

Measles, Mickey, and the Media: Anti-Vaxxers and Health Risk Narratives during the 2015 Disneyland Outbreak

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ABSTRACT

Background Outbreaks of disease are common fodder for political debate and public discourse. In the past decade alone, health officials have faced a steady stream of serious public health threats, from H1N1 to Ebola and Zika, as well as large outbreaks of measles and other highly contagious illnesses. These incidents command intense media attention and focus public conversation around questions of risk and responsibility.

Analysis This article examines major frames in Canadian news coverage of the Disneyland measles outbreak in 2015 to show how public health events are translated into social problems that magnify moral and political concerns. It discusses how parents who reject or express worries about vaccination were portrayed, and traces which solutions were presented to address the problem of vaccine preventable illness.

Conclusion and implications Media coverage focused heavily on “anti-vaxxers” as central characters in the outbreak story. The coverage conformed largely to an established biomedical narrative, in which medical and health experts set the definitional parameters around the outbreak causes and consequences, and the preventive measures that should be taken to prevent future occurrences.

Keywords Health communication; Risk; Discourse Analysis; Narrative

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RÉSUMÉ

Contexte *Immanquablement, les épidémies sont un sujet répandu dans les débats politiques et les discours publics. Dans la dernière décennie seulement, les professionnels de la santé ont dû gérer maintes menaces de santé publique, du H1N1 jusqu'à l'Ébola et le Zika, ainsi que des poussées importantes de rougeole et autres maladies contagieuses. Ces incidents ont grandement attiré l'attention des médias et soulèvent dans les conversations publiques des questions de risque et de responsabilité.*

Analyse *Cet article examine les cadres utilisés lors de la couverture médiatique canadienne d'une épidémie de rougeole à Disneyland en 2015 afin de montrer comment une telle couverture peut transformer des défis de santé publique en problèmes sociaux et soulever des questions morales et politiques particulières. L'article discute en outre de la manière dont les médias dépeignent les parents qui expriment leurs inquiétudes face à la vaccination ou qui la rejettent carrément, et examine les solutions proposées pour contrer les maladies évitables par vaccination.*

Conclusions et implications *Dans l'affaire Disneyland, les médias se sont concentrés sur les opposants à la vaccination. La couverture médiatique s'est largement conformée à une narration biomédicale conventionnelle dans laquelle les experts de la santé ont établi les paramètres définitionnels des causes et conséquences de l'épidémie ainsi que les mesures à prendre pour empêcher de futurs cas.*

Mots clés *Communication en santé; Risque; Analyse du discours; Narration*

Introduction

On January 7, 2015, California health officials announced that an international visitor to the state's iconic Disneyland theme park had been linked to at least seven cases of measles, in addition to two likely cases in Utah. Two days later, five more California residents were notified that they too had returned positive tests for measles; and over the next several weeks, clusters of new cases cropped up across the U.S., each generating a rash of media headlines and providing fodder for political debate. By early February, the U.S. Centers for Disease Control and Prevention reported that 140 connected measles cases had been identified across more than a dozen U.S. states. The outbreak would eventually spread to Mexico and then Canada, where it set off a separate cluster of infections, leading to more than 130 cases in the Lanaudière region near Montréal.

It is not surprising that this particular outbreak would produce intensive international media attention. In addition to the significant number of cases involved and the outbreak's broad geographic spread, the symbolism associated with its place of origin meant that the outbreak would achieve a high level of cultural resonance. Disneyland, the "happiest place on earth," is a hyperreal utopia that trades on images of childhood, innocence, and play. The idea that it was not only a site of play and imagination, but also now the centre of a contagious childhood disease outbreak threatened the fidelity of these typifying images. Moreover, the presence of a disease that began at a hub of global popular culture also ensured a measure of narrative conformity with the "formula story" of past outbreaks: an unexpected infection is reported, its global networks of transmission are identified, and the epidemiological investigation required to ensure its containment is closely chronicled (Wald, 2008). In one respect, the

Disneyland outbreak was novel; yet at the same time it was also highly familiar—this combination of novelty and familiarity provided ideal ingredients for a compelling media story.

