participants face as changes are made to the program. Work to ensure that gains made in decreasing stigma with Electronic Benefit Transfers (EBT) are not undermined.	USDA; foundations

As the HIA advisory committee considered the above recommendations, members also discussed implementation considerations and the broader context for these recommendations. The following are some considerations related to the HIA policy and research recommendations on SNAP and SSB consumption:

- a. All pilot initiatives should be focused on evaluating the range of health and administrative impacts in order to determine how the policy can be implemented in a way that maximizes positive health impacts and minimizes negative health impacts.
- b. The government must be responsible for giving definitive guidelines on what products are considered to be SSBs. Retailers are not in a position to make these determinations.
- c. Researchers must be aware of how their findings will be interpreted and perhaps used by others in the broader context of public policy discussions related to SNAP.
- d. In order for policy interventions to be successful in maximizing positive health impacts for SNAP participants, policies and initiatives that address the broader food environment related to access, cost, education and marketing are also critical, as these are very significant influencers of purchasing and consumption behaviors.

Background on the Supplemental Nutrition Assistance Program (SNAP) and SNAP Participants

Any changes to SNAP have major implications because of the number of households that rely on SNAP. The SNAP program is the largest food assistance program in the United States, with one in five households participating. A total of 46,782,084 people are participating in the SNAP program nationwide as of December 2013, including 2,016,940 in Illinois (15.6% of the state population).¹⁴ From June 2007 to June 2012, the number of Illinoisans using SNAP increased 48.8%.¹⁵ Substantial increases in SNAP participation were seen nationwide over this period due to the economic recession.

Changes to SNAP also need to be considered in political context. SNAP funding has been the focus of a great deal of controversy and political debate throughout the process of drafting legislative proposals to reauthorize nutrition and farm programs as part of the farm bill process. These have included a number of proposals to cut funding and eligibility for SNAP. Proposals to prohibit the purchase of SSBs with SNAP benefits must be considered carefully in light of the tenuous future of SNAP funding to ensure that the discussions do not further undermine commitment to this critically important safety net for millions of people.

Demographics

Children and adolescents are a very important segment of the SNAP population. In Illinois, nearly half (46%) of SNAP participants are children, and 71% of all households using SNAP have at least one child under the age of 18.^{16,17} SNAP has very wide reach with children and adolescents; half of all youth in the United States will have been enrolled in SNAP at some point between age 0 and 19.¹⁸



Fig 2. SNAP Participation in Illinois ¹⁹

Fig 3. SNAP Eligibility and Benefit Information (Oct 2012 - Sept 2013)²⁰

Household Size	Maximum Gross Monthly Income (130% Federal Poverty Level)	Maximum Monthly Benefits	
1	\$1,211	\$200	
2	\$1,640	\$367	
3	\$2,069	\$526	
4	\$2,498	\$668	
Each additional member	+ \$429		

Fig 4. Race/ethnicity of SNAP households in Illinois (self-reported data)



Source: American Communities Survey, 2008-2010

As is true for many U.S. families, SNAP households rely on several sources of income. Of all participating households, 30% have earnings from a job, 21% receive Social Security and 7% receive unemployment insurance or workers compensation.¹⁶ In 2010, 85% of SNAP households' lived below the poverty line. Most SNAP families, especially those with young children, enroll in multiple nutrition programs. For example, most children that receive SNAP benefits are also enrolled in the National School Lunch and School Breakfast programs.

Fig 5. SNAP Households with Earnings ²¹



Source: Center on Budget and Policy Priorities

About half of new SNAP households received benefits for short-term periods of ten months or less, and roughly three-quarters of new participants leave the program within two years. It is common for participants to return to the program.¹⁶

Food Retailers and SNAP

As of June 2013, Illinois has 9,103 retailers authorized to accept SNAP. Just over a quarter of those authorized retailers (2,429) are in the city of Chicago.²² A 2010 analysis found that 29% of SNAP retailers in the city are gas stations, liquor stores, dollar stores and pharmacies.²³

The total redemption amount of SNAP in Illinois in 2010 was \$2,746,041,697. In the Midwest, roughly 85% of all SNAP purchases are made at supercenters and supermarkets, with convenience stores, small grocers, specialty food stores and farmers markets making up the remaining 15% of purchases.²⁴ Based on research in Detroit, the Mari Gallagher Research Group has raised concerns about inconsistent coding of stores by the USDA and undercounting of stores in the categories "convenience" and "other."²⁵

In order to qualify to accept SNAP, retailers must continuously sell at least three varieties of qualifying foods in each of four staple food groups, with perishable foods in at least two of the categories: 1) meat, poultry or fish; 2) bread or cereal 3) vegetables or fruits; 4) dairy products. Alternatively, more than half of the total dollar amount of all the retail sales in the store must be from the sale of eligible staple foods.²⁶ In August 2013, USDA began collecting input through a Request for Information and "listening sessions" on establishing stricter "depth of stock" standards in order to reduce misuse of SNAP funds.



Fig 6. Store Type and Redemption Proportions (USDA, Midwest Regional Data, 2010)

Product Eligibility in SNAP

The USDA's Food and Nutrition Service determines the types of foods that can and cannot be purchased with SNAP benefits. SNAP cannot be used to purchase: alcohol, nonfood items such as household supplies, vitamins and nutritional supplements, hot foods, or items intended to be eaten in the store. The USDA states that 'soft drinks, candy, cookies, snack crackers, and ice cream are food items and are therefore eligible items.' Energy drinks are eligible if they contain a nutrition facts label; energy drinks categorized as "supplements" by the Food and Drug Administration (FDA) and that carry a supplement facts label are not eligible.²⁷

SNAP-Ed – the SNAP nutrition education program

SNAP-Ed (the SNAP nutrition education program) began as a small program in 1981 that allowed states the option to apply for matching funds from the federal government to provide nutrition education to SNAP households. By 2004, it had become the nationwide program that it is today, but states that opted in early had disproportionately more funding relative to their SNAP participation compared to states that were added later. As part of the Healthy Hunger-Free Kids Act (HHFKA) of 2010, SNAP-Ed's mission was broadened to explicitly include obesity prevention in nutrition education. In addition, HHFKA restructured funding requirements to match federal funding to SNAP participation rates over time. The stated goal of SNAP-Ed is "to improve the likelihood that persons eligible for SNAP will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans." The FY2012 SNAP-Ed budget of \$380 million represented only 0.5 percent of the total SNAP budget. The American Taxpayer Relief Act of 2012 cut SNAP-Ed's federal budget for FY2013 from \$394 million to \$285 million. The FY2014 budget is uncertain. A continuing resolution signed in mid-October 2013 continues SNAP-Ed funding at the FY2013 levels through February 2014.28 SNAP-Ed Guidance focuses on providing education to SNAP households about healthy and nutritious foods.

The Healthy Hunger Free Kids Act, Sec.241, transformed SNAP-Ed into a Nutrition Education and Obesity Prevention Grant Program, SNAP-Ed Guidance was redesigned for FY2013 and allows the program to utilize three types of approaches: (1) individual or group-based nutrition education, health promotion and intervention strategies (this is the traditional SNAP-Ed approach); (2) comprehensive, multi-level interventions at multiple complementary organizational and institutional levels; and (3) community and public health approaches to improve nutrition. The first approach also specifically indicates that SNAP participants may be provided with information on foods to reduce in one's diet, such as SSBs – a departure from earlier guidance. Further, the second and third approaches focused on institutional, policy and environmental change are very new and significantly broaden how SNAP-Ed can be approached.

