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Framing of Public Health Issues:  
A Content Analysis of Smoking Ban Coverage in Ohio's Six Major Newspapers

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### Abstract

A content analysis of major newspaper coverage of Ohio's smoking ban issues was conducted to ascertain possible media effects on voter preference. In general, news articles presented both sides of the arguments for and against the smoking ban, while opinions pieces favored smoking ban legislation. In addition, most articles focused on issues of human individual rights and tobacco companies' deceptive tactics of persuasion. Implications for future health media campaigns are discussed.

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Cigarette smoking remains the leading preventable cause of death in the United States, accounting for one of every five deaths each year (Mokdad, Marks, Stroup, & Gerberding, 2004; CDC, 2005). In 2005, an estimated 20.9% of adults smoked cigarettes in the United States. While the individual state estimates for cigarette smoking vary widely, Ohio is above the national average with smoking adults constituting 22.3% of the population. All five of Ohio's bordering states are also well above the national average, with Kentucky leading the nation at 28.7% (CDC, 2006). Some argue that these statistics, coupled with rising health care costs and an aging population, make it imperative to find more preventative directions of health care and public health systems in the United States (Mokdad et al., 2004). Given that tobacco use is one behavior that contributes to high chronic disease morbidity and mortality rates, one way to mitigate these negative sequelae is to control smoking behaviors. This study is a content analysis of the major newspaper coverage of Ohio's smoking ban issues that were on the 2006 mid-term election ballot. This paper first gives a brief history of smoking ban legislation in the United States, explains the smoking ban issues relevant to Ohio and reviews the literature of agenda setting, framing and public health and tobacco issues in the media. Results and implications for future research are discussed.

***Smoking Ban Legislation***

The history of statewide smoking bans began in 1975 when the Minnesota state legislature passed a law that required restaurants to have "No Smoking" sections. This law, called the *Minnesota Clean Indoor Air Act*, exempted bars (ANRF, 2007). In 1998, California passed a very controversial public smoking ban that included restaurants and bars. Since then, 21 states and the District of Columbia have statewide laws in effect that require 100% smoke-free workplaces, though not all state laws extend to bars. In addition, Arizona, Montana, and Utah have enacted

state smoke-free laws that are scheduled to go into effect by May 2007, October 2009, and January 2009 respectively (ANRF, 2007).

The state of Ohio recently joined the smoking ban legislation debate. Two pieces of smoking ban legislation, Issue 5 and Issue 4, were on the ballot for the state's mid-term election on November 7, 2006. Issue 5 proposed a state law that would prohibit smoking in all enclosed public places and places of employment, including bars and restaurants. Under Issue 5, businesses would be required to post "No Smoking" signs to comply with the law. As worded, private residences, designated smoking hotel rooms, family businesses not open to the public and certain areas of nursing homes, tobacco stores, outdoor patios, and private clubs with no employees would all be exempt from Issue 5 (OOBM, 2006).

The gravity of this legislation did not go unnoticed by the R.J. Reynolds Tobacco Company who combined with one other organization to invest a total of \$5.4 million dollars (in contrast to the \$1.8 million dollars spent on Issue 5) on a competing smoking ban titled Issue 4 (Provance, 2006). Issue 4 would exempt bars, some restaurants and other establishments such as bingo halls, bowling areas, racetracks, and nursing homes from the smoking ban. Importantly, Issue 4 was a proposed amendment to the Ohio Constitution that would have invalidated existing local smoke-free ordinances and prohibited future localities from enacting such legislation (OOBM, 2006). In the event that both Issues 4 and 5 were simultaneously enacted by the voters, Issue 4 would supersede all other laws and, in effect, immediately nullify Issue 5.

On November 7, 2006, the voters of Ohio joined the ranks of smoke-free states by passing Issue 5 (59% vs. 41%) and voting down Issue 4 (64% vs. 36%; Ohio Secretary of State, 2006). The smoking ban took effect on December 7, 2006, one month after the law passed. According to many Ohio state public health officials, this statewide law represents a very important public

policy that will help lower state health care costs while encouraging individuals to quit smoking and prevent future health problems associated with smoking and secondhand smoke (Allan, 2006).

### ***Functions of Media***

An increase in smoke-free legislation is a reflection of the growing evidence that environmental tobacco smoke endangers nonsmokers and that smoking has perhaps become a social, rather than an individual, problem (Cardador, Hazan, & Glantz, 1995). A shift into the public arena often brings the debate into the news media. The selection of news stories is well recognized as an “agenda setting” function of the media. Agenda setting theory states that through selection by gatekeepers of particular news, readers learn what issues are salient and newsworthy (McCombs & Shaw, 1972). Importance of a news story may also be determined by the amount of information and the way the information is presented (McCombs & Shaw, 1972). In addition, framing theory posits that by framing issues in specific ways, the media can play an integral role in not only *what* issues are presented to the public, but also *how* these issues are perceived. The process of framing involves selecting a certain aspect of an issue and making it salient to the community by defining the problem, diagnosing the cause, making moral judgments and suggesting a remedy (Entman, 1993). In other words, how media frame an issue largely determines how the public perceives that issue. Entman (1993) further explains that this can be done by choosing and highlighting certain features of reality while omitting or downplaying others. Entman’s framing theory suggests that all news content is not equally salient and influential, thus it may be key to examining knowledge and perception of a particular issue.

