

Report about Public Health Preparedness and LGBTQ Communities

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Background

Impact of Disasters on Stress and Health

Experiencing disasters can be an extremely stressful event that can lead to numerous mental and physical health problems. It can also worsen existing stressors that impact people's health and well-being. The results of the 9/11 attacks impacted many people and this led to an increase in alcohol use, depression, and post-traumatic stress disorder (PTSD).¹ Another study of those who experienced Hurricane Katrina found a similar experiences of depression, PTSD, and tobacco use.² These events can harm people's health through the distress and trauma they cause or by limiting important resources that can be used to cope effectively. Communities that are already marginalized and lack sufficient social resources are at a greater risk for harms related to disasters. Social and health disparities experienced by community members need to be addressed as part of any disaster preparedness activity. Many community members who lack important resources on good days will not be able to respond to emergencies and those who have the resources to put towards preparedness activities. There needs to be resources at the community level to help that they can turn to.

The impact of the COVID-19 pandemic has impacted marginalized communities greatly. Statistics show that Black, Hispanic, and Native American populations have a greater risk for hospitalization and death, than white populations.³ The disparate impact upon race and ethnic minority populations is very much connected to social factors that impact their everyday life.^{4,5} Pandemics can exacerbate ongoing inequities, which can then intensify pandemics. We have seen this with HIV/AIDS and now COVID-19.

Sex and Gender Minorities Are Experiencing COVID-19 Related Disparities

Sex and gender minorities experience many different health disparities such as discrimination, violence, HIV/STIs, depression, and alcohol, tobacco and other drug use, and many problems related to their social determinants of health.^{6,7} The COVID-19 pandemic has had a negative impact upon the social determinants of health of sexual and gender minorities.⁸⁻¹⁰ The marginalization experienced by LGBTQ people created many problems for them during the pandemic. Notably, a study examining sexual minorities

experienced greater distress and decline in well-being compared to sexual majority populations during the pandemic.¹¹ Another study found an increase in substance use among sexual and gender minorities.¹²

Other studies are finding that gender and sexual minorities reporting problems accessing needed mental and physical health services as well as a greater sense of social isolation.^{13,14} However, studies inclusion of sexual and gender minorities are limited with most studies not including measures to capture sexual orientation and gender identity of participants.¹⁵ LGBT Community Centers arose because of the lack of services and resources available to communities of sexual and gender minorities. The problem is that these centers were themselves negatively impacted by the pandemic.⁸ The result is that when communities are most in need of services, the one source that communities have looked toward in the past are themselves impaired.

Anti-LGBT Attitudes and Policy as a Hazard

There is evidence that legislation can influence the health of gender and sexual minority people. Blosnich et al. (2016) studied transgender people who lived in states with substantive employment discrimination protections and found lowered risk of suicidal ideation, self-directed violence, and mood disorders.¹⁶ Horne et al. (2021) examined how the procedural vote on a referendum to remove state level gender protections negatively impacted the mental health of transgender people.¹⁷ Studies detailing the legislations-distress relationship in lesbian, gay, and bisexual people also found a similar relationship. Here, the evidence for protective legislations yielding fewer negative mental health outcomes is well documented - e.g., fewer psychiatric disorders;^{18,19} fewer suicides;²⁰ and lower distress.²¹

Preparedness plans are developed to help people and organizations continue to operate in the event hazards like snowstorms, hurricanes, and even human caused events like physical and cyber-attacks. If usual communication methods are impacted, people will turn to an alternative (e.g. shifting from telephones to radios for communication), or access to facilities are impacted the plan should identify alternatives (e.g. alternate physical or digital locations). Generally, such plans are focused on the hazard without consideration of its source. However, climate change has changed that as people are realizing its impact on the number and intensity of hazards and begun to alter their plans accordingly.

The impact on social and political climate should similarly be considered on the impact of human-caused hazards. Recently, many states have been implementing policies targeting young sexual and especially gender minorities. These laws seek to prevent people from accessing transgender affirming care and significant social spaces for young gender minorities^{22,23} These efforts have also created a climate that worries many young people and their parents.²⁴ While positive policies may play a positive role in the health of sexual and gender minorities, negative policy (and the related structural factors) may lead to many negative health outcomes.

