

# Epidemics and Echo Chambers: What the Pandemic Teaches Us About Beliefs, Behaviors, and Community<sup>1</sup>

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The World Health Organization (WHO) estimates between five and 15 million deaths worldwide can be attributed to COVID-19 between January 2020 and December 2021 (WHO, 2022). COVID-19 is not the first pandemic to have such a devastating impact on society. If we look back through history, we see many examples of the damaging effects of disease. The outbreak of the Spanish flu, for example, began in 1918, continued for over two years, and affected people across the globe. The Centers for Disease Control and Prevention (CDC) estimates over 500 million people were infected by the virus. That was one-third of the world's population. Over 50 million people worldwide died from the flu. More than 650,000 of these deaths were in the United States. The Asian flu pandemic began in 1957, lasted two years, and resulted in 1.1 million deaths worldwide. The H1N1 pandemic in 2009 and 2010, perhaps better remembered as the swine flu, resulted in an estimated half a million deaths worldwide in the first year of the outbreak (CDC, 2018).

Pandemics and epidemics are not a new phenomenon. Disease is constant. It has always been present in society. What has changed is the context—how society reacts to disease. The response to disease changes based on time period and based on location. What disease means to society changes. Medical and public health response changes. The reaction of communities to disease changes. In fact, the reaction of some communities to viral outbreaks has gained the attention of the public throughout history.

COVID-19 is the most recent phenomenon to put Amish health care decisions into the media spotlight. The recent pandemic, however, is not the only instance where the health behaviors of the Amish community have been subjected to public scrutiny. I explore how the relationship between health officials and the Amish have changed over time and how public health directives have been accepted, or not, in Amish communities during viral outbreaks.

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This presentation only tells part of the story. I use newspapers to explore disease outbreaks and the Amish community. Newspaper articles often focus on the public health response to outbreaks and the Amish response according to the public health officials. The media plays a role in depicting the Amish a certain way as they promote their news stories. The Amish are often portrayed by the media as extreme—this can be either good or bad, but most often is an inaccurate representation of the community. The differences between the Amish and mainstream society are brought to the forefront when disaster and disease strikes.

I present four moments in time, as captured by newspapers. Each moment is focused on a viral outbreak that affected the Amish community. The outbreaks have different characteristics in terms of scope and impact. Public health reactions are reflective of the time period. The newspapers capture the public health response to the outbreak and the perception of whether the Amish had been sufficiently compliant with public health directives. In some instances, the media promotes perspectives about the Amish, and whether the perspectives are based on popular stereotypes, the portrayals are likely to capture the attention of the readership. I explore how context helps shape responses in each outbreak.

After examining newspaper coverage of viral outbreaks, I present my team's research on COVID-19 to further explore how context matters. We use newspapers to understand the impact of the pandemic on the Amish community but focus on *The Budget* rather than popular media outlets. Using accounts of Amish scribes, we move beyond the popular culture view of Amish society to consider how people in the Amish community are talking about and dealing with COVID-19 across different locations.

## **Disease Outbreaks and the Amish Community**

### ***Smallpox***

Smallpox is a disease caused by the variola virus. The virus produces a rash that starts on the face, often on the tongue and in the mouth, and then spreads to the entire body. People who contract smallpox also suffer from symptoms such as high fever, fatigue, and severe back pain. Smallpox is spread through infected respiratory droplets and close contact with people who have the disease. Historically, about 30% of people who were infected with smallpox died as a result. Smallpox is believed to have caused millions of deaths in a span of over 3,000 years. As a note, scientists have found smallpox-like rashes on the bodies of Egyptian mummies, suggesting the disease has been around for a very long time (CDC, 2021a).

The smallpox vaccine was first developed in 1796 by an English doctor named Edward Jenner. By 1952, smallpox was largely nonexistent in the U.S., although other countries still experienced outbreaks. The WHO launched several immunization campaigns to eradicate smallpox worldwide. The first efforts in 1959 failed due to inadequate resources; however, the organization regrouped and successfully directed the Intensified Eradication Program in 1967. The World Health Assembly declared the world free of smallpox in May of 1980 ("Smallpox," 1942; CDC, 2021a).

While the overall number of smallpox cases in the U.S. had dropped by the early 1940s, outbreaks still happened. At this point in history, vaccination was a regular treatment for smallpox.

In fact, when an outbreak happened, the area was quarantined, and vaccines were administered to the people in the quarantined area. Vaccination campaigns were largely successful in stopping the spread of smallpox.

