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This study describes a questionnaire survey of library directors, county librarians, and city librarians representing eighty-three of California's one-hundred and seventy-nine total public library districts. The study was conducted to determine the effects, if any, of the 2015 Disneyland measles outbreak and California Senate Bill Number 277 on public library policy in California.

One library district changed an existing policy following the Disneyland outbreak, and another district changed an existing policy in response to the Senate Bill. No library districts added, eliminated, plan to change, plan to add, or plan to eliminate policies owing to either event. Three districts anticipate that these events will likely impact policies in the future. Although the events have yet to elicit many policy changes, public libraries should consider implementing such policies to strengthen the health of the communities they serve before governing bodies place pressure on them to do so.

Headings:

Public libraries

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Library rules & policies

Libraries & community health

Libraries & society

MEASLES ON MAIN STREET, USA: HOW PUBLIC HEALTH EVENTS AFFECT  
PUBLIC LIBRARY POLICY

by  
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## Introduction

Thanks to the measles vaccination program that began in 1963, the United States declared measles eradicated in 2000, meaning 12 months or longer passed with no continuous disease transmission occurring in the country (“Frequently Asked Questions about Measles in the U.S.,” 2015). Despite this, every year, unvaccinated travelers, be they Americans or tourists, bring the disease into the United States. The disease can then be spread to other unvaccinated people or people whose immunity has decreased over time. Since 2000, such importations of the disease have resulted in as few as 37 cases in 2004 to as many as 668 cases in 2014 (“Frequently Asked Questions about Measles in the U.S.,” 2015). According to the Centers for Disease Control and Prevention, “[h]igh sustained measles vaccine coverage and rapid public health response are critical for preventing and controlling measles cases and outbreaks” (“Frequently Asked Questions about Measles in the U.S.,” 2015). Without this sustained coverage, measles could once again become endemic to the United States, which refers to “constant presence of diseases or infectious agents within a given geographic area or population group” (“Endemic Diseases,” n.d.).

One of the primary reasons for this increase in reported measles cases is a corresponding increase in the number of people “refus[ing] vaccines for religious, philosophical or personal reasons” (“Frequently Asked Questions about Measles in the

U.S.,” 2015). Those who opt out of vaccination for themselves or their children are often referred to as “anti-vaxxers” and are part of a larger anti-vaccination movement (“anti-vaxxer,” n.d.). Andrew Wakefield’s now retracted article “Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children,” published in *The Lancet* in 1998, fueled this movement, causing “widespread hysteria about a possible connection between the [MMR] vaccine and autism spectrum disorder (ASD)” (Novella, 2010). Despite the retraction, due to the inability to recreate the study, a lack of disclosure of conflicts of interest on Wakefield’s part, and “[a] decade of subsequent research...sufficiently clear[ing] the MMR vaccine of any connection to ASD” as well as Wakefield losing his medical license (Novella, 2010), the movement has still gained the support of celebrities and public figures such as Jenny McCarthy<sup>i</sup>, Jim Carrey, Mayim Bialik, Alicia Silverstone, and Donald Trump, who, despite being “all for vaccinations” in 2012 also “thought there might be something to the idea that they are linked to autism” (THR Staff, 2014). It is important to note that other celebrities and public figures, including Kristen Bell and Hillary Clinton, have come to the defense of vaccines, making the debate over vaccination highly visible in the media (Chai, 2015).

Media visibility only grew after news broke that in Orange County, California, the theme park Disneyland was at the epicenter of a measles outbreak (Barbash, 2015). The Centers for Disease Control and Prevention define an outbreak of measles as “a chain of transmission of three or more linked cases” (Clemmons, Gastanaduy, Fiebelkorn, Redd, & Wallace, 2015). This chain, which began in late December 2014 and ended in April 2015, consisted of 111 cases in seven states, Canada, and Mexico (Clemmons et al., 2015). Calculations on the part of infectious disease experts demonstrated that “the

vaccination rate among people who were exposed to the measles during the outbreak was no higher than 86%, and it might have been as low as 50%” (Kaplan, 2015). An immunization rate of 95% is needed to establish herd immunity for measles (Loving, 2015). According to Loving, herd immunity occurs “[w]hen a high percentage of the population is vaccinated, [making] it...difficult for infectious diseases to spread because there are not many people who can be infected” (2015). Herd immunity protects those who cannot safely be vaccinated due to medical reasons. People who lack a fully functional immune system, who are on chemotherapy, who have HIV, who are too young to be vaccinated, who are too old to be vaccinated, and who are extremely ill fall into the category of people relying on herd immunity for protection (Loving, 2015).

Shortly after the Disneyland outbreak ended, the California Senate proposed an amendment to their current vaccination laws for schoolchildren. Current California law allows for exemption from immunizations based on medical reasons or personal beliefs (Brown, 2015). Senate Bill Number 277, approved by California governor Jerry Brown on June 30, 2015, will “eliminate the exemption from existing specified immunization requirements based upon personal beliefs” (Brown, 2015). The bill goes into effect July 1, 2016 and will prevent “any private or public elementary or secondary school, child day care center, day nursery, nursery school, family day care home, or development center” from “unconditionally admitting...for the first time or admitting or advancing any pupil to the 7<sup>th</sup> grade level, unless the pupil has been immunized as required by the bill” (Brown, 2015). Although it is unclear whether this was in direct response to the outbreak, it could not have been timelier. A national poll from May 2015 reports “two out of every five parents [polled] (40%) believe that the risk of measles for children in the U.S. is

higher than it was one year ago,” and “35% of parents [polled] more strongly support vaccination requirements for daycare and school entry” (C.S. Mott Children’s Hospital, 2015).

Some parents are speaking up on their own to support stricter vaccination requirements. California father Carl Krawitt has asked the superintendent of his son’s school district to “keep unvaccinated children out of school” (Lewin, 2015). Krawitt, whose six-year-old son Rhett was diagnosed with leukemia in 2010, told the New York Times, “What we need to do, for all our children, is increase the herd immunity” (Lewin, 2015). Krawitt insists that stopping at the school level is not enough. He advocates that “the library, the playground, the airport, [and] the whole community” are places where diseases like measles can spread (Lewin, 2015). His concern of disease spreading at the library is not unfounded. In late February 2015, the City of Berkeley’s Public Health Department posted a notice of possible measles exposure at branches of the Berkeley Public Library (Taylor, 2015). Although health officials later ruled out the exposure, the Public Health Department took the opportunity as a chance to remind library patrons to make sure they are up to date on their vaccinations and to have their children vaccinated too (Taylor, 2015).

Although much attention has been paid in regards to vaccination policies in schools and other child care facilities, Krawitt and the Berkeley Public Library incident broach the subject of where public libraries stand in this debate. The American Library Association defines a public library as

“an entity that is established under state enabling laws or regulators to serve a community, district, or region, and that provides at least the following: 1) an organized collection of printed or other library materials, or a combination thereof; 2) paid staff; 3) an established schedule in which services of the staff are

available to the public; 4) the facilities necessary to support such a collection, staff, and schedule; and 5) is supported in whole or in part with public funds” (“Certified Public Library Administrator® Program » Definition of a Public Library,” n.d.).

The state of California boasts 182 public library systems, many of which consist of numerous branches (“California Public Libraries,” 2015). As California finds itself at the center of the vaccination debate, current events beg the question: *have the 2015*

*Disneyland outbreak and Senate Bill Number 277 affected public library policies in California?*

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## Notes

<sup>i</sup> In 2014, McCarthy penned a piece for the Chicago Sun-Times stating that she is “pro-vaccine” and has “been wrongly branded as “anti-vaccine,” but her name is still strongly connected to the movement (J. McCarthy, 2014).



## **Literature Review**

Because the research catalysts are recent events, rather than illustrate similar studies, the literature provides a landscape through which the research travels. To begin with, the context of the anti-vaccination movement must be understood in terms of the motivations behind it and mitigations for it. Once that path is clear, the next stop in the journey is community response to crises of a public health nature or otherwise. The public library as community anchor serves as the bridge to public libraries contributing to the public health of their communities. The journey concludes on the road from public policy to library policy, at the end of which are the research questions.

