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Shira Potash

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**MOVIE TO MOVEMENT:
CREATING SOCIAL CHANGE WITH THE DOCUMENTARY FILM
*FOOD STAMPED***

BY

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B.A., UNIVERSITY OF CALIFORNIA, SANTA CRUZ, 2002

THESIS

Submitted in Partial Fulfillment of the
Requirements for the Degree of

Master of Science

Health Education

The University of New Mexico
Albuquerque, New Mexico

May, 2011

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And finally to everyone who was in the film, helped make the film, donated to the film, or even just watched the film. Your support and dedication made a tiny dream into a reality.

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ABSTRACT OF THESIS

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B.A., Anthropology and Art, University of California, Santa Cruz, 2002

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Abstract

There is substantial evidence linking obesity to lower incomes. Governmental food and farm policy directly affects the affordability, availability, and accessibility of healthy food in low-income areas. Policy also impacts the supplemental nutrition assistance program (SNAP) and nutrition education for SNAP recipients. Documentary film is a powerful medium that can be used for social change. This paper explores the ways in which documentary film can be used to decrease health disparities and improve public health. Specifically it provides the scientific evidence and theoretical framework for the creation of the documentary film, *Food Stamped*. Similar to other popular documentary films such as *Super Size Me* and *Sicko*, *Food Stamped* uses a humorous and entertaining approach to investigate serious subject matter. The film critically examines the relationship between socio-economic status and the obesity epidemic. This paper provides a distribution and outreach strategy for the film, as well as recommendations for evaluation and further research in this area.

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Chapter 1

Movie to Movement: Creating Social Change with the Film *Food Stamped*

Documentary film can be a powerful medium for social change. Contemporary global society is in an unprecedented age of media saturation (Wells & Hakanen, 1997), from more traditional forms of media such as television and film to the panoply of interactive networks such as the Internet, social networking, and mobile applications. According to the a 2008 study by the Council for Research Excellence, the average American adult is exposed to over eight and a half hours of media screen time per day (Zackron, 2009).

The employment of media for educational purposes is increasingly popular as our culture becomes more and more accustomed to visual and interactive tools. Although this popularity has steadily grown over the last several decades, the use of documentary films for education is not new. Film has been used to educate and persuade the public since its inception (Marsh, 2010; Whiteman, 2010).

In recent years, documentary films have gained record popularity in mainstream culture, elevating the genre to new heights (Arthur, 2005; Horton, 2005). From 1996 to 2002, an average of fifteen documentary films had theatrical releases, usually only in select United States cities for very short runs. In just one year (2003) that number tripled. By 2005, nearly 50 documentary films, 10% of total film releases that year, screened in movie theaters across the country (Arthur, 2005).

Documentary filmmakers Michael Moore and Morgan Spurlock have become household names alongside traditional film directors like Martin Scorsese and Steven Spielberg. Spurlock and Moore critiqued large public health issues such as the

relationship between fast food and obesity (in *Super Size Me*) and the state of healthcare in America (in *Sicko*), among others. As a result of these types of films, public awareness increased and in many cases, policies and/or behaviors changed. For example, after the release of Spurlock's documentary *Super Size Me*, about the impact of McDonald's on America's obesity epidemic, McDonald's eliminated their "Super Size" option¹ (Carpenter, 2004). Documentary films are now regarded in such high esteem for their power to affect change that the 2007 Nobel Peace Prize was awarded to Al Gore, in part for his Oscar-award winning documentary, *An Inconvenient Truth*, about global warming and climate change (Gibbs & Lyall, 2007). This is a testament to the power that documentaries currently wield in an increasingly visual and media-savvy culture.

While an explosion of social issue documentaries have come onto the scene in recent years that specifically target public health issues, relatively few have tackled the relationship between socio-economic status and the obesity epidemic. Films including *Super Size Me*, *Killer At Large*, and *Two Angry Moms* investigate various contributing factors to the obesity epidemic, such as fast food and the school lunch program. Other documentaries, like *King Corn* and *The Future of Food*, scrutinize how food and farm policy issues affect public health. Both the blockbuster documentary *Food, Inc.* and the PBS documentary television series *Unnatural Causes* address health disparities among low-income Americans. Although *Food, Inc.* investigates the entire spectrum of the American food system, it includes one scene featuring members of a low-income family who are experiencing a multitude of health problems, including diabetes. *Unnatural Causes* looks at the ways in which obesity and its related health problems are directly

¹ McDonald's claims the decision to eliminate the "Super Size" option had nothing to do with the film.

linked to socio-economic status. Neither of these afore-mentioned films utilize the first-person (and at times, humorous) narrative approach, as seen in such films as *Super Size Me* and *King Corn* to effectively engage and entertain, as well as educate audiences. Additionally, no film to-date, weaves together how the health disparities of low-income Americans relate to food and farm policy.

The documentary film, *Food Stamped*², investigates the correlation between socio-economic status and the obesity epidemic. The film addresses the barriers that low-income Americans face trying to eat a healthy diet and unravels how food and farm policy impact the dietary choices Americans make, all while keeping a light-hearted and humorous timbre.

Food Stamped follows a couple attempting to eat a healthy, well-balanced diet on a food stamp budget. Nutrition educator Shira Potash teaches nutrition-based cooking classes to elementary school students in low-income neighborhoods, most of whom are eligible for food stamps. In an attempt to walk a mile in their shoes, Shira and her documentary filmmaker husband embark on the “food stamp challenge” where they spend roughly one dollar per meal for one week. In tandem with this experiment, they meet food justice activists, nutrition experts, and members of US Congress who offer their experiences and perspectives on the intersection of food access, farm policy, nutrition, and health. Shira and Yoav also follow a variety of people applying for or living on food stamps and highlight organizations that address food access in order to look into the struggles low-income Americans face every day trying to feed their families.

² The author of this review is also the co-producer of the film *Food Stamped*.

In a vein similar to *Super Size Me* and *King Corn*, *Food Stamped* employs a humorous first-person narrative approach to address the serious public health issue of obesity among low-income Americans. The film uses the food stamp challenge as a point of entry to introduce larger the themes of health and nutrition, food and environmental justice, and the impact of government subsidized commodity crops.

Statement of Purpose

The purpose of this review is to substantiate the scientific evidence for the documentary film *Food Stamped*. The review will 1) show how the scientific literature supports the content of the film, and 2) present scientific evidence and a theoretical framework that authenticates how documentary film can be used to spur both individual behavior modification and larger social change. This review also includes recommendations for community engagement and evaluation of the impact of the film.

Research Question

The research question to be answered by this review is: How can the documentary film *Food Stamped* affect change?

Chapter 2

Epidemiological Review: Obesity

Background

The United States is in the midst of a health crisis. Obesity rates have reached epidemic proportions. One in three Americans are now obese, as identified by a body mass index (BMI) of 30 or higher (Drewnowski & Specter, 2004; Dinour, Bergen, Ming-Chin, 2007; Powell & Chaloupka, 2009). Diabetes, heart disease, and other diet-related diseases have become commonplace, even among children. Today's children are the first generation in history projected to live shorter lives than their parents (Olshansky et al., 2005; Brownell & Warner, 2009). Ironically, America is well fed yet malnourished. Highly caloric, processed foods are the mainstay of the American diet and are generally high in sugar or fat (or both), but deficient in vitamins and minerals (Schoonover, 2007). These energy-dense, nutrient-poor foods, along with ballooning portion sizes and lack of physical activity, are all major contributors to obesity (Drewnowski & Specter, 2004; Powell & Chaloupka, 2009; Story et al., 2008).

While every sector of society is affected by the obesity epidemic, there is an inverse correlation between obesity and socio-economic status. As income levels decrease, the prevalence of obesity increases (Drewnowski & Specter, 2004; Kupillas & Nies, 2007). The medical establishment and the field of public health finally recognize this counter-intuitive relationship between poverty and obesity, defined as the "hunger/obesity paradox" by William Dietz, MD, PhD in 1995 (Scheier, 2005).

Prevalence of Obesity

In 2004, the World Health Organization declared that obesity had become a “global epidemic” (Brownell & Warner, 2009, p. 261). Although obesity rates are soaring across the globe, the United States has the highest in the world (Schroeter, Lusk, & Tyner, 2006). Overweight for adults is defined as having a body mass index (BMI) of over 25. Obesity is defined as having a BMI over 30 (Drewnowski & Specter, 2004). For children (ages 2-11), obesity is considered a BMI value at or above the 95th percentile of sex-specific BMI growth charts and overweight is a BMI value at or above the 85th percentile. For adolescents (ages 12-19), both overweight and obesity have the same definition as for adults (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). According to National Health and Nutrition Examination Survey (NHANES) data from 2007-2008, 68% of Americans are overweight and approximately 32.2% of American men and 35.5% of American women are obese (Flegal, Carroll, Ogden, & Curtin, 2010).

In the United States today, it is estimated that one out of every three children ages 2-19 are overweight or obese. Data from the 1999-2006 NHANES revealed that the prevalence of overweight among children and adolescents (age 2-19) was 31.7% and obesity was 16.9% (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). For adolescents (ages 12-19) the obesity rate is even higher, at 18.1% (Center for Disease Control and Prevention, 2010). This data indicates that from 1980 to 2006, the prevalence of obesity tripled among children and adolescents. Although the prevalence of overweight and obesity remains high, it has not significantly increased or decreased from 1999-2006 rates (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010).

Health Risks

According to the Center for Disease Control (CDC), being overweight or obese greatly increases one's risk for hypertension, type 2 diabetes, certain types of cancer, coronary heart disease, sleep apnea, and stroke, among other life-threatening illnesses (Kupilla & Nies, 2007; Ogden, Carroll, McDowell, & Flegal, 2007). Obesity has been shown to reduce one's life expectancy by an estimated 5 to 20 years (Olshansky et al., 2005).

The most life-threatening illness directly related to obesity is type 2 diabetes (Flegal, et al., 2010). According to 2007 data from the CDC, diabetes was the seventh leading cause of death in the United States. This does not include related causes of death such as heart disease, kidney failure, and stroke – co-morbidities of diabetes. It should be noted that diabetes is often under-reported as the major cause of death. Studies have found that only 10-15% of deaths actually due to diabetes were reported as such (Center for Disease Control and Prevention, 2008).

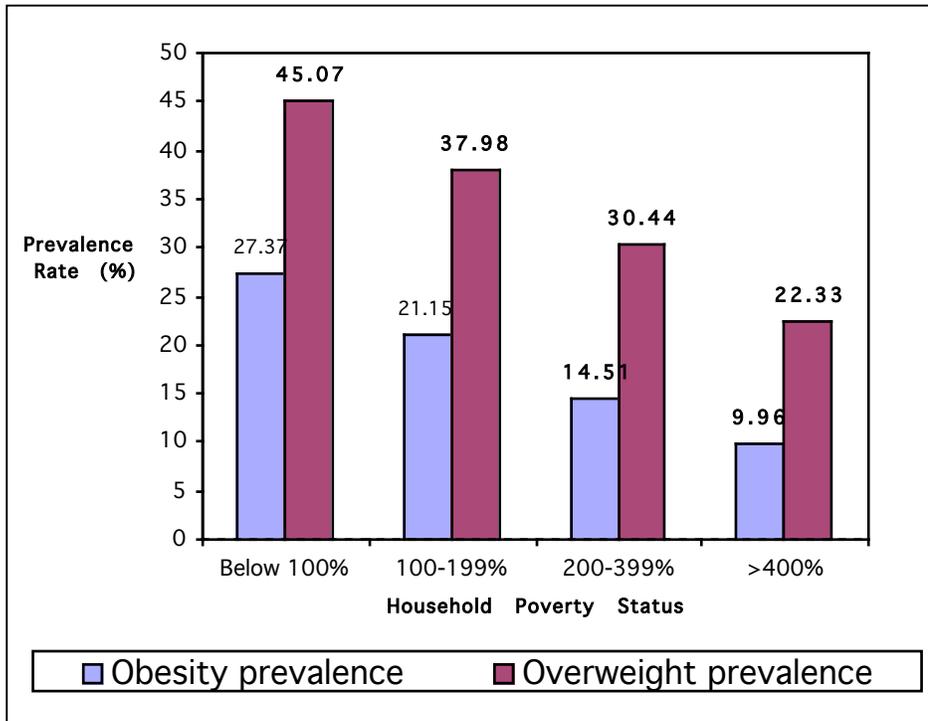
Prevalence Among Low-Income Populations

According to 2009 Census data, 14.3% of Americans are living at or below the poverty line, the highest rate since the 1960s (DeNavas-Walt, Proctor, & Smith, 2010). As the literature overwhelmingly demonstrates, obesity rates are most prevalent in the poorest segments of society as well as among minorities (Brownell & Warner, 2009; Drewnowski & Specter, 2004). Data from the 1994-2004 NHANES revealed that those living in the lowest income bracket (less than \$20,000 per year) were over twice as likely

to develop type 2 diabetes than those in the highest income bracket of over \$80,000 per year (Fortier, 2008).

The 2003 and 2007 National Children’s Survey examined how factors such as race, income level, education, geographic area, and neighborhood affected the overweight and obesity among adolescents. The researchers found that the prevalence of overweight and obesity among US adolescents is directly correlated with their family’s income level (see Figure 1). According to this data, adolescents living at or below the poverty line (below 100%) are 2.34 more likely to be obese and 1.87 more likely to be overweight than those living at or above 400% of the poverty line (Singh, Siahpush, & Kogan, 2010).

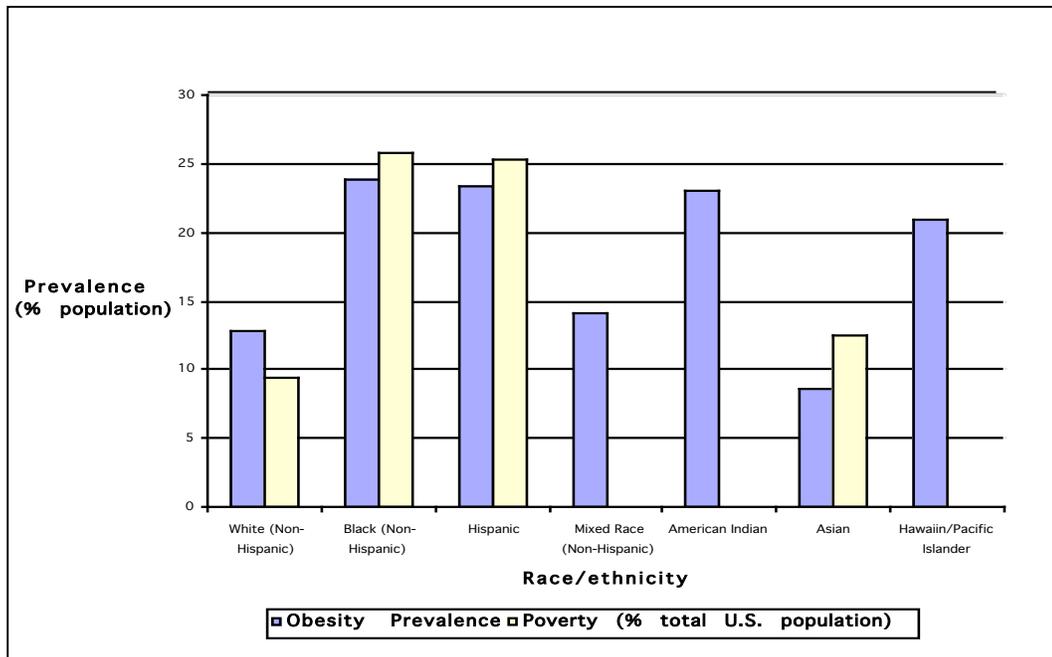
Figure 1
2007 Prevalence of Overweight and Obesity Among US Adolescents (age 10-17) by Income Level



Prevalence Among Different Races/Ethnicities

The prevalence of overweight and obesity among different races/ethnicities in both children and adults follows the same pattern as poverty. Figure 2 shows the prevalence of obesity among US adolescents by race/ethnicity compared with the percentage of each population living at or below the poverty line. The highest prevalence of both overweight and obesity is among Non-Hispanic Blacks, Hispanics, American Indians, and Pacific Islanders/Hawaiians (Singh, Siahpush, & Kogan, 2010). Non-Hispanic Whites and Asians have the lowest prevalence rates of obesity. These rates are similar to poverty rates in America. According to 2009 US Census data, the poverty rates of African Americans and Hispanics are each just over 25%. Meanwhile, the poverty rates for Non-Hispanic Whites and Asians are 9.4 and 12.5 %, respectively. American Indian and Pacific Islander/Hawaiian populations were not reported, (US Census Bureau, 2010).

