

THE BLAME FRAME: DOES SHIFTING RESPONSIBILITY FROM THE
INDIVIDUAL TO SOCIETY IN NEWS STORIES ABOUT DIABETES INFLUENCE
WHERE READERS PLACE RESPONSIBILITY?

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by
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presented by Tracey C. Goldner

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“If you die tomorrow, what would you most regret,” Islam read. Without pausing, he said with a slight Russian accent, “Never reaching my dream of being an interpreter.” Then he turned to me expectantly and asked me the same question. “Never studying journalism,” I said, a bit surprised at how quickly that quiet dream had fluttered to the surface. “Why can’t you?” he asked me. After all, I am from a country where studying anything is possible. No bribes necessary. No cultural norms stopping me. No closed borders. That day, surrounded by the kids I’d grown to care deeply about, my dream of studying and perhaps one day becoming a journalist, began. It was a modest dream born in a dusty town on the edge of the ancient Silk Road. I’ve never forgotten the details of that moment, even though I have since forgotten everything else that surrounds that day.

I’d like to thank the Peace Corps staff for making my dream of living and working abroad possible. It was fulfilling that dream that I had another: becoming a storyteller. I look back on the past five years and am amazed where that initial jump into the unknown took me. Turkmenistan led to India and then New York City and after that Missouri and now Washington D.C. It was in Missouri, just off I-70 in an unassuming Midwest town that I learned to strengthen my voice, to follow my heart and to fall in love. This thesis is dedicated to everyone who helped make my dream possible: my parents for guiding and loving me, my teachers for pushing me, my friends for making me laugh and giving me new perspectives and to Aaron for being right beside me for all of it.

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ABSTRACT

Storytellers will always have a powerful influence on their audiences. As nonfiction storytellers, journalists are no exception. What we write, how we write about it, and whom we write about all inform the way our readers experience the world. I first noticed this influence when I reported on the alarming rate of diabetes in Columbia's African-American community. I followed Tracy Edwards, whose legs had been amputated because of complications from diabetes. The frame I used to tell the story was a loss frame that used voices from within the African-American community. After the story published, I wondered: Does telling the story of diabetes with different frames influence how readers think about responsibility and blame? Did the readers of my story blame Tracy for his illness or hold him responsible for overcoming it? How likely were readers to support government interventions after reading stories like this one? This research study sought to answer those questions. The findings of this 2x2 between-subjects experiment showed main effects for the framing manipulation across all five dependent variables and main effects for three of the dependent variables in the disparity frame. I've learned that journalists should be aware of the way they construct, source, and frame stories because these decisions have public health and public policy ramifications.

Chapter One: Introduction

The Evolution of the Individual Frame

America is a fast-paced, self-reliant, do-it-yourself culture. This individualism has created many opportunities over the years and has benefited people in terms of religious, economic, and intellectual freedom. However, this thinking does have some drawbacks. If it is up to individuals to solve their own problems (Veenhoven, 1999, p. 157) what happens when people are unable to pull themselves up by their proverbial bootstraps? Gilliam (1999) found that African-American women, who are often marginalized, are cast as welfare queens when they are unable to support themselves or their families.

This individually focused thinking has also seeped into the way Americans think about health issues, including obesity, tobacco use, sexually transmitted infections, and diabetes. The thinking goes: Exercise enough, eat well, use contraception, and you will escape these fates. Obesity, in particular, has historically been viewed as an individual choice, not the result of a racist, sexist or classist world.

Journalists have not escaped this mentality. Health coverage often focuses on the illness of the individual and what a person, not society, can do to get better. (Hinnant, Len-Ríos, & Oh, 2012).

Public health organizations have sounded the alarm in recent years and warned that this thinking is problematic. They argue that health is not based solely on personal choice but is instead the result of a confluence of factors, including demographics, geography, income, and class. Using evidence-based research, the Centers for Disease Control and Prevention has shown that people who face social, economic, and

environmental disadvantages face higher rates of premature death, illness, and disability (“CDC,” 2013). Public health workers call these disadvantages health disparities and the elements that create them social determinants of health.

The media play a powerful role in how the public talks about and understands these disadvantages. Health disparities are a tricky subject for journalists to tackle. The terms themselves are difficult to explain quickly and are considered by some to be public health jargon. Additionally, the circumstances in which health disparities exist are complex. These gaps in health are often the result of years of structural and systemic inequalities. Since they are contextually relevant, inequalities can also be difficult to spot in everyday life. For example, a middle-class person in Columbia, Missouri, might have a difficult time understanding why a single mother living in the inner city would have trouble providing healthy food for her children. The journalist would have to explain the existence of food deserts, the problem of access, the lack of nutrition education among the poor, and the premium on fresh food.

Reporting that is careful not to blame individuals for their health outcomes will become more necessary because the gap between the “haves and the have nots” is growing (“Income inequality – not just low wages – is taking a toll on the health of American workers | UCLA,” 2015). Williams and Rosenstock found that the economic gap between rich and poor has more than just financial costs. It also has negative ramifications for health — poor Americans are more likely than the rich to be sick, stressed, exhausted, obese, diabetic, and to experience cardiovascular disease.

The blame frame is a powerful tool, so it is vital that journalists accurately and honestly write about health issues. Journalists should consider the way they frame stories

because it affects audiences, including policymakers. It is important for health journalists to imagine how reframing health disparities could create a more accurate picture of the reality on the ground.

RQ1: Do readers perceive that societal or individual factors or a mix of both causes a health issue such as diabetes?

RQ2: Do readers perceive that the management of a health issue such as diabetes is a societal or individual responsibility or a mix of both?

RQ3: Can the framing of a health issue such as diabetes in news stories change readers' perceptions?

Chapter Two: Literature Review

Framing in Journalism

Framing is an inherent part of the journalistic process. It occurs even before the article is written. It is part of story pitching, source identification, and the journalist's own conception of what the story is about. Goffman, one of the first researchers to describe framing, mentioned frames in the mid-1970s as "guided doings" or ways of understanding what is happening in a complex world (1974, p. 22). Entman says that framing means "to select some aspects of a perceived reality and make them more salient in a communicating text" (1993, p. 52). He defined salience as making a piece of information more memorable, meaningful, or noticeable to the audience (p. 53). The function of frames is to define problems, diagnose causes, make moral judgments, and suggest remedies (p. 52).

Tuchman wrote that frames sort out the nonsense from the order. In other words, they "turn nonrecognizable happenings or amorphous talk into a discernible event" (1980, p. 192). Tuchman's research convinced her that journalists search for frames (p. 193) and that framing happens as part of a larger social context in the newsroom and within news organizations (p. 2). Gitlin (1980) wrote that frames enable routine organization, understanding, and packaging, even though journalists do not often acknowledge them (p. 7). "For organizational reasons alone, frames are unavoidable" (p. 7), he concluded.

Reporters must constantly decide "what to cover and how to cover it" (Fishman, 1980, p. 27). This task is difficult because of the endless number of story possibilities and

because news is deadline-driven. Reporters respond to this dilemma by strategically exposing themselves to just a few sources of information, which limits their scope and view of events (p. 33). Establishing routines helps journalists maintain some semblance of order in an unpredictable business (p. 31).

Although they are useful, frames can be problematic. Fishman also found that reporters are susceptible to adopting an already existing view (news frame) because frames are powerful and influential (p. 5). Reporters have been shown to adopt the prevailing frame even when data suggests it is inaccurate (p. 5). For example, Fishman analyzed the reporting process behind the coverage of a 1976 “crime wave” against elderly people in New York City and found that many reporters doubted the actual existence of a rise in crime (p. 5). One reporter even analyzed police statistics and found that crime against older people had dropped from the previous year (p. 5). Fishman realized that the increased coverage began with a series of articles about crimes against seniors in the New York-based *Daily News*. The series coincided with a law enforcement intervention that aimed to reduce crime against the elderly (p. 9). “The consequences of news are not simply byproducts of the news-making process,” he concluded. “They are integral to it” (p. 11).

People adopt frames that contradict facts because the brain opts for the solution that is already known (Scheufele, 1999, p. 177). Journalists and their audiences are “cognitive misers,” meaning that people opt to use already-existing neural pathways for understanding.

Frames can “profoundly influence decision outcomes” (Iyengar, 1991, p. 11). Depending on how the potential options are presented, the outcomes can be drastically

different (Kahneman & Tversky, 1984). In a series of experiments using gain- and loss-framed messaging, Kahneman and Tversky found that a gain frame promotes risk-averse behavior, and a loss frame promotes risk-seeking behavior (p. 344). In one scenario about saving a group of people's lives, two equivalent solution sets were presented to participants. The only difference was that one set used a loss frame and the other utilized a gain frame. Seventy-two percent of participants chose the gain-frame solution, but only 22 percent chose the same solution when it was presented using a loss frame (p. 343). The participants were unable to explain their "conflicting answers" but insisted on their responses anyway (p. 343). Iyengar calls the changes in the resulting behavior "framing effects" (p. 11).

Two other frame types commonly used in the media are episodic and thematic frames (Iyengar & Simon, 1993, pp. 369-70). An episodic frame presents information about a particular event without providing much context for the reader (p. 369). "The episodic frame depicts public issues in terms of concrete instances or specific events — a homeless person, an unemployed worker, a victim of racial discrimination, the bombing of an airliner, an attempted murder, and so on (p. 369). According to the Dart Center for Journalism and Trauma, "episodic frames focus on the immediate event or incident and give little or no context about underlying issues or context" ("How News is 'Framed' | Dart Center for Journalism & Trauma," 2008). For example, an article about diabetes that uses an episodic frame would discuss a personal account of diabetes, information about a fundraising gala for diabetes, or even the awarding of a grant to a local organization for diabetes work without delving deeper into what exactly is driving the illness to affect so many Americans. Episodic articles are capable of offering a snapshot and little more.

The second type of common frame Iyengar and Simon identified is thematic framing. This approach takes a wider view by providing more context and explanation of the event (pp. 369-70). It “places public issues in some “general or abstract context” and requires “interpretive analyses” (pp. 369-70). Context includes statistics, trend data, analysis from experts, and comparisons (“How News is ‘Framed,” 2008). Compared to the episodic article about diabetes, a thematic article would delve into the reasons for the apparent explosion in cases in recent decades, especially among minorities. It would include either local or national voices on the issue in addition to or instead of telling one person’s story about the disease.