While a minority of bills negatively affecting lesbian, gay, bisexual, and especially transgender people are being passed and enacted by states, the process can still negatively impact communities. Horne, et al shows that even when a community successfully rebuffs attempts to enact negative policies, the process still causes much stress and anxiety.¹⁷ The advocacy needed to fight against the enactment of negative continually polices can be tiring as families and affected people, write, speak, and protest against these bills only to turn around and do it again as other bills are proposed. LGBTQ media applauds reports of young people and family members who travel to capital cities to speak against legislation, but not acknowledge to the stress they experience as they travel again and again to provide their stories.

It is not just policy, but groups of people are attacking anything supporting Trans youth. There are people on social media stoking fear and anger against transgender people. These create situations were right-wing groups are showing up at children's events like drag queen story time or threatening healthcare providers at clinics providing gender affirming care.^{25,26} These people also seek to harass transgender people via social media and even acts of doxing or swatting. Taken together this is creating a very hostile environment for Trans youth, their parents, and their allies as well as forcing important services and resources for Trans youth to close for fear of violence. As of now, there are reports of family's leaving unsupportive states.²⁷ However, this is not a solution that many families can use.

Sexual and gender minority communities who are experiencing these events should be considered a type of human-caused hazard. The disruptions they cause can be as problematic and stressful as a flood, tornado, or pandemic. At the same time, efforts to

mitigate and prepare for such hazards can be equally useful in dealing with societal discrimination communities are currently experiencing. Efforts to create emergency planning materials and coordination with communities should include material on social disasters and other hazards. Many planning and mitigation plans already include material related to terrorism or mass-shooting, this would merely expand the scope to include the societal attitudes and beliefs that can lead to those events. An important tool related to mitigation and planning for any disaster is working to improve the social networks and resiliency within sexual and gender minority communities.

LGBT Community Centers have the potential to be an important resource during times of pandemic and disaster. There are examples of other organizations positively impacting their communities after a disaster. After Hurricane Katrina the Mary Queen of Vietnam Church provided important resources to their community's resilience and recovery activities.²⁸ Community organizations can play an important role in a community's resilience by providing important resources with or without the help of governmental entities.²⁹ LGBT Community Centers provide important resources to their sexual and gender communities, however, these activities have been negatively impacted by the COVID-19 pandemic.⁸ This can indicate a lack of preparedness planning on behalf of these centers as well as the ignorance of Public Health and Emergency Management personnel in providing culturally competent disaster planning for gender and sexual minority communities.

The Needs of Sexual and Gender Minorities in Disaster are Neglected

The Federal Emergency Management Administration (FEMA) and Homeland Security provide little in the way of guidance for Emergency Management personnel in how to work with sexual and gender minority communities. The 2020 National Preparedness report highlighted the vulnerability Lesbian, Gay, Bisexual, Transgender, and Queer communities within a disaster, but the 2021 report does not refer to sex and gender minorities at all.^{30,31} There are recent reports highlighting the same problem.^{32,33} Homeland Security recently published a National Terrorism Advisory System (NTAS) Bulletin where they identify the risks of violence to LGBTQ communities, faith-based institutions, and other communities.³⁴ The Bulletin further identified the resources provided to those

affected, except for the LGBTQ community. These reports highlight the need for greater inclusion sexual and gender minority communities within all facets of disaster planning, response, and recovery. Such resources need to encompass the issues relevant to gender and sexual minorities and that includes societal stigma and how that can impact people's lives.

Study

The study utilized Centerlink's (A national organization of LGBTQ Community Centers) directory to identify the contact information for LGBTQ community/medical organizations. The report will not mention the location of these organizations to maintain their anonymity. The report consists of conversations with representatives from two community centers, youth organizations, and medical organizations. Topics discussed include the help they received by governmental and nongovernmental organizations in developing their preparedness and emergency planning resources. Other topics discussed included the natural and human-caused hazards that organizations can experience, and lastly discussed how anti-LGBTQ activities are impacting their organizations and what their organization is doing about it. At the start of the project, an Mpox outbreak within LGBTQ communities was identified and became another topic of conversation.