Figure 2
Prevalence of Obesity (2007) Among US Adolescents and Distribution of Poverty (2009) by Race/Ethnicity



Biological Factors

Environmental factors physiologically affect the health of individuals. Low-income populations have been found to have higher stress levels than those at higher income levels. Living in poverty increases recurrent stress factors, including uncertainty of food access, shelter, employment, and healthcare; anxiety and anger; and feelings of powerlessness, hopelessness, and disenfranchisement (Siegrist, 2003).

The biological reaction to immediate stress is to release the hormones adrenaline and cortisol. Cortisol is the body's survival mechanism. It raises blood pressure, floods the body with glucose, raising blood sugar. Under normal circumstances, the stress response turns on in times of immediate stress, then turns off and the body recuperates. Under chronic stress, however, cortisol is detrimental to one's health, and leads to what is now known as Syndrome X – multiple conditions including obesity, diabetes, insulin resistance, hypertension, high cholesterol, and heart disease (Talbot, 2002).

Low-income individuals are also prone to periods of feast and famine – especially those on food stamps, who receive all of their benefits at the beginning of each month. Kupillas and Nies speculate that those who have faced food insecurity are more likely to binge at the beginning of the month, then weather periods of food scarcity toward the end of the month when resources run out (2007). What has been named “the food stamp cycle” takes a toll on the body's metabolism. The metabolism slows down to conserve energy, which ultimately leads to weight gain (Wiig & Smith, 2008).

Economic Costs

In addition to the grave health consequences associated with obesity, there are large-scale financial and economic implications. The latest figures according to the CDC (2009) estimated that over 9.1% of total US medical expenditures went towards costs associated with overweight or obesity. Half of these costs were covered by Medicare and Medicaid, governmental healthcare organizations funded by US tax dollars. Medical costs typically increase with age. Obese adults of any age incur the highest medical costs, compared with normal-weight adults, with the exception of women over the age of 70 (Wang, Denniston, Lee, Galuska, & Lowry, 2010). A study by Wang, Denniston, Lee, Galuska, and Lowry (2010) found that if rates of obesity and overweight in adolescents aged 16-17 were reduced by just 1%, it would save \$586.3 million in medical costs over the course of their lifetime.

Chapter 3

Contributing Factors to Obesity in Low-Income Populations

There are a multitude of factors that contribute to the high prevalence of obesity in low-income populations. Individual behaviors, including over-consumption of calories and not enough physical activity, cause weight gain (Drewnoski & Specter, 2004). Specifically, over-consumption of calories generally comes from eating too much fat and sugar. Processed, “convenience” foods, fast food, and soft drinks are all calorie-dense foods that tend to be high in fat and sugar, and low in other vital nutrients (Powell & Chaloupka, 2009; Singh, Kogan, Siahput, & VanDyck, 2008; Story, Kaphigst, Robinson-O’Brien, & Glanz, 2008). In addition, too little consumption of fruits, vegetable, and whole grains has been found to be associated with overweight and obesity (Story, Kaphigst, Robins-O’Brien, & Glanz, 2008).

Environmental factors heavily impact these individual behaviors. Eating habits are influenced by access, affordability, and availability of healthy foods. Lack of access to healthy food is an issue in low-income areas (Story, Kaphingst, Robinson-O’Brien, & Glanz, 2008). Healthy foods are not only difficult to obtain in low-income areas, but they are also more expensive (Story, Sallis, & Orleans, 2009). Governmental policy profoundly affects the food environment as well as individual dietary behaviors (Carson, Cox, Burney, Poole, & Wenrich, 2002; Fortier, 2008; Kupillas & Nies, 2007; Landers, 2007; Powell & Chaloupka, 2009; Schoonover & Muller, 2007; Schroeter, Lusk, & Tyner, 2007; Tillotson, 2003; Wiig & Smith, 2008). This section investigates how numerous environmental factors and governmental policies contribute to obesity in low socio-economic American populations.

Food Access

Food environments play a critical role in the diets of low-income populations (Jetter & Cassidy, 2005). Large chain grocery stores and supermarkets are more likely to carry healthier choices than small, non-chain grocers or markets (Powell et al., 2006). Access to supermarkets has been shown to increase fruit and vegetable consumption, improve overall diets, and subsequently lower obesity rates (Powell et al., 2006).

A study by Powell et al. (2006) was the first multivariate national study to overlay geographic locations of food stores by zip code across the United States with 2000 US Census data. The results provided a comprehensive look at multiple variables such as race, ethnicity, socio-economic status, urbanization, and population size, correlated with food store outlets. The lowest income quintile had the fewest chain supermarkets, three-fourths of what middle- and higher-income areas had. In urban areas, low-income neighborhoods had more corner stores and mini-markets than other, more rural low-income areas. Convenience stores had the smallest frequency in high-income areas and the highest prevalence in low-income urban areas. Low-income rural areas tended to have “significantly fewer numbers of available food stores of all types” (p. 192).

Another study by Andreyka et al. (2008) compared food access in a low-income neighborhood in New Haven, Connecticut from 1971 and found that although food access had actually increased over the last thirty-five years, there were still fewer healthy choices than in higher income areas. In addition, while residents had improved access to supermarkets within a three-mile radius, many still chose to shop in smaller neighborhood stores that did not offer as many healthy choices. As Wiig and Smith (2008) point out, transportation is an important factor that impacts where people choose

to purchase their groceries. Many low-income individuals do not have cars and have to rely on public or alternative forms of transportation. While a supermarket may be within three miles of one's home, without a car, the convenience store may be a more realistic option.

Food Pricing

The price of food is another chief factor that influences one's food choice, especially when one is on a very limited budget (Drewnowski & Darmon, 2005; Jetter & Cassady, 2006; Wiig, Dammann, & Smith, 2009). Studies have verified that healthy foods are more expensive than cheap foods – a trend that continues to grow. Within the last 20 years, the cost of fresh produce has increased by nearly 40%, while the price of soda, sweets, and fats and oils has actually decreased (Schoonover & Muller, 2007). The low prices of energy-dense, nutrient-poor foods compared with healthier options create an incentive for people to consume an unhealthy diet (Jetter & Cassady, 2006).

Market basket studies were conducted to compare the availability and prices of food. Jetter and Cassady (2006) administered a market basket study to compare a “standard market basket to a basket with healthier substitutes” (p. 39). The researchers used shopping lists from the US Department of Agriculture's Thrifty Food Plan (TFP), a menu planning tool that shows how the 1995 Dietary Guidelines can be achieved for a family of four on a modest budget or foods stamps. Additionally, this research study took into account whole grains and lean meats, factors absent in the FTP. The researchers compared prices and availability of items such as whole wheat versus white

flour products, high-fat versus low-fat meat and dairy items, high-fiber versus low-fiber foods, as well as the availability and price of fruits, vegetables, and beans.

Using a cross section of different grocery store types, researchers found that the healthier market basket was significantly more expensive (17-19% more) than the standard market basket. Often, healthier options such as high-fiber cereals, whole-wheat bread, and lean meats were not even available, especially in small, non-chain markets often found in low-income areas. This study revealed that even when a healthier choice was available, it was consistently more expensive. Other market basket studies found similar results, with Andrey et al. (2008) reporting that, overall, healthy options were more expensive, with the exception of high-sugar versus plain breakfast cereal, reduced-fat and whole-fat cheese, and skim/low-fat versus whole milk.

Other studies have demonstrated how price affects consumers' choice in food. Wiig and Smith (2008) conducted 14 focus groups (n=92) with low-income women, most of whom were food stamp recipients in the Twin Cities, MN metropolitan area, to examine which factors affect their food choices. While price largely influenced their food shopping decisions, most of the women were willing to use a significant portion of their food budget to pay for meat. They felt that fruits and vegetables, on the other hand, were too expensive. Another study by the same researchers (2009) found that one's food choice was not always one's food preference. Food prices strongly affect the way people shop for groceries. Wiig, Dammann, and Smith (2009) point out, "As long as healthful food is out of their price range, consumption of high-calorie, non-nutritious food will continue ...resulting in high BMIs among the poor" (p. 251).

The Role of Government

The Food Stamp Program. Public policy has done little to improve the health of low-income populations. The US Farm Bill, the same funding stream that sponsors government farm subsidies, also governs the US Food Stamp Program -- now called the Supplemental Nutrition Assistance Program (SNAP). The first Food Stamp Program ran from 1939 to 1943, as America emerged from the Great Depression. It began as a temporary means to distribute excess commodity crops. In 1964 President Johnson, as part of his “War on Poverty,” signed the Food Stamp Act of 1964, making food stamps a permanent government institution. Food stamps were originally stamps one would purchase with cash to receive food at a discounted price. Subsequently, President Carter signed The Food Stamp Act of 1977, eliminating the need for a required purchase. In 1981, Congress amended The Food Stamp Act to include nutrition education as part of the program (Landers, 2007).

While billions of dollars are spent every year on the Food Stamp Program, it has been speculated that the program may be increasing the prevalence of obesity in low-income populations (Kupillas & Nies, 2007). Individual food stamp allotments are insufficient to purchase healthy options (if even available). Many recipients also fall victim to the “food stamp cycle,” where they purchase the bulk of their groceries at the beginning of the month and then find it is not enough to last through the end of the month. These periods of interspersed feast and famine have been found to disrupt normal metabolic processes and further contribute to obesity (Wiig & Smith, 2008).

Studies have been conducted to determine whether food stamps are helping or hurting low-income Americans' health. One such study by Carson, Cox, Burney, Poole, and Wenrich (2002) compared the dietary habits of food stamp recipients with non-recipients at similar income levels in three Southern US states. It was discovered that food stamp recipients tended to eat more meat and had higher levels of dietary fat in their diets than non-recipients. Other studies have found that food stamp enrollment was significantly correlated with obesity rates in women, but not in men (Landers, 2007).

A 2007 study conducted by Kupillas and Nies investigated if it was possible to purchase an adequate diet comprised of healthy foods such as whole grains, fruits and vegetables, and lean meats on a food stamp budget in New York. Based on a weekly budget of \$22.54 (the average food stamp allotment in New York) the researchers conducted two shopping trips, one with the intent of purchasing healthy foods, the other making the most economical choices. In both shopping experiments, the researchers chose the least expensive items available such as generic brands or non-organic items. The results showed a significant difference in calories and fat between the healthiest and the least expensive choices. In choosing to prioritize the purchase of fresh produce, whole grains, lean meats, and low-fat dairy over high-fat meat products and other highly processed, but more affordable foods, the first shopping trip yielded only to 721 calories a day – not nearly enough calories to subsist on. Meanwhile, the second shopping trip not only met the USDA recommended number of calories per day (2,000), but exceeded it by over 200 calories. In addition, the second shopping trip averaged 17.1 grams of fat more than the USDA recommended maximum of 65 grams and almost twice as much sodium as the USDA counsels.

Studies such as this one demonstrate that food stamp allotments are insufficient to provide for the USDA recommended diet. The USDA argues that food stamps are meant to be used as a supplement to a family's already-existing food budget. However, most of the time other necessary expenses, such as rent, utilities, or medical costs, take precedence and food stamps become the only resource available with which to purchase food (Kupillas & Nies, 2007).

Farm Subsidies. The US Farm Bill, the same governmental funding stream that finances the Food Stamp Program, is perpetuating the obesity epidemic by keeping unhealthy food cheap (Schoonover & Muller, 2007; Tillotson, 2003). Farm subsidies for commodity crops, such as corn, wheat and soybeans are given to farmers (mostly large-scale agribusinesses), creating artificially low prices for these crops. These crops, in turn, are used as either feed for industrial feedlot animals (resulting in cheap meat prices) or are processed into products such as high fructose corn syrup (HFCS) or hydrogenated soybean oil – products that did not even exist a few decades ago, but are now found in everything from “junk” foods like soda and candy to “healthy” foods like bread and salad dressing (Schoonover & Muller, 2007).

During the 1970s, HFCS accounted for less than 1% of added sweeteners (Duffey & Popkin, 2008). Today, it is the leading sweetener on the market (Pollan, 2006). Because farm subsidies drove down the cost of commodity crops, the food industry was able to produce a plethora of unhealthy foods and beverages at a fraction of the cost. Additionally, the industry could increase portion sizes and pass the mark-up onto the

consumer, boosting profit margins and making way for billion-dollar marketing campaigns (Duffey & Popkin, 2008).

Meanwhile, farmers are provided with little financial incentives to grow “specialty crops” (fruits and vegetables) from the same government that is encouraging Americans to eat more of these foods. They are essentially discouraged from growing these crops – incentivized by the government to only produce large-scale industrial commodities (Schoonover & Muller, 2007).

Taxing “Junk” Foods. Some public health advocates have pushed for a government tax on unhealthy options, popularly referred to as the “fat tax” or “Twinkie tax” (Schroeter, Lusk, & Tyner, 2007). Multiple studies have been conducted to project the possible effect of adding a tax to unhealthy foods (Powell & Chaloupka, 2009; Schroeter, Lusk, & Tyner, 2007). If the “fat tax” were to be implemented, the taxpayer would be paying double – first for the subsidies that create an artificially low price for highly processed “junk” foods, and secondly as consumers of such foods. Furthermore, those who do use food stamps would be exempt from such a tax (Powell & Chaloupka, 2009). The American Dietetic Association (ADA), the governmental organization that largely determines federal nutrition guidelines, claims that there are no “healthy” or “unhealthy” foods—all foods have their place in a balanced diet, including soda and chips (Brownell & Horgen, 2004). Considering this fact, a tax on “junk” foods seems implausible.

Other studies have investigated the effects of creating fruit and vegetable subsidies for food stamp recipients and other low-income populations (Herman, Harrison

& Jenks, 2006). However, no research has been conducted to determine what would happen if current farm subsidies were to be restructured to favor the production of crops such as fruits and vegetables over the current status quo.

The Food Industry's Hold on Food Policy. The ADA, whose mission is to “improve the nation’s health and advance the profession of dietetics through research, education and advocacy,” (www.eatright.org, 2009) is influenced not only by doctors and nutritionists, but by the food industry. According to Brownell and Warner (2009), food industry representatives can pay \$20,000 to take part in writing ADA fact sheets. Examples include: “What’s a Mom to Do: Healthy Eating Tips for Families,” sponsored by Wendy’s, “Cocoa and Chocolate: Sweet News,” by the Hershey Center for Health and Nutrition, and “The Benefits of Chewing Gum,” sponsored by the Wrigley Science Institute (p. 277). Furthermore, the ADA made the Coca-Cola Company an “ADA Partner” in 2008 (Brownell & Warner, 2009). With the USDA Farm Bill subsidizing commodity crops to be used in junk and fast foods and the ADA’s weak standpoint on real nutrition standards, it is easy to see how the food industry’s hold on government policy is contributing to the obesity crisis.

The Pima Indian Tribe: A Classic Example. Further evidence shows how US government policy affects the health of specific low-income populations. A classic example is the Pima Indian tribe in the Gila River Reservation in Arizona. The Pima currently have the highest rate of type 2 diabetes in the entire world. Over half of adults in the Pima tribe have diabetes – seven times the national average (Fortier, 2008). While

for many years this was thought to be an anomaly or a genetic disorder, research conducted by the National Institute of Health (NIH) proved it is actually due to a myriad of social and environmental factors.

The Pima were stripped of their water rights by the US government starting in the late nineteenth century. With the construction of the Coolidge Dam in the 1930s, water was diverted from their land to White farmers and cities in the area, leaving them with not enough water to irrigate their own crops. Without the resources to grow traditional foods, the Pima were completely dependent on the government to provide nourishment. The government's solution, known as the commodity program, was to give out surplus commodity foods to Native American populations, including lard, flour, cheese, sugar, and other cheap, non-perishable food items. These foods are the same staples that are directly linked to overweight and diabetes. What have come to be thought of as "traditional" foods, such as Native American fry bread, have their roots in the commodity food program. Over the course of the last century, without access to fresh fruits and vegetables, whole grains, and traditional Native American foods, the Pima had no choice but to become victims of the global diabetes epidemic (Fortier, 2008).

The example of the Pima is not an isolated incident. Low-income populations across the United States and the world experience the same or similar sets of circumstances. This is even more evident in populations who have been disenfranchised or stripped of their power or land, including Native American tribes, African Americans, Aboriginals, and Pacific Islanders (Fortier, 2008).

Conclusion

There is an abundance of research substantiating how much the environment and public policy impact obesity in low-income populations. Studies have shown that healthy foods are less available and affordable in both rural and urban low-income areas.

Government programs, including the Food Stamp Program, whose purpose is to provide nutrition assistance, have been found to contribute to the obesity epidemic. Other government policies, such as farm subsidies, create artificially cheap prices for corn and soy – thus lowering the prices for scores of unhealthy, processed food products.