### **The Anti-vaccination Movement: Motivations and Mitigations**

Without the current anti-vaccination movement, it is likely that neither the Disneyland outbreak nor the passing of the Senate Bill would have occurred. Therefore, it is necessary to both understand what currently motivates the movement and how it can be mitigated. As stated earlier, Andrew Wakefield's article was retracted in 2010 (Novella, 2010), yet the movement remains strong even in the face of extensive research showing a distinct lack of a causal relationship between the MMR vaccine and autism (Institute of Medicine (U.S.) & Stratton, 2012). A change in attitude towards vaccines motivates the movement. Those who oppose vaccines may do so because they are more familiar with the adverse effects of vaccines than they are with the diseases vaccines prevent (Omer,

Orenstein, & Koplan, 2013). The diseases are no longer common, thanks to vaccines; therefore, the population does not clearly recall the dangers the diseases pose. Such perceived risks and benefits are hallmarks of the Health Belief Model (Calandrillo, 2004; Omer et al., 2013). Some people “misperceive or over perceive” the risk, resulting in those risks being weighed more heavily than the benefits of vaccines (Calandrillo, 2004). Myths surrounding vaccines, particularly the MMR vaccine, contribute to these perceived risks and benefits (Horne, Powell, Hummel, & Holyoak, 2015), even though the myths, such as vaccines causing autism, have been shown to be inaccurate (Institute of Medicine (U.S.) & Stratton, 2012). Similarly, attempting to convince proponents of the movement that these beliefs are myths does not work (Horne et al., 2015; Leask, 2015). Research indicates that providing evidence that the MMR vaccine does not cause autism has no strong effect on beliefs, positively or negatively (Horne et al., 2015). Traditionally, the movement has been viewed as a whole, thus strategies to change the beliefs of anti-vaxxers are generalized rather than specific. Generalized strategies do not work, because people’s personal, religious, and philosophical beliefs vary greatly between communities (Calandrillo, 2004; Lawrence, Hausman, & Dannenberg, 2014; Wang, Clymer, Davis-Hayes, & Bутtenheim, 2014). Nationwide, nonmedical exemptions, referring to exemptions based on personal, religious, or philosophical beliefs, have trended upward (Wang et al., 2014). Overall, parents who choose not to vaccinate their children and, therefore, seek nonmedical exemptions typically fall into the following category: Caucasians of high socioeconomic status who are skeptical of the government and pharmaceutical industry (Wang et al., 2014).

Despite the movement's prevalence, strategies for successful mitigation exist (Calandrillo, 2004; Horne et al., 2015; Lawrence et al., 2014; Leask, 2015; Omer et al., 2013). Many mitigation strategies hinge on changing the public image of vaccines (Calandrillo, 2004; Horne et al., 2015; Lawrence et al., 2014; Leask, 2015). Most campaigns that attempt this focus on the people in the movement when time and energy should instead be dedicated to the reemergence of vaccine preventable diseases (Horne et al., 2015; Leask, 2015). Mitigation techniques need to explicitly aim to increase opportunities to vaccinate as well as provide more tailored information about vaccines and the dangers of not vaccinating for specific communities (Horne et al., 2015; Lawrence et al., 2014; Leask, 2015). More positive attitude changes are associated with highlighting disease risks instead of highlighting vaccine safety among parents and nonparents (Horne et al., 2015). Other options for mitigation exist in the form of limiting allowed exemptions and making the exemption process more complicated than simply indicating that exemption is sought (Calandrillo, 2004). Disease eradication through immunization is possible, but only if campaigns to do so use a "go big and go fast" methodology (Omer et al., 2013). It must happen on a global scale with abundant human and financial resources as well as a sense of urgency (Omer et al., 2013). Public policy is often seen as the best way to achieve all of these mitigation strategies, and therefore will be discussed on its own later. The effects and motivators of the anti-vaccination movement can be mitigated, but it will take more than politicians and public health agencies to happen. It will take communities.

## **Communities Respond to Crisis**

Communities must be prepared to respond to crises stemming from public health events as well as other disaster scenarios. Community crisis response relies on collaboration between government agencies, community organizations, businesses, and citizens (Carrier, Yee, Cross, & Samuel, 2012; Eisenman et al., 2014; FEMA, 2011; Joshi, 2010; Kapucu, 2008; Stajura et al., 2012; Wells et al., 2013). The Federal Emergency Management Agency (FEMA) encourages communities to employ a Whole Community approach in which citizens, emergency management, organizational leaders, community leaders, and government officials work together to understand and meet the needs of their community, in the process enabling everyone involved to “determine the best ways to organize and strengthen their assets, capacities, and interests” (FEMA, 2011). The Whole Community approach offers communities not only a sense of security when facing a disaster but also strengthens resilience to bounce back following a crisis situation (FEMA, 2011; Kapucu, 2008). Community-based emergency preparedness coalitions serve a similar function specifically for health response during a crisis. Hospitals, local public health departments, emergency response agencies, ambulatory clinics, and long-term care providers comprise these coalitions (Carrier et al., 2012). Engaging in community preparedness minimizes the need for federal intervention.

The Los Angeles County Public Health Department of California, in collaboration with community, academic, government, and business partners, developed the Los Angeles County Community Disaster Resilience (LACCDR) project in 2010 (Eisenman et al., 2014; Wells et al., 2013). The goal of LACCDR is to increase community resilience in Los Angeles County, California. This community based approach relies on

community engagement and input which motivates and informs all action plans associated with LACCCR (Eisenman et al., 2014; Wells et al., 2013). This project could serve as a model for other communities and could even be expanded to include response to public health emergencies.

Crisis planning and response does not always begin and end with partnerships created by government agencies. Faith based and community organizations have been involved in all stages of disaster planning and response (Joshi, 2010; Stajura et al., 2012). In fact, these organizations have been so involved in the processes in their communities that federal policies now specifically address their inclusion in Emergency Preparedness and Response (Joshi, 2010). However, their value is not always realized at the local government level. In fact, many faith based and community organizations feel they are underutilized (Stajura et al., 2012). Public Health Departments often provide these organizations with information to disseminate to their communities rather than forming relationships with the organizations. The relationships, according to those organizations, are far more important than just providing the resources (Stajura et al., 2012). Community engagement is necessary to facilitate crisis response and community resilience. As important community members, it is logical to include public libraries in these efforts.

### **Public Libraries as Community Anchors**

Public libraries act as community anchors, not only meeting the information needs of their communities but strengthening and building those communities which they serve (Hildreth, 2012; Horrigan, 2015; Rosa, 2015; Scott, 2011a, 2011b; Senville & others, 2009). Community members recognize this value as well. More than two-thirds of Americans over the age of 16 confirm that public libraries are important to communities

and closing these libraries would be detrimental (Horrigan, 2015; Rosa, 2015).

Americans cite their public libraries as “improving the quality of life in a community” and “provid[ing] many people with a chance to succeed” (Rosa, 2015). The impact of public libraries is particularly felt by low income Hispanics, African Americans, and Caucasians (Horrigan, 2015). Because Americans recognize and feel the value of their public libraries, the libraries are then afforded the opportunity to contribute to the strengthening and support of their communities.

With the help of public libraries, communities become better versions of themselves. Libraries contribute to building communities in five areas: information access, social inclusion, civic engagement, connection of resources to community members, and economic vitality (Scott, 2011a, 2011b). Information access broadens global awareness within communities, supports school success, and enables libraries to offer patron education. Social inclusion is encouraged because the library offers a place for people from all walks of life to gather informally and exchange information for free. Libraries also offer programming which enables community involvement and minimizes social isolation. Most importantly, social inclusion is maximized because public libraries are primarily free to use. Community driven book groups, technology, and programs encourage community involvement. Information and resource provision to community groups, small businesses, the unemployed, refugees, and immigrants bridges the gap between the resources and the patrons for whom they are intended. The same is true of caring for and educating children and providing and assisting with access to health information, government services, nonprofit services, and other general information. Public libraries contribute to the economic status of their communities by supporting

redevelopment and balancing their own needs with the greater needs of the community when building new libraries or moving old ones (Scott, 2011a, 2011b). All in all, there is much the public library does and can do to strengthen and better its community, thereby further proving its value.

Public libraries already play a critical role in their communities following disasters. They provide crucial information regarding recovery and assistance as well as offer a safe haven for community members during emergencies (Bishop & Veil, 2013; Halsted, Clifton, & Wilson, 2014). It is therefore not only natural but logical for public libraries to actively participate in responding to public health events in their communities.

### **Public Libraries Contributing to Public Health**

Public libraries can further strengthen their communities by improving the overall health. In fact, public libraries currently contribute to the public health of their communities (Albright & Gavigan, 2014; Broering, Chauncey, & Miller, 2012; Carlson et al., 2006; Clifton, Jo, & Jackson, 2012; Concannon, Rafferty, & Swanson, 2011; Eastwood & Goldman, 2007; Freedman & Nickell, 2010; Johnson, Johnson, Clark, Schirwian, & Thomas, 2006; LaValley, 2009; Lukenbill, 1994; Malachowski, 2014; Malkin & Feingold, 2014; Ren, Cogdill, & Potemkin, 2009; Roy et al., 2014; Rubenstein, 2012; Woodson, Timm, & Jones, 2011). As early as the late 1800s, public libraries saw that they could improve their communities' health through promoting hygiene (Rubenstein, 2012). Such promotion was initially taken on as a social mission that led to collaboration between public libraries and other entities beginning in the 1940s in order to further that mission. Collaboration and health promotion grew during the 1970s and 80s thanks to the consumer health information movement. During this same time period,

libraries began targeting specific populations (Rubenstein, 2012). Both collaboration and population targeting drive most, if not all, public library health outreach and promotion today (Albright & Gavigan, 2014; Broering et al., 2012; Carlson et al., 2006; Clifton et al., 2012; Concannon et al., 2011; Freedman & Nickell, 2010; Johnson et al., 2006; LaValley, 2009; Lukenbill, 1994; Malachowski, 2014; Malkin & Feingold, 2014; Ren et al., 2009; Roy et al., 2014; Woodson et al., 2011).