### ***Public Health in the Media***

One such issue that has been extensively examined is the function of media in dealing with public health issues. Agenda setting theory and framing theory demonstrate that media serve as a forum in which the consideration and presentation of public health issues take place. The media

have been recognized as a powerful mechanism to promote the awareness and education of public health issues (Holden & Treno, 1997). Research has shown that one cannot assume that media will be health promoting (Kline, 2006); however, public health specialists and advocates are often reliant (due to a variety of factors such as budget and time) on the mass media to disseminate information and to increase visibility and credibility of specific issues (Atkin & Arkin, 1990). This relationship suggests that analyzing media may help explain how public perception is shaped around a public health issue.

Past research suggests that the media do indeed play a primary role in the policy making process by informing the public of relevant issues and shaping public thought surrounding those issues (Wakefield, Smith, & Chapman, 2005). Further, while it may be impractical to control how consumers receive media messages, media producers have some control over presentation quality (Collins, Abelson, Pyman & Lavis, 2006). Collins (2006) suggested that print news, in particular, has been recognized as an integral source of public policy information as well as a medium to persuade public opinion, depending on selection and presentation of the issues. Print news media tracking may be used not only to understand the content of coverage, but also to quantify the influence of coverage on public opinion and the social environment around a public health issue (Evans & Ulasevich, 2005). For example, Holder and Treno (1997) reported that media advocacy efforts served to increase news coverage of alcohol issues, to raise community awareness of drunken driving enforcement and to heighten perceived risk of driving while intoxicated. Local news media, in particular, may play a vital role in shaping civic atmosphere in local societies. Research suggests that local newspapers have the ability to encourage or suppress the potential of citizens to participate in the decision-making process surrounding public health legislation (Nicodemus, 2004). Mortensen and Serritzlew (2006) found that in municipalities with intensive coverage from local newspapers, the media strongly impacted local decisions, especially those

made by local politicians. Thus, the amount and prominence of coverage in local newspapers may significantly influence residents, opinion leaders and local politicians to vote a particular way.

### ***Tobacco Issues in the Media***

One area of public health legislation that has gained considerable attention over the last decade is tobacco control. This may be largely due to the 1998 Master Settlement Agreement (MSA) among 46 states and five territories with major cigarette producers Phillip Morris Companies (now Altria), R.J. Reynolds Tobacco, Lorillard Tobacco, and Brown and Williamson. The settlement called for the elimination of non-retail outdoor advertisements, transit advertising, cartoons (in any tobacco advertising, marketing, or packaging), product placement in the media, and tobacco merchandising (e.g., brand names could not appear on any non-tobacco items; Krugman & King, 2000). Since the settlement, there has been concern that limited marketing practices in traditional cigarette outlets would drive increased spending, and therefore placement, in venues such as magazines (Krugman, Morrison & Sung, 2006). This reasoning may also be extended to other print media such as newspapers. Several studies have analyzed the relationship between cigarette advertising in pre-MSA and post-MSA print media (e.g. Chung, P., Craig, Rathouz, Lauderdale & Lantos, 2002; Hamilton, Turner-Bowker, Celebucki & Connolly, 2002) and have found that cigarette advertising did increase significantly after the MSA. Thus, cigarette advertising and coverage of tobacco control issues reaching and influencing young people has been a growing area of concern that has generated substantial policy discussion and research.

Research has generally found that media, such as newspapers, support tobacco control efforts, which raises an interesting debate as many of media rely on advertising to generate profit and increase margins, and stand to benefit financially from printing tobacco advertisements. This conundrum is evident with only 10 newspapers in America having officially banned cigarette advertising from their pages, *The Columbus Dispatch* in Ohio being one of them (Tobacco News

and Information, 2007). Shanahan, Scheufele, Yang & Hizi (2004) argue that people are generally more exposed to pro-tobacco messages than anti-tobacco messages; this may or may not affect opinions going into a public health smoking ban campaign. This may make tobacco control campaigns especially challenging.

Recent studies have examined the coverage of tobacco control issues in the news. Some of these studies suggest that press coverage (1) does not always support or reflect the aspects that advocates deem to be most salient and important and (2) often presents controversial frames or mixed support in news coverage for tobacco control efforts (Lima & Siegel, 1999; Clegg-Smith & Wakefield, 2006). For example, Long, Slater & Lysengen (2006) content analyzed a nationally representative sample of daily newspapers, news magazines, and television newscasts in the United States and found that coverage was modest and tended to emphasize government topics. Opinion news items in the study tended to favor tobacco control policies, but news stories were evenly split between negative and positive stories. The researchers concluded that media coverage did not explain the reason for tobacco control efforts. Smith and Wakefield (2005) found that while editors largely supported tobacco control efforts, there was little coverage of key issues such as health effects and addiction. The researchers surmised that this may be due to the fact that these issues are no longer perceived as controversial. They further suggested that advocates address this lack of proper coverage and “minimize the cynicism of key media gatekeepers to avoid undermining policy and individual change efforts” (p. 361).

In order to explain the inconsistencies of tobacco coverage found in the mass media, some studies have pointed out that the tobacco industry has created a central message and theme that has been used effectively and coherently over time while “the tobacco control movement has not developed a consistent, powerful, and compelling message” (Menashe & Siegel, 1998, p. 307) to counter the tobacco industry’s efforts. For example, Givel and Glantz (2000) recognized that the

tobacco industry claims that its activities grow out of concern for protecting individual freedoms of choice and freedom from undue government regulations and taxes. However, the authors also noted that the dominant tobacco industry message is contrary to what is seen in its private corporate communications—the preservation and bolstering of sales and profits.

