Vaccine Lines and Line Jumpers: Mapping a New Metaphor from an Interview-Based Study about COVID Vaccination

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Abstract
This article considers how the metaphor of the vaccine line and the subjectivity of the line jumper came to frame COVID vaccination experiences. Drawing on analysis of interviews (n = 24) with self-identified vaccine line jumpers, this article reports on three narratives that arose across interviews: (1) vaccine line jumping is a necessary strategy of health-advocacy, (2) vaccines are personal healthcare tools earned through individual merit, and (3) vaccine refusal is a problem of belief rather than access. Findings advance research about the personalization of vaccination and public health while contributing insights about the constrained subjectivities that people adopt in individualistic health landscapes.

Keywords Vaccines · Public health · Metaphor · COVID-19

Introduction
Since the first cases of the coronavirus were documented in the United States, a COVID vaccine has been framed as the most promising solution to control the virus and contain the pandemic. When COVID vaccines were first authorized for emergency use in the US in December 2020, attention turned to their allocation and distribution. This article examines one new vaccine metaphor that emerged to frame COVID vaccination: the vaccine line. This metaphor was short-lived, but analysis of the line metaphor and its related subjectivity of the line jumper are important to understand the contexts that supported this metaphor’s quick uptake and the ongoing implications of popular portrayals of vaccine distribution as a line.

The vaccine line emerged to describe the phased distribution of COVID vaccines to US residents between December 2020, when the first COVID vaccines were authorized for emergency use, and May 2021, when COVID vaccines were available to the public. To coordinate the complex process of distributing a new vaccine to the US adult population during a pandemic, the Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP) issued recommendations to the states,
tribes, and territories charged with vaccine distribution. ACIP recognized two guiding priorities for its recommendations: (1) save lives and (2) preserve social functioning. The committee translated these priorities into a phased distribution plan that prioritized healthcare workers and older adults as well as, incrementally, frontline workers and people with medical conditions, before making vaccines available to the public (Dooling et al. 2020). In response to ACIP’s recommendations, all vaccine jurisdictions prioritized healthcare workers and long-term care facility residents but then departed from ACIP’s guidelines, primarily by prioritizing different populations and introducing their own definitions of essential workers (Kates, Tolbert, and Michaud 2021). It was during this time of vaccine scarcity and shifting guidelines that the vaccine line began to circulate as a metaphor to describe COVID vaccination.

One of the first published accounts of the vaccine line occurred on December 3, 2020, eight days before the first COVID vaccine was authorized for emergency use. The New York Times (NYT) published an interactive editorial that invited readers to “find your place in the vaccine line” (Thompson 2020); readers could calculate their placement by inputting their age, county of residence, profession, and health risks. The tool then returned to readers a visual representation of a snaking line wherein the reader’s spot was demarcated with a red silhouette labeled “you” and placed among incrementally marked groups of people (e.g., 250,000 healthcare workers, 67,000 nursing home residents) (see, Fig. 1). Emmons (2010, 121) has written that “the power of metaphor lies in its ability to evoke narrative,” and this article and image exemplify the narrative evoked by a line—here, vaccination is successful when the individual, the red silhouette marked “you,” is vaccinated. After all, the purpose of standing in a line is to get to the front, get your reward, and go. Indeed, the author of the NYT editorial, Stuart Thompson, explained his motivation to write about this tool as: “The thing that was on my mind in our household was, ‘When is it going to be our turn?’” (quoted in Kavanagh 2020, emphasis added).

From here, media portrayals of vaccine lines proliferated. Local and national news sources helped readers calculate when their turn to get vaccinated would arrive (Boyer 2020; NBC 2020; Murrell 2021). In the initial weeks of COVID vaccinations, media sources published stories about wealthy and well-connected individuals who devised ways to get vaccinated ahead of their turns; there were stories of concierge doctors harangued with phone calls from their A-list clients and of the well-heeled chartering planes to wherever a vaccine was available (Goldhill and St. Fleur 2020; Schleifer 2021). As vaccine eligibility expanded, so too did the narratives and moral meanings of line jumping. Journalists focused on the brokenness and inefficiencies of national vaccine distribution and told stories of error-prone and confusing interfaces and instructions that facilitated line jumping. In this coverage, line jumping was not so much an entitled act as it was an inevitable result of users bumbling through systems poorly localized to their needs (O’Neill 2021; Quinlan 2021; Wells 2021). Popular advice columnists (see, e.g., Appiah 2020; Dickinson 2021; Graff 2021) grappled with questions about the social mores around lines—what do you do when you suspect a friend lied to get a vaccine? When is line jumping permissible?

Even though coverage of vaccine distribution as a line was widespread, a vaccine line is not a neutral or inevitable way to frame distribution. The CDC, for example, did not refer to vaccine allocation and distribution as a line. ACIP materials visualized distribution as occurring in a series of overlapping blocks, each of which represented different populations (see, Figs. 2 and 3). Such representations of vaccine distribution allowed for hierarchy and priority—some people would get the vaccine before others—but the emphasis was on the population and its collective movement toward community immunity. These contrasting visualizations serve as a reminder that the line is not a transparent representation of
Fig. 1 The vaccine line, as depicted by illustrator Jorge Colombo in Stuart A. Thompson’s December 3, 2020, opinion piece, “Where are you in the Vaccine Line?” published in The New York Times. The illustration shows a long, twisting line of people waiting for a vaccine and marks “you,” the reader as a red silhouette. Priority groups are marked off, such as “250 k healthcare workers” and “67 k in nursing homes.”
Source: The New York Times (2020). Used with permission from the artist, Jorge Colombo
vaccine distribution but an everyday metaphor used to make sense of a new set of policies and practices coordinating vaccination. As such, the vaccine line has rhetorical, social, and health-related consequences for how individuals and groups relate to and make decisions.

**Fig. 2** A slide presented in the CDC’s ACIP public meeting on December 1, 2020, to depict planned vaccine distribution phasing. The slide depicts the three groups prioritized during the first phase of COVID vaccination (healthcare personnel, essential workers, and adults with high-risk medical conditions). Each block builds on the next and the chart depicts more people getting vaccinated over time. Source: Dooling (2020)

**Fig. 3** A slide presented in the CDC’s ACIP public meeting on June 24, 2020, to depict planned vaccine distribution phasing. The graph shows how and when populations will be vaccinated if ACIP’s recommendations are followed. The x-axis represents target groups, and the y-axis represents the US. Population. The graph shows that healthcare workers will be vaccinated first, followed by essential workers and high-risk populations, followed by the general population. Each group builds on the next to make a more vaccinated US population. Source: Mbaeyi (2020)
about vaccination, public health guidance and interventions, and their healthcare. These are the conditions and consequences that this article takes up.