Health promotion and outreach takes place both inside and outside of the physical confines of the library. Health promotion that takes place within the library ranges from developing specialized programming to embedding health professionals such as nurses in the library proper (Eastwood & Goldman, 2007; Malachowski, 2014; Malkin & Feingold, 2014; Woodson et al., 2011). In 2011, the Pima County Public Library founded a partnership with the local public health department that resulted in embedding a public health nurse (PHN) in the library. The PHN offers services such as helping patrons apply for health insurance, introducing afterschool snack programs, performing physical assessments, providing first aid, and even administering influenza vaccines (Malkin & Feingold, 2014). New services are tailor made for specific communities within the library system. This project demonstrates a "unique way to meet the needs of the community and improve the health of all involved" through partnership (Malkin & Feingold, 2014).

In some instances, outside organizations seek out public libraries for collaboration. Louisiana State University Health Sciences Center at Shreveport sought the help of Shreve Memorial Public Library System in Shreveport, Louisiana, to implement a program for preschool and early elementary children from low-income families (Woodson et al., 2011). The project included a "For Kids" web portal and story



hours with books and activities focusing on a particular health theme. Themes included general wellness, germ prevention, nutrition, and exercise (Woodson et al., 2011). Those involved report the rewards of the project as being threefold: educational and fun health information for the children, replicable health programming for the children's librarians, and a template for future health outreach for Medical Library staff (Woodson et al., 2011). Nearly 800 children attended the nine story hours between June 24, 2009 and April 13, 2010, demonstrating the power that collaboration cultivates.

Although they may be a bit harder to organize, public health promotion programs that libraries engage in outside of the library space reaches new patrons who may not be able to visit the library or may be unaware of the library's services (Broering et al., 2012; Ren et al., 2009; Roy et al., 2014). In 2008, the San Diego Public Library, Pacific College of Oriental Medicine Library, San Diego county LGBT organization The Center, the Third Avenue Charitable Organization of the First Lutheran Church, and seven other community organizations formed an alliance to create an HIV/AIDS Health Information Outreach Service in San Diego to showcase the National Library of Medicine's (NLM) authoritative HIV/AIDS resources. Free computer access training was held in the community at participating libraries but also in churches, community centers, and even clinics. The array of targeted populations included "lesbian, gay, bisexual, transgender (LGBT) population, teenage youths, parents, and residents of diverse racial, cultural and ethnic backgrounds" (Broering et al., 2012). More than 2,500 individuals attended the training sessions. Once again, collaboration holds the key to success.

External health outreach also targets specific populations such as children. The University of Texas Health Science Center at San Antonio partnered with the Laredo

Public Library in Laredo, Texas, in 2008 on a health promotion project for families and children (Ren et al., 2009). The program was designed to provide fun, interactive health programming for children during the summer. The partnership grew to include Laredo's Parks and Leisure Department, allowing the library's bookmobile to take health programs directly to summer day camps, reaching 815 children (Ren et al., 2009). In addition to the bookmobile, the libraries hosted a children's health fair which 334 community members attended. Booths offered free immunizations as well as information about "environmental safety, animal safety and control, nutrition, and children's and women's health" along with costumed characters with whom children could have their pictures taken (Ren et al., 2009). The Laredo Children's Museum provided hands-on activities and the fire department offered tours of a fire engine and ambulance. The library took the opportunity to display their consumer health resources. Those involved view the project as a success since it reached a total of 1,149 children and families (Ren et al., 2009). Ultimately, projects like this one educate patrons, contribute to the community's public health, and showcase the library as a hub of health information.

Although public libraries are taking the initiative to partner with public health departments and community organizations to promote and provide health information, that does not mean that policies are specifically in place to address public health events. However, public policies exist regarding such events, so it is possible that these public policies could influence public library policies addressing health and public health events.

### **From Public Policy to Library Policy**

As stated previously, policies can provide a sound method for mitigating the effects of the anti-vaccination movement. These policies are not new by any means.

Massachusetts passed the first vaccination law in the United States in 1809, requiring that the general public be inoculated for smallpox (Salmon et al., 2006). An early anti-vaxxer, Henning Jacobson, challenged the law, but the Court upheld the right of states to implement vaccination laws and made it clear that “the protection of the health of the public supersedes certain individual interests” (Salmon et al., 2006). In the face of the continuing anti-vaccination movement, states are beginning to consider stricter immunization policies (Bradford & Mandich, 2015; Hedden, Jessop, & Field, 2012; Lillvis, Kirkland, & Frick, 2014; J. McCarthy, 2014; Wang et al., 2014; Yang, Barraza, & Weidenaar, 2015). Because research indicates that those states where acquiring immunization exemption is easiest have the highest rates of exemption (Wang et al., 2014), more stringent policies that limit exemptions or make filing for exemption more difficult could help curtail the rise in exemptions and resulting measles cases (Bradford & Mandich, 2015; Calandrillo, 2004). As of 2016, West Virginia, Mississippi, and California are the only states that allow medical exemptions exclusively with no option for philosophical or religious exemptions (Yang et al., 2015). Senate Bill Number 277’s passage could prevent another outbreak like the one that occurred at Disneyland in early 2015. Because of the size and influence, both social and political, of California, the bill could trigger a trend in policies enforcing stricter immunization for school children (M. McCarthy, 2015; Yang et al., 2015). This trend is further supported by another national trend of state lawmakers responding proactively to “data on the high rates of unvaccinated children and subsequent, preventable disease outbreaks” especially when coupled with expert testimony from physicians (Lillvis et al., 2014). Therefore, it is

highly likely that more states will begin adopting stricter immunization policies that could have an effect on public library policies.

Public policies impact public libraries (Collins, 2015; Jaeger, Bertot, Thompson, Katz, & DeCoster, 2012; Jaeger, Gorham, & Bertot, 2014; Jaeger, Gorham, Sarin, & Bertot, 2013; McCook & Barber, 2002). This is currently the case, has historically been the case, and will presumably continue to be the case. Federal policies concerning Internet access, digital literacy, and digital inclusion acknowledge that public libraries are the primary resource for providing these services to unserved, underserved, and disadvantaged populations (Jaeger et al., 2012). Public libraries also played a major role in supporting health insurance enrollment when the Affordable Care Act (ACA) went into effect (Collins, 2015). The National Network of Libraries of Medicine (NN/LM), whose mission is to “advance the progress of medicine and improve the public health by providing all U.S. health professionals with equal access to biomedical information and improving the public’s access to information to enable them to make informed decisions about their health” (“About Us,” n.d.), trained public libraries to assist their patrons in understanding and navigating [heathcare.gov](http://heathcare.gov). Lydia N. Collins, Consumer Health Coordinator for NN/LM Middle Atlantic Region, provided trainings in her region. Despite her own contributions to the success of public libraries in the Middle Atlantic Region, Collins emphasizes public libraries’ “strength in the ability to provide nontraditional services to their communities” and adds that they “should be recognized for their tremendous efforts and dedication” to supporting their patrons when following the implementation of the ACA (Collins, 2015).

Although California's library laws do not discuss public library policies for public health events or concerns, that does not mean individual libraries have not developed, amended, or repealed their own policies. The literature indicates that public policy is increasingly addressing dropping immunization rates. It also clearly demonstrates that other legislation has been enacted with public libraries in mind, and public libraries respond to government policies. That being said, current literature fails to address how public health events affect the creation, management, and elimination of public library policies, be they related to health, collection development, management, or general library services. In light of the recent events surrounding measles and immunization rates in California in 2015, research is needed to address the following research questions:

*1 – Have the 2015 Disneyland outbreak and Senate Bill Number 277 affected public library policies in California?*

*2 – If so, how have public library policies in California been affected?*

## **Methods**

### **Data Collection**

To answer the research questions, a survey was designed and disseminated using the survey software Qualtrics. Most of the survey questions were close-ended, yielding quantitative data, and were supplemented with open-ended questions to provide context in the form of qualitative data. To reduce the risk of the researcher's personal bias influencing the survey results, questions focused heavily on direct response to the two events explicitly mentioned in the question – the Disneyland measles outbreak and the Senate Bill – as well as pre-existing and planned library policies. For the complete survey, please see Appendix A.

### **Sample**

As the research question specifically asks about public libraries in California, the researcher employed purposive sampling, targeting only those public libraries in the state of California. The sample consisted of the main branches of all 179 public library systems in the state whose contact information was pulled from the publicly available California Public Library Directory (“California Public Libraries,” 2015).