The conversations were conducted before the Colorado Springs shooting and the rash of incidents involving people connected to the far-right attacking organizations (especially those serving youth) activities. This is combined in the growing anti-LGBTQ rhetoric accusing LGBTQ people with grooming and attacks against medical organizations providing gender affirming care. It's not known how these would have affected anyone's answers.

Hazards

Natural Hazards

Due to their location, snow and snowstorms are seen as a major issue, but one that the organizations generally manage as they are not considered unusual. Most mentioned taking a "snow day" approach where they will close their facility if local schools do so, or at least change the times of their opening or closing. Organizations mentioned moving to virtual activities as

well. With snow and cold the organizations have policies and relationships regarding snow removal so that clients and staff can safely enter and leave the buildings.

In addition to winter hazards, large rainstorms were also mentioned, but only one organization mentioned flooding impacting their operations. The loss of power impacting operations was mentioned as an issue that storms can cause. A couple of organizations mentioned heat hazards, and one mentioned that they are a cooling station during heat emergencies. Tornadoes were a hazard that a couple organizations mentioned as being a concern and needing more assistance. There were questions about where organizational staff and clients should evacuate in case of a tornado, and whether existing spaces are secure enough.

Organizations also mentioned fire as a hazard that organizations have plans and mitigation resources such as insurance to help with recovery and operations. The existence of regulations focused on building codes around fire and fire safety provides organizations with more guidance than other hazards. This highlights governmental agencies' role in influencing organizations' preparedness regarding a particular hazard. There is more guidance and requirements concerning building fire compared to tornadoes. In certain cases, organizational operations depend on their region's impact and recovery from natural hazards.

Pandemic Hazards

At the time of the conversations each organization created their plans and responses to the pandemic. The medical organizations have in place stricter COVID-19 guidelines about wearing masks and screening people entering their buildings. The community and youth organizations reported closing operations until they can create plans and new operating methods within a pandemic. Organizations mentioned moving programs online through Zoom and other electronic resources.

The representatives spoke of adapting to situations and reacting to how situations change. They spoke of the resources provided by the CDC, local health depts, and CenterLink (a National LGBTQ organization) as important resources to help them establish policies and resources to operate and to keep their staff and clients safe. In addition to virtual operations,

organizations created systems to help educate their clients about COVID-19. They also identified that there were members in great need for their organization's services (medical, access to computers, food, etc.) so they made adaptations to allow in person activities. All this to provide needed resources for people who could not access resources without the help of the organizations.

The representatives felt that they were more ready when Mpox (The name monkeypox is being phased out due to its racist and stigmatizing aspect of the name. Monkeypox was used during the interviews during the summer.) outbreak happened. A couple of people compared this to HIV/AIDS, especially regarding the federal government's actions around it. A couple of people mentioned that the LGBTQ community's history with HIV meant that they were more able to respond to this outbreak and to advocate for a better response from governmental agencies. People felt that the community's history with HIV/AIDS meant that they were more supportive to a public health response to pandemics compared to the general population.

Negative Political/Social Climate

The interview also included a discussion of the anti-LGBTQ climate impacting the country and how it can impact their organization's operations. Most of the concern is whether their physical space is in danger. People speak of having LGBTQ signage identifying who they are and don't feel deterred from letting the community know who they are. People do report receiving threats or their space being vandalized and have been able to respond to these events without impacting their organization's activity. Mitigation efforts include having a relationship with local law enforcement and political leaders who can aid in responding to attacks on the organization.

Organizations did not discuss how this could prevent their operations, except when it comes to work done with other organizations like schools. The anti-LGBTQ climate could create barriers with working with young people and educators. Organizations are aware of these activities are on guard to prevent anything from impacting their operations. A larger organization employed a specific person to monitor these activities, but the smaller organizations depend on volunteer work.

