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Examining mass shootings from a neighborhood perspective: An analysis of multiple-casualty events and media reporting in Philadelphia, United States

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ABSTRACT

Identifying the people and places affected by mass shootings depends on how “mass shooting” is defined. From the perspective of urban neighborhoods, it is likely the number of people injured within a proximate time and space, which determines the event's impact on perceptions of safety and social cohesion. We aimed to describe the incidence of “neighborhood” mass shootings in one US city and to determine how these events were communicated to the public through news media. This mixed-methods study analyzed Philadelphia, Pennsylvania police data from 2006 to 2015. Using rolling temporal and distance buffers, we isolated shooting events involving multiple victims within a defined time period and geography. Selecting a definition of neighborhood mass shooting consistent with other common mass shooting definitions in which ≥ 4 victims were shot within 1 h and 100 m, we identified 46 events involving 212 victims over 10 years. We then searched public news media databases and used directed content analysis to describe the range and headline content from reports associated with the 46 events. Neighborhood mass shooting victims were more likely to be younger and female compared to other firearm-injured individuals ($p < 0.001$). Seven (15%) events received no news media attention, and 30 (77%) of the 39 reported events were covered solely in local/regional news. Only one event was named a “mass shooting” in any associated headline. In Philadelphia, neighborhood mass shootings occur multiple times per year but receive limited media coverage. The population health impact of these events is likely under-appreciated by the public and policymakers.

1. Introduction

Firearm violence is an urgent threat to public health in the United States (US). Recently, several high-profile mass shootings have garnered public attention and interest in solutions (Sacks et al., 2016; Wintemute, 2018). However, there remains no consensus on the criteria that defines a mass shooting (Borchers, 2017). While Federal Bureau of Investigations (FBI) statistics focus on “active shooter” events which may or may not result in multiple homicides, media sources like Mother Jones collect data on incidents in which four or more people, excluding the shooter, are killed in a public place (<https://ucr.fbi.gov/>, n.d.; Follman et al., 2018). Some definitions of mass shootings omit incidents related to gangs, drugs, or other criminal activity, effectively excluding

multiple-casualty incidents that occur in urban settings (Follman et al., 2018).

Using a more inclusive definition of mass shooting as an event “in which four people were killed or wounded, including attackers,” a *New York Times* report found mass shootings largely affect the population at highest risk for firearm violence in cities: young Black men living in poor, under-resourced neighborhoods (Gun Violence Archive, 2018; Lafraniere et al., n.d.). Authors contend that these events are “a pencil sketch of everyday America at its most violent,” demonstrating that mass shootings, when broadly defined, are more common than previously thought and epidemiologically similar to “everyday” urban firearm violence (Lafraniere et al., n.d.).

Neighborhood environments can have substantial effects on health,

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wellbeing and safety (Roux and Mair, 2010; Sampson et al., 1997; Kawachi and Subramanian, 2007). Individuals living in violent crime “hot spots” report lower levels of collective efficacy and higher rates of both physical and mental health problems compared with people living in less violent areas (Weisburd and White, 2019). At the neighborhood level, mass shootings can be psychologically damaging, even for those not directly affected by violence (Lowe and Galea, 2017). And violence is cyclical; mass shooting events can fuel future violence, especially in communities where firearm violence is common (Dodge et al., 1990). Thus, from the perspective of urban communities, it is likely the number of people shot within a proximate time and space, and not the shooter's identity or motive, which determines the event's impact on residents' perceptions of safety, wellbeing, and social cohesion. If mass shootings were conceptualized as part of the violence that impacts urban neighborhoods and defined based on the concentration of shootings within a specific time and space, this would enhance understanding of the consequences of these events and expand discussion of prevention strategies in specific urban settings where shootings occur most frequently. To date, the impact of mass shootings on urban communities has not been empirically and comprehensively described.