The researcher made Initial contact with the sample libraries using print letters informing the directors of these systems about the study and coming survey link. This method was used as research has shown that informing participants of an online survey via a print letter can increase response rates (Dykema, Stevenson, Klein, Kim, & Day,

2013). Letters were sent on January 8, 2016. A copy of the initial letter can be found in Appendix B. Although many of the letters were delivered and inspired those librarians to express their interest in the forthcoming survey, fourteen letters were returned as undeliverable; the last of these was returned to the researcher more than two months after the initial mailing date. A blast email containing a link to the survey was sent to all of the main branch directors or managers on January 13, 2016, targeted follow-up emails were issued to non-responders only every Friday at 8:00 AM PST. These targeted follow-ups consistently resulted in a spike in participation on Friday mornings and afternoons. Additional emails were sent throughout the process when librarians requested that the survey link be sent to a different email or when an email bounced back as undeliverable. The first email as well as the targeted email text can be found in Appendixes C and D. The researcher closed the survey on February 10, 2016.

## **Data Analysis**

Qualtrics was used to create the survey, and its report feature was used for survey evaluation. Due to the consistent nature of the responses, the researcher chose not to evaluate the data for statistical significance. In most cases, as will be demonstrated in the Results section, all or nearly all of the respondents answered in the same way. Tables and graphs were created from the reports. The supplemental qualitative data was sparse, thus the researcher chose to evaluate the responses on a case by case basis. Many of those responses will be included verbatim in the Results or Discussion section of this paper. The data gained from this survey will be used to suggest the next step for librarians and researchers in the Conclusions section.

## Results

Of the 179 library directors, county librarians, and city librarians surveyed, 87 opened the survey link and elected to start the survey. However, not all 87 of these individuals answered the survey in part or in its entirety. Of those who started the survey, 83 librarians, or 46.46% of the total number surveyed and 95.4% of those who started the survey, answered the first question. The true response rate of those who started and completed the survey came to 81 librarians, equating to 45.25% of the survey population, 93.1% of those who started the survey, and 97.59% of those who answered the first question. The following results are only indicative of those library districts whose directors completed the survey.

Before addressing the specific policy impacts from the Disneyland outbreak and Senate Bill, survey participants were asked three background questions:

- To the best of your knowledge, during the last five years, has there been a measles outbreak within the area served by your library system?
- Does your library system currently have a policy in place regarding sick patrons?
- Does your library system currently have a policy in place regarding vaccines?

Survey responses reveal that, among the 83 districts whose director answered the first question, 12 districts (14.46%) have seen a measles outbreak in the area served by their

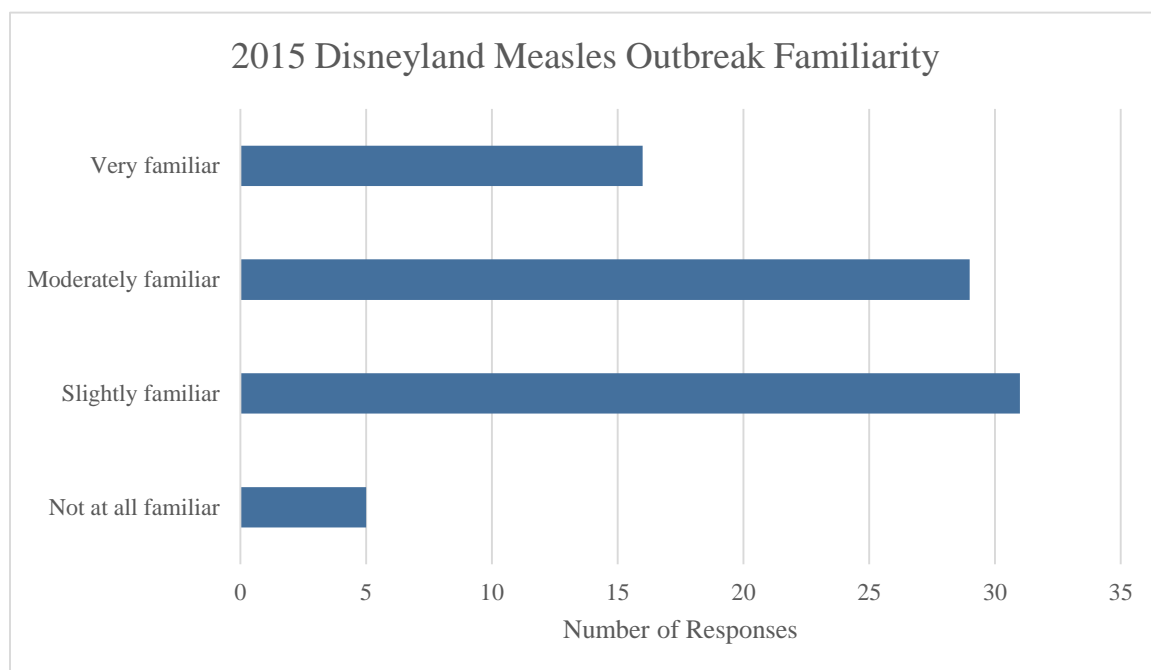


system within the last five years. Another 11 (13.25%) do not know if an outbreak has occurred, and the remaining 60 (72.29%) report no measles outbreaks in their service area during the last five years. Three librarians initially indicated that their libraries have a policy in place regarding sick patrons; however, when asked to elaborate on the policy, one librarian stated that “yes” was mistakenly selected. Given this correction, only two (2.44%) of the eighty-two library districts whose directors responded to this question have policies which refer to specific patrons in some way. A librarian from the pool of 80 respondents without a policy in place emailed the researcher to make it known that sick patrons are “handled on a case by case basis, consulting agencies for support.” Only one (1.23%) district out of eighty-one represented districts currently has a policy in place regarding vaccines. This leaves 98.77% of represented districts without any policy in place explicitly mentioning vaccines in some way.

### **Disneyland Outbreak**

Participants were asked to convey their familiarity with the Disneyland measles outbreak on a scale ranging from “Not at all familiar” to “Slightly familiar” to “Moderately familiar” to “Very familiar”. Even if a respondent selected “Not at all familiar” they were still allowed to continue through the questions, as it is possible that, while not personally familiar with the details, the event may still have impacted their library district in some way. The majority of participants (74.04%) reported either slight or moderate familiarity with the event. Five respondents had no familiarity with the event while sixteen were very familiar with the outbreak. A graphical depiction of participant

familiarity can be found in Figure 1.



*Figure 1 Reported Familiarity with the 2015 Disneyland measles outbreak*

The next series of questions asked directors about the effects of the 2015 Disneyland measles outbreak on library policy:

- Has your library system changed any existing policies as a result of the 2015 Disneyland measles outbreak?
- Has your library system created any new policies as a result of the 2015 Disneyland measles outbreak?
- Has your library system eliminated any policies as a result of the 2015 Disneyland measles outbreak?
- Does your library system currently plan to change any existing policies as a result of the 2015 Disneyland measles outbreak?
- Does your library system currently plan to create new policies as a result of the 2015 Disneyland measles outbreak?

- Does your library system currently plan to eliminate any policies as a result of the 2015 Disneyland measles outbreak?
- Do you anticipate that the 2015 Disneyland measles outbreak will affect your library system's policies in the future?

Eighty-one participants responded to each of these except for the question asking about anticipated future impact, to which eighty participants responded. One library (1.23%) indicated that an existing policy or existing policies had been changed in response to the outbreak. Neither this library nor any others reported plans to change any existing policies in response to the outbreak. None of the participating library districts created any new policies as a result of the 2015 Disneyland measles outbreak nor do they plan to create new policies in response. Likewise, no library system eliminated any policies as a result of the outbreak nor do they plan to eliminate any existing policies. Despite this lack of changing, creating, or eliminating policies, three (3.75%) of eighty librarians anticipate that the outbreak will affect their systems' policies in the future. Table 1 contains a complete breakdown of the responses to this series of questions.