Through his research of broadcast news, Iyengar found that attribution of responsibility served as a “cue” for how the public forms its opinions. He found that whether an individual or society is blamed for unemployment, poverty or racial inequality “is very much a function of how television news frames the issues” (p. 3). Thematic framing tended to elicit a societal attribution of responsibility, while episodic framing tended to elicit a sense that individuals were responsible (p. 3). Unemployment was the exception in Iyengar’s findings.

Framing in Health Communication

Framing has been an essential theory in health communication. Niederdeppe and colleagues found that a “sizable literature indicates that the way a message is framed affects attributions of responsibility for social conditions” (Niederdeppe, Bu, Borah, Kindig, & Robert, 2008, p. 488). The way people conceptualize health matters because that understanding of what causes good health or diminishes it will play into the national conversation about how to improve it. Communication researchers Charles Atkin and

Lawrence Wallack wrote:

If people believe health to be primarily a personal rather than a social issue, then support for *public policy* oriented approaches will likely be limited, while approaches reinforcing the responsibility of the individual will be favored. The choice here is politically important because health as a personal issue assigns responsibility to individuals while the policy oriented approach sees responsibility shared more equitably by government, the corporate world, and the individual. (Atkin & Wallack, 1990, p. 150)

Health communication researchers have also studied the effects of gain- and loss-framed messages. In health journalism, the gain frame illustrates something that is gained from a particular health change, and the loss frame focuses on what will be lost with a particular behavior. A gain-framed story about HIV and condom use, for example, would highlight how many more people are using condoms and the central character in a narrative would be an HIV negative person who had recently started using condoms. A story on the same topic using a loss frame would highlight how many people are not yet using condoms. The central character would likely be someone who had recently contracted HIV because he or she did not use a condom.

Researchers have also compared the effectiveness of using narratives or statistical data. Gray and Harrington ran an experiment that compared reader response to varied story forms. They used four types of messages — a gain-framed narrative about two central characters, a loss-framed narrative about the same characters, a gain-framed article that focused on national statistics, and loss-framed story that used national statistics. They found that gain-framed messages had a positive impact on reader

intentions and message effectiveness but had no significant influence on reader attitude (2011, p. 275). Additionally, they did not find a statistical difference between reader response to narrative or data-focused stories. They were surprised to find that the use of a central character compared to a story using statistics did not impact a reader's attitude, perceived behavioral control, intentions, or perceived message effectiveness (p. 275). The results seem to indicate that whether the story is positively or negatively framed has more impact on readers than the vehicle that is used to present the information.

The use of individual and social frames for public health issues has also been explored. According to researchers, media may often adopt individual frames because public health practitioners themselves have emphasized individual behavior change (Wikler, p. 2002). "Social, political, or economic factors, on the other hand, are deemed irrelevant or only secondary to individual choices or biological makeup" (Kim & Willis, 2007, p. 360). A content analysis of how sexually transmitted infections were framed during the late '90s concluded that fewer than half of the articles included "substantial" context about transmission, causes, signs, and symptoms or mentioned policy or social issues (Davidson & Wallack, 2004). Gollust and Lantz proposed that some "journalists may perceive an audience demand for individually oriented recommendations" (Gollust & Lantz, 2009, p. 1096). As a result, they tend to focus on providing useable information to readers. Wallack, Dorfman, Jernigan, and Themba-Nixon (1993) attributed the focus on the individual to the do-it-yourself culture of the United States.

Tobacco and alcohol, two important health issues, have been reframed in recent decades to reflect a more socially responsible focus. (Dorfman, Wallack, & Woodruff,

2005). For example, tobacco is now highly taxed and banned in public spaces (Booth et. al., 2001).

Gearhart, Craig, and Steed (2012) conducted a content analysis that compared obesity frames in the late '90s with frames in the mid-2000s. The researchers found that the coverage of obesity had increased significantly in recent years. The percentage of thematically framed stories — articles that provide deeper context, statistics, and voices — increased while episodically framed stories — quick snapshots without the context — had decreased. The researchers concluded that the way the media writes about obesity has shifted. These studies illustrate that changes in framing are taking place over time and are in turn changing the way the public perceives and thinks about health.

Discourse on Social Determinants of Health

Researchers have shown and public health agencies have acknowledged that a person's overall health does not happen in a vacuum. After controlling for differences such as race, income, employment status, health insurance, body mass index, and marital status, etc., Haan and colleagues found that there was a significant difference in mortality rates between residents who lived in poverty and non-poverty areas (Haan, Kaplan, & Camacho, 1987, p. 989). Based on the results, they concluded that the “properties of the sociophysical environment” might be associated with excess mortality in low-income people independent of individual behaviors (p. 989). According to the World Health Organization, the distribution of money, power, and resources each affect the conditions in which people are born, live, and die (“WHO | Key concepts”). Resources, race, and socioeconomic status influence the overall health of each individual. The World Health Organization developed the term “social determinants of health” to characterize people's

risk factors based on their working and living conditions (“WHO | Key concepts”).

Niederdeppe and colleagues wrote that health is maximized by a combination of factors, including access, individual behavior, social, and economic factors. The researchers cite poverty, stress, education, and racial discrimination as reasons for disparities (2008, p. 483). The WHO agrees with these determinations. According to its website, disparities in health exist because of inequalities in the distribution of money, power, and resources at the global, national, and local level. The WHO calls these inequalities “avoidable” (“WHO | Key concepts”). Syme, a social epidemiologist, noted that between 1995 and 2001, the incidence of books discussing social determinants of health “exploded” (Syme, 2005, p. 1). Around that time, the government acknowledged the existence of health disparities and has been working to eliminate them.

The Department of Health and Human Services began reporting on health disparities in 2003 (“2014 National Healthcare Quality & Disparities Report,” 2015) after Congress passed the Healthcare Research and Quality Act of 1999. Congress was concerned that minority groups had gaps in medical care, so the annual findings set out to track the “disparities in care experienced by different racial, ethnic, and socioeconomic groups” (“2014 National Healthcare Quality & Disparities Report,” 2015) According to the report, the country made progress in health care quality in 2014, and it attributed most of those gains to the Affordable Care Act. People received better care, spending was streamlined, and more people were healthy, according to the report. However, it also highlighted health disparities as an area in need of attention. “There is still more work to do, specifically to address disparities in care” (“2014 National Healthcare Quality & Disparities Report,” 2015c, p. vi). For example, the gap between whites and at least one

other minority group worsened for 11 types of medical care in 2014, including suicide, foot checks for adults over 40 with diabetes, pap smears for people between 21 and 65 in the past three years, and access to preventative medication daily or almost daily for asthma, according to the report (p. 13).

In addition to reporting the disparities, the Department of Health and Human Services also developed the HealthyPeople 2010 and 2020 campaigns, which aim to reduce health disparities (“Disparities | Healthy People 2020”). HealthyPeople 2020 notes that health disparities are not just race-related. Like the WHO, it acknowledges that socioeconomic status also plays a role. HealthyPeople also added gender, sexual orientation, age, disability, and geographic location to the list of health disparity influencers (“Disparities | Healthy People 2020”). The campaign defines a health disparity as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage” (“Disparities | Healthy People 2020”). However, Minkler warns that “a single-minded preoccupation with social responsibility for health tends to carry its own set of problematic consequences. What is needed, instead, and what most educators advocate is a more balanced approach (1999, p. 131).

Reporting on Health and Health Disparities

Effectively communicating about social determinants of health “presents formidable challenges” (Niederdeppe, Bu, Borah, Kindig, & Robert, p. 482). For example, Americans do not always have an easy time comprehending health information. In 2004, the Institute of Medicine found that nearly 50 percent of American adults had difficulty “understanding and using health information” (“Health Literacy”).

Additionally, “conventional news values and conventional storytelling forms may

be less conducive to research that focuses on root causes or ‘upstream’ determinants of health” (Gasher et al., 2007, p. 570). Narratives often require clearly defined roles, actors and answers, but health reporting is complex and the causes and effects of disease are not so easy to identify (p. 570). Gasher et. al. wrote that:

Population health research is complex in that it points to any number of interrelated causes of health, and their effects are spread across large populations. In this way, health reporting may be analogous to reporting on natural disasters, a body of reportage that has been criticized for its concentration on direct and immediate natural causes rather than the less obvious and long-term human causes. (570)

Gasher and colleagues found that health reporters tend to focus on people and institutions (illness and healing), rather than the “production of health” (p. 570). Health reporters tend to interpret health using an individual lens and are more apt to cover “personal health habits, professional health services, and possibly, genetics,” than socioeconomic factors, the physical environment or early childhood development (p. 570). Additionally, health reporters can be unfamiliar with social determinants of health and are not up to speed on population health research, which becomes another barrier to more contextualized health reporting (p. 570).

Using a content analysis, Amzel and Ghosh (2007) found that health disparity articles accounted for just a small percentage of the health articles written. Despite the federal’s government efforts to reduce health disparities in the United States, a “miniscule” number of health-related newspaper articles discussed them (p. 1124). Just 0.09 percent of the more than 1.2 million health articles the researchers analyzed from

2000-04 addressed disparities, divides, or inequalities in care between whites and minorities. They wrote, “This lack of coverage is perhaps a significant reason for Americans being unaware of the (health disparity) issue” (p. 1124). Their study was the first peer-reviewed article to determine the rate at which newspapers were covering minority health disparities (p. 1121). They also found that news coverage on health disparities was unfocused and fragmented and concluded that perhaps the reason for the lack of coverage is that social determinants of health and health disparities do not “resonate” with the lay press or readers (p. 1124).

Kim and colleagues found that the media coverage of health disparities has “declined significantly” since it peaked in 1998 (A. E. Kim, Kumanyika, Shive, Igweatu, & Kim, 2010, p. S224).

Gollust and Lantz found that health disparities were mentioned more often in diabetes-related coverage (Gollust & Lantz, 2009, p. 1095). These researchers used a content analysis to examine diabetes-related print articles that ran between Jan. 1, 2005, and Dec. 31, 2006 (p. 1093). They found that 13.6 percent of the 859 articles analyzed specifically mentioned a social group health disparity (p. 1095). The researchers also found that behavioral factors and obesity were most often cited as the cause of diabetes and an individual’s own behavior was the most common recommendation for dealing with diabetes (p. 1094).