Governmental policy also stripped Native American tribes of their land and water rights, forcing them to be dependent on the US commodity program. The explosion of the obesity epidemic among this population has been directly linked to this shift away from the traditional Native American diet. In addition, food industry interest groups control governmental nutrition standards through financial contributions, weakening official governmental dietary recommendations and guidelines. All of these governmental policies shape the food environment, which in turn, has a profound effect on the health of low-income individuals.

Chapter 4

Current Interventions

The explosion of research linking obesity to socio-economic status has sparked numerous innovative interventions to improve the food environment in low-income areas. Multiple strategies are being employed by both government-sponsored and independently funded agencies to make healthy foods accessible and affordable for low-income populations. Additionally, public policy is slowly being reformed to address these issues. Several examples of different interventions are discussed below.

Government Incentives

A few governmental food assistance programs are reforming their policies to support increased consumption of healthy foods. The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is a federally funded program that provides support for low-income new/expectant mothers and their children, up to age five (USDA Food and Nutrition Service, 2010). Unlike food stamps, WIC food vouchers can only be used for certain foods. Since its inception in 1972, these foods included milk, cheese, eggs, peanut butter, dried beans/peas, tuna, baby formula, and cereal (Burtness, 2009). Carrots were the only produce item allowed for purchase with WIC vouchers (Herman, Harrison & Jenks, 2006). Research conducted by Herman, Harrison, and Jenks (2006) confirmed that fruit and vegetable consumption would increase if women were given a subsidy with which to purchase them. However, it was not until fall of 2009 that WIC food packages were redesigned to include fresh fruits and vegetables (Burtness, 2009). This change in policy will have large-scale ramifications for food retailers.

Currently, in order for a grocer to be a certified WIC vendor, they must carry all of the foods in the WIC food package. As it is an advantage to be a WIC retailer in low-income areas, many food vendors will be forced to start carrying fresh produce (Burtness, 2009).

Farmers' Markets

Local collaboratives and non-profit organizations have established farmers' markets in low-income neighborhoods around the country, many of which now accept food stamps – bringing fresh and local produce to previous food deserts (Larsen & Gilliland, 2009). Farmers' markets are becoming increasingly popular – according to USDA Agricultural Marketing Service (2010) figures, the total number of operating farmers' markets in the US in 2010 was 6,132 – an exponential increase of 4,377 since 1994. Access to fresh produce through farmers' markets has been shown to increase fruit and vegetable consumption in low-income areas (Kropf, Holben, Holcomb, & Anderson, 2007; Racine, Vaughn, & Laditka, 2010).

Although farmers' markets provide access to healthy food, they have been cited as being too expensive for low-income populations (Markowitz, 2010). Several federal assistance programs are working to increase the affordability farmers' markets. The WIC Farmers' Market Nutrition Program (FMNP) provides vouchers to WIC recipients for use at approved farmers markets. While farmers markets have seen an explosive rise in popularity in recent years, this program is not new. It was founded by Congress in 1992 and currently operates within 45 states, at 3,635 farmers' markets and 2,662 roadside stands (USDA Food and Nutrition Service, 2010). A similar voucher system for seniors

on federal food assistance has helped to increase the affordability of farmers' market produce for this population (Markowitz, 2010).

However, while these vouchers are widely available, the number of farmers' markets in low-income areas is still relatively small. A study by Racine, Vaughn and Laditka (2010) investigated farmers' market usage among African American women recipients of the FMNP vouchers in Charlotte, NC and Washington, DC (n=179). Their results indicated that 60% of FMNP recipients do not use farmers' markets – the most common cited reason being a lack of farmers market in their area and lack of adequate transportation to a farmers' market.

Another study by Kropf, Holben, Holcomb, and Anderson (2007) compared the fruit and vegetable consumption between FMNP voucher recipients (n=246) and non-FMNP WIC clients (n=829) in Athens County, OH. This study found that FMNP recipients had a significantly higher consumption of daily vegetables, but did not differ from the control group on fruit consumption. It must be noted that FMNP recipients are self-selected and therefore may be more likely to consume higher amounts of vegetables than those who choose not to participate in FMNP. Another critical factor to consider is the maximum amount a FMNP recipient can receive in a year is only \$30 (USDA Food and Nutrition Service, 2010), which amounts to 58 cents a week – not nearly enough to purchase fruits and vegetables on a regular basis.

Community Gardens

Community gardens in low-income areas have also gained popularity in recent years (Levy, 2007). According to the American Community Garden Association (2011),

there are an estimated 18,000 community gardens in the US and Canada. Multiple studies have shown how community gardens in low-income areas not only improve food security, but also increase fruit and vegetable consumption and lower consumption of sweetened foods and beverages (Aliamo, Packnett, Miles, & Kruger, 2008; Anderson et al., 2001; Johnson & Smith, 2006; McCormack, Nelson, Larson, & Story, 2010; Wakefield, Yeudall, Taron, Reynolds, & Skinner, 2007). Community gardens have also been shown to improve mental health and contribute to overall community wellness (D'Abundo & Carden, 2008; Wakefield, Yeudall, Taron, Reynolds, & Skinner, 2007).

Food Retailers

Some city and state governments recognize the need to improve access and affordability of healthy food in low-income areas and are providing financial incentives to lure healthy food retailers into these areas. Capital District Community Gardens in Troy, New York, for example, was able to start the Veggie Mobile, a refrigerated mobile market, with a grant from the New York State Department of Health. The Veggie Mobile makes scheduled stops throughout low-income neighborhoods, selling local produce at wholesale prices. The market is also able to accept food stamps (Gentile, 2008). In Pennsylvania, the \$30 million Fresh Food Financial Initiative (FFFI), founded in 2004, provides financial incentives to businesses owners to open food retail stores in low- and moderate-income areas. The program has thus far managed 50 projects throughout the state and 18 within Philadelphia (Gentile, 2008). Similar financial incentives and loan programs have helped bring food retailers to low-income areas in Harford, CT and Harlem, NY (Gentile, 2008; Tolden, 2005).

While fresh produce and affordable healthy foods are limited in low-income neighborhoods, there is an abundance of convenience or corner stores selling alcohol, cigarettes, and processed foods. Some governmental and non-profit groups are working to improve these existing retailers in lieu of bringing in new businesses. The California Food Policy Advocates in Oakland, for example, partnered with a local corner-store owner to transform the alcohol, cigarette, and junk food-laden retailer into a market with abundant healthy options (Burtness, 2009). In Los Angeles, a storeowner and uncle of a participant of the South Los Angeles Healthy Eating Active Living Collaborative, received a grant to remodel his business so that he could feature health items (Villianatos, 2009). Youth interns for the community-based organization Literacy for Environmental Justice, with city and state support, established the Good Neighbor Program (GNP) – an incentive program in which storeowners agree to stock more produce at an affordable price and lessen the amount of cigarette and alcohol advertising in exchange for incentives such as access to low-interest loans, energy-efficient appliances, collective buying power of produce, and more. Evaluation of the effectiveness of this program is currently underway (Breckwich Vasquez et al., 2007).

Social Marketing Campaigns

Social marketing campaigns are also being used to encourage healthy choices. These campaigns include posters, ads, and other marketing materials promoted within the food environment. For instance, researchers from Johns Hopkins University implemented a social marketing campaign in grocery retailers on the White Mountain and San Carlos Reservations in Arizona where culturally appropriate ads, posters, labels,

signs, and demonstrations were put into place over the period of a year. They found that their marketing strategy worked – shoppers increased their consumption of fruits, vegetables, and high fiber cereals and reduced their consumption of sugar-sweetened drinks (Burtness, 2009).

Conclusion

These examples all indicate the strong commitment of non-profit organizations and city and state governments to eradicate food deserts in low-income areas. There is a broad array of environmental strategies to increase access and affordability of healthy foods, from more traditional outlets such as farmers' markets and community gardens to inventive projects like corner store makeovers and mobile vegetable stands. Although these innovative programs are improving the food environment in low-income areas throughout the country, health disparities for low-income Americans continue to loom large. Small-scale, community-based initiatives can only go so far when up against the multi-billion dollar food industry. Additionally, these initiatives all require continuous governmental funding or subsidies, which are more-often-than-not unsustainable.

Chapter 5

Using Documentary Film For Social Change

Documentary film and other media provide a unique avenue through which to reduce health disparities. The content in the film *Food Stamped* addresses all of the themes discussed above. It weaves together the various barriers that low-income individuals face in trying to eat a healthy diet with government policy, making the case for the need for food and farm policy reform. The film also highlights several organizations and innovative solutions that address these problems.

Film can be a powerful agent of change (Whiteman, 2004, 2009). The following section reviews the scientific evidence that substantiates how documentary films impact health behavior, public health and policy, and ultimately social change. From the early beginnings of film over a century ago through today, documentary film and related media have served not only as an educational medium, but also as an activist and public health tool.

Historical Examples of Documentary Film as a Public Health Tool

In 1910 Charles Urban's *The Fly Pest*, a British short film about the dangers of the common house fly, was used to launch a public health campaign in the United States. The leaders of this campaign aspired to use the popularity of the new genre of cinema to capture a wide and diverse audience (Marsh, 2010). One of the organizers of the campaign, Edward Hatch, Jr. was quoted as saying, "The average man, woman, or child learns more of the dangers arising from the fly pest [in this 20 minute film] than could be

imparted by twelve months of lectures or twelve volumes of literature on the subject.” (Marsh, 2010, p. 27) *The Fly Pest* was widely distributed and seen by thousands of viewers, with large, excited crowds.

The film, however, was not the sole component of the anti-fly campaign. As the author points out, Hatch observed that the success of the campaign “depended on collaborative, direct assault involving newspapers, local police, federal agencies, civic organizations, city health officers and health boards, school administrators and teachers, and, of course, theater owners willing to screen the film” (Marsh, 2010, p. 29). This sentiment echoes the position of present-day social issue documentaries. The film alone cannot be the sole change agent, but it can be used as a tool within a larger network. Political scientist professor and author David Whiteman (2004) describes this as the “coalition model” (p. 51). *The Fly Pest* is an example of how even a century ago, educational films were popular and successful public health campaign tools. The film was seen across the country to a variety of audiences, from big cities to small rural towns. Where theaters were not available, town halls, community centers, and churches were used as screening venues (Marsh, 2010).

The Fly Pest also illustrates how educational films can be used across class lines. Members of the upper class who saw *The Fly Pest* recognized the importance of such films, while the working class merely saw the film as entertainment. Jane Elliot Snow, author of “The Workingman’s Theater” (1910) proposed that these films functioned as the “workingman’s theater” as they were ‘within the limits of both his time and means’ (as cited in Marsh, 2010, p. 31). In a subsequent article, “The Workingman’s College,” Snow “argues further that cinema is the best and perhaps the only way for ‘the

workingman' to acquire 'a broad and liberal education'" (Marsh, 2010, p. 31). She contends that the combination of the educational and entertaining elements of these films is what contributes to their value. These were the tenets of the early Visual Education movement (Marsh, 2010). This concept of "entertainment-education" is popular in television and cinema today (Singhal et al., 2004).

The Fly Pest is one of the earliest examples of the utilization of film towards a public health goal. Another early example is the 1936 British film, *Enough to Eat?* *Enough to Eat?* became the first of a new subgenre of documentary films -- the "nutrition film" (Boon, 2008, p. 50). This short film was collaboratively produced by biologist Julian Huxley, nutrition scientist John Orr, and a team of documentarians, based in part on the book by Orr, "Food, Health, and Income" – in which Orr argues that less than half of the population was eating a "properly nutritious diet" (Boon, 2008, p. 50). During this era, scientists were first discovering the role that vitamins and minerals play in the human diet. The film and the book arose out of what became known as "the social relations of science movement" (Boon, 2008, p. 50), which insisted that scientists should play a role in social reform. *Enough to Eat?* specifically addressed what today would be described as health disparities' impact on the poor, revealing that not much has changed in public health within the last 75 years.

A classic example of how influential film and related media can be on public policy is the New Deal films and photographs from the Great Depression. The documentation of the plight of migrant farm workers helped to create sweeping policy change during these dark times. Dorothea Lange's now famous photographs of homeless migrant workers in California, for instance, directly led to the government's decision to

distribute 20,000 pounds of food to migrant workers and their families (Whiteman, 2004).

Movie to Movement: How Documentary Film Can Lead to Policy Change

Although many scholars and social scientists agree that social documentaries have a strong impact on culture and society, they also concur that it is difficult to quantifiably measure. David Whiteman argues that the traditional measurement of the political impact of documentaries is limited in its scope (2004, 2009). This view focuses on an “‘individualistic model of impact’, assessing the impact of a *finished* film on *individual* citizens and within the *dominant* public discourse” (2004, p. 51). He refers to this model of impact as a “distribution model” and asserts that rather a more comprehensive “issue-centered model” should be employed, wherein the impact on activist organizations and policy makers contribute to the broader social movement tapestry (2009, p. 458).

Whiteman uses the issue-centered model as a framework to evaluate the social and political impact of documentary films. The author states,

A documentary production company can be understood as being immersed in a larger policy process, and a social-issue documentary can be conceptualized as an intervention into a complex and ongoing network of activists and policy makers concerned about the issue raised in the documentary... Potential impact on individual viewers exposed to mainstream distribution (more knowledge, change in attitude, more interest, shifting personal agendas) is still important but usually becomes more peripheral. Rather than focusing solely on change occurring inside the minds of individual citizens, an issue-centered model also explores broader changes in activist organizations and changes in public policy. (Whiteman, 2009, p. 458-459)

The issue-centered model takes the focus off the individual viewer and provides a more holistic framework for measuring the social and political impact of documentary

film. Paramount to this framework is the understanding of the role stakeholders play in the impact of the film. Furthermore, a core tenet of this model is the utilization of the documentary by activist groups to effectively engage citizens and policymakers.

Whiteman (2004, 2009) examines several case studies through this framework to measure how each film impacted social and policy change. Three examples are summarized below. In each case, the documentary had its own unique characteristics of production, distribution, and means of affecting change.

The first case study is an amateur, self-produced documentary about the destitute state of public housing conditions in Chapel Hill, NC. Maxcine Mitchell, the producer of the film, was also the former chair of the resident association for a public housing community. Mitchell's friend, a public housing resident severely impacted by the squalid conditions, invited Mitchell to document the state of public housing in the area. This example shows how an activist used the camera to create a documentary that then served as "evidence" in formal complaints. As Mitchell produced the film, she formed a coalition of activists passionate about changing these policies. After a long series of targeted screenings, formal complaints, and presentations of the film in front of legislators and policy makers, the town manager

Reported (a) that repair work had been completed in 19 of the 20 apartments featured in the video, (b) that work had begun on 47 additional apartments identified as needing repairs, (c) that the Department of Parks and Recreation had taken over maintenance of the playgrounds in the housing communities, and (d) that the Department of Public Works had taken over general maintenance of grounds. (Whiteman, 2004, p. 59)

While the policy-changing process was arduous and took several years to accomplish, the documentary served as the primary agent of change.

A second case study shows how documentary film can be used not to directly change policy, but to educate and reframe the discussion. Rob Danielson's *From the Ground Up* portrayed the social and environmental impacts of mining in Wisconsin. Throughout the production process, the filmmaker formed partnerships with groups and individuals vested in the outcome of the project. These partnerships were crucial in distributing the film. Activist groups conducted the majority of screenings through a variety of different venues – from group meetings, schools, churches, community meetings, and libraries to film festivals, sport shows, and environmental conferences. The film impacted activist groups in two ways: first, it served as an educational training tool groups could use within their networks; and second, it functioned as an authoritative source that activists could use in their argument against mining. The film was also shown to state legislators and officials. The primary impact of the film was not direct policy change, per se, but “an alteration in the character of the debate over the mining issue and the way in which citizens and mining proponents interacted” (Whiteman, 2004, p. 61). Several changes in policy did come about, including the 1998 mining moratorium bill passed by Republican governor, Tommy Thompson. However, it is difficult to establish if the passage of this bill was a direct result of the documentary film. Whiteman does argue that the film accomplished the goal of raising general awareness and understanding of the issues, which, in turn, inspired and empowered citizens to take political action and equipped them with the tools to do so.