### ***Related Studies***

While some studies reflect effective pro-tobacco industry coverage, others reveal evidence that the media have contributed to a burgeoning tobacco control movement. For example, coverage of events and opinions related to tobacco in Australian newspapers in 2001, with an average of over three articles per day in national or capital city newspapers, was overwhelmingly positive for tobacco control objectives (Durrant, Wakefield, McLeod, Clegg-Smith & Chapman, 2003). In this study, secondhand smoke issues, combined with consistent coverage of issues relating to education, prevention and cessation programs, dominated the news coverage, reflecting the ongoing efforts of anti-smoking health groups and tobacco control legislation. Other studies demonstrate that the tobacco industry's powerful and pervasive messages do not equate to success anymore. For instance, Magzamen & Glantz (2001) found that the tobacco industry worked both inside the legislature and through an intensive public relations campaign in an attempt to delay implementation of California's clean indoor air law and to encourage noncompliance once the law was in effect. Health groups were able to uphold the law by emphasizing health and worker safety frames in the media (Magzamen & Glantz, 2001). Similarly, a study of Australian print media confirmed that a powerful and consistent argument in the media for protection of employees in a smoking workplace was partially responsible for securing dates for the implementation of a smoke-free bar law (Champion & Chapman, 2005).

The tobacco industry typically opposes smoke-free legislation and often seeks to promote unfavorable media coverage of the regulation in an attempt to block it from passing (Mangurian &

Bero, 2000). While myriad studies have assessed tobacco news coverage over longer periods of time, few have focused on particular press coverage of a specific tobacco issue during a time of heightened awareness. As such, this study aims to elucidate Ohio's major newspaper coverage of Issues 4 and 5 leading up to and immediately following the smoking ban. Because two opposing pieces of legislation were presented to voters, media coverage likely reflects influences from both public health advocates and the tobacco industry. Assessing the media's role in a successful public health campaign may be beneficial to other states or entities pursuing similar outcomes. Four research questions were proposed:

RQ1: To what extent, and in which ways, did Ohio's major newspapers cover the smoking ban issues and what were the characteristics of these articles?

RQ2: In what ways did article characteristics differ between major newspapers?

RQ3: How is the slant of smoking ban article associated with the type (e.g., news or opinion piece) and thematic content of the article?

RQ4: How did thematic content differ in smoking ban newspaper articles before the mid-term election versus coverage following the election?

## **Methods**

### *Sample*

Print media, such as newspapers, have been found to be an effective medium for influencing the general public as well as opinion leaders on issues of public health (Evans & Ulasevich, 2005). Not only is the newspaper one of the most accessible and affordable sources of information, but previous research suggests that newspaper coverage shows a pattern that may mimic television coverage (Holder & Treno, 1997). Furthermore, while television is another widely used and accepted source of information, it has also been shown to provide less coverage in cases of local elections and politics (Wasserman, 1999).

This study sample is purposive in that it is comprised of all articles published in Ohio's top six circulated newspapers (circulations numbers are reported in parentheses): *The Akron Beacon Journal* (139,220), *The Blade* (Toledo; 39,293), *The Cincinnati Enquirer* (192,246), *The Columbus Dispatch* (251,045), *The Dayton Daily News* (124,702), and *The Plain Dealer* (Cleveland; 367,528). Together, these newspapers account for the majority of the newspaper readership in the state of Ohio. Articles were extracted from newspapers dated May 7, 2006 (six months before the smoking ban passed) to January 7, 2007 (one month after the implementation of the law). Previous studies using similar methods have shown that a six-month coverage of information, events and opinions leading up to a tobacco control ballot issue sufficiently accounts for the relevant press (Magzamen, Charlesworth & Glantz, 2000; Wakefield & Smith, 2005), and the majority of print media attention occurs just after the law goes into effect (Magzamen et al, 2000). Thus, the month following the implementation of Ohio's smoking ban should capture the majority of the local information, attitude and attention associated with the new law. This time period also includes the one-month gap (November 7, 2006, to December 7, 2006) from the law's passage to its implementation.

Each newspaper was searched individually through an online database, *America's Newspapers Newsbank*, for the keywords "Issue 5," "Issue 4," "Smokefree," and "Smokeless." For an article to be included in the study it had to address the smoking ban issues relevant to this study. For example, some articles early in the sampled time period were excluded because they referenced a previous "Issue 5" that occurred before the mid-term election smoking ban was named "Issue 5." After the sample was cleaned, the six newspapers yielded a total of 280 articles.

### ***Coding Variables***

Each article was coded by newspaper title, headline, date of publication, word count, type of article, section, appearance of an image, number of paragraphs, source of quotes, slant, themes

present and dominant theme. The newspaper title, headline, date of publication, word count, and section were coded as explicitly stated in the article. An image was coded as present if the end of the article contained the word “caption” with words to follow. The total number of paragraphs in each article was coded by counting the number of paragraphs contained in the article. In addition, the number of paragraphs dedicated to addressing and/or explaining Issue 5 and Issue 4 were counted. Paragraphs attributed to Issue 5 and Issue 4 were only counted if (1) they explained what would happen if the issue went into effect and (2) how the two issues differed. Importantly, paragraphs coded as “explaining Issue 5” and “explaining Issue 4” reflected the narrow “official” definition of each issue, not an opinion based interpretation. Articles were coded into one of four categories (news, editorial, letter to the editor, or column/opinion-piece) as defined by the online database at the end of each article.