History of Food and Beverage Eligibility in SNAP

Distribution of food stamps first occurred at the end of the Great Depression. The original purpose of the program was to assist people living in poverty and to create a new market for agricultural surpluses. Soft drinks, alcohol and tobacco were excluded from the original program in 1941. Eligibility for other items varied, depending on the specific availability of surplus commodities; because of the focus on agricultural products, canned and frozen vegetables were also excluded. In 1964, Congress passed the Food Stamp Program (FSP) into law, with all items for human consumption eligible except alcohol and imported foods. Despite the concerns of several

congressmen, soda was ruled as a 'food item' and therefore allowed to be purchased with food stamps. The introduction of Electronic Benefit Transfer (EBT) cards in 2000 aimed to reduce stigma for FSP participants. The Food Conservation and Energy Act of 2008 (the Farm Bill) changed the name of FSP to the Supplemental Nutrition Assistance Program (SNAP).^{29,30}

Findings: Sugar Sweetened Beverages and Health

Sugar-sweetened beverages (SSBs) are currently the largest source of added sugar in the U.S. diet.^{31,32} The average American consumes 22 teaspoons (tsp) of sugar daily or 17 four-pound bags of sugar in a year. Teen boys consume an average of 34 tsp daily (National Cancer Institute, NHANES 2001-2004, NHANES 2005-2006). These numbers are considerably higher than the American Heart Association's recommendations for maximum intake of added sugars of 9 tsp for adult men, 6 tsp for adult women, 8 tsp for teens and 3 tsp for children.³³



Fig 7. Sources of added sugars in diets of U.S. population ages 2+, NHANES 2005–2006.

Source: National Cancer Institute. http://riskfactor.cancer.gov/diet/foodsources/added_sugars/

SSBs make up 51% of added sugars consumed by Americans (NHANES 2005-2006). It is estimated that Illinoisans consumed 620 million gallons of SSBs in 2011.³⁴

Excessive sugar consumption has been linked to many health problems including obesity, type 2 diabetes, cardiovascular disease, hypertension, gout, poor diet quality, kidney damage, cancer, sleep disturbances, and oral health problems.^{35,36,37,38,39}

Temporal rise in SSB consumption and obesity

The consumption of SSBs rose substantially in the U.S. with the average consumption of SSBs increasing from 157 kilocalories (kcal) in 1988-1994 to 203 kcal in 1994-2004,⁴⁰ although its prevalence has declined in recent years.⁴¹ The USDA reports that average annual per-capita sugar consumption increased 39% from 1950-59 to

2000.⁴² During the same time period, the prevalence of obesity among Americans reached a historically high level with one in three adults and one in six children being classified as obese in 2011.⁴³ The temporal association between increasing consumption of SSBs and increasing obesity prevalence in the U.S. suggests a link between these two outcomes.^{44,45,46} A systematic review of literature published between 1970 and 2010 indicates that at least 20 percent of increased average weight may be attributed to this increased per capita consumption of SSBs in the U.S. between 1977 and 2007.⁴⁴

SSB and obesity, diabetes, and metabolic syndromes

An increasing body of evidence from epidemiological studies suggests that consumption of SSBs is associated with increased caloric intake, obesity, hypertension, and type 2 diabetes.^{36,47,48,49} Evidence indicates that fructose, a component of both sucrose and high fructose corn syrup, is harmful to cardiometabolic health of individuals of all ages.⁵⁰ Randomized clinical trials show that substitution of caloric beverages with noncaloric beverage or plain water will help lower weight among adults⁵¹ and adult obese women,⁵² reduce chances of developing type 2 diabetes among middle-aged women,⁵³ and result in better weight control among adolescents.⁵⁴

SSBs and child and adolescent health

Children and teens are even more prone to high consumption of SSBs. Average caloric consumption from SSBs by children increased by 60% between 1989 and 2008,⁵⁵ and 65% of kids 2-19 drink two or more SSBs each day.⁵⁶ Consumption of SSBs is also associated with reduced milk and calcium intake among children⁵⁷ and heightened serum uric acid and blood pressure in adolescents.⁵⁸ Young children who regularly consumed SSBs between meals were found to be at double the risk of becoming overweight compared to children who did not.⁵⁹

SSBs and childhood obesity

While evidence linking SSB consumption and some negative health outcomes is established, evidence linking SSB consumption to childhood obesity is weaker and in need of additional research. A systematic review of 30 studies and a review study of 68 studies reported a positive association between SSB or free sugar consumption and weight gain and obesity for children for adults.^{47,60} Another study found that for each additional 12-ounce soda consumed by children each day, the odds of becoming obese increased by 60% during 1.5 years of follow-up.⁶¹ Analysis of the California Health Interview Survey (CHIS 2005), found that adults who drink one or more sodas a day are 27% more likely to be overweight or obese than adults who do not drink soda.⁶² However, one meta-analysis study focusing on 12 studies of youths concluded that SSB consumption and body mass index of children was near zero.⁶³ A study using the NHANES 1999-2002 found that increased beverage consumption was associated with increased energy intake but not body mass index for preschool children.⁶⁴ Another study examining the NHANES 2003-2004 reached a similar conclusion regarding SSB consumption and total energy intake but did not examine weight outcomes.⁶⁵ A longitudinal study of adolescents reported that beverage consumption was not associated with weight gains.⁶⁶



Fig 8. Sugar-sweetened beverages' links to obesity and chronic disease ³⁶

Source: Malik, Popkin, Bray, Després, Hu. 2010.

SSBs and oral health

There is overwhelming evidence linking sugar and tooth decay; sugar provides sustenance for bacteria that cause tooth decay. One longitudinal study found that between-meal consumption of soda four or more times per day increased the risk of dental decay by 179%.⁶⁷ Research of child oral health shows that regular consumption of SSBs, and carbonated SSBs in particular, nearly doubles the risk of dental caries in children. One study found that an increase of one ounce of soda a day increases a child's risk for cavities by 26%.^{68,69} In addition, the acid in soda and sports drinks causes erosion of tooth enamel.⁷⁰ Untreated oral health problems can also lead to additional health problems as the infections associated with tooth decay can spread through other body systems.

Findings: Health Status of SNAP Participants

There is limited research and information available about the health status of SNAP participants specifically. Therefore, this summary also includes information about the health status of the broader low-income population.

The Behavioral Risk Factor Surveillance System (BRFSS) 2011 survey estimates that 63.7% of Illinois' adult population was overweight or obese. The obesity rate in Illinois for adults was 27.1% and for children was 20.7%. The BRFSS survey shows that low-income populations are more affected by obesity. Slightly over 33% of adults with annual incomes of less than \$15,000 per year are estimated to be obese compared to 25% of adults who earn over \$50,000.⁷¹

While low-income individuals in general are more likely to be overweight or obese, information on the relationship between overweight and obesity and SNAP participation is mixed. According to the USDA's current factsheets on the topic, there is no consistent evidence of an association between SNAP participation and overweight or obesity.⁷² Larson and Story published a review of the literature on food insecurity (reduced quality, variety, or desirability of diet and/or multiple indications of disrupted eating patterns and reduced food intake) and weight status in 2011, covering five cross-sectional studies and three longitudinal studies that addressed SNAP participation and weight status in children.⁷³ The five cross-sectional studies found no evidence to suggest that SNAP benefits increased risk for obesity. However, the longitudinal studies found that a longer duration of SNAP participation is related to higher BMI in some groups of children.

It is difficult to disentangle SNAP participation and other factors such as food insecurity and the food environment. The Institute of Medicine (IOM) points to a range of factors that need to be considered when looking for associations between SNAP participation and health outcomes.⁷⁴ IOM points to individual and household factors such as: dietary knowledge, preferences, culture, available food storage and preparation space, and special needs. Further, the amount of time a purchaser has available for shopping and preparing meals impacts what families eat. In a crosssectional analysis of the 2007 Adult California Health Interview Survey, Leung and Villamor find that, after adjusting for some of these factors - sociodemographic characteristics, food insecurity and participation in other programs - the prevalence of obesity was 30% higher in SNAP participants than in non-participants. Leung and Villamor acknowledge that there are additional factors that cannot be accounted for in their analysis.⁷⁵ Many SNAP households face environmental and structural barriers to accessing and consuming healthy food. In particular, access to supermarkets and healthy, fresh foods; cost and pricing of healthy food options; and lack of knowledge about nutrition are factors that contribute to household purchasing patterns. In addition, there is emerging evidence that unhealthy food including SSBs are more heavily marketed to minorities, presumably influencing their beverage choices. One recent study found that African American children have 60% more exposure to foodrelated TV advertising than white children because of targeted marketing and higher television viewing rates. Another study by the Yale Rudd Center for Food Policy and Obesity found that African American children and teens see at least 50% more fast food ads than their white peers. Controlling for differences in TV viewing times, analysis of 2008-2010 Nielsen data by the Yale Rudd Center for Food Policy and Obesity found that African American children and teens were exposed to higher-than-expected levels of SSB marketing, including viewing twice as many ads for energy drinks, sports drinks and flavored water than their white peers. While exposure to SSB ads is lower overall on Spanish-language channels, preschoolers watching Spanish-language channels were exposed at higher-than-average levels to some brands like Coca-Cola and Powerade. Overall, SSB advertising increased substantially on Spanish-language TV from 2008 to 2010. In fact, on Spanish-language television, Hispanic preschoolers saw 33% more SSB ads in 2010 compared to 2008, and children and teens saw 49% and 99% more SSB ads, respectively.⁷⁶ Yet another recent study found that TV programs for African American

audiences had more food advertisements than 'general market' programs, and the advertisements were more likely to be for fast food, candy, soda, or meat and less likely to be for cereals and grains, fruits and vegetables.