Media play an important role in shaping how the public understands and supports a response to disease and public health threats (Collinson et al., 2015). In the area of injury and violence, news media tend to focus on high-profile mass shooting events instead of reporting on “everyday” urban firearm violence (Lafraniere et al., n.d.; Simon, 2018; Marvel et al., 2018). Even high-profile reporting of mass shooting events may hinge on characteristics of the individuals and places affected. An empiric evaluation of mass shooting news reports identified racial, ethnic and gender-based variability in how blame is assigned and shooters are described (Duxbury et al., 2018). These disparities in media coverage could affect public understanding of the impact and epidemiology of firearm violence in the US, which in turn may limit the identification of effective interventions to address potential root causes (Duxbury et al., 2018; Zillman and Brosius, 2000; McGinty et al., 2014). Little is known about the consistency, reporting range, and content of media reports on neighborhood mass shootings in urban environments.

In this study, we had two aims. First, we sought to measure the incidence of mass shooting events from the neighborhood perspective in one US city, and second, we aimed to determine how these mass shooting events were reported and disseminated to the public through news media.

2. Methods

The study area for this analysis was the city of Philadelphia, Pennsylvania. We used victim-level data from a registry of all firearm assaults reported to the Philadelphia Police Department (PPD) from January 1, 2006 to December 31, 2015 ($n = 15,672$). Available fields describe the time and date when the shooting occurred, the street address masked to the block level (e.g. 1600 block of Market Street), victim demographic characteristics (sex, age, race [Black, White, Asian], and ethnicity [Hispanic, non-Hispanic]), mortality (fatal or non-fatal), and crime type (aggravated assault, robbery). Information about the shooter is not available in this database. We were able to geocode 15,426 (98.4%) shootings within the city limits by converting the block addresses to latitude-longitude coordinates. We were unable to geocode 246 (1.6%) shootings due to missing or incomplete location data.

2.1. Defining neighborhood mass shootings

We considered that three variables would affect a neighborhood definition of mass shooting: the distance between shootings, the time between shootings, and the total number of victims. We constructed distance buffers (100, 200, 400, and 800 m) and temporal windows (1 h, 2 h, 4 h, 8 h, and 12 h) around each shooting, and grouped shootings that fell within each other's bounds. We used rolling distance

buffers and temporal windows beginning with the first shooting in each group, in order to avoid arbitrarily separating shootings that were proximate in time and space (Beard et al., 2019). As an example, 3 shootings occurred in the 500 block of E Queen Lane on September 20, 2009, at 2:54 PM, 4:42 PM, and 8:32 PM. Fixed 4-h intervals after the index event (at 2:54 PM) would identify this as one group of 2 shootings, and the third shooting would not be linked with any other shootings. With rolling temporal windows, the time window resets with each included shooting, so this group would be considered 1 event within a 4-h window involving 3 shootings. Distance buffers were analyzed similarly. This step ensured that linked events were more likely to be grouped together. We took counts of the total number of shootings in each group, then calculated the total number of groups (“multiple-casualty events”) for each distance buffer and temporal window in which there were ≥ 2 victims, ≥ 3 victims, ≥ 4 victims, and ≥ 5 victims. To assess the impact of different definitions on the incidence of multiple-casualty events, we enumerated events for the different spatial, temporal, and victim count thresholds.

A functional necessity of this analysis was to select specific thresholds with which to define neighborhood mass shooting events. While acknowledging that such limits have implications for interpretation and could substantially affect measures of frequency, we propose using ≥ 4 victims in a 1 h window within 100 m (about 1 city block) as our definition of a neighborhood mass shooting event, as this is most closely analogous to conventional mass shooting definitions (Borchers, 2017; <https://ucr.fbi.gov/>, n.d.; Follman et al., 2018; Gun Violence Archive, 2018). We use this definition for subsequent analyses in this paper.