Kim and colleagues organized the type of frames journalists use to present readers with causes and/or solutions for the disparity. The four frames identified for the study were genetic, behavioral, health care, and societal responsibility (A. E. Kim, Kumanyika, Shive, Igweatu, & Kim, 2010, p. S224) The researchers analyzed 3,823 print articles

published between 1996 and 2005 (p. S225). They also tracked whether journalists “invoked a social-justice rationale for eliminating racial/ethnic health disparities” in the stories (p. S226). They found that 69.6 percent of articles did not provide a causal explanation or a solution for the health disparity. In the stories that did offer a cause or a solution, 85.9 percent “focused on causes” (p. S226). Fewer than 4 percent of the articles mentioned social justice as a motivator for eliminating disparities (p. S226). The researchers concluded that “although the social determinants perspective has been represented in the media discourse, it still trails behind behavioral-level explanations for why racial/ethnic health disparities exist” (p. S230). In other words, social determinants of health have been explored in the media but not as often as the stories that focus on how individual behavior affects health.

The question of whether journalists consider or should consider how their articles affect readers has also been debated (Gans, 1979, p. 229). Hinnant and colleagues found that health journalists think about their audience when writing health stories and often adjust language and frames according to their perceived beliefs about audience members (Hinnant et al., 2012, p. 241). They found that journalists tend to attribute health outcomes to “Americans’ behavior and lifestyle,” rather than complex social factors (p. 240). This is problematic because journalists’ perceptions and the audience’s “limited cognitive abilities” in understanding health information predict “immense challenges to increasing public understanding of health issues,” (p. 241). They concluded that:

having journalists conceive of audience members as being individually responsible for their health outcomes certainly influences national dialogue about health solutions as well as journalists’ roles in society. If health journalists view

their primary responsibility to their audience as individuals rather than as providing a public service to society, this raises additional questions as to how they cover complex issues that involve health care providers, insurers, pharmaceutical companies, and government policy. How health journalists perceive their roles in reporting on these specific topics is ripe for further exploration. (p. 241)

As the research reveals, health reporting is a complex topic deserving of careful consideration. The ramifications of how health stories are framed can affect how people conceptualize health and how they, their families, and their communities stay healthy. The purpose of this research is to determine how readers respond to framing manipulations and how this affects where they place responsibility for addressing health issues such as diabetes.

Hypothesis one: Framing diabetes as an individual issue will increase readers' likelihood of assigning blame for diabetes to the individual.

Hypothesis two: Framing diabetes as a societal issue will increase readers' likelihood of assigning blame for diabetes to society.

Hypothesis three: Framing diabetes as an individual issue will increase readers' likelihood of assigning responsibility for diabetes to the individual.

Hypothesis four: Framing diabetes as a social issue will increase the readers' likelihood of assigning responsibility for diabetes to society.

Hypothesis five: Framing diabetes as a health issue will increase readers' likelihood of assigning responsibility and blame for diabetes to the individual.

Hypothesis six: Framing diabetes as the result of economic disparities will increase readers' likelihood of assigning responsibility and blame for diabetes to society.

Chapter Three: Methodology

Summary

The purpose of the experiment is to analyze whether the framing of a story about diabetes affects where readers place individual and societal blame and responsibility for diabetes. In addition to individual and societal blame, readers also were asked whether the government should be held accountable for diabetes programs and research. Approval was obtained for this study from the University of Missouri's Institutional Review Board prior to the start of any research activities.

Rationale for Choosing Diabetes

Diabetes mellitus encompasses a group of metabolic diseases characterized by high blood sugar levels ("Basics | Diabetes | CDC"). Type 1 diabetes, previously called juvenile diabetes or insulin-dependent diabetes usually occurs in childhood ("Basics | Diabetes | CDC"). The cause of type 1 diabetes is unknown ("Basics | Diabetes | CDC"). People with type 1 diabetes do not have a properly functioning pancreas, a digestive and endocrine organ that secretes hormones and digestive enzymes ("Pancreas Function"). One of the main hormones the pancreas is responsible for secreting is insulin, a hormone that helps the body convert glucose into useable energy at the cellular level. A person with type 1 diabetes does not secrete any insulin at all, so they are reliant on insulin shots or an insulin pump to survive ("Basics | Diabetes | CDC"). Type 1 diabetes is not curable and accounts for about 5 percent of all diabetes cases ("Basics | Diabetes | CDC").

Type 2 diabetes, previously called adult-onset or non-insulin dependent diabetes, is also a blood sugar disorder, but it typically occurs in people over 40 years old.

According to the CDC, most cases are preventable (“CDC Features - Diabetes Latest”). People with type 2 diabetes are insulin-resistant, which means that the body’s fat, muscle, and liver cells stop using insulin to carry glucose to the body’s cells (National Diabetes Information Clearinghouse). The pancreas compensates by producing more insulin, but over time, it cannot produce enough insulin to meet the body’s demand (National Diabetes Information Clearinghouse). Risk factors for type 2 include being overweight, having a family history of diabetes, and having diabetes while pregnant (“CDC Features - Diabetes Latest”). People with type 2 diabetes can manage their blood sugar levels by losing weight, exercising regularly, eating a healthy diet, and taking medications, including insulin (“CDC Features - Diabetes Latest”). I used type 2 diabetes in this experiment because it is the most common form of diabetes. It accounts for 90 to 95 percent of all diabetes cases (“CDC - Chronic Disease - Diabetes - At A Glance”). An estimated 29.1 million Americans had type 2 diabetes in 2012. In 2010, diabetes was the seventh-leading cause of death in the U.S. Type 2 diabetes also disproportionately affects minorities and low-income Americans, so the existence of these disparities allows for experimental manipulation (“Poverty a Leading Cause of Type 2 Diabetes, Studies Say,” “2014 Statistics Report | Data & Statistics | Diabetes | CDC,” 2014).

Procedures

Participants in this study were recruited using a convenience sampling procedure using self-selected workers of Amazon Mechanical Turk, known as MTURK. This platform is a crowdsourcing Internet resource that allows individuals, known as workers, to coordinate the use of human intelligence tasks or “HITS” and then be compensated for their work. All workers must be 18 years or older. Workers can sign on to the website

where they are presented with a wide range of HITs that they can participate in. My experiment was among the options they could choose from. For this experiment, workers were screened using exclusion criteria to ensure higher quality work. Only people who had a greater than 98 percent HIT approval rating and a lifetime HIT approval of greater than 1,000 were able to view this HIT. Once they selected my task, they received a code and were directed to a new window with the consent page. The MTURK window remained open in the background while workers took the survey on a University of Missouri Qualtrics-supported page. Qualtrics enables researchers to collect data through digital surveys and questionnaires. It is customizable and allowed me to randomly assign articles, create different types of questions, and keep track of completion rates. The consent page, which was the first part of the Qualtrics experiment, is shown in Appendix A.

Once workers agreed to the conditions, they clicked agree and started the experiment. Workers were randomly assigned to read one of four news articles and then answer 22 questions about it. After completing the questionnaire and submitting their results, participants returned to the MTURK page and entered the code they received at the beginning. After 200 workers had submitted their responses (less than 24 hours later), I closed the HIT and reviewed the results. One worker who spent less than 2 minutes completing the task was rejected because it's unlikely that worker actually read the article and the corresponding questions. The HIT was then automatically made available to other workers in order to collect one additional response. After the final response was collected, I reviewed completion times and approved the HITs. Each worker was paid immediately after I approved his or her HIT.

Participant Incentives

Participants were paid at a rate of \$6 an hour, which is higher than the median MTURK rate of \$1.38 (Horton & Chilton, 2010, p. 216). In a pilot test, it took about 5 minutes to complete the task, so based on a \$6 an hour rate, each worker was paid \$.50 for each approved HIT. According to Amazon, the average time spent on this HIT was 13 minutes and 26 seconds, which is an hourly rate of \$2.23. I paid Amazon a total of \$140 to complete this research. I paid workers \$100 and Amazon \$40 in fees for using its service.

Sample Size, Power, and Precision

Using a power analysis, I calculated that my sample size should be 200. The known mean for a 7-point Likert is 3.5 and the expected mean value is 3.75. The expected standard deviation is 1.25. The confidence interval is .05 and the power, or the probability of correctly rejecting the null hypothesis, is .80. Using these numbers, the power analysis calculator suggested a sample size of 197 ("Power & Sample Size Calculator - Statistical Solutions, LLC.").

Measures

The independent variables in this experiment were frame: individual (which can also be viewed as episodic) and societal (which can also be viewed as thematic) and disparity: presence or absence of an economic disparity. The four story types were:

- 1) Disparity individual (Diabetes economic class individual)
- 2) Disparity society (Diabetes economic class society)
- 3) Non-disparity individual (Diabetes individual)
- 4) Non-disparity society (Diabetes society)

Operationalization of the Independent Variables

The disparities variable was either diabetes as a result of economic disparities (loss frame) or diabetes as a general health problem. The frame was either diabetes as an individual health issue or diabetes as a societal health issue.

Operationalization of Dependent Variables

I measured five dependent variables in this experiment. These variables were individual blame, individual responsibility, societal blame/responsibility, and government solutions. I used a seven-point Likert scale for the dependent variable questions. I reverse coded two questions and marked them with an (R) in the codebook. Demographic information was collected at the end of the online questionnaire. The measures for responsibility and blame came from Mantler, Glenn, and Stewart's (2003) communication work with attribution of responsibility and stigma surrounding HIV-positive people. I adjusted the measures to fit the topic of diabetes (p. 145). I developed the government solutions index using a combination of the controllability, responsibility, and blame questions from Mantler and colleagues.

Summary scores for each of the dependent variables were created and named. They were: individual_blame_summary, individual_responsibility_summary, societal_summary, and government_summary. A reliability test was performed on each measure. Three out of the four dependent variables met the .7 reliability threshold. The fourth measure, named societal blame/responsibility, was made up of two questions: 1) Society is to blame for Nina's diabetes, and 2) Society is responsible for taking care of Nina's diabetes. This measure had a .691 reliability, which does not meet the 0.70 threshold, so it was not considered a reliable measure of the construct. As a result,

societal blame and societal responsibility were analyzed separately as individual items.

This change is reflected in the codebook. The Chronbach's alpha scores for the dependent variables are below:

Table 1		
<i>Constructs and Their Corresponding Reliability</i>		
<u>Construct</u>	<u>Chronbach's alpha</u>	<u>Citation</u>
Government solutions	0.928	Modified from Mantler, Glenn, Stewart (2003)
Individual blame	0.763	Modified from Mantler, Glenn, Stewart (2003)
Individual responsibility	0.781	Modified from Mantler, Glenn, Stewart (2003)
Societal blame/responsibility	0.691	New

After running the reliability analysis, the descriptive statistics, 2x2 ANOVAs (analysis of variance), and a MANOVA (multivariate analysis) was run for each of the factors and the five dependent variables.