SNAP plays a critical role in reducing food insecurity, which has substantial health implications. Food insecurity is associated with diabetes, heart disease, depression, obesity and pregnancy complications. Food insecurity can be particularly detrimental to child health and development. Research shows clear links between food insecurity and low birth weight, birth defects, developmental risk as well as increased incidence of colds, mental health problems and poor educational outcomes for children.⁷⁷

Ratcliffe and colleagues recently published an analysis of how much SNAP participation reduces food insecurity. They find that participation in SNAP reduces the likelihood of a household being "food insecure" by approximately 30% and reduces the likelihood of a household being "very food insecure" by 20%.⁷⁸ Very food insecure households are those that report "multiple indications of disrupted eating patterns and reduced food intake."

Findings: SNAP Participants and Sugar-Sweetened Beverages

Existing research reveals mixed findings when comparing purchase and consumption of SSBs by low-income households in the U.S. with the overall population. Some recent studies have found higher consumption of SSBs among SNAP households, while one study looking at children and adolescents found that those receiving SNAP did not consume SSBs at higher rates.

Because data specific to SNAP receipt is difficult to obtain, this HIA conducted analysis of SSB consumption from the NHANES data set among people who are SNAPeligible (i.e. income eligible, actual SNAP receipt status unknown), and found that there is generally higher consumption of SSBs among SNAP-eligible individuals, and especially of soda and fruit drinks. In this analysis, SSB consumption by SNAP-eligible adults is higher across all races and ethnicities than among non-SNAP-eligible adults. For African American and Hispanic youth, SSB consumption is very similar between the SNAP eligible and non-SNAP eligible populations, whereas white SNAP-eligible youth do report consuming substantially more SSBs than non-SNAP-eligible white youth.

Most Americans consume diets that do not meet the Dietary Guidelines for Americans as established by the USDA. The USDA reports that the average score on the Healthy Eating Index^a (HEI-2005) is 58 out of 100. The average score for SNAP participants is 52, and the average score for income eligible non-participants is 56.¹⁶

The USDA's 2012 Building a Healthy America Report presents the following table regarding purchasing and consumption patterns among SNAP participants:

^a The Healthy Eating Index (HIE) is a measure used by the USDA to assess conformance to federal dietary guidelines.

SNAP Participants' Food Choices				
Somewhat Less Likely to Consume	Somewhat More Likely to Consume			
Whole grains	Cornbread or corn tortillas			
Raw vegetables	Potatoes			
Reduced-fat milk	Whole milk			
Sugar-free soda	Regular soda			

Source: http://www.fns.usda.gov/ORA/menu/Published/SNAP/FILES/Other/BuildingHealthyAmerica.pdf

Currently, the USDA does not conduct any data gathering from retailers on purchase patterns among SNAP participants and it is therefore not possible to make conclusive statements regarding SSB purchases.

To overcome this data limitation, a limited number of studies have examined secondary data on consumption and purchasing patterns for individuals within particular households. One of the earlier studies by the USDA using NHANES data from 1999-2002 found that SNAP participants are no more likely to consume soft drinks than are higher-income individuals.⁷² However, three studies using more recent waves of the NHANES and one study in New England using grocery scanner data on household grocery purchases have found that low-income households and SNAP participants purchase and consume more SSBs than the average population.^{79,80,81,4} More specifically, Leung and colleagues (2013) found that children and teens in SNAP households consumed 43% more SSBs than other low-income children who were not part of the SNAP program.⁸⁰ Han and Powell (2013) found that low- versus high-income was associated with heavy (>500 kcal/day) consumption of SSBs for children and adults but not for adolescents; however, parents' low-education was a significant predictor of heavy SSB consumption among adolescents.⁴¹ A cohort study of 3,126 youth from the Early Childhood Longitudinal Survey (ECLS) by Fernandes (2012) found no differences in the frequency of soda consumption between youth from SNAP households and their peers. The study concludes that SNAP participation does not predict consumption of soft drinks, 100% fruit juice nor milk for children.⁸²

In addition, a recently completed survey by NPD Market Research Group, which was reported by a *Chicago Tribune* article in June 2013, also found that SNAP participants are more likely to drink SSBs than other consumers.⁸³ (Due to the price of the market research report, we were unable to obtain this privately conducted study to independently report its findings.) In another recent study from California, researchers used several statewide surveys to examine the risk factors for SSB consumption. Their analysis yielded several statistically significant risk factors including: males, teens, minority children and low parent education levels. However, household poverty status was not found to be a statistically significant risk factor for SSB consumption.⁸⁴ Thus, the accumulating evidence from recent surveys, and in particular the more recent waves of the NHANES (which is conducted biannually), suggests that children and teens across all income levels consume sugar at very high levels, particularly relative to the American Heart Association Guidelines.

Among youth, the per capita consumption of SSBs was higher for those who lived in SNAP-eligible households during the two most recent economic recession years in the U.S. (2001-2002 and 2007-2008). By 2009-2010, youth who lived in SNAP-eligible and non-SNAP-eligible households had fairly similar levels of SSB intake. Among adults, the per capital consumption of SSBs was consistently higher among SNAP-eligible households during the 10-year period from 1999-2000 to 2009-2010.

Examining the two most recent waves of the NHANES (2007-2008, 2009-2010) stratefied by race/ethnicity reveals that differences across SNAP-eligibility status in average per capita caloric intake from SSBs is larger among white youth and adults compared to other racial/ethnic groups.

Fig. 9: Daily Energy Intake from Sugar-Sweetened Beverages (SSBs), by Race and Supplemental Nutrition Assistance Program (SNAP) Eligibility Status, Youths ages 2-17 years, 2007-2010



Source: NHANES 2007-2008, 2009-2010. Calculations provided by Roy Wada and Lisa Powell, University of Illinois at Chicago.

Fig. 10: Daily Energy Intake from Sugar-Sweetened Beverages (SSBs), by Race and Supplemental Nutrition Assistance Program (SNAP) Eligibility Status, Adults ages 18-65 years, 2007-2010



Source: NHANES 2007-2008, 2009-2010. Calculations provided by Roy Wada and Lisa Powell, University of Illinois at Chicago.

Assessing intake by beverage type shows youth and adults from SNAP-eligible households consume more soda and fruit drinks than their respective counterparts from non-SNAP-eligible households. However, on average, youth from SNAP-eligible households consume less coffee/tea and sports drinks than non-SNAP-eligible youth.

Fig. 11: Daily Energy Intake from Sugar-Sweetened Beverages (SSBs), by Beverage Type and Supplemental Nutrition Assistance Program (SNAP) Eligibility Status, Youths ages 2-17 years, 2007-2010



Source: NHANES 2007-2008, 2009-2010. Calculations provided by Roy Wada and Lisa Powell, University of Illinois at Chicago.

Fig. 12: Daily Energy Intake from Sugar-Sweetened Beverages (SSBs), by Beverage Type and Supplemental Nutrition Assistance Program (SNAP) Eligibility Status, Adults ages 18-65 years, 2007-2010



Source: NHANES 2007-2008, 2009-2010. Calculations provided by Roy Wada and Lisa Powell, University of Illinois at Chicago.

In summary, the evidence is mixed regarding the consumption of SSBs among SNAP recipients compared to non-SNAP recipients, with some recent studies finding higher consumption of SSBs among SNAP households in general, while another recent study looking at children found that children receiving SNAP did not consume SSBs at higher rates than children in non-SNAP households.