In this article, I report on findings from an interview study with 24 participants who identified as vaccine line jumpers. Findings depict how the line metaphor framed vaccination as an individual choice and a personalized tool to protect one’s own health. This metaphor, then, diverged from mainstream public health discourses that situated vaccination as a tool useful to protect community health. Further, participants identified with the subjectivity of the vaccine line jumper not necessarily because they valorized individualistic and winner-takes-all approaches to health but because the subjectivity spoke to participants’ experiences of healthcare as a privilege-dependent and resource-intensive system that situated individuals to act as constrained and self-advocating healthcare users. Findings support prior research that attests to the rhetorical dexterity of individualistic logics of health while contributing insights about the identities and subjectivities that people adopt in these individualistic healthcare and public health realities.

Literature review

This literature review addresses (1) scholarship on metaphor in science and medicine, (2) how vaccines and vaccination have been framed previously, and (3) how lines, waiting in line, and jumping the line have cropped up in other discourses, particularly in health and medicine. These areas account for how this study approaches metaphor as well as the meanings of lines and line jumping that seeped into, meshed with, and affected popular and local discourses about COVID vaccine lines.

Medical Humanities and the work of waking up metaphors

Lakoff and Johnson (2003) have formatively approached metaphor as not just a rhetorical device but as a vehicle of thought and action—metaphors delimit what we value, what we think, what we imagine as possible, and how we act. By way of example, the authors explained that a culture that uses and understands the metaphor “argument is war” is fundamentally different from a culture that parleys in the metaphor “argument is dance” (Lakoff and Johnson 2003, 5). In response, this study asks: What can we learn about a culture that understands and quickly adopts the metaphor of the vaccine line?

To do so, I engage and build on Medical Humanities (MH) and related scholarship on metaphor and medicine. Scholars have considered how metaphors shape personal experiences of health and illness, public-facing medical and scientific communication, and the production of scientific knowledge. In the first area, Sontag (1978) has influentially critiqued the use of metaphoric language, particularly military metaphors of the body battling an invading disease. Sontag argued that such metaphors overinvested diseases with meaning and burdened individuals with the moralized responsibility to tirelessly defend their bodies, alienated people from their embodied experiences, and increased suffering. Although Sontag (1978, 3) concluded that “the most truthful way of regarding illness—and the healthiest way of being ill—is one most purified of, most resistant to, metaphoric thinking,” scholars have had plenty of metaphors about health and illness to mine for meaning. Indeed, many humanists have considered narrative and metaphor as empowering tools that patients use to construct their own meanings of illness and health, outside of the authority of biomedical knowledge (Frank 1995; Charon 2006; Greenhalgh and Goozner 2006).
Although such scholarship diverges from Sontag’s condemnation of metaphor, these works share one important premise: that metaphors matter; that metaphors can cause or alleviate suffering; that they shape how illness and medicine are known and lived.

In turn, scholars have studied metaphor use not only in personal and creative narratives but also in science and medical communication and the production of scientific and medical knowledge (Martin 1987; Treichler 1999; Wallis and Nerlich 2005; Emmons 2010; Koerber 2013, 2018; Jensen 2016). As Keller (2002, 117) has observed, metaphor and the scientific endeavor are both “directed at the elucidation of entities and processes about which no clear understanding exists”; thus, metaphors are useful tools for scientists to “find ways of talking about what they do not know” (Keller 2002, 118). While useful, metaphors are not neutral. Metaphors used in science, however, can be particularly adept at neutralizing or masking their cultural contexts as they often do not seem like metaphors but, rather, disinterested reflections of nature or reality. Martin (1991, 191) has called such hidden-in-plain-sight metaphors “sleeping metaphors,” as their ubiquity and scientific context deflect analysis, and has demonstrated the importance of “waking up sleeping metaphors” to “rob them of their power to naturalize our social conventions.”

Many scholars have addressed sleeping metaphors in scientific and medical discourses. For example, Jensen (2016) has examined how different metaphors for infertility, such as barrenness, have worked to blame individual women for their lack of children, and Koerber (2018) has shown how metaphors that describe menstruation as illness have framed female hormones as pathological. Martin (1994) has mapped a consequential shift in metaphors about immunity from a hierarchical, defense-based system into an adaptive, flexible system. This shift has affected how people care for their bodies—personalized medicine, for example, gelled with the idea that immunity is a responsive, ever-in-training system, while uniform vaccination did not (Hausman 2017)—and has both reflected and fueled an economic and cultural shift to value worker flexibility and normalize precarious labor conditions (Martin 1994, 143–159). These examples demonstrate how metaphors are enmeshed in cultural contexts and nonetheless influence scientific research, clinical practice, and people’s lived experiences of health and medicine. Building on this work, the present study examines the vaccine line as a sleeping metaphor. The line seems to simply describe a hierarchical process of distributing limited vaccines. But the line is a specific metaphor used to frame a medical, state, social, and interpersonal process. As such, it can shed light on the “contexts, discourses, and cultural communities” wherein such a metaphor can make sense and take root (Treichler 1999, 173). In the next two sections, I address past scholarship on the two components of the vaccine line metaphor: vaccines and lines.

**Framing vaccination: Collectivist and individualist approaches**

Herd immunity has functioned as a dominant metaphor to describe and advocate for vaccination (Cohen 2009; Quadri-Sheriff et al. 2012; Sobo 2016; Reich 2016). Herd immunity explains that vaccines are most effective when the maximum number of people in a population are vaccinated, at which point disease risk is reduced by the protective presence of immune individuals. Slogans like “protect the herd” leverage herd immunity to promote vaccination, as this catchphrase positions vaccination not just as a healthcare practice but as an act of solidarity with and care for one’s community. COVID vaccine campaigns, as well, have extolled herd immunity and social responsibility. Virginia’s Department of Public Health told residents, “It’s Our Shot, Virginia!” and its ads featured images of presumably vaccinated Virginians coming together for family dinners, to meet new babies, and to
hold hands (Gerdes 2022). The Minnesota Department of Health similarly urged residents, “Roll Up Your Sleeves, Minnesota!” These campaigns addressed audiences as a collective—they called upon people not as individuals but as Virginians or Minnesotans coming together to reach a shared goal.

While herd immunity is widely used to exhort individuals to vaccinate, its effectiveness as a persuasive metaphor is questionable. Quadri-Sheriff and colleagues (2012, 522) systematically reviewed Medline literature through 2010 to better understand “the role of herd immunity in parents’ decisions to vaccinate children.” Out of the 29 studies identified that asked parents about the role of herd immunity in their vaccination decisions, only 1–6% of parents named herd immunity or benefit to others as a primary reason for vaccination (Quadri-Sheriff et al. 2012, 523). Sobo (2016) built on these findings with an interview-based study designed to understand why herd immunity seemed to have little salience for parents; Sobo’s findings showed that parents centered their own children’s health needs in their decision-making (refer also to Lawrence et al. 2014). Interviewed parents also spoke to a general distrust of other people and their decisions, and this distrust dissuaded parents from expecting to benefit from and feeling obliged to contribute to a public good, like population-wide immunity (Sobo 2016, 188). Other research has mapped how cultural contexts and norms have supported individualistic health decision-making (Hausman 2019; Reich 2016; Goldenberg 2021). Kaufman (2010, 23) has argued that, in a contemporary risk society (see, Beck 1992), being a good parent elides with being a good consumer. And Reich (2014, 699, 681) has further shown that gendered expectations exacerbate individualistic parenting pressures by holding mothers as “uniquely accountable” for a child’s health and culpable for any sickness. Mothers are inundated with messaging that “good” mothers must individually and actively manage and optimize their children’s well-being, advocate for their unique health needs, and protect them from all harms—including those of public health interventions (refer to Hausman 2019, 80–3).

