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RESEARCH ARTICLE

# Endogenous public health responses in Orthodox Jewish communities during the COVID-19 pandemic

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**Abstract**

Endogenous public health responses include the individual behaviours, community-based organizational responses, and informal rules that resolve economic problems during public health crises. We explore the relevance of endogenous responses in Orthodox Jewish communities during the COVID-19 pandemic. We analyse Orthodox newspapers in New York City and find that (a) rabbis advised their communities on how to stay healthy and observant to their religious beliefs; (b) rabbinical councils and advisory boards provided private, public health guidance; (c) private, Jewish ambulatory services provided religiously sensitive healthcare; (d) Orthodox Jewish schools privately provided public health services; and (e) community members altered religious rules, rituals, and traditions to mitigate the spread of the virus. While these responses did not occur seamlessly or without conflict, the Orthodox community worked diligently to provide public health services to remain healthy while also observing religious traditions. Our paper provides shows how communities develop endogenous public health responses during crises.

**Keywords:** COVID-19; economic problems; institutions; Orthodox Jews; pandemics; *pikuach nefesh*; public health

**JEL Codes:** B52; I18

## Introduction

Distinguishing between exogenous and endogenous public health responses highlights the varied effects institutions have on behaviour and clarifies ways to better understand the determinants of public health. Public health crises typically call for exogenous, governmental responses like lockdowns and social distancing. Endogenous, community-based responses, like the coordination provided by local leaders and the development of social norms, however, are also relevant responses. Whereas exogenous responses are solutions to 'technical problems' – problems that involve directing scarce resources towards a given end selected by an exogenous authority, like lowering cases – endogenous responses are solutions to 'economic problems' – problems that involve directing scarce resources towards several ends, selected by individuals in a community, like lowering cases *and* maintaining religious values. The unintended consequences of governmental, Covid-19 policies – meant to pursue the singular goal of lowering cases – further demonstrates the contrast between exogenous and endogenous public health responses as there were rising rates of mental health problems, especially among young and elderly populations (Cénat *et al.*, 2022; Oliveira *et al.*, 2022; Pieh *et al.*, 2021; Vahia *et al.*, 2020; Wang *et al.*, 2020); intimate partner and family violence (Abu-Elenin *et al.*, 2022; Letourneau *et al.*, 2022); learning deficits, particularly among underprivileged children (Betthäuser *et al.*, 2023; Kuhfeld *et al.*, 2022); and large, permanent exits of service workers, particularly Black women,

(Goldin, 2022). Many margins of life were ignored as governments responded to the pandemic in technical ways.

Aside from exogenous public health responses, Orthodox Jewish communities in New York provide an opportunity to understand how endogenous public health responses facilitate the pursuit of varied ends like improving health and maintaining religious practices, gathering with family, etc. While there might be many components to such responses, we focus on the voluntary responses and rules devised to improve public health. These responses and rules follow from the demand for health improvements and from a community's pre-existing values, rules, and customs. As such, endogenous public health responses address economic, rather than technical problems, as they tend to maintain or alter religious and other cultural values and practices while also improving public health. Importantly, we do not claim that communities provide better healthcare than governments in terms of reducing case and death rates. This is an empirical question for future research. Our focus is on how Orthodox communities used endogenous responses to address the economic challenges of the pandemic, enabling them to maintain their religious and social practices.

A primary implication of our study suggests individuals and communities are more coordinated than previously realized. Such coordination becomes particularly relevant when private actors develop multiple levels of governance (E. Ostrom, 1990 and V. Ostrom, 1997). During the pandemic, Orthodox Jewish communities were often ridiculed in the media for their reticence to comply with and opposition to authorities. Our framework and analysis suggests that individuals in these communities acted rationally during the pandemic to pursue a wider range of values and community-specific goals. They were trying to resolve economic problems regardless of attempts by public health authorities to solve technical ones.

We proceed as follows. Section 'Institutions and endogenous public health' develops an institutional analysis of emergent public health institutions. Section 'Health and Judaism' provides background information of Orthodox Judaism and health. Section 'Methodology' specifies our case study methodology: a content analysis of several major, New York City-based, Orthodox newspapers, chosen through readership numbers and newspaper aims. Section 'Findings' examines our findings and details how Orthodox communities managed to improve public health and pursue religious objectives during the pandemic. Section 'Discussion' discusses our findings and explores alternative explanations. Section 'Conclusion' concludes.