#### **POLICY RESPONSE TO THE 2015 DISNEYLAND MEASLES OUTBREAK**

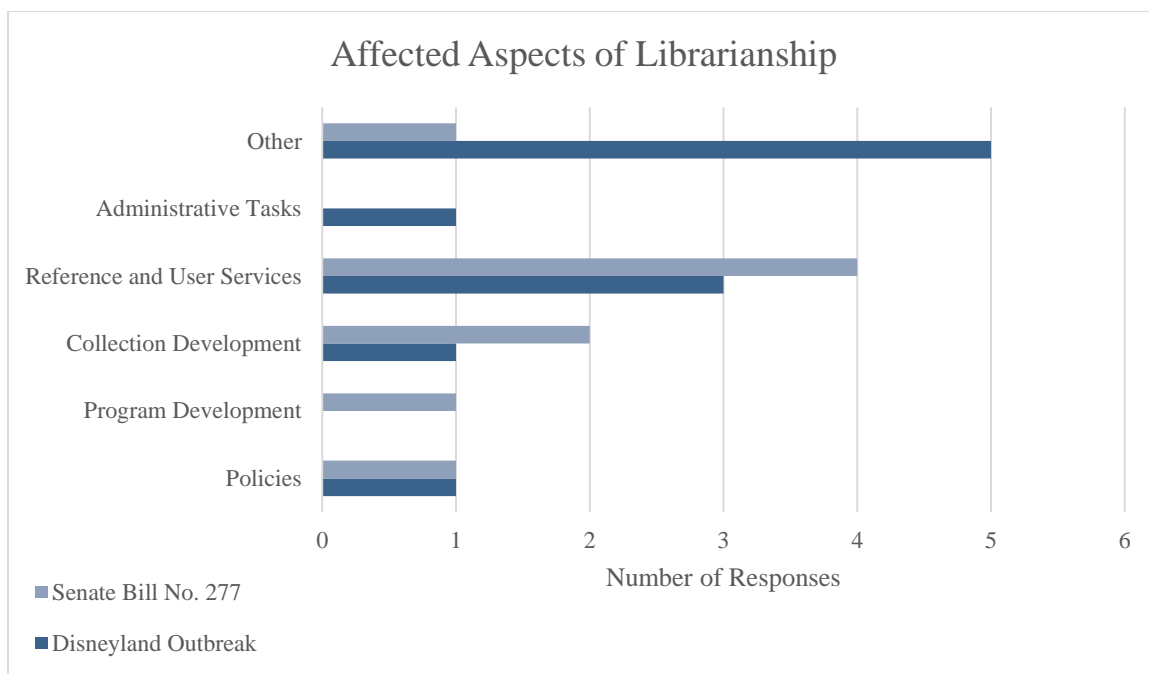
	Yes	No	Total Number of Responses
<b><i>POLICIES CHANGED</i></b>	1	80	81
<b><i>POLICIES CREATED</i></b>	0	81	81
<b><i>POLICIES ELIMINATED</i></b>	0	81	81
<b><i>PLAN TO CHANGE</i></b>	0	81	81
<b><i>PLAN TO CREATE</i></b>	0	81	81
<b><i>PLAN TO ELIMINATE</i></b>	0	81	81
<b><i>ANTICIPATE FUTURE IMPACT</i></b>	3	77	80

*Table 1 Breakdown of responses to questions regarding the effect of the Disneyland outbreak on library system policies*

Following the policy questions, librarians were asked about other aspects of librarianship affected by the Disneyland outbreak. In ten instances, respondents did report that the outbreak affected other aspects of librarianship, but it should be noted that librarians had the option to select more than one affected area. Collection development was cited as affected in one instance, reference and user services in three, administrative tasks in one, and “other” in five. Those who selected “other” explained that the outbreak had affected the following aspects of librarianship within their library districts:

- public inquiries;
- staff concerns;
- ensuring that sick staff do not come to work;
- installing additional hand sanitation stations;
- working with Human Resources and Risk Management to provide staff with information on vaccines and other health concerns;
- and sanitization of toys in the children’s section.

The affected aspects of librarianship, including policies, for both the Disneyland outbreak and Senate Bill are depicted in Figure 2.



*Figure 2 Aspects of librarianship affected by the Disneyland outbreak and Senate Bill*

Before moving on to questions about Senate Bill Number 277, the librarians were asked if any patrons in their districts have asked that the library system make changes as a result of the outbreak. Three (3.75%) of eighty respondents said that yes, patrons have asked that the system make changes in response. Table 2 contains the responses to the questions addressing patron requests for change regarding both the Disneyland outbreak and Senate Bill.

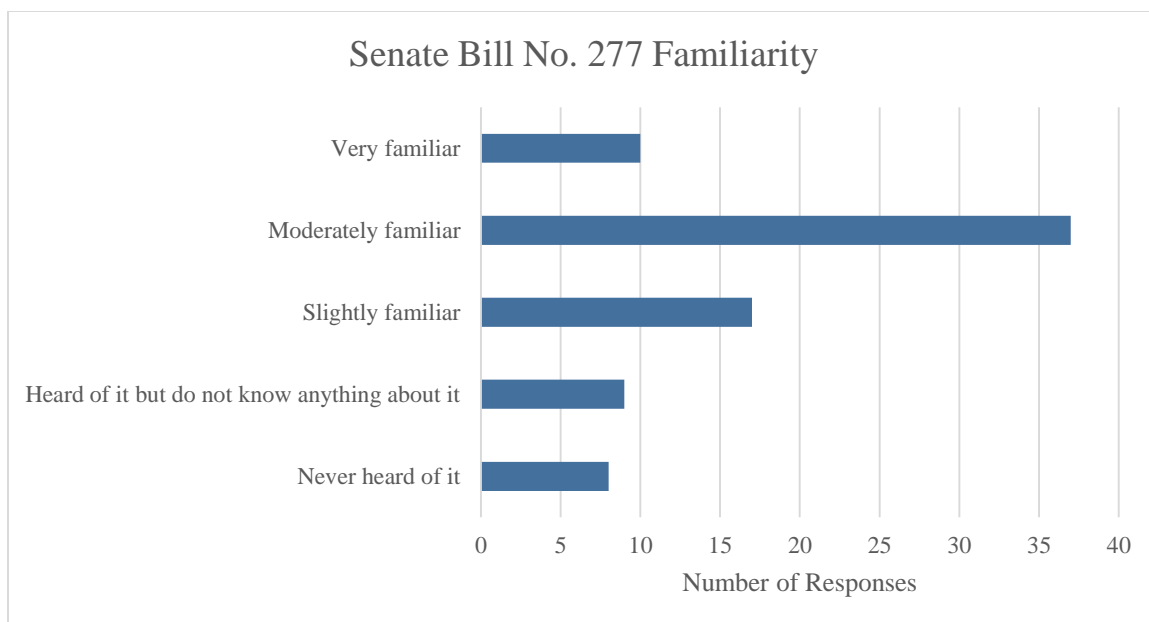
#### HAVE PATRONS ASKED FOR CHANGE

	Yes	No	Total Number of Responses
<b><i>IN RESPONSE TO 2015 DISNEYLAND MEASLES OUTBREAK</i></b>	3	77	80
<b><i>IN RESPONSE TO SENATE BILL NO. 277</i></b>	1	70	71

*Table 2 Breakdown of responses to questions about patron requests for change*

## **Senate Bill Number 277**

Similar to the questions addressing the Disneyland outbreak, the portion of the survey dedicated to California Senate Bill Number 277 began by evaluating librarians' familiarity with the bill. In this case, response options included "Never heard of it," "Heard of it but do not know anything about it," "Slightly familiar," "Moderately familiar," and "Very familiar." These options were created because, unlike with the Disneyland outbreak which was heavily reported on not only in California but globally, the Senate Bill, even in California, may still dwell in the realm of obscurity. Those eight (9.9%) of eighty-one individuals who had never heard of the bill were directed to the end of the survey with no further questions asked. Nine (11.1%) respondents reported that they had heard of the bill, seventeen (21%) were slightly familiar with the bill, and 10 (12.3%) were very familiar with the bill. The majority of participants (45.7%) indicated mild familiarity with the bill. The graphical depiction of their responses is available in Figure 3.



*Figure 3 Reported familiarity with Senate Bill Number 277*

The remaining survey questions asked participants about the effects of the bill on library policy:

- Has your library system changed any existing policies as a result of Senate Bill No. 277?
- Has your library system created any new policies as a result of Senate Bill No. 277?
- Has your library system eliminated any policies as a result of Senate Bill No. 277?
- Does your library system currently plan to change any existing policies as a result of Senate Bill No. 277?
- Does your library system currently plan to create any new policies as a result of Senate Bill No. 277?
- Does your library system currently plan to eliminate any policies as a result of Senate Bill No. 277?

- Do you anticipate that Senate Bill No. 277 will affect your library system's policies in the future?

One (1.37%) librarian of the seventy-three directed to the remaining questions said that changes had been made to an existing policy or existing policies in light of the bill. This was not the same librarian that reported changes due to the Disneyland outbreak; however, no further explanation of the changes was given. No districts plan to change policies because of the bill. No libraries created any new policies as a result of the bill nor do they plan on creating new policies as a result of it. Likewise, zero libraries reported eliminating existing policies because of the bill, and zero plan on eliminating any because of it. As with the Disneyland outbreak, three districts (4.11%) anticipate that Senate Bill Number 277 will affect their systems' policies in the future. Table 3 breaks down the responses to policy questions regarding the bill.

**POLICY RESPONSE TO SENATE BILL NO. 277**

	Yes	No	Total Number of Responses
<b><i>POLICIES CHANGED</i></b>	1	72	73
<b><i>POLICIES CREATED</i></b>	0	73	73
<b><i>POLICIES ELIMINATED</i></b>	0	73	73
<b><i>PLAN TO CHANGE</i></b>	0	73	73
<b><i>PLAN TO CREATE</i></b>	0	73	73
<b><i>PLAN TO ELIMINATE</i></b>	0	73	73
<b><i>ANTICIPATE FUTURE IMPACT</i></b>	3	70	73

*Table 3 Breakdown of responses to questions regarding the effect of Senate Bill No. 277 on library system policies*

Participants indicated that areas of librarianship other than policies were affected by the Senate Bill. Multiple options were once again available for this question. One district cited changes to program development, two to collection development, four to reference as user services, and one to other aspects. The other aspect in this case was staff



concerns. Figure 2 above describes these reported aspects, including policies, for both the Senate Bill and Disneyland outbreak.