This study coded sources by replicating a previous study by Magzamen and colleagues (2000) that categorized each source as a group or individual cited. Magzamen and colleagues analyzed similar smoking ban coverage in the state of California and approached sourcing based on the perspective of pro tobacco control while delineating the groups and individuals cited as anti-law organizational, anti-law individual, pro-law organizational and pro-law individual quotations. The anti-law organizational quotations category included pro-Issue 4 organizations such as cigarette manufactures, the National Smokers Alliance, SmokeLess Ohio, and restaurant/tavern associations. Anti-law individual quotations included bar patrons, employees, employers, politicians, and enforcement officials. The pro-law organizational quotations category included voluntary health organizations, SmokeFree Ohio, state and local health departments, local enforcement agencies, and academic institutions. The pro-law individual quotes category included patrons, employees, employers, and politicians supporting the law. Given the demands of space and brevity in news stories, the quotations selected for inclusion in the press usually represent

statements perceived by the journalist to be what a story is “about” (Champion & Chapman, 2005). Thus, they are integral to assessing coverage.

Slant codes were based on the method employed by Champion and Chapman (2005). Article slant was defined based on the headline and lead paragraph. In this study, the headline and lead paragraphs were coded as positive Issue 5, negative Issue 5, positive Issue 4, or negative Issue 4. Those not clearly favoring either issue were coded as mixed/neutral Issue 5 and mixed/neutral Issue 4. The headline and lead paragraph often contain what the journalist and subeditor consider to be the most important, newsworthy or interesting aspect of an article (Bell, A., 1991 as cited by Champion & Chapman, 2005). Slant coding for the editorials, letters to the editor, and columns or opinion-pieces was based on the overall position or dominant view contained within the article, rather than just the headline and lead paragraph. For data analyses slant was collapsed into three categories—positive Issue 5, Positive Issue 4, and Mixed/Neutral—because articles that were coded positive Issue 5 were explicitly, if not implicitly, also negative on Issue 4, while positive Issue 4/negative issue 5 and mixed Issue 4/mixed Issue 5 slants also grouped together.

This study used previous research done by Magzamen and colleagues (2000) on print media coverage of California’s smoking ban legislation to identify the six major thematic arguments for and against implementation of Issue 5: Economic, Choice, Enforcement, Government role, Tactics/Legislation/Ventilation, and Civil disobedience/Patron habits/Workplace hazards (Table 1). Each article was analyzed for the presence of these themes and each theme was either coded as “present” or “not present” in each article in order to quantify the frequency of the appearance of these themes for all of the articles in the analysis.

The articles were further coded for a dominant theme, which was selected out of the above-mentioned six themes. Unlike the “present” themes, each article could only contain one dominant theme. The dominant theme was judged as (1) the most reoccurring theme in the article, (2) the

theme that took up the most space or paragraphs in the article, or (3) explicitly or implicitly dominated the article (Magzamenet al, 2000).

### ***Coding Procedures and Analysis***

To assess intercoder reliability, a random 10% of the sample was content analyzed by each of three graduate students at a medium sized mid-western university. Intercoder reliability, based on percentage of agreement, ranged from a low of 86.96% for the dominant theme variable to a high of 100% for variables of newspaper name, date of publication, word count, type of article, section of article, and image, with article for an overall intercoder reliability of 94.68%. Thus, an accepted level of agreement between coders was established, and the author coded the remaining 90% of the sample. The level of significance for this study was set at .05.

### **Results**

Overall, this study found that smoking ban issues received much coverage in Ohio newspapers, with news articles generally mixed/ neutrally slanted and opinion pieces supporting Issue 5; the majority of articles contained choice and tactical themes.

### ***Sample Characteristics***

To answer research question 1, descriptive analyses were conducted. Between May 7, 2006 and January 7, 2007, 280 articles from the six highest circulated newspapers in the state of Ohio addressed the smoking ban Issues. The distribution of articles across papers was as follows: *Akron Beacon Journal* = 26 (9%), *The Toledo Blade* = 77 (28%), *The Cincinnati Enquirer* = 35 (13%), *The Columbus Dispatch* = 40 (14%), *Dayton Daily News* = 55 (20%), and *The Plain Dealer* = 47 (17%). The word count per article ranged from 50 to 1656, with a mean of 388.9 and standard deviation of 294.3. Thirty-three (12%) of the articles appeared on the front page (A1), while 107 (38%) were printed within the first four pages of sections A and B. The total number of paragraphs in each article ranged from 1 to 54 with a mean of 12.5 and a standard deviation of 9.8.

The number of paragraphs devoted to explaining Issue 5 and Issue 4 had mean values of 1.1 and 1.2 and standard deviations of 2.0 and 1.7, respectively. Seventy articles (25%) contained an image or graphic. See Table 2 for sample characteristics of continuous and categorical variables.

Twenty-five percent of articles contained an image or graphic while the remaining 75% did not. Across article source, anti-law organizational sources (e.g. tavern/restaurant associations, National Smokers Alliance) were quoted 66 times, anti-law individuals (e.g. bar patrons, employees) were quoted 102 times, pro-law organizational sources (e.g. voluntary health organizations, state and local health departments) were quoted 117 times and pro-law individuals (e.g. patrons, employees) were quoted 95 times. Nearly half (46%) of the publications were news articles, followed by letters to the editor (35%), column pieces (10%), and editorials (8%). Forty-nine percent of articles were slanted in favor of Issue 5, while 19% favored Issue 4 and 32% were mixed or neutral. This distribution differed across news and opinion articles. Whereas news articles tended to provide mixed or neutral information (59%) or favored Issue 5 (35%), opinion pieces tended to favor one side or the other (61% favored Issue 5, and 30% favored Issue 4).