Among the myriad health issues competing for our attention and concern, outbreaks of contagious disease have become commonplace. In the past decade alone, public health officials in Canada and elsewhere have confronted a steady stream of global health threats, from novel influenza viruses to MERS, Ebola, Zika, and numerous outbreaks of measles, whooping cough, and foodborne illnesses. These and similar events have saturated our media environments, contributing to the formation of what Gerlach and Hamilton (2014) call “pandemic culture.” Our overexposure to discourses of disease—in the news, on television, in cinema, literature, video games, and elsewhere—shapes our understanding of science and medicine (Gerlach & Hamilton, 2014), and informs which of these issues will be seen as urgent problems requiring collective awareness and action.

This article examines Canadian news coverage of the Disneyland outbreak as a case to understand how public health events are translated from putative conditions into social problems that magnify moral and political concerns and focus public attention to questions of risk and responsibility. If pandemic culture is shaped by “the stories we tell about our vulnerability” (Gerlach & Hamilton, 2014), media coverage provides necessary grist for how we experience collective vulnerability to infection and disease (Lee, 2014). In particular, we examine the major frames and narratives of the outbreak and trace which solutions were presented to address the problem of vaccine preventable illness. Special attention is given to representations of parents who oppose or express worry about vaccines. Our objective is not to identify the effects of media coverage on individual or collective behaviour, but to account for how media discourse informs the constitution and circulation of public understandings of vaccination and disease and the threats they pose. The research provides valuable insight into how discourses about vaccination are constructed and mobilized in the public sphere, and of the generative role of news media in these processes.

Vaccine-preventable disease as a public health problem

News media play an important role in shaping how we come to know and understand public health events, by defining certain conditions as problematic, labelling and stigmatizing the views and actions of individuals or groups implicated in their emergence, assigning blame for undesirable consequences, and framing ideal or preferred solutions (cf. Kitsuse & Spector, 2001; Loseke, 2003). Media narratives of dramatic health events, of which disease outbreaks are an example, not only influence perceptions of what we deem risky, problematic, and attention-worthy; they also provide the language and symbolic resources to make sense of those issues, and of our stake in confronting them. Health news, and news about health risks, in particular, is a highly constructed and contested space of both policymaking and scientific and biomedical understanding (Briggs & Hallin, 2016).

Whether the issue is global warming, distracted driving, domestic violence, or vaccine-preventable disease, technical measures of a given condition’s severity do not by themselves determine whether those conditions will be understood as *problems* re-

quiring intervention or repair (Loseke, 2003). Rather, the transformation of an issue or condition into a problem (i.e., something about which claims are made, accepted as credible, subjected to institutional consideration, and broadly publicized) requires that several factors come together: measures of severity or problem load, timing, the identities of victims and villains, cultural resonance, and the rhetorical activities of individuals or groups expressing grievances and claims. As Best (1995, 2001) argues, worrisome conditions are not automatically a problem per se, but merely the subject of claims that a problem may exist. Declining rates of vaccination may thus be a source of concern deserving of regulatory or legislative attention; but the issue does not become a social problem about which we should do anything until claims-makers have expressed some form of grievance, presented evidence to advance their claims, constructed arguments about their cause, and identified agents of responsibility and blame (Kitsuse & Spector, 2001).

If harm is the organizing construct of a public health problem story, blame is key to its potency as a rhetorical device. Causal responsibility for the occurrence of harm inevitably gets assigned to certain groups, while responsibility for the problem's resolution is typically granted to persons or institutions with authority to impose sanctions or enforce rules (Gusfield, 1981). Whereas some actors are portrayed as having endured suffering or harm, and are then cast as victims, others will be framed as villains and blamed for causing the problem's emergence in the first place. And while victims are typically rendered visible through distinctive yet simplified identities (e.g., children, the disabled, the elderly), villains are generally less clearly developed as characters in public health formula stories, because they can be either a human (someone who deliberately or inadvertently spreads illness) or non-human actor (the virus itself). In either case, both victims and villains are constructed narrowly—the former typically do no harm, while the latter only do harm (Loseke, 2003).

