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Print news coverage of the 2010 Iowa egg recall: Addressing bad eggs and poor oversight

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ABSTRACT

This paper examines the print news coverage of the 2010 Iowa egg recall, the largest in the United States, in order to determine how the news media conveyed messages regarding the recall and its causes, as well as what consumers might do in response to the recall. The news media has long been both a primary source of consumer information relating to food safety and a notable contributor to the policy agenda. A content analysis of 160 articles from four national US newspapers, the largest regional paper in Iowa, and the *Associated Press* revealed that the recall was framed both as a failure of government oversight and as an instance of poor production practices by the farmers in question. Proposed responses to the recall similarly fell into two distinct categories: changing consumer purchasing and food preparation habits in order to minimize the immediate risk of infection, and supporting legislative and regulatory food safety reforms that would minimize the risk of future outbreaks. Particular media focus was given to both the US Food Safety Modernization Act and the FDA Egg Rule. Relatively little media attention was given to industrial agriculture as a causal frame or the purchasing of "alternative" eggs as a potential response. Overall, coverage conveyed the policy relevance of the recall but failed both to fully contextualize the outbreak within the history of previous outbreaks and food safety concerns and to convey the relationship of the outbreak to the current system of industrial agriculture.

Introduction

The news media serves a key public health role in communicating risks surrounding food safety issues. For instance, the news media are an important source of information about food recalls, including methods for short-term risk reduction, such as safe food handing and preparation practices (Fleming et al., 2006). Further, the news media may help to reduce the long-term risk of future outbreaks by encouraging consumers to support policy reforms that improve overall food safety. The specific frames used in media coverage can play a significant role in the extent to which public support for policies is established (Iyengar, 1994). Given the public and policy importance of how news media conveys information, content analysis of news coverage has been viewed as an important tool for public health advocates (Dorfman, 2003). This study seeks to examine the coverage of the 2010 Iowa egg recall in order to better understand how print news sources conveyed messages regarding the recall and its causes, as well as what consumers might to do in response to the outbreak and recall.

News media coverage of the August 2010 Iowa egg recall is of particular note both because it represents the largest US egg recall to date and because it took place during a time when legislative and regulatory efforts to improve food safety were prominent on the policy agenda. At the time of the recall, the US Food Safety Modernization Act (FSMA) had already passed the House of Representatives and needed only passage by the Senate to be enacted. The FSMA would eventually give the US Food and Drug Administration (FDA) the authority to mandate recalls, conduct more inspections, and shut down non-compliant facilities. All issues relevant the 2010 egg recall. Additionally, the FDA Egg Rule, which mandated that farmers establish new measures to prevent pathogens such as *Salmonella,* had just come into effect in July 2010 (US Food and Drug Administration, 2010a). The FDA, however, did not begin inspections to enforce the rule until September 2010, which was too late to prevent the outbreak (US Food and Drug Administration, 2011). Given the high profile of food safety policy at the time of the outbreak, the 2010 Iowa egg recall represents a unique case study to examine how the media covered an

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outbreak both as an immediate public health issue and within its larger policy context.

Background

The 2010 Iowa egg recall and consumer response

On August 13, 2010, Wright County Egg of Iowa voluntarily recalled 380 million eggs after state and federal agencies determined that the farm was the most likely source of eggs linked to a number of clusters of *Salmonella* Enteritidis. Less than a week later, a second recall was issued by Hillandale Farms of Iowa, bringing the total number of eggs recalled to over 500 million (Centers for Disease Control and Prevention, 2010; US Food and Drug Administration, 2010b). The large volume of eggs involved is attributable to the fact that Wright County Egg produced 2.3 million dozen eggs each week and over a billion eggs each year at the time of the recall (Testimony of Austin and Peter DeCoster, US House of Representatives, 2010).

Overall, the Centers for Disease Control and Prevention (CDC) estimates that 1939 cases of *Salmonella* were attributable to the tainted eggs originating from these farms (Centers for Disease Control and Prevention, 2010). The FDA discovered objectionable conditions at the farm, including flies, maggots, live rodents, and structural damage that allowed wild birds to enter the facilities (US Food and Drug Administration, 2010c). Additionally, Austin "Jack" DeCoster, the owner of Wright County Egg, had a long history of food safety, labor, and environmental violations at his previous operations, but neither the Iowa Department of Agriculture nor the FDA had inspected the facilities in question prior to the 2010 outbreak (Fassler, 2010; Flaherty, 2010).