Research Design

This study was a between-subject post-test experiment using a 2x2 factorial design. I chose an experiment because it can show cause and effect (causality), it offers control over the independent variables, it's cost-effective, and it is easily replicated (Wimmer & Dominick, 2010, pp. 239-240). The two independent manipulations were a) the presence or absence of an economic disparity in a news article and b) the use of either an individual or societal frame. I used a 2x2 ANOVAs and a MANOVA to determine whether there are significant differences in participant responses to the two frame manipulations. I wrote the news articles myself, and the only differences in the articles were the two independent manipulations.

Manipulation Check

Two manipulation checks were run within the post-test questionnaire. The first check asked respondents about the focus of the article and the economic class of the person in the article. These questions used a 7-point Likert scale where 1 was “not at all” and 7 was “extremely.” Respondents were asked to answer all four questions no matter which article they read. The manipulation check questions were:

1. This news story focuses on an individual.
2. This news story focuses on a social issue.
3. The person in this story is from a higher-income economic class.
4. The person in this story is from a lower-income economic class.

A secondary manipulation check asked participants to write a one-sentence summary about the article they just read. The analysis process for this experiment included cleaning the data, running descriptive statistics for the data, running the manipulation checks, running multivariate and two-way analysis of variance to look for omnibus and individual main effects and interactions of the dependent variables and the demographic indicators. The data analysis plan below was used:

Table 2		
<i>Data Analysis Plan</i>		
<u>RQ/H</u>	<u>IV/DV</u>	<u>Test</u>
RQ1/H1	Frame/Blame	MANOVA/ANOVA
RQ1/H2	Frame/Blame	MANOVA/ANOVA
RQ2/H3	Frame/Individual Responsibility	MANOVA/ANOVA
RQ2/H4	Frame/Societal Responsibility	MANOVA/ANOVA
RQ3/H5	Disparity Control/Solutions	MANOVA/ANOVA
RQ3/H6	Disparity/Solutions	MANOVA/ANOVA

Chapter Four: Results

Participant Description

The sample size of the experiment was 200. Fifty-two people read article one, 50 read article two, 51 read article three, and 47 read article four. Each person answered 13 experiment-related questions and nine demographics-related questions. The mean age of participants was 35.97 (SD 11.877). A total of 103 men (51.5 percent), 96 women (48 percent), zero transgender, and 1 other-identified person (.5 percent) participated. Nine participants (4.5 percent) said they have type 2 diabetes, and 191 respondents (95.5 percent) said they do not have type 2 diabetes. A total of 118 people (58.7 percent) said they know someone with type 2 diabetes and 82 (40.8 percent) said they do not know someone with type 2 diabetes. The reported races and ethnicities of participants is similar to U.S. census data (“USA QuickFacts from the US Census Bureau”) in some ways and different in others. The majority of respondents were white (76.6 percent), which nearly mirrors the 77.4 percent white Americans recorded by the census in 2014. People of color in this study were not representative of census data. Asians participated at greater rates and black/African-Americans and Hispanics/Latinos participated at lower rates. Asians represented nearly 10 percent, about double the 5.4 percent Asians reported in the 2014 census. Blacks/African-Americans represented 7.5 percent in this study, which is about half the 13.2 percent African-Americans reported by the 2014 census. Hispanics/Latinos represented 7.5 percent in this study, but accounted for 17.4 percent of the 2014 census. One percent identified as American Indian/Alaska Native, which matches the 1.2 percent in the census, half a percent identified as other, and no participants identified as Native

Hawaiian/other Pacific Islander. Native Hawaiian/other Pacific Islanders accounted for 0.2 percent of the U.S. population in 2014. About a quarter of the group (26.9 percent) make between \$20,000 and \$34,999 a year. The rest of the income level groups made up between 3.5 percent and 17.9 percent of the sample. The median household income in the U.S. in 2014 was \$53,046, according to census data (“USA QuickFacts from the US Census Bureau”) Income levels by percent are listed in the table below:

Table 3		
<i>Income Breakdown of Participants</i>		
<u>Income Level</u>	<u>n</u>	<u>Percent of Sample</u>
\$0-\$9,999	36	17.9 percent
\$10,000-\$14,999	23	11.4 percent
\$15,000-\$19,999	13	6.5 percent
\$20,000-\$34,999	54	26.9 percent
\$35,000-\$49,999	29	14.4 percent
\$50,000-\$74,999	26	12.9 percent
\$75,000-\$99,999	12	6.0 percent
\$100,000-\$199,999	7	3.5 percent
More than \$200,000	0	0 percent

The majority of the sample, about 70 percent, reported being employed. About 11 percent were unemployed, 4.5 percent identified as homemakers, 6.5 percent as students, 2.5 percent each as retired and disabled, and 3 percent as other. Nearly half of the respondents — 43.8 percent — are college educated. None reported attending less than eight years of school, 1.5 percent attended some high school, 10.4 percent completed high school, 3.5 percent have some vocational/technical training, 21.4 percent completed some college, and 9 percent have a postgraduate degree. Zip code and IP address data was also collected.

Manipulation Check Results

The responses from the first manipulation check are tabulated in four tables

below. Each table includes the n in each condition, the mean response for each article type, and the standard deviations for each article type. The means for the each

manipulation check item differed significantly across the four articles (Q1:

F(3,196)=18.372, $p < .001$; Q2: F(3,196)=27.480, $p < .001$; Q3: F(3,196)=87.638, $p < .001$;

Q4:F(3,196)=145.010, $p < .001$).

Table 4			
<i>This News Story Focuses on an Individual</i>			
<u>Article</u>	<u>n</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	5.74	1.275
Individual/Non-disparity	52	5.67	1.184
Societal/Disparity	47	4.21	1.559
Societal/Non-disparity	51	4.35	1.397

Table 5			
<i>This News Story Focuses on a Social Issue</i>			
<u>Article</u>	<u>n</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	4.68	1.622
Individual/Non-disparity	52	3.71	2.032
Societal/Disparity	47	6.02	1.032
Societal/Non-disparity	51	5.94	1.008

Table 6			
<i>The Person in This Story is From a Higher-Income Economic Class</i>			
<u>Article</u>	<u>n</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	1.50	1.015
Individual/Non-disparity	52	4.73	1.670
Societal/Disparity	47	1.74	1.276
Societal/Non-disparity	51	4.37	1.708

Table 7			
<i>The Person in This Story is From a Lower-Income Economic Class</i>			
<u>Article</u>	<u>n</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	6.24	1.080
Individual/Non-disparity	52	2.75	1.619
Societal/Disparity	47	6.30	1.082
Societal/Non-disparity	51	3.20	1.811

Participants responded to the manipulations as expected. For question one, which focused on an individual, the means were higher for article one than for article four. People who read an article focused on an individual thought that article focused on an individual more than people who read an article that used a societal frame. Correspondingly in table two, articles three and four, which used a social frame, had higher means than articles one and two, which used an individual frame. It's also interesting to note that the inclusion of an economic disparity made people more likely to say the article was about a social issue than readers who did not read an article with an economic disparity. In question three, which was focused on the social aspect of diabetes, the means in article two and four were greater than the means in articles one and three, which was expected because that question asked people whether the person in the article was from a lower economic class. Articles two and four included an economic disparity. When the article included a disparity, people were more likely to say the person was not from a higher socioeconomic class. In question four, which used a societal frame and included a disparity, the means were greater in articles one and three. This makes sense because the question asked participants whether the person is from higher-income economic class and that was true in article one and three.

The summary sentences to the second manipulation check reflected the content of the articles. Sample responses include “years of poor diet led to adult diabetes, now the patient is doing a lot to take responsibility for getting healthy,” “it explores the life and struggles of someone poor with a diabetes diagnosis,” and “a mother has diabetes and wants to keep it in check so she does not die and leave her kids like her mom and grandma did to her.”

Key Findings, Tables, and Charts

I ran a multivariate analysis to determine the overall relationship between my factors and my dependent variables. The results showed main effects for frame across all five dependent variables.

Table 8				
<i>Omnibus Main Effects for Frame</i>				
<u>Dependent Variable</u>	<u>df</u>	<u>F</u>	<u>Significance</u>	<u>Partial Eta Squared</u>
Government Solutions	1	4.345	0.038	0.022
Individual Blame	1	5.154	0.024	0.026
Individual Responsibility	1	14.467	0.000	0.069
Societal Blame	1	21.346	0.000	0.98
Societal Responsibility	1	31.541	0.000	0.139

In the disparity factor, the MANOVA also showed three main effects for the individual blame, individual responsibility, and government solutions dependent variables. There was not a main effect for society blame or society responsibility.

Table 9				
<i>Omnibus Main Effects for Disparity</i>				
<u>Dependent Variable</u>	<u>df</u>	<u>F</u>	<u>Significance</u>	<u>Partial Eta Squared</u>
Government Solutions	1	4.382	0.038	0.022
Individual Blame	1	8.602	0.004	0.042
Individual Responsibility	1	8.554	0.004	0.042
Societal Blame	1	3.137	0.078	0.016
Societal Responsibility	1	2.146	0.145	0.011

There were no interactions in any of the dependent variables for the multivariate analysis, which means that one manipulation was not dependent upon the other manipulation for any of the effects.