Advocacy and education have been discussed as an important tool to stop anti-LGBTQ legislation. People have also mentioned the impact the Dobb's decision (ending Roe v. Wade) may have. People talk about the importance of working with other organizations. People spoke about collaborating with organizations providing racial and ethnic minority advocacy. Ones that serve youth also mention providing support to youth, especially trans youth whom most of the legislation are targeting. Young people are experiencing much stress over the rhetoric being used. People also discuss their limitations as nonprofits in advocacy and need to rely on organizations designed to conduct political work.

Human-Caused Hazards

Two types of human-caused hazards were discussed, and they were violence (for any reason) and potential attacks on their electronic infrastructure. Regarding violence, all organizations have policies in place for staff in how to respond to violence. They also discussed the difference between violence due to anti-LGBTQ climate and violence for other reasons such as client distress. These organizations provide services for the community, including mental health or substance use services.

Organizations have policies in place regarding handling aggression or violence among their clients. One organization discussed training staff on de-escalation techniques to help reduce the threat of violence. Others employ security guards to handle violent people. There is also a variety of beliefs about the use of law enforcement where some will see them as a last resort and others who will seek their assistance immediately.

People felt that violence due to the anti-LGBTQ climate is a concern and their organization's current policies are seen to be sufficient for responding to such occurrences. I do want to make note that these interviews took place after the Colorado Springs shooting and the actions of far-right groups have been making against LGBTQ spaces. It is unknown how these events along with the growing anti-LGBTQ climate is changing how people respond or how they can mitigate against these events.

Cybersecurity was also a topic; an organization's actions depend on their resources. Larger

organizations can employ or contract with organizations to provide cybersecurity. However, smaller organizations do not have that ability and generally lack resources in this area. This area is of greatest need as smaller organizations lack any resources related to cyber or ransom attacks.

Governmental and Organizational Supports

Centerlink was one national organization mentioned by many people as an important resource (Centerlink was also used to find contact information for the organizations interviewed). Namely they provided organizations important resources, especially during the pandemic, finding new ways to provide services, and networking with other organizations. They also helped smaller organizations by providing resources they cannot develop independently. Centerlink also wrote a report identifying the COVID-19 pandemic issues faced by LGBT organization.⁸

In addition to Centerlink, many organizations mentioned their work with other LGBTQ organizations. There is an important network of LGBTQ organizations that work together to provide services or participant in advocacy activities. These connections can be an important resource for organizations to utilize during emergencies.

Much of the support received by organizations were local. Local governments, health depts, and law enforcement were identified as providing organizations with information and guidance related to their organization's safety. Such assistance includes regulations and codes related to building safety, especially around fire. Organizations identified law enforcement as a resource, although some have considerations about them due to their community's overall relationship with them. Local health depts were also an important resource, especially concerning COVID-19, HIV/AIDS, and Mpox.

National governmental agencies mentioned included the CDC, FBI, and Homeland Security. The CDC provided aid related to COVID-19, Mpox, and HIV/AIDS work. The FBI and Homeland Security provided resources and information about an organization's physical security. The amount of support from state and national agencies were limited. State and federal emergency management agencies were not mentioned as assisting the organizations interviewed.

This is reflected in lack of LGBTQ material produced by those agencies as mentioned earlier.

Conclusion

Prepared for Common Hazards

In general, organizations are prepared for hazards common for their area. Due to their location in the Midwest, snow and storms were identified as major hazards impacting their operations. Structure fires are another hazard that organizations have plans and resources devoted towards. This is not to say that there are no areas needing help, such as help developing plans around tornados. Organizational preparedness is very much based on a hazard's occurrence, snow happens more often as tornados so there is more plans and resources dedicated to snow then tornados.

Each organization's level of preparedness is dependent upon the size of the organization. The larger organizations can employ people directly responsible for organizational safety or advocacy. Larger organization's also employ IT experts to help with cybersecurity. Smaller organizations need to rely on the support of organizations like Centerlink or local organizations.