## Institutions and endogenous public health

### *Endogenous and exogenous institutions*

The literature on new institutional economics explores the impact of institutional arrangements such as laws, regulations, and social norms, on behaviour and outcomes. Importantly, this literature delves into the interplay between endogenous, bottom–up, ecological, or informal institutions, which emerge from within societies through collective interactions, and exogenous, top–down, constructivist, or formal institutions, which are typically imposed by external authorities.[1]

For instance, Boettke *et al.* (2008) develop a framework to examine cases where exogenous institutions are imposed on a community's 'skills, culture, norms, and conventions' (p. 338). Endogenous institutions are crafted by an indigenous population and are institutions that account for the community's underlying conditions like skills, culture, norms, and conventions (Boettke *et al.*, 2008). Formal authorities typically impose exogenous institutions. Institutional stickiness, or how well an exogenous rule operates and lasts, depends on the alignment between a community's underlying conditions and that exogenous rule (Boettke *et al.*, 2008). Distance between a community's underlying conditions and

[1]Following many new institutional economic papers, including Acemoglu *et al.* (2005); Rodrik *et al.* (2004); and Boettke *et al.* (2008), we use the language of endogenous and exogenous. Easterly (2008) opts for bottom–up and top–down language, while North (1990) and Williamson (2009) opt for informal and formal language. Smith (2008) develops the distinction between constructivist and ecological rationality and how they influence different kinds of institutions.

exogenous rules creates the potential for error and less 'stickiness', as planners – even if they are members of a community – might fail to incorporate local knowledge (due to ignorance or inaccessibility to such knowledge). Thus, exogenous rules tend to be effective when they align with a community's skills, culture, norms, and conventions. Central to this argument is Hayek's (1945) knowledge problem that knowledge is decentralized and tacit, making it hard to recognize and quantify absent interaction and adjustment like in market systems. Members of a community are most knowledgeable of local circumstances, whereas policymakers absent from such communities have less access to such knowledge. Such insights help explain features of institutions like how informal institutions constrain formal institutions (Williamson, 2009, p. 379; Easterly, 2008). During the COVID-19 pandemic, for example, formal restrictions only encouraged compliance if they complemented informal institutions (Bentkowska, 2021).

Other approaches in new institutional economics advance related arguments about exogenously imposing rules. Cognitive institutions, such as shared beliefs, values, norms, and mental models, often guide individual behaviour, they are interactively crafted, and influence underlying skills, norms, and conventions (Frolov, 2022a, 2022b; Grief and Mokyr, 2017).[2] Moreover, institutions are path dependent or are largely shaped by what came before; once established, institutions can be difficult to change (North, 1990; Pierson, 2000).

### *Endogenous responses to crises*

Individuals, civil society organizations, and communities often use shared strategies, norms, and rules to self-govern, co-produce, and adapt to changing conditions during natural disasters and public health crises (Ostrom, 1990; Ostrom and Crawford, 2005). In response to hurricane Katrina, for example, communities were essential for disaster recovery (Chamlee-Wright and Storr, 2010, 2011; Grube and Storr, 2018; Storr *et al*., 2017; Storr *et al*., 2015).

Individuals and communities also develop endogenous responses to public health crises. Individual entrepreneurs and communities played key roles in the recovery during the COVID-19 pandemic, despite regulatory constraints (Behr and Storr, 2022; Carson and Khurana, 2020; Haeffele *et al*., 2020). Relatedly, polycentric governance might avoid the unintended consequences of country-wide regulations (Haeffele *et al*., 2022). Below, we show that religious leaders like rabbis and other community leaders are key ways to help resolve economic problems. Relatedly, co-production of pandemic recovery – or the extent to which individuals coordinate with others to bring about recovery – is important to consider, especially because social and community entrepreneurs often play a large role in the provision of recovery (also, see Rayamajhee *et al*. 2022; Rayamajhee and Paniagua, 2021, 2022).

### *Developing endogenous public health institutions*

Given individual and community-wide values for private and public health, among other values, a community's underlying skills, culture, norms, and conventions helps participants to pursue their valued combination of public health improvements and other goals. Moreover, endogenous responses and rules tend to reflect how people make trade-offs in ways that are consistent with their goals. That is, individuals might prioritize public health improvements over economic or cultural goals. Endogenous responses to crises (like a pandemic) emerge from historical and cultural contexts that have been shaped by many factors over decades and centuries. These responses and rules are valuable and meaningful because people within a community helped to craft them, the responses and rules incorporate local knowledge, and they resolve economic problems.

The following factors also shape endogenous public health responses: voluntary behavioural changes in response to changing prevalence rates (on prevalence-elasticity, see, Philipson, 2000);

[2]We thank an anonymous reviewer for pointing us to this research, which tracks with how Orthodox Jewish populations interactively craft cognitive institutions.

more relevant knowledge about how to avoid infection (Mokyr, 2000; Mokyr and Stein, 1996); and local rules and social capital resources people might use to encourage prevention (Carson, 2023; Mulligan, 2023). For example, Maltsev (2023) argues that endogenous public health responses in Russia were often more appropriate than exogenous responses. Similarly, Carson (2024) shows that endogenous responses to yellow fever epidemics were often appropriate given that individuals and communities faced lower transaction costs and municipal governments were dysfunctional.

Public health externalities might remain and might diminish the effect of endogenous public health responses, especially when individuals interact across communities. We leave such matters for subsequent research for two reasons: (1) it is outside the scope of the paper, given our focus on clarifying the role of endogenous public health institutions, and (2) there is a growing literature, primarily in public choice economics, that suggests public health externalities are either less indicative of market failure than commonly noted (Albrecht and Rajagopalan, 2023; Carson, 2021, 2022; Leeson and Rouanet, 2021; Mulligan, 2023) or less of a justification for an exogenous public health authority given incentive and knowledge problems (Boettke and Powell, 2021; Coyne *et al.*, 2021; Hebert and Curry, 2022; Koppl, 2023; Leeson and Thompson, 2021; Storr *et al.*, 2021; Sunstein, 2020; Wagner, 2021).

