

BRIEF REPORT

Do criminals go to the hospital when they are shot?

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Dr John P May, Medical Director, South Florida Reception Center, 14000 NW 41st Street, Miami, FL 33178, USA;
Drjpmay@aol.com**Objectives:** To determine whether criminals go to the hospital when they are shot. Such information is needed to check on the accuracy of using hospital emergency room data to estimate non-fatal gunshot wounds.**Setting:** Five jails across the US.**Methods:** A survey of inmates being booked into jail, administered by in-house health care staff.**Results:** Over 90% of over 300 criminals who had been wounded sometime before their incarceration reported going to a hospital for treatment after being shot. These results are consistent with previous findings from one jail.**Conclusions:** Jail inmates who had previously been shot were likely to have been treated in a hospital. This limited finding is consistent with the proposition that hospital/emergency department data may miss only a small percentage of gunshot wounds to criminals.

How many Americans each year are wounded with firearms? Currently, the best national data on the number of non-fatal woundings come from the National Electronic Injury Surveillance System (NEISS).¹⁻³ The NEISS system comprises 99 hospitals that constitute a stratified probability sample of all hospitals in the US that have at least six beds and provide 24 hour emergency service. An attempt is being made to create a more comprehensive data system beginning with a pilot project, the National Firearm Injury Statistical System (NFISS), that will collect consistent, comparable information from many more hospitals.⁴ However, a limitation of these surveillance systems is that the data come only from hospital emergency departments; patients with non-fatal firearm related injuries who are untreated or treated in other types of medical care systems will be missed.¹

One class of people who may not seek professional medical care are criminals. Indeed, one researcher claims that many criminals are shot, perhaps hundreds of thousands per year or twice the estimated number of people killed or treated for gunshot wounds in emergency departments or hospitals.⁵ He implies that most criminals are shot while committing crimes, and he argues that these criminals rarely go to the emergency department because they are afraid doctors will report them to the police.

Other studies have questioned the validity of the claims that so many criminals are shot each year^{6,7} and that few criminals go to emergency departments when they are shot. For example, a study of Washington, DC detainees found that 92% reported going to the hospital when they were shot.⁸ However, that study involved only one urban area, with a sample of fewer than 100 detainees who had been shot. The present article extends that study to five additional locations throughout the US.

This article provides information relevant to two issues: (a) whether hundreds of thousands of criminals are shot each year and do not go to emergency departments or hospitals, and thus (b) whether firearm wound surveillance systems based on emergency department and hospital data are missing most of these shootings and thus cannot be relied on for even ball-park estimates of the number of gunshot wound victims in the US.

METHODS

Data were collected from inmates in five jails in five different geographical areas in the US: Baltimore, MD; Lawrenceville,

GA; Las Vegas, NV; Santa Rita, CA; and Summit County, OH. Each inmate booked into these jails was interviewed by in-house health care staff, typically a licensed practical nurse. The interviews were part of a mandatory health screening to identify infectious diseases and other current or past health problems.

During 10 consecutive days in June 1999, each male inmate was additionally asked a series of questions on a brief, voluntary survey tool that did not require inmate identifying information. This survey asked if the inmate had ever had a gunshot wound. Those who answered affirmatively were asked additional information about the shooting, such as where on their body they were shot and whether they went to the hospital for treatment. Some inmates had been shot on more than one occasion; they were asked to report only on the most recent shooting event.

RESULTS

At the five locations, 2129 male inmates were interviewed. Females represent less than 10% of the inmate population in these jails, and were excluded from the study. Six of the 2129 male inmates refused to be interviewed for the voluntary part of the health screening.

The average age of the 2123 men completing the survey was 33, range 15-71; 45% were black, 35% were white, 12% were Hispanic, 5% were other races, and 3% did not report their race.