A third case study (2009) analyzes the impact of Tracy Huling's *Yes, In My Backyard*, a documentary that investigates the increasing popularity of and demand for prisons in rural American communities. Huling worked primarily as a policy analyst and

lobbyist for the Correctional Association of New York. The film project stemmed from her passion for the subject and the frustration of not being able to address this issue in her professional life. *Yes, In My Backyard* did not take the Michael Moore-esque heavy-handed, partisan approach that has become ubiquitous in political documentaries. Instead, the filmmaker created a multi-faceted, ethnographic portrait of how a small town in New York was affected by the development of two large-scale prisons. The filmmaker outlined the goals of the project:

I hope that the program will be used by prison activists and those concerned with rural development to raise public awareness about and catalyze discussion regarding the implications for both rural and inner-city populations of the use of prison as economic development. (as cited in Whiteman, 2009)

She did not have direct policy goals in mind. Rather, she wanted the film to open up discussions, to be used a forum for initiating a conversation that would hopefully lead to questioning of prison development. National screenings and follow-up discussions had the impact that she desired.

Yes, In My Backyard had similar effects as the other case studies on activist and issue-centered social networks. The film helped spark discussions about policy and reframe the policy agenda. It also stimulated new activist organizations and served as a recruiting and training tool. Additionally, film screenings strengthened organizational networks. Furthermore, Huling's work, in part due to her background as a policy analyst, sparked scientific research into the issues addressed in the film.

This case study, along with the two latter, shows the myriad of ways documentary film impacts policy and social issues. Documentary film can be viewed as one piece of the larger picture and a powerful catalyst for change. Unfortunately, it is difficult to measure the specific impact documentaries have directly on policy, precisely because

there are so many other mitigating factors. One-on-one causation is rare. Regardless, while hard data measuring direct policy impact may not be available, there is compelling evidence, as indicated above, that documentaries wield significant power in the social change process.

The Role of Mass Media in Determining the Impact of Documentary Film

One of the ways in which documentary films spur policy change is by influencing public opinion, which in turn sets the public agenda. However, media coverage of the documentary is paramount in elevating the role of the documentary to a catalyst of change. For example, Michael Moore's 2007 documentary *Sicko*, portraying the dismal state of the American health care system was heavily covered in the press and inspired national and international demonstrations rallying for improved health care (Holtz, 2007; Tanne, 2007). One group of demonstrators, who were health professionals, even dubbed themselves "Scrubs for Sicko" (Tanne, 2007, p. 1338). The film's release in 2007 sparked mass debate and media coverage over healthcare, so much so that it became one of the top issues in the 2008 presidential election.

What is significant about the impact of Moore's film is that the majority of the influence came not from the film itself, but through discussions about and media coverage of the film. A study conducted by the Kaiser Family Foundation (2007) found that in a random US representative sample of 1,500 adults, only 4% of had seen the film, yet 46% had either seen it or *heard or read about it* approximately a month after its national debut. These results imply that almost half of all American adults were familiar with the film. Of those who stated they were familiar with the film, 45% indicated they

had a conversation about the issues in the film with friends, co-workers, or family. Furthermore, while only 4% of the sample had seen the film, a full 33% felt the film “accurately represents problems in the US health system” and 36% thought the film “overstated” these problems (Kaiser Family Foundation, 2007, www.kff.org). Heavy media coverage of the film helped to make people aware of the film and the issues covered therein. Discussions about the film further helped to form public opinion – so much so that those who had not seen it had formed opinions about the film itself. After the release of the study, Kaiser President and CEO Drew E. Altman stated, “Our polls show how the combination of good timing, a controversial director, and lots of free media attention can generate real impact for a film that very few people have actually seen.” This evidence demonstrates just how influential the mass media can be in the public discourse of a film.

Some authors counter that the media do not have as much influence on setting the public agenda as argued above. Asmita Naik (2008) contends that policymakers set the public agenda, not mass media. She uses the example of celebrity chef Jamie Oliver’s documentary *School Dinners*, which premiered in Britain in 2005, shocking households nationwide with a grim picture of school food. One year prior, the British government released a policy statement with vast improvements to school food. However, the overwhelming media coverage of Oliver’s impact made it seem that the documentary created shift in school food policy, when the government was laying the groundwork for improving school beginning in 1997. Naik points out that media stories regarding food and health were limited in 1997 (less than 500) but grew to 5,000 by the year 2005, proving again how the media are following policymakers’ lead.

It is important to note this study in order to provide an alternative perspective. However, it could still be argued that regardless of whether the media or the government set the initial agenda, media stories do influence public opinion – and public opinion puts pressure on policymakers to enact or enforce policy measures.

Using Film to Change Behavior

While it is difficult to estimate the direct impact documentary films have on public policy, there is definitive quantitative data measuring the influence of film and video on individual attitude and behavior change. Public health and social science research studies have investigated how film and video can change health behaviors and/or attitudes and perceptions about health. This section provides several examples of how this medium has been used in the public health setting to influence health behavior.

Effect of the Film *Super Size Me* on College Students' Knowledge and Attitudes. A study by Cottone and Byrd-Bredbenner (2007) investigated how viewing the documentary film *Super Size Me* affected college students' knowledge and perceptions about fast food. The study looked at several measures, including “knowledge, attitude, self-efficacy, healthy weight locus of control, and stage of change” (p. 1197). The researchers also assessed how much emotional impact the film had on participants, as well as its ability to raise consciousness. The research design was a pretest-posttest follow-up control group (n=135, 54% female) in which the experimental group (n=80) viewed the film *Super Size Me* and the control group (n=55) saw an unrelated narrative film. All students were surveyed approximately ten days before seeing

the film, then immediately after the film, and again about nine days following the viewing. According to unpaired *t* tests, the control and experimental group had no significant differences at pretest. Any students who had previously seen *Super Size Me* and/or read *Fast Food Nation* were allowed to see the unrelated film, but their data was excluded in the analysis.

The results found that short-term knowledge ($p < 0.01$) and internal locus of control ($p < 0.05$) significantly increased at posttest and follow up in the experimental group. Self-efficacy and perceived susceptibility to obesity also increased at both posttest and follow up, but were not statistically significant at follow-up. Additionally, the stage of change for reducing fast food intake increased at both posttest and follow up in the experimental group ($p < 0.01$). Other attitudes, such as “feelings about the (un)healthfulness of fast food” ($p < 0.01$), “personal concern about maintaining a healthful weight” ($p < 0.05$), and “consciousness-raising” ($p < 0.01$) (p. 1200) significantly increased at posttest, but decreased at follow up. Furthermore, both emotional arousal and consciousness-raising ($p < 0.01$) indicators increased.

The researchers acknowledge several limitations to this study. First, the participants were a convenient sample of college students, most of whom were healthy and normal-weight. The results, therefore, cannot be generalized to the population at large. They also point out that the study only measured attitudes and knowledge, not actual dietary behavior. A further limitation the authors fail to acknowledge is the short length of time from experiment to follow up test. To truly test the effects of the film on attitudes and behavior, follow up would be required more than nine days following the viewing of the film.

Despite these limitations, this study has several significant implications. It demonstrates the impact that viewing a documentary film can have on changing attitudes and perceptions among college students. The results prove how seeing the film *Super Size Me* can both increase an individual's level of perceived susceptibility and motivate them to change their behavior. Additionally, the film's emotional arousal capabilities enhance the impact it can have on audiences.

How a “Food and Society” Course Can Influence College Students’ Eating Behavior. A study by Hekler, Gardner, and Robinson (2010) looked at how exposure to political and social-issue content, including viewing several documentary films within a college classroom environment affected students’ eating behaviors. The researchers offered a college course entitled “Food and Society” featuring popular food-related political and social justice-oriented works, including the documentaries *Super Size Me*, *Our Daily Bread*, and *King Corn*. The 28 participants were not only required to complete writing assignments, they also had to create a short web video for the course. Students (n=72) enrolled in three traditional health science courses served as the control group. The courses included “Health Psychology,” “Community Assessment/Health,” and “Obesity: Clinical/Societal Implications” (p. 544). The researchers acknowledge several limitations in their sampling method, namely that the participants of the study were not randomly assigned and all participants were undergraduates at a prestigious university – a highly homogenous group. However, the demographics between the control and the experimental group were very similar in terms of age, race, gender, and weight.

The aim of the study was to test whether a food-related political science course could act as a “stealth intervention” in changing students’ dietary habits. Stealth interventions are interventions for behavior change in which the visible focus is not actually on the particular behavior, but results as a by-product of another motive (Robinson, 2010). The Food and Society course thus focused not on the negative health effects of poor dietary habits, but on the social and political ramifications associated with what individuals choose to consume. Students in all groups were required to complete a dietary intake assessment pre- and post-test and a questionnaire ranking importance of different social values – namely “eating a healthful diet, staying physically fit, environmental sustainability, animal rights, social justice, and ethics and morality” (Hekler, Gardner, & Robinson, 2010, p. 544).

The results indicated that the participants from the Food and Society course changed their dietary habits significantly more than the comparison group. Specifically, they increased their overall vegetable consumption and reduced their consumption of high-fat dairy items in comparison to the students enrolled in all other three classes. In addition, the Food and Society students had stronger beliefs in the importance of issues such as the environment, animal rights, and a healthy diet. There were no significant differences in behavior or attitude change among the three comparison groups.

This study clearly demonstrates the power of politically oriented, innovative teaching strategies on health behavior. Social issue films and media can be used as influential stealth interventions, especially among youth. One limitation that the authors failed to acknowledge about this particular study is that the research does not assess the long-term

impact of such a course. Follow-up studies with the participants could help determine if the course had a lasting effect on their eating habits and attitudes.

Video Nutrition Education Lessons and Dietary Change Among Low-Income Women. Another study by Cox, White, and Gaylord (2003) looked at using video nutrition education lessons with low-income women in lieu of individual client consultations. The purpose of this study was to see if a video lesson was as effective in changing dietary behaviors as person-to-person meetings, with the intent of using the video lesson format as a cost-saving device for the nutrition education agency. The researchers conducted a quasi-experimental study, with participants randomly assigned to either the “Traditional Group” (n=66) or the “Video Group” (n=42). Both groups received 12 lessons on how to improve dietary behavior, based on the nutrition lesson series, *Eating Right is Basic*. The “Traditional Group” was given lessons either in small groups of nine to ten individuals or in one-on-one consultations. Meanwhile, the “Video Group” consisted of videotape lessons with handouts that the group members were to watch at home, along with telephone visits and five home visits. In both groups, program assistants (PAs) followed scripts and guides to ensure internal validity.

To assess the impact of the lessons, the researchers collected 24-hour food recalls pre- and post-intervention using the Food Stamp Programs’ Standard Expanded Food and Nutrition Education Program Family Record. The results showed significant dietary improvements in both groups, including increased consumption of fruit, calcium, vitamin A, and vitamin C. In addition, the Video Group increased their fiber intake. The findings

of this study indicate that both modes of instruction are effective, with video lessons having a slightly stronger impact.

The video lessons, in combination with home visits and telephone appointments, proved to be a more effective delivery of nutrition education than the traditional mode of delivering a series of individual or small group lessons. Specifically, the video lessons, including home visits and other appointments, cost less to administer than the traditional lessons. The total cost for one PA's yearly caseload, including their time, travel costs, and lesson materials, was \$4,820 with the video lessons versus \$13,463 for the traditional lessons. This evidence demonstrates the fiscal advantage of using media as a health education tool.

Using Video to Improve WIC Professionals' Nutrition Counseling Skills.

A study by Whitaker, Sherman, Chamberlin, & Powers (2004) investigated how video can affect the behavior not of clients, but the health professionals themselves. The goal of the study was to improve WIC professionals' nutrition counseling skills. In their estimation, "WIC health professionals would be more likely to adopt new approaches to the problem of obesity if they first perceived the problem from the clients' perspective," (p. 380). The study consisted of screening *Beyond Nutrition Counseling: Reframing the Battle Against Obesity*, a 20-minute video specifically produced for the study, chronicling barriers WIC clients and their children face in obesity prevention. The content in the video was based on previous qualitative research by the authors. Following the screening, researchers conducted small, facilitated discussion groups that focused on possible solutions. The sample was non-random, comprised of self-selected WIC

professionals at the 2001 Kentucky Maternal and Child Health Conference (n=155). Before viewing the film, each participant was asked to fill out a questionnaire that included demographic information and questions about their perceptions of barriers that WIC clients encounter making healthy food choices. The participants were asked to answer these same questions immediately following the film and again after the group discussion. The participants were given different colored pens at T1, T2, and T3, which were used as a color-coding device for each test time.

The results showed that before the intervention, over half of the participants could not indicate any barriers and over 90% were unable to name any solutions. Following the intervention, this number increased – over a third of participants recorded one or more barrier than at baseline and one-fourth of the participants pinpointed one or more solutions. These results suggest that the video was successful in changing short-term perceptions of WIC professionals.

Effects from Media Exposure Alone Versus Media Exposure with Discussion.

One of the primary weaknesses of most of the research on the effects of media exposure is that it fails to differentiate between the effects of exposure to media alone and when paired with a discussion following the exposure. Rojas, et al. (2005) attempted to address this gap in the research by conducting a quasi-experimental study about the effects of viewing *Two Towns of Jasper*, a PBS documentary about a racial killing, on perceptions and attitudes about race.

The study randomly recruited public television members to participate. Participants were divided into three groups – one group was asked to attend a special

screening prior to the television premiere, followed by “media dialogue session”; a second group watched the film as a television broadcast with no formal subsequent discussion; and a third control group did not watch the film or participate in any discussion. Following the broadcast premiere, all 3,000 public television members of the Madison, WI area were mailed a survey about race issues, media and community engagement. The questionnaire also included demographic questions. 92 (10%) of those who responded attended the screening and forum; 239 (26%) only saw the film on television; and the rest of the respondents did neither. The researchers acknowledge that sampling from PBS members only was a major limitation in their research design, resulting in a non-representative sample. They also point out that those who attended the screening event were self-selected and tended to be young, liberal, lower-income women of color, with a history of political involvement. These demographic variables were consequently controlled for in the analysis of the results.

The results indicate that both exposure to the documentary film and the discussion increased all three of the criterion variables: 1) “awareness of racism”, 2) “willingness to discuss racial issues”, and 3) “willingness to participate in civic activities regarding racial issues” (p. 101). In congruence with these results, those exposed to the film scored higher on these variables than the control group. The study also concluded that the screening event and forum had a significantly higher impact on raising awareness of racism and willingness to participate in civic activities than merely viewing the film on its own. However, there was no significant difference between the forum group and the film group on “willingness to discuss racial issues.”

This study's significance is two-fold: 1) it verifies the notion that a documentary film can increase awareness of an issue, willingness to discuss that issue, and furthermore, willingness to take political action; and 2) it provides proof that participating in a discussion following a film screening significantly heightens these effects.

Conclusion

Documentary film, as evidenced by numerous studies, is a potent agent of change. Since the birth of film, the documentary genre has been utilized as a major component in effective public health campaigns. Documentary films have been shown to be successful in diverse public health settings to influence individual health behavior and attitudes – in a variety of populations from college students to WIC clients to health professionals themselves. In addition to swaying individual behaviors and attitudes, documentary films have proven to be a powerful method for influencing public policy change. The power documentary films wield lies not only in the finished film itself, but in the stakeholders of the larger issues addressed in the film. These individuals, organizations, and networks help take the messages in the film off the screen and onto the streets. These larger social-issue networks, along with mass media coverage use the documentary to shape public opinion around an issue, which in turn, affects policy change. Documentary film, therefore, can be seen as an instrumental tool in a broader social movement framework to impact change.

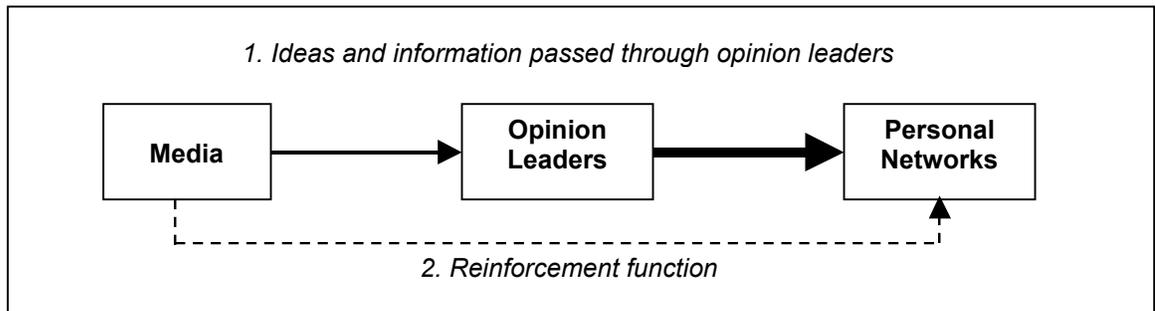
Chapter 6

Theoretical Frameworks

Two-Step Flow Theory

There is an abundance of media and communication theories to explain the impact of media on various aspects of society, including public health and social change (Atkin & Wallack, 1990; Katz & Lazarsfeld, 1955; Moyer-Gusé, 2008; Slater, 1999; Slater & Rouner, 2002; Wells & Hakanen, 1997). Katz and Lazarsfeld's two-step flow theory (1955), a communication theory, posits that information and ideas from the media are disseminated and spread from "opinion leaders" to "the less active sections of the population" (p. 32). According to this theory, every social group has specific opinion leaders who influence others' opinions. Opinion leaders operate in social networks, large and small, from associations and companies to circles of friends and families. The two-step flow of communication operates as follows: 1) opinion leaders pass on ideas and information from the media to others within their "network of interpersonal communication;" 2) these messages are then reinforced or counteracted when others encounter the same messages in the form of mass media, otherwise known as "reinforcement function" (p 45), see Figure 3. Influence is not solely a direct, one-way channel from the media to individuals, but rather through an interactive dissemination process that involves sharing and discussion of ideas. Recurrent exposure to the media helps to reinforce or sometimes counteract the ideas, bolstering public opinion.