As the largest egg recall in US history, the event had a strong media presence. The story accounted for 4% of the "news hole" in the week of August 23rd–29th, as measured by the Pew Research Center's News Coverage Index, and was ranked by 16% of those surveyed in a representative national poll as the news story they were following most closely that week (Pew Research Center for People and the Press, 2010).

In response to the recall, many consumers made at least temporary changes in egg purchasing preferences. Mintel, a leading market research company, found that 41% of individuals in a nationally-representative January 2011 survey indicated that they had at least temporarily changed their egg purchasing in response to the egg recall. Among those, 11% reported either switching brands or buying "alternative" eggs, such as those labeled as organic or free-rage. Of those who changed to a different type of egg, 41% reported that they purchased more organic eggs, and 31% reported that they purchased more free-range eggs (Mintel, 2011). Data from an August 2010 survey conducted by the Harvard Opinion Research Program similarly found that 20% of surveyed egg eaters had started eating "only locally-produced or organic eggs" (Harvard Opinion Research Program, Harvard School of Public Health, 2010). It should be noted that under US organic standards, layer hens must be given some form of access to the outdoors and are thus also free-range (in addition to meeting specific requirements regarding feed content and antibiotics and hormone use that are not stipulated for free-range hens) (National Organic Program, 7 CFR 205.200–205.279).

There is little scientific clarity on the benefits of alternative eggs from a foodborne illness standpoint. There is some evidence that free-range and cage-free eggs (and thus also organic eggs) reduce *Salmonella* rates relative to caged production systems, however, there are still also contradictory findings suggesting that caged systems generate lower rates of infection (Holt et al., 2011; Van Hoorebeke et al., 2011). Additionally, disentangling factors such as hen breed and stocking density, among others, from the effects of housing systems has posed a challenge. So, while there are reasons for consumers to consider organic eggs, such as a desire to promote animal welfare or reduce exposure to veterinary drug residues (Goetting et al., 2011; Shields and Duncan, n.d.), the evidence is still lacking when it comes to foodborne illness. It should be noted, however, that the volume of production at industrial farm animal production facilities, such as the one owned by DeCoster, inherently increases the scope of a recall relative to one stemming from a smaller farm. Indeed, the growth of the industrial model of food production has brought not just a wider selection of food available at lower costs, but also conditions allowing for the quick and widespread dispersal of pathogens (Graham et al., 2008; Horrigan et al., 2002).

Overall, the market for eggs recovered in only 7 weeks, which the American Egg Board (AEB) notes is "quicker than any other significant food recall in recent US history" (American Egg Board, 2010). While the quick recovery was likely assisted by AEB's allocation of an additional $1 million to create a campaign to restore confidence in eggs, the impact of foodborne illness scares may also be limited by the relatively short-term memory that the public has demonstrated for food safety concerns (Dahlgran and Fairchild, 2002).

Food safety, policy, and the media

An analysis of media coverage of food safety concerns such as the Iowa egg recall is pertinent as the media can provide two distinct public health services. First, the media informs the public about direct threats to their health, allowing them to change their purchasing habits accordingly. The public traditionally ranks the news media as a reliable source of information about food safety, with studies reporting that many consumers utilize the media as a primary source of food and diet related information (Fleming et al., 2006; Bruhn and Schutz, 1999). Accordingly, in this instance, the news media could provide a clear public health service in that greater awareness of the egg recall could empower consumers to avoid contaminated eggs and might improve adherence to egg preparation safety standards in accordance with CDC guidelines. Given survey data suggesting that a quarter of Americans felt that they did not have enough information to protect their families during a recent food recall, this need for information has not yet been fully met (Steelfisher et al., 2010). The media may also help to indicate safer alternatives for consumption during a recall. Previous research has documented that negative news coverage about a food product can increase demand for variants of the food that are perceived to be safer (Smed and Jensen, 2005). It should be noted that accuracy in news media coverage of outbreaks and recalls is critical if the news media's awareness-raising is to have public health benefits. For the Iowa egg recall in particular, a question of note is if the media was encouraging the consumption of "alternative" types of eggs as a possible consumer response to minimize the risk of infection.

Second, the media can also provide a policy-relevant public health benefit in that coverage can bring attention to the more systemic causal factors behind events such as the egg recall and may generate support for legislative or regulatory reforms that would reduce the risks of future foodborne illness outbreaks. Indeed, a growing body of literature illustrates the importance of the scientific and public health community working with the media to shape coverage in order to better convey their messages to the public and to advocate for policy change (Nisbet, 2010; Smith et al., 2005; Wakefield et al., 2005; Dorfman, 2003; Holder and Treno, 1997).

Not all news media is equal with regard to generating support for policy reforms. The literature on framing, generally defined in communications theory as selecting certain elements of a story