2.2. Analysis of individuals and places impacted

To describe the individuals impacted by neighborhood mass shootings in Philadelphia, we calculated counts of victims and described their age, sex, and race. We compared the demographics of mass shooting victims to non-mass shooting victims (e.g. all other victims in the PPD database) using chi-square and *t*-tests. To explore the places impacted by neighborhood mass shootings, we used geocoded locations to determine the US Census block group for each event. We used ArcGIS v10.6. to manage the spatial data and Stata v15.1 to perform non-spatial analyses.

2.3. Media reporting

A research librarian searched three full-text newspaper and television transcript databases (Lexis, NewsBank, and Ethnic News Watch) that cover local, regional and national news media sources. Search terms included: “Philadelphia,” “gunfire,” “gunshot,” “shooting,” “wounded,” “homicide,” and “gun violence.” We filtered these results for publication dates within 4 days (to include non-daily newspapers) of each of the 46 neighborhood mass shootings identified involving ≥ 4 victims in a 1 h window within 100 m. PPD data included some event addresses that differed from shooting locations described in media sources. Therefore, search results were further filtered for additional location terms that indicated reference to index events from published maps, neighborhoods, street names, and landmarks. This search identified 183 unique new media reports, which were imported into a Microsoft Excel and organized by address and date of each event. Reports associated with each event were listed with their headlines and sources.

We used directed content analysis to evaluate the headlines of news media reports. Headline content was selected due to the public-facing and attention-generating purpose of this component of a news report. In a directed approach, which is more structured than conventional content analysis, analysis begins with predetermined codes and categories (Hsieh and Shannon, 2005). Specifically, our interest was to characterize the magnitude and range of news media coverage of neighborhood mass shootings across 10 years in Philadelphia, the placement

of each news story, descriptions of assailant(s) and victim(s), and any direct reference to “mass shooting.” Because our quantitative analysis demonstrated differences in mass shooting victims' age, gender and race, we coded headline data by descriptors of assailant and victim age, gender, and race.

A coding scheme (Appendix A) was developed by SFJ who, with a research assistant, simultaneously coded media reports for the first two index events to build consensus on the coding approach. Media reports for the subsequent three events were coded independently and compared. Inter-rater agreement was 100% for every category other than readership range, which had low agreement due to misclassification. The coding schema for this category was refined and re-coded. The research assistant completed coding for all remaining data, with additional evaluations of coding reliability and consensus conducted for data associated with events at middle and end of the temporal sampling frame.

Directed content analysis is reliant on an a. priori coding scheme but permits the identification of categories that emerge iteratively (Hsieh and Shannon, 2005). When coding media reports from the first five events, we added three categories for: context/cause of the event, reference to city neighborhoods or communities, and descriptions of municipal, community and medical responses. Once coding was complete, we calculated the mean and range for the number of media reports per event and then rank ordered and compared the frequency of codes by each analytic category.

3. Results

3.1. Counts of mass shooting events

Fig. 1 presents the total number of multiple-casualty events in Philadelphia from 2006 to 2015 according to varying distance buffers, temporal windows, and minimum victim counts. The most restrictive definition (100 m buffer, 1 h window, ≥ 5 victims) yielded 14 events, and the least restrictive definition (800 m buffer, 8 h window, ≥ 2 victims) yielded 1187 events. Lowering the minimum victim count affected the total number of mass shooting events most substantially, while enlarging the distance buffers and temporal windows also increased the number of events.