Figure 3
Two-Step Flow Theory



This theory supports the avenues through which the media sets the public agenda. As Atkin and Wallack point out, “The mass media may not tell people what to think, but they clearly do tell people what to think about” (p.42). While heavily persuasive, media influence is not totalitarian, nor is it one-directional. Slater (1999) asserts, “[media] coverage can stimulate discussion between friends, family, colleagues, and neighbors that is likely to influence perceived social norms and expectations concerning the behavior, as well as impact [issue] salience directly” (340). The two-step flow theory helps to explain why discussions following film viewing increase changes in behaviors and attitudes more than just viewing a film on its own.

Stages of Change Model

Slater (1999) uses Prochaska and DiClemente’s stages of change model (also known as the transtheoretical model) to understand how media affect behavior and attitude, in order to effectively design communication campaigns. Although not a formal theory, the stages of change model developed as a method for understanding the process of health behavior change. It posits that individuals are continually moving through

different stages of thought regarding health behavior. The five stages are: 1) pre-contemplation – the individual is not cognizant of change or has no desire to change; 2) contemplation – the individual is thinking about making a change; 3) preparation – the individual gets ready to make a change or has the intention to change; 4) action – the individual takes some form of action; and 5) maintenance – the individual has made a significant change and is taking steps to maintain that change. Relapse is a sixth stage that may or may not have relevance (Prochaska & DiClemente, 1982). The stages, while sequential, are constantly in flux, wherein individuals move back and forth along the spectrum.

Slater (1999) discusses how to use these five stages to effectively tailor health communications strategies. He suggests specific communication strategies for each stage in order to move an individual from one stage to the next. The intended outcome and suggested strategies are outlined in Table 1 below.

Table 1
Stages of Change Health Communication Strategies

| Stage of Change | Intended Outcome | Communication Strategy |
|----------------------------------|---|--|
| Precontemplation → Contemplation | Increased awareness about the issue | Dramatic/entertaining Simple messages Credible sources Repetition |
| Contemplation → Preparation | Acceptance of issue Willingness to act | Narrative/entertaining Dangers/threats Anecdotal information |
| Preparation → Action | Political action Behavior change | Modeling of necessary skills Repetition Hard evidence Quantitative data/statistics Strong language |
| Maintenance | Sustained change Continued involvement | Reinforcement Quantity of messages more important than content of messages |

The goal in moving an individual from precontemplation to contemplation is increasing awareness about an issue. The communication strategies best suited for this stage are the use of simple, entertaining, and dramatic methods. Anecdotes and examples are powerful methods of persuasion for this stage. Additionally, it is critical that messaging comes from a credible source and is repeated multiple times through multiple channels (Slater, 1999).

In persuading an individual to move from contemplation to action, many of the same strategies are employed. The communication form should again be narrative and entertaining, using testimonials and anecdotal information. At this stage, it may be effective to illustrate the threats or dangers the issue poses. Human-interest stories about those affected by the issue have more salience at this stage than statistics. The intended outcome of these strategies is acceptance of an issue and a willingness to act (Slater, 1999).

Slater (1999) asserts that the move from preparation to action is an iterative process. "A person experiments with a new behavior, tries it again, and eventually, one hopes, adopts it with some success" (p. 347). In order to assist the individual in adopting the new behavior, it is essential to provide modeling of the necessary skills. It is also important to offer repetitive messages to reinforce issue salience and bolster motivation. Crucial to this stage is providing hard evidence and quantitative data to drive an individual to take action. In addition to statistics and hard facts, stronger language than employed during earlier stages is pivotal.

Finally, health communication strategies to keep an individual in maintenance focus on reinforcing the behavior and the salience of the issue. The quantity of messages

is more important during this stage than message content. Repetition is critical during this stage, as well as the previous stage, to keep the individual motivated and interested in the issues. The intended outcome of this final change stage is sustained behavior change, or in the case of political action, continued civic involvement.

Borrayo (2004) used this model to design an 8-minute education-entertainment soap opera video targeting low-literacy Latina women to get screened for breast cancer. Breast cancer is the leading cause of cancer deaths among Latina women, due in part to lack of preventative screenings. The goal of the video was to raise awareness about breast cancer and move Latina women who were in the precontemplation stage of readiness to the contemplation stage. Using Slater's communication strategies for this stage of change, Borrayo designed a culturally relevant, dramatic, and entertaining narrative soap opera entitled "Where's Maria?" using focus groups and interviews to develop the content. The researcher notes that evaluation of the effectiveness of "Where's Maria?" is currently being tested, but no results have been published.

Different theories can be employed within each of the various stages of change that apply to the characteristics of each stage. Slater cites many theoretical applications such as "salience of threat" from protection motivation theory in the precontemplation to contemplation stage; "address key identified beliefs" from the theory of reasoned action in the contemplation to preparation stage; and "modeling" from social cognitive theory in the preparation to action stage (Slater, 1999, p. 346). Each theory is not limited to only one stage – there is crossover among both stages and theories. Elements of all of the theories above are evident during multiple stages.

For the purpose of this review, the specifics of the above theories and how they apply to the documentary film *Food Stamped* will not be examined. An in-depth theoretical analysis of these theories is beyond the scope of this paper. However, both the two-step flow theory and the stages of change model as well as the extended elaboration likelihood model (see below) will serve as the theoretical framework for defending the use of *Food Stamped* for political, social, and behavior change.

Extended Elaboration Likelihood Model: Education-Entertainment in Documentary Film

Effective communication strategies need to be entertaining and engaging (Moyer-Gusé, 2008; Singhal et al., 2004; Slater, 1999), in order for them to have a strong impact. Singhal and Rogers (1999, 2002, 2004) developed the concept of “entertainment-education,” which they define as, “the process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience members’ knowledge about an educational issue, create favorable attitudes, shift social norms, and change overt behavior” (Singhal et al., p. 5). The authors stress that entertainment-education is a communication strategy, not a communication theory.

Entertainment-education media has become a popular means of changing behavior and improving public health. Most of the literature regarding entertainment-education cites its use in mainstream television broadcast, typically in the form of dramatic narrative shows (Glik et al., 1998; Moyer-Gusé, 2008; Singhal et al., 2004). While the concept of using entertaining educational media is not novel, the popularity of entertainment-education for public health means began in developing countries in the

1980s in the form of soap operas (Singhal & Rogers, 2004). These programs are typically sponsored in part by public health agencies and government institutions.

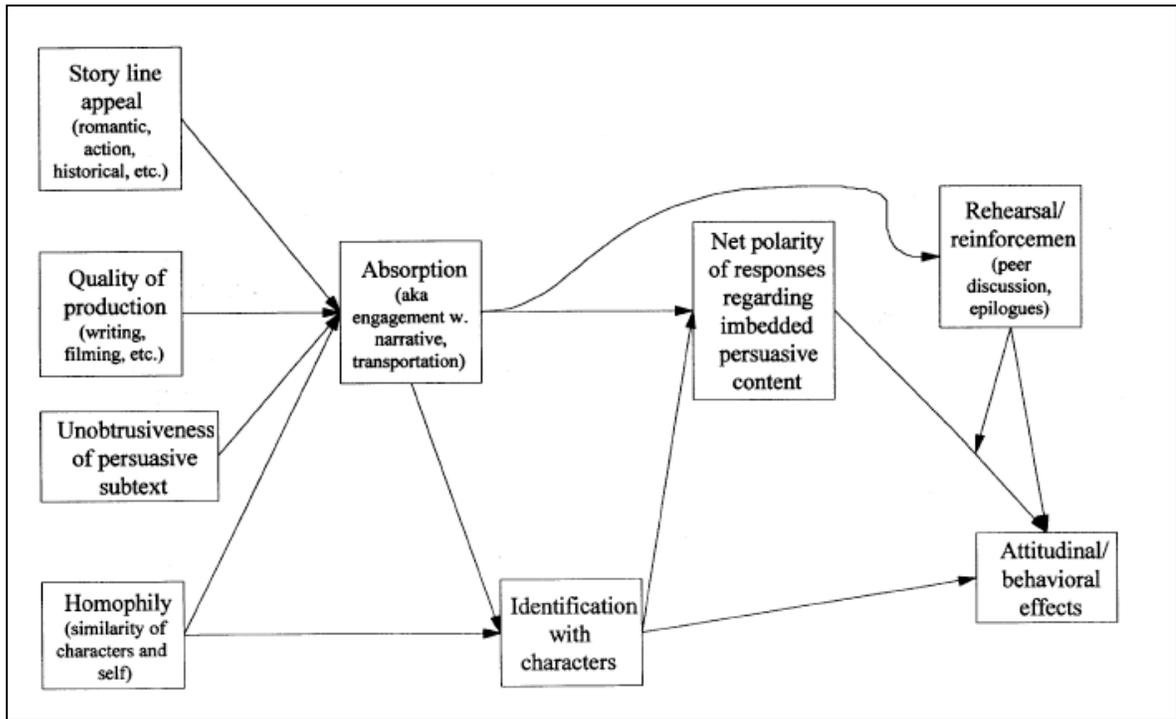
Discussion of documentary films and entertainment-education in the literature is scant. A search for “entertainment education” and “documentary” or “documentaries” in all of EBSCO Host’s databases resulted in zero relevant articles. Meanwhile, a search for “entertainment-education” resulted in 736 articles. Singhal et al. do not exactly mention documentary film as a genre of entertainment-education, but they do discuss the use of reality television in entertainment-education. This is important to note as the film *Food Stamped* uses a first-person narrative approach that has some of the characteristics of reality television. Additionally, while there is no specific mention of documentary film as “entertainment-education” in the literature, documentary films can none-the-less be both entertaining and educational. In fact, the most successful box office documentaries have utilized a combination of these strategies (Horton, 2005,).

As noted by Slater (1999), media that is entertaining and engaging is more likely to move individuals from precontemplation to contemplation and from contemplation to action. The filmmakers employ the use of humor and a narrative storyline in *Food Stamped* to entertain audience members while simultaneously educating them about serious health equity issues. Instead of creating a social-issue documentary that consists solely of talking heads and verité footage, the filmmakers take the audience on a weeklong experiment with them, very similar to reality television programs. *Food Stamped* shares many of the characteristics of entertainment-education, including “narrative involvement,” “involvement with characters,” “identification with characters,” “perceived similarity” to the characters, and likeability of the characters (Moyer-Gusé,

2008, p. 409-411). These characteristics help the audience become engaged and invested in the film, which ultimately may lead them to become invested in the larger social themes addressed.

The extended elaboration likelihood model (E-ELM) serves as a theoretical framework for understanding how the above characteristics help audiences become engaged. Slater and Rouner (2002) expanded upon Cacioppo and Petty's elaboration likelihood model (ELM) to explain the unique effects of entertainment-education on influencing attitudes and behavior. ELM is an audience-centered model for analyzing "message reception and processing" (p. 175). Cacioppo and Petty (1986) developed ELM as a framework for understanding the various cognitive processes involved in evaluating persuasive message and the likelihood of adopting attitude or behavior changes as a result of those arguments. Slater and Rounder suggest an "extended elaboration likelihood model" (E-ELM) to analyze the role that education-entertainment plays in attitude and behavior change. According to the authors, the main difference between the original elaboration likelihood model and the extended model is the use of "identification with characters and engagement with the story line to predict the effectiveness of the persuasive subtext as well as of the narrative" (177). Their extended elaborated likelihood model is illustrated in Figure 4.

Figure 4
Extended Elaboration Likelihood Model



(Slater & Rouner, 2002, p. 178)

The E-ELM logic model above illustrates the relationship between different elements of a narrative and how they lead to attitude or behavior change. Four key characteristics contribute to what the authors call “absorption.” Absorption includes “transportation” into the story as well as “engagement with the narrative.” “Story line appeal,” the “quality of production,” “unobtrusiveness of persuasive subtext,” and “homophily” all determine whether or not audience members engage with the narrative. (Slater & Rouner, 2002, p.178). In addition, homophily helps audience members identify with the characters. Successful absorption and character identification lead audience members to accept the persuasive argument, which in turn influences the likelihood that they will change their attitude or behavior toward a specific issue. Furthermore, group discussions and peer influence reinforce these changes. The reinforcement component of

E-ELM can be viewed as analogous to Katz & Lazarfeld's reinforcement element in their two-step flow theory (1955).

Moyer-Gusé (2008) expands on this framework with the “entertainment overcoming resistance model” that specifies how different elements of entertainment such as transportation, identification, and enjoyment help lessen resistance to an argument (p. 415) (see appendix A). He states, “because of its narrative structure, entertainment-education facilitates an emotional experience of being swept up into the narrative itself and becoming more involved with the characters therein. This ‘involvement’ may help to overcome various forms of resistance to persuasion” (p. 408). According to the tenets of both E-ELM and the entertainment overcoming resistance model, the narrative arc, characters, and use of humor in *Food Stamped* allows audience members to laugh, enjoy themselves, and identify with the characters in the story, all of which ultimately leads them to be less likely to counter the messages in the film.

Chapter 7

Food Stamped Social Impact Goals

Film Goals

As discussed above, documentary films have an immense amount of potential to increase awareness, inspire political and civic engagement, and change behavior. The goals of *Food Stamped* are aligned with the larger social movement of food justice. Food justice is defined as “the notion that everyone deserves healthy food and that the benefits and risks associated with food should be shared fairly” (Vallianatos, 2009, p. 186).

The film itself is one component of a larger social change framework. As the research shows, viewing a film on its own does not have the same impact as when it is a part of a larger health communication campaign. Discussion groups following the film, partnerships with activist groups, educational materials, and an outreach campaign all help to increase the social impact of a film such as *Food Stamped*.

The ultimate goal of the film is to reduce health disparities for low-income Americans. This can be achieved in part by transforming current government food policy to encourage the consumption of healthy foods and reduce the amount of government subsidies for “junk” foods. While changing public policy may be the end goal, several key shifts such as increased public awareness and mass civic engagement, are necessary before this can happen.

Target Audiences and Outcome Objectives

General Audience. *Food Stamped* attempts to target several audiences within varying stages of change (see Table 2). The first target audience is the American general

public, specifically middle-class individuals who may not be aware of the linkages among socio-economic class and health. These individuals may be in the precontemplation or contemplation stage of change, in which they are either unaware of the issues, or may be somewhat cognizant, but without a desire to take any action. For those in the precontemplation stage, the film aims to increase awareness and salience of food justice issues. As noted by Slater (1999), the most effective communication strategy for audience members in the precontemplation stage is the use of simple, entertaining messages from credible sources with the outcome objective being increased awareness of the issue. *Food Stamped* offers a fun and light-hearted approach to serious issues, making the film easily digestible for all audiences. The narrative approach engages audiences, while simultaneously informing them.

Table 2
Outcome Objectives for General Audiences of Food Stamped

| Stage of Change | Intended Outcome |
|----------------------------------|---|
| Precontemplation → Contemplation | Increased awareness about relationship between food policy, income level, and obesity |
| Contemplation → Preparation | Acceptance of argument Desire to take action |
| Preparation → Action | Taking the following actions: 1) Lobbying elected officials to change Farm Bill in 2012 2) Getting involved with changing food in their local schools 3) Volunteering for or donating to local food security organizations 4) Eating a healthier diet |
| Maintenance | Sustained change Continued involvement |

This approach is also useful for audience members in the contemplation stage. For individuals in this stage, the objective is to instill the desire to take action and move into the preparation stage. Use of anecdotal information has proven to be effective for

individuals in this stage (Slater, 1999). The film provides a variety of sincere and emotional vignettes that portray individuals and families affected by hunger and food insecurity. As noted previously, these human-interest stories have been found to have a stronger impact on moving an individual from the contemplation stage to the preparation stage than the presentation of statistical information.