Communication is thus central to the transformation of health conditions into *public health problems*. Yet we argue it is not the information these media forms contain, but the stories they express and the manner of their expression that move us. As Fulford (1999) argued, “[O]f all the ways we communicate with one another, the story has established itself as the most comfortable, the most versatile—and perhaps also the most dangerous” (p. 1). Despite the versatility of storytelling, however, media accounts of social problems tend to be formulaic. Their plots centre on the occurrence or potential for harm and entail simplified, overgeneralized notions of cause and effect. As Wald (2008) argued, in the case of public health threats, outbreak stories are also mechanical—centring on the notion that human contact is both necessary and dangerous to our collective survival, the story brings microbes, spaces, and social interactions together in a narrative that begins with the identification of a viral threat, includes a discussion of its global networks of communication, and chronicles the heroic work of biomedical experts who seek to bring the threat under control. Writing about other kinds of social problems, Loseke (2003) illustrated how the conventions of media reporting strip otherwise complex issues of their nuance and intricacy. Media stories about public health risks do likewise, generally explaining “how cultural themes are violated, about how injustices are happening ... how something is wrong, why it is wrong, and why it cannot

be tolerated” (Loseke, 2003, pp. 90–91). The stories present a contradictory but compelling account about the perils of human interdependence and the triumph of human connection, cooperation, and scientific authority and expertise (Wald, 2008).

Outbreaks of disease are complex biomedical events, involving the negotiation of different types of knowledge and expertise: virology, epidemiology, and biostatistics, but also anthropology, sociology, geography, political science, and philosophy. Outbreak formula stories typically position public health experts, particularly those from the biomedical sphere, against generally inactive audiences, and they cast journalists as intercessors who translate complex science into “news we can use”—the assumption being that “medical science produces highly specialized technical knowledge” (Briggs & Hallin, 2016, p. 27) that is separate and distinct from many other realms of discourse and requires both translation and domestication. Although the strength of the “expert knows best” narrative has been troubled by the rise of patient-centred health advocacy and the fragmentation of a mediascape that enables all manner of news sources to tell their own stories, the performance of biomedical authority in health risk formula stories remains hegemonic in terms of how health, medicine, illness, and disease are communicated (Briggs & Hallin, 2016). Indeed, the construction of outbreaks as a health risk *problem* depends in large part on the central role of biomedical authorities as primary definers (i.e., to tell us what has happened, how it happened, and what is to be done).

Methodology

We collected and examined coverage of the Disneyland measles outbreak in several Canadian national and regional agenda-setting newspapers, public affairs magazines, and online news sites from December 1, 2014, to April 1, 2015, to determine how media framed the outbreak, and more specifically the twin issues of vaccination and vaccine-preventable disease.¹ The sample for print media was collected by the first and second authors using a combination of real-time news gathering, supported by use of Google Alerts and then later checked against the Factiva database using keywords relevant to the study (vaccin*, measles, anti-vaxx*, etc.). Similar sampling strategies were used to locate online news articles. The final dataset comprised 331 front-page news reports, feature articles, editorials, op-eds, and letters to the editor. The analysis sought to identify the main stories that constituted the outbreak discourse and its representations of vaccination.

Each news item in our study was examined for its dominant textual themes, to determine the main activities and events, key players, and relations among them. These dominant themes both shape and organize the analysis that follows. The study considered what type of behaviour or activity was portrayed as good, normal, and desirable, and which behaviours were depicted as deviant, wrong, or morally questionable; how different knowledge systems were validated or invalidated; what information was foregrounded or minimized; who was granted authority to speak to the issue, and whose views were not invested with definitional standing or status (Gee, 2004).

In short, we drew on approaches to framing and narrative analysis as a way of capturing the many ways that outbreak news stories impose order on the flow of experiences that news readers have with communicable disease and its representations. Our

approach is qualitative, grounded in the tradition of interpretivism that emphasizes a deep engagement with texts that both represent and help shape public knowledge. We draw on Heather Fraser (2004), who described narrative analysis in metaphorical terms as “piecing together fragments of the fabric of conversations” (p. 183)—in this case, conversations about risks to public health. Seen this way, the role of the researcher, Fraser argued, is to “sew ideas together” to help capture the narrative structures that shape how people make sense of the world around them. Thus, we approach narrative analysis as a technique for providing descriptive accounts of how an overarching story coheres across a range of texts. In doing so, we broke each story into its component parts to identify recurring elements, thus creating the very narrative we set out to describe.²