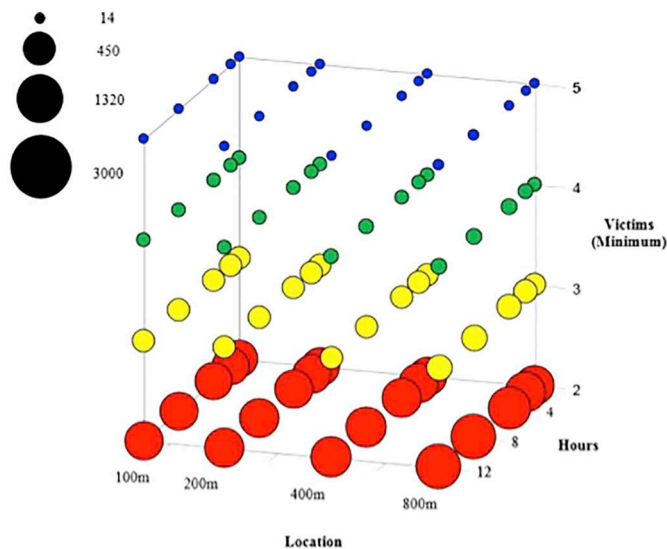


Fig. 1. Counts of multiple-casualty events with definitions based on varying distance buffers, temporal windows, and minimum victim counts; Philadelphia, 2006–2015.

Table 1

Characteristics of victims of neighborhood mass shooting events (100 m, 1 h, ≥ 4 victims; 46 events) and victims of non-mass shootings; Philadelphia, 2006–2015.

	Mass shootings (n = 212)	Non-mass shootings (n = 13,325)	p-value
Age in years, mean (SE)	24.0 (0.7)	27.3 (0.1)	< 0.001
Male, n (%)	162 (76.4)	12,302 (93.3)	< 0.001
Race, n (%)			
Black	182 (85.9)	11,107 (83.4)	0.333
Hispanic	27 (12.7)	1407 (10.6)	0.307
White	3 (1.4)	672 (5.0)	0.016
Asian	0 (0)	139 (1.0)	0.135
Fatal, n (%)	29 (13.7)	2553 (19.2)	0.044

P-values are for chi-square tests for dichotomous measures and t-tests for continuous measures.

3.2. Individuals and places impacted

Using our selected definition of ≥ 4 victims in a 1 h window within 100 m, there were 46 neighborhood mass shooting events including 212 victims over the 10 year period. The victims were predominantly young (mean age = 24.0 years; SE = 0.7 years), Black (85.9%) men (76.4%) (Table 1). Of the 212 mass shooting victims, 29 (13.7%) died. For comparison, Table 1 also presents the characteristics of victims of non-mass shootings (i.e. all other victims that were not included in the 46 mass shooting events). Neighborhood mass shooting victims were more likely to be younger and female and less likely to be White when compared to other firearm assault victims, while mass shooting events were less likely to be non-fatal compared to non-mass shootings.

Fig. 2 illustrates the locations of the 46 neighborhood mass shooting events (red points). These events occurred in 41 distinct census block groups (of 1337 total block groups in Philadelphia). As illustrated in Fig. 2, the neighborhood mass shooting events occurred across the city, mostly in areas where other firearm assaults occurred. Visual inspection of the map suggests that neighborhood mass shooting events are not geographically concentrated in a single location.

3.3. Media reporting

Directed content analysis of media reports for the 46 neighborhood mass shooting events indicated omissions in event reporting and limited geographic range in the dissemination of event details. Approximately 15% (7/46) of neighborhood mass shootings received no identifiable attention in the news media. These ‘no coverage’ events occurred across the city of Philadelphia in geographically diverse neighborhoods, and at frequency of approximately once per year from 2006 through 2011. Of the 31 victims of events that received no media coverage, 84% were Black and 61% were aged 25 years or younger. These ‘no coverage’ victims were representative of the population of the victims of all neighborhood mass shootings in this analysis. However, the events that received no media coverage were associated with 0 fatalities.

Table 2 describes the characteristics of media reports associated with the 39 events that generated media coverage. The reports were primarily in print media with a local/regional range (Philadelphia and Pennsylvania), such as the *Philadelphia Inquirer* or *Philadelphia Daily News*. The number of reports associated with each event ranged from 1 to 11 citations. There was notable variation in how assailants and victims were characterized in headlines. In the 16% of headlines that mentioned assailants, these individuals were described as “gunmen,” or when multiple assailants were involved, “two men,” with reference to their relationship to victims such as “husband.” When multiple young assailants were reported to be involved in a shooting event, they were referred to as a “youth mob” and “savage teens.”