### ***Smallpox and the Amish Community, 1942***

We see an example of the public health response to a smallpox outbreak in Mifflin County, Pennsylvania, in 1942. The first news report of the outbreak on December 24 indicated 14 adults had become infected with smallpox. The source of the disease was identified as an Amish woman from Ohio who was in the area for an Amish wedding. It was reported the wedding had 250 guests in attendance (“Isolate Amish People,” 1942; “Smallpox at Lewstown,” 1942; “Vaccinating Thousands,” 1942).

The primary and immediate goal of the medical authorities was to control the outbreak and provide vaccinations for all those who might have been exposed to the virus. In efforts to stop the spread of the disease, the roads into the valley were blockaded by the state police. People were not able to enter or leave the community, which included 8,200 residents in a 40-square-mile area. All public gatherings and Christmas church services in the affected area were canceled. The state health department immediately shipped enough vaccines into the area to inoculate 500 to 600 people. Public health officials noted the spread could be limited since the smallpox outbreak was in the Amish community and Amish people had limited contact with the non-Amish.

Four days into the epidemic, the infection spread to seven children and four more adults, raising the number of infected to 31. All the Amish people who contracted the disease were reported to be unvaccinated adults over the age of 50 or unvaccinated preschool children. The newspaper accounts noted that the reluctance of the Amish to seek medical attention was interfering with efforts of the public health personnel to stop the outbreak. Even so, vaccination efforts were largely successful. The response of the state health department was swift, and reports indicate over 5,000 people were vaccinated within a 48-hour period (“Officials Act to Curb,” 1942; “3 More Stricken,” 1942).

The public health messaging emphasized the ability to control smallpox with vaccines. By the end of December, over 6,000 people in the quarantined Pennsylvania valley were vaccinated. Part of the aggressive response of the health authorities was a fear the outbreak would spread to other communities, as the Amish who attended the wedding were from areas outside of Mifflin County. Two days after the smallpox case was discovered in Pennsylvania, an Ohio newspaper reported an infected Amish person in the Holmes County settlement. The health department inoculated 800 Amish people in the Holmes County area. An additional four cases of smallpox were discovered in Lancaster, Pennsylvania, a few days later. Two were Amish people who had attended the wedding. The other two cases were not Amish but were the wife and child of a railroad porter who allegedly had contact with Amish wedding travelers. These cases were quickly treated and controlled (“7 More Amish Children,” 1942; “State Spread of Smallpox,” 1942).

State health officials in Pennsylvania indicated the Amish farmers in Mifflin County’s Big Valley community were cooperating with the vaccination efforts but noted the Amish farmers were

stoic and did not say much. The vaccination efforts in Ohio were also successful. The state health director indicated they were pleased with the response of the Amish community. Of all the people who were infected during this outbreak, there were no deaths reported (“State Spread of Smallpox,” 1942).

While the immediate and extreme measures employed by the health officials in Pennsylvania were effective to limit the spread of smallpox, there were economic consequences. Many of the Amish residing in the valley were dairy farmers. With no travel in or out of the community, and no way to store large quantities of milk, farmers were forced to dump thousands of pounds of milk each day. Other industries were affected as well. The town of Belleville, located in Pennsylvania’s Big Valley, housed several large industrial plants, one of which was a foundry and machine shop that was engaged in war work. Due to the quarantine, raw materials ran low while completed products piled up. Factory production was essentially brought to a standstill. In addition to problems with materials, many workers were unable to report to work due to the quarantine restrictions (“7 More Amish Children,” 1942; “Vaccinating Thousands,” 1942, “3 More Stricken,” 1942, “State Spread of Smallpox,” 1942).

Even though people were negatively affected by the quarantine measures, news sources report that everyone complied with the directives. The reactive measures of the public health system impacted not only the Amish community, but the entire valley of residents. People respected the roadblocks in the Pennsylvania valley. The affected Amish communities received the vaccinations. Workers in the factories in Pennsylvania were amenable to voluntary vaccinations. The country was at war and the citizens were, in general, supportive of the government and government initiatives.