This HIA conducted analysis of SSB consumption from the NHANES data set among people who are SNAP-eligible (i.e. income eligible, actual SNAP receipt status unknown), and found that there is generally higher consumption of SSBs among SNAPeligible individuals especially of soda and fruit drinks. However, for African American and Hispanic youth, SSB consumption is very similar between the SNAP-eligible and non-SNAP-eligible populations, whereas white SNAP-eligible youth do report consuming substantially more SSBs than non-SNAP-eligible white youth. According to this same analysis, among adults, SSB consumption by SNAP-eligible individuals is higher across all races and ethnicities that among non-SNAP-eligible individuals.

Findings: Focus Groups with SNAP Participants in Illinois

The Illinois Public Health Institute conducted focus groups and surveys with 24 SNAP participants at four sites in Illinois between December 2012 and March 2013. The sites were Chicago (west side), Chicago (south side), Will County (south of Cook County), and Jackson County (southern Illinois). The following is a summary of the key findings from those focus groups and surveys. (Focus group questions and methods are included in Appendix B.)

Respondent Characteristics and Limitations

All respondents were women and participants in the Women, Infants and Children (WIC) program^b, meaning they were pregnant and/or had children under the age of five. The authors recognize that this sample has limitations and is not representative of all SNAP households in Illinois.

Eighty percent of respondents had at least two children, and 60% had children over age five. Respondents ranged in age from 21 to 38 years of age. Respondents' reported time using the Link card (Illinois' SNAP EBT brand) ranged from one month to 14 years (25% reported less than three years, 25% reported three to five years, 40% reported over five years). Ninety percent of respondents reported shopping at two or more types of retailers. The most common response was a supercenter (such as Walmart or Target).

As is true with most focus groups, this is a small sample and a convenience sample. As such, we are able to gather a range of input and perspectives from SNAP participants in different parts of the state, but not able to report generalizable or

^b The WIC program includes nutrition education, and a limited package of allowable foods that are deemed nutritional for children. SSBs cannot be purchased with WIC.

representative findings. By utilizing a written survey with open-ended discussion questions, we were able to gather both specific information about self-reported budget and behavior as well as more in-depth ideas and perspectives. Focus groups can provide insight into the attitudes, feelings and beliefs of participants, and have additional value because the group setting fosters exchange and more elaboration of ideas.

Note 1: Because SNAP is more commonly known by the brand name "Link" in Illinois, we refer to "Link" in the findings and quotes below.

Note 2: For the surveys and focus groups, "sugary drinks" were defined as: "soda (not diet), sports drinks, energy drinks, sweet tea, and fruit drinks (not 100% juice)."

Note 3: For the purposes of the focus group, we used the term "sugary drinks" interchangeably with the term "sugar-sweetened beverage".

Key Findings from Focus Groups with SNAP Participants

While the focus groups showed some consensus, there were a variety of opinions expressed and the perspectives were certainly not homogenous.

Health and Nutrition Status of SNAP Participants

When asked "How does the Link card affect what your household eats and drinks?," respondents emphasized that it facilitates their ability to access affordable food, put food on the table, improves their nutrition and eating habits, provides choice, and helps participants plan and budget for the month.

When asked about household nutrition habits and barriers to eating healthfully:

- A majority of respondents stated that their own households are careful to consume healthy and nutritious food and drinks, and were quite critical of friends, family, neighbors, and others who eat too much junk. (It is well documented that this is a common response when people are asked to assess their own issues as well as issues in the broader social network or community.)
- When discussing perceptions of why other households don't eat in a more healthy manner, cost was the top issue but respondents' also pointed to a lack of education and knowledge about how to cook healthy food, and to a lack of motivation on the part of some households to eat more healthfully. When asked for any additional ideas or comments, many respondents emphasized the importance of nutrition and health education and ideas for cooking foods purchased with Link.
- Access to a grocery store was "very much" an issue for 20% of respondents and "somewhat" of an issue for an additional 40%. Many respondents also pointed out in discussion that most packaged food has a lot of sugar and fat. Several people mentioned not having enough time to prepare healthy food.

Cost/Affordability of Healthy Foods and Beverages

The high cost of healthy foods was overwhelmingly identified as the respondents' biggest barrier to consuming healthy and nutritious food and drinks. One respondent in Will County shared: "I buy healthy food, and trust me, it costs a heck of a lot more money than buying junk." A respondent in Chicago stated: "The cost of food is ridiculous. Instead of healthier food, some people have to buy cheaper versions and people take what they can get." Another Chicago respondent pointed to the importance of policy change for food production and pricing. She explained: "We are not producing the goods we buy, we are just consuming what's out there." Many focus group participants felt that the proposed policy to eliminate SSBs from SNAP would not address issues related to the cost of healthier options.

SNAP Participants and Sugar Sweetened Beverages

Respondents were able to name specific health issues that they have been told are associated with consuming substantial amounts of sugar. Some felt strongly that sugary drinks were bad for health while some were skeptical that sodas and other sugary drinks are major contributors to overweight and obesity.

Of the respondents who provided estimates on the questionnaires, 71% (12 of 17) reported spending more out of pocket on food and drinks than they spend in total on SSBs, while the remaining respondents reported spending very little out of pocket and relying almost exclusively on SNAP. This finding suggests that if the proposed restrictions were put into place, many SNAP households would be able to continue purchasing SSBs at no additional expense by simply shifting which products are purchased with cash and which products are purchased with SNAP.

The focus groups discussions revealed that many participants were not aware of the sugar content of some categories of beverages, particularly fruit drinks and sports drinks, and were not aware of the negative health effects associated with regular consumption of those drinks. For example, one respondent in Jackson County shared: "My daughter will not drink water and I am concerned she may get dehydrated if she doesn't get to drink fruit drinks – they are better than soda." The focus groups revealed a clear need for education about the sugar content in categories of beverages like fruit drinks and sports drinks.

Response to Proposed Policy of Eliminating SSBs from SNAP

When asked "Some state-level senators and representatives have proposed the idea of no longer allowing sugary drinks (like soda, energy drinks, and fruit drinks) to be purchased with the Link card. What do you think of that idea?":

- Only three out of 22* respondents were fully in support, and nine of 22 expressed that they could be in favor of some of the drink categories being eliminated from Link eligibility (most often soda and energy drinks) but not all (most often fruit drinks). Ten respondents were strongly opposed, as represented by the response of one respondent in Will County: "I don't like that idea. I feel everyone should be able to drink what they want." *Two focus group participants did not respond to this question.
- Respondents in two different focus groups suggested setting a limit for how much could be spent on sugary drinks and other junk food rather than an all-out prohibition.
- Many respondents pointed out that they did not think this would work because people find a way to buy what they want, using money out-of-pocket if necessary.
- Many respondents were concerned about how restrictions would affect Link participants' ability to buy drinks for special occasions like children's birthday parties.

When asked, "What if there was a policy where you could receive extra Link money if you did not buy sugary drinks?":

- Most respondents responded favorably -- that an incentive would reduce their household's SSB purchases -- but many were also skeptical that it would affect others' SSB purchasing behavior.
- Three respondents felt strongly that even a small incentive would persuade some people to spend differently with their Link card. Several respondents stated that the amount of the bonus would have to be substantial in order to change what people buy with Link. When asked if \$10 or \$20 per month would be enough, they said no.

The question of what would be purchased instead of sugary drinks in the case of a ban or if participants received an incentive was asked in several ways and yielded a range of responses. Some responses were specific, including items like fruits and vegetables, meats, water and drink flavor packets; however, the majority of response were more general like "more food for meals."

Response to Other Policies and Programs to Improve Nutrition in SNAP

When asked, "What if there was a new policy for Link where you could get extra Link money if you purchased more fruits and vegetables?":

- All respondents were favorable toward this idea, and felt it could help to address some of their cost and affordability concerns.
- When asked how this would impact what they buy, all respondents pointed to a positive impact on purchase of fruits and vegetables but none tied this into any broader impact on overall purchasing behavior.

SNAP, Stigma and Health

When asked, "How do you feel about using the Link card and being a participant in the SNAP program? How do you think you are perceived by others for using the Link card?":

• Many respondents acknowledged that they hear negative or rude comments, and a few admitted that they had waited until they were in very serious economic conditions before applying for Link. For example, one respondent in Jackson County shared "My pride kept me from applying for Link until my electric was cut off." Two respondents said it affects when and where they use the Link card.

When asked, "Would restrictions on purchasing sugary drinks with the Link card change your feelings about participating in the program?" all respondents said they would continue to participate in the program but many reiterated that they were not in favor of the change.