The majority (60%) of headlines made note of the number of victims

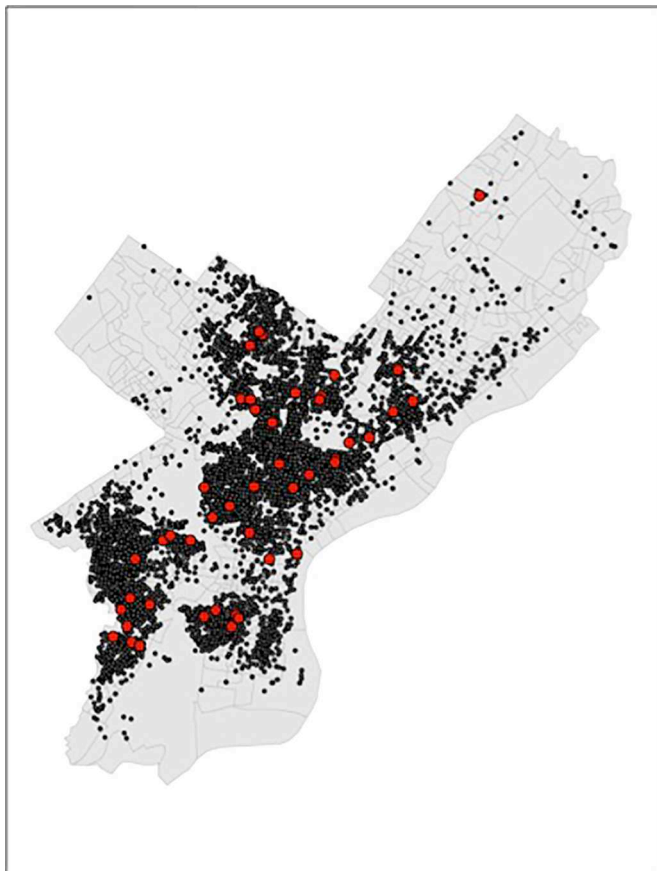


Fig. 2. Neighborhood mass shooting events, defined as events with ≥ 4 victims, within 1 h and within 100 m (red points) and non-mass shooting events (grey points) in Philadelphia census block groups, 2006–2015. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

associated with a shooting event and 43% described the victims by highlighting features such as young age as in “three kids” and “teens” or in reference to a victim’s role as a parent like “young dad” or “mother of four.” There was only 1 out of the 183 headlines that described race or ethnicity; a local television news report began in an opening remark that the victims of a shooting event were “almost all African American.”

When the victims or assailants were not referenced in a headline of a media report, coverage typically began by describing the context of the shooting and/or how the event reflected the burden of violence within the City and municipal response. These included descriptors like: “bar gone bad,” “cocaine alley,” “mean streets,” “changing area,” “city crisis,” and “homicide surge.” Only 2 headlines (1%) referred directly to a “mass shooting” in reference to an event that wounded 9 people outside of a social club.

Of the 39 neighborhood mass shootings, only 9 (23%) drew attention in news media with a national range (Associated Press). These events all involved injury to youth or female victims. Headlines referenced to the age and/or gender of victims (“11 year old girl”) or used descriptors that included: “toddlers,” “teenage,” “babies,” “high school girls,” and “pregnant woman.” The only reference to a non-youth or female victim that garnered national coverage for the death of a basketball league organizer, referred to as a “role model” who had attempted to shield youth in a shooting that occurred at a city basketball court. The most national attention (6 citations total) surrounded two events that occurred within two days of one another in different neighborhoods of Philadelphia. Neither event resulted in any fatalities, but involved 10 and 7 victims respectively, including children.