### ***Polio***

When first introduced in the 1950s, the polio vaccine was widely accepted and welcomed by most in U.S. society. The vaccine provided relief to parents who lived in fear of their children contracting the debilitating disease. Medical advances in the 1960s allowed for the development of vaccines rather quickly, which raised questions about the safety of medicine. Parents questioned the need for vaccines that curbed “mild” diseases such as measles and mumps. The federal government took a more active role in creating vaccine mandates. Mandatory vaccination policies for school-age children were put into effect. Social movements in the 1960s provided an arena for people to question authority—including that of the government and doctors (Conis, n.d.). By the time of the polio outbreak in 1979, U.S. society looked different than it did 20 years prior.

Like smallpox, polio has been around for thousands of years, and scientists have traced the disease back to ancient Egypt. Polio virus spreads through droplets from a sneeze or cough or contact with feces of an infected person. Over 70% of people who are infected with polio virus do not display symptoms. About 25% of infected people have flu-like symptoms—sore throat, fever, nausea, or tiredness. Overall, less than 1% of people experience symptoms that affect the brain or spinal cord, resulting in paralysis that can cause permanent disability. In a small number of cases, the polio virus affects the muscles that allow people to breathe, which can lead to death unless the

person receives artificial breathing support. One of the fear-provoking elements of polio is that post-polio syndrome can cause muscle pain or even paralysis 15 to 40 years after the first infection in people who were asymptomatic when first infected with the polio virus (CDC, 2021b; National Museum of American History, 2005).

The number of polio infections peaked each year in the summer months. The first expansive polio outbreak happened in 1916 in the U.S. There were over 27,000 cases reported, with upwards of 6,000 deaths. In 1952, there were a record number of polio cases reported in the U.S.—over 57,000. People who contracted polio were quarantined for 10 to 14 days with limited visitation in the weeks following the acute phase of infection. Polio largely affected children and was commonly referred to as infantile paralysis (National Museum of American History, 2005; Smithsonian, n.d.). The impact of the disease on children, the confusion on how the disease spread, the mandatory quarantine that separated parents from their sick children, and the lack of a cure made polio a frightening disease.

In collaboration with other scientists, Jonas Salk worked to produce the first polio vaccine. The first available vaccines were administered to volunteers, including Dr. Salk, his wife, and his children. In 1954, Dr. Salk and his team conducted a national study where they enrolled over one million children in clinical trials. In 1955, the vaccine was made publicly available (Tan & Ponstei, 2019). The number of polio cases dropped drastically, as people were eager to receive the vaccine. There were almost 30,000 cases of polio in 1955. Two years after the release of the vaccine, the number of cases dropped to less than 6,000 (National Museum of American History, 2005).

The polio vaccine is now a part of the routine schedule of childhood vaccinations, and no cases of polio have originated in the U.S. since 1979. Unlike smallpox, however, polio has not been eradicated worldwide. There have been cases—as recently as 1993—where travelers have brought the virus to the U.S. In these cases, people in the U.S. population who have not been vaccinated are at risk. The introduction of polio into unvaccinated segments of the population spurs an anxiety reflective of the fears present in the 1950s. In instances of polio, even one case is considered an outbreak (CDC, 2021b).

### ***Polio and the Amish Community, 1979***

There were 17 confirmed cases of polio reported to the CDC in 1979 (MMWR Weekly, 1997). Two of the cases were non-paralytic and occurred in non-Amish people. The other 15 cases were paralytic and occurred in unvaccinated Amish persons. The cases were reported across four states in the U.S. and Canada.

The first confirmed case of polio was a 22-year-old Amish woman in Franklin County, Pennsylvania, reported in January 1979 (“Amish Reject State’s Offer,” 1979). The CDC linked this case to an outbreak the previous year in the Netherlands and Canada. That is, the disease was brought into the U.S. through travel abroad. The public health response to the outbreak was to make vaccines readily available. By May of 1979, two more cases of polio were confirmed in another Amish community in Pennsylvania. The state health department focused more energy and resources into their immunization campaign. In June, there were six cases of polio confirmed in

Pennsylvania and four cases in Wisconsin, Iowa, and Ontario (“Amish Boy 2nd Confirmed,” 1979; Kumuska, 1979). There was a three-day immunization clinic held in June in Lancaster County. Over 147,000 non-Amish people and over 4,000 Amish people were vaccinated across the three days (Eshleman, 1979). By August, it was estimated that upwards of 75% of the Amish population had received at least one dose of the polio vaccine (“75% of Amish,” 1979).