Findings: Interviews with Three Food Retailers in Illinois

The Illinois Public Health Institute conducted phone interviews with three independent grocers that operate in the Chicago metro area. Their retail chains ranged in size from two stores to 36 stores. Each of the retailers had some stores where SNAP makes up a majority of their sales and some stores where SNAP is a smaller part of their market.

The purpose of the interviews with retailers was to understand their perspectives on the proposed changes to SNAP eligible products and other potential policy and program changes to SNAP, purchasing and nutrition for SNAP households, and the role for grocers in providing access to healthy nutritious food for SNAP households. More information and the list of interview questions are in Appendix B.

Key Findings from Interviews

None of the retailers was in favor of not allowing SSBs to be purchased with SNAP, but their level of opposing it varied.

All of the retailers were concerned about the logistical aspects of setting up and administering the changes and the burden on retailers to keep the system updated with new drinks over time. All of the retailers said that the administrative burden is lessened by technology. One retailer said that retailers would likely address the implementation complications of an SSB restriction in SNAP by applying strategies and lessons from experiences with WIC and from programming their systems to deal with a recent Illinois law that created differential sales tax levels. All three said the change had the potential to be more burdensome to small retailers. One retailer said that he felt it would affect his business and bottom line substantially and that they had already made a decision not to expand SNAP to additional stores because of the broader set of uncertainties about whether the SNAP program will be cut. He expressed concern that proposed changes or cuts to SNAP have the potential to "crush grocers in areas where stores are needed the most."

All three retailers said they did not think that restricting what people can buy with SNAP would cause retailers to drop out of the program. One retailer expressed that "It wouldn't be very smart business to not accept SNAP." One retailer said that some small retailers who operate in areas where SNAP is not a big part of their business might choose to drop out.

While the interviews did not specifically inquire about WIC, the respondents saw a similarity between the limited package of eligible items in WIC and the concept of narrowing eligible items in SNAP via a restriction on purchasing SSBs and spontaneously referred to their WIC experiences during the interview. One retailer was particularly concerned about where these types of restrictions would end – he said it might start with SSBs but he could see the program becoming more and more restrictive. Another retailer suggested that he would be favorable toward SNAP being re-tooled to be more like the WIC program so that only certain products could be bought. The other two retailers were not in favor of a WIC-like model because they like being able to provide all customers with the food choices they want. They expressed that "customer service gets deteriorated with WIC" because the customer feels uncomfortable and so does the cashier.

Two of the retailers emphasized that they have worked hard to treat SNAP customers the same as all other customers and that they have liked the transition to Link EBT system so the cashier can treat all customers the same. One retailer expressed that an SSB restriction would result in "the customer seeing the retailer as the bad guy" because they have to enforce the restrictions. Another retailer expressed "I want my customer to live a long and healthy life, but I can't dictate what they buy."

All three retailers emphasized that prices encourage customers toward buying certain products – that the cost of fruit drinks compared to 100% juice, or flavored water compared to milk – is a big issue that will not be resolved by the proposed change.

All three retailers are currently engaged in educational activities in partnership with other community organizations, and they were all interested in expanding that. Two provide cooking classes on site.

All three retailers expressed doubt that the proposed restrictions would change what people like to drink based on what they observe that their customers like to buy. Two retailers also mentioned that they sell a lot of Kool-Aid packets and bags of sugar and anticipate those sales would go up if restrictions on SSBs were implemented.

All three retailers like the idea of incentives for buying more fruits and vegetables and thought that it could help some customers with the cost of purchasing fruits and vegetables. Two of the retailers were skeptical that their customers would start to eat a

lot more fruits and vegetables, but did like the idea of incentives. One of the retailers expressed that produce is his second biggest department in terms of floor space but has the smallest sales so he is looking for ways to improve that.

While all three retailers liked the idea of a reward for not buying sugary drinks in theory, they were concerned about the practicalities of implementing such a system.

Retailers confirmed that some energy drinks are "SNAPable" and some are not.

Findings: Analysis of Proposed Policy's Impact on Nutrition and SSB Purchasing

In response to proposals to eliminate SSBs from SNAP, a few articles and analyses have been written, and we summarize that literature here. In 2009, Alston *et al* explored the likely impacts of allowing SNAP participants to purchase only healthy foods with their SNAP benefits.⁸⁵ They find that SNAP households will probably increase their purchase of healthy food with SNAP, but they are uncertain that there would be change in the overall purchase of unhealthy food by SNAP households. They elaborate that market-wide consequences are very unclear because of uncertainty about consumer behavior and price responses to those changes. They also raise the concern that more restrictive rules on the use of SNAP might discourage participants, but it is "likely to be an ineffective and inefficient instrument for bringing about desired outcomes unless accompanied by additional policy instruments" such as incentives and changes in structural policies related to the cost of healthy and unhealthy food.

A team of nutrition policy experts joined with the Center for the Study of the Presidency and Congress to publish the SNAP to Health policy recommendations in 2012 for improving nutrition in the SNAP program.¹⁸ Together they conducted comprehensive scientific literature review, key informant interviews, stakeholder surveys, and statistical analysis of NHANES data from 1999-2008 National Health in order to identify innovative and promising policy and program ideas to improve nutrition and health of SNAP participants. Regarding policy on piloting and evaluating new approaches to SNAP, the report recommended that the USDA grant more waivers for pilot projects for "incentivizing the purchase of healthy foods and/or limiting the purchase of high-calorie, nutrient-poor products." With respect to policies for limiting unhealthy food purchases, the SNAP to Health team emphasized that a "pilot and evaluate" approach should be pursued given the lack of certainty about the effectiveness of the policy and how to maximize its health benefits while minimizing health risks.

The Institute of Medicine (IOM)'s 2012 report Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation included a brief analysis of approaches to improving nutrition in the SNAP program.⁸⁶ After a review the evidence and policy context related to implementing restrictions within SNAP, the IOM chose to promote as an important first step: <u>Adopt Consistent Nutrition Education Policies for Federal</u> <u>Programs with Nutrition Education Components</u>. Specifically, IOM believes there needs to be a focus on "updating the policies for Supplemental Nutrition Assistance Program Education (SNAP-Ed) and the policies for other federal programs with nutrition education components to explicitly encourage the provision of advice about types of foods to reduce in the diet, consistent with the Dietary Guidelines for Americans." The IOM expressed that there is currently insufficient evidence about which approaches to regulation – restrictions and incentives – would be most effective and practical.

In 2012, The Harvard School of Public Health and the Center for Science in the Public Interest published the results of a small survey looking at public attitudes toward proposed restrictions on SNAP purchases.⁸⁷ The survey included 850 respondents including 150 self-identified SNAP participants. The results from their survey are as follows:

	Q: Should food stamps not be allowed for buying sugary soft drinks?					
Total sample Yes	s = 59%	No = 39%				
SNAP user sample Yes	s = 32%	No = 64%				

Q: Would you support a change in SNAP that would give participants the choice of either:

(a) Continuing in the current program that allows food stamps to be used to buy soda OR

(b) Participating in a revised program that would provide ADDITIONAL food stamps to recipients if they forgo soda purchases?

Total sample	Yes = 55%	No = 40%
SNAP user sample	Yes = 69%	No = 32%

The Harvard research team found that the SNAP participants they surveyed were much more positive about the idea of having the choice to restrict their own purchase of SSBs and receiving a bonus of additional SNAP dollars in return.

In 2012, Andreyeva et al published the first ever study of grocery receipts looking at beverage purchases by SNAP participants.⁸¹ The study compared WIC participants that were simultaneously enrolled in SNAP with WIC participants who do not participate in SNAP (WIC-only). They used grocery store scanner data from a large supermarket chain with stores in New England to assess beverage purchases of 39,172 households. They found that SNAP/WIC households had higher overall monthly spending on beverages (\$17) than WIC-only households (\$9). SNAP/WIC households made more SSB purchases than the WIC-only households and overall population average. For the SNAP/WIC customers, 58% of all beverage purchases were SSBs compared to 48% of all WIC-only beverage purchases. SNAP/WIC households averaged 5% of total grocery expenditures on SSBs, and SNAP benefits paid for 72% of the SSB purchases made by SNAP households. For the SNAP budget shown here in Table 1 from Andreyeva's study, the SNAP/WIC household spends \$120 in SNAP benefits and \$60 out of pocket on total groceries for the month. Based on 5% of the SNAP household's total budget being spent on SSBs, the total SSB expenditures for the month would be \$10 (\$200x5%). Thus, the total spent on SSBs (\$10) is substantially less than the amount the household is

spending out of pocket (\$60), and therefore SSBs will be affordable to SNAP households even if they are restricted in SNAP.