This research suggests that herd immunity, as an explanatory and exhortative metaphor, is losing its appeal because it no longer resonates with and is supported by the personalized health responsibility that informs many people’s health experiences and decision-making. In this study, I consider how the vaccine line aligns with these individualistic health rhetorics. The line, however, has important conceptual connotations of its own, which I review in the next section.

**Lining up, waiting, jumping: Slippery notions of fairness**

While the line is not a typical metaphor with which to discuss vaccination, lines do populate other discourses of health and medicine, and these common uses of lines and line jumpers inform discourses about COVID vaccine lines. Lines have typically occurred in US-based health and medical discourses on two registers. The first register is implicit: Because the US does not have universal healthcare, access to healthcare is rationed by one’s ability to pay, and, thus, healthcare is structured by scarcity and unstated lines, wherein those with structural privilege, money, and connections can more readily access care (Hoffman 2012). On the second, explicit register, discussions of lines are generally limited to three discrete spaces: the Emergency Department (Cassidy-Smith et al. 2007; Davenport et al. 2017), organ donations (Bjorkman 2006; Lewis et al. 2021; Perito et al. 2019), and experimental treatments (Gonsalves and Grothey 2011; Chen 2022). In these spaces, lines are described as organized by triage and need, and research on the patient experience of waiting for emergency and/or rationed care shows that triage is largely endorsed as the
morally fit way to respond to a mismatch between supply and demand (Cassidy-Smith et al. 2007; Hedges, Trout, and Magnusson 2002; Davenport et al. 2017). This research suggests a public sensibility that lines in healthcare operate in their own moral zone, one wherein healthcare, a social good, is delivered most quickly to those who need it the most. Seen then as a metaphor, the line is adept at obscuring the reality wherein healthcare is rationed to those who can pay (Hoffman 2012).

Beyond healthcare, research on lines documents a similar disconnect between the rhetoric of lines, wherein lines seem straightforward and fair, and the practice of lines, where those with structural privilege advance on insider tracks. Scholars have generally recognized the line as a social system structured by a stable set of social norms (Mann 1969; Schmitt et al. 1992). Fagundes (2017, 1182) has outlined four rules that govern lines: (1) form a line, (2) no cutting, (3) first come first served, and (4) wait your turn. However, this view of the line as orderly, civic, and fair abstracts lines from their social contexts and presumes that lines form in otherwise equitable places. Rarely is that the case. Waiting in line has significant class and race components. Affluence allows people to skip all kinds of lines—to pay for express lines in airports, to expedite orders, to pay others to wait in lines for them (Copeland 2014; Yannetta 2014). Conversely, living in or near poverty often necessitates waiting—filling out forms and waiting for services like housing vouchers, food assistance, public transit, unemployment benefits, and other slow-moving bureaucratic services. Lower income neighborhoods often have higher housing density and fewer grocery stores, retail hubs, and clinics/healthcare centers, and what services they do have tend to be lower staffed and busier, a combination sure to produce longer lines (Fitzpatrick and La Gory 2000).

In other words, the structural conditions that affect who lines up, when, and how quickly reveal the line’s enticement of simple fairness as a mirage. Still, the line can be a powerful metaphor precisely because the line’s seeming simplicity often brackets consideration of the structural and social conditions that affect how people get to the line and the costs they incur while waiting. Hochschild’s scholarship (2016) offers an important example of how the line metaphor can bracket historic and structural inequities. In 2016, Hochschild published *Strangers in Their Own Land*, an account of her five-year ethnography in Lake Charles, Louisiana, and its majority Tea Party member residents; this ethnography asked why working-class white Louisianans seemed to be voting against their material interests—were they being duped, or were their actions supported by certain sociocultural contexts and affective experiences? Hochschild (2016, 135) argued that to understand her informants, one had to understand their shared “deep story,” which is “a feels-as-if story— it’s the story feelings tell, in the language of symbols. It removes judgment. It removes fact. It tells us how things feel.” Hochschild represented informants’ deep story “in metaphorical form” by using the metaphors “waiting in line” (136) and “line cutters” (137) to explain that her informants were invested in a deep story in which they worked hard, followed the rules, and waited peaceably in line for the reward of their American Dream, only to find that other people, mainly women, immigrants, and people of color, were cutting the line, unfairly joining their ranks, and grasping for a good life that they had not earned (146–8). Here, the line metaphor was useful to informants because it advanced a narrative in which everyone was on equal footing: the line metaphor implied fairness and thereby atomized the structural conditions that supported Hochschild’s informants’ privilege and oppressed others. As well, though, Hochschild’s construction of her informants’ deep story through metaphor is a reminder of metaphor’s usefulness not only to represent and shape reality but also to engender opportunities for understanding—in representing her informants’ deep
story through the metaphor of the line, Hochschild sought to set aside “judgment” and “fact” and situate readers to relate to how “things feel” for someone else (135).

It was into this fraught rhetorical terrain that COVID vaccine lines took shape in policy, practice, lived experience, and discourse. As summarized in this article’s introduction, ACIP designed COVID vaccine allocation and distribution to operate along principles of fairness (save lives and preserve social functioning), but it quickly became clear that these plans served, like the lines examined by Hochschild (2016) and Hoffman (2012), to entrench existing inequities. In practice, one’s ability to get a COVID vaccine depended on access to privileged resources, including high-speed internet, personal transportation, privileged literacies, and work and caregiving flexibility (Jameel and Chen 2021; Yong 2021). Consequently, vaccination rates reinforced existing health inequities. The people getting vaccinated were majority white and middle/upper class. Lower income people and people of color, groups that often overlap as conditions of poverty and systemic racism intersect, reported lower vaccination rates (CDC 2022; Yong 2021; Ndugga et al. 2022). Within this context of reinforced inequities, people began circulating stories about vaccine lines and jumpers, the short-lived but influential and illuminating metaphor that this article examines.

Methods

Qualitative interview data analyzed for this article comes from a larger study, in which I interviewed adults in the US about their COVID vaccine experiences. Individuals were eligible to participate in the larger study if they were (1) at least 18 years old and (2) lived in the US. Participants were recruited through several avenues, including ResearchMatch (an online tool that connects academic researchers with volunteers), on-site recruitment at vaccine clinics, convenience sampling, and snowball sampling. Interviews were conducted over Zoom between January 16 and May 28, 2021.