The news media was inconsistent in portraying the Amish response to the vaccination efforts. Initial reports of the outbreak in Franklin County indicated that the bishop refused vaccines on behalf of the Amish community (“Amish Reject State’s Offer,” 1979). The additional outbreaks in May produced similar reports, where an Amish bishop was resisting immunizations. However, other reports indicated the results of meetings between health officials and Amish leaders were neutral. That is, while Amish bishops were not necessarily promoting the polio vaccine, they were not opposed to it either. In fact, some news reports indicated bishops were on board with voluntary vaccination programs. And in some instances, the reports indicate Amish leaders were concerned by news stories portraying Amish as resistant to vaccination efforts (Kumuska, 1979).

Newspapers reported that the health officials in Lancaster County not only met with Amish bishops but organized immunization campaigns by church district. Health officials went door-to-door to talk to Amish families. The vaccine clinics in the Amish community were held in people’s homes in efforts to maintain the privacy of the community and exclude the news media (Eshleman, 1979).

Even so, the media grasped onto the reluctance of some Amish to receive vaccines. Several news reports focus on religion as the driving factor for vaccination refusal. The reports indicate Amish people believe the disease is sent by God and they should not interfere (“75% of Amish,” 1979; “Amish Reject State’s Offer,” 1979). Other reports suggest the Amish reaction to the polio outbreak differed from that of the non-Amish but was indirectly related to religion. More specifically, the Amish did not seem upset or fearful of the disease. Several news sources proposed an alternative explanation for vaccine refusal and indicated that Amish generally tend to be wary of government interventions (Kumuska, 1979).

Finally, a fraction of the news reports focused on the information available to the Amish community, indicating the accessibility and accuracy of information might be considered. While health officials stressed that for every paralytic case of polio, there are likely 50 to 100 asymptomatic people carrying the virus, there is a question of how well this information was relayed to the Amish community. One news source provides insight from an Amish man who indicated he found out about the confirmed case of polio near his community from the milk truck driver. Several reports suggest that when Amish people were provided with information about polio and its spread, they were more likely to be open to immunization (“Amish Accept Vaccine,” 1979; “Amish Hit with Polio Vaccine,” 1979; Kumuska, 1979).

Media reports on the vaccination efforts for the polio outbreak look different than the reports on the smallpox outbreak. In 1942, people in Pennsylvania’s Big Valley community complied with the public health initiatives—unquestionably, according to news reports. The news stories in 1979, however, portray an uneven response of the Amish community to immunization. Some reports

suggest the Amish resisted vaccination efforts. Others focus on compliance. Some reporters note the efforts of public health officials to educate and inform the Amish about vaccinations and spread of the disease. The degree to which news stories represent reality, the newspapers reflect a change in the Amish response to vaccination efforts from 1942 to 1979. This shift was due, in part, to the changes in society. While vaccines and government intervention were more accepted during the smallpox outbreak, attitudes about government mandates had shifted by the late 1970s. The Amish, while not immersed in mainstream society, are influenced by the culture in which they live.

### *Measles*

A decade later, the U.S. was faced with a nationwide measles outbreak. While the measles affected the Amish, the disease was not confined to the Amish population. The measles outbreak started in 1988 and lasted for three years. Over 55,000 people got sick and more than 100 people died because of infection. From 1989 through 1990, almost 70% of the measles cases were concentrated in four states: Illinois, Texas, California, and Ohio. The largest outbreaks among preschool-age children happened in cities—Los Angeles, Houston, and Chicago. Outbreaks were common on college campuses, in jails, and in homeless shelters. Many of the people who got the measles had either not been vaccinated or only received one measles shot. Public health officials used the outbreak as evidence for the need of a booster shot for the measles virus.

Unlike smallpox and polio, which have been traced back to ancient Egypt, the first documentation of measles was in the ninth century. Measles is characterized by a rash and high fever. It is a highly contagious respiratory disease that spreads through coughs and sneezes. Lingering respiratory droplets in the air also cause infection, so people who enter a room after an infected person leaves are at risk of contracting the disease. Before the widespread immunization efforts in 1963, the CDC estimates up to four million people a year were infected with the measles, with as many as 500 deaths each year resulting from the disease (CDC, 2020c).

The measles vaccine was developed in the 1960s by John Enders and Maurice Hilleman, among others. The measles was considered a mild disease, and prior to the development of the vaccine, most children contracted measles before their fifteenth birthday. The CDC prioritized disease eradication and, as such, implemented an immunization plan in 1978 to eliminate measles. The steps to accomplish these objectives reinforced governmental policies on mandatory childhood vaccinations. While measles was not eliminated, the number of cases was down by 80% in three years. In the late 1980s, however, during the upsurge in cases, the CDC recommended a second dose of the measles vaccine as part of the vaccine schedule (CDC, 2020c).