Prepared for Pandemics and other Outbreaks

The COVID-19 pandemic impacted LGBTQ organization the same as it impacted the rest of society. The initial actions of organizations involved quickly creating new systems to continue operations with the help of organizations like Centerlink. The people interviewed felt their organizations could adapt quickly to their community's needs and continue operations safety. LGBTQ organization's experience with COVID and HIV/AIDS has likely prepared them for the Mpox outbreak in the summer of 2022. People felt confident about their response to Mpox and actively critiqued government inaction in providing needed resources.

Human-Caused Hazards

Organizations have plans and relationships to handle human-related hazards like violence and cyber security. Many have already dealt with various forms of violence from clients and the outside community, and generally believe that their current plans are adequate to

handle most forms of violence. Cybersecurity remains an issue for smaller organizations who generally lack the resources that larger organizations may have to implement safety resources. There is also concern for how the current social and political climate may impact future incidents of violence.

The spread of legislation targeting LGBTQ people, and especially trans youth are concerning to the organizations. The organizations discussed how they advocated against anti-LGBTQ legislation being developed in their state and working with other organizations. They highlighted their difficulty as a nonprofit in their advocacy and depend upon organizations and volunteers that can participate more directly in the political process.

There have already been states that have implemented policies targeting trans youth with worse being developed over time. It may create a situation where organizations may have to choose between providing services to a very marginalized community or risk losing funding for their other services. This was the case of a hospital in Oklahoma who stopped providing care for trans youth due to threats of having money taken away from them by the State's Government.³⁶

Governmental Support

The entities not mentioned playing a role in their organization's disaster preparedness was FEMA or their State EMA's. The larger organizations discuss working with local emergency organizations. These larger organizations also provide medical care so they can play an important role in a city's emergency response. LGBTQ organizations who do not directly provide medical care were not involved in the emergency planning of their city. Similarly, the disappearance of any mention of LGBTQ communities from the 2021 National Preparedness Report shows how emergency management resources concerning LGBTQ communities can be lacking.

A recent report by the Dept of Homeland Security highlights the increased risk of terrorism groups that faith organizations, schools, and the LGBTQI+ community.³⁴ While they highlight the increased risks LGBTQ communities are facing, they do not provide specific resources for LGBTQ communities. Resources specific to others are included though. The lack of resources will continue to place LGBTQ communities at

continued risk of harm, especially smaller organizations who cannot access these resources on their own.

Recommendations

The lack of LGBTQ inclusion within emergency management is surprising compared to other fields. Inclusion of LGBTQ issues within other Federal agencies have been in development for many years. The National Institutes of Health has an office dedicated to Sexual and Gender Minority Health. Health and Human Services and the CDC has provided resources and guidance regarding LGBTQ health for many years, even when excluding HIV/AIDS related resources. The Dept of Homeland Security and the Federal Emergency Management Agency must provide more resources for LGBTQ communities. It's especially pressing currently when attacks against LGBTQ communities have been increasing in severity and number.

One aspect that emergency management agencies need to do is develop more connections with LGBTQ community organizations. The lack of resources dedicated to LGBTQ organizations is egregious when examining the vulnerabilities faced by these communities and their fraught relationship with religious and other organizations that are typically active during a disaster. At the same time, such relationships should not be top-down. Governmental organizations must understand that they must develop trust with the communities they wish to serve. Community members will be wary of any Governmental intrusion, so relationships need to be built over time.

Without emergency management activity, other organizations have stepped forward to guide LGBTQ issues during disasters (National LGBT Health Education Center and DRR Dynamics Ltd).^{33,35} There are people and organizations that Emergency Management Agencies can partner with in developing and improving existing resources.

The attacks on LGBTQ people and especially trans youth by governmental entities is an issue likely to impact the health of people in many ways and could be considered as much as a disaster as a tornado. Much like a disaster, these governmental actions are causing people to migrate to more supportive areas and negatively impacting the health of LGBTQ people and their families.

Historically, when governmental entities are themselves causing harm, many people began to create community resources to replace those unavailable due to governmental inaction. LGBTQ communities can turn to their HIV/AIDS history as an example of what communities can develop on their own. Community healthcare has a long history within many marginalized groups and could become an important resource for people in areas that lack those services. Ultimately, we can always turn to our community for assistance and security.