The top three dominant themes were choice (34%: freedom of choice, nonsmokers rights, smokers rights, adult choice), tactics (34%: attacking “big tobacco” interests, deceiving the public, attacking credibility of academic or economic studies) and enforcement (10%: enforcement will be worked out or is going well, there is no enforcement, who will enforce). The top three themes that were present most frequently in all articles were choice (69%), tactics (60%) and workplace hazards (34%: employees should not be subject to workplace hazards, employees should accept workplace hazards/they choose their workplace). See Table 3 for general presence of themes within articles. Multi-thematic article content was also examined. The majority of articles contained two themes (36%), followed by three themes (30%), single themes (23%), four themes (10%) and five themes in an article (1%). No article contained six or more themes.

The number of articles published on specific days varied widely, but four days stood out with double-digit coverage: October 16 (10 articles), November 3 (10 articles), November 5 (14 articles) and November 12 (10 articles). In general, the amount of coverage was highest the three weeks leading up to the mid-term election on November 7, 2006.

Four of Ohio's six papers published a pre-election endorsement article that urged voters to vote yes on Issue 5 and no on Issue 4. *The Cincinnati Enquirer* stated in its pre-election endorsement article "The *Enquirer* did not take a position on Issue 5" but still recommended a no vote on Issue 4 (Our choices for today's election, 2006). The *Dayton Daily News* did not publish an endorsement article that included a recommended vote regarding either smoking ban issue.

### ***Variability Across Newspapers***

To examine research question 2, characteristics of articles were compared between the six newspapers. A series of ANOVAs was used to compare the mean values of word count, paragraphs explaining Issue 5, paragraphs explaining Issue 4 and total number of paragraphs in each article across the six newspapers. When an omnibus test was significant, Tukey's post hoc tests were used for pairwise comparisons. The mean number of words per article differed significantly across newspapers ( $F(5,274)=2.29, p<.05$ ). Articles in *The Plain Dealer*, on average, contained more words per article than articles in the *Dayton Daily News* and *The Toledo Blade*, though this was only marginally significant (both  $p's<.10$ ). The mean number of total paragraphs per article also differed between newspapers ( $F(5,275)=2.25, p<.05$ ). On average, coverage in *The Plain Dealer* contained more paragraphs per article in *The Toledo Blade* ( $p<.05$ ). Newspapers did not significantly differ on the number of paragraphs explaining Issue 5 or the number of paragraphs explaining Issue 4. See the top portion of Table 2 for mean values of continuous variables.

Associations between newspaper and categorical variables were examined using Chi-Square tests. No associations between newspaper and source type and newspaper and dominant theme were found to be significant (both  $p$ 's  $>.05$ ). The type of articles published, however, varied significantly across newspapers ( $p <.001$ ). Both *The Toledo Blade* and *Dayton Daily News* had no editorials, but only *The Toledo Blade* had more letters to the editor than expected. *The Plain Dealer* had more news articles than expected and no letters to the editor. *The Cincinnati Enquirer* had more editorial articles than expected. Only *The Columbus Dispatch* and the *Akron Beacon Journal* had distributions of article type that were close to what was expected. See the middle portion of Table 2 for the distributions of article type across papers.

Article slant was next compared across newspapers. No significant associations were found ( $p >.05$ ). However, type of article modified this relationship. Specifically, within news articles, slant was found to be significantly related to newspaper publication ( $p = .01$ ). While the majority of newspapers published neutrally slanted news articles, *The Cincinnati Enquirer* primarily published news articles in favor of Issue 5. In addition, *The Plain Dealer*'s news article coverage was more supportive of Issue 5 than expected while *The Toledo Blade* and *Akron Beacon Journal* were less supportive of Issue 5 and had more mixed or neutrally slanted news articles than expected. No significant associations were found between article slant and newspaper among opinion pieces ( $p >.05$ ).

Finally, the association between newspaper and multi-theme articles was assessed. A significant relationship was found between individual papers and the use of single or multiple themes in an article ( $p <.05$ ). Specifically, *The Toledo Blade* published more single themed articles than expected and the *Dayton Daily News* published fewer single themes and more multiple themed articles than expected. See the bottom of Table 2 for use of multiple themes across papers.

### ***Slant Coverage***

Finally, to answer research questions 3 and 4, chi-square tests were used to assess the association between article slant and (1) article type and (2) thematic content. The association between article slant and type of article was significant ( $p < .001$ ). News articles were more mixed/ neutrally slanted than expected and were also less supportive of Issue 5 than expected. In contrast, more letters to the editor supported Issue 4 than expected and were less mixed/ neutrally slanted. See Table 4 for complete relationship between type of article and slant.

The slant of coverage was analyzed next in relation to the dominant theme found in articles. As seen in Table 5, when looking at the total coverage there was a significant association between slant and dominant theme ( $p < .001$ ). To assess the possible influence of coverage on voting behaviors, we also examined the association between slant and dominant theme in articles that preceded the mid-term election. A significant association was also found ( $p < .001$ ; see Table 5). When the slant of articles was considered in relation to dominant theme, arguments supporting Issue 5 were predominately framed as tactical (46%) and as a matter of choice (36%). Arguments supporting Issue 4 were framed as choice (42%) and as an issue debating the government's role (25%). Mixed/neutral coverage generally framed the issues as tactical (34%) and choice (27%). The coverage before the mid-term election generally mimicked that of total coverage, except that the enforcement frame was only present after the smoking ban was passed.