While public health officials concentrated on eliminating disease, the public at large perceived government intervention as invasive and questioned the usefulness of requiring the ever-growing number of childhood vaccinations, especially for mild diseases such as the measles and mumps. Some parents resisted vaccines. Some chose to selectively vaccinate their children. While some parents wanted to fully vaccinate their children, immunization programs faced federal budget cuts in the 1980s and not all parents could afford the vaccines (Hogan, 2019). It was within this context that the nationwide measles outbreak occurred.

### ***Measles and the Amish Community, 1988***

The news coverage of the Amish population during the measles outbreak looks different than the newspaper reports during the previous two outbreaks. This is due, in part, to the nationwide spread of the measles. The infections were not limited to Amish communities. The measles cases were most concentrated in densely populated cities; however, the Amish provided a newsworthy focus, as they represented a largely unvaccinated segment of the population (Janov, 1990; Young, 1990). The speculation about what might happen when the measles spread among the Amish communities varied (“Area Colleges Avoid Measles,” 1989; Amish Hit by Measles,” 1988; “Amish Measles Increase,” 1988; Hilliard, 1988). These reports channeled the fear and uncertainty of mainstream society.

The first reports of measles in the Amish community surfaced in 1988 and focused on Amish in western Pennsylvania. News accounts indicated the disease entered the community through Amish children who rode the school bus with non-Amish children. Reports note that Amish schools closed, and Amish children were being vaccinated at the request of public health officials (“Amish Hit by Measles,” 1988; “Amish Measles,” 1988; Hilliard, 1988; “Measles Outbreak Hits,” 1988). The health workers note that, while Amish people were largely compliant, it was inconvenient to reach members of the population as they had to go door-to-door. Additionally, tracking the pathways of infection was difficult, as many Amish families did not seek medical care for illness (“Area Colleges Avoid Measles,” 1989).

Like reports on other disease outbreaks, the visiting and travel patterns of Amish across settlements were highlighted in news reports. Measles cases in Geauga County, Ohio, were linked to travel to other Amish communities across the Pennsylvania border (“Fifty Cases,” 1990). An outbreak in Minnesota was attributed to a visitor from Ohio (“Amish Measles Outbreak,” 1990). A person traveling from Wisconsin for a wedding in Missouri was identified as the carrier responsible for introducing measles into the community (“Amish Measles Outbreak,” 1989). The son of the deceased, a man from Michigan who had contact with most people in attendance at a funeral, was blamed for an outbreak in Indiana (Breckenridge, 1990a). Many news reports during 1989 focused on the “what if” aspect of infection. There are fewer news reports of actual outbreaks in Amish communities during this time.

While not evident in Ohio or Pennsylvania, news reports in Indiana displayed a clear prejudice against the Amish (“Amish Blamed,” 1990; Walton, 1990). The headlines of many Indiana newspapers blamed the Amish for bringing measles into the community and suggested the Amish are resistant to the public health initiatives on vaccination. However, the text of the news articles presents a different story. The articles suggest the majority of the Amish in Indiana were indeed following health directives and getting vaccinated (“Some Amish Fail,” 1990). According to health officials, only a few families among the hundreds of people in the population had refused vaccines. Health workers also note they were working with leaders in the Amish community to provide information and had successfully offered immunization clinics, and the Amish had voluntarily closed their schools in efforts to curb the spread of measles (Breckenridge, 1990a, 1990b; “Few Amish Refusing,” 1990).



As with previous outbreaks, news coverage largely indicates the Amish followed health directives during the measles outbreak. However, instances of vaccine refusal were highlighted. The discord around vaccinations in mainstream society is reflected in news articles about the Amish. The reports also stress how the Amish are different from mainstream society, emphasizing certain beliefs and behaviors within the context of the measles outbreak. The coverage of Amish communities during the outbreak may not seem so far distant, as many of the same sentiments were reflected in news stories during the COVID pandemic.

### ***COVID-19***

The news stories in COVID times are reflective of mainstream society. The stance on vaccines is even more divided today than it was in the 1980s. Children's vaccine schedules continued to expand in the 1990s. Parents continued to question the need for all the vaccines. In the late 1990s, a link between vaccines and autism was published. While the autism link has since been discredited, the fear of negative reactions to vaccines remains intact (Conis, n.d.). The COVID pandemic served to widen the gap in the vaccine "camps" and produced a strong political undertone to the medical debates.