FEMA National Household Survey

Since 2013, the Federal Emergency Management Agency has collected data about people's actions, motivations, and attitudes toward disaster preparedness.³⁷⁻³⁸ Participants were asked questions about disaster and pandemic preparedness. Since 2022, the survey has been collecting data identifying people's sexual orientation and gender identity (SOGI) as part of Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities.³⁹ They utilized a combination of telephone and web surveys.

While FEMA did collect SOGI data during the 2022-2023 surveys, they did not do so for the entire sample. They utilized a screening question asking, "Do you, personally, self-identify as LGBTQIA+?" Only the people who responded Yes to this question were asked questions about their sexual orientation and gender identity. The results are subsamples of the larger dataset that cannot be analyzed with the entire sample as SOGI measures are not collected for people who do not answer yes to the screening question. Five hundred and twenty-one participants were recruited in 2022, and 721 participants were recruited in 2023. The data was analyzed using R v4.3.1 and Rstudio v12.1, along with the Tidyverse and Survey packages.⁴⁰⁻⁴³

Sexual Orientation and Gender Identity

Participants were asked, "How do you identify your sexual orientation?" and "What is your gender identity?" and were given the following responses found in see table 1a-1b. The only difference is that the "prefer not to answer" option was not used in 2023.

For sexual orientation, the most common response across both 2022-2023 was Bisexual (42%, 38%). There are notable differences between 2022 and 2023 for other responses. Gay (24%) and Lesbian (15%) were the second and third most common responses, followed by Heterosexual or Straight (9%) in 2022. In 2023, Heterosexual or Straight (18%) was the second most common, followed by Gay (15%) and Lesbian (10%). The presence of so many people who answered being a part of the LGBTQ+ community while answering Heterosexual or Straight, and at such a high percentage, highlights a potential issue with how SOGI data is collected within the survey.

For gender identity, Cis woman (33% for 2022 and 2023) and Cis man (2022-29% and 2024-24%) were the most common responses. Agender is the third most common response for both years (2022-8% and 2023-14%). More people identified as Agender in 2023 than Transgender and Non-Binary combined. This is notable because Agender as a response was 11th with far more people identifying as Transgender or Non-Binary within the 2015 US Transgender Survey.⁴⁴

These results show an interesting pattern. For further analysis, a new measure for sexual orientation was made that identified whether someone was a sexual minority (**did not** identify as heterosexual or straight). Participants who reported "Don't know" and "Prefer Not to Answer" responses were removed from the analysis.

Another variable was created to identify whether someone was Transgender (not a Cis woman, Cis man, or Agender), Agender (not a Cis woman, Cis man, or Transgender), or Cisgender (not Transgender or Agender). Transgender consists of answers other than Cis woman, Cis man, or Agender. Participants who reported "Prefer Not to Answer" for either the sexual orientation or gender identity questions were removed from the analysis. Additionally, "Other (Specify)" for the gender identity question were dropped. Examining responses found it to be an alternative for cis man and cis woman among people who did not want to refer to themselves as cisgender.

These measures were combined into a single measure identifying six categories (table 2). The categories were Cisgender, Sexual Minority (65% in 2022, 51% in 2023), Transgender, Sexual Minority (17% in 2022, 20% in 2023), Agender, Sexual Minority (8% in 2022, 12% in 2023), Cisgender, Heterosexual (6% in 2022, 12% in 2023), Transgender, Heterosexual (2% in 2022, 3% in 2023), and Agender, Heterosexual (1% in 2022, 3% in 2023). The result was a reduced sample of 454 cases in 2022 and 720 cases in 2023.

Key Influencers to Preparedness

Key influences are defined as the following:

- **Awareness Of Information:** Have read, seen, or heard about preparedness in the past year.
- **Experience With Disasters:** individuals or their families experienced the effects of a disaster.
- **Preparedness Efficacy:** Believe that taking steps to prepare will help them get through a disaster and are confident in their ability to prepare.
- **Risk Perception:** Believe that a disaster is likely or very likely to impact their lives.