However, hard facts and quantitative data are essential in order to move an individual from preparation to action. The film shows evidence from the CDC and statistics from other credible sources to illustrate the severity of the problem and the need for social change. Interviews with politicians, nutrition experts, and leaders of food justice organizations add further to the seriousness of the issues. For those in the preparation stage, *Food Stamped* strives to inspire them to take one or more of the following actions, specifically: 1) lobby their elected officials to reform the Farm Bill in 2012; 2) get involved with changing school food in their local area; 3) volunteer for or donate to local food security organizations such as the ones highlighted in the film; and 4) eat a healthier diet.

Additionally, modeling behavior is essential during this stage as individuals prepare to take action (Slater, 1999). Several examples of modeling are evident in the film, including the filmmakers shopping and cooking healthy and affordable meals; low-income individuals using food stamps at farmers' markets; children, youth, and families cooking and gardening; and people young and old attending an "End Hunger" political rally. All of these examples demonstrate to the viewer multiple ways to get involved.

The outcome objectives for those in the final stage of change, maintenance, are sustained change and continued involvement. The filmmakers aim to achieve this

through avenues outside of the film, including email newsletters, social network site updates and feeds, and online community forums. Community partnerships and activist networks are also critical to sustaining change and active community involvement.

High School and College Students. The light-hearted and entertaining approach to serious subject matter makes “Food Stamped” especially appealing to youth members. Additionally, the film delves into many of the social and political issues addressed in both high school and college curriculum. Researchers Hekler, Gardener and Robinson (2010) demonstrated that exposing students to political videos and other popular-culture media forms has a greater effect on their behavior than when traditional textbook methods were employed. Cottone and Byrd-Bredbenner’s study of the effects of *Super Size Me* on college students showed how viewing the entertaining and emotionally-arousing documentary increased students’ knowledge, self-efficacy and internal locus of control towards eating less fast food.

Food Stamped focuses on many of the social justice and political issues as those covered in the Food and Society course, including health equity, food security, and farm subsidies. *Food Stamped* also uses the comedic first person-narrative approach as *Super Size Me* to discuss serious political and health issues. Several universities such as the School of Journalism at the University of California, Berkeley and the Rudd Center for Food Policy and Obesity at Yale University have used the film in similar college courses as the Food and Society course. The primary focus of these courses is on health disparities; however, as Hekler, Gardner, and Robinson’s study shows, the use of films

such as *Food Stamped* in these courses can have the added effect of changing students' eating behavior as well.

Public Health Professionals. Another target audience for *Food Stamped* is the public health professional community. Doctors, nutritionists, nurses, and many other public health professionals work with low-income individuals and families. This film illustrates the uphill battle low-income Americans face in trying to eat a healthy diet, and may help to open conversations with their clients and one another.

As seen in the study of WIC professionals by Whitaker, Sherman, Chamberlin, and Powers (2004), film and video can improve health professionals' consulting skills. The film in the study depicted barriers that WIC clients experience trying to eat a healthy diet. Similarly, *Food Stamped* shows the web of obstacles that low-income Americans encounter in terms of food and health. The film shows both the clients' perspective, (such as the scene of individuals applying for food assistance and the scene of an obese man with type 2 diabetes shopping with food stamps) as well as the nutrition professional's perspective (the nutrition educator taking the food stamp challenge and teaching in the schools).

There are many potential audiences and applications for *Food Stamped* within the public health field. To date, the film has been shown in several different capacities in the health professional community. WIC offices and other nutrition assistance organizations have shown the film as part of staff training sessions; the University of Minnesota showcased the film as part of its Public Health Film Festival; faith-based groups have used the film for volunteer trainings; and the Albert Einstein College of Medicine at

Yeshiva University screened the film after having all of their medical residents take the food stamp challenge.

Activist Groups. Documentary films have a reciprocal relationship with activist groups. Activist networks can use documentaries about their target issues in several ways. Social issue documentaries have the potential to be used as training tools and educational resources for staff and volunteers (Whiteman, 2004). Documentaries can also help promote activist organizations and recruit new members (Whiteman, 2009). Additionally, the documentary provides an authoritative voice, which can be used by activist groups as part of an arsenal to make their case. In reference to Rob Danielson's documentary about the mining industry, *From the Ground Up*, one activist noted that the documentary was "a powerful, powerful tool...a tool in the bag of tools" (as quoted in Whiteman, 2004, p. 61).

Conversely, activist groups support documentary films get distribution through their broad bases. Activist organizations have the resources, space, and reach to get films seen by mass amounts of people in a way that could not be accomplished by filmmakers alone. The larger the organizations are, the greater impact potential exists. Activist organizations also help spread the word about documentaries through local, regional, national, and even international social networks.

Food Stamped portrays an interrelated web of social issues that speak to a variety of activist organizations. Political advocacy groups, food assistance organizations, community gardens, and food justice coalitions are a few examples of activist groups that may be interested in using the film to further their efforts. Thus far, community gardens

and farmers markets have screened *Food Stamped* as fundraisers for their organizations; Slow Food Arizona showed the film as part of their “Food Film Festival”; and various Americorps groups have used it to train volunteers. The filmmakers aim to increase screenings among more activists organizations, especially food and policy advocacy groups, to help further the political impact of the film.

Chapter 8

Distribution and Outreach Strategies

Distribution

In order for *Food Stamped* to have a powerful impact, it needs to be seen by as many individuals as possible. National DVD distribution and television broadcast have the widest reach and are the ultimate distribution goal for the film. However, they are not the only means for reaching large audiences across the country and making an impact. This section includes current strategies for distribution as well as recommendations for the future.

Film festivals. Film festivals provide a built-in audience and give the film credibility. Often times, film festival screenings are accompanied by press coverage, which in turn drives traffic to the film's website and social network site pages. National distributors and other members of the film industry attend many of these festivals and pay attention to which films are selected for festival screenings. Getting accepted to and winning awards at film festivals assists in convincing national distribution companies to purchase the rights to a particular film. Furthermore, film festivals provide a venue for establishing partnerships with local community groups. To date, *Food Stamped* has screened at five competitive film festivals across the country and won the Feature Jury Prize at the 2011 San Francisco Independent Film Festival. Film festivals also present an opportunity to show audiences how they can get involved. The filmmakers have partnered with several food security organizations at each festival to coordinate food drives and fundraisers to benefit these organizations. Future plans are to continue to

screen *Food Stamped* at film festivals throughout the rest of the year to build credibility and audience engagement.

Educational and institutional screenings. The filmmakers' ultimate goal for selling DVDs to educational institutions is to obtain a national educational distributor. A national distributor would reach exponentially more institutions than self-distribution, and would handle all of the associated DVD production and shipping costs. However, the filmmakers are currently self-distributing licenses to educational institutions and other organizations successfully through the film's website and word of mouth. Student associations, university libraries, and professors from universities and colleges throughout the country have learned about the film either through word-of-mouth, festival screenings, or the film's website. These institutional screenings have a chain-reaction effect, spurring further screenings of the film.

Consumer DVD release. Ultimately, the film will reach the widest number of viewers through a national consumer DVD release. With or without a national distribution deal, individuals will be able to purchase or rent the film online through various outlets. The filmmakers intend to solicit a significant amount of press coverage at the time of the DVD release to promote rentals and sales. With the national consumer DVD release, the filmmakers will encourage screening parties through the film's email list to maximize screening opportunities.

Outreach

Simply watching a documentary may not be a sufficient catalyst for change. An effective community engagement and outreach strategy is needed to motivate audience members to take action after seeing the film. Community partnerships, updates, action item prompts, and interactive tools on the film's website will all assist in engaging viewers to transform the movie into a movement. Key to this strategy is being a part of the large social issue network (Whiteman, 2009). Partnering and networking with other organizations on the ground and on the web will be critical to creating social change.

Community partnerships. As mentioned previously, partnering with community organizations and activist groups is essential in an effective community outreach campaign. The filmmakers have already partnered with several local and national food security and food justice organizations. Plans for the future include cross promotion on respective websites and social networking sites. The film's website provides links to partner organizations and in turn, the partner sites will display upcoming screening information and/or a link to the film's website. Partners also share links and news updates on respective Facebook pages and Twitter feeds. Additionally, screenings hosted by community partners will offer fundraising and recruiting opportunities for the partner organization. Facilitated discussions following the film will help engage audience members to take action.

Newsletters. The filmmakers will send out monthly email newsletters with updates on the issues and targeted action items that will help sustain audience members'

involvement. Viewers can sign up for an email list on the film's website. Every newsletter will have at least one suggested action item that subscribers can easily achieve, such as sign a petition or donate to a campaign, with a link provided. The newsletter will also include one success story from an individual who made a difference in their community. This success story will serve as both a model for others as well as an incentive to take action. Finally, every newsletter will highlight the work of a different non-profit organization from around the country, with a link to learn more about how to get involved.

Interactive website. Websites are the hub of contemporary social action campaigns. In addition to film information, press coverage, links to partner organizations, and detailed information on the issues addressed in the film, the film's website includes interactive elements to facilitate community engagement and political action. These features include a petition form where viewers can sign a petition for a "Fair Farm Bill" from the national policy group Food & Water Watch; an interactive "Food Stamp Challenge" blog where users can post their own stories, photos, and recipes; tips for eating healthfully on a budget; and a "Five Steps You Can Take" action item list. Several of the pages on the website encourage comments and blog posts. These forums enhance the dialogue between audience members and create an online community. In addition, the website includes a "Share Your Story" page where anyone can post their success story. As mentioned above, one story will be included in the film's monthly newsletter.

Chapter 9

Recommendations

Educational Curriculum

While *Food Stamped* provides educational content in the film, supplemental educational materials are vital to increasing the effectiveness of a film in the areas of attitude and behavior change (Cottone & Byrdbrenner, 2007; Rojas et al., 2005; Whiteman, 2004, 2009). As the film has several target audiences, a tailored educational curriculum needs to be developed for each. Separate curriculum and supplemental educational materials for high school and college students, health professionals, activist groups, and general audiences need to be created. The filmmakers have already partnered with several university professors to develop lessons to be used with the film. Further recommendations for developing educational curriculum include: 1) partnering with high school teachers and students to develop high school curriculum aligned with core educational standards; 2) partnering with health professionals and activist groups to develop educational materials appropriate for diverse audiences; 3) developing a general educational guide with discussion questions, information on the issues, and possible action items to be inserted into DVD cases. All of the educational materials will be available to download from the film's website.

Evaluation

Evaluation is critical in determining the impact *Food Stamped* will have on attitudes, behavior, and social change. Evaluation recommendations include several

quantitative and qualitative measures to address process, impact and outcome evaluation (see the *Food Stamped Logic Model* in Appendix B).

Process Evaluation. To assess the reach of the film, the filmmakers will track the number of screenings and attendees at each screening, and the number of DVDs sold. In addition, hits to the website, “followers” on Facebook and Twitter, and members of the email list will be counted. The filmmakers will keep a detailed record of all partnerships formed with contact information and details about each organization. The filmmakers will keep records of money spent on the project in terms of hours and expenses. Additionally, the method of distribution will be noted. Table 3 below outlines the process evaluation.

Table 3
Process Evaluation

| Evaluation Q | Data Methods | Data Elements | Data Analysis |
|---|--|--|----------------------------|
| What was the amount of time and money invested? | Tracking: - Hours worked - Money spent | Receipts Record of hours | Filmmakers |
| What partnerships were formed? | Keeping record of partnerships | Partnership list Emails | Filmmakers |
| What was the method of distribution? | Tracking distribution methods | Contracts Emails | Filmmakers |
| How many people saw the film? | Counting # of screenings and attendees | Screening records Box office sales Attendance sheets | Filmmakers |
| How many people visited the website | Tracking website hits | Website | Filmmakers |
| How many people joined the mailing list? | Tracking # on email list | Email list | Filmmakers |
| How many people purchased a DVD? | Tracking sales information | Receipts Purchase records | Distributor/ Filmmakers |

Impact Evaluation. An impact evaluation will assess the extent to which the film increased knowledge, awareness and engagement; the effect it had on changing attitudes and behavior; and how it impacted policy. Several research methods need to be

utilized, such as pre-post test surveys, interviews, observations, and testimonials.

Research studies, similar to Cottone and Byrd-Bredbenner's 2007 study of the impact of *Super Size Me* on college students (using a pretest, posttest, follow up control group design) will serve as models to evaluate the effects on knowledge and attitudes. Research investigating the effects of seeing the film on eating habits, similar to Hekler, Gardner, and Robinson's 2010 study, shall be included as well. Replicating the research design across different audience segments will be essential to fully understand how the film impacts attitudes and behaviors. To measure audience engagement, the filmmakers will look at increased donations and rates of volunteerism at partner organizations, increased number of signatures on petitions, and number of posts to the forums on the film's website. Interviews with community partners will also be used to gain qualitative data regarding how the film impacted their organizations. Changes in policy may directly or indirectly result due in part to the film. While causality is difficult to determine (Whiteman, 2004, 2009), any policy changes that occur after the release of the film are still important to note. See Table 4 below for a summary of the planned impact evaluation.

Table 4
Impact Evaluation

| Evaluation Question | Data Methods | Data Elements | Data Analysis | Notes |
|---|--|--|----------------------|--|
| To what extent did audience members' knowledge/ awareness increase? | Pretest and posttests surveys Interviews Observations Testimonials | Questions about knowledge of issues covered in the film | Evaluator | Multiple samples from different audience segments needed |
| To what extent did audience members' attitudes change? | Pretest, posttests and follow-up surveys Interviews Observations | Questions about attitudes regarding issues in the film | Evaluator | Multiple samples from different audience segments needed |
| To what extent did policy change? | Looking at policy before/after | Farm Bill | Consultant | Will partner with policy consultant |
| To what extent did engagement increase? | Interviews with partner organizations Number of posts to website Petition signatures | Volunteerism records Website posts Petition signatures | Evaluator | |

Outcome Evaluation. The long-term outcomes for the film are broad in their scope. They include a decrease in food insecurity, an increase in the affordability and availability of healthy foods in low-income areas, and an improvement in dietary habits – all of which ultimately result in reduced health disparities that negatively impact low-income Americans. Determining the exact extent to which the film will directly impact these outcomes will be difficult, if not impossible. As noted previously, the overall impact a documentary film has on social change is part of a large social issue framework. If these outcomes do occur, it will be due to numerous factors, some of which may be linked to the film, such as increased public awareness, civic engagement, and issue salience.

A better indicator of the film’s effectiveness is the impact evaluation, which measures these factors. Benchmarks that will indicate the film succeeded in having an impact include increased volunteerism and/or donations with local organizations;

qualitative testimonials about how the film impacted someone's life or motivated them to act; significant research study results that demonstrate a positive effect on knowledge, attitudes, and perceptions; and measurable outcomes in the 2012 Farm Bill reauthorization.

Limitations

Difficult to quantify larger social change. There are several limitations to this work. As previously discussed, it is difficult to quantify the exact impact documentaries have on larger social change. Documentaries are used by vast networks of activist and advocacy groups, working on the ground to create change as part of larger social campaigns. As such, the effects cannot be separated from these movements. (Whiteman, 2004). However, as Whiteman (2004, 2009) demonstrated through several documentary case studies, there are measurable outcomes from documentaries such as shifts in attitudes and beliefs or engaging activist groups, all of which help to change the public agenda and influence policy.

Further research needed. While this review showcases several research studies indicating the effects documentary films can have on attitudes, behaviors, and ultimately social change, the literature is still fairly limited and further research is recommended. It will be difficult to assess the achievement of all of the outcomes objectives for *Food Stamped*. In order to do so, several research studies across various audience segments and over a significant amount of time would be required. Lack of funds and time makes this task even more arduous. However, smaller scale research to assess the film's impact on short-term attitude and behavior change is within the scope of the filmmakers'

evaluation plans. A preliminary high school and college student survey instrument has been developed to evaluate the short-term effects of viewing the film on attitudes, perceptions, and intentions to change behavior (please see appendices C and D). This instrument has been tested, but requires further development. A large gap currently exists in the scientific literature on the effects of social-issue documentaries on health behaviors, attitudes, and beliefs. Research on the impacts *Food Stamped* has on different audiences will help to enrich the literature in this field.

Chapter 10

Conclusion

In conclusion, there is substantial evidence regarding the impact that documentary films can have on attitudes, behaviors, and social and political change. Documentaries, as part of a larger social issues framework, play an essential role in influencing public opinion and helping to set the public agenda. Activist networks, communications campaigns, and the mass media enhance the reach and impact of documentary film. Discussion within social groups exponentially furthers these effects.