Interview questions were open-ended and written to follow the stories participants found important. Interviewers asked participants about (1) experiences with vaccination and healthcare to gain insight into how participants related to medicine outside of the coronavirus pandemic, (2) COVID vaccination experiences/stories (including non-vaccination) to gain insight into how participants narrated their COVID vaccine encounters, and (3) understandings of COVID-related public health guidelines to gain insight into how and if participants situated their personal experiences in larger systems (see Appendix for interview questions). I interviewed 84 participants. Interviews were designed to span 30 minutes, and interviews ranged from 16 to 46 minutes.

To analyze interview data, this study used a constructivist grounded theory design (Charmaz 2006). Grounded theory was developed to map how meaning is negotiated and understood through interactions with others and in social processes (Glaser and Strauss 1967), a premise that aligned with this study’s aim to understand how people experienced vaccination not only as a health decision but as a social process. Further, grounded theory was useful to focus analysis on how participants engaged narratives, metaphors, or broader rhetorics (e.g., personalized health) to explain and compel their vaccine-related behaviors and actions—that is, to keep the focus on the relationship between participants’ language and actions (Charmaz 2014). Grounded theory is particularly effective to study understudied or new phenomena because it allows the researcher to inductively build theory from the data, rather than apply existing frameworks to data (Charmaz 2006). Since this study
aimed to understand how participants were telling stories in relationship to a new vaccine and a new virus, a grounded theory approach was attuned to capture novel narratives about an old and oft-discussed technology, the vaccine.

Initial analysis was guided by the question: How do participants narrate their COVID vaccine experiences? In response, initial coding was open and iterative and designed to break down interview data into many specific codes (Charmaz 2006). During open coding, I kept both respondent memos (memoing after coding an individual interview) and cross-case conceptual memos (memoing across cases). These memos served as places to identify patterns and tensions, recognize saturation, and build theory from participants’ words and stories (Charmaz 2006). Through memoing, I identified vaccine lines, line waiting, and line jumping as themes. Interested in examining the vaccine line further, I separated interview transcripts that mentioned vaccine line or line jumpers. Out of the 84 interviews conducted, 41 participants spoke about vaccine lines and/or line jumpers. I then separated transcripts wherein participants identified themselves as line jumpers. Twenty-four participants identified as line jumpers. Table 1 describes the demographic information collected from participants who identified as line jumpers.

These 24 interviews account for the qualitative data analyzed in this article. Analysis of these 24 transcripts was guided by the following research questions:

1) How do participants define line jumping?
2) What subjectivities emerge to describe line jumpers?
3) How do participants tell their vaccination stories?

Coding was separated into three phases. The first phase was again inductive open coding. The second phase was closed coding focused on categorizing (Charmaz 2006). The goal was to identify the most common codes and/or to synthesize smaller, more specific codes into representative codes. This phase of coding involved three coders, the PI (myself) and two Research Assistants; we independently coded each interview based on the existing codebook from the larger interview dataset and then met to present our emerging codes, discuss and reconcile differences, and return to comparative coding. We reached consensus on the following five themes: (1) a broken system, (2) lying and stealing, (3) privilege, (4) the leftover dose, and (5) vaccine refuser. In the third phase, I mapped how these categories came together to advance recurring narratives about vaccine lines and line jumping. This third phase of coding was axial in that it focused on relationships between codes (Charmaz 2014); I first mapped which codes occurred together in interviews (Farkas and Haas 2012), and I analyzed these co-occurring clusters to identify stories that participants used these codes to tell. I identified the following three recurring narratives about vaccine line jumping:

1) Vaccine line jumping is a necessary strategy of health-advocacy.
2) Individuals earn vaccine deservingness through personal decisions and actions.
3) Vaccine refusal is a problem of belief rather than access.

Themes and related narratives are depicted in Table 2 described in the following section.
Table 1  Participants who identified as line jumpers. This table provides demographic information for interview participants. The table lists each participant’s pseudonym, self-identified gender, race, age, and occupation, and a summary of how the participant defined their line jumping.

| Pseudonym | Gender, race, age | Occupation                  | Line jumping category                                                 |
|-----------|-------------------|-----------------------------|-----------------------------------------------------------------------|
| Ani       | F, white, 45      | Scientist                   | Received a leftover dose through a personal connection                |
| Ann       | F, white, 39      | Lawyer                      | Claimed a category that didn’t apply                                  |
| Annika    | F, white, 28      | Scientist                   | Used a category that didn’t apply                                     |
| Arturo    | M, Mexican American, 55 | CEO                   | Used a priority code that didn’t apply                                |
| Aziza     | F, Middle Eastern, 42 | TSA Agent                | Drove across state lines and used a category that didn’t apply       |
| Ben       | M, 21, white      | College student             | Accepted a private invitation                                         |
| Brendan   | M, white, 34      | PR consultant               | Drove across state lines, used a category that didn’t apply           |
| Colleen   | F, white, 47      | Engineer                    | Claimed a category that didn’t apply                                  |
| Emily     | F, white, 35      | Caring for children at home | Lied about age                                                        |
| Gwen      | F, Asian American, 28 | Lawyer                | Claimed a category that didn’t apply                                  |
| Jeff      | M, white, 54      | CEO                         | Received a leftover dose through a personal connection                |
| Lenny     | M, white, 56      | Company president           | Accepted a private invitation                                         |
| Louis     | M, African American, 32 | Marketing associate | Used a priority code that didn’t apply                                |
| Katie     | F, 29, white      | Social worker               | Accepted a private invitation                                         |
| Mara      | F, white, 25      | Administrative assistant    | Claimed a priority code that didn’t apply                             |
| Megan     | F, white, 28      | Employment counselor        | Claimed a category that didn’t apply                                  |
| Melissa   | F, white, 41      | CEO                         | Claimed a category that didn’t technically apply                      |
| Michelle  | F, African American, 26 | PCA                       | Drove across state lines                                             |
| Milo      | M, Middle Eastern, 30 | Hair stylist             | Received a leftover dose through a personal connection                |
| Olivia    | F, white, 26,     | Actuary                     | Used a priority code that didn’t apply                                |
| Orson     | M, white, 51      | Management at a bank        | Received a leftover dose through a personal connection                |
| Paige     | F, African American, 27 | Engineer                | Received a leftover dose through a personal connection                |
| Priya     | F, South Asian, 23 | PCA                        | Drove across state lines                                             |
| Rory      | M, white, 55      | Chairperson                 | Used a category that didn’t apply                                     |
Findings

In this section, I describe the three narratives that emerged across interviews and the themes that substantiated these narratives. Together, these narratives propagated stories wherein individuals navigated a flawed system alone and did what they could to protect their personal health. These narratives show how participants took on the subjectivity of a line jumper to characterize themselves not as cheaters but as deserving and hard-working healthcare seekers.