Table 10				
<i>Omnibus Interactions for Frame and Disparity</i>				
<u>Dependent Variable</u>	<u>df</u>	<u>F</u>	<u>Significance</u>	<u>Partial Eta Squared</u>
Government Solutions	1	0.384	0.536	0.002
Individual Blame	1	0.843	0.360	0.004
Individual Responsibility	1	0.001	0.978	0.000
Societal Blame	1	0.474	0.492	0.002
Societal Responsibility	1	2.684	0.103	0.014

Next I ran ANOVAs to delve into the main effects and interactions for each dependent variable. I conducted a 2x2 ANOVA that looked at the main effects of disparity and frame and their interaction on each dependent variable. The first variable I analyzed was individual blame. The syntax I used for that test is below:

```
UNIANOVA individual_blame_summary BY frame disparity
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/CRITERIA=ALPHA(0.05)
/PRINT DESCRIPTIVE
/plot = profile (frame* disparity)
/DESIGN= frame disparity frame*disparity.
```

The results showed a main effect of frame such that participants who read either of the individually focused articles were more likely to attribute responsibility to the individual than participants who read either of the societally focused articles (Frame: $F(1,196)=5.154, p<.024$). A main effect of disparity showed that the presence of a

disparity reduced this attribution in individually and societally focused articles, with societally focused articles having the most influence (Disparity: $F(1,196)=8.602, p<.004$). No significant interaction between the two manipulations was found (Frame*Disparity: $F(1,196)=.843, p=.360$). The descriptive statistics and the means plot for that variable are below:

<i>Individual Blame Descriptive Statistics</i>			
<u>Article</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	3.2750	1.172
Individual/Non-disparity	52	3.5865	1.134
Societal/Disparity	47	2.7819	1.045
Societal/Non-disparity	51	3.3775	1.009

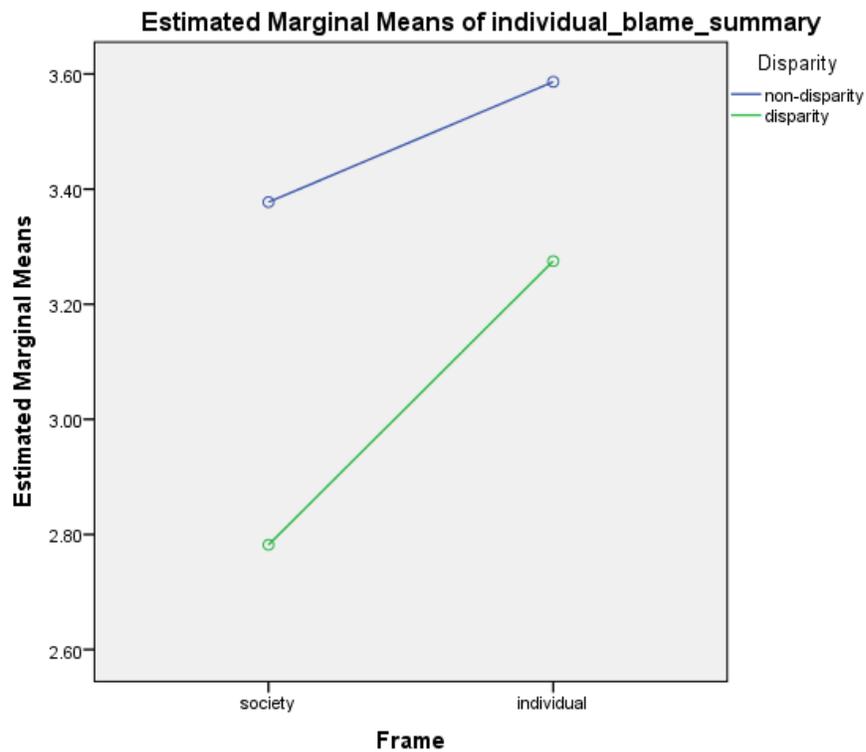


Figure 1. Means of Individual Blame Scores. This figure plots means for each article type for the individual blame variable.

Individual responsibility was analyzed next. The syntax for that test is below:

```
UNIANOVA individual_responsibility_summary BY frame disparity
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/CRITERIA=ALPHA(0.05)
/PRINT DESCRIPTIVE
/plot = profile (frame* disparity)
/DESIGN= frame disparity frame*disparity.
```

The results showed a main effect of frame such that participants who read either of the individually focused articles were more likely to attribute responsibility to the individual than participants who read either of the societally focused articles (Frame: $F(1,196)=14.467, p<.000$). The presence of a main effect of disparity indicated that people were less likely to attribute responsibility to the individual when a disparity was described (Disparity: $F(1,196)=8.554, p<.004$). No significant interaction between the two manipulations was found (Frame*Disparity: $F(1,196)=.001, p=.978$). The descriptive statistics and the means plot for the individual responsibility variable are below:

Table 12			
<i>Individual Responsibility Descriptive Statistics</i>			
<u>Article</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	5.507	1.057
Individual/Non-disparity	52	5.949	1.073
Societal/Disparity	47	4.922	0.951
Societal/Non-disparity	51	5.373	1.207

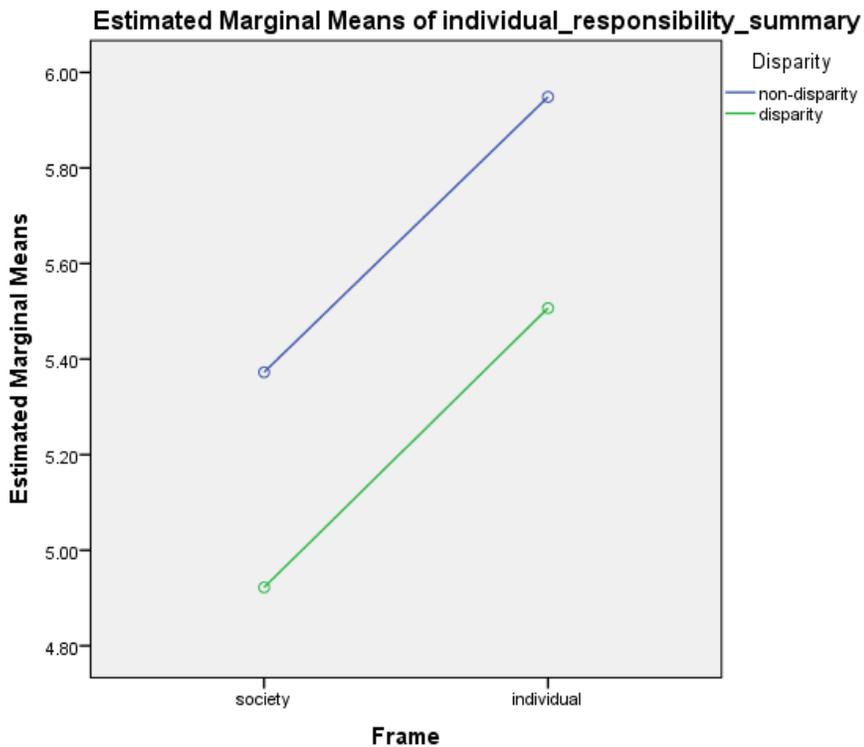


Figure 2. Means of Individual Responsibility Scores. This figure plots means for each article type for the individual responsibility variable.

Next, the societal blame variable was analyzed. The syntax I used to arrive at the results is below:

```
UNIANOVA society_blame BY frame disparity
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/CRITERIA=ALPHA(0.05)
/PRINT DESCRIPTIVE
/plot = profile (frame* disparity)
/DESIGN= frame disparity frame*disparity.
```

The results showed a main effect of frame such that participants who read either of the societally focused articles were more likely to attribute responsibility to society than participants who read either of the individually focused articles (Frame: $F(1,196)=21.346, p<.000$). There was not a main effect for disparity, which means participants were not more likely to attribute responsibility to society after reading a disparity or non-disparity article (Disparity: $F(1,196)=3.137, p<.078$). An interaction between the two variables was not found, which means that the presence of both manipulations in an article was not likely to have a significant influence on participants' societal attribution of blame (Frame*Disparity: $F(1,196)=.474, p=.492$). The descriptive statistics and the means plot for the societal blame variable are below:

<i>Societal Blame Descriptive Statistics</i>			
<u>Article</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	3.10	1.515
Individual/Non-disparity	52	2.58	1.473
Societal/Disparity	47	3.94	1.673
Societal/Non-disparity	51	3.71	1.346

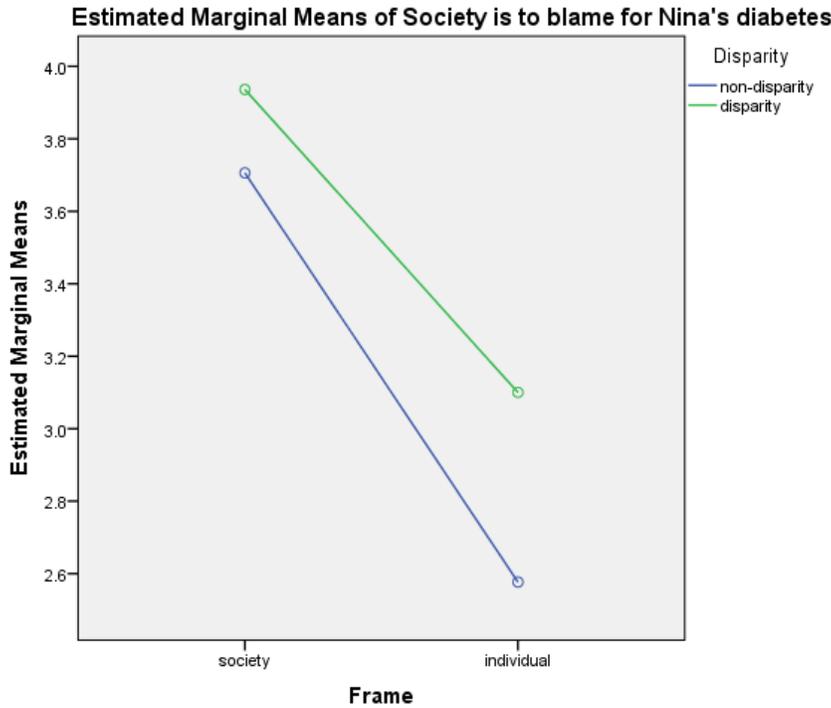


Figure 3. Means of Societal Blame Scores. This figure plots means for each article type for the societal blame variable.