Additionally, documentary film can be used as an instrumental intervention to increase public health. Since the birth of cinema, film has been utilized for public health campaigns. The broad array of health media on the market today, from entertainment-education television drama series to instructional nutrition videos, demonstrates the variety of innovative media strategies through which public health can be improved. Documentary films, specifically, have been used to increase knowledge and awareness about health issues, motivate individuals to modify health behaviors, and transform public health policy.

The documentary film, *Food Stamped*, with its narrative structure, use of humor, and entertainment-education approach, has the potential to influence a large cross-section of the American public. The film has the capability to engage a broad array of audiences, including high school and college students, health professionals, “foodies” and cooks, environmentalists, anti-hunger advocates, and other political activists. Various components of the film, such as anecdotal evidence, interviews with credible figures, statistical information, and modeling of actions, appeal to audience members in all of the

various stages of change. The stylistic approach and messaging in the film, as well as supplemental materials and strategies, all target different audience segments in each of these stages.

The film can be used to accomplish several concentric goals for audience members within each stage of change. At the most basic level, it can raise awareness about the relationship between socio-economic status and the obesity epidemic as well as the concept of food justice. At the proximal level, the film can influence individuals to change their dietary behavior and shopping habits. It can also inspire viewers to take some form of social or political action. Finally, at its broadest level, the film can be used to help influence food and farm policy.

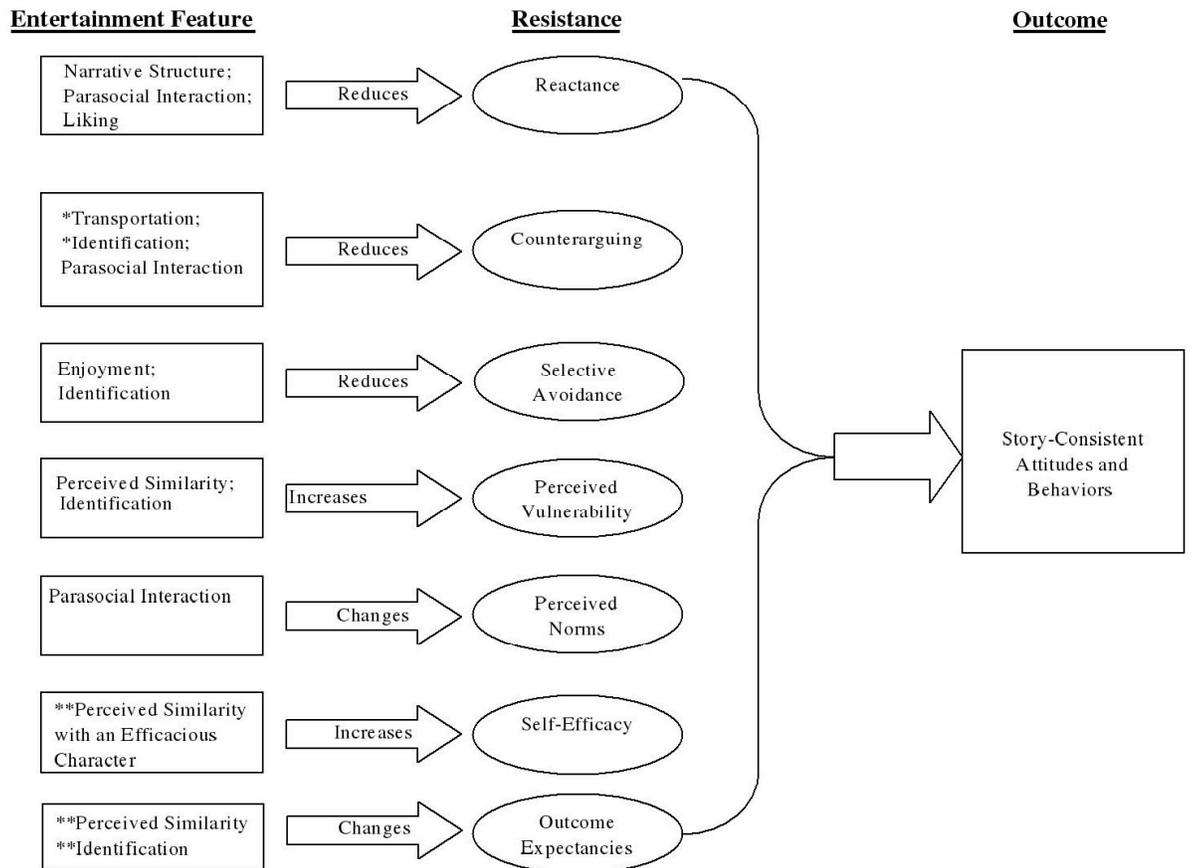
However, films do not exist in a vacuum. As evidenced in this review, a number of factors off the screen contribute to a film's success in creating social change. Activist groups, community-based organizations, and other social issue networks transform a movie into a movement. Thus, a variety of outreach and engagement strategies will be employed to assist in increasing the film's impact. Partnering with community organizations and activist groups will help the film to reach wider audiences and move the film's social impact goals forward. Tailored educational curriculum and materials will reinforce the messages in the film and will be used in discussions following screenings. Online interactive tools and updates will keep audience members engaged and informed.

This review illustrates how *Food Stamped* can be used to affect individual, political, and social change. *Food Stamped* addresses issues congruent with the tenets of the food justice movement and social-ecological model of public health, making this

documentary film a valuable educational, motivational, and political tool. The film depicts the entangled web of food inequities for low-income Americans in an easily digestible manner. Furthermore, the light-hearted, entertaining, and humorous approach broadens the appeal and increases the likelihood of audience engagement. In sum, *Food Stamped*, in conjunction with the broader food justice movement, has the capability to assist in the fight to transform future food and farm policy, increasing the availability and affordability of fresh and healthy food, and ultimately reducing health disparities for millions of low-income Americans.

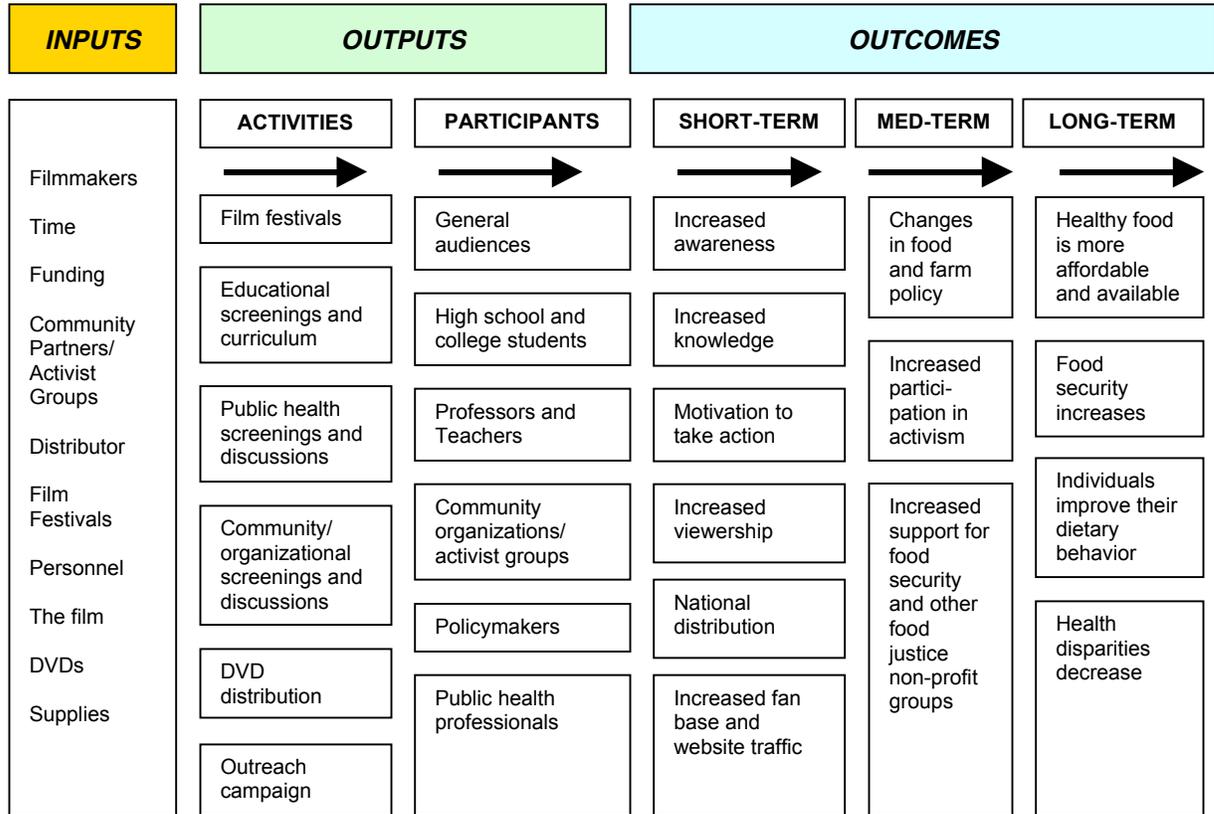
Appendix A

Moyer-Gusé's Entertainment Overcoming Resistance Model

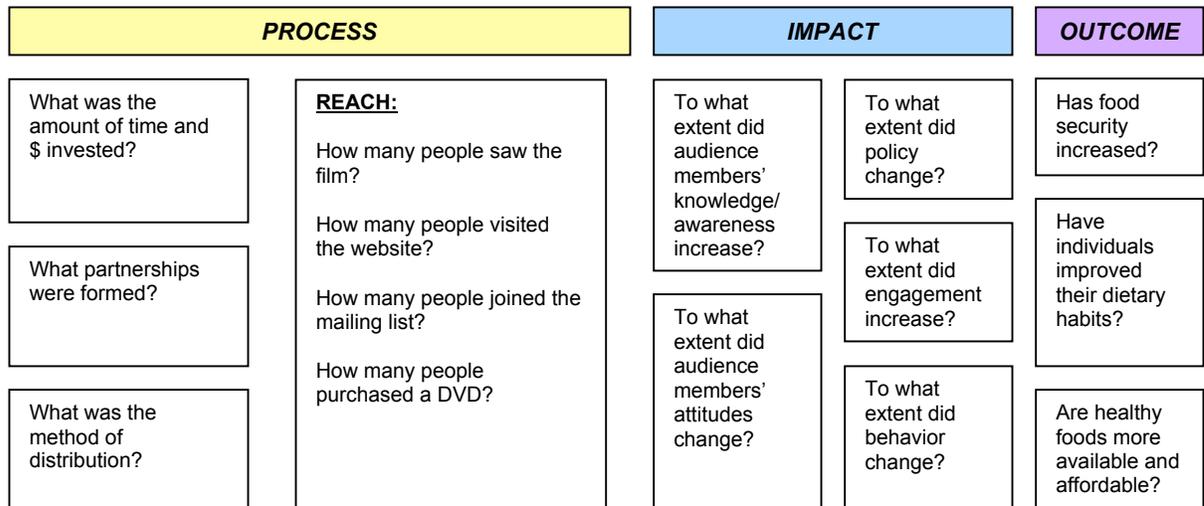


* Predicted by the Extended Elaboration Likelihood Model
 **Predicted by Social Cognitive Theory

Appendix B
Logic Model for Food Stamped Outcome Objectives



Evaluation Questions



Appendix C

High School Survey Instrument for Measuring Short-Term Impact on Students

Please answer the following questions as honestly as possible. YOUR HONEST OPINION MATTERS!!

Age: _____ Gender: Male Female Race/ethnicity: _____

High School Name: _____ City: _____

Do you now or have you ever qualified for free or reduced lunch at school? Yes No

Please rate the following statements on a scale from 1-5, 1 being strongly disagree and 5 being strongly agree. Circle the number that your best matches your answer.

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|--|-------------------|----------|---------|-------|----------------|
| This film was entertaining. | 1 | 2 | 3 | 4 | 5 |
| I learned a lot of things I did not know before seeing the film. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I am going to eat less fast/junk food. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I feel inspired to cook more. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I feel inspired to start my own garden or join a community/school garden. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I am going to eat more fruits and vegetables | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I am going to be more conscious about how I spend money on food. | 1 | 2 | 3 | 4 | 5 |

Please select which of the following materials you would be interested in. Select as many options as you would like.

- A youth-friendly website
- A blog where teens can share ideas, recipes, etc.
- A cookbook for teens with healthy, budget recipes
- Grocery shopping lists with healthy and budget recommendations
- A toolkit with ways to change school food
- Cooking classes at school or after school
- Other: _____

Did you learn anything from the film? If so, what?

Was there anything that surprised you?

Do you feel inspired after seeing the film? If so, how? If not, why not?

Would you take the Food Stamp Challenge after seeing this film? Why or why not?

Would you tell your friends to see this film?

Any other comments you would like to share?

Thank you for filling out this questionnaire. Your opinions are valuable to us and will help us to develop supplemental educational materials for high school students nationwide. All of the information you share with us is completely confidential, anonymous, and will only be used by the producers of the film.

Appendix D

College Student Survey Instrument for Measuring Short-Term Impact on Students

Please rate the following statements on a scale from 1-5, 1 being strongly disagree and 5 being strongly agree. Circle the number that your best matches your answer.

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|-------------------|----------|---------|-------|----------------|
| This film was entertaining. | 1 | 2 | 3 | 4 | 5 |
| I learned a lot of things I did not know before seeing the film. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I am going to eat less fast/junk food. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I feel inspired to cook more. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I feel inspired to start my own garden or join a community garden. | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I am going to eat more fruits and vegetables | 1 | 2 | 3 | 4 | 5 |
| After seeing this film I am going to be more conscious about how I spend money on food. | 1 | 2 | 3 | 4 | 5 |

Did you learn anything new from the film? If so, what?

Was there anything that surprised you?

Do you feel inspired after seeing the film? If so, how? If not, why not?

Have you or your family ever been on food stamps or other governmental assistance? If so, how did this film make you feel about your experience?

Would you take the Food Stamp Challenge after seeing this film? Why or why not?

Did this film inspire you to take political action? If so, how?

What audience(s) do you think would MOST benefit from seeing this film? (example: parents, Public Health students, teens, etc.) Please list as many as you think.

Any other comments you would like to share?

References

- Abbot, C., & Doering, C. (2009). One in seven Americans short on food. *Medline Plus: Trusted Health Information for You: A service of the US National Library of Medicine and the National Institutes for Health*. Retrieved October 2009, from: http://www.nlm.nih.gov/medlineplus/news/fullstory_91927.html
- Alaimo, K., Packnett, E., Miles, R.A., Kruger, D.J. (2008). Fruit and vegetable intake among urban community gardeners. *Journal of Nutrition Education and Behavior*, 40, 94-101.
- American Community Gardening Association. (n.d.). Retrieved April 2011, from <http://www.communitygarden.org/learn/faq.php>.
- American Dietetics Association (2009). Retrieved October 2009, from <http://www.eatright.org/cps/rde/xchg/ada/hs.xsl/index.html>
- Anderson, J.V., Bybee, D.I., Brown, R.M., McLean, D.F., Garcia, E.M., Breer, M.L., & Schillo, B.A. (2001). 5 a day fruit and vegetable intervention improves consumption in a low income population. *Journal of American Dietetics Association*, 101, 195-202.
- Andreyeva, T., Blumenthal, D., Schwartz, M., Long, M., Brownell, K. (2008). Availability and prices of foods across stores and neighborhoods: The case of New Haven, Connecticut. *Health Affairs*, 27(5), 1381-1388.
- Arthur, P. (2005). Extreme makeover: The changing face of documentary. *Cineaste*, 18-23.
- Atkin, C., & Wallack, L. (1990). *Mass Communication and Public Health: Complexities and Conflicts*. Newbury Park, CA, Sage Publications, Inc.
- Boon, T. (2008). Enough to Eat? *History Today*, 58(7), 50-51.
- Borrayo, E.A. (2004). Where's Maria? A video to increase awareness about breast cancer and mammography screening among low-literacy Latinas. *Preventive Medicine*, 39(1), 99-110.
- Breckwich Vasquez, V., Lanza, D., Hennessey-Lavery, S., Facente, S., Halpin, H., & Minkler, M. (2007). Addressing food security through public policy action in a community-based participatory research partnership. *Health Promotion Practice*, 8(4), 342-349.
- Brownell, K., & Horgen, K. (2004). *Food Fight: The inside story of the food industry, America's obesity crisis, and what we can do about it*. Chicago: Contemporary Books.