### **Discussion**

This study analyzed coverage of smoking ban issues in the six highest circulated newspapers in the state of Ohio: *Akron Beacon Journal*, *The Toledo Blade*, *The Cincinnati Enquirer*, *The Columbus Dispatch*, *Dayton Daily News*, and *The Plain Dealer*. Overall, this content analysis found that the majority of coverage devoted to the smoking ban issues was mixed/ neutrally slanted in the news articles and supportive of Issue 5 in the opinion pieces. The large volume of articles reflects the growing awareness of the importance and controversy

surrounding tobacco control issues being decided by the popular vote. Despite evidence that pro-tobacco industry claims often dominate the print media coverage of smoking ban issues (Magzamen, Charlesworth & Glantz, 2001), this study found that the arguments for tobacco control received more representation in the form of mixed/neutral news coverage or opinion pieces in support of the Issue 5 smoking ban. The high amount of mixed/neutral news articles suggests that the newspapers sought to educate and inform the public, rather than persuade. This coverage may have served to empower the readers to vote because they were able to make an informed decision without feeling pressure from tobacco control experts in trusted media sources (Clegg-Smith & Wakefield, 2006).

One of the consequences of the way a public health problem is framed in the media is the solution to the problem that the frame implies (Menashe & Siegel, 1998). Theoretically, if the problem was whose individual rights (smokers or nonsmokers) are more important, than the solution is to see which group is more negatively affected and protect them. According to this study, choice was the dominant theme across all articles, which resulted in a decision that seemed to reflect a solution for the side that had a higher voter turnout (or was simply the majority). The second most dominating frame was tactical arguments. Coverage focused on the fact that tobacco companies were trying to deceive, confuse and manipulate voters by proposing Issue 4, thus the solution is to *not* give the tobacco companies what they want. According to this frame, if the tobacco industry had simply kept to their usual argument that the implementation of smoke-free laws infringes on personal freedoms, is difficult and expensive to enforce and gives the government too much power (Magzamen et al, 2000), then there may not have been so much support of Issue 5, the anti-tobacco industry smoking ban. The fact that the tobacco industry produces and markets a deadly product to everyone (smokers, passive smokers, adults, and youth; Krugman & King, 2000)) was not as important as the fact that they proposed a smoking ban that

was not really a smoking ban and, in fact, would have made it almost impossible to ever pass a smoking ban again in the state of Ohio.

The enforcement frame, which was the third highest frame overall, only appeared in coverage after the smoking ban passed, thus reflecting a shift to the concern of how this ban was to be enforced and by whom. Many of the news articles after the election were dedicated to soliciting comments from bar and restaurant employers, employees and patrons in order to gauge public sentiment. Over half of coverage in opposition to Issue 5 came after it had already been passed. This suggests that people may not have believed that the smoking ban was actually going to pass, only speaking out and griping after it was too late. With pressure to conform, the tobacco industry and its supports are likely to react vociferously (Clegg-Smith & Wakefield, 2006).

Coverage did vary during this time period and across individual newspapers. This suggests that the newsworthiness of smoking ban issues may be subject to the social structural context in which they are presented (Durrant, Wakefield, McLeod, Clegg-Smith & Chapman, 2003). The slant of articles in favor of Issue 5, in favor of Issue 4, or of neutral opinion also differed across papers. Political agendas of each newspaper may have played a role in this finding. *The Cincinnati Enquirer* had the highest percentage of coverage supporting the tobacco industry's Issue 4, perhaps suggesting that its more conservative readership, relative to residents in other Ohio cities, would favor articles or write opinion pieces that were wary of laws that restrict individual freedoms, such as smokers' rights.

Due to the nature of Ohio's dueling smoking bans, opinion pieces were especially pronounced in coverage and outweighed the amount of news articles published. Despite evidence that the tobacco industry arguments and viewpoints have dominated the media during smoking ban coverage (Magzamen, Charlesworth & Glantz, 2000), the amount and slant of Ohio's opinion pieces showed strong support for Issue 5. In particular, the public seemed to be highly invested in

these issues; letters to the editor substantially dominated opinion piece coverage. This suggests that the smoking ban issues were highly charged and the letters may have played off of one another, one extreme responding to the other. One could assume that metropolitan areas of highest controversy submitted the most letters to the editor. The fact that *The Toledo Blade* contained almost half of all letters to the editor in this sample suggests that Toledo may have a populous that was particularly interested and opinionated about the outcome.

This study was subject to certain limitations. First, this study focused entirely on newspaper coverage of Ohio's smoking ban issues. Newspaper coverage most likely underestimates total exposure to the smoking ban issues (Champion & Chapman, 2005). The publicity surrounding the smoking ban issues probably extended to many other information channels (e.g. political and social action messages, interpersonal communication, radio, television), thus perception of the issues inevitably formed from various mediums and sources. Therefore, causal relationships between presentation of issues in Ohio's newspapers and public opinion cannot be made. Second, a content analysis technique was used for this study. Other methods that can contribute to a richer evaluation of framework include qualitative analyses, interviews with advocates and journalists, and public opinion surveys (Durrant et al, 2001). Finally, this study strictly analyzed newspapers from large metropolitan areas. The type of coverage that rural communities receive is equally important to study in determining public opinion about a public health issue.