The spread of COVID-19 started in 2019, reaching pandemic proportions by early 2020. By May 2022, there were over 82 million cases of COVID reported in the U.S., with at least one million COVID-related deaths (CDC, 2020a). The numbers and the impact of the COVID pandemic are even more astounding when we consider the worldwide impact of the coronavirus. By mid-May 2022, the WHO reported over 520 million cases of COVID and over six million COVID-related deaths (WHO, 2022).

COVID symptoms include fever, cough, sore throat, and loss of taste or smell. Older adults and people with underlying medical conditions are at a greater risk of serious illness, the need for hospitalization, the help of a ventilator for breathing, or even death (CDC, 2020b). Vaccines were introduced in the U.S. in December 2020 and became widely available in the first few months of 2021. As of May 2022, the WHO reported over 11 billion doses of the vaccine had been administered worldwide.

The COVID surge in the U.S. began in March and resulted in—what we might consider by today's standards—extreme interventions by the government. In the early stages of the pandemic, the U.S. government issued restrictions on large gatherings and required masking practices in public spaces. While these sorts of government mandates are not a novel form of intervention during disease outbreaks, the rarity of such measures in the recent past caused the public to respond—either in favor of or against the protocols. The divided response was often imbedded in political terms and provided a rich source of material for the news media.

### ***COVID-19 and the Amish Community, 2020***

As the Amish are often portrayed as a world apart from mainstream society, it is not surprising the media lens focused on Amish communities during the COVID pandemic. A common theme across the news articles was on Amish resisting vaccines. Like in previous outbreaks, the news media

only tells part of the story. And perhaps even more so today, newspapers are less interested in news than promoting a particular viewpoint. The newspaper stories provide a view into Amish communities from the outside looking in.

What happens if we dig a little deeper? What if we try to bring a bit more understanding not only to what is happening in Amish communities, but how context—society—influences the reaction to a disease outbreak more broadly? The ongoing COVID pandemic provides an opportunity to explore further.

To understand how COVID might have impacted the Amish community, we start with some basic information about the Amish. Perhaps the most important point is that relationships are the cornerstone of Amish communities. Amish rely on one another for material and social support (Kraybill et al., 2013). At the onset of the pandemic, the Amish, along with everyone else in the U.S., were faced with government mandates restricting large gatherings and provided with appropriate guidelines for interacting, including social distancing and wearing masks. While everyone reacted in some way to these guidelines, the Amish were at a distinct disadvantage as their core rituals were disrupted. Several Amish churches canceled services early in the pandemic based on advice from local health departments but returned to in-person church a few weeks later. The groups of Amish who followed the government mandates, even if only for a few weeks, were isolated from other members of their community (Corcoran et al., 2022).

While Amish people have been criticized for not following restrictive COVID guidelines, media reports largely fail to consider how community values and practices reflecting those values might be disrupted by government mandates. In addition, we might recognize that the reaction of Amish communities to COVID guidelines did not happen in a vacuum but were influenced, at least in part, by mainstream society. One way to examine how context matters is to look at how people living in different places reacted to government restrictions enacted at the onset of the COVID pandemic. This is what my research team set out to do.

### **An International Exploration**

We used *The Budget* newspaper to explore how international scribe entries differed from those of U.S.-based scribes (Corcoran et al., 2021). *The Budget* is a correspondence newspaper that includes regular reports from scribes across more than 600 communities in the U.S., Canada, and other countries. Scribes are members of Amish or Mennonite communities that write into *The Budget* with reports on local news and happenings in their community. In March of 2020, many scribes were writing about the impact of COVID on their communities. Many of the international entries in *The Budget* are submitted by Amish and Mennonite missionaries who are located outside of the U.S.

It is important to note that I am making a shift here from primarily referring to the Amish to focusing on Conservative Mennonite missionaries. The Amish and Mennonites are two distinct groups that share similar values rooted in the Anabaptist tradition. Early Anabaptists emphasized the separation of church and state, indicating that the church should be free of government control. The importance of church and following God's law is prominent in all Anabaptist groups today.