Of the men completing the survey, 307 (14.5%) reported having been shot (table 1). Among the inmates who had been shot, 277 (91%) reported going to the hospital the most recent time they were shot (table 2). The percentages ranged from 97% in the Baltimore jail (56/58) to 81% (55/68) in the Las Vegas jail. In any of the five locations, at least 80% of those responding reported going to the hospital when they were shot.

Data were available on the body location of the wound for 293 of these 307 inmates. For 13% the most serious wound was to the head or neck, for 32% the most serious gunshot wound was to the torso, and for 55% the most serious wound was to an extremity (table 3).

Abbreviations: NEISS, National Electronic Injury Surveillance System; NFISS, National Firearm Injury Statistical System

Table 1 Criminals reporting gunshot wounds

| Site of jail facility | No (%) |
|-----------------------|-----------------|
| Baltimore, MD | 58/341 (17) |
| Lawrenceville, GA | 9/80 (11) |
| Las Vegas, NV | 68/518 (13) |
| Santa Rita, CA | 153/969 (16) |
| Summit County, OH | 19/215 (9) |
| Total | 307/2123 (14.5) |

Source: health service interviews, June 1999.

Table 2 Percentage of criminals who reported going to a hospital after being shot

| Site of jail facility | No (%) |
|-----------------------|--------------|
| Baltimore, MD | 56/58 (97) |
| Lawrenceville, GA | 8/9 (89) |
| Las Vegas, NV | 55/68 (81) |
| Santa Rita, CA | 141/153 (92) |
| Summit County, OH | 17/19 (89) |
| Total | 277/307 (91) |

Source: health service interviews, June 1999.

Table 3 Body location of gunshot wounds in criminals

| Site of jail facility | Head/ neck | Torso | Extremity | Total |
|-----------------------|---------------|----------|-----------|------------|
| Baltimore, MD | 8 | 18 | 29 | 55 |
| Lawrenceville, GA | 0 | 1 | 7 | 8 |
| Las Vegas, NV | 6 | 22 | 39 | 67 |
| Santa Rita, CA | 22 | 49 | 76 | 147 |
| Summit County, OH | 3 | 4 | 9 | 16 |
| Total | 39 (13%) | 94 (32%) | 160 (55%) | 293 (100%) |

Source: health service interviews, June 1999.

DISCUSSION

Many reasons exist why a surveillance system of gunshot injuries may not lead to accurate estimates. One problem with the NEISS and NFISS systems are that they only count individuals who go to an emergency department or hospital. Some gunshot wound victims might seek care from other medical care providers and some might not seek professional medical care at all.

One group of individuals who may be less likely than others to seek professional medical care when they are shot are criminals. Yet we find that, the last time they were shot, more than 90% of the jail inmates in our study report going to the hospital. This was the case even though the majority of woundings were to an extremity.

The body location of the injuries to these jail inmates is comparable to that reported from the NEISS database for 1993–98 for non-fatal firearm assault injuries. For example, in our sample, 13% of wounds were to the head or neck, compared with 14% in the NEISS database; 32% were to the torso compared with 37%; and 55% were to the extremities compared to 46%.⁹ Our sample thus represents a similar distribution of injuries to those found in the general population of persons treated for non-fatal firearm injuries in emergency departments of US hospitals.

One limitation of our results is that they depend on the self report of criminals. However, the respondents in our study had no reason to think that telling the truth would harm them. They were interviewed by medical care providers rather than

criminal justice personnel, with the gunshot wound questions added to the routine, initial mandatory health screening. That part of the survey was anonymous, and no questions were asked about the date, exact location, circumstances, or the names of others involved in the incident, an incident that might have occurred many years in the past.

In other studies, self reported data by criminals have been accepted as reasonably valid, even when respondents were asked about their own prior criminal acts.^{10–12} Survey respondents, including criminals, often willingly tell about past misconduct. For example, in the Washington, DC study, 28% freely admitted being high on drugs at the time of the shooting.¹³ Our study did not ask about criminal behavior by the respondent, but only whether he had gone to the hospital when he was shot.

