

Buffalo Blizzard 2022, NY: A Case Study Report

Introduction

In December 2022, Erie County in Western New York, particularly the city of Buffalo, experienced the worst blizzard in its history. The blizzard resulted in 47 deaths countywide from three days of snowfall reaching 51.9 inches in depth. The winter storm was declared a federal emergency and resulted in devastating losses of life, injuries, and infrastructure damages that disproportionately affected people of color and those living in neighborhoods that already faced serious economic adversities.¹

Facts of the Case

Deadly blizzard conditions began on December 23rd and lasted 37 hours, consisting of unprecedented conditions that increased the severity and fatality of the storm beyond what is generally expected of the frequent winter storms in the region. Hurricane-force winds during heavy snowfall caused whiteout conditions with zero visibility. Over 50 inches of snowfall, plus subfreezing temperatures reaching below 30°F, halted rescue efforts and resulted in 47 deaths in Erie County, with 31 of those being residents of Buffalo.¹ Furthermore, two-thirds of the deceased individuals were Black, despite comprising only one-third of the city's residents, thereby exposing the underlying inequities that exist within Buffalo. Failure of the electric grid to withstand the extreme weather led to power outages for over 20,000 homes and city facilities, consequently leaving many residents without heat. Public resources that were devoted to snow removal were unable to perform essential functions due to the swiftness and intensity of the snowfall. An estimated USD \$10.2 million of the city's funds were spent on rescue efforts and recovery operations.^{2,3}

Epidemiological Aspects of the Event

Mayor Byron Brown and the City of Buffalo sponsored and requested that New York University's Rudin Center at the Wagner School of Public Service conduct a review and prepare a Report of the December 2022 blizzard and provide recommendations for improved preparedness and response in the case of future similar events. The research team conducted interviews with 35 stakeholders, and collected data from various sources, including media coverage, public hearings, public reports, and context from related historical events. The data was analyzed and presented in a report titled "Lessons Learned from the Buffalo Blizzard".¹ Analytic approaches and measures of association were not contained in the report.

Management of the Event

The shortfalls that were identified highlighted deficiencies in public communication and emergency notification, in addition to insufficient preparedness with regards to emergency vehicles, snow removal equipment, and storage facilities. The fire department and police services reported inadequate equipment for navigating the snow, such as snow mobiles and all-terrain vehicles, resulting in stranded emergency workers, some of whom needed rescuing themselves.^{1,4} This consequently culminated in an ineffectual rescue and recovery response. Likewise, warming centers were inequitably distributed and insufficiently equipped, once again disproportionately impacting vulnerable communities.¹

In light of the report released by NYU, the city of Buffalo has begun incorporating prevention and preparedness processes for more efficient, equitable, and timely responses to future comparable events. This includes the creation of a Storm Response Taskforce, comprising of representatives from the city, county, and state government, National Grid, local businesses and community members. Purchases have also been made for improved snow removal equipment and the construction of new facilities for the Department of Public Works, as well as the procurement of funds earmarked for assistance of residents in low-income neighborhoods.⁵

Communication of the Event

Criticisms of the threat communication to residents included delays in posting of travel bans and road closures that should have been put into effect sooner. The Report hypothesized that this measure might have mitigated the loss of life, since it has been reported that many individuals were already stranded in their vehicles on the roads when the closures were ultimately enacted.⁴ Moreover, notifications were relayed to the public via radio and television sources, leaving residents without access to these devices and those affected by the power outages not receiving urgent information.¹

Summary

The devastating losses and disproportionate impacts felt by low-income communities in Buffalo following the blizzard of December 2022 highlighted the need for government officials nationwide to prepare in advance in anticipation of extreme weather events, as these are becoming more frequent due to climate change. A greater emphasis is needed on providing support and assistance to communities who presently face disparities due to systemic inequities. Timely risk communication with effective coverage is key, with appropriate intergovernmental coordination at the city, county, and state level. Noteworthy in this case is the swiftness of action in the aftermath of the disaster on the part of the Mayor and the City of Buffalo in requesting a report and recommendations from an external institution, allowing for transparency and accountability.

Of particular significance is the role of first responders and residents of Buffalo themselves, who went above and beyond to protect and provide for their neighbors, community members, and strangers alike, lending truth to the phrase that is used to describe citizens of Buffalo, "The City of Good Neighbors."

References

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