- Brownell, K., & Warner, K. (2009). The perils of ignoring history: Big tobacco played dirty and millions died. How similar is big food? *The Milbank Quarterly*, 87(1).
- Burtness, D. (2009). *Healthy Corner Store Strategies from Across the US*. Institute for Agriculture and Trade Policy: Minneapolis, MN. Retrieved October 2009, from www.iatp.org/iatp/publications.cfm?refID=106578.
- Butler, C.L. (Producer), & Koons, D. (Director). (2004). *The Future of Food* [Documentary film.] USA: Lily Films.
- Cacioppo, J. T., & Petty, R. E. (1984). The elaboration likelihood model of persuasion. *Advances in Consumer Research*, 11(1), 673-675.
- Carpenter, D. (2004, March 3). McDonald's to dump Supersize portions. *The Washington Post*. Retrieved March 2011, from <http://www.washingtonpost.com/wp-dyn/articles/A26082-2004Mar3.html>.
- Carson, K.L., Cox, R.H., Burney, J.L., Poole, K., & Wenrich, T.R. (2002). Do food stamps without nutrition education improve the nutrient intake of recipients? *Topics in Clinical Nutrition*, 17, 74-82.
- Centers for Disease Control and Prevention. (2008). *National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention.
- Centers for Disease Control and Prevention (2009). *Economic Consequences of Overweight and Obesity*. Retrieved October 2009, from <http://www.cdc.gov/obesity/causes/economics.html>.
- Cottone, E., & Byrd-Bredbenner, C. (2007). Knowledge and psychosocial effects of the film *Super Size Me* on young adults. *Journal of the American Dietetic Association*, 107(7), 1197-1203.
- Cox, R.H., White, A.H., & Gaylord, C.K. (2003). A video lesson series is effective in changing the dietary intakes of food-related behaviors of low-income homemakers. *Journal of the American Dietetics Association*, 103(11), 1488-1493.
- Dammann, K., & Smith, C. (2009). Factors affecting low-income women's food choices and the perceived impact of dietary intake on socioeconomic status on their health and weight. *Journal of Nutrition Education and Behavior*, 41(4), 242-252.
- DeNavas-Walt, C., Proctor, B.D., & Smith, J.C. (2010) *Income, poverty, and health insurance coverage in the United States: 2009*. US Census Bureau: US

Department of Commerce; Economics and Statistics Administration, Washington, D.C. Retrieved November 2010 from <http://www.census.gov/hhes/www/poverty/data/index.html>.

- Dinour, L., Bergen, D., & Ming-Chin, Y. (2007). The food insecurity-obesity paradox: A review of the literature and the role food stamps may play. *Journal of the American Dietetic Association*, 107(11), 1952-1961.
- Drewnowski, A. (2009). Obesity, diets, and social inequities. *Nutrition Reviews*, 67 (Suppl. 1), S36-S39.
- Drewnowski, A., & Darmon, N. (2005). Food choices and diet costs: An economic analysis. *The Journal of Nutrition*, 135, 900-904.
- Drewnowski, A., & Specter, S. (2004). Poverty and obesity: The role of energy density and energy costs. *American Journal of Clinical Nutrition*, 79(79), 6-16.
- Duffey, K., & Popkin, B. (2008). High fructose corn syrup: Is this what's for dinner? *Journal of American Nutrition*, 88 (Suppl.), 1722S-32S.
- Flegal, K.M., Carroll, M.D., Ogden, C.L., & Curtin, L.R. (2010). Prevalence and trends in obesity among US adults, 1999-2008. *Journal of American Medical Association*, 303(3), 235-241.
- Food and Water Watch. (2007). *The Farm Bill and Your Health Fact Sheet*. Washington, D.C. Retrieved October 2009, from <http://www.foodandwaterwatch.org/factsheet/the-farm-bill-and-your-health>.
- Fortier, J. (Producer & Director). (2008). *Unnatural causes: Bad sugar* [Documentary film.] USA: California Newsreel.
- Gentile, Annie (2008, March). Agencies move to close 'grocery gaps.' *American City and Country*, pp. 22-24.
- Gibbs, W., & Lyall, S. (2007, October 13). Gore shares peace prize for climate change work. *The New York Times*. Retrieved February 2011, from http://www.nytimes.com/2007/10/13/world/13nobel.html?_r=1&scp=3&sq=al%20ogore%20nobel%20peace%20prize%20documentary&st=cse
- Glik, D., Berkanovic, E., Stone, K., Ibarra, L., Jones, M., Rosen, B., ... Richardes, D. (1998). Health education goes Hollywood: Working with prime-time and daytime entertainment television for immunization promotion. *Journal of Health Communication*, 3(3), 263-282.
- Goldhagen, J. (2007). Health equity "treatment" for the root cause of obesity. *Northeast Florida Medicine*, 58(4), 37-41.

- Greenstreet, S. (Producer & Director). (2008). *Killer at Large: Why Obesity is America's Greatest Threat*. [Documentary film.] USA: Shinebox Media Productions.
- Hekler, E.B., Gardner, C.D., & Robinson, T.N. (2010). Effects of a college course about food and society on students' eating behaviors. *American Journal of Preventative Medicine*, 38(5), 543-547.
- Herman, D., Harrison, G., & Jenks, E. (2006). Choices made by low-income women provided with an economic supplement for fresh fruit and vegetable purchase. *Journal of the American Dietetics Association*, 106, 740-744.
- Holtz, A. (2007). Scriptdoctor: medicine in the media: national survey shows Michael Moore's *Sicko* did indeed provoke discussions about US health care system. *Oncology Times*, 29(18), 28-29.
- Horton, A. (2005). Documentaries hit the multiplexes. *World Literature Today*, 68-69.
- Jetter, K., & Cassady, D. (2006). The availability and cost of healthier food alternatives. *American Journal of Preventative Medicine*, 30(1), 38-44.
- Johnson, D.B., & Smith, L.T. (2006). Testing the recommendations of the Washington State Nutrition and Physical Activity Plan: the Moses Lake case study. *Preventing Chronic Disease: Public Health Research, Practice, and Policy*, 3(2), 1-10.
- The Kaiser Family Foundation. (2007). *Awareness and Perceptions of the Movie "Sicko."* Retrieved March 2011, from <http://kff.org/kaiserpolls/pomr082707pkg.cfm>.
- The Kaiser Family Foundation. (2007). *Michael Moore's "Sicko" – Broad reach and impact even without the popcorn?* Retrieved March 2011, from <http://kff.org/kaiserpolls/pomr082707nr.cfm>.
- Kalafa, A., & Gunuey, A. (Producers & Directors). (2007). *Two Angry Moms* [Documentary film.] USA: A-Ray Productions.
- Katz, E., & Lazarsfeld, P.F. (1955). *Personal Influence: The Part Played by People in the Flow of Mass Communication*. New York: The Free Press.
- Kenner, R. (Producer & Director). (2009). *Food, Inc.* [Documentary film.] USA: Magnolia Pictures & Participant Media.
- Kropf, M.L., Holben, D.H., Holcomb, J.P., & Anderson, H. (2007). Food security status and produce intake and behaviors of Special Supplemental Nutrition Program for Women, Infants, and Children and Farmers' Market Nutrition Program

- Participants. *Journal of the American Dietetic Association*, 107, 1903-1908.
- Kupillas, L., & Nies, M. (2007). Obesity and poverty: Are food stamps to blame? *Home Health Care Management & Practice*, 20(1), 41-49.
- Landers, P. (2007). The food stamp program: History, nutrition, education and impact. *Journal of the American Dietetic Association*, 107(11), 1945-1951.
- Larsen, K., & Gilliland, J. (2009). A farmers' market in a food desert: Evaluating impacts on the price and availability of healthy food. *Health & Place*, 15(4), 1158-1162.
- Larson, N., Story, M., & Nelson, M. (2009). Neighborhood environments: Disparities in access to healthy foods in the US *American Journal of Preventative Medicine*, 36(1), 74-81.e10.
- Levy, J. (2007). *Ten Ways to Get Healthy, Local Foods into Low-Income Neighborhoods*. Institute for Agriculture and Trade Policy: Minneapolis, MN.
- Markowitz, L. (2010). Expanding access and alternatives: Building farmers' markets in low-income communities. *Food and Foodways*, 18, 66-80.
- Marsh, B. (2010). Visual education in the United States and the "Fly Pest" campaign of 1910. *Historical Journal of Film, Radio and Television*, 30(1), 21-36.
- McCormack, L.A., Laska, M.L., Larson, N.I., & Story, M. (2010). Review of the nutritional implication of farmers' markets and community gardens: a call for evaluation and research efforts. *Journal of the American Dietetics Association*, 110, 399-408.
- Moore, M. (Producer & Director). (2007). *Sicko* [Documentary film.] USA: Dog Eat Dog Films & The Weinstein Company.
- Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: explaining the persuasive effects of entertainment-education messages. *Communication Theory*, 18(3), 407-425.
- Naik, A. (2008). Did Jamie Oliver really put school dinners on the agenda? An examination of the role of the media in policy making. *Political Quarterly*, 79(3), 426-433.
- New Mexico Department of Health. (2009). *2009 New Mexico Youth Risk and Resiliency Survey (YRRS), High School (Grades 9 - 12), Santa Fe County*. Santa Fe, NM. Retrieved September 2010, from <http://nmhealth.org/ERD/HealthData/yrrs.shtml>.

- Ogden, C., Carroll, M., Curtin, L., Lamb, M., & Flegal, K. (2010). Prevalence of high body mass index in US children and adolescents, 2007-2008. *Journal of the American Medical Association, 303*(3), 242-249.
- Ogden, C., Carroll, M., McDowell, M., & Flegal, K. (2007). *Obesity Among Adults in the United States – No Statistically Significant Change Since 2003-2004*. US Department of Health and Human Services; Center for Disease Control and Prevention; National Center for Health Statistics: Washington, D.C.
- Olshansky, S., Passaro, J., Hershaw, R., Layden, J., Carnes, B., Brody, J., ...Ludwig, D. (2005). A potential decline in life expectancy in the United States in the 21st century. *The New England Journal of Medicine, 352*(11), 1138-1145.
- Pollan, M. (2006). *The Omnivore's Dilemma*. New York: The Penguin Press.
- Powell, L., Slater, S., Mirtcheva, D., Bao, Y., & Chaloupka, F. (2007). Food store availability and neighborhood characteristics in the United States. *Preventative Medicine, 44*, 189-195.
- Powell, L., & Chaloupka, F. (2009). Food prices and obesity: Evidence and policy implications for taxes and subsidies. *The Milbank Quarterly, 87*(1).
- Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research & Practice, 19*(3), 276-288.
- Racine, E. F., Vaughn, A., & Laditka, S. B. (2010). Farmers' market use among African-American women participating in the Special Supplemental Nutrition Program for Women, Infants, and Children. *Journal of the American Dietetic Association, 110*(3), 441-446.
- Robinson, T.N. (2010). Save the world, prevent obesity: piggybacking on existing social and ideological movements. *Obesity, 18* (Suppl 1), S17-22.
- Rojas, H., Shah, D. V., Jaeho, C., Schmierbach, M., Keum, H., & Gil-de-Zuñiga, H. (2005). Media dialogue: Perceiving and addressing community problems. *Mass Communication & Society, 8*(2), 93-110.
- Scheier, L. (2005). What is the hunger obesity paradox? *Journal of the American Dietetic Association, 105*(6), 883-886.
- Schoonover, H. (2007). *A Fair Farm Bill for Public Health*. Institute for Agriculture and Trade Policy: Minneapolis, MN. Retrieve October 2009, from <http://www.iatp.org/search.cfm?q=Fair+Farm+Bill+for+Public+Health>.

- Schoonover, H., & Muller, M. (2006). *Food without Thought: How US Farm Policy Contributes to Obesity*. Institute for Agriculture and Trade Policy: Minneapolis, MN. Retrieved October 2009, from <http://www.iatp.org/iatp/publications.cfm?showall=true>.
- Schroeter, C., Lusk, J., & Tyner, W. (2008). Determining the impact of food price and income changes on body weight. *Journal of Health Economics*, 27, 45-68.
- Siegrist, J. (2003). The social causation of health and illness. In Albrecht, G., Fitzpatrick, R., & Scrimshaw, S. (Eds), *The Handbook of Social Studies in Health and Medicine* (pp. 100-114). London: Sage Publications.
- Silk, K.J., Sherry, J., Winn, B., Keesecker, N., Horodyski, M.A., & Sayir, A. (2008). Increasing nutrition literacy: Testing the effectiveness of print, web site, and game modalities. *Journal of Nutrition Education and Behavior*, 40(1), 3-10.
- Slater, M. (1999). Integrating application of media effects, persuasion, and behavior change theories to communications campaigns: A stages-of-change framework. *Health Communication*, 11(4), 335-354.
- Slater, M., & Rouner, D. (2002). Entertainment-education and elaboration likelihood: Understanding the processing of narrative persuasion. *Communication Theory*, 12(2), 173-191.
- Spurlock, M. (Producer & Director). (2004). *Super Size Me* [Documentary film.] USA: Kathbur Pictures, The Con, & Studio on Hudson.
- Story, M., Kaphingst, K., Robinson-O'Brien, R., & Glanz, K. (2008). Creating healthy food and eating environments: Policy and environmental approaches. *Annual Review of Public Health*, 29, 253-272.
- Talbott, S. (2002). *The Cortisol Connection: Why stress makes you fat and ruins your health – and what you can do about it*. Alameda, CA: Hunter House, Inc.
- Tanne, J. (2007). US health professionals demonstrate in support of *Sicko*. *BMJ: British Medical Journal*, 334(7608), 1338.
- Tanumihardo, S., Anderson, C., Kaufer-Horwitz, M., Bode, L., Emenaker, N., Haqq, A., ... Stadler, D. (2007). Poverty, obesity, and malnutrition: An international perspective recognizing the paradox. *Journal of the American Dietetic Association*, 107(11), 1966-1972.
- Tillotson, J. (2003). Pandemic obesity: Agriculture's cheap food policy is a bad bargain. *Nutrition Today*, 38(5), 186-190.

- Tolden, E. (2005, May 6-June 1). Karrot can keep you healthy in Harlem. *The New York Amsterdam News*, p. 3.
- United States Census Bureau: US Department of Commerce; Economics and Statistics Administration. (2009). *Income, poverty, and health insurance coverage in the United States: 2008*. Washington, D.C.: DeNavas-Walt, C., Proctor, B., Smith, J.
- United States Department of Agriculture: Agricultural Marketing Service. (2010). *Farmer's Market Growth: 1994-2010*. Retrieved April 2011 from, www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateS&leftNav=WholesaleandFarmersMarkets&page=WFMFarmersMarketGrowth&description=Farmers%20Market%20Growth&acct=frmrdirnkt.
- United States Department of Agriculture: Food & Nutrition Service. (2010). *WIC Farmers' Market Nutrition Program*. Retrieved April 2011, from <http://www.fns.usda.gov/wic/FMNP/FMNPfaqs.htm>
- Villianatos, M. (2009). Food justice and food retail in Los Angeles. *Ecology Law Quarterly*, 36, 186-194.
- Wakefield, S., Yeudall, F., Taron, C., Reynolds, J., & Skinner, A. (2007). Growing urban health: Community gardening in South-East Toronto. *Health Promotion International*, 22(2), 92-101.
- Wang, L.Y., Denniston, M., Lee, S., Galuska, D., & Lowry, R. (2010). Long-term health and economic impact of preventing and reducing overweight and obesity in adolescent health. *Journal of Adolescent Health*, 46, 467-473.
- Wells, A., & Hakanen, E. (Eds.) (1997). *Mass Media & Society*. Greenwich, CT: Ablex Publishing Corporation.
- Whitaker, R.C., Sherman, S.N., Chamberlin, L.A., & Powers, S.W. (2004). Altering the perception of WIC health professionals about childhood obesity using video with facilitated group discussion. *Journal of the American Dietetic Association*, 104(3), 379-386.
- Whiteman, D. (2004). Out of the theaters and into the streets: A coalition model of the political impact of documentary film and video. *Political Communication*, 21(1), 51-69.
- Whiteman, D. (2009). Documentary film as policy analysis: The impact of "Yes, In My Backyard" on activists, agendas, and policy. *Mass Communication & Society*, 12(4), 457-477.

- Wiig, K., & Smith, C. (2008). The art of grocery shopping on a food stamp budget: Factors influencing the food choices of low-income women as they try to make ends meet. *Public Health Nutrition*, 12(10), 1726-1734.
- Woolf, A. (Producer & Director). (2007). *King Corn* [Documentary film.] USA: ITVS & Mosaic Films.
- Zackron, R. (2009). Ground-breaking study of video viewing finds younger boomers consume more video media than any other group. *Center for Research Excellence*. Retrieved February 2011, from http://www.researchexcellence.com/news/032609_vcm.php