		M	onthly M	
Household variables		WIC-only	SNAP	
Spending (\$)			-	
Personal funds		114.39	60.05	Spending out-of-pocket = \$60
WIC		11.79	15.26	
SNAP		_	120.28	
Cash assistance (nonfood EBT)		0.71	4.61	
Total grocery		126.90	200.20	SSB expenditure = $$200 \times 5\%$ =
Transactions using WIG January-June 2011	C,	26.2	32.4	
Transactions using cas assistance, January- 2011	h June	0.6	8.2	
a	Store-level			
of households	WIC-only	SNAP	National-level ^a	
Median income (\$)	60,343	54,085	51,914	
Have 4-year bachelor's degree	16.9	14.9	17.6	
English not spoken in home	15.3	18.4	20.1	
Unemployment	7.5	8.5	7.9	
Using SNAP	9.1	12.4	9.3	
In poverty	7.1	9.4	10.1	
White, non-Hispanic	83.3	80.0	64.7	

Source: Andreyeva, T, et al. (2012). Grocery store beverage choices by participants in federal food assistance and nutrition programs. American Journal of Preventive Medicine.

Based on this data from Andreyeva's study and USDA data that confirms that many SNAP households are spending substantial out-of-pocket funds on food and beverages in the month, it seems likely that if there were restrictions on SSB purchases in SNAP, many households would shift some of their spending to purchase SSBs in cash and other products with SNAP benefits, thereby negating the intent to decrease purchases of SSBs. We have not been able to find any behavioral modeling methods that would be able to accurately predict if there would be an expected decrease in purchase in SSBs, and if so the magnitude of that decreased purchase. Most of the participants in our focus groups believed SNAP households would find a way to continue to purchase the beverages they are used to drinking. Given the high quantities of SSBs found to be purchased by SNAP households, Andreyeva and her colleagues recommend implementing a small-scale pilot (something on the scale of a few contiguous counties) to evaluate the impact of the proposed restrictions and understand what policy and administrative elements need to be in place to maximize the positive nutritional impacts.

Andreyeva and colleagues also recently published another article (May 2013) that provides some data from a recent relevant policy change within the WIC program.⁸⁸ In 2009, the WIC food package was revised to lessen the amount of 100%

juice that each household would get from the program. Andreyeva's study looks at grocery receipts for nine months before and after the policy change to see how it impacted WIC households' purchasing of 100% juice. Among the households in the sample, the amount of 100% juice purchased with WIC decreased in volume by 43.5%. Juice purchases with out-of-pocket cash increased some, resulting in a net 23.5% reduction in volume of 100% juice purchased by WIC households. At the same time, their purchases of fruit drinks and "new age" beverages (such as energy drinks and vitamin water) increased by 21% and purchases of soft drinks declined by 12%. There are two important takeaways from this study. First, although the households in the study did buy some additional beverages to compensate for the lost juice, their overall spending on beverages in the month went down. Secondly, while there was a drop in soft drink purchases, the substantial increases in purchases of fruit drinks and new age drinks is concerning. It appears that many households replaced some of the reduction in 100% juice subsidy with cheaper and even less nutritious fruit drinks and products like enhanced waters. The study raises interesting but unanswered questions such as whether the overall calorie footprint went down, and why spending on fruit and new age drinks increased: as suggested by our focus groups, did participants consider them to be less expensive but relatively healthier juice alternatives from among the remaining beverage options?

Findings: Other Policies and Programs for Improving Nutrition in SNAP

The USDA is particularly interested in incentive-based approaches to improving nutrition in the SNAP program, as expressed in their response to New York's request for a waiver to eliminate SSBs. The USDA is currently in the midst of an in-depth pilot and evaluation of the Healthy Incentives Pilot in Hampden County, Massachusetts. In Hampden County, 7,500 SNAP households have been assigned to the Healthy Incentives Pilot group and 47,500 SNAP households are in the control group and continue to receive the same SNAP benefits as previously. Those households in the Healthy Incentives Pilot group are earning an incentive of 30 cents per dollar spent on fruits and vegetables. Early evaluation results from the Healthy Incentives Pilot indicate that pilot participants consumed one-fifth of a cup more fruits and vegetables per day than non-participants, which was equivalent to 25% more fruit and vegetable intake. Continuing evaluation of healthy incentives will provide invaluable information about how incentive operating in a range of retail channels including supermarkets, grocery stores, convenience stores and farmers markets.⁸⁹

In Michigan, there is also a new pilot of "Double Up Food Bucks" in three Detroit grocery stores. The program started with five farmers' markets and \$38,000 in fruit and vegetable redemptions in 2009 and has grown to 75 farmers markets and \$1.9 million in fruit and vegetable redemptions in 2012. Participating markets saw an increase of 16% in SNAP participants at markets from 2010 to 2012. Seventy-eight percent of Double Up Food Bucks customers surveyed reported that they bought more fruits and vegetables because of the program.⁹⁰ In the new grocery store pilot in Detroit, customers who

spend at least \$10 on fruits and vegetables using a SNAP EBT card will receive a Double Up Food Bucks card worth \$10 toward their next purchase of produce.

SNAP to Health also identified eleven domains for policy and program approaches to improving nutrition in SNAP: Protect Current Funding Levels for SNAP; Collect Data on SNAP Purchases; Identify a Set of Integrated Strategies that Would Help Align SNAP Purchases; Focus Attention on Children's Health in SNAP; Use Incentives to Make Fruits, Vegetables, and Whole Grains the Easy Choice; Establish Stronger Food Stocking Standards for SNAP Retailers; Provide States with Flexibility to Pilot and Evaluate Fresh Approaches to SNAP; Promote Innovation in SNAP; Create a Partnership between USDA and HHS to Move SNAP towards Health; Establish a National Strategy of Fresh Approaches to Strengthen SNAP; and Strengthen SNAP-Ed. The SNAP to Health team strongly recommends a comprehensive approach to improving nutrition and health in SNAP, with a "principal message that SNAP funding must not be cut and should be maintained as a lifeline for low-income Americans, but the program should be strengthened and modernized to serve as a 21st century public health instrument to improve nutrition, alleviate food insecurity, reduce obesity rates, and enhance the health of America's low-income population."¹¹⁸

Findings: Literature Review - Public Aid, Stigma and Health

The occurrence of "welfare stigma" is well documented in sociological literature. The USDA reports that stigma against SNAP users continues to persist despite efforts to correct public misperceptions of SNAP and to reduce stigmatization (USDA, 2011).

According to Rainwater, public aid recipients in the United States are uniquely stigmatized due to prevailing American cultural sensibilities and attitudes towards poverty as a personal shortcoming.⁹¹ Deeply ingrained in American culture is the belief that people can pull themselves out of poverty with determination and hard work, and that individuals who remain in poverty therefore lack the resolve and self-discipline to change their situations. Those who remain poor are thus viewed as responsible for their own economic misfortune and are undeserving of public assistance. As a group, public aid recipients are derided with claims that they "abuse the system" and prefer to rely on government handouts rather than work hard. Implicit in the condemnation of public aid recipients are culturally-embedded race, class and gender prejudices.⁹²

Stigma is cited as a substantial deterrent to participation in public aid programs.⁹³ In a 2010 USDA study, 44% of eligible nonparticipants in the SNAP identified stigma as a primary reason for nonparticipation. Beyond functioning as a potential participation deterrent, the USDA has pointed to many ways that stigma experienced by SNAP participants can have substantial health implications.³¹ The literature on welfare stigma largely focuses on how stigma is transmitted and experienced by public aid recipients.