Despite these limitations, however, this study offers insight into the type of newspaper coverage that may have contributed to a public opinion that passed tobacco control Issue 5. Furthermore, it showed that Ohio's newspapers amply covered the smoking ban issues with news articles that were mixed/neutral and supportive of Issue 5. The public weighed in, through letters to the editor, to add more extreme viewpoints and overall voice support for Issue 5. In addition,

choice and tactics dominated the thematic coverage. The choice theme illustrated that smoking is often reduced to a matter of nonsmokers' rights versus smokers' rights. The tactic frame showed that Ohio's newspaper coverage focused on the tobacco industry's thinly veiled attempt to put together a competing "smoking ban" issue that was really meant to protect big tobacco interests at the expense of the public.

Future research should examine the coverage of Ohio's smoking ban issues in other mediums as well as Ohioan's exposure and attention to other tobacco related information and advertising. This may provide further insight as to how public opinion came together in support of a statewide smoking ban. Likewise, research should aim to explore the complex relationship between the presentations of tobacco issues in the news, individual use of media and the way the public perceives those issues. As tobacco control issues become more prominent in media, it would be valuable to ascertain how different types of articles and news mediums affect perception of smoking issues.

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**Table 1. *Smoking ban newspaper framing categories***

Theme	Health groups frame	Tobacco industry frame
Economic	No negative effects/good for business Usual adjustment period	Hurts business Decreasing revenues and tips
Choice	Non-smokers' rights Public supports law	Smokers' rights Adult choice
Enforcement	Enforcement will be worked out/is going well	Inconsistent/no enforcement/who will enforce
Government Role	Government role to protect employees/workers	Government interference/where do the boundaries of gov't control stop
Tactics Legislation Ventilation	Attacking tobacco industry credibility & tactics to confuse public ("big tobacco interests") Attempts to uphold law No standards would be sufficient	Attack academic/economic studies Bills to repeal or delay law Need to create state standards
Civil disobedience Patron habits Workplace hazards	- - Employees should not be subject to workplace hazards	Purposefully disobeying law Drinking and smoking go together Employees should accept workplace hazards/they choose their workplace

Table 2. Coverage of tobacco control issues in Ohio's major newspapers, May 7, 2006 – January 7, 2007

	Total (n=280)	Akron Beacon (n=26)	Toledo Blade (n=77)	Cincinnati Enquirer (n=35)	Columbus Dispatch (n=40)	Dayton Daily (n=55)	Plain Dealer (n=47)			
<b>Continuous Variables</b>										
	Mean (SD)	Range						<i>F</i>	<i>p</i>	
Word count	388.9 (294.3)	50-1656	368.5 (274.5)	345.4 (328.8)	399.1 (342.8)	441.4 (260.0)	327.5(232.7)	491.2(294.3)	2.29	.05
Paragraphs explaining Issue 5	1.1 (2)	0-20	1.4 (3.9)	1.1 (1.9)	.7 (.9)	1.1 (1.1)	1.2 (2.2)	1.1 (2.0)	.45	.81
Paragraphs explaining Issue 4	1.2 (1.7)	0-11	1.4 (2.2)	1.3 (2.0)	.6 (.8)	1.6 (1.8)	.9 (1.6)	1.2 (1.3)	1.88	.01
Total paragraphs in article	12.5 (9.8)	1-54	12.0 (12.1)	11.2 (10.0)	10.8 (10.1)	13.7 (9.3)	11.4 (7.8)	16.3 (9.7)	2.25	.05
<b>Categorical Variables</b>										
	n (%) <sup>a</sup>	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	$\chi^2$ (df)	<i>p</i>
Presence of Image within article	70 (25%)	1 (3.8%)	28 (36%)	10 (29%)	5 (13%)	19 (35%)	7 (15%)		20.3	.001
<i>Sources</i> (n=380)										
Anti-law organizational	66 (17%)	4 (19%)	20 (25%)	10 (18%)	7 (14%)	9 (15%)	16 (16%)			
Anti-law individual	102 (27%)	5 (24%)	24 (27%)	5 (9%)	18 (36%)	15 (24%)	35 (35%)		10.9	.76
Pro-law organizational	117 (31%)	5 (24%)	28 (31%)	33 (58%)	16 (32%)	14 (23%)	21 (21%)		(15)	
Pro-law individual	95 (25%)	7 (33%)	17 (19%)	9 (16%)	9 (18%)	24 (39%)	29 (29%)			
<i>Type of article</i>										
News	130 (46%)	10 (39%)	32 (42%)	13 (37%)	19 (48%)	21 (38%)	35 (75%)			
Editorial	23 (8%)	5 (19%)	0 (0%)	9 (26%)	6 (15%)	0 (0%)	3 (6%)		83.0	.00
Letter	99 (35%)	11 (42%)	42 (55%)	10 (29%)	13 (33%)	23 (42%)	0 (0%)		(15)	
Column/Opinion-piece	28 (10%)	0 (0%)	3 (4%)	3 (9%)	2 (5%)	11 (20%)	9 (19%)			
<i>Slant of all articles</i>										
Pos Issue 5	138 (49%)	12 (46%)	37 (48%)	21 (60%)	21 (53%)	28 (51%)	19 (40%)		6.6	.76
Pos Issue 4	52 (19%)	4 (15%)	14(18%)	8 (23%)	6 (15%)	11 (20%)	9 (19%)		(10)	
Mixed/Neutral	90 (32%)	10 (39%)	26 (34%)	6 (6%)	13 (33%)	16 (29%)	19 (40%)			
<i>Slant of news articles</i>										
Pos Issue 5	46 (35%)	1 (10%)	8 (25%)	7 (54%)	8 (42%)	8 (38%)	14(40%)		22.5	.01
Pos Issue 4	7 (5%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (5%)	6 (17%)		(10)	
Mixed/Neutral	77 (59%)	9 (90%)	24 (75%)	6 (46%)	11 (58%)	12 (57%)	15 (43%)			
<i>Slant of editorials, columns, letters</i>										
Pos Issue 5	92 (61%)	11 (69%)	29 (64%)	14 (64%)	13 (62%)	20 (59%)	5 (42%)		13.4	.21
Pos Issue 4	45 (30%)	4 (25%)	14 (31%)	8 (36%)	6 (29%)	10 (29%)	3 (25%)		(10)	
Mixed/Neutral	13 (9%)	1 (6%)	2 (4%)	0 (0%)	2 (10%)	4 (12%)	4 (33%)			
<i>Dominant theme</i> <sup>b</sup>										
Economic	23 (8%)	2 (8%)	6 (8%)	5 (15%)	2 (5%)	7 (13%)	1 (2%)			
Choice	96 (34%)	9 (35%)	31 (40%)	11 (32%)	16 (40%)	18 (33%)	11 (23%)			
Enforcement	28 (10%)	2 (8%)	7 (9%)	1 (3%)	5 (13%)	5 (9%)	8 (17%)		25.3	.45
Government role	22 (8%)	1 (4%)	7 (9%)	3 (9%)	2 (5%)	7 (13%)	2 (4%)		(25)	
Tactics/Legislation/Ventilation	95 (34%)	10 (39%)	22 (29%)	14 (41%)	14 (35%)	13 (24%)	22 (47%)			
Civil disobedience/ Patron habits/Workplace hazards	14 (5%)	2 (8%)	4 (5%)	0 (0%)	1 (3%)	4 (7%)	3 (6%)			
Articles with multiple themes	216 (77%)	22 (85%)	51 (66%)	25 (74%)	31 (76%)	50 (91%)	37 (79%)		12.3 (5)	.05