## Health and Judaism

Orthodox communities have developed endogenous public health institutions for centuries. While there are slight variations between communities (e.g., between Orthodox Jews in New York and in Israel, see Don-Yehiya, 2005), we focus on key tenets that are present in the lives of all Orthodox Jewish people – specifically about health and the spread of infectious diseases like COVID-19.[3] As we are focusing on COVID-19, we ignore the well-known rules regarding *kashrut* (keeping kosher), which involves no mixing meat and dairy, no pork or shellfish, eating only kosher certified meat, among other rules.

*Halakha* observance is the hallmark of Jewish Orthodoxy, and it delineates Jewish observers from Orthodox. In general, this system incorporates God into every aspect of life (food, worship, health, etc.), and it eschews compromise.[4] Rabbinic authority, another tenet of Orthodox Judaism, goes hand-in-hand with *Halakha* observance. Rabbis exert an authoritative and intimate influence over the lives of congregants within a synagogue and provide guidance on many matters.

The Jewish tradition – formed from centuries of community-specific problems – also incorporates rules about individual and public health to lead a faithful life. During the Black Plague, for example, it is believed that the Jewish community had proportionally lower mortality rates partly because of their emphasis on hygiene and cleanliness (Marcus, 1999).[5] Bans on pigs also helped limit disease externalities (Leeson *et al.*, 2024). The Jewish faith strongly encourages vaccinations (including during COVID-19), which can be traced to the Torah and Jewish law (Muravsky *et al.*, 2023).[6] The emphasis on health is so important in the Jewish tradition that it constitutes an exception when one may break their observance of *Halakha*. *Pikuach nefesh*, roughly translated to 'saving a life', is a principle of *Halakha* that the preservation of life can be used to disregard other religious rules. One may break the prohibition of technology during the Sabbath, for example, if not using technology would genuinely lead to the loss of life. When in conflict, one must prioritize preserving life over any religious obligation.

[3]While there is a split between ultra-Orthodox Judaism (Haredi Judaism) and Modern Orthodox Judaism – the former is largely closed off to outside communities and the latter is not – this split does not alter our case studies and content analysis about how communities created endogenous solutions to the pandemic.

[4]On changes to Halakha rules during COVID, see Trencher (2021).

[5]Leading up to Passover in 1346, Jewish households participated in the standard ritual of deep-cleaning their homes. Less dirt and crumbs in the homes, it is thought, brought fewer rats, which means fewer fleas that lived on rats who carried the plague entered Jewish homes (Marcus, 1999; Chein *et al.*, 2017).

[6]We thank an anonymous reviewer for pointing us to this research.

*Tefillah*, or daily prayer, is another Orthodox custom with public health implications. Prayer, Torah studies, and other religious services often must be performed with a group of people – usually men over the age of 13 in groups of at least 10 – in what is known as a *minyan* (Kogan, n.d.).[7] For certain holidays and events, a *minyan* of 30 is necessary.

*Mikvah*s are religious, cleansing baths used by men and women to obtain purity, to mark the end of menstrual cycles, and the beginning of holidays or Shabbat. Orthodox traditions also stress hand-washing, nail-trimming, showering, and even the safe storage of excrement. Hand washing, for example, is done in many instances, including, but not limited to, when one wakes up, before eating, after eating, and after touching certain body parts (e.g., the scalp). It is also common to cut one's nails prior Shabbat, which decreases the amount of bacteria under one's nails, and to shower prior to Shabbat.[8] The Torah also discusses the need to safely dispose of one's excrement, even in extreme situations like during battle (Deuteronomy 23:13-15). Jewish communities throughout the world also have private health organizations that predated the COVID-19 pandemic, which consist of medical supply allocation systems, ambulatory services, and underground hospitals. We discuss these organizations at length in Section 'Findings'.

## Methodology

To ensure construct and internal validity (Yin, 2018), we employed the following research method focused on Orthodox Jewish communities, which are known to be tight-knit. We examined articles from online newspapers closely related to these communities, all based in New York City. Articles cover communities in New York City and adjacent New Jersey counties. We refer to this area as New York City, specifying when a New Jersey case is involved.

New York City's diverse public health issues, due to its population and density, provide construct validity. Members of Orthodox communities here must balance public health and religious goals, unlike smaller urban areas with fewer public health concerns and smaller Orthodox populations. We develop internal validity through pattern matching, creating narratives about how Orthodox Jews in New York City responded to COVID-19. We describe responses of rabbis, councils, and organizations, local ambulance services, Orthodox schools, and changes in religious rules and traditions. Each section below illustrates how Orthodox values and endogenous public health institutions addressed public health and religious obligations.

To develop these narratives, we review online newspaper outlets that are widely known for their coverage of issues related to Orthodox Jewish communities. We focus on *The Jewish Week, The Jewish Press,* and *Hamodia* as these are the outlets with some of the largest number of subscribers, readers, and X (formerly Twitter) followers. *The Jewish Week* has 55,000 weekly readers, *The Jewish Press* has 50,000 weekly readers, and while data were unavailable on Hamodia's weekly readership, they are consistently ranked as one of New York's top, 'most powerful' Orthodox Jewish newspapers (see Chizhik-Goldschmidt, 2015).