Narrative 1: Vaccine line jumping is a necessary strategy of health-advocacy

Participants described COVID vaccine distribution as broken, labor-intensive, and privilege-dependent systems that necessitated that individuals bend rules, find loopholes, and relentlessly pursue their own interests. This narrative was documented in all 24 interviews. All 24 participants drew on the theme of a broken system to explain that, because vaccine distribution systems were overloaded and poorly designed, securing a vaccine involved work: finding distributors, getting on waitlists, searching for appointments, moving schedules to accommodate appointments, and driving to inconvenient vaccination sites. As Aziza, a Transportation Security Administration agent who crossed state lines to get herself and her elderly parents vaccinated, described, “If you want to get vaccinated, you have to be proactive. You have to. It’s almost like it’s a fight for it.” Aziza acknowledged that this reality wasn’t fair—“I don’t think it should be that way”—but since the system was what it was, “you have to take advantage of what you can … I had high risk people in my household, so I did everything I could.” Aziza acknowledged that the system disadvantaged others, but her chief responsibility was to her own and her family’s health.

Michelle, a Personal Care Assistant (PCA) who could not get a vaccine alongside fellow healthcare workers because she worked on contract and did not have an employer code, described a system that failed the people it should have prioritized:

I feel like the way they’ve rolled out the vaccine was a disservice to the people that really needed it. Like there are still senior citizens that are not computer savvy. They’re getting better with the hotlines, but they’re over full. So people are helping each other out. That’s how I got mine. But this is not the way you’re supposed to roll out a vaccine.

Michelle then described how she saw herself as both a line jumper (she was vaccinated in a state where she was not a resident) and a person marginalized by multiple, interlocking systems: “I know by the rules, I should get [the vaccine] with healthcare workers. But I also knew … no one was going to care if I got it or not. But I deserved it. … So I broke the rules, and some might say I skipped the line.” Michelle’s and Aziza’s stories exemplify how participants described line jumping as a necessary tactic to extract a vaccine from a system impervious to their needs.

Participants who felt that healthcare, as an institution, benefited them also recognized healthcare as resource-intensive and structurally unjust, but they used these conditions to explain that everyone, themselves included, was therefore compelled to leverage their own privilege, however plentiful or paltry, to protect their personal health. Eight participants used the theme of privilege to explain vaccination as an everyone-for-themselves competition, wherein individual health and even life were at stake. Perry, a wealthy donor to
Table 2 This table lists the five main themes identified across interviews (n = 24), provides an example of each theme, and quantifies how many interviews exhibited each theme. The chart also shows how the themes came together to support three common narratives and quantifies how many times each narrative occurred.

| Theme             | Frequency in interviews (n = 24) | Example                                                                                                                                  | Narrative (frequency in interviews; n = 24)                                                                 |
|-------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Flawed System     | 24                              | Look, I don’t necessarily blame the people who are trying to jump the line. However, I wish that those in charge of vaccine distribution would try to make sure that there are not all these loopholes and ways for people to skip the lines | Vaccine line jumping is a necessary strategy of health-advocacy (24)                                          |
| Privilege         | 8                               | I take advantage of my privilege when I drive in the express lanes. I take advantage of my privilege when I sit in first class. This is just one more abuse of my privilege. And, you know, I’m frightened enough that I’m going to do this. And if my wife got sick and died, and I hadn’t done this, I would beat myself up forever | Individuals earn vaccine deservingness through personal decisions and actions (15)                             |
| Lying & Stealing  | 15                              | I mean, I wouldn’t … like, if I was standing in line, and there was one vaccine, and we were two people. And the other person was more at risk than I was, I wouldn’t cut in front of them | Vaccine refusal is a problem of belief rather than access (17)                                              |
| The Leftover Dose | 17                              | I like to think it was something like they had extra doses, they weren’t going to be used, were likely to get thrown out. But I don’t know. I didn’t ask | Vaccine refusal is a problem of belief rather than access (17)                                              |
| Vaccine Refuser   | 15                              | Look, daycare workers are turning down vaccines right and left. Just like nurses. Many of them just belong to groups that are hesitant | Vaccine refusal is a problem of belief rather than access (17)                                              |
a healthcare center who acquired his vaccine at a private vaccination clinic for donors, explained that he felt no qualms about doing so:

I know I’m breaking the rules. And I know it’s taking advantage of my privilege. But I take advantage of my privilege when I drive in the express lanes. I take advantage of my privilege when I sit in first class. This is just one more abuse of my privilege. And I’m frightened enough that I’m going to do this. If my wife got sick and died, and I hadn’t done this, I would beat myself up forever.

Lenny, president of a financial company, made a similar point: “Look, there are ways to work the system. If you understand how it works. And it’s no different than using a legal tax loophole on your tax return. No different than helping your child get into college because you have a connection you can write to say, ‘can you help?’” These excerpts illustrate how participants characterized healthcare as an inequitable and hard-to-access institution and explained that, therefore, everyone had to draw on their privileges—resources, connections, literacies—to access and benefit from healthcare.

Fifteen participants further softened their actions by drawing on the theme of lying and stealing to demarcate acts they had not and would not undertake to get a vaccine. Arturo, an owner of a large business who used personal connections to get an early vaccine, explained that he would not steal a vaccine:

If I was standing in line, and there was one vaccine, and we were two people, and the other person was more at risk than I was, I wouldn’t cut in front of them. But short of that, if somebody called me and said, if you show up at this place, at this time, tomorrow, we can get you vaccinated: I will be there.

Making a similar point, Rory, a CEO of a large company, responded, when I asked him if he had any reservations about getting a vaccine early: “I have no issue with that whatsoever. Like I said, I’m not going to lie to get my vaccine. But I’m also not going to sit around and wait for someone to come knock on my door and personally invite me to get a vaccine.” In Rory’s statement, the opposite of line jumping was not waiting in line. The opposite of line jumping was slacking off, that is, not being a responsible healthcare user. In a closing example, Annika’s story is illustrative of this narrative that line jumping is one among many health strategies that responsible healthcare users engage to advocate for their health needs within bureaucratic institutions. Annika had an autoimmune condition that rendered her especially vulnerable to COVID complications; yet, because she had only one diagnosis and her state required two comorbidities to qualify for early vaccination, Annika was slated to get vaccinated with the public. Nonetheless, Annika described spending hours each day researching qualifying comorbidities and signing up for vaccine waitlists. As an extension of this labor, Annika reviewed her medications and found one that qualified her for a second comorbidity. Annika checked the box confirming that she had two comorbidities and continued to refresh her bookmarked vaccine sites until she secured an appointment. Annika identified as a line jumper, but as she told her story, she contextualized line jumping as one among many tools that she routinely deployed to advocate for her own, oft-neglected health. As Annika explained,

I spend an inordinate amount of time researching on my own, joining Facebook groups, reading books … and I really value experts in my medical doctors. Because of my chronic illness status, I have kind of occupied this role, being my own health advocate, I’m now realizing, for the last five or six years.
Annika told her COVID vaccine story as enmeshed in the story of her autoimmune illness and her identity as a hardworking and self-advocating patient. She was accustomed to navigating the annals of a medical system that did not prioritize her time and embodied needs, and she characterized herself as a diligent and self-sufficient researcher (Kaufman 2010; Reich 2016). Annika’s story, seen alongside the other stories in this section, charts a shift from thinking of a line jumper as a selfish vaccine stealer to a responsible and resourceful healthcare consumer. Across these stories, participants used the metaphor of the line to gesture to an impersonal and callous bureaucracy and, accordingly, reframed line jumping from a selfish act into an agentive move taken to protect one’s health within an unreliable system.