Table 2

Characteristics of media reporting of mass shooting events (100 m, 1 h, ≥ 4 victims; 46 events; $n = 39$ events with media coverage).

	Mean	Range
Number of media reports per event	4	0–11
	N (%)	
Placement per event		
At least one feature/lead story	37 (81%)	
Part of standing column on local news only	2 (4%)	
None	7 (15%)	
Total number of media reports	183	
Type of report		
Print	165 (90%)	
Broadcast	16 (9%)	
Digital	2 (1%)	
Range of media coverage per event		
Local/regional Philadelphia	156 (85%)	
Local/regional outside of Philadelphia	11 (6%)	
National	13 (7%)	
International	4 (2%)	
Headline described assailant(s)		
Yes	29 (16%)	
No	154 (84%)	
Headline described victim(s)		
Yes	79 (43%)	
No	104 (57%)	
Headline described number of victims		
Yes	110 (60%)	
No	73 (40%)	
Headline described age of victims		
Yes	34 (18%)	
No	149 (82%)	
Headline described gender of victims		
Yes	27 (15%)	
No	156 (85%)	
Headline described event as “mass shooting”		
Yes	2 (1%)	
No	181 (99%)	

4. Discussion

We found that from a neighborhood perspective, 46 mass shooting events occurred in Philadelphia from 2006 to 2015. For comparison, there were just 41 mass shooting events in the entire United States over the study period and no mass shootings in the city of Philadelphia since 1982 according to Mother Jones (Follman et al., n.d.). The disparate definitions of mass shooting by data source explain this inconsistency: our neighborhood mass shootings included fatal and non-fatal gunshot injuries, while Mother Jones’ mass shootings include only those fatally injured (excluding familicide or felony mass shooting). However, our analysis highlights the significance of the disparity. Fifteen percent of these events received no media attention; only 23% were reported nationally, and just two headlines named a single event “mass shooting.” From the perspective of neighborhoods, mass shootings occur silently multiple times per year in Philadelphia with limited to no recognition or exploration of their impact by media and government. A next step in this line of research would be to evaluate the impact of neighborhood mass shootings on community wellbeing, social cohesion, and individual mental health in order to develop and target services to affected communities.

The people and places affected by neighborhood mass shootings were similar to those affected by general firearm violence in Philadelphia. Thus, the distinction between mass shooting and “everyday” firearm violence may offer limited insight when considering how best to prevent mass shooting events in Philadelphia and similar cities. Instead, policies associated with reduced rates of firearm homicide, including laws that strengthen background checks and permit-to-purchase, may also help to decrease mass shooting events in urban contexts (Lee et al., 2017).

In this study, we found that news media have somewhat limited

scope and capacity to emphasize the extent of multiple-casualty shooting events in Philadelphia. Most reports of neighborhood mass shootings in Philadelphia were found in local newspapers, which have limited readership. This is in contrast to the national coverage that traditionally defined mass shootings often receive. Interestingly, neighborhood mass shootings, which involved women and children, who are more rarely injured by firearm violence, garnered national press coverage. This highlights the tension between what is “news-worthy” and what represents an accurate picture of disease epidemiology. One way for journalists and health professionals to communicate the public health burden of firearm violence, including neighborhood mass shootings, would be to establish a comprehensive national registry that includes all firearm injuries. Analysis and reporting using such a data source may more effectively and accurately inform the public and in turn direct policy and public health interventions.

Historically, the media are considered to have an influential contagion-like role that can lead to clustering of suicides following reports of high-profile suicides or suicide attempts. As a result, the Centers for Disease Control and Prevention and World Health Organization have issued guidelines for media reporting of suicide (O’Carroll and Potter, 1994; Acosta Artiles et al., 2017). Similarly, there are recommendations for reporting of mass shootings that suggest media focus on the complexity of these events, avoid sensationalism or graphic images, and share victims’ stories (Meindl and Ivy, 2017; Suicide Awareness Voices of Education, 2017). In our review, we found no such recommendations for reporting on firearm assault and homicide, despite clear evidence that firearm violence may be transmitted through social networks in cities (Green et al., 2017). Developing best practices for reporting on urban firearm violence would be an important next step.