The varied size and scope of these media outlets reduce selection bias. *The Jewish Week,* owned by the Jewish Telegraphic Agency, is the largest online outlet in our selection and covers items relating to Jews and Orthodox Jews alike. Most of the articles we draw on from *The Jewish Week* are from its affiliated outlet, *The NY Jewish Week*, which focuses on events in the New York area. The *Jewish Press* is an independent online newspaper covering general topics on Israel, New York, the Jewish People, and other world topics. The print edition of the *Jewish Press* traditionally focuses on championing 'Torah values and ideals from a centrist or Modern Orthodox perspective'. The online paper *Hamodia* presents journalism through the 'Torah perspective' and also covers items of general interest to the Jewish community.

[7]The need for such a quorum comes from Numbers (14:27) and (16:21).

[8]See Lev (2015) for more information on Jewish hygiene practices.

These articles are useful in describing the behaviours of individuals, their thoughts and perceptions, the descriptions and perceptions of reporters, and a timeline of events. They also help generate broader themes and patterns, which we highlight. We refine our search of these outlets between March 1, 2020 and Dec. 31, 2020 to provide the initial and lasting responses to COVID-19. Because vaccinations were available in late 2020 and more so in 2021, our focus on 2020 highlights the extent to which Orthodox communities used their endogenous institutions to respond to the pandemic rather than vaccines. The articles we included in our descriptions are based on the following keyword searches: 'covid', 'COVID-19', 'orthodox', 'orthodox AND covid', 'outbreak', 'wedding', 'funeral', and so on. After reviewing hundreds of articles, reconciling repeat articles and articles that were included but not pertinent, we find approximately 80 articles from the *Jewish Week*/*NY Jewish Week*, 25 from the *Jewish Press,* and 20 from *Hamodia* that included our search terms and were relevant for our analysis.

From these articles, we conducted a content analysis in which we analysed key themes. We coded the articles into several categories that emerged during our content analysis: (1) rabbis leading communities, (2) rabbinical councils and other Orthodox councils providing public health advice, (3) private, Jewish ambulatory services, (4) schools providing public health services, and (5) amendments to religious rules, rituals and traditions. These articles, along with other primary and secondary sources, help to form our case studies below.[9]

## Findings

### *The role of rabbis*

During COVID-19, rabbis significantly influenced their communities' adherence to public health orders, emphasizing the Jewish faith's focus on health (see, for example, Hamodia Staff, Sep. 27, 2020). As discussed in Section 'Introduction', religious leaders play an important role during and after disaster scenarios, helping spread advice, guidance, and fostering a sense of 'togetherness' (see Chamlee-Wright and Storr, 2011).

One common message that emerged from rabbis during this time was that the Orthodox Jewish faith indicates the priority of health and the value of life above religious practices like worshiping in person (*pikuach nefesh*). New York Rabbis closed or limited synagogues – engaging in co-production of public health. In Crown Heights, one group of Orthodox synagogues (the Beth Din) ordered all synagogues and men's *mikvahs* closed (Lipman, March, 2020b). In Manhattan, a synagogue that decided to halt all services and classes issued the following statement, justifying their closings by emphasizing the relationship between faith and health: 'We strongly believe that safeguarding health is a Halakhic priority, one that requires us to act boldly to protect our community, our neighborhood, and beyond. We know that this requirement supersedes any requirement of congregational prayer' (Lipman, 2020c). The Jewish Center, an upper-West Side congregation, closed its doors for similar reasons (ibid). A rabbi who leads an Orthodox boys school in Queens admonished his community over the spread of the COVID-19: 'If you do not comply with the masking rules, you are responsible for the deaths of older relatives of those whom you infect' (Dreyfus, 2020c). Renowned Orthodox Rabbi Yakov Perlow released a statement in which he said, 'We're told that the halacha (Jewish law) that we must listen to doctors, whether it's about a sick person or Yom Kippur' (Julian, 2020a). In the New York Jewish Week, one well-known rabbi followed Torah readings and other Jewish thinkers, like Maimonides, and wrote 'Halacha calls on us to be more careful with protecting our lives than with fulfilling ritual obligations' (Gradofsky, 2020). In other words, the Jewish faith, and the Orthodox's particular emphasis on *Halakha*, means that those who take their faith seriously should prioritize health and life above worship obligations.

[9]These cases establish internal validity, but we cannot fully address external validity given the absence of a counterfactual and other relevant community-level factors like income, education, and social identities. We address the nature of case study analysis and these implications in Section 6.

Other synagogues remained open but rabbis in charge restricted what events took place, again emphasizing their value for life and helping co-produce public health. The Manhattan Sephardic Congregation, for instance, suspended all food-related events like Shabbat meals (Lipman, 2020c). The Lincoln Park Synagogue and the Jewish Theological Seminary moved their worship services online (*ibid*). In New York City, Rabbi Berlin also moved his synagogue's services online via Zoom and held a monthly 'community challa-bake' and a regular 'musical havdalah' to mark the end of Sabbath (Dreyfus, 2020d).