**Narrative 2: Individuals earn vaccine deservingness through personal decisions and actions**

Across interviews, participants’ stories of line jumping often led to deliberations about individual deservingness. Who really deserved vaccine priority? And why? What situations justified line jumping? Participants again drew on the theme of a broken system to explain that they were personally deserving of the vaccine in ways that were not properly recognized by the system in place. This second narrative, seen in 15 interviews, illustrates how the metaphor of a vaccine line situated people to evaluate their own positions and deservingness in relationship to their perceptions of others’ positions and deservingness (Hochschild 2016, 230–39). In the zero-sum equation of a line, one person’s advancement comes at the detriment of everyone else and can thus situate line waiters to calculate who, personally, deserves a vaccine more—rather than, say, what conditions would best promote and protect community health.

Seven participants justified their deservingness by explaining that they had obeyed public health guidance and had therefore earned their vaccines, even if their state’s vaccine allocation plan said otherwise. Megan explained that she felt less guilty about claiming a vaccine as a healthcare worker, a job she had held in the past but not during the pandemic, when she considered that people who had flaunted public health guidance had already received vaccines:

> The people that really got under my skin were family members who never followed any of the recommendations … and didn’t care and didn’t think the pandemic was real, and then they got vaccinated. And I was just like, seriously, like, I’m someone who, I couldn’t go see my grandmother for Christmas.

Gwen, a lawyer who used her status of working for healthcare companies to get a vaccine, also explained,

> the argument which I am compelled by is, I have done my job, like I deserve to feel safe, because not only will I get vaccinated, but I’ll continue to wear masks. So it’s not like I’m going to then go to the bar and spread it potentially to a bunch of people.

Relatedly, nine participants condoned their line jumping because they did not believe that their state was properly determining deservingness. Jeff, a CEO of his company, explained that many individuals who fell outside of his definition of deservingness were getting vaccinated:
They’re starting with the oldest and then moving backwards, which I think is crazy. I would have thought you had started with the most mobile, productive people in our society. My dad even said, my dad’s 80, and he goes, “It’s crazy that I got the vaccine before you did! Because I don’t go anywhere. I’m at home all the time. You keep people employed and business running!”

In Jeff’s equation, economic productivity signaled deservingness. And Jeff decided not to comply with a vaccine distribution policy that dubbed those most at risk as the most deserving of a vaccine.

College student Ben similarly justified his line jumping by explaining that the system did not uniformly prioritize those whom he deemed worthy. Ben explained:

My roommate’s mom works at a hospital, but she works in a lab, no interaction with patients, very few people in the lab. And so when they opened it up to all healthcare workers … that was a big population of some people who were able to finagle their way into being a healthcare worker. Now, I guess I don’t have much ground to stand on when I got the vaccine when I wasn’t supposed to, but he [roommate] even said, “my mom probably doesn’t really need the vaccine.”

Jeff and Ben referenced other people—the 80-year-old dad who stayed at home; the healthcare worker who did not interface with patients—as evidence of a vaccine distribution system’s brokenness (why are they getting vaccinated?) and as permission to jump the line (I’m as deserving as they are!). When vaccine distribution is conveyed as a line, there is one goal: get yourself to the front. Participants therefore compared how deserving they, personally, were against other individuals. In such calculations, participants rhetorically framed vaccine-granted protection as an individual benefit earned through individual actions and personal merit.

These deliberations of deservingness bore opposite meanings for participants who struggled to get vaccinated despite seeming to meet the qualifications for a vaccine priority group; these participants reported feeling singled out as personally undeserving. For example, Aziza explained her feeling of abandonment:

I work for a federal law enforcement agency, but I work as a support function. I work in the admin section, and an email went out saying that only pretty much federal agents are the ones that are going to get the vaccine first. And the rest will have to wait. Even though that wasn’t the state rules. And I’m just kind of like, Are you kidding me? I deal with these guys. These are the ones that bring COVID to the office. I’ve been going to the office … I need protection myself.

Priya similarly explained that she felt forgotten as a PCA; she was caring for patients every day, but because she worked on contract, she could not decipher a way to get a vaccine appointment. Priya described her experiences of invisibility and felt non-deservingness: “Everyone was celebrating the doctors and nurses getting their vaccines, and here we are with no vaccine in sight. And I was like, you guys know we’re here, and no one would stand up for us.” Aziza’s and Priya’s stories show that experiences of precarity and poor treatment at work seeped into participants’ experiences of or expectations concerning COVID vaccination. For participants who were accustomed to being excluded from and harmed by institutions, the vaccine line was a fitting metaphor because it described vaccination as another gate-kept reward that they would have to fight for. Some participants used line jumping as a subversive tool to maneuver and survive within institutions built to disadvantage them.
Narrative 3: Vaccine refusal is a problem of belief rather than access

The previous two narratives focused on individual gain and negotiations of deservingness. Conversely, in this third narrative, documented in 17 interviews, participants contextualized their vaccine stories in accounts or acknowledgements of historical and ongoing structural inequities that disadvantaged members of marginalized groups from trusting and accessing COVID vaccines. Participants used the themes *the leftover dose* and *vaccine refuser* to, at once, recognize the structural determinants of vaccination and to characterize individual instances of vaccine hesitancy as personal choices. Consequently, this narrative worked to further obscure collective responsibility to name and intervene in unjust systems.

As the prior two narratives illustrated, participants self-identified as line jumpers but often saw their line jumping as justified to various degrees. To explain how vaccine seekers like themselves could line up in good faith and end up as line jumpers, participants commonly relied on two related themes, the leftover dose and vaccine refuser. In 17 interviews, participants explained that many vaccine clinics were throwing away vaccines because of a lack of demand amongst people who qualified for prioritized vaccination. Ben, a college student who was vaccinated when his girlfriend’s father, a major donor for a healthcare facility, extended a vaccine invitation to him, explained that when his girlfriend expressed post-vaccination guilt, he comforted her by assuring her that her dose would not have otherwise gone to someone more deserving:

> [My girlfriend] was like, “what if an old person could have gone there today and got it and now they’re gonna die?” And I was like, “they were either going to throw those vaccines out, or those vaccines were going to those younger ladies who were working at the thing.”