Media reports on neighborhood mass shootings often focused on the criminal context of the shooting with negative neighborhood descriptors like “mean streets” and “cocaine alley.” This stands in contrast to recommendations from journalists to avoid simplistic explanations when covering mass shootings in favor of reports on survivors and solutions (Dahmen et al., 2017). It is possible that the current method of reporting on urban violence found in our study and others perpetuates stereotypes about the individual victims of firearm violence and the communities it affects without offering solutions (Marvel et al., 2018; Duxbury et al., 2018; Dahmen et al., 2017; Jashinsky et al., 2017). Finding the best way forward to alleviate this disparity in reporting on neighborhood mass shootings is complex. Journalists should seek to contextualize the events through developing community partnerships to deepen understanding of neighborhood contexts, tell the stories of the victims and survivors, and explore root causes and solutions without sensationalizing perpetrators or violence (Dahmen et al., 2017).

In our previous work, we demonstrated a strong link between contemporary firearm violence and historical and structural racism in Philadelphia (Beard et al., 2017; Jacoby et al., 2018). Perhaps reporting on firearm violence in cities should be framed from this lens of structural violence, including evidence-based discussions about the root causes of firearm violence in the urban United States. Such a shift has the potential to change the public narrative about firearm violence and enrich discussion of prevention targets.

4.1. Strengths and limitations

To our knowledge, this is the first study of its kind to redefine mass shooting to emphasize its impact on urban community health. Our analysis was descriptive in nature and has limitations. The police data we used allowed investigation in one urban setting, and our findings may not be generalizable to other cities. We framed our analysis of the burden of mass shooting events from the point-of-view of neighborhoods and neighborhood residents. There are other important perspectives, including the health/trauma systems and law enforcement

that may require unique definitions, resources and solutions in their approach to mass shootings (Beard et al., 2019). Another potential limitation is that our search strategy and/or available data archives omitted some relevant reports that resulted in limited picture of the breadth and depth of news coverage of the shooting events we identified in the first phase of this study. Finally, the police data that framed this research was limited to information about shooting victims, therefore we are unable to contextualize our findings with characteristics of shooting perpetrators.

Despite these limitations, we found that mass shootings, as framed from the perspective of neighborhood impact, are common and affect people and places similar to those affected by other forms of firearm violence in Philadelphia. Because reports of the neighborhood mass shootings were limited and found mostly in local/regional print media, these kinds of shooting events are likely underappreciated by the larger public and policymakers. Reframing a narrative around mass shootings to include urban communities with focus on understanding root causes and pathways to preventative solutions may be an essential component of addressing this important public health problem.

Declaration of competing interest

The authors have no conflicts of interest to disclose.

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Appendix A. Coding scheme

Examining Mass Shootings from the Neighborhood Perspective: An Analysis of Events and Media Reporting in Philadelphia, United States.
Media Characteristics

1. Number of reports
 - i. Definition: count of total media reports per event
2. Media type
 - a. Print
 - i. Definition: newspaper or magazine
 - ii. Exemplar: Philadelphia Inquirer
 - b. Broadcast
 - i. Definition: television or radio transcript
 - ii. Exemplar: NBC News Channel 10
 - c. Digital/Internet
 - i. Definition: Online news portals, online news blogs
 - ii. Exemplar: Philly.com
3. Readership range
 - a. Local/regional, Philadelphia-based
 - i. Definition: focused on readership in Philadelphia and surrounding region
 - ii. Exemplars: Philadelphia Inquirer, Philadelphia Daily News, Philadelphia Metro
 - b. Local/regional, non-Philadelphia-based
 - i. Definition: focused on readership in a City and surrounding region outside of Philadelphia
 - ii. Exemplars: Pittsburgh Tribune Review, Erie Times, New York Daily News
 - c. National
 - i. Definition: focused on readership across United States
 - ii. Exemplars: Associated Press
 - d. International
 - i. Definition: focused on international readership
 - ii. Exemplars: FARS news agency