In many cases, rabbis also sought input from public health officials, highlighting rabbis' ability to co-produce public health. If the Jewish faith is one that takes health seriously, then Orthodox leaders reasoned that they should receive advice from public health experts. The Orthodox Union, for example, is a national organization representing Orthodox Jewish synagogues, which initiated and organized a call with Jerome Adams, then-US Surgeon General to learn more about how to safely celebrate the High Holidays (Hanau, 2020a).

Contrary to common perceptions about Orthodox communities in 2020, many rabbis encouraged their congregants to follow public health advice and orders based on the Jewish faith's emphasis on health. Not all rabbis were so encouraging, but most were. In one extreme case, a Jewish reporter was physically attacked by Orthodox Jewish members in Brooklyn because he was reporting on the lack of masking and unwillingness to follow gathering restrictions (Hanau, 2020b). This protest and violent attack was led by Jewish leader and activist Heshy Tischler, who is well-known for his anti-mask, anti-vaccine, and pro-Trump rallies. Tischler was arrested and charged following this riot. However, the New York Board of Rabbis condemned the violent protests by calling them 'shameful' and followed up by saying that the Jewish community should follow public health guidelines (Israel, 2020a). Of course, even if rabbis advocated for following public health guidelines, this does not mean congregants necessarily follow, despite rabbinic authority. There are also other examples of funerals, weddings, and other gatherings that occurred either with the encouragement of some rabbis or at the very least, with their indifference (see, for example, Dreyfus, 2020e and Hanau, 2020c).

Our content analysis suggests that the Orthodox faith places a large emphasis on health as a means to prolong life, and that one *should not* sacrifice that end for the sake of religious practices. These findings contradict messages that Orthodox Jewish communities did not care about public health guidelines because they restricted the Orthodox community's ability to worship. Moreover, our analysis suggests rabbis were clear leaders, acting as instruments to co-produce public health.

### *Rabbinical councils and orthodox organizations*

Rabbinical councils and larger communities of rabbis bolstered the rules and guidance provided by individual rabbis, which highlights the ability of communities to co-produce public health. Members might disagree with their rabbi, but it becomes harder to disagree with the pronouncements of a larger group of rabbis or a council. By March 12, 2020, for example, the Rabbinical Council of Bergen County, New Jersey – a short drive from Manhattan – had met with every local rabbi and public health authorities to determine appropriate responses. The council banned all public Jewish events (including home-based prayer meetings or *minyans*, shared meals, and mourning rituals or *shiva*) and ordered the closure of its synagogues in Teaneck, Englewood, and nearby areas. In conjunction with those orders, the council encouraged people to recite their prayers at home, refrain from public celebrations, hold digital *shiva*, and limit funeral attendees (Lipman, 2020c). A public statement read, 'These measures are adopted as a reflection of our overarching commitment to the sanctity of human life…' (Lipman, 2020a). Still, many were upset about the closures, at least initially (Lipman, 2020c).

Other rabbinical councils took similar measures, which encouraged behaviour and operations to improve public health and pursue religious obligations (Hamodia Staff, Sep. 27, 2020). For instance, rabbinical leaders from the top American Orthodox Jewish organizations released a statement in March 2020 detailing their closure of synagogues and schools because of the sanctity of health and its connection to the Jewish faith: 'We have done so because as observant Jews we have an obligation

to place supreme value on protecting human life' (Lipman, March, 2020a). In Rabbi Daniel Sherman's announcement on the closing of the West Side Institutional Synagogue, New York, he cites his consultation with the 'shul's board, along with other rabbis from within our broader Manhattan community' (*ibid).* The Long Island Board of Rabbis and their affiliated synagogues also issued similar statements (*ibid).* Rabbi Joseph Potasnik, President of the New York Board of Rabbis, stated that 'Halachically…the preservation of life – maintaining health – is of paramount concern.' Moreover, 'We don't put ourselves in a vulnerable position health wise; that has to be the dominant thing. And you have to be guided by people with expertise in this area' (Ain, 2020). The New York Board continued to issue guidance and criticism. In response to a Borough Park protest of COVID-19 restrictions in October 2020, the Board called the protests 'shameful' (Israel, 2020a, 2020b).

Groups of rabbinical leaders also indicate the importance of endogenous responses. Knowledgeable, trusted members of Orthodox communities in positions of authority – beyond a local rabbi and below a public health official – were influential in making new rules and offering guidance. On March 20, for example, six Orthodox and rabbinical organizations from a 'broad spectrum of organized Orthodox Jewry in the United States' issued a joint statement on their 'collective view' that the appropriate response to COVID-19 was the 'shuttering [of] central fixtures of our lives – our shuls, yeshivos and schools – and certainly to eliminate other gatherings' (See the Appendix, Statement 1; also Borchardt, 2020). The organizations – based in New York and in New Jersey – included Agudath Israel of America, the Orthodox Union, the National Council of Young Israel, the Rabbinical Council of America, among others (Lipman, 2020b). Such statements bolster the guidance provided by individual rabbis and rabbinical councils.