The descriptive statistics and the analysis of variance were run on the societal responsibility variable next. The syntax I used to arrive at the results is below:

```
UNIANOVA society_responsibility BY frame disparity
```

```
/METHOD=SSTYPE(3)
```

```
/INTERCEPT=INCLUDE
```

```
/CRITERIA=ALPHA(0.05)
```

```
/PRINT DESCRIPTIVE
```

```
/plot = profile (frame* disparity)
```

```
/DESIGN= frame disparity frame*disparity.
```

Like the societal blame factor, there was only one main effect for frame such that participants who read a societally framed article were more likely to attribute

responsibility for diabetes to society than participants who read an individually framed article (Frame: $F(1,196)=31.541, p<.000$). The presence of a disparity did not have an influence on the means (Disparity: $F(1,196)=2.146, p<.145$). Disparity in the societally focused articles did not have a significant influence on where readers placed responsibility. The societal/non-disparity and societal/disparity readers attributed societal responsibility at nearly the same level. The mean response for the societal/non-disparity participants was 4.02 and the mean response for the societal/disparity participants was 3.98. There also was not a significant interaction between the independent variables in this case (Frame*Disparity: $F(1,196)=2.684, p=.103$). The descriptive statistics and the means plot for this variable are below:

Table 14			
<i>Societal Responsibility Descriptive Statistics</i>			
<u>Article</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	3.04	1.761
Individual/Non-disparity	52	2.31	1.651
Societal/Disparity	47	3.98	1.539
Societal/Non-disparity	51	4.02	1.703

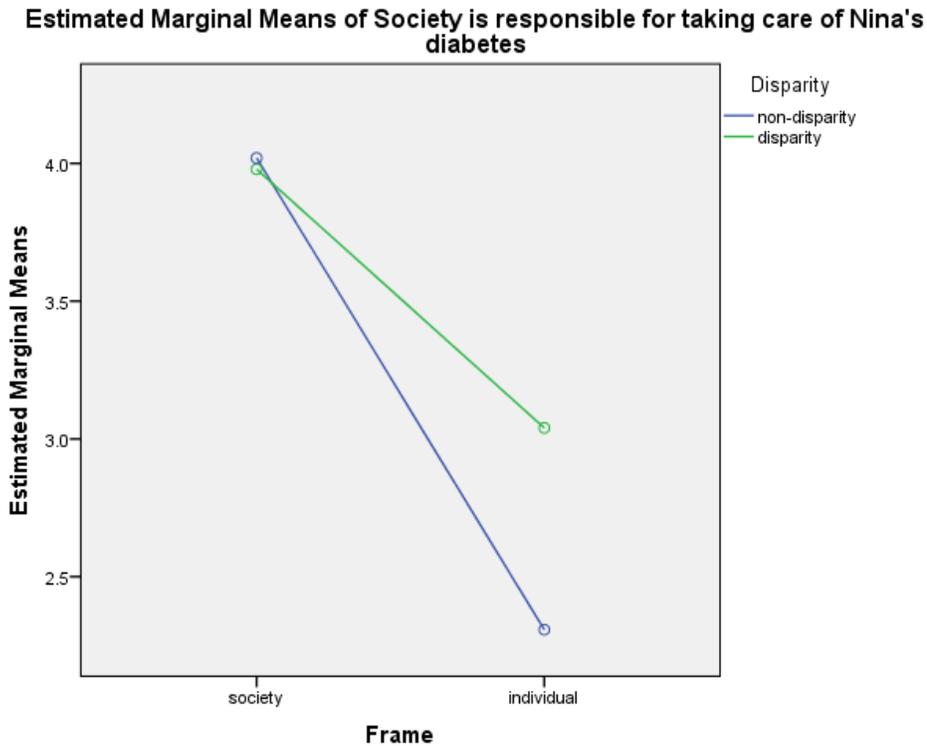


Figure 4. Means of Societal Responsibility Scores. This figure plots means for each article type for the societal responsibility variable.

The last variable, government solutions, had means that were closer together. The range across the values of the four groups was 0.318. However, the participants who read the societally focused/disparity article were still more likely to say the government was responsible for diabetes-related issues than those who read the individually focused/non-disparity articles. The between-subjects effects were also analyzed. The syntax I used to arrive at the results is below:

```
UNIANOVA government_solutions_summary BY frame disparity
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/CRITERIA=ALPHA(0.05)
/PRINT DESCRIPTIVE
```

/plot = profile (frame* disparity)

/DESIGN= frame disparity frame*disparity.

The results showed a main effect of frame such that participants who read a societally focused article were more likely to attribute responsibility for diabetes-related care and research to the government. (Frame: $F(1,196)=4.345$, $p<.038$). There was not an interaction between the frame and disparity manipulations (Frame*Disparity: $F(1,196)=.384$, $p=.536$). They were also more likely to attribute responsibility if they read an article with an economic disparity. Additionally, the difference in the attributions between an individual disparity article and an individual non-disparity article was more pronounced than the society articles (Disparity: $F(1,196)=4.382$, $p<.038$).

The descriptive statistics and the means plot for the government solutions variable are below:

<u>Article</u>	<u>N</u>	<u>Mean</u>	<u>Standard Deviation</u>
Individual/Disparity	50	5.085	1.493
Individual/Non-disparity	52	4.813	1.275
Societal/Disparity	47	5.585	1.147
Societal/Non-disparity	51	5.083	1.281

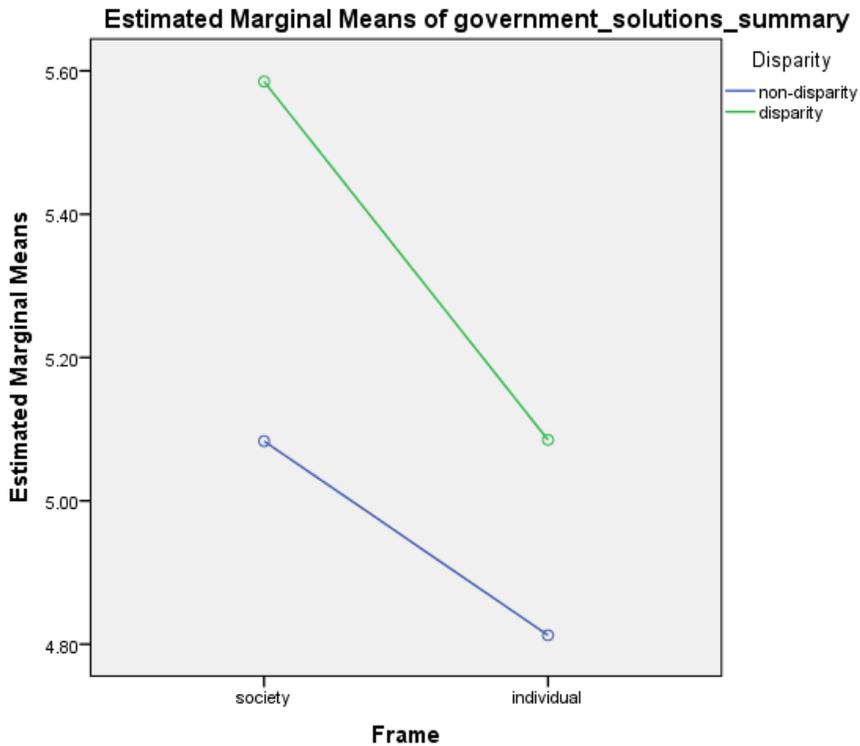


Figure 5. Means of Government Solutions Scores. This figure plots means for each article type for the government solutions variable.

In addition to running ANOVAs and MANOVAs, I also looked for main effects and interactions in the responses based on demographic data. I found a main effect for gender in the individual blame dependent variable such that men were more likely to attribute responsibility to the individual than women (Male: $F(1,192)=5.147, p<.024$). I also found an interaction among frame, disparity, and gender in the individual responsibility such that men were less likely to attribute responsibility to the individual than women (Frame*Disparity*Male: $F(1,192)=4.647, p<.032$). In addition, I found an interaction between frame and income in the individual blame variable such that people who make less than \$34,999 a year are less likely to attribute blame to individuals (Frame*Income: $F(1,192)=4.669, p<.032$). I also found a main effect for income in the government solutions dependent variable such that people who make less than \$34,999 a year are

more likely to support government solutions for diabetes care and research (Income: $F(1,192)=6.760, p<.010$). I did not find any main effects or interactions for race/ethnicity or for people who said they know someone with diabetes compared to people who said they do not.

Chapter Five: Discussion

Summary and Significance of Major Findings

As Goffman, Entman, and Tuchman found decades ago, frames are powerful tools (Entman, 1993; Goffman, 1974; Tuchman, 1980). The results of this analysis support that finding. The literature also shows that health-related framing has a strong influence on readers (Niederdeppe et al., 2008). It also reveals the public-policy repercussions framing can have on readers. As Atkin & Wallack (1990) wrote, people who believe health is a personal issue are less likely to support health-related public policy approaches, but if they view health as the responsibility of government, the corporate world, and the individual, they are more likely to support public solutions (p. 150). In this study, using the individual frame led to more blame and responsibility of the individual and less blame and responsibility of the government than the societal frame. Using the disparity language generally led to less blame on the individual and more responsibility on the government than the non-disparity language.

The manipulation of each independent variable had a significant influence on how people perceived individual and societal blame and responsibility and also influenced how responsible they held the government for diabetes-related care, research, and programs.

In this discussion, I'll return to the study's research questions and corresponding hypotheses. The first question referenced blame and asked: Do readers perceive that societal or individual factors or a mix of both causes a health issue such as diabetes? The findings show that readers exposed to articles emphasizing individual factors are more

likely to place blame on the individual. Participants who read a more societally focused article were less likely to attribute blame to the individual. Additionally, a societal issue such as an economic disparity also influenced readers to place blame on society. The second question asked: Do readers perceive that the management of a health issue such as diabetes is a societal or individual responsibility or a mix of both? The findings indicate that readers are more likely to attribute responsibility to society when they read a societally focused article or when they read an article with an economic health disparity in it. The third question asked: Can the framing of a health issue such as diabetes in news stories change readers' perceptions? The answer to this question is clearly yes. The framing and disparity manipulations had a significant effect on where readers placed blame and responsibility for diabetes. The findings also support the six hypotheses. Framing diabetes as an individual issue increased readers' likelihood of assigning blame for diabetes to the individual. Framing diabetes as a societal issue increased their likelihood of assigning blame to society. Readers responded similarly with the responsibility variable. Framing diabetes as an individual issue increased readers' likelihood of assigning responsibility for diabetes to the individual. Framing diabetes as a societal issue correspondingly increased readers' likelihood of assigning responsibility for diabetes to society. And finally, framing diabetes as a health issue without mentioning an economic disparity made readers more likely to blame diabetes on the individual. But the presence of an economic disparity increased the likelihood that readers would assign responsibility and blame for diabetes to society.

My data include many interesting main effects. For all five of my dependent variables, there was a main effect for frame, such that people who read the individually

focused articles on average reported greater blame and responsibility for the individual and less responsibility for the government than people who read the societally focused articles. For all but two of my dependent variables (societal blame and societal responsibility), there was a main effect of disparity such that those people who read about an economic disparity attributed less blame and responsibility to the individual and more responsibility to the government than people who did not read about a disparity.

In the individual blame variable, the inclusion of a disparity had a greater influence on readers than the lack of a disparity. The attribution of blame was more pronounced in participants whose article included the presence of a disparity. So, participants who read an individually focused article with a disparity were most likely to blame individuals, and participants who read a societally focused article with a disparity were less likely to blame individuals. One interesting finding is that the mean responses for the societal/non-disparity and the individual/disparity were nearly the same. The readers of the individually framed article in this case were only slightly less likely to attribute blame to the individual than readers who read the societally focused article without a disparity. The finding shows the presence of a disparity was more powerful than the individual/societal frame in this case. In addition, the presence of these manipulations had a significant effect on readers' perceptions; however, there was not a significant interaction between the two manipulations. So, journalists who use either individual/societal frames or disparity/non-disparity stories should expect their stories to influence where readers place blame regardless of whether they employ one or both of these techniques. These manipulations act independently from each other, which means

that if journalists want to reduce reader blame, they can write a societally framed article, include an economic disparity (if there is one that reveals itself in the reporting), or both.