Naming the problem

Media coverage of the outbreak was driven largely by a strong, pro-vaccination position consistent with the biomedical definition of measles as much more than a mild childhood illness. The coverage consistently framed measles as a threatening disease, mobilizing highly emotive vocabulary to describe the level of contagion (“serious” and “extremely contagious”), and it marshalled the adjective “killer” on numerous occasions to characterize measles’ potential effects (e.g., “killer virus,” “killer disease”). In this context, vaccination—and the measles-mumps-rubella (MMR) vaccine in particular—was framed in almost magical terms. Imploring parents to have their kids vaccinated, then-health minister Rona Ambrose described childhood vaccines as “miracles of modern medicine that save lives” and chided “irresponsible” parents for putting other children at risk (“Health Minister Speaks Out on Use of Vaccines,” 2015).

Fowler (1991) argues that the use of *generic statements* is one of the ways in which news media normalize certain ways of knowing through narrative form. Generic statements serve as “descriptive propositions which are supposedly true of any instance of the entities to which they refer” (p. 211). Here, the coverage made constant reference to the well-established argument that vaccines are the “safest choice” for individuals and families, “the rational option” for protecting population health, and a “social obligation” to ensuring community protection. Additionally, the coverage regularly emphasized the “scientific consensus” that vaccines are safe and remain the best, most effective means for avoiding outbreaks and containing their spread. Evidence of vaccine safety was also constantly referenced and reiterated, particularly when comparing the low possibility of adverse side effects to the high risks of infection. Additionally, in response to the rise in popularity of homeopathic remedies, the coverage presented many instances of argumentative statements, for example in making explicit that there are “no good alternatives” to vaccines and that vaccination, more than lifestyle or diet, has been responsible for eradicating deadly diseases, from measles to smallpox, tetanus, and polio.

In establishing vaccination as a desirable social behaviour, news coverage assigned blame for the outbreak by stating unequivocally that it was a direct result of people voluntarily refusing to vaccinate. This biomedical narrative was established by the almost exclusive use of official sources from medical, scientific, and public health institutions, including doctors, researchers, and health officials (e.g., health promotion

specialists, public health nurses, etc.), and positioning them against external sources of threat, embodied both by risky persons (vaccine hesitant parents and/or their unvaccinated children) and the measles virus itself. Medical experts and official sources were most frequently cited in the coverage. Although some presented their arguments dispassionately, providing level arguments about the public health benefits of vaccines, others were unequivocal and implored parents to simply “vaccinate your children.” Occasionally, other sources such as mothers and survivors of past outbreaks were mobilized as central figures that could provide their first-hand experience with measles and other contagious diseases to argue in favour of a pro-vaccination discourse.

Anti-vaccination sources, on the other hand, were quoted sparingly and rarely spoke for themselves. First, they were typically referred to as “activists,” even though some of those quoted were practising physicians or other types of health or wellness practitioners (though never paediatricians). Second, their statements were almost always positioned near the end of an article, framed as the counter-argument to the view of a biomedical expert who had established the story’s dominant frame. Third, anti-vaccination sources were consistently challenged on the quality and integrity of their claims—for example, some stories referenced “controversial research” in ways that undermined the credibility of these sources, and stories frequently included some reference to this work having been “criticized” by other scientists. Finally, while experts and health officials were said to possess “medical evidence” and “scientific facts,” anti-vaccination activists were depicted as offering only “theories” or “claims.” The *Vancouver Sun*, for example, published a story on a researcher doing a new study linking the MMR vaccine to autism, yet stated early in the story that the World Health Organization had already dismissed the study as “flawed” and then described the financial links between the authors and a prominent anti-vaccination organization (Lindsay, 2015). Similarly, a *Globe and Mail* article reported personal details about an anti-vaccination activist speaking at the University of Toronto—she was the spouse of a senior university official, which had the effect of diminishing whatever authority she might otherwise have claimed about the issue and that may have justified her invitation to speak (Weeks, 2015).