Ani, who got her first shot because a friend who worked at a local clinic called her when the clinic had extra doses, similarly explained, “I felt really bad, but I knew that if I didn’t say yes, the dose would either be thrown away or given to someone else just like me.” Participants used the theme of the extra dose to show that they were not stealing a vaccine but rescuing a trash-bound vial.

Ben and Ani referred to extra doses as floating objects that were just there. How did these extra doses come to be? Fifteen participants attributed agency to vaccine refusers. However, when participants spoke about vaccine refusers, they were not referring to a vague group of generalized people forgoing shots. All 15 participants who referenced vaccine refusers also explained that members of historically marginalized groups were disproportionately refusing vaccines. Indeed, in the winter of 2020–2021, media coverage reported high rates of initial vaccine hesitancy among Americans of color, especially Black and Latin Americans and contextualized hesitancy in histories and ongoing structures of medical racism (e.g., Schoenfeld et al. 2021; Yong 2021; Jameel and Chen 2021). Participants echoed this newly mainstreamed understanding of vaccine hesitancy as bound up in systemic inequities. In 20 interviews, participants described COVID vaccine allocation and distribution as not just flawed but unjust. One participant described vaccine distribution as “messed up” and explained: “Like most things, it works out if you have money, education, speak English, probably white. Like, what if I didn’t have a car? No vaccine. What if I couldn’t take off work?” Another participant described COVID vaccine distribution as “so spotty, so unfair” and clarified that this unfairness was enmeshed in racism in the US: “There are racial ethnic disparities that tear at my heart … I mean, the syphilis
experiments, Tuskegee. There’s good reason for African Americans to be afraid of white medicine.” By recognizing the structural factors that inform vaccine hesitancy and refusal, participants were blaming the institutions in power for failing to cultivate vaccine trust and access, rather than blaming reticent individuals for not believing and operationalizing science (Charles 2021; Goldenberg 2021).

And yet, while this framing of vaccine hesitancy as a structural problem seemed to call for collective action, participants most often and seemingly paradoxically leveraged the theme of vaccine refuser to reinscribe vaccine refusal as a personal choice and to justify an individualized approach to vaccination. Melissa, a participant who worked in finance and snagged her vaccine by claiming to be a childcare worker, explained her decision,

Daycare workers are turning down vaccines right and left. Just like nurses. Many belong to groups that are hesitant. It’s just how it is. … So you have all these vaccines, oh these are for daycare providers, these are for nurses, and then you read, nurses are turning down vaccines. So, I’ll never say it was the right thing to do, but I will say that I am extremely confident my site had more vaccines than they had people who wanted them.

Melissa referenced inequities shouldered by marginalized groups as shorthand to explain that her choice to take a vaccine earmarked for a childcare worker was not depriving a childcare worker of that vaccine—simply, she was accepting an unwanted dose.

Similarly, Olivia, who secured a vaccine appointment by using a code meant for residents of a lower income neighborhood (not her own), explained,

And the other thing that I use to justify and push away a little bit of the guilt is just the fact that they’re having a hard time getting the vaccine out … because most of the population that’s getting heavily hit, which is minority populations, don’t want it. People who are minority populations are not enthusiastic about getting it. So my thought is, well, the vaccine that I got, like the specific vaccine, was going to go to waste. And it’s not like it was taken from someone else … I think I would feel much guiltier then.

As Melissa’s and Olivia’s stories exemplify, when participants referenced vaccine refusal as prevalent among marginalized Americans, they did so not to reference the problems of medical racism, health disparities, and vaccine inequity. They did so to explain that they were not stealing a vaccine or harming anyone because those more vulnerable than themselves did not want the vaccine anyway. The metaphor of the line supported this interpretation of vaccine hesitancy as an individual choice and not as a structural problem—in a line, it is everyone for themselves. This narrative shows how vaccines are used rhetorically to rewrite disease from a collective problem that calls for collective action into an individual burden that calls for each of us to get vaccinated, that is, to “travel to wherever [the vaccine] is being administered, obtain any required boosters or follow-ups, and contend with the side effects or rare adverse events” (Lawrence, in Scott et al. 2015, 9). In other words, as soon as a vaccine is available, it is always the individual’s fault for not being vaccinated—whatever the context (refer to Conis and Hoenicke 2021). Put differently, this narrative shows that even when participants articulated understandings of vaccine access and hesitancy as structurally determined, the discourse of individualized responsibility remained more powerful, persuasive, and useful.
Discussion

This study asked how self-identified line jumpers used the metaphor of the line and the subjectivity of the line jumper to narrate and make sense of their COVID vaccine experiences. Findings have shown that participants adopted the line metaphor because lines were characteristic of impersonal, privilege-dependent, and resource-intensive institutions—which was how many participants experienced healthcare. In such institutional spaces, participants felt that they had to harness their resources to protect and advance their own interests. Further reflective of this attitude of constrained self-advocacy, participants from diverse backgrounds and with diverse vaccination stories identified as line jumpers. In doing so, participants were not framing themselves as cheaters or liars, as prior scholarship on lines might predict. Rather, participants were positioning themselves as responsible, diligent, and self-advocating healthcare seekers. These findings align with past research findings that many people are making vaccine decisions in response to their own and their family’s personal and situated health needs and not in response to a sense of social responsibility (Lawrence et al. 2014; Reich 2014; Sobo 2016; Hausman 2017) and contribute insights about the constrained identities and subjectivities that people adopt in individualistic healthcare and public health realities. Findings have implications for understanding the contexts in which people make vaccine decisions, improving vaccine and public health communication, and advancing MH research on vaccination.

Broader contexts of vaccine decisions: Privilege and belonging in a broken system

This study’s findings help map the local and complex contexts in which individuals make situated vaccine decisions (Lawrence et al. 2014). Hausman (2019, 2) has shown the importance of studying vaccine skepticism in a way that “move[s] away from predictable arguments about scientific literacy and toward questions about people’s world-views and how they understand the role of health and illness in their lives.” The present study is not focused on vaccine hesitancy, but its findings illuminate some of these contexts. Findings depict how vaccine experiences are enmeshed in experiences concerning privilege and belonging in healthcare and other institutions. The pervasiveness of the theme of the broken system (present in all 24 interviews) showed that participants approached healthcare as just that, a broken system. Whether or not participants felt that the system advantaged or disadvantaged them, participants described healthcare as a complex and privilege-dependent institution that demanded its users advocate for themselves in artful and rule-bending ways. This expectation of canny self-advocacy held true for participants who had experienced multiple forms of marginalization, such as Annika who spoke to the experience of navigating healthcare as a woman with a contested autoimmune condition or Michelle who described the entangled difficulties of working as a PCA and seeking healthcare as a Black woman. This expectation was also expressed by participants like Lenny, Arturo, and Perry, who identified as very privileged. These findings suggest that experiences of belonging and privilege influence vaccine decision-making and that the process of securing a vaccine—not just beliefs about the vaccine itself—shapes ideas about health, illness, and medicine, and, in turn, vaccine decisions.
Vaccine communication and outreach: Fading relevance of herd immunity