My demographic analyses indicate that gender and income had some bearing on how readers placed individual blame, individual responsibility, and government solutions. It's possible that men were more likely to attribute blame to the individual because the main character was a woman and women were more sensitive to the manipulation. The income level of readers also seemed to influence their responses to the government solutions questions. Lower-income readers were more likely to say that government solutions are needed for diabetes care and research most likely because they are sensitive to financial constraint.

Practical Implications

My findings support what the health-related framing literature has reported over the past 30 years. Niederdeppe and fellow researchers found that a “sizable literature indicates the way a message is framed affects attributions of responsibility for social conditions” (Niederdeppe, Bu, Borah, Kindig, & Robert, 2008, p. 488). My diabetes-specific findings support Niederdeppe and colleagues' statement. However, as Gasher noted, it is often easy and more compelling for journalists to tell the story of a national health issue through the lens of the individual (Gasher et al., 2007). The personal details of a health issue such as diabetes often makes for powerful storytelling, but journalists need to be cautious when employing an episodic frame because it can influence how readers view those central characters.

The most effective way to integrate my findings into daily journalism would be to weave societal frames into personal narratives and give the episodic frame more context.

My societally focused articles both led with Nina Smith's story, but the bulk of those articles introduced readers to policymakers, public health workers, and physical fitness trainers who are working on her behalf. These sources help readers understand the societal challenge that diabetes poses and invite readers to think more holistically about how our food systems, health care systems, neighborhood design, etc. influence chronic diseases such as diabetes.

Journalists, editors, and journalism professors should strive to include a wider array of sources when writing and editing stories about diabetes. Source possibilities include staff from the health department, people from local and national advocacy agencies, local councilmembers, policymakers, health care professionals, and personal trainers. These sources help transform episodic stories into thematic stories. However, that does not mean that journalists should remove personal stories altogether. The challenge for journalists is to lead with a figure like Nina and then keep on reporting. Sources like the ones suggested above make for an even more compelling story because they add context and greater detail than what just one family and its immediate circle can provide. The challenge of this type of reporting is that it requires more footwork. Professors especially should push new reporters to understand the importance of context. It's not viable for every story, especially under tight deadlines, because thematic stories require more interpretive analysis and time to get additional sources (Iyengar & Simon, 1993). A thematic story should remain the overarching goal but not the everyday requirement because sometimes it is simply not possible.

In my own experience at the *Missourian*, I found the editors to be very aware of context. The difference between episodic and thematic stories was often discussed in

budget and beat meetings. Editors would challenge reporters to think of ways to add context to articles. I think my main challenge was being able to identify a stopping point. Often, a story can continue to be reported for days and weeks, but including so much detail can also bog readers down. It's important to tell the story and provide context but not get overwhelmed with too many sources. Readers can also struggle to keep track of more than five or six sources for a longer and more contextual story. So, I think discussions with editors about which five players to source is important.

If I were going to write the article about diabetes in the black community today, I would use more of a thematic frame. All of my sources for that story came from inside the African-American community, which I believed to be the story's strength. But looking back, I think I'd transcend that community. I'd talk with some health care professionals, a personal trainer, a local councilmember, or even an economist in order to include the economic, physical, and psychological costs of diabetes in Columbia. In addition, I'd reconsider my use of a loss frame to tell the story. My motivation for writing it was to get more attention for the issue. But it's possible the story might have been told better using a gain-framed lens. Instead of focusing on the negatives — the lifestyle decisions that led Tracy to lose his legs and Almeta Crayton to develop diabetes and ultimately lose her life — perhaps I should have spent more time talking about how the African-American community could overcome this nasty disease.

Just as the editors at the *Missourian* currently discuss the use of context, I think they also should review the use of gain- and loss-framed articles and how those decisions ultimately influence readers. I learned many lessons from the budget and beat meetings, and I think these are the best times to review decisions and discuss how different frames

can be employed. Another crucial moment in the reporting process comes early on during source identification. When reporters make a list of the must-call sources, they should take an extra five or ten minutes to imagine the structure, the frame, and whether additional sources would be needed to use a thematic frame, a gain-framed article, or a story that delves into disparities. After leaving journalism school, I think the best way for reporters to continue to write contextual stories is to be reminded by editors, to hear about others' experiences at conferences, and to read analyses and tips on journalism websites such as Poynter and Columbia Journalism Review.

Three questions journalists should ask themselves before starting to report are:

1. What type of frame am I using to tell this story and why?
2. Will this frame enable the most accurate and responsible representation of the issue
3. How can I provide readers with additional sources to give the story additional context?

Theoretical Implications

My research questions and the corresponding hypotheses are relatively unique to the framing literature. Although my research expertise is basic at this point, my study is original because it does not address specific subsets of the population (e.g. African-Americans, diabetics), and it does not seek to change a person's behavior through a specific health intervention as many health-communication studies do. This work seeks to understand how various frames employed in everyday journalism influence readers. As Walter Lippmann noted nearly a century ago, the "pictures in our heads" do not often correspond to the external reality (Lippmann, 1923, p. 4). Life is a subjective experience,

and the act of simply reporting it to others will undoubtedly alter it in some way. Being aware of these alterations — whether they are through frame choice or inclusion of disparities — will help journalists understand the power of their own work. Sometimes, time, access, or resources, limit the level of contextualization possible. We know these physical constraints well in the news industry. This work offers a glimpse into the psychological constraints that exist in journalism as well. These findings reveal the power a few framing decisions can have on how readers assign blame and responsibility for a common health condition. Beware the blame frame.

Limitations

This experiment used type 2 diabetes as a lens for examining a health issue. However, generalizations should not be made to other health issues such as obesity, cancer, or heart disease. Future studies like this one should use other health issues to look for similarities and differences in participant response.

If I were run this experiment again, I would adjust my measures. Each index should measure just one concept rather than two. In the future, I'd use three or four questions to ask about individual blame, individual responsibility, societal blame, and societal responsibility. Additionally, my government solutions measure had a reliability of 0.928, so it's possible that I would only have to include three questions instead of four. This would save time and money in the future.

Areas for Future Research

The next steps for this research could be to use similar articles about a different health issue. It would be interesting to see how readers react to an article about obesity, cancer, heart disease, or stroke. Findings could then be compiled and presented to

journalists so that they could be aware of how various frames affect reader attribution of blame and responsibility. It would also be helpful to conduct an updated content analysis of the diabetes news coverage. Gollust and Lantz published their content analysis of diabetes coverage in 2009, but the articles were from 2005-06. Running a comparison of their findings to articles from the present-day would help researchers understand whether disparities are mentioned more or less often and which type of frames are used most often compared to 10 years ago.

Chapter Six: Conclusion

The manipulations in these articles are exaggerated so that the effects, the differences between the means, and the interactions can be easily measured. An actual article about diabetes would most likely contain a combination of these sources and perspectives, which would not create such a pronounced response. Nonetheless, it is important for journalists to be aware of how they present diabetes to the public because those frames do affect readers' perceptions of this health issue. These findings show that framing influences where readers place blame and responsibility for diabetes and how accountable they hold the government for diabetes-related care, programs, and research. How and whether readers act on those attributions cannot be extrapolated from this specific research, but it certainly does lead to other bigger policy- and public health-related questions. Even if journalists don't think of themselves as public health advocates, these findings show that journalists might be playing a role in the national public health conversation without realizing it. The intersection of journalism with health and public policy is an area ready for further examination.

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APPENDIX

Appendix A: Consent Form

The following questionnaire will present to you one news article to read. Please read the article carefully and answer the following questions. Your participation will take approximately 5-10 minutes. If you have read this form and have decided to participate in this research study, please understand your participation is voluntary, and you have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. Your individual privacy will be maintained in all published and written data resulting from the study. Please answer every question to the best of your ability.

If you have questions about the study, you may contact the researcher at tcgfm5@mail.missouri.edu or if you have questions about your rights as a research subject you may contact the University of Missouri IRB at irb@missouri.edu.

You will be paid 50 cents for completing the survey.

- You must be at least 18 years old to participate.
- You have read the above consent form, understood it and you agree to it.
- You want to participate in the survey.

Appendix B: News articles

Article one: individual/non-disparity.

Adult-onset diabetes changes life, daily routine for local mom of three

By Erin Dobson

Nina Smith has struggled for years with adult-onset diabetes. Now 54 this wife of an investment banker and mother of three boys watched as her grandmother and then her mother died of the often-debilitating disease.

“I was always worried I would be next,” Smith said.

Smith was devastated when she got the news. Her doctor diagnosed her just days after her 40th birthday. “I cried,” Smith said.

Smith is part of a growing number of people developing adult-onset diabetes. Diabetes is in the seventh-leading cause of death in the U.S., according to the Centers for Disease Control and Prevention. In 2014, about 29.1 million Americans had diabetes, according to the CDC. Another 86 million were prediabetic — about one in three Americans.

Since that July day, Smith has worked to balance her health condition with her busy schedule volunteering with local arts organizations. A private nutritionist helped adjust the family’s diet, and they even hired a personal chef for two nights a week to cook healthy meals.

“I was surprised many of the items I bought like yogurt, energy bars and spaghetti sauce had lots of sugar in them,” Smith said.

She wishes she’d read the labels more closely. “As a mom, I feel guilty for not taking the time to read what I was buying for myself and my family,” Smith said.

Personal trainer Janet Thomas helped her develop a realistic exercise plan. “People with diabetes need to exercise regularly,” Thomas explained. “It’s up to her whether or not she does it.”

For the past several years, Smith has run on her treadmill for 20 minutes three times a week.

“No matter how hard she’s worked during the day, Nina is dedicated to that thing,” her husband, Chad Smith, said.

She also goes to a one-hour Zumba class on Friday nights at her local dance studio.

Smith said she wants the sadness to stop with her. “My grandma and mom left me too early,” she said. “I don’t want that for my sons. I want to stop this.”

Looking back, Smith says her illness has changed her outlook. “I worry more,” Smith said. “We don’t do those little splurges to get Sunday brunch or ice cream like we used to.”

The youngest Smith, Dylan, 13, agrees. Life has changed. “She always worries about us,” Dylan said. “It makes me sad.”

Article two: individual/disparity.