Despite the clear pro-vaccination narrative, media coverage also acknowledged that vaccines are “an imperfect net” (“It May Not Be Perfect But Do Get Vaccinated,” 2014) that can be responsible for “rare and typically minor side-effects” (Belluz, 2015a). Notwithstanding such nuances in the vaccination debate, media reports unequivocally framed vaccine refusal as “selfish” and “irresponsible,” and clearly as the undisputed cause of the measles outbreak that started at Disneyland and then spread across the continent. For example, an editorial in the *Vancouver Sun* stated that anti-vaxxers “are the main reason viruses such as the mumps, measles, and other illnesses that had been all but eradicated are appearing all over the place again” (“Crosby Illness a Reminder to Get Vaccinated,” 2014). Unvaccinated children and their parents were framed as the outbreak’s “folk devils” (Cohen, 2002), and vaccine refusal was depicted as a social harm. A column in the *Winnipeg Free Press*, for example, reminded its readers that “civilization as we know it can’t survive without vaccines” (Gillespie, 2015), while an essay in *Medium* stated, “We were smart enough to eradicate measles, but ar-

rogant enough to invite it back. Welcome to a four-part series on the precise ways we're fucking up 50 years of medical progress" (Cowart, 2015).

The clear pro-vaccination discourse in Canadian media coverage of the Disneyland outbreak articulated a set of values and responsibilities that were at risk. In establishing that low vaccination rates directly caused the measles outbreak, news media went beyond merely naming the problem; they also singled out an identifiable villain—vaccine hesitant parents—as a threat to societal progress (Best, 2001).

Legitimately Concerned or Morally Irresponsible: Framing Vaccine Hesitant Parents

Media coverage identified “anti-vaxxers” as those individuals whose deviant behaviour was putting responsible and/or vulnerable citizens at risk. Journalists constantly sought to profile parents who either opposed vaccination or were hesitant about immunization. This profiling was mostly done in disparaging terms, describing them, derisively, as “ignorant” and “selfish,” or on occasion, sympathetically, as “misinformed.” The *Winnipeg Free Press*, for example, framed anti-vaxxers as concerned parents who do research on vaccinations out of love for their children, yet end up finding and falling for false information (Gillespie, 2015). However, most prominently, attempts to profile “anti-vaxxers” were largely unsuccessful, leading many reporters and analysts to conclude that they can be anyone, anywhere, and “that’s the scary thing” (Brean, 2015b).

Knowledge and ignorance

One of the most predominant claims about anti-vaxxers to circulate in the news coverage is that they were ignorant of the risks of undervaccination because they lacked first-person experience of measles and other infectious diseases, and thus underestimated their severity, or willingly ignored scientific evidence or otherwise failed to understand the difference between causation and correlation. These common frames were expressed polemically through narrative devices of ridicule and indignation. For example, the *Globe and Mail's* Tabatha Southey satirized parents who refuse vaccines by asking, “Could We Stop Anti-vaxxers If Measles Contained Gluten?” (Southey, 2015). An editorial in the *National Post* stated, “Vaccination protects against these diseases. Alas, Kabbalah and veganism do not” (“Canada’s Vaccine Strategy Isn’t Working,” 2015). Similarly, the *Huffington Post* argued that “anti-vaxxers” are “parents who claim that they will keep measles at bay by feeding their children organic food and channeling their chakras” (Lye, 2015). The *Toronto Star* portrayed anti-vaxxers as a movement “at war with science.” One columnist described parents who are opposed to vaccines as a “social movement” fuelled by fear and ignorance: “[P]eople fear that which they don’t know or understand” (Zoratti, 2015). Similarly, *Vox* suggested that parents who oppose childhood vaccination advance arguments about vaccine risk “based on old, flawed studies that have been widely debunked” (Belluz, 2015c). All media examined in this study clearly and consistently described anti-vaccination arguments and claims as false and deliberately misleading by consulting the scientific studies anti-vaxxers cited and showing how they had been deliberately torqued to misinform.

Social risk/threat

Parents who do not vaccinate were portrayed as a threat to their children and a risk to

others. Framing of anti-vaccine parents centred on questions of social and personal responsibility. Some reports directly blamed parents of undervaccinated children for the Disneyland outbreak, demarcating a distinction between “us” (the vaccinated, the responsible) and “them” (those anti-vaccine “zealots who try to trivialize the disease”) (Schneidereit, 2015). Establishing “binary opposites” is a classic narrative trope, which builds on the idea that our sense of the world is structured by the relational understanding between ideas or concepts and their opposites (Lévi-Strauss, 1955). In creating these binary oppositions, some newspapers compared “anti-vaxxers” to people in the developing world by arguing that those in the global South do not vaccinate due to lack of access to much-needed and desired healthcare, and therefore are not responsible, while “anti-vaxxers” in the global North have access to vaccines but reject them, and thus are “irresponsible,” “selfish,” and “ignorant.”