Findings align with research that many individuals make vaccine decisions at the level of individual or family health, not at the level of community health (Reich 2014; Lawrence et al. 2014; Sobo 2016; Hausman 2017). My findings also build on this research by suggesting another, related reason that appeals to herd immunity may be losing persuasive power: because herd immunity, as a metaphor, does not easily accommodate gradations of power and privilege, which shaped participants’ experiences of vaccination and healthcare. When we are told to “protect the herd,” for example, we are also told that we are all members of the herd and that we all benefit equally from the herd’s protective power. Participants, however, spoke to how privilege, class, race, literacies, and employment status played important roles in their healthcare access, disease risk, and health outcomes. Participants experienced vaccination and healthcare more like a line, that is, a space wherein we all vied for a spot at the front. Thus, calls for herd immunity or social responsibility might be unpersuasive because they do not accommodate many people’s lived experiences of healthcare access and provision as privilege dependent.

Future research: New health collectives

This argument also suggests directions for future research concerned with how people might be defining new biosocial communities. If many people do not feel included in a common herd and, accordingly, are not compelled to make health or vaccine decisions in the service of the public, then what sorts of publics or groups do individuals feel attached to and beholden to protect? In this article, I have quoted from interviews where participants felt motivated to protect their individual health (Melissa, Annika, Rory), the health of their nuclear families (Perry, Ben), and to a lesser extent, the health of their extended families (Aziza). But in other interviews from the larger study, participants described personal responsibility to make embodied decisions aimed at protecting specific communities, including their families but also neighborhoods, groups of schoolmates or co-workers, and groups delineated by shared race, ethnicity, gender, age, or health status characteristics (Campeau 2022). If many people do not feel protected by or called to protect a general population, united by shared social responsibility, what biosocial collectives do people recognize and feel protected by and bound to protect? Responses to public health initiatives are guided both by personal health and social responsibility; for this reason, it is important to understand people’s experiences of belonging and to examine how people define communities and act to protect those specific and fluid collectives.

Conclusion

The vaccine line metaphor was short lived. But it took hold quickly because the line reflected the ways that many of us were already thinking about vaccines, healthcare, and public health—as personal decisions made for personal gain. Research on vaccine hesitancy has shown that vaccine hesitant and non-vaccinating people often adopt discourses of individualized health and personal responsibility to explain their vaccine decisions, such that voluntary non-vaccinators are often characterized as selfish “free riders” who prioritize their own or their children’s health at the expense of community health.
My findings, however, show that logics of personalized health undergird many vaccine decisions, pro- and anti-vaccine decisions, and are rewriting the stakes of public health policy and effectiveness. The spread of the line as a vaccine metaphor shows that images of lines, rule-breakers, competition, and scarcity capture many people’s experiences in health, medicine, and vaccination more than depictions of and calls for community responsibility and shared benefits. The metaphor of the line thus illuminates and calls for more research focused on the power of personalized discourses of health, which have been rewriting how we think of our own health, community health, and what we can or should expect from each other and our healthcare systems.

### Appendix

#### Interview questions

Interview questions about COVID-19 vaccine experiences (open).

#### Interview goals

- Gain insight into vaccine decision-making
- Gain insight into meanings and experiences linked with COVID-19 vaccination
- Gain insight into how vaccine decision-making is linked up to larger beliefs about health, medicine, community responsibility/accountability, vulnerability
- Understand how individuals are understanding/processing vaccine distribution
- Understand how individuals and groups maneuver within bureaucratic health systems and pursue their own health goals

#### Interview intro

- This interview is part of a larger study about social and lived experiences of the COVID-19 vaccine.
- the interview itself: These are open-ended, qualitative interviews, which means I have few questions set up to structure our talk, but these questions are really open-ended, and the goal is that the interview will shift and develop based on what’s most important to you to talk about.
- Interview has four sections:
  - your general relationships to vaccination and medicine
  - your COVID-19 vaccine/vaccination story
  - Your thoughts about COVID-19 vaccine distribution
- Any questions about what I’ve described so far?

#### Vaccines and health, in general

I want to take a few steps back and just talk about vaccines. How would you describe your relationship to vaccines and vaccination before COVID was ever a thing?
• Have you followed vaccination guidelines/gotten all of your required and recommended vaccines / had your kids get their required and recommended?
• Why do you vaccinate?
• Do you recall ever having an issue or problem with any vaccine?
• Do you regularly get the flu vaccine?
• What would you describe as your main motivation for getting / not getting the flu vaccine?
• Where do you go to get vaccines – your doctor? A pharmacy? A drop-in clinic? Your workplace/school?

How would you describe your own health?
How would you describe your relationship with medicine?

The COVID-19 vaccine

So moving on to the COVID-19 vaccines–how would you tell your COVID-19 vaccination story?

• What is/was your main motivation for getting or not getting the vaccine?
• Has your confidence in the vaccine changed over time?
• How do you see this vaccine affecting your communities and social circles? (how do you define your community?)
• Where do you get info about COVID-19 vaccines?
• How is/is the COVID-19 different from other vaccines for you?
• What was your process of getting vaccinated like?

Distribution

Can you summarize how you understand the distribution plan in place in your state? (not weighing in/sharing your opinion, but just summarizing how it works).

(How do you imagine you will get vaccinated (when, how will you be notified, will you get vaccinated ASAP).

Ok, great. So, part 2, what are your thoughts or opinions about this plan?

• What would you like to see changed?
• Who do you think this plan helps?
• Who do you think it hurts or harms?
• Why do you think the distribution plan was designed in this way?

Wrap Up

• Is there anything I didn’t ask you that you feel like I should ask you?
• What do you think the most important thing we talked about in this interview was?

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**Declarations**

**Ethical approval** This study was approved by University of Colorado Denver’s Institutional Review Board under protocol COMIRB Protocol #20–3156.

**Informed consent** Informed consent was obtained from all individual participants included in the study. Participants gave informed consent to have excerpts from their interviews published with participant pseudonyms.

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**Endnotes**

1Since constructivist grounded theory does not typically rely on inter-coder reliability, these multiple methods of memoing, as well as comparative coding, are commonly recommended to avoid single researcher bias (e.g., Charmaz 2006; Deterding and Waters 2021; Farkas and Haas 2012). In addition to memos, I also conducted comparative coding of both full interviews and indexed excerpts from interviews (interviews were indexed by interview question), another practice recommended to avoid single researcher bias (Deterding and Waters 2021). Also in an effort to stay close to the data, specifically participants’ own words, as I condensed specific, open codes into more categorical codes, I sought to keep these more general codes grounded in data by tracking codes in a fluid codebook that included for each code a definition, exemplar codes, and differential or distinguishing codes (interview quotes that were close to but would not qualify for inclusion under each code) (Farkas and Haas 2012).

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