The final survey question, answered by 72 participants, asked if patrons have requested the library make changes in response to Senate Bill Number 277. One librarian acknowledged patrons have asked that the corresponding library system make changes as a result of the bill. This response, along with the responses from the same question for the Disneyland outbreak, is included in Table 2 above.

## Discussion

Before examining the direct effects of the two major events in question, it was important to establish a baseline of measles exposure and pre-existing policies for participating library districts. In terms of outbreaks in the last five years, it was not surprising to the researcher to see that some of the participating systems had experienced outbreaks. It was, however, somewhat unexpected that nearly as many, 11 compared to 12 participants, did not know if an outbreak had occurred within their service area. There are numerous reasons why this might be the case, but it does seem to the researcher that the directors, county librarians, and city librarians should be informed of the events in their community, including those pertaining to public health, to the best of their ability. It is important to note, though, that some of the librarians invited to participate were either new to their role or filling in on an interim basis. When asked about existing policies in relation to sick patrons, one librarian remarked that the system has “approached the local health officer regarding potential infectious patrons and let him handle the issue.” The one librarian whose district already had a vaccination-related policy conveyed that said policy “[does] not allow medical procedures, including vaccines, on site” and “is mostly in place related to appropriate use of conference rooms.” These responses set the stage for event specific policies, letting the researcher know that, among the participating libraries, there was little in place before the events pertaining to vaccine-preventable diseases and illness in general.

The survey of California public library systems set out to answer the following questions:

1. *Have the 2015 Disneyland measles outbreak and Senate Bill Number 277 affected public library policies in California?*
2. *If so, how have public library policies been affected?*

Among the 81 librarians who responded to the questions regarding changing, creating, or eliminating policies in response to the Disneyland outbreaks, 80 library systems made no changes, additions, or eliminations. Only one library system changed an existing policy or policies, and, unfortunately, this library did not elaborate on the changes when prompted to do so. From this it can be gleaned that at least one library system in California changed at least one policy due to the outbreak, but it is impossible to know the extent of that change without further explanation from the participant. No librarians who participated in the survey reported any new policies, eliminated policies, nor plans to change, add, or eliminate policies, despite slightly more than 93.8% of the respondents feeling slightly, moderately, or very familiar with the event. Three do anticipate an impact of policies in the future though. When asked to elaborate on future effects, one librarian stated, “We are in California. We know that we have some issues with immunity and vaccine coverage. We will need to think about how we can manage our foot traffic if there is a local outbreak in our service area.” Another echoed a similar sentiment, noting that “[c]hanges will be based on information from our emergency management department and what they deem necessary to include in future policy.” The third librarian who expects an impact is already “working more closely with [the local] health department on ways to respond more quickly to spreading information among parents

who may have been exposed to a communicable disease at one [of the library's events].” That system is also working towards accurate and timely identification of communicable diseases in its libraries. These three responses suggest that while policy impacts are uncommon among survey participants at this time, the event could potentially affect library policies in the future, especially if vaccination rates continue to drop and outbreaks continue to occur. Another factor that could play into whether the Disneyland outbreak affects policies in the future arises from library patrons. Three participants have had patrons ask for changes because of the outbreak. If more districts begin receiving requests from patrons, they will eventually have to respond to the requests of the public in some way. Libraries should at least consider policies as one way of addressing such requests for change.

As with the Disneyland outbreak, only one librarian answered that at least one existing policy had changed as a result of Senate Bill Number 277. In this instance, only 73 librarians were asked to respond to questions regarding changes, additions, eliminations, and plans for changes, additions, or limitations. As stated in the Results section of this paper, those who indicated that they had never heard of the Senate Bill were directed to the end of the survey with no further questions asked. Once again, the librarian who answered that a policy had changed did not provide any elaboration when prompted to do so. Therefore, the results show that at least one library in the state has had policies or a policy affected, but the nature of the effect remains unclear. In the case of the bill, 79% of participants felt slightly, moderately, or very familiar with the event. It is not surprising to the researcher that this percentage is lower than that associated with familiarity with the outbreak, because it has not received the same kind of media

attention that the outbreak associated with the brand name Disney did. In addition to only one librarian reporting policy change, no librarians created new policies, eliminated existing policies, or planned to change, add, or eliminate. Once more, three of the seventy-three respondents do anticipate an effect from the bill in the future. While two of these respondents cited keeping “in compliance [with] legal mandates” and “most likely develop[ing] policies that reflect the intent of the Senate Bill,” one librarian saw a vastly different impact. When asked to elaborate on future effects, this librarian said, “More families may choose to homeschool their children, which may lead to an increase in the number of children and groups utilizing the library in the earlier hours of the day.” In that particular case, policies addressing use of library space may need to be amended to ensure that these homeschooled children have a quiet, safe place to work. The researcher, possibly due to personal bias, expected any detailed response to comment on policies related to public health. The remark on the possible increase in the number of children being homeschooled, however, highlights the complex nature of possible impact of the Senate Bill on public libraries.

As mentioned previously, public libraries exist to provide services to their communities without discrimination. However, they are also primarily administered at the county or city level. This suggests that Californian public libraries could be put into a precarious situation wherein they must comply with any local regulations while also maintaining services for individuals who may feel targeted by those regulations. One librarian pointed out that “[i]t is a very fine line between patron rights and public safety.” The possibility exists that this line is in part responsible for the library systems that participated in this survey not having taken or not planning to take actions in terms of

policies relating to vaccines or vaccine-preventable diseases. Although the survey did not provide the option to elaborate when a question was answered with “no,” one librarian sent a personal email to the researcher in order to share the answer to an inquiry about policies for unvaccinated children from a different library district. The researcher asked for and was granted permission to share the following as it speaks directly to the dichotomy of the library’s duty to individual patrons and the patron population:

In a nutshell the policy is “we don’t discriminate.” We did not bar people with HIV or that happened to be [homosexual] when everyone was frothing at the mouth about the AIDS epidemic, we did not shun people that spoke Chinese and had a cough when everyone was frantic about SARS, we did not kick people out that had immigrated from Africa when everyone was going on about Ebola, and we certainly do not post signs during flu season saying that if you have not had your flu vaccination for the year you can’t come in (even though this is statistically *far* more of a risk to your baby in [story time] than someone without a measles vaccination).

The Library’s role is not to “protect” one class of people from another (in this case the “vaccinated” from the “unvaccinated”, although any “us [versus] them” can be inserted here). The [L]ibrary’s role is to provide access to *all* classes [of] people. If you are considering drawing a line in the sand based on a statistically tiny number of actual cases of measles and the mindset that every unvaccinated child is just some ticking time bomb waiting to explode (which is biologically untrue), then how will you move that line in the future? Will future lines be veiled as “medical security”, “national security”, or some other “security”? Which “them” will it aim to exclude?

As the response expresses, the public library exists for everyone in its community, and, if the library is to be a safe place for one patron, it must be a safe place for all of them. The situation becomes even more complex when patrons ask for change based on events such as the Disneyland outbreak and Senate Bill, which the survey reveals has happened in at least three systems for the outbreak and at least one system for the bill. Setting up specific policies, rather than tackling instances of communicable illnesses, vaccines, or other sensitive topics on a case-by-case basis, could ease the stress on the librarians tasked with these potentially conflicting obligations. Such policies would also serve to

respond to patron or staff inquiries. While creating these policies would certainly take a great deal of thought and planning, they could go a long way to, at the very least, keep patrons aware of the health happenings in their library or set up an appropriate plan of action in the event a public health emergency takes place in the library setting.

Another option available to libraries who feel stuck between protecting rights and protecting public safety is collaboration with local public health departments. In this way, libraries can provide accurate, timely information about vaccines and vaccine-preventable diseases to their patrons. This approach allows for quality information to be disseminated in the neutral environment cultivated by public libraries. A patron may be inclined to review information about vaccines in the trusted library that said patron would have overlooked in a more intimidating, stressful, or unfamiliar environment such as a doctor's office or the public health department. Offering educational materials to patrons provides libraries with the opportunity to contribute to public health in their communities without encroaching on the individual rights of the patrons, because the patrons maintain the ability to make their own decisions regarding immunization and their families. Both policy creation and collaboration could contribute to the other aspects of librarianship that were selected by participants as having been affected by the Disneyland outbreak and Senate Bill such as program development; collection development; reference and user services; and administrative tasks. Some possibilities of how policies could be used include:

- guiding development of programs on “hot” or controversial topics;
- outlining when material on major events or the subjects of major events should be added to the collection;

- detailing best practice of how to discuss “hot” or controversial topics with patrons;
- or supplying a framework, similar to a disaster plan, for library operations during public health events.

Public health officials, through collaboration, could play a major role in developing policies as well as contributing to programs, consulting on the quality of material for the collection, training staff to discuss public health events, or preparing staff for public health emergencies. While some libraries indicated budding or future partnerships, it would probably benefit all public libraries and public health departments to develop close relationships. For libraries, collaboration means protecting patron rights while still keeping them abreast of public health issues. For health departments, it represents another avenue for reaching community members and improving public health.