While the majority of early research conceptualized welfare stigma as a more or less constant phenomenon resulting from the act of participating in a welfare program

per se, more recently researchers have come to understand that the nature of stigma is actually much more variable, complex, and dynamic than previously thought.^{94,95} This more recent research focuses less on modeling and measuring welfare stigma as one aggregate factor, and instead emphasizes building an understanding of the social construction of welfare stigma and exploring practical policy changes that could reduce SNAP users' experience of stigma.^{94,95} Current literature reframes the construction of stigmatization, differentiating between stigma derived internally within the individual who receives public aid as a result of his/her own feelings of dependence on the government, and external stigma, resulting from public knowledge of the individual's status as a welfare recipient and the judgment the recipient feels by others as a result of his/her welfare use or the anticipation of such judgment.⁹⁶ While internal stigma can be understood as self-condemnation or shame an individual feels, external stigma is the individual's perception of condemnation and disapproval by those around him/her. Yaniv (1997) and Stuber & Schlesinger (2006) refer to this distinction respectively as self-inflicted vs. peer-inflicted and self-identity vs. treatment stigma.⁹⁵

The experience of stigmatization can have a profound detrimental impact on both mental and physical health. Stigma has been demonstrated to lead to increased psychological distress, depression, and anxiety.⁹⁶ According to Quinn & Chaudoir (2009), these mental health conditions are often accompanied by physical comorbidities including diabetes and cardiovascular disease. Katon & Ciechanowski (2002) report a strong association between psychological distress and exacerbation of health conditions.⁹⁷ Additionally, psychological distress is associated with a decrease in health-protective practices, leading to poorer health overall. It should be noted that individuals are differentially affected by the experience of stigma. Those with better coping strategies and less stress from other sources, such as racism, may be protected from some of the negative health impacts associated with stigma.⁹⁶ Low-income people often are more severely affected by the negative health consequences of stigma because they generally experience more stress overall and have less access to healthy coping strategies. People who possess multiple stigmatized identities, including mental illness, HIV positive status, and criminal records, are particularly at risk for being negatively affected by this compounding of stigmatization.⁹⁸ Given that SNAP participants are probably more likely to possess multiple stigmatized identities and have less access to healthy coping strategies than the general population due to their lowincome status, they may be at greater risk to be negatively affected both mentally and physically by SNAP-related stigma.

Findings: SNAP, Stigma and Health

Building a more nuanced and dynamic conceptual framework of welfare stigma and how it is constructed offers practical insight for policymakers who want to minimize the stigma attached to SNAP. Insights from the literature regarding the nature of welfare stigma helped inform program policy improvements. For example, research exploring the factors shaping external stigma found that negative attitudes and stereotypes directed toward SNAP recipients were largely reduced with the initiation of Electronic Benefit Transfer (EBT), making grocery store transactions much more discreet for SNAP users. The Food Stamp Program was also renamed the Supplemental Nutrition Assistance Program (SNAP), to call attention to the program's mission of supporting good nutrition among low-income individuals. The USDA encouraged supermarkets and other food vendors to put up signs to notify customers that they welcomed SNAP use. The application process was streamlined, and low-income working individuals were encouraged to participate in the program. These efforts to redesign the image of SNAP and normalize participation in the program have been demonstrated to reduce the experience of external stigma toward SNAP users.

Another potential pathway for stigma is related to recent dramatic growth in the program, which appears to have both positive and negative impacts on stigma for individual SNAP participants and the SNAP program overall. According to the most recent data from the USDA, over 47 million Americans are currently enrolled in the program, up from 30 million in 2008, As of August 2012, more than one in 7 Americans and one in four children are using SNAP. This increased participation in SNAP is largely attributed to the recession. In this context where so many more families are facing economic challenges and participating in the program, the New York Times featured an article in February 2010 about how SNAP use has become more normalized and socially acceptable among many Americans.⁹⁹

While the broad use of SNAP can serve to reduce stigma, the program's recordhigh participation rates have been accompanied by a substantial increase in anti-SNAP rhetoric, including political opponents labeling President Barack Obama as "the food stamp president."¹⁰⁰ SNAP funding has also been the focus of a great deal of controversy and political division throughout the process of drafting the new Farm Bill in the 2012 and 2013 congressional sessions, with proposals in the House of Representatives to cut \$16 billion from the program over the next decade, and to block grant the funds and grant states the ability to change eligibility requirements and benefit levels. Debates on the merits of SNAP have included some politicians publicly questioning the value of the program altogether.

In response to New York's request for waiver to restrict purchase of SSBs with SNAP in 2010, the USDA cited the potential to further stigmatize SNAP users as one reason for the pilot's denial. Many food security and anti-hunger advocates are also concerned that the proposal will unfairly target the poor, reinforce stereotypes, and rollback progress that has been made in the SNAP program to reduce stigma through adoption of EBT.

In light of the policy proposal to exclude SSBs from SNAP, Anne Barnhill, PhD, Assistant Professor of Medical Ethics and Health Policy at the University of Pennsylvania, wrote an article in 2011 exploring the potential impact such a policy might have on the stigmatization of SNAP users.¹⁰¹ In response to the USDA's (2007) claim that a sugar-sweetened beverage exclusion would have "the potential to stigmatize participants by singling them out as food stamp participants, and may discourage some eligible low-income persons from participating in the program," she questions the validity of this argument against the potential benefits of adopting such a policy. Barnhill considers

potential point of sale embarrassment to be an unlikely mode of stigma transference, given the common practice of SNAP users combining both SNAP dollars and cash for grocery store purchases. She also argues the potential for this policy to stigmatize SNAP users could be substantially decreased if serious efforts were made to educate SNAP users about the policy change to avoid embarrassment at the grocery store. She further argues that an SSB restriction could decrease stigma by casting SNAP in a more positive light: as a responsible, efficient use of public resources to improve nutrition among low-income people, rather than as a program that allows people to use taxpayer money to buy junk food (a common criticism of the program).

Barnhill favors USDA authorization of a small-scale pilot program in order to observe and evaluate the range of health impacts including stigma. One limitation of her article is that she is primarily considering only one mechanism of social stigma, the potential embarrassment at the point of sale. However, Barnhill has since commented that her focus has shifted to considering how public and political discourse on an SSB restriction policy could be divisive and highly stigmatizing of low-income individuals.¹⁰² She expressed concern that a possible unintended consequence of such a policy might be that it would be interpreted as a justification for further undermining SNAP or cutting its funding altogether. She asserts that if the policy had the effect of threatening the SNAP program as a whole, this would be an ethically decisive argument against a an SSB exclusion.

There is no existing evidence in the literature on stigma and public aid that would indicate whether or not SNAP participants or retailers would stop participating in the SNAP program if the proposed restrictions on purchasing SSBs were in place. Our focus groups and interviews with retailers indicated that general opinion is that there would not be any substantial exit from the program by either consumer or retailer.

Findings: Other Policies Addressing SSB Consumption in the Overall Population

Given the high levels of SSB consumption across all income levels in the U.S., it is important to also look at policy approaches that address overall SSB consumption. While this HIA did not go into these approaches in depth, some possible approaches include an excise tax on SSBs, competitive foods policies in schools (which have recently been strengthened by the USDA), healthy vending policies in government and other institutions and investment in public health media campaigns that inform the public about the health risks associated with regular SSB consumption.

Emerging research shows that excise taxes on SSBs have the potential to reduce consumption, improve health outcomes and generate revenue for public health prevention initiatives. Most researchers agree that the tax needs to be substantial in order to affect consumer behavior; recommended minimum tax levels range from 1 cent an ounce to 20% of market price.^{103,104,105,106,107,108} Several researchers predict that taxes at that level would result in population health improvements in terms of obesity and related chronic conditions. Researchers also point out that the tax revenue, if invested back in public health and obesity prevention, could generate even more

health improvements over time. A study in Illinois found that a state excise tax of 1 cent per ounce on SSBs would result in a 23.5% decrease in SSB consumption in Illinois, reduce health care costs by \$180 million per year, and generate more than \$600 million in new revenues.¹⁰⁹

In its report Accelerating Progress in Obesity Prevention; Solving the Weight of the Nation, the Institute of Medicine of the National Academies recommends a variety of policies and practices for reducing over-consumption of SSBs. Under goal 2: "create food and beverage environments that ensure that healthy food and beverage options are the routine, easy choice,' in addition to recommending SSB taxes, the IOM suggests prohibiting SSBs in schools and child care centers, providing a variety of competitively priced (healthy) beverage options, and making drinking water readily available.¹¹⁰ Daniel Taber et al found that middle-school policies that ban all sugar-sweetened beverages (as opposed to just soda) had a greater effect on consumption of SSBs in school, though limited effect on youth SSB consumption overall, and concluded that SSB bans in schools needed to be accompanied by other policies and efforts to reduce consumption.¹¹¹ The IOM also suggests that government agencies and policy makers "[support] the work of community groups and coalitions to educate the public about the risks associated with overconsumption of sugar-sweetened beverages; and developing social marketing campaigns aimed at reducing overconsumption of sugarsweetened beverages." The report also recommends "[utilizing] strong nutritional standards for all foods and beverages sold or provided through the government, and ensure that these healthy options are available in all places frequented by the public," such as in vending machines and cafeterias;" similar recommendations are made regarding private employers and worksites as well.¹¹⁰

Health Impacts of an SSB Ban in SNAP

The complex and varied evidence from the literature review, analysis of NHANES data and focus groups provides a mixed picture of the health impacts of a policy to ban on SSBs within the SNAP program.