These endogenous responses became relevant during the reopening phases during the summer of 2020. Informed by a medical advisory panel and the guidance of *Poskim* (religious-legal scholars), the Rabbinical Council of America and the Orthodox Union released a 13-point guide for gradually reopening synagogues (Appendix, Statement 2). Their guidance is meant to 'chart the course suited for local conditions, based on informed medical opinion and the values and Halachic approaches…' The document stresses caution and the gradual nature of reopening, community-specific factors, and other measures appropriate to improving public health and the cultural and religious purpose of religious schools and synagogues. For example, they recommend being flexible with reopening plans, including the possibility of closing again if cases spike. They also emphasize the need for crowd control measures, such as reducing seating capacities and using ushers to ensure social distancing.

Approved by the Moetzes Gedolei HaTorah – a group of senior rabbinical leaders – Agudath Israel of America issued their own guidelines for reopening (Appendix, Statement 3). This document notes that communities need their own guidance 'tailored to our own realities', which might impose strictures beyond what local and state public health authorities require – all in the name of *Halakha* (*ibid*). In partnership with the Jewish Federations of North America and the Conference of Presidents of Major American Jewish Organizations, the Secure Community Network also released reopening guidelines similar to the ones discussed above ('Back to Business: A Jewish Community Guide for Reopening Facilities and Resuming Operations in the Age of COVID-19') (Lipman, 2020d).

### *Local ambulance services*

Hatzalah, a volunteer emergency medical service organization primarily serving the Orthodox Jewish community in New York City and in other Jewish communities, played a crucial role during the COVID-19 pandemic. With deep community ties, Hatzalah provided essential emergency medical care, transporting patients to hospitals, and offering support to those in need throughout the pandemic.[10] Hatzalah's unique cultural and linguistic competence allowed them to bridge gaps in healthcare access and provide culturally sensitive care, particularly vital during a time of heightened stress

[10]The Shomrim of Flatbush – a local, voluntary police force – also provided logistical support and oxygen supplies to Hatzalah members and patients in Flatbush (Jewish Vues, April 22, 2020a).

and uncertainty.[11] There are approximately nine Hatzalah chapters in New York, some of which have multiple divisions that serve numerous communities; the Chevra Hatzalah, for example, serves 16 branches throughout New York State.[12]

In March 2020, the Boro Park Hatzalah branch in Brooklyn reported an increased call volume of over 250% (Ami Magazine, 2020). Chevra Hatzalah in New York City issued announcements and stringency guidelines – as early as March 18, 2020 – advising the closings of schools, yeshivas, men's mikvah, schools, minyanim, and other public gatherings. These announcements, backed by the Executive Board and Medical Board of Chevra Hatzalah, also came with an appeal to local values:

> 'We implore you to take this seriously. Failure to do so is Sakanas Nefashos [a danger to life]. We are taking this action with tremendous pain and tzaar [grief], but there is no choice. We are sure that Hashem [God] is listening to our tefillos [prayers], and we are asking everyone to increase their tefillos to הקב'ה [**God**] In this zechus [spiritual rewards that follow work], may we be zoche [fortunate] to return to our shuls, other communal institutions, and our normal lives very soon" (Author's translation in brackets. Appendix, Statement 4).

A female counterpart to the Hatzalah, the *Ezras Nashim*, also formed in New York City (Liphshiz, 2020). Just as Hatzalah is important, this group provides care for Orthodox women who 'might not wish to be treated by male staff for modesty reason' [*sic, ibid*].

Hatzalah does not only provide ambulatory services. They also serve as a general source of medical information and guidance. It was not uncommon, for instance, for a local Hatzalah chapter to issue alerts on rising case rates, or issue guidance on how to worship safely. In August 2020, when outbreaks in Orthodox communities in New York City were increasing, local Hatzalah branches warned about rising case rates and advised community members on how to proceed: 'The Coordinators and Board of Hatzoloh of Rockland County urges all members of the community to please wear masks while in places that you cannot effectively social distance' (Hanau, 2020d). Around the same time, the NYC Central Hatzalah published a strong statement:

> If we aren't extremely strict and careful with following the recommendations of the CDC, State and Local Governments, and other healthcare professionals, we can God forbid see a deadly resurgence. There has been enough death and suffering in our community from COVID-19. We must do our part to prevent the spread and to help keep the vulnerable people in our community safe" (Julian, 2020b).

It seems clear that Hatzalah provided culturally relevant medical care to Orthodox populations during the pandemic. This endogenous response played an important role not only in providing acute care, but as an authority within the Jewish community about what medical advice to follow and how to follow it.

### *School responses*

Jewish schools in New York City also emerged as endogenous responses due to their proactive interventions, including testing and safety protocols, while also prioritizing the Jewish faith. Their commitment to providing Jewish education while prioritizing public health demonstrated the adaptability of the Jewish community in the face of a crisis. Moreover, it demonstrated the ability of Jewish institutions to address issues from the pandemic with economic rather than technical solutions.

[11]For brief interviews with Hatzalah nurses – from Mill Basin and Flatbush in Brooklyn – see the Jewish Vues (May 19, 2020b; and Gabay and Tarabei, 2021).