Adult-onset diabetes changes life, daily routine for low-income mom of three

By Erin Dobson

Nina Smith has struggled for years with adult-onset diabetes. Now 54, the single mom of three boys watched as her grandmother and then her mother died of the often-debilitating disease.

“I was always worried I would be next,” Smith said.

Smith, who works as a waitress at a diner, was devastated when she got the news. A free community clinic diagnosed her just days after her 40th birthday. “I cried,” Smith said.

Nina Smith is part of a growing number of low-income people developing adult-onset diabetes. Diabetes is in the seventh-leading cause of death in the U.S., according to the Centers for Disease Control and Prevention. In 2014, about 29.1 million Americans had diabetes, according to the CDC. Another 86 million were prediabetic — that’s one in three people.

But what’s most concerning to public health officials is that low-income Americans such as Smith are more at risk for developing diabetes than their wealthier counterparts. Data suggests that poverty can actually lead to illnesses such as diabetes.

Smith holds two waitressing jobs and often works more than 60 hours a week to support herself and her three teenage sons. Her income is at the poverty line.

Smith joined the YMCA’s Fight Back Diabetes Program about five years ago. The program is geared toward low-income, working-class people who might not otherwise have access to trainers and exercise classes.

Janet Thomas, a trainer at the YMCA, helped Smith develop a realistic exercise plan. “People with diabetes need to exercise regularly,” Thomas explained. “Nina works a lot, but I told her no excuses. She’s the only one who can get herself on the treadmill.”

For the past several years, Smith has been diligent about working out at least 20 minutes about three times a week. Smith also goes to a one-hour dance class on Friday night at the YMCA.

“I’m proud of her progress,” Hills said. “She’s been really dedicated.”

Smith also enrolled in diabetes-specific nutrition courses through a community health clinic and regularly attends group classes with a nutritionist.

“I was surprised many of the items I bought like spaghetti sauce, yogurt and applesauce had lots of sugar in them,” Smith said.

She blames herself for not reading the labels better. “As a mom, I feel guilty for not taking the time to read what I was buying for myself and my family,” Smith said. Now she’s teaching her sons what she learned from the nutritionist.

Smith said she wants the sadness to stop with her. “My grandma and mom left me too early,” she said. “I don’t want that for my sons. I want to stop this.”

Looking back, Smith says her illness has changed everything. “It’s really expensive to have diabetes. I want my sons to go to college, but I worry.”

The youngest Smith, Dylan, 13, agrees. Life has changed. “She always worries about us,” Dylan said. “It makes me sad.”

Article three: societal/non-disparity.

Local mom of three says diabetes 'is not just my problem'

By Erin Dobson

Nina Smith credits social support for her progress with her adult-onset diabetes, but she thinks more programs and policies are needed to help people with diabetes. This wife of an investment banker and mother of three watched as her grandmother and then her mother died of the often-debilitating disease.

“Society can make it hard for someone at risk for diabetes,” Smith said.

When Smith got the news that she had diabetes, she was devastated. Her doctor diagnosed her just days after her 40th birthday. “I cried,” Smith said.

Nina Smith, 54, is part of a growing number of people developing adult-onset diabetes. Diabetes is in the seventh-leading cause of death in the U.S., according to the Centers for Disease Control and Prevention. In 2014, about 29.1 million Americans had diabetes, according to the CDC. Another 86 million were prediabetic — or one in three people.

“Nearly all cases of diabetes are preventable,” says Kelly Reynolds, a doctor who specializes in diabetic care. “But that doesn’t mean that people can get better on their own,” Reynolds says.

Reynolds typically starts by educating patients about how they can manage diabetes but quickly moves beyond the first-line of defense. “When you have someone holding you accountable for that workout or that healthy dinner on Friday night, it helps,” Reynolds says. But of course it goes past just the patient’s social circle. Diabetes should also be on the minds of the country’s leaders, businesspeople, researchers and lawmakers, she says.

Kennedy Stiles, the executive director of the Diabetes Advocacy Alliance says efforts to help diabetic people typically focus on the individual. His advocacy group challenges national lawmakers to consider access to healthy food, nutrition education, exercise prevention, neighborhood design and health care when discussing diabetes. “Our country’s biggest problem is that we just can’t own up to needing to solve this problem together,” Stiles says.

Diabetes is just a symptom of a very broken system, fitness trainer Janet Thomas says. “We need to help people get back on track,” Thomas says. “America is overworked and overweight. Together we need to change our priorities.”

Recent research has backed up these assertions. A June 2015 study by Stanford professor Paul Davis found that people living in neighborhoods with access to healthy food and exercise equipment had a 12 percent lower risk of developing adult-onset diabetes. “The study indicates that getting people healthier is a group effort” he said.

Smith knows the importance of taking “a we’re in this together” sentiment all too well. She’s been raising money for diabetes awareness programs and petitioning local city leaders to think more about how they can support people with diabetes.

“I can’t overcome this disease by myself,” Smith says. “This is not just my problem. It’s everyone’s.”

Article four: societal/disparity.

Low-income mom of three says diabetes is 'not just my problem'

By Erin Dobson

Nina Smith credits social support for her progress with her adult-onset diabetes, but she thinks more needs to be done. The single mother of three watched as her grandmother and then her mother died of the often-debilitating disease.

“I was always worried I would be next,” Smith said.

Smith, who works as a waitress at a diner, was devastated when she got the news. Her doctor diagnosed her just days after her 40th birthday. “I cried,” Smith said.

Nina Smith is part of a growing number of low-income people developing adult-onset diabetes. Diabetes is in the seventh-leading cause of death in the U.S., according to the Centers for Disease Control and Prevention. In 2014, about 29.1 million Americans had diabetes, according to the CDC. Another 86 million were prediabetic — that’s one in three people.

But what’s most concerning to public health officials is that low-income Americans such as Smith are more at risk for developing diabetes than their wealthier counterparts. Data suggests that poverty can actually lead to illnesses such as diabetes.

Smith holds two waitressing jobs and often works more than 60 hours a week to support herself and her three teenage sons. Her income is at the poverty line.

“Poverty is playing a much greater role in diabetes than we once thought,” says Kelly Reynolds, a doctor who specializes in diabetic care for low-income patients. “We as medical providers are having to catch up to educate people effectively.”

She typically starts by assessing the barriers such as time, money and cultural expectations, so that she can better understand what her patients are up against. “If someone lives in a neighborhood without easy access to fresh food, then I know I need to work with that person on overcoming that barrier,” Reynolds says. But of course it goes past just the patients themselves. Diabetes should also be on the minds of our country’s leaders, businesspeople, researchers and lawmakers, she says.

“It’s a national problem and will need national solutions,” Reynolds says.

Kennedy Stiles, the executive director of the Diabetes Advocacy Alliance says most of the efforts to prevent adult-onset diabetes focus on individuals, and they often don’t take into account a person’s socioeconomic status. His advocacy group challenges

national lawmakers to consider income level, access to healthy food, nutrition education, exercise prevention, neighborhood design and health care when discussing diabetes. “Our country’s biggest problem is that we just can’t own up to needing to solve this problem together,” Stiles says.

Diabetes plagues the poor, fitness trainer Janet Thomas says. She sees that reality in her exercise groups. Low-income people have a harder time exercising because they are usually balancing two jobs, they can’t afford workout equipment or shoes and it’s just not something they are used to doing, Thomas says. So, she runs a weekly exercise group only open to low-income diabetic or prediabetic people. A grant helps fund the program, which she started in 2011.

“People love it because it’s fun and free,” Thomas says. “I always make them break a sweat.”

Recent research has backed up what Thomas has already discovered. A June 2015 study by Stanford professor Paul Davis found that people living in neighborhoods with access to healthy food and exercise equipment had a 12 percent lower risk of developing adult-onset diabetes. “The study indicates that getting people healthier is a group effort” he said.

Smith knows the importance of taking “a we’re in this together” sentiment all too well. She’s been petitioning local city leaders to think more about how poverty is making poor people sicker.

“I can’t overcome this disease by myself,” Smith says. “This is not just my problem. It’s everyone’s.”

Appendix C: Post-test questionnaire

<i>Question</i>	<i>Rating</i>	<i>Codeword</i>
INDEX 1: BLAME (origin of the illness)		
1. Nina is to blame for her diabetes	1 (not at all) – 7 (extremely)	INDIVIDUAL BLAME
2. It is Nina's fault she is diabetic.	1 (not at all) – 7 (extremely)	INDIVIDUAL FAULT
3. Nina deserves to have diabetes.	1 (not at all) – 7 (extremely)	DESERVE
4. Nina's diabetes is not a result of her own negligence (R)	1 (not at all) – 7 (extremely)	NEGLIGENCE
INDEX 2: RESPONSIBILITY (managing the illness)		
5. Nina is responsible for taking care of her diabetes.	1 (not at all) – 7 (extremely)	INDIVIDUAL RESPONSIBILITY
6. Nina should be held accountable for managing her diabetes.	1 (not at all) – 7 (extremely)	ACCOUNTABLE
7. Nina should not be held personally accountable for managing her diabetes (R) Please write a one-sentence summary of the article you've just read.	1 (not at all) – 7 (extremely)	PERSONAL
SOCIETAL BLAME		
8. Society is to blame for Nina's diabetes.	1 (not at all) – 7 (extremely)	SOCIETY BLAME
SOCIETAL RESPONSIBILITY		

9. Society is responsible for taking care of Nina's diabetes.	1 (not at all) – 7 (extremely)	SOCIETY RESPONSIBLE
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INDEX 3: GOVERNMENT AND PUBLIC SOLUTIONS

10. The government should help people who have diabetes.	1 (not at all) – 7 (extremely)	GOVT SUPPORT
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11. The government should develop programs to help people with diabetes.	1 (not at all) – 7 (extremely)	GOVT PROGRAMS
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12. The government should development policies to help people with their diabetes.	1 (not at all) – 7 (extremely)	GOVT POLICY
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13. The government should be putting more money into diabetes research.	1 (not at all) – 7 (extremely)	RESEARCH
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DEMOGRAPHIC DATA

14. I have type 2 diabetes.	Yes/no	DIABETES
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15. I know someone who has type 2 diabetes.	Yes/no	RELATION
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16. My gender is:	Male/female/transgender	GENDER
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17. My age is:	Fill in the blank	BIRTH
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18. I identify as:	Multiple Choice	IDENTIFY
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19. My zip code is:	Fill in the blank	ZIP
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20. My income range is:	Drop down box, ranges	INCOME
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21. My occupational status is:	Drop down box	OCCUPATION
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22. My highest level of education is:	Dropdown of education	EDUCATION
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