<sup>a</sup>Column percentages may not add to 100% due to rounding error. <sup>b</sup>Two dominant themes fell in the “other category” and were excluded from this table

**Table 3. Thematic coverage of tobacco control issues in Ohio's major newspapers**

	Total	Akron Beacon	Toledo Blade	Cincinnati Enquirer	Columbus Dispatch	Dayton Daily	Plain Dealer
<i>Themes present<sup>1</sup></i>							
Economic	87 (31.1%)	12 (46.2%)	21 (27.3%)	11 (31.4%)	14 (35%)	20 (36.4%)	9 (19.1%)
Choice	192 (68.6%)	17 (65.4%)	49 (63.6%)	19 (54.3%)	30 (75%)	44 (80%)	33 (70.2%)
Enforcement	48 (17.1%)	3 (11.5%)	12 (15.6%)	4 (11.4%)	7 (17.5%)	9 (16.4%)	13 (27.7%)
Government role	56 (20%)	5 (19.2%)	12 (15.6%)	8 (22.9%)	12 (30%)	12 (21.8%)	7 (14.9%)
Tactics/Legislation/Ventilation	167 (59.6%)	19 (73.1%)	44 (57.1%)	25 (71.4%)	21 (52.5%)	27 (49.1%)	31 (66%)
Civil disobedience/Patron habits/Workplace hazards	94 (33.6%)	11 (42.3%)	17 (22.1%)	12 (34.3%)	14 (35%)	22 (40%)	18 (38.3%)

Percentages do not add up to 100% because a single article could mention more than one theme.

**Table 4. Distribution of slant across article type**

	Pos 5	Pos 4	Mixed/Neutral
News	46 (35%)	7 (6%)	77 (59%)
Editorial	17 (74%)	4 (17%)	2 (9%)
Letter to the editor	59 (60%)	35 (35%)	5 (5%)
Column/Opinion-piece	16 (57%)	6 (21%)	6 (21%)

$\chi^2 = 94.96$ ,  $df = 6$ ,  $p < .001$

**Table 5. Pre-smoking ban coverage and total coverage of dominant themes by slant in Ohio's six major newspapers**

<i>Dominant Theme</i>	Pre-smoking ban <sup>1</sup>			Total coverage <sup>2</sup>		
	Pos 5	Pos 4	Mixed/ Neutral	Pos 5	Pos 4	Mixed/ Neutral
Economic	3 (3%)	4 (20%)	4 (7%)	4 (3%)	11 (21%)	8 (9%)
Choice	33 (34%)	10 (50%)	19 (32%)	50 (36%)	22 (42%)	24 (27%)
Enforcement	0 (0%)	0 (0%)	0 (0%)	7 (5%)	4 (8%)	17 (19%)
Government role	7 (7%)	5 (25%)	1 (2%)	8 (6%)	13 (25%)	1 (1%)
Ventilation/Legislation/Tactics	48 (50%)	1 (5%)	28 (48%)	63 (46%)	2 (4%)	30 (34%)
Civil disobedience/Patron habits/ Workplace hazards	6 (6%)	0 (0%)	7 (12%)	6 (4%)	0 (0%)	8 (9%)

<sup>1</sup>Pre-smoking ban coverage:  $\chi^2 = 31.1$ ,  $df = 8$ ,  $p < .001$

<sup>2</sup>Total coverage:  $\chi^2 = 78.9$ ,  $df = 10$ ,  $p < .001$