Overall, all groups did show an increase from 2022 to 2023 (see table 3). Cisgender and Transgender Sexual Minorities reported the lowest levels among the key influencers for both years, with Transgender Sexual Minorities reporting the lowest levels among all six categories, as well as with the National Household Survey (NHS) Key Findings for disaster and pandemic preparedness.⁴⁵⁻⁴⁶ Importantly, the heterosexual categories had much higher percentages among the Key Influencers, with some much higher than the NHS findings.

Most notably, Transgender sexual minorities and Transgender heterosexuals were less likely to report preparedness efficacy (disaster and pandemic), meaning that they were less likely to believe that taking steps will help them prepare and lack confidence in their ability to prepare. Cisgender sexual minorities also were more likely to lack efficacy.

Intention to Prepare

All groups showed improvements in preparedness from 2022 to 2023 (see Table 4). Transgender sexual minorities remain the group who was least likely to be prepared and more likely to have no intent to prepare across all categories and periods for both disasters and pandemics. Sexual minorities were less likely to report being prepared and more likely to report no intention to prepare compared to heterosexual categories and the NHS findings. Agender and heterosexual categories reported being more prepared than the NHS key findings.

We were taking three or more preparedness actions.

FEMA identifies 12 activities to prepare for a disaster or emergency. This study examines whether people have taken three or more of these actions. Among all the categories, Transgender sexual minorities were the least likely to have taken three or more preparedness actions. In comparison, cisgender heterosexuals were most likely to report taking three or more preparedness actions.

Heterosexual and Agender Categories

The high percentages among the heterosexual and agender categories indicate a concerning pattern within the datasets. Their scores are generally much higher than the NHS findings for the entire sample. It indicates several heterosexual people who identify with LGBTQ+ communities who are also very much focused on preparedness. Additionally, those who identified as Agender generally reported being more prepared than those who identified as transgender.

Conclusion

FEMA's National Household Survey is currently the only data that examines disaster preparedness among gender and sexual minorities. These data show that gender and sexual minorities need more support to improve their level of preparedness. This is especially true for gender minorities who report less preparedness than the other categories and the NHS Key findings or disasters.

The conduct of FEMA's National Household Survey raises concerns about how they collect sexual orientation and gender identity (SOGI) data. The first issue is that they have not been collecting SOGI data widely. This prevents a way to compare sexual and gender minorities to other populations. It also limits the generalizability of the data.

Their screening question of "Do you, personally, self-identify as LGBTQIA+?" and the number of heterosexual people recruiting is not in itself a problem. Many straight people could consider themselves to be LGBTQIA+ for many reasons, but the finding that they also report such higher levels of preparedness than sexual and gender minorities makes the author question its authenticity.

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Table 1a: Responses to the question "How do you identify your sexual orientation?"

Sexual Orientation	2022		2023	
	Number	Percent	Number	Percent
Asexual	13	2%	50	6%
Bisexual	218	42%	298	38%
Demisexual	3	0.6%	14	1.8%
Don't Know (removed from analysis)	3	0.6%	12	1.5%
Gay	127	24%	118	15%
Heterosexual or Straight	47	9%	140	18%
Lesbian	79	15%	80	10%
Other (Specify)	4	0.8%	13	1.6%
Pansexual	17	3%	49	6%
Prefer Not to Answer (removed from analysis)	2	0.4%	NA	
Queer	8	1.5%	17	2%
Total	521		791	

Table 1b: Responses to the question "What is your gender identity? "

Gender Identity	2022		2023	
	Number	Percent	Number	Percent
Agender	43	8%	111	14%
Cis Man	153	29%	192	24%
Cis Woman	173	33%	261	33%
Don't Know	27	5%	55	7%
Non-Binary	34	7%	58	7%
Non-Conforming	11	2%	18	2%
Other (Specify) (removed from analysis)	41	8%	57	7%
Prefer Not to Answer (removed from analysis)	21	4%	NA	
Transgender	18	3%	39	5%
Total	521		791	

Table 2: Sexual Orientation and Gender Identity Categories used for Analysis.