Health Impact: Reducing Purchases of SSBs

While the evidence is mixed, it appears that some SNAP-eligible groups do purchase more SSBs than those who are not SNAP-eligible. But, the evidence suggested that a policy to ban purchases of SSBs from SNAP would not be highly effective in significantly reducing consumption among SNAP recipients. The HIA found that a significant proportion of SNAP recipients use a mix of SNAP funds and out of pocket funds, and that they would be likely to shift what items are purchased with outof-pocket funds versus SNAP and continue to purchase SSBs. In fact, because of the way that EBT transactions work, recipients might not even be aware of what is paid for with SNAP versus cash.

Health Impact: Improve Nutritional Intake

The evidence is clear that reducing SSB consumption has positive impacts on health because SSBs contribute to heart disease, diabetes and obesity among other health issues. Given the evidence that SNAP recipients would likely continue to purchase SSBs, however, the evidence does not show that a ban by itself would improve nutrition significantly among SNAP recipients. Evidence also suggests that recipients in SNAP find healthier foods to be more expensive and difficult to purchase when relying on SNAP and some out-of-pocket funds. The evidence suggested that including an incentive to purchase healthier foods in combination with a ban might be an effective means to improve nutritional intake in SNAP.

Health Impact: Food Access

The project originally posited that restricting the purchase of SSBs within SNAP would make the program more complex, and that therefore retailers might drop out and reduce food access for recipients. While the assessment indeed found that grocers were concerned about the added complexity, the assessment found that there would be only a minor, if any, fall off of participating grocers.

Health Impact: Stigma

The evidence showed that stigma has significant health consequence, and that SNAP overall has stigma associated with it. However, there was not substantial evidence that a ban would further increase stigma experienced by those on SNAP at the point of sale, or increase stigma about the program overall.

Health Impact: Equity

The issue of stigma was related to the inequity of singling out an already vulnerable group. The HIA was unable to quantify the health effect of this lack of equity. However, because equity is a foundational value of HIA, the project identified potential alternative SSB policies, some of which have been shown to have positive health effects on the whole population, including those on SNAP.

Health Impact: Reducing the Availability/Utilization of SNAP

Due to limited data and scope, the HIA was unable to ascertain whether a policy restricting the purchase of SSBs would make the program more expensive to administer and thus reduce access for to it for low-income people, for instance by lowering eligibility.

Conclusion

The question of the appropriateness of restricting the purchase of SSBs in the SNAP program is one that engenders passionate, and sometimes polarizing, discussion and attention.

For example, in June 2013, eighteen mayors wrote to Speaker Boehner and Minority Leader Pelosi about maintaining funding levels for SNAP. The letter also suggested that Congress consider "testing and evaluating approaches limiting SNAP's subsidization of products, such as sugar-sweetened beverages, that are contributing to obesity" and creating incentives for healthful eating. And yet, despite the letter's primary focus on funding levels, a majority of media coverage focused on the single sentence about testing SSB restrictions. In many cases the coverage mischaracterized this statement as a call for an all-out SSB ban, rather than the more nuanced suggestion about testing and evaluating restrictions.

Likewise a variety of interest groups and advocates have established strong positions on the subject. Some health advocates are passionate about the dangers of SSBs, and the need to ban SSB purchases from SNAP as a public health measure. On the other hand, food security and poverty advocates vociferously assert that in an equitable society, low-income people should have the same choices as anyone else. Further, health advocates and researchers identify many other policy, price, advertising, marketing, and environmental factors that are driving what people, including those on SNAP, purchase and consume. Finally, retailers are concerned about adding burdensome new requirements for what is now a simple and straightforward program – if it's (not-prepared) food, it's eligible.

This HIA explored a range of potential beneficial and harmful health effects that might stem from each of these concerns, and found that the question is really quite complex. The project explored a range of issues, including the demonstrated health harms of SSBs, the potential stigmatizing effect of an SSB restriction, and the possibility that food access would be reduced if retailers were faced with a more complex program. The project also considered whether the proposed restriction would have the desired effect of reducing consumption of SSBs.

In the end, the answer to this last question was of critical importance for predicting health impacts. The assessment found that a restriction would likely have limited impact on SSB purchase and consumption among SNAP recipients, because they spend both SNAP and out-of-pocket cash on groceries and would likely substitute cash for SNAP in order to purchase their beverages of choice. Given this, combined with the finding that there is limited understanding about the health harms of SSBs, the HIA recommends that if any restrictions are considered, they be small pilots that are paired with incentives, include a component of choice for participants, and be accompanied by strong educational messages and evaluation. Further, the HIA found that overconsumption of SSBs is not limited to people on SNAP, but is a society-wide problem that likely demands a more universal approach to curbing consumption, such as an SSB excise tax.

By considering the range of potential health harms and benefits, the HIA aims to illuminate the nuances of this issue for Illinois legislators, other policy-makers, and the general public. We hope we have succeeded.

Summary of Predicted Impacts

Health Determinant Will the Policy:	Impact on Health ⁱ improve (+) harm (-) uncertain (~)	Evidence of Causal Link, policy to health outcome ⁱⁱ	Magnitude [™] (How Many?)	Severity ^{iv} (How Bad?)	Other policies that would enhance positive health impacts	Notes
Reduce SSB consumption	~/+	•	minor	high	Pairing restriction of SSB purchase with incentives and a strong education component might increase the likelihood of decreased SSB consumption.	Much of the research on SSBs uses purchasing as a proxy for consumption.
Increase Nutritional Intake	~/+	•	minor	moderate	Pairing restriction of SSB purchase with incentives would improve nutritional intake.	
Decrease Availability of retailers	~	•	minor	moderate		Decrease in retailers accepting SNAP possible in areas with low density of SNAP users, but otherwise unlikely
Increase Availability of nutritious food	no change				Incentives might improve availability of nutritious food. Adding additional requirements to eligibility criteria for retailers might increase availability of nutritious food.	
Increase Stigma - point of sale	~/-	•	minor	low		
Increase Stigma - perception of SNAP program	-/+	•	minor	moderate		Prolonged public debate would increase stigma. Once changes are made, public perception might become more positive over time.
Reduce Availability/Utilization of SNAP	~/-	•	minor/ moderate	moderate/ high	Pairing restriction of SSB purchase with incentives would lessen any risk of households leaving SNAP, but incentives might make the program more expensive.	Administration of a ban on SSBs is potentially expensive, requiring identification and coding of banned beverages, including every new product on the market. This higher cost might make SNAP even more vulnerable to budget cutting.

ⁱ Impact on Health refers to whether the proposal will improve health (+), harm health (-), or whether it is uncertain whether there will be impact (~).

ⁱⁱ Evidence of Causal Link, policy to health outcome refers to the strength of the research and evidence showing causal relationship between restriction of SSB purchase with SNAP dollars and the health outcome: • = plausible but insufficient evidence; • • = likely but more evidence needed; • • • = causal relationship well-established.

ⁱⁱⁱ *Magnitude* reflects a qualitative judgment of the size of the anticipated change in health effect (e.g., the increase in the number of cases of disease, injury, adverse events): Negligible, Minor, Moderate, Major. ^{iv} Severity reflects the nature of the effect on function and life-expectancy and its permanence: High = intense/severe; Moderate = Moderate; Low = not intense or severe. ¹ <u>http://www.nyc.gov/html/om/pdf/2013/snap_letter_to_house_6_18_13.pdf</u>, accessed 12/30/13

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