While following biblical teachings remains a central component, church members try to live their faith through daily actions. The church's organization as a spiritual and social community creates a structure conducive to helping others and strengthens bonds across members. Anabaptists believe people should decide to follow God's law and, as such, adhere to the practice of adult baptism to join the church (Hostetler, 1993; Kraybill et al., 2013; Yoder, 2003).

In short, the Amish and Conservative Mennonites share core beliefs. As such, we might expect that these groups would react similarly to the pandemic. But while U.S.-based scribes were primarily writing about how they were dealing with the restrictions imposed by the government, missionary scribes seemed to not only accept the restrictions, but embrace them. Missionary scribes seemed to accept without question that COVID was a dangerous disease rather than an inconvenience that must be endured. We use the concept of moral worldviews to explore how country context matters in perceptions of the pandemic.

Religious moral worldviews help people make sense of their world. To understand how they operate, we might think of worldviews as having four layers. At the center is a moral core, which coordinates unchanging commitments imposed by a worldview. The core is the center of the belief system and is shared across all members of the group who share the same worldview. The second layer contains moral values derived from the core. These values are relatively constant across people sharing a worldview. The third level represents behaviors and attitudes, translated from the moral values, and include economic and political positions. The translation of values varies across people. The fourth and final layer includes, for example, protocols of social interaction, practices of worship, and tastes in music. This layer is the most varied as it is the farthest from the moral core (Wellman and Keyes, 2007).

We proposed that while Anabaptist missionaries maintain their moral core—the same as their U.S. counterparts—the outer layer of their worldviews differ from U.S.-based Anabaptist groups. We suggest the cultural and geographic contexts of the country help shape the outer layers of the religious worldview and drive behavior. In contrast to Anabaptist groups in the U.S., missionaries are involved and engaged with the communities in which they reside. As such, communication is not so focused on intragroup interactions but includes interaction with outsiders as well. Missionary scribes note they spend time getting to know the members of the communities they serve and, as such, learn about different religious and cultural practices. This interaction opens them up to diverse worldviews, including past experiences with public health crises (Corcoran et al., 2021). In Liberia, for example, the scribe recalls memories of Ebola and the food and water shortages that resulted during this epidemic. The COVID restrictions enacted in their countries of residence affected people's ability to work and attend school. The ability of organizations to secure donations was impacted by limited travel and vehicle restrictions. As a result, food, hygiene, and financial inequalities were amplified. The ability to see these inequalities firsthand led a scribe in Iraq to report feeling privileged.

Missionary scribe letters in *The Budget* suggest that the missionaries fully supported COVID-19 restrictions. Several missionaries mentioned wearing masks without criticizing the requirement. A scribe in Iraq noted that mask-wearing should reduce the virus's spread. In some cases,

missionary groups self-imposed more limited restrictions than outlined by government officials. Writers in Liberia and Iraq implemented self-imposed quarantines and continued lockdowns on themselves. The scribe in Liberia, for example, notes they were in lockdown for 127 days, remaining in quarantine after the government restrictions had ended.

The lack of criticism was also evident regarding strict lockdown procedures. Of note, other countries enacted and enforced lockdown to a much greater degree than was done in the U.S. For example, in Ukraine, pastors who did not close their churches were faced with fines or prison time for violating the government orders. In West Africa, the missionary scribe notes only vehicles carrying food or medical supplies with a government-issued pass were able to be on the roads. Even with these restrictions in place, the scribe notes that everyone remains in good spirits.

These results suggest that perceptions of the pandemic and government restrictions may not be intrinsic to the moral worldviews of Amish and Mennonites. Instead, certain contexts may trigger some aspects of their moral core and not others that shape the outer layers of their worldviews. For example, while missionaries may not have fully supported the governmental restrictions, they witnessed the direct negative effect of COVID-19 on the communities. The ability to see the devastating effect of a public health crisis firsthand may have triggered the moral core belief of “do no harm.” The same effect was not replicated in their U.S. counterparts (Corcoran et al., 2021).

### **Amish Values**

What we learn from this analysis is that the way Amish and Mennonite groups are responding to COVID-19 is due, in part, to where they live—the social context. The Amish and Mennonites have a core belief that individual and social responsibility are tightly linked. They believe that they have a moral obligation not to bring harm or injury to anyone (Corcoran et al., 2021). We see evidence of “do no harm” in past outbreaks. It is also emphasized in *The Budget* entries from international communities. However, within the U.S., where COVID and political climate are tightly linked, the Amish may be more likely to focus attention on other core values related to their faith and the community. In fact, many U.S.-based Amish and Mennonite scribes reaffirmed their faith in God and, to some extent, recognized the positive aspects of the pandemic in their entries.