A second limitation of the study concerns the generalizability of the results. While the study replicates the findings of the Washington, DC study in five additional locations across the US, these sites were a convenience sample rather than a random sample of jails. We cannot be sure that the selected jails are representative of jails throughout the US. However, the detainees interviewed were demographically similar to the jail population in mid-1999. The census of the US jail population found that 89% were males, and 42% were black, 41% were white, 15% were Hispanic, and 2% were other races.¹⁴ That compares to the 2123 detainees in our study who were 45% black, 35% white, 12% Hispanic, and 5% other races. Furthermore, the jails are representative of most jails in the US in that they are locally administered by city or county agencies and incarcerate unsentenced individuals or persons serving sentences of less than one year. The criminal offenses of their inmates are similar to most jail inmates, ranging from misdemeanor to felony to probation violations. In surveys of jail inmates, generally one fourth are held for violent crimes such as murder or armed assault; seven of 10 have prior sentences or probation, and more than one half have previously been incarcerated.¹⁵

Still, the detainees in our study may not be representative of criminals in general, and particularly criminals who have not been apprehended or incarcerated. However, we have no reason to expect that criminals who are not in jail are vastly dissimilar to those that are in jail, at least in terms of whether or not they go to the hospital when they are shot.

A third limitation is that we do not know what percentage of these criminals were shot during the commission of a crime. We suspect that the percentage is low. Studies of criminals find that they live in a violent world and are themselves often the victims of violence.¹⁰ In the Washington, DC study, most of the time the criminals were shot, they appeared not to have been perpetrating a planned crime, or carrying a gun. They were not always completely innocent, as some reported being shot in retaliation for a perceived wrong, or during an argument, or through their own carelessness. But none reported being shot by victims during their commission of a crime, although some reported being shot by police.¹⁵

We also do not know if criminals shot while committing a crime are substantially less likely to go to the hospital than those shot in other circumstances. Nevertheless, data from the semiannual National Crime Victimization Surveys,⁷ suggest that only a few thousand criminals are shot each year by citizens acting in self defense. The data on justifiable and excusable homicides provided in the supplementary homicide reports,¹⁶ also indicate that few criminals are shot while committing crimes.

The claim that more than 200 000 criminals are shot in self defense each year seems far too high. Each year somewhat over 100 000 Americans either go to emergency departments for gunshot wounds, or die from gunshot wounds, in assaults, suicides, and accidents. Most of the people shot are probably not criminals and most criminals who are shot are probably not shot in self defense. If, as in our sample, most criminals

generally go to the emergency department, the actual number of criminals shot each year cannot be in the hundreds of thousands.

In our study, the large majority of criminals in jail report having gone to the hospital or emergency department when they were previously shot. This finding provides some support for the proposition that hospital/emergency department data may miss only a small percentage of gunshot wounds to criminals.

IMPLICATIONS FOR PREVENTION

The first step in the public health approach for the prevention of any type of injury is to create a systematic surveillance system that collects data that describes the nature and extent of the problem over time. The data from such a system can be used to target interventions and evaluate their effect. The data should be comprehensive and accurate.

Firearms are the second leading cause of injury death in the US. A national surveillance system currently captures data on gunshot wound victims from a sample of hospital emergency departments across the US. It has been suggested that this system may miss most gunshot injuries because criminals are often shot and they are afraid to seek professional medical for their wounds. The evidence presented in this article indicates that most criminals actually go to hospital when they are shot. The information from the firearm injury surveillance system can be used with some confidence that it is not missing large numbers of wounded criminals.

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Key points

- A US national surveillance system captures data on emergency department treated victims of firearm injuries.
- It has been suggested that this data system may not capture most gunshot injuries because criminals will not seek professional medical care for their wounds.
- Many jail inmates have been shot sometime before their incarceration.
- The large majority report going to the hospital emergency department when they were shot.
- Emergency department firearm surveillance systems will apparently miss few wounded criminals.

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