Final Draft August 5, 2018 for submission to American Journal of Medicine as a

Commentary

A Tale of Two Cities: Persistently High Homicide Rates in Baltimore City Compared to Significant Declines in New York City

Short title: Homicide rates in Baltimore and New York

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Introduction

Deaths from homicide are a major public health problem in the United States and throughout the world. Further, the United States has experienced homicide rates that are 6.9 times higher than those in other high income countries throughout the world, and the vast majority are attributable to firearms [1] For many decades there have been striking regional variations between various cities throughout the United States in deaths from homicide and size is a major determinant.[2] In addition, there has been considerable publicity about high rates of homicide in some major cities like Chicago and low rates in others like New York City.[3]

We noted that New York City (specifically, each of the four boroughs of Bronx, Brooklyn, Manhattan, and Queens) and Baltimore City are defined as peers by the United States Centers for Disease Control and Prevention according to 19 population-based characteristics (population size, percent foreign born, median household income, population growth, percent high school graduates, receipt of government financial assistance, population density, single parent households, Gini index of income inequality, population mobility, median home value, overall poverty, percent children, housing stress, elderly poverty, percent elderly, percent owner-occupied housing units, unemployment and sex ratio).[4] In addition, New York City and Baltimore City have been identified as components of the "northeastern megalopolis",[5] a highly and densely populated area of interconnected communities constituting an organic cultural region with a distinct history and identity, occupying a roughly similar physical environment, linked through a major transportation infrastructure and forming a functional urban network via goods and service flows, ultimately establishing a usable geography that is suitable for large-scale regional planning.[6] All these circumstances provided a unique opportunity to explore secular trends in homicide rates overall as well as by race in New York City and Baltimore City.

Methods

For overall and race-specific (Blacks and African Americans (blacks) and whites) homicide mortality from birth to 85+ years of age, we ascertained underlying cause of death from the Compressed Mortality File (1979-1998 and 1999-2016)[7,8] as presented on the United States Centers for Disease Control and Prevention Wide-ranging ONline Data for Epidemiologic Research (WONDER) public internet web site. These data, which include age-adjusted rates and 95% Confidence Intervals, are based on death certificates. Death certificates are issued for decedents who are legal residents of the United States and are estimated to capture 99% of all deaths.[9] Moreover, the accuracy of assault mortality data is very high.[10] We used the International Classification of Disease (ICD) IX Codes E 960-E969 (Homicide and injury purposely inflicted by other persons) from 1979 to 1998, and ICD Codes X85-Y09 (Assault) and Y 87.1 (Sequelae of Assault) from 1999 to 2016.[8] All rates included at least 20 deaths, the criterion for reliability established by the National Center for Health Statistics.[7,8]

Results

Figure 1 compares murder rates between Baltimore City and New York City from 1979 to 2016. While rates were similar and increased during most of the 1980's, New York City rates declined during the 1990's to the present while those in Baltimore City have remained high.

Figure 2 compares murder rates among whites. From 1979 to 1994 Baltimore City had lower murder rates than whites but from 1995 to 2016 this has reversed.

Figure 3 compares murder rates among blacks. From 1979 to1988, black murder rates were similar in Baltimore City and New York City, but since then, the rates increased in Baltimore City and decreased markedly in New York City.

Discussion

These data indicate that there have been persistently high homicide rates in Baltimore City compared to significant declines in New York City. It is informative to compare and contrast the findings from these two peer cities on homicide rates in the context of Dicken's Tale of Two Cities. [11] He said: "It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way – in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only."

We believe that these data raise several major clinical and contemporary medical policy issues.   First, the successes in New York City did not happen overnight or even within one year. Second, these successes occurred despite persistent poverty and skyrocketing income inequality. The root causes for the marked differences in murder rates, overall, as well as among whites and blacks are undoubtedly complex. If better understood, they might point the way to the abolition of what is, perhaps, in some senses, "the worst of times" for Baltimore City as well as many other cities in the United States as they seek to reduce their persistently high and increasing murder rates.

It is interesting to note that contextual social disadvantage has been associated with increased homicide risk in United States cities.[2] Often, public health approaches to solving these problems focus on community needs,[3] including the need to reduce concentrated disadvantage.[4] Needs-based approaches may be limited, however, because communities are unable to acquire or sustain what has been found to be missing.[5] An alternative is asset-based assessment, based on such factors as the ability to survive in a hostile environment.[6] Asset-based assessment may begin by identifying communities that are able to overcome contextual barriers to succeed against the odds. Such communities are classified as positive deviants, and the lessons conveyed by their experiences may be more easily transferable than those identified by needs.[5]

In a previous report, we observed that New York City had been able to achieve substantial success in reducing infant mortality despite skyrocketing income inequality and persistent poverty.[12] Moreover, reducing infant mortality was correlated with reducing firearm-related mortality.

It is tempting to speculate that deaths from homicide need to be addressed by authorities as well as the population in a collaborative manner. The people in charge of policing the community should openly recognize the issues at hand, engage with the community and establish programs to educate.

The root causes for the marked differences in murder rates, overall, as well as among whites and blacks are complex and likely to be multifactorial. If better understood, however, they might point the way to the abolition of the worst of times for Baltimore City as well as many other cities in the United States as they seek to reduce high murder rates. In this regard we should follow the wisdom of George Santayana, who once said, that those who do not learn the lessons of history are doomed to repeat them. [13]

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