## **Limitations**

California is unique from other states in that it has been at the center of the vaccine debate for quite some time; therefore, responses and understanding of the events which inspired the survey could be drastically different in another part of the country which has seen few or no outbreaks of vaccine-preventable diseases. By not surveying each individual library in the state, it is impossible to know exactly what efforts have been taken, are being taken, or will be taken in response to the events. It is for these reasons that the researcher never attempts to generalize the survey results.

The recency of the events in question, while ensuring that they are fresh in the minds of many, may be the reason why they have not had much impact on the participating libraries as of yet. Particularly in the case of Senate Bill number 277, which



went into effect mere days before the survey link was emailed to the sample, timing could have played a part in why some of the participants had never heard of or were unfamiliar with the Senate Bill and its implications for unvaccinated school children. As the bill does apply to the entire state of California, it may be informative to inspect any impact on public libraries after the bill has been in effect for a few years.

When researching any controversial topic, it is impossible to completely eliminate personal bias on the part of the researcher and respondents. Although the researcher attempted to build the survey free of bias, it may still have influenced what questions were asked or how they were asked. Personal bias surely underscored the researcher's initial viewing of the responses at least in part. Likewise, personal biases and self-reporting on the part of the respondents could have influenced how they read a particular question. Furthermore, beliefs about the subject matter might have contributed to whether or not those initially sampled elected to participate. Among those who did choose to participate, their own feelings toward vaccinations or understanding of them might determine what, if any, actions are taken in their systems. Strong beliefs may have led to self-selection bias in terms of who chose to respond. Future researchers interested in this subject may wish to include a personal beliefs portion in the survey itself.

## Conclusion

In consideration of decreasing vaccination rates and increasing instances of vaccine-preventable diseases, the researcher undertook a study to determine the effects of public health events on public library policy. A review of the literature exposed a gap in the literature concerning the role that major public health events play in the development of public library policy. To begin addressing this gap, a survey was disseminated to 179 library directors, county librarians, and city librarians representing each of California's public library districts in order to determine whether public library policies in the state of California have been affected by the 2015 Disneyland measles outbreak or Senate Bill Number 277. Although the survey reveals that public library policies in California have seen little effect from the Disneyland measles outbreak and Senate Bill thus far, at least among survey participants, this does not mean that further research on the subject is unwarranted. Quite the contrary is true. This research lays the groundwork for future inquiries both of the public libraries in California as well the public libraries in other states and possibly other countries where anti-vaccination sentiments are prevalent or on the rise.

The next step for researchers interested specifically in California's libraries is to find out precisely why policies have not been more widely affected. At this time, it remains unclear as to what factor or factors are responsible. It may also be beneficial to identify a system with particular interest in developing policies related to vaccines or in

response to the events addressed in the survey and work directly with that library to evaluate what policies are currently in place that could be changed or eliminated as well as conceive new policies that promote public health in the library while maintaining the neutral, welcoming environment for which public libraries are known. A similar project could explore the efforts of a library system in a hotspot of decreasing vaccination compared to one in an area known for higher vaccination rates.

As the survey results reveal that other aspects of librarianship have been affected by the Disneyland outbreak and Senate Bill, the researcher feels it is worth exploring how, in particular, collection development; reference and user services; program development; and administrative tasks have been affected. Any changes to these areas of public library practice could potentially inform the development of new policies pertaining to public health event response or response to other community events.

Public libraries act as community anchors, and part of anchoring a particular community involves understanding not only what community members want but also what they need, and what is missing from the resources currently available to them. To meet these wants and needs, to fill the gaps, library directors, county librarians, and city librarians, must have intimate familiarity with their patrons and the happenings within the community. For large districts, this can be extremely difficult, since patrons from different parts of the district are likely to have different wants and needs. Collaboration once again presents a solution to this obstacle. Partnerships with government agencies and other community-driven institutions such as civic centers, recreation centers, and churches can help inform libraries as to the distinct needs of a particular subset of a larger

district. When it comes to protecting both the individual rights of patrons as well as protecting the community as a whole, partnerships cannot be overstressed.

Perhaps public libraries have not actively responded to declining vaccination rates as of yet, but it seems unlikely that this will remain the case forever. If globally broadcasted outbreaks of vaccine-preventable disease continue to occur and more states adopt stricter immunization laws, a day may come when local governments feel the pressure to institute regulations or mandates pertaining to the entities they manage such as public libraries for the sake of public safety similar to those regulations and mandates concerning schools and school-aged children. As such, libraries would be better prepared to protect the rights of patrons as laid out in the Library Bill of Rights if policies are already in place to do so. Regardless of the future of vaccine-preventable disease outbreaks and immunization laws in the United States, public libraries are uniquely qualified to actively participate in and contribute to the health and safety of their communities, if only they take the initiative and construct the proper foundation first.

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## Appendix A: California Public Libraries Survey

Q1 Thank you for participating in the Public Library Policies and Public Health Events survey. The data you provide will be used to help determine if the 2015 Disneyland measles outbreak and Senate Bill Number 277 have affected public library policies in the state of California. Your participation is voluntary and your answers are completely confidential. You may skip any question you choose not to answer. Please click the next button below to begin the survey.

Q2 To the best of your knowledge, during the last five years, has there been a measles outbreak within the area served by your library system?

- Yes (1)
- No (2)
- I do not know (3)

Q3 Does your library system currently have a policy in place regarding sick patrons?

- Yes (1)
- No (2)

Answer If Does your library system currently have a policy in place regarding sick patrons? Yes Is Selected

Q4 Please elaborate on the policy that is currently in place regarding sick patrons.

Q5 Does your library system currently have a policy in place regarding vaccines?

- Yes (1)
- No (2)

Answer If Does your library system currently have a policy in place regarding vaccines? Yes Is Selected

Q6 Please elaborate on the policy that is currently in place regarding vaccines.

Q7 To what extent are you familiar with the 2015 Disneyland measles outbreak?

- Not at all familiar (1)
- Slightly familiar (2)
- Moderately familiar (3)
- Very familiar (4)

Q8 Has your library system changed any existing policies as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)

Answer If Has your library system changed any existing policies as a result of the 2015 Disneyland measles outbreak? Yes Is Selected

Q9 Please elaborate on the changes that have been made to existing policies as a result of the 2015 Disneyland measles outbreak.

Q10 Has your library system created any new policies as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)

Answer If Has your library system created any new policies as a result of the 2015 Disneyland measles outbreak? Yes Is Selected

Q11 Please elaborate on any new policies that have been created as a result of the 2015 Disneyland measles outbreak.

Q12 Has your library system eliminated any policies as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)

Answer If Has your library system eliminated any policies as a result of the 2015 Disneyland measles outbreak? Yes Is Selected

Q13 Please elaborate on any policies that have been eliminated as a result of the 2015 Disneyland measles outbreak.

Q14 Does your library system currently plan to change any existing policies as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)

Answer If Does your library system currently plan to change any existing policies as a result of the 2015 Disneyland measles outbreak? Yes Is Selected

Q15 Please elaborate on any plans to change existing policies as a result of the 2015 Disneyland measles outbreak.

Q16 Does your library system currently plan to create new policies as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)



Answer If Does your library system currently plan to create new policies as a result of the 2015 Disneyland measles outbreak? Yes Is Selected

Q17 Please elaborate on any plans to create new policies as a result of the 2015 Disneyland measles outbreak.

Q18 Does your library system currently plan to eliminate any policies as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)

Answer If Does your library system currently plan to eliminate any policies as a result of the 2015 Disneyland measles outbreak? Yes Is Selected

Q19 Please elaborate on any plans to eliminate policies as a result of the 2015 Disneyland measles outbreak.

Q20 Do you anticipate that the 2015 Disneyland measles outbreak will affect your library system's policies in the future?

- Yes (1)
- No (2)

Answer If Do you anticipate that the 2015 Disneyland measles outbreak will affect your library system's policies in the future? Yes Is Selected

Q21 Please elaborate on the future effects you anticipate the 2015 Disneyland measles outbreak will have on your library system's policies.

Q22 In your library system, what other aspects of librarianship have been affected by the 2015 Disneyland measles outbreak?

- Program development (1)
- Collection development (2)
- Reference and user services (3)
- Administrative tasks (4)
- Other, please specify (5) \_\_\_\_\_
- No other aspects have been affected (6)

Q23 Have any of your library patrons asked that the library system make changes as a result of the 2015 Disneyland measles outbreak?

- Yes (1)
- No (2)

Q24 To what extent are you familiar with California's new vaccination law (Senate Bill No. 277) going into effect for school-aged children in 2016?

- Never heard of it (1)
- Heard of it but do not know anything about it (2)
- Slightly familiar (3)
- Moderately familiar (4)
- Very familiar (5)

If Never heard of it Is Selected, Then Skip To End of Survey

Q25 Has your library system changed any existing policies as a result of Senate Bill No. 277?