[12]See the Chevra Hatzalah's website at https://hatzalah.org/.

Similar to other schools, Orthodox schools 'took precautions in the classroom – keeping desks far apart, adding Plexiglas enclosures and requiring masks' (Hanau, 2020e). One Orthodox school in Crown Heights, Brooklyn, required students to get tested for COVID-19, and even offered testing on-site during school hours. Despite push-back from some parents, the school enforced the order; children whose parents did not let them get tested were denied entry (Dreyfus, 2020f).

Schools tried to limit the spread of COVID-19 within their premises and throughout their communities. For instance, some Orthodox schools urged caution amid the Jewish holidays. A joint letter of Orthodox high schools across the United States, including several in New York City, urged parents not to 'schedule sleepovers' and to '[r]equire masks even for outdoor play dates. Remind children to keep their distance from one another. And forget about traveling during the upcoming Jewish holidays' (Hanau, 2020e). Their rationale notes that, '…we are writing this letter to communicate with you a number of important communal norms that must be adhered to in order to minimize the spread of COVID, thus preserving the health of our community and the viability of our schools' (Hanau, 2020e). Moreover, one school in Long Island asked over a dozen families to quarantine after learning they attended a large wedding (Hanau, 2020h), acting as an informal institution to express social disapprobation.

Still, some people valued education, at least nominally, more highly than public health; not all schools in New York City adhered to proper guidelines. Throughout 2020, some Orthodox schools remained open even when told to close – leading to tension between Orthodox communities and Mayor DeBlasio and between DeBlasio and Governor Cuomo on how strictly to enforce the rules (Hanau, 2020f). One father of a Borough Park school recounted the following scheme (as quoted in Hanau, 2020f):

> students are given a short window of time in the morning to arrive at school and in the afternoon to leave, apparently to minimize the amount of time students are seen entering and exiting the building. When inspectors arrived at one school…students were brought to one part of the building while the inspectors were shown the parts of the building that were empty.

Police raided one school in Brooklyn because they received reports that students and staff were not masking and that class sizes were too large (Lipman, 2020d). Moreover, parents formed online chat groups that advised, among other things, parents not to test their children because positive cases might lead to their school being shut down (Appendix, Statement 5) (Hanau, 2020g).[13] Such reports of parents trying to subvert school-based public health guidelines indicates some individuals valued goals aside from (and more than) improving public health and/or following religious observances. Specifying such values – like ensuring an education for children, avoiding the costs associated with childcare during school closures – might clarify additional behaviours and how people might be trying to resolve economic problems aside from the ones we focus on.[14]

Still, many individuals and Orthodox schools in New York City demonstrated their commitment to both religious and public health priorities during the pandemic, offering education, religious practices, and testing services and related health guidelines. Schools, in other words, provided endogenous public health responses that helped monitor and limit the spread of COVID-19 and also provide religious schooling.

### *Religious rules, rituals, and traditions*

Many Jews and rabbis realized the value in altering religious rules or in discovering innovative ways to pursue religious customs, which highlights how public health is co-produced. Many rabbis emphasized

[13]Other sources of parental pushback include lawsuits against Governor Cuomo (see, Israel, 2020b).

[14]We thank a reviewer for encouraging us to explain the variety of values people hold and the effects such values might have. These values indicate people face myriad economic problems, not just attempts to improve public health and religious observances.

aspects of *halakha* that prioritize life and health over religious obligations like *pikuach nefesh* (Glustrom, 2020). Such interpretations make flexibility acceptable and lower the cost of breaking traditional religious rules and rituals. Samuel Heilman, for example, urged his readers to spend Passover in relative isolation for these reasons (2020). He states that, 'As much as we want to gather together, in line with Jewish custom and Passover tradition, practicing the norm of *pikuach nefesh* (protecting life) by socially distancing is surely what the Almighty, Jewish tradition, the Torah and religious principles demand.' According to Yosie Levine, senior rabbi of the Jewish Center in Manhattan, a central theme of Rosh Hashanah is to grapple with complexity, which he interpreted as the wrestling with dual mandates to protect life and pursue a faithful life. He writes that, 'It's possible to have faith in the words of epidemiologists even as we profess faith in God' (Levine, 2020).

These responses were common throughout Orthodox communities in New York City during holidays. Laura Adkins, an Orthodox Jew from New Jersey writes that she was 'going it alone' for Passover (Cramer, 2020). Adkins also notes that telephone- and Zoom-based shiurim (religious study sessions) and philanthropy to provide kosher food were responses to the pandemic that, perhaps minor, encouraged social distancing and maintained religious observances.