Article Characteristics

1. Placement
 - a. Feature/stand-alone report
 - b. Embedded in city crime or local interest report
 - c. No associated media report
- Headline Characteristics*
1. Assailant Description
 - d. None
 - i. Definition: No mention of assailant
 - e. Description
 - i. Definition: Any reference to assailant
 - ii. Exemplar: Gunman, armed patron, stepfather
 2. Victim Description
 - a. None
 - i. Definition: No mention of assailant
 - b. Description
 - i. Definition: Any reference to victim
 - ii. Exemplar: Two children, two people, 3, another child, 5 more, 10 wounded
 3. Assailant Gender
 - a. None
 - i. Definition: No mention of assailant gender
 - b. Description
 - i. Definition: Any reference to assailant gender
 - ii. Exemplar: Gunman, stepfather
 4. Victim Gender
 - a. None
 - i. Definition: No mention of victim gender
 - b. Description
 - i. Definition: Any reference to victim gender
 - ii. Exemplar: Mom of three, 5 year old girl, high school girls, pregnant
 5. Assailant Age
 - a. None
 - i. Definition: No mention of assailant age
 - b. Description
 - i. Definition: Any reference to assailant age
 - ii. Exemplar: youth mob, savage teens
 6. Victim Age
 - a. None
 - i. Definition: No mention of victim age
 - b. Description
 - i. Definition: Any reference to victim age
 - ii. Exemplar: young Dad, another child, 3 children, three teens
 7. Assailant Race/Ethnicity
 - a. None
 - i. Definition: No mention of assailant race or ethnicity
 - b. Description
 - i. Definition: Any reference to assailant race or ethnicity
 - ii. Exemplar:
 8. Victim Race/ethnicity
 - a. None
 - i. Definition: No mention of victim race or ethnicity
 - b. Description
 - i. Definition: Any reference to victim's race or ethnicity
 - ii. Exemplar: all African American
 9. "mass shooting"
 - a. Yes
 - b. No
 10. Shooting other
 - i. Definition: Any description of the shooting
 - ii. Exemplar: mass shooting, gunfire, drive-by, senseless bloodbath

Secondary Headline Characteristics

1. Neighborhood
 - i. Definition: Any reference to the neighborhood where shooting occurred
 - ii. Exemplar: South Philly, Northeast Philly, Strawberry Mansion
2. Circumstances/Context of shooting
 - a. Drug use or drug trade
 - i. Definition: Any reference to drugs
 - ii. Exemplar: drugs cited, narcotics deal
 - b. City/community violence
 - i. Definition: any reference to violence in the context of Philadelphia or region
 - ii. Exemplar: bloody weekend, city violence, city's homicide, mean streets
 - c. Community event or community spaces
 - i. Definition: any reference to community events or spaces
 - ii. Exemplar: basketball game, block party, rec center
 - d. Bar or Club
 - i. Definition: any reference to a bar or club
 - ii. Exemplar: nightclub shooting, sports bar
 - e. School
 - i. Definition: any reference to a school
 - ii. Exemplar: high school fight
3. Response
 - a. Law enforcement/government response
 - i. Definition: any reference to the response by law enforcement or government agencies
 - ii. Exemplar: police seek suspect, mayor speaks out, reward for answers
 - b. Medical response
 - i. Definition: any response within the medical system
 - ii. Exemplar: 2 hospitalized, 4 remain hospitalized
 - c. Community response
 - i. Definition: any response by community groups or organizations
 - ii. Exemplar: community rally

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