In framing the outbreak as a threat to the body politic, media coverage depicted anti-vaxxers as a militant group that tries to “recruit other parents in the dangerous campaign against childhood vaccinations” (“A Better Shot at Keeping Kids Safe,” 2015). This representation was furthered by comparisons between “anti-vaxxers” and extremist groups. For example, *Vox* explained how “even ISIS supports getting kids vaccinated” (Fisher, 2015), and the *National Post* referred to the “criminals leading the anti-vaxxer movement” (Potter, 2015) as illustrative of broader trends showing a deepening suspicion of modernity and the rise of neo-primitivism. In a column titled “Measles and an Outbreak of Celebrity Stupidity,” the *Toronto Star* depicted anti-vaxxers as so threatening, “they should be quarantined for reckless endangerment” (Menon, 2015), and a columnist in the *Ottawa Citizen* described anti-vaccine beliefs as a “virulent ideology that is nearly impossible to contain” and argued that “there are proven, irrefutable facts regarding the safety and efficacy of vaccination, and there are lies” (Picazo, 2015).

Conflation of the vaccine hesitancy spectrum

Vaccine hesitancy can be expressed in various ways that constitute a spectrum of beliefs and behaviours, from a strict negation of immunization to total belief in the benefits of immunization, and all manner of positions in between. The vaccine hesitancy spectrum thus includes vaccine delayers (i.e., those who choose some vaccines but not others) and those who have doubts but still immunize their children anyway. Furthermore, there are parents who do not vaccinate their children because of medical reasons and others who are not strongly pro- or anti-vaccine, but cannot keep track of when their children’s immunizations are due. Very few articles identified these nuances in behaviour, but instead conflated them under the catchall term “anti-vaxxer” because they relied either on well-established tropes or broader statistical information about vaccine coverage in the population. One exception, however, is an article in the *Ottawa Citizen* that referred to those who did not vaccinate “because life got in the way” (Payne, 2015). These parents were described as having good intentions but did not vaccinate because of low income and poor access to health care; in contrast to other anti-vaxxers, this group was framed as more deserving of our collective sympathy, not ridicule or approbation. Another example of a story that picked up on the nuances was an article published in *Vox* that explained the difference between “anti-vaxxers”

and “vaccine delayers” (i.e., those who are not outright opposed to vaccines but do not follow official vaccination schedules). It explained that these individuals “delay some, and skip others. They think their self-styled schedules are safer than the one approved by the government” (Belluz, 2015b). This article also explained that research shows that “delayers ... far outnumber the deniers” and suggests that this group is also a threat to public health because they ignore the research and data used to establish the vaccination schedule.

Deserving and undeserving victims

Key to the narrative construction that translates conditions into problems is the identification of victims who have been “suffering terribly” (Loseke, 2003). Two groups were identified as victims in the Disneyland measles outbreak: vulnerable groups that cannot be vaccinated, such as those with weakened immune systems, infants, and pregnant women; and the unvaccinated children of anti-vaccine parents. Victimhood, however, was framed in hierarchical terms, with vulnerable populations portrayed as more deserving of public sympathy and concern.

Vulnerable populations and the social responsibility to protect them

Throughout the coverage, media reports consistently framed vaccination as an individual’s duty to the collective. “It is not a personal decision. It’s a social obligation” (Kliff, 2015). This frame of social responsibility was grounded on the biomedical concept of “herd immunity” and the need to strengthen community protection for vulnerable populations and reduce the potential for disease outbreaks or their geographical spread. Most of the media coverage examined in this study emphasized the experiences of people who cannot get immunized and were thus exposed to measles, including those who did not have access to the MMR vaccine and died.