Regarding the High Holidays of 2020 – Rosh Hashanah (Sep. 18–20) and Yom Kippur (Sep. 27–28) – synagogues began preparations months in advance to accommodate social distancing. Rabbi Alan Lucas of Temple Beth Sholom in Long Island suggested they might have in-person and virtual services, at different times, to space out the congregation (Ain, 2020). Other synagogues – like the Malverne Jewish Center in Long Island – maintained Zoom services (*ibid*). With local knowledge in hand, Rabbi Elkodsi notes that many of the 30 families in her congregation are older; Zoom services were appropriate for her and her congregation in their pursuit of *pikuach nefesh* (*ibid).* According to Rabbi Potasnik, other members and synagogues planned to avoid the use of technology on Shabbat, and some larger congregations plan to rent larger auditoriums or outdoor spaces to accommodate social distancing (*ibid;* Hanau, 2020i).[15]

Orthodox Jewish communities also devised tailored responses to the pandemic given several unique rituals related to funerals, weddings, cleansing, and births. Instead of sitting *shiva* and saying Kaddish prayers in person following funerals, people observed these rituals via Zoom and in consultation with local rabbis (Dreyfus, 2020a). Many New York City *mikvahs* remained opened during the pandemic because of their religious significance and lower risk of transmission. Many also altered their schedules to 'by appointment only' to limit human interaction and continue operations, in addition to other measures to maintain distance and disinfect common areas (Dolsten, 2020; Dreyfus, 2020b).

## Discussion

Our cases suggest that rabbinical leaders and councils, private healthcare providers, school officials, and members of the Orthodox communities in New York City used endogenous public health institutions, or sets of tailored, pandemic guidelines informed by public health officials and religious obligations (also, see Trencher, 2021; Vanhamel *et al*., 2021). Such responses and rules helped to resolve the economic problems related to a pandemic, rather than technical ones related to improving public health. Importantly, our analysis indicates that endogenous public health institutions can, and often do, function to mitigate public health crises. While such institutions might not be relevant for every case, it is important for local, state, and federal governments to be aware of endogenous institutions and to, at the very least, not work against them when they are successful. Doing so might contribute to the backlash witnessed from Orthodox populations to city and state governments in New York during the pandemic.

Addressing alternative explanations is an integral part of developing the internal validity of case study analysis (Yin, 2018). We address several alternative explanations here. First, some might argue that Orthodox communities simply followed local and state public health guidelines, reflecting exogenous rather than endogenous responses. While we can't conclusively disprove this without a

[15]Rabbi Marc Schneier suggests that Orthodox Jews might also program their digital devices, prior to Shabbat, to turn on at a specific time without violating halacha (Ain, 2020).

large Orthodox community free from governmental influence, many responses predated government actions, like Hatzalah organizations and rabbinical councils. Our cases suggest these responses were tailored to community goals, unlike one-size-fits-all public health policies. Orthodox communities continually adapt, creating novel solutions to emerging problems and technologies. The development of Hatzalah demonstrates their cultural sensitivity and independence from government. Orthodox communities also uniquely adapted their religious obligations in ways not mandated or even envisioned by public health authorities.

These cases might also suggest political motivations rather than endogenous responses, implying Orthodox communities acted based on political leanings. This explanation, however, is unlikely given the diverse political goals within these communities. It is improbable that every health-related response followed a singular political agenda. Political motivations would have shifted with the changing stances of, for instance, the Trump administration and Cuomo's lockdown rules. Many Orthodox responses were consistent with long-standing community practices, extending beyond current political issues or figures.

We cannot fully address external validity due to unobservable factors like personal income, education, and social identities. While our cases highlight key themes, they only partially explain variations across communities. Future studies on external validity might find similar responses in other religious, tight-knit groups. For example, many conservative and Christian groups in the U.S. pursued their goals during the pandemic, often in conflict with public health rules and potentially politically motivated. These differences suggest that normative values, rather than community structures or social capital, are influential (Carson *et al.*, 2021). Subsequent studies might examine whether people in Amish communities, for example, responded in similar ways.

The tension between endogenous and exogenous public health rules in Orthodox communities supports the external validity of our argument. Orthodox opposition to stringent lockdowns and red zoning in New York City stemmed from the perceived efficacy of endogenous responses and the high cost of external restrictions (similarly, see Hebert and Curry, 2022). Despite endogenous responses, Governor Cuomo imposed stringent rules throughout densely populated Orthodox areas like in Brooklyn, Queens, and Orange County. These 'red zones' limited travel and gatherings and closed bars, restaurants, schools, and gyms (Ferré-Sadurní and McKinley, 2020), which (1) conflicted with Orthodox practices, and (2) were perceived as over the top given endogenous responses (see, for example, CNN, 2020; Elliot, 2020. Poor communication and the inconsistency and harsh enforcement of public health rules added to the tension and additional lawsuits (Cutler, 2020; Neumeister, 2021).

## Conclusion

The effectiveness of individuals and communities during pandemic crises should not be underestimated. Our analysis shows that Jewish communities, who were often portrayed as caring little for public health and only for religious ends, actually provided crucial health services and addressed economic problems during the pandemic. This aligns with studies from other disaster scenarios, like hurricanes (Storr *et al.*, 2017), where Jewish communities played a vital recovery role. Endogenous public health responses might clash with exogenous policies, but this underscores the importance of considering individual and community values and rules. Ignoring these can lead to ineffective and potentially harmful outcomes (Coyne *et al.*, 2021). What comprises an 'optimal' public health policy, moving forward, should include the recognition of community values and endogenous responses, not just exogenous rules.

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## Appendix

You can find our appendix at https://www.academia.edu/121593631/Appendix.

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