My research team was interested to see how the Amish engaged religious-based coping mechanisms to deal with the disruption to their core rituals and beliefs. Overwhelmingly, we found the emphasis was on belief in God as a coping strategy. We saw many statements such as “God is in control,” “He is always there,” “He helps and protects His people,” “Put your trust in God, rely on Him and you will have peace.” Fully trusting God and believing that God is in control is consistent with the Amish and Mennonite belief system. We also found evidence of what we call a collaborative problem-solving approach to religious coping, where one believes that God is a partner to be worked with, who shares the responsibility for solving the problem. We see this in statements such as “Trust in God but do your part too, God is in control, but He expects His people to take care of each other as well” (DiGregorio et al., 2021).

We found evidence of positive reactions to COVID, where scribes note the pandemic was forcing people to slow down and enjoy home and family. Scribes noted that, with the restrictions

on gatherings, they now had more time for hobbies and gardening. Related, many scribes also wrote about connections to the bigger picture, with statements such as “life goes on” and “this too shall pass.” Religious coping is clearly used by the Amish and Mennonites to make sense of and deal with things out of their control. We see coping as a way people try to find meaning in life’s trials. Religious coping among the Amish does not embrace government restrictions but uses religion as a way to deal with them (DiGregorio et al., 2021).

Consistent with core values among the Amish, the coping language used by the scribes focuses on living well. This emphasis is different from that of mainstream society, which is more likely to prioritize living long. The distinct values highlight how cultural differences might matter in terms of public health initiatives. For example, the strategies employed by public health officials to curb the pandemic, and disease outbreaks more generally, match up with the overall goal of living a long life. To accomplish this goal, it is important to be healthy. The public health response to the COVID pandemic was similar to other outbreaks: vaccinate. Public health officials are responsible for managing health care institutions, ensuring that people can get the care they need. By controlling the number and spread of COVID infections through vaccines, medical personnel can deliver adequate care.

## Conclusion

Disease is constant. I outlined four disease outbreaks that happened within the past eight decades. These are certainly not the only examples throughout history. The commonality across each rapidly spreading disease is the response of the public health system: vaccinate. While immunization practices have changed over the decades, the reliance on medicine has been relatively constant. What has changed most markedly is people’s response to disease and to vaccination. People’s attitude toward science more broadly and government intervention has also changed over the years.

With COVID, we experienced the onset and proliferation of a novel disease. Part of what made COVID so frightening for many people, especially at the beginning of the pandemic, was that there was no cure and no way to treat the disease. The measures taken by the government before the development of the COVID vaccine focused on stopping the spread of the disease in efforts to keep hospitals from being overrun. Interventions by the government to curb outbreaks are not new. In fact, in the case of smallpox in the 1940s, government and local officials set up road blockades to quarantine over 8,000 people in 40 square miles of Pennsylvania’s Big Valley to keep the disease from spreading. In a time of war, the country was bound together with a purpose and people largely accepted the strict government regulations. We saw similar restrictive measures employed by governments in other countries in response to the onset of COVID. The requests by U.S. government officials to isolate and limit large group gatherings may seem lenient by comparison.

The COVID vaccine was being developed as infections spread. This, too, fed the fear surrounding COVID. Not only was a disease running rampant across the world, but the fix—the vaccine—was developed in record time. The spread of the disease and the push to utilize the rapidly developed vaccine was embedded in political rhetoric, in large part, by the media. The

linkage between medicine and politics helped to create a divided society. In some cases, people felt the restrictions provided safety and they embraced the limitations. Others pushed back, intent on keeping their individual freedoms and remaining unrestrained from government control. While politics may drive some explanations of vaccine resistance today, social movements, individual rights, and an emphasis on freedoms have long been a part of the historical response to government interventions.

Throughout history, disease has known no bounds. Disease doesn't care about religion or beliefs. How we deal with disease changes. Society changes. The medical response changes. Our reaction to the public health system changes. Through these responses, we can learn about communities. We can learn about core values. We can learn how context matters in terms of how people think about a disease. How they respond to public health initiatives. And, in an ideal world, understanding community reactions to epidemics would allow the public health sector to adjust their initiatives to consider group values that drive behaviors. Such consideration can make directives less divisive in an ever-changing and politicized world.

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