A powerful example was a story in the *Toronto Star* that quoted the father of a child living with cancer: “[O]ne of the greatest achievements of the twentieth century has been the elimination of these diseases of our kids,” he explained. In the case of his son, being exposed to measles is “really life or death” (Porter, 2015). Similarly, the *Huffington Post* published several articles written by mothers of young infants and children with compromised immune systems, who explained how having the rest of the population vaccinated was important to protect their children. Furthermore, various media reproduced the emotional letter by famed children’s author Roald Dahl on the death of his daughter due to measles and his positive views of vaccination; and a Facebook post by a mother whose newborn was exposed to measles in a doctor’s waiting room received not only massive attention on social media, but traditional news coverage as well (Clarke, 2015). The *Huffington Post* also published a column written by the mother of a boy who underwent an organ transplant and relied on strong levels of herd immunity to be safe (Olsheski, 2015).

Many newspapers also published columns and interviews with survivors of contagious diseases, who provided descriptive accounts of their suffering and the lifelong effects of illnesses such as measles. The *Ottawa Citizen*, for example, published the story of a mother who refused vaccinations until all her children became seriously ill with whooping cough. She was described as having been “converted” to science by changing her mind and having her children immunized (Spears, 2015). This particular

redemption narrative infused the coverage with an almost religious tone, implying the presence of deep beliefs and values. Furthermore, through interviews with experts and retired medical practitioners, the coverage also emphasized the increasing lack of first-hand experience of the diseases (thanks largely to the “miracle” of vaccines). “[P]eople tend to forget the ones who died. That mortality is significant” (Ubelacker, 2015). To drive home this point, an editorial in the *Vancouver Sun* invited the reader to “take a stroll through an old cemetery. There you will see something that was all too common a century and more ago: the graves of babies and children.” This grim invitation served to remind readers that measles and other diseases kill and that Canada’s low child death rate today is due to “almost universal vaccination” (“Protect Your Kids: Vaccinate Them,” 2015).

Endangering children/Dangerous children

The media also expressed concern about unvaccinated children being placed in danger by their parents and, as minors, not having any choice over their own bodies and healthcare. *Medium* referred to anti-vaxxers as reckless parents who risked their children’s lives out of unfounded fear: “[A] sizable group of mostly-privileged parents have decided that reviving a group of life-threatening diseases and potentially inflicting them on their loved ones and neighbors is infinitely preferable to having an autistic child” (Kurchak, 2015). Furthermore, another story remarked that unvaccinated children did not get the chance to look at the evidence and decide their own medical fate. So irresponsible were non-vaccinator parents, the author argued, that parental rights should be limited (Bors, 2015). Similarly, the *Ottawa Citizen* published a column directly addressed to unvaccinated children, providing advice on how to persuade their parents to have them vaccinated—“and if all fails call your grandparents” (Ashby, 2015). This column reminded readers that prior generations lived through the horrors of measles, mumps, rubella, and polio, while younger generations who benefited from immunizations are now questioning their usefulness and safety. The column is particularly critical of “anti-vaxxers,” saying that they enjoy controlling their children’s lives because “they just like the attention they get by not vaccinating you” (Ashby, 2015). Yet, despite articles acknowledging the victim status of unvaccinated children, this group was also portrayed as a threat to others and thus less worthy than vulnerable children who cannot be vaccinated for other reasons. One columnist recommended total “avoidance of children that are not immunized” (Kulik, 2015) while a *Winnipeg Free Press* article, “Shun Unvaccinated Kids” (2015), reported that a majority of Manitobans recommended that unvaccinated children be banned from schools and daycares.

“Something ought to be done!”

An important feature of outbreak narratives is the presence of prognostic frames that can provide resolutions to the problem and a set of clear strategies or plan for carrying them out (Benford & Snow, 2000). In the case of the Disneyland measles outbreak, the news coverage contained numerous recommended solutions and courses of action for addressing the anti-vaxxer problem. Perhaps not surprisingly, given the Canadian focus of the study, news reports documenting recommendations focused on combatting problems of undervaccination in Canada generally, and of the potential for inter-

national outbreaks specifically, rather than how best to end the particular outbreak centred in California. Aside from the discursive construction of anti-vaxxers as a threat to society, the coverage also included recommended policy changes such as school or daycare bans, bans on homeopathic remedies, changes to vaccine exemption rules, or the creation of provincial and national vaccine registries. The emphasis on solutions, however, was limited to a fairly narrow range of reports, most which were authored by health or science journalists or as op-eds and letters by public health experts.