	2022		2023	
	Number	Percent	Number	Percent
Cisgender, Sexual Minority	293	65%	364	51%
Transgender, Sexual Minority	79	17%	143	20%
Agender, Sexual Minority	37	8%	85	12%
Cisgender, Heterosexual	29	6%	84	12%
Transgender, Heterosexual	10	2%	20	3%
Agender, Heterosexual	6	1%	24	3%
	454		720	

Table 3: Key Influencers to Preparedness, Disaster and Pandemic.

Disaster	Awareness of Information		Experience with Disasters		High Preparedness Efficacy		Risk Perception	
	2022	2023	2022	2023	2022	2023	2022	2023
Cisgender, Sexual Minority	79%	89%	57%	62%	42%	54%	72%	78%
Transgender, Sexual Minority	72%	84%	72%	62%	32%	44%	57%	74%
Agender, Sexual Minority	81%	98%	59%	76%	46%	67%	65%	89%
Cisgender, Heterosexual	98%	96%	96%	84%	70%	79%	98%	88%
Transgender, Heterosexual	88%	94%	60%	61%	40%	56%	86%	92%
Agender, Heterosexual	94%	100%	100%	75%	97%	90%	100%	98%
NHS Key Findings	89%	89%	49%	54%	48%	50%	73%	77%
Pandemic	Awareness of Information		Experience with Disasters		High Preparedness Efficacy		Risk Perception	
	2022	2023	2022	2023	2022	2023	2022	2023
Cisgender, Sexual Minority	97%	92%	73%	86%	41%	56%	85%	88%
Transgender, Sexual Minority	84%	87%	63%	90%	27%	45%	74%	79%
Agender, Sexual Minority	85%	94%	70%	88%	52%	62%	74%	88%
Cisgender, Heterosexual	100%	99%	98%	86%	74%	86%	100%	95%
Transgender, Heterosexual	88%	94%	88%	89%	49%	54%	88%	76%
Agender, Heterosexual	100%	99%	32%	93%	97%	96%	100%	98%

Table 4: Preparedness and Intentions to Prepare for a Disaster or Pandemic

Disaster	Prepared		Intent to Prepare		No Intent to Prepare	
	2022	2023	2022	2023	2022	2023
Cisgender, Sexual Minority	41%	49%	41%	36%	12%	11%
Transgender, Sexual Minority	22%	39%	37%	39%	25%	15%
Agender, Sexual Minority	40%	62%	32%	26%	27%	12%
Cisgender, Heterosexual	74%	78%	24%	10%	2%	10%
Transgender, Heterosexual	3%	88%	45%	11%	40%	2%
Agender, Heterosexual	86%	82%	11%	18%	3%	<1%
NHS Key Findings	45%	52%	42%	38%	14%	11%
Pandemic	Prepared		Intent to Prepare		No Intent to Prepare	
	2022	2023	2022	2023	2022	2023
Cisgender, Sexual Minority	62%	55%	25%	29%	7%	10%
Transgender, Sexual Minority	39%	52%	26%	28%	14%	10%
Agender, Sexual Minority	53%	65%	26%	27%	20%	6%
Cisgender, Heterosexual	76%	72%	76%	17%	0%	9%
Transgender, Heterosexual	34%	60%	30%	23%	24%	11%
Agender, Heterosexual	86%	79%	11%	10%	3%	5%

Table 5: Took 3 or More Preparedness Action for Disaster or Pandemic

Disaster		
	2022	2023
Cisgender, Sexual Minority	62%	60%
Transgender, Sexual Minority	35%	55%
Agender, Sexual Minority	56%	54%
Cisgender, Heterosexual	79%	78%
Transgender, Heterosexual	60%	41%
Agender, Heterosexual	94%	49%
NHS Key Findings	55%	57%
Pandemic		
	2022	2023
Cisgender, Sexual Minority	41%	44%
Transgender, Sexual Minority	26%	44%
Agender, Sexual Minority	42%	51%
Cisgender, Heterosexual	84%	75%
Transgender, Heterosexual	60%	32%
Agender, Heterosexual	94%	52%