- Yes (1)
- No (2)

Answer If Has your library system changed any existing policies as a result of Senate Bill No. 277? Yes Is Selected

Q26 Please elaborate on any changes that have been made to existing policies as a result of Senate Bill No. 277.

Q27 Has your library system created any new policies as a result of Senate Bill No. 277?

- Yes (1)
- No (2)

Answer If Has your library system created any new policies as a result of Senate Bill No. 277? Yes Is Selected

Q28 Please elaborate on any policies that have been created as a result of Senate Bill No. 277.

Q29 Has your library system eliminated any policies as a result of Senate Bill No. 277?

- Yes (1)
- No (2)

Answer If Has your library system eliminated any policies as a result of Senate Bill No. 277? Yes Is Selected

Q30 Please elaborate on any policies that have been eliminated as a result of Senate Bill No. 277.

Q31 Does your library system currently plan to change any existing policies as a result of Senate Bill No. 277?

- Yes (1)
- No (2)

Answer If Does your library system currently plan to change any existing policies as a result of Senate Bill No. 277? Yes Is Selected

Q32 Please elaborate on any plans to change existing policies as a result of Senate Bill No. 277.

Q33 Does your library system currently plan to create any new policies as a result of Senate Bill No. 277?

- Yes (1)  
 No (2)

Answer If Does your library system currently plan to create any new policies as a result of Senate Bill No. 277? Yes Is Selected

Q34 Please elaborate on any plans to create new policies as a result of Senate Bill No. 277.

Q35 Does your library system currently plan to eliminate any policies as a result of Senate Bill No. 277?

- Yes (1)  
 No (2)

Answer If Does your library system currently plan to eliminate any policies as a result of Senate Bill No. 277? Yes Is Selected

Q36 Please elaborate on any plans to eliminate policies as a result of Senate Bill No. 277.

Q37 Do you anticipate that Senate Bill No. 277 will affect your library system's policies in the future?

- Yes (1)  
 No (2)

Answer If Do you anticipate any that Senate Bill No. 277 will affect your library system's policies in the future?&nbsp; Yes Is Selected

Q38 Please elaborate on the future effects you anticipate Senate Bill No. 277 will have on your library system's policies.

Q39 In your library system, what other aspects of librarianship have been affected by Senate Bill No. 277?

- Program development (1)  
 Collection development (2)  
 Reference and user services (3)  
 Administrative tasks (4)  
 Other, please specify (5) \_\_\_\_\_  
 No other aspects have been affected (6)

Q40 Have any of your library patrons asked that the library system make changes as a result of Senate Bill No. 277?

- Yes (1)
- No (2)

Q41 Thank you for participating in the Public Library Policies and Public Health Events survey. Your responses are greatly appreciated!

## Appendix B: Initial Letter

Jessica D. Dixon  
547 Libson Street  
Durham, NC 27703

~~Tuesday, April 5, 2016~~ ~~Thursday, March 31, 2016~~

Dear library director, county librarian, or city librarian,

I am writing to ask you to participate in the *Public Library Policies and Public Health Events* survey. This study is being conducted by Jessica Dixon, a second year graduate student in Library Science at the University of North Carolina at Chapel Hill. This survey will help determine whether public library policies in the state of California have been affected by the 2015 Disneyland measles outbreak and Senate Bill Number 277. The results will be compiled in a Master's Paper on the subject.

A link to the survey will be sent to you via email in one week. The survey will take approximately 15 minutes to complete. Your participation is completely voluntary, and the information you provide will be kept confidential. Results will be reported only in aggregate form; your name will never be associated with your data.

You are one of only 179 library directors, county librarians, and city librarians selected to participate in this study, and it is important that we hear from you.

If you have any questions about the research project or the survey itself, please contact Mary Grace Flaherty, PhD, at (919) 962-5982 or by email at [mglaher@email.unc.edu](mailto:mglaher@email.unc.edu). If you have any questions about your rights as a research participant, you may contact the University of North Carolina Institutional Review Board at (919) 966-3113 and mention study number 15-3156.

Thank you for your participation in this important study.

Warm Regards,  
Jessica D. Dixon  
MSLS Candidate 2016, UNC Chapel Hill  
EPA-RTP Library Intern  
[jdennise@live.unc.edu](mailto:jdennise@live.unc.edu)

## Appendix C: Initial Email

Good afternoon,

As previously detailed in the letter you received, I am writing to ask you to participate in the Public Library Policies and Public Health Events survey. This study is being conducted by Jessica Dixon, a second year graduate student in Library Science at the University of North Carolina at Chapel Hill. This survey will help determine whether public library policies in the state of California have been affected by the 2015 Disneyland Outbreak and Senate Bill Number 277. The results will be compiled in a Master's Paper on the subject.

The survey will take approximately 15 minutes to complete. Your participation is completely voluntary, and the information you provide will be kept confidential. Results will be reported only in aggregate form; your name will never be associated with your data.

Please click the link below to begin the survey.

**Follow this link to the Survey:**

[\\${1://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${1://SurveyURL}](#)

You are one of only 179 library directors, county librarians, and city librarians selected to participate in this study, and it is important that we hear from you.

If you have any questions about the research project or the survey itself, please contact Mary Grace Flaherty, PhD, at (919) 962-5982 or by email at [mgflaher@email.unc.edu](mailto:mgflaher@email.unc.edu). If you have any questions about your rights as a research participant, you may contact the University of North Carolina Institutional Review Board at (919) 966-3113 and mention study number 15-3156.

Thank you for your participation in this important study.

Warm regards,

Jessica D. Dixon  
MSLS Candidate 2016, UNC Chapel Hill  
EPA-RTP Library Intern  
[jdennise@live.unc.edu](mailto:jdennise@live.unc.edu)

Follow the link to opt out of future emails:

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## Appendix D: Targeted Follow-Up Emails

Good morning,

Last week, we invited you to complete a survey on public library policies and public health events. As of today, your survey has not been completed. In order for our results to represent all 179 public library districts in California, we really need your participation. We hope you will take a few moments now to click the link below and complete the survey.

**Follow this link to the Survey:**

[\\${1://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${1://SurveyURL}](#)

The survey will take approximately 15 minutes to complete. Your participation is completely voluntary, and the information you provide will be kept confidential.

If you have any questions about the research project or the survey itself, please contact Mary Grace Flaherty, PhD, at (919) 962-5982 or by email at [mgflaher@email.unc.edu](mailto:mgflaher@email.unc.edu). If you have any questions about your rights as a research participant, you may contact the University of North Carolina Institutional Review Board at (919) 966-3113 and mention study number 15-3156.

Thank you for your participation in this important study.

Jessica D. Dixon  
MSLS Candidate 2016, UNC Chapel Hill  
EPA-RTP Library Intern  
[jdennise@live.unc.edu](mailto:jdennise@live.unc.edu)

Follow the link to opt out of future emails:

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Good morning,

Two weeks ago, we invited you to complete a survey on public library policies and public health events. As of today, your survey has not been completed. In order for our results to represent all 179 public library districts in California, we really need your participation. We hope you will take a few moments now to click the link below and complete the survey.

**Follow this link to the Survey:**

[\\${1://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${1://SurveyURL}](#)

The survey will take approximately 15 minutes to complete. Your participation is completely voluntary, and the information you provide will be kept confidential.

If you have any questions about the research project or the survey itself, please contact Mary Grace Flaherty, PhD, at (919) 962-5982 or by email at [mgflaher@email.unc.edu](mailto:mgflaher@email.unc.edu). If you have any questions about your rights as a research participant, you may contact the University of North Carolina Institutional Review Board at (919) 966-3113 and mention study number 15-3156.

Thank you for your participation in this important study.

Jessica D. Dixon  
MSLS Candidate 2016, UNC Chapel Hill  
EPA-RTP Library Intern  
[jdennise@live.unc.edu](mailto:jdennise@live.unc.edu)

Follow the link to opt out of future emails:

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Good morning,

Three weeks ago, we invited you to complete a survey on public library policies and public health events. As of today, your survey has not been completed. In order for our results to represent all 179 public library districts in California, we really need your participation. The survey will officially close on Wednesday, February 10th. We hope you will take a few moments now to click the link below and complete the survey.

**Follow this link to the Survey:**

[\\${1://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${1://SurveyURL}](#)

The survey will take approximately 15 minutes to complete. Your participation is completely voluntary, and the information you provide will be kept confidential.

If you have any questions about the research project or the survey itself, please contact Mary Grace Flaherty, PhD, at (919) 962-5982 or by email at [mgflaher@email.unc.edu](mailto:mgflaher@email.unc.edu). If you have any questions about your rights as a research participant, you may contact the University of North Carolina Institutional Review Board at (919) 966-3113 and mention study number 15-3156.

Thank you for your participation in this important study.

Jessica D. Dixon  
MSLS Candidate 2016, UNC Chapel Hill  
EPA-RTP Library Intern  
[jdennise@live.unc.edu](mailto:jdennise@live.unc.edu)

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