Conclusion

This article shows how Canadian news media mobilized the character of the “anti-vaxxer” as a rhetorical device in its measles outbreak narrative. In framing the Disneyland outbreak as a public health problem, this narrative contained the presence of well-defined victims, villains, and, to a lesser extent, a range of proposed solutions. The problem was defined as one of decreasing rates of vaccination, and vaccine anxious parents were explicitly blamed for the outbreak, depicted as a threat to society generally, and to vulnerable populations as well as their own children, specifically. The storytelling in this instance conformed to a biomedical narrative that has become increasingly dominant in reporting on vaccination-related issues: medical and public health experts operate as primary definers who set the parameters of the story, thereby projecting an understanding of how knowledge of health and illness, and by extension parental responsibility, should circulate within the public sphere. In other words, parents should follow the recommendations of biomedical experts, align their family care practices accordingly, and understand the risks to themselves and others when they fail to do so.

As noted above, outbreaks of disease are increasing in frequency. The numbers of parents who remain stridently opposed to vaccination is relatively low, approximately 4 percent in Canada. However, the greater risk to public health arguably is the rising number of parents who are vaccine hesitant (i.e., those whose behaviours and beliefs lie somewhere along the spectrum between strongly anti-vaccine and strongly pro-vaccine). This number includes the approximately 15 percent of parents who delay immunization until their infant children are older because of their concerns that young bodies are too vulnerable to be injected with vaccines; it includes those who accept some vaccines (e.g., polio, tetanus) but reject others (e.g., measles, varicella); and it includes those parents whose children are underimmunized because of poor access to primary healthcare or who become too busy and simply forget (Dubé, Bettinger, Fisher, Nas, Mahmud, & Hilderman, 2016). Importantly, news coverage of the Disneyland outbreak stripped the phenomenon of vaccine hesitancy of this nuance and complexity, focusing only on those parents who held an absolutist view about the risks of vaccination. This emphasis in the media coverage clearly illustrates Altheide’s (1997) argument that a focus on “extreme cases” is central to the labour of social problems construction as well as Loseke’s (2003) argument that “successful social problems claims and the social problems formula stories they construct are effective precisely because they deny the complexity of the real world” (p. 93).

The coverage clearly articulated the message that not vaccinating your children is both risky and threatening, not just to your own children but to others as well.

However, in limiting discussion about vaccine hesitancy strictly to the phenomenon of vaccine refusal, the coverage failed to convey the message that other behaviours, such as vaccine delay or vaccine selectivity, also have a detrimental impact on herd immunity and pose a risk to public health.

Finally, the coverage of the Disneyland measles outbreak referred almost exclusively to “anti-vaxxers” as its primary cause. Although vaccine rejection is indeed negatively impacting community protection, this simplistic definition of the problem sidesteps structural issues that also have an impact on vaccination rates, for example, inadequate access to healthcare or inconsistent reporting requirements across regions.

The high attention paid by Canadian media to anti-vaxxers as the main cause of the Disneyland outbreak reflects the conventions of media storytelling—the need for a simple narrative featuring a cast of predictable characters and behaviours, and the use of binary opposites to give stories recognizable texture and tone—and illustrates how difficult it is to accurately account for complex public health problems like vaccine hesitancy. Indeed, we consider vaccine hesitancy to be a “wicked problem” (Greenberg, Dubé, & Driedger, 2017) for a number of reasons, including incomplete or contradictory information; conflicting opinions and values; and uncertainty about the best policy solutions. Media coverage of the outbreak thus stuck to a fairly conventional script, in some ways. However, the location of the outbreak and its high levels of symbolic resonance afforded an opportunity for health officials to frame the outbreak in ways that advanced key biomedical definitions of vaccination as essential for protecting population health.

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Notes

1. The eleven news outlets analyzed were *The Walrus*, the *Halifax Chronicle-Herald*, the *Globe and Mail*, *National Post*, *Winnipeg Free Press*, *Ottawa Citizen*, the *Toronto Star*, the *Vancouver Sun*, *Medium*, *Huffington Post*, and *Vox*.

2. Our focus on “mainstream” media might be called into question given the dramatic decline in readership of legacy news publications and the increasingly fragmented nature of the modern mediascape. Our approach cannot fully capture the complexity of outbreak discourses or the health information environment today. However, as Briggs and Hallin (2016) remind us, traditional media still “retain great power to set the terms of public debate” (p. 15; see also Chadwick, 2013).

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