PART ONE

Foundation for an Emerging Paradigm: Epidemiological Criminology
ESTABLISHING A HISTORICAL FRAMEWORK FOR EPIDEMIOLOGICAL CRIMINOLOGY

LEARNING OBJECTIVES

- Understand an emerging paradigm that can be introduced to new practices, policies, and research studies.
- Understand historical events that changed the nature of public health and criminal justice policy, practice, and research.
- Understand how the metaphors for war have been used over the past fifty years.

In establishing a historical framework or a point of origin for any emerging discipline, science, or paradigm, the author, artist, scientist, or practitioner (assuming they are one and the same person, which would be the ideal) must make an almost arbitrary judgment in deciding the point in time, place, or events that led to an emerging discipline. The decision by an author to anchor an emerging science at a particular point in time, place, or event does depend in large part on the convergence of circumstances that best capture the evolution of an emerging or changing paradigm; hence, epidemiological criminology, which has risen from a tapestry of historic circumstances, is now calling for a contemporary perspective that can begin to address an emerging era.

At the genesis of an emerging paradigm, curiosity may lead some to ask seemingly innocuous questions, such as, “Why propose an emerging paradigm at this time?” “What events have triggered its development?” “Who are the progenitors?” “What guided these connections?” These questions and many more may seem unimportant, but they are the bedrock of why a book-length study should take center stage in introducing an emerging paradigm. These are the types of questions readers should ask and authors should try to answer. Invariably these are the types
of questions that scholars are left to ponder and readers need answered about an emerging paradigm, especially when its promoters are trying to piece together and combine different paradigms or theories (Maxwell, 2005).

It has often been said that scientists are dwarfs “standing on the shoulders of giants” in order to see further and advance science by embracing the winds of change when introducing new insights for learning and action (Merton, 1965). Such is the case in trying to identify the origins of epidemiological criminology as an emerging science. As events in time and place are fragmented and literature becomes dissociative, we are left to weave the facts and circumstances together into a tapestry of history. Our decision to pinpoint a particular place in time, or a seminal event, helps to frame the development of epidemiological criminology as an emerging paradigm. Unfortunately, there is not a clear path to follow in identifying the origins of this new science. What has helped to guide this process in extracting the salient historical events leading toward epidemiological criminology as a science has been the need for scientific discovery, thereby advancing scientific and policy inquiry, contributing to political analysis, and guiding economic and social assessment and practice.

For example, over the past fifty years, a number of historic, political, social, and scientific events and theories have served to slowly infuse the development of epidemiological criminology as an emerging interdisciplinary paradigm (Akers & Lanier, 2009). From the war on poverty in the 1960s to the war on terrorism today, no one event is credited with establishing this new theory. However, one seminal article, more than any other, began to scratch the surface of the two seemingly distinct disciplines of epidemiology and criminology. The late Donald Cressey, a noted criminologist and sociologist, authored a polemic analysis in 1960 entitled “Epidemiology and Individual Conduct: A Case from Criminology.” His analysis was intended to bring forth clear distinctions between Darwin’s theory of natural selection, which is more epidemiological in practice, with Sutherland’s theory on individual behavior or differential association, which is more criminological in nature. It thus appears to have linked the science and practice of epidemiology and criminology into an emerging understanding of the behavioral and health sciences—or what Cressey referred to as the epidemiology of crime. Cressey’s article in fact laid the foundation for how the theory of epidemiological criminology serves to blend individual conduct and the distribution of behavior both spatially and temporally.

This analytical comparison serves to push and pull both the macro- and microcharacteristics of historical events, thereby seeding an epidemiological
criminology analysis that can be framed around an environmental and a behavioral perspective. Our current time and place in history is ready for the emergence of an interdisciplinary framework that brings together different sciences to understand crime and violence rather than separate, stand-alone theories. This will serve as “a starting point for theory of criminal epidemiology, and... the process which should be closely studied as a first step to development of efficient theory of individual criminal conduct” (Cressey, 1960, p. 58).

Since the 1960s, four U.S. policy strategies in particular have helped to shape the evolution of epidemiological criminology as both a science and a discipline. Starting with the war on poverty and the war on crime and progressing to the war on drugs and now the war on terror, these national policy shifts served to nurture and incubate this emerging paradigm. The cyclical nature of these policies has manifested across different cycles of time; they are aligned around war metaphors that share a relationship between public health and criminal justice theory and practice (see Figure 1.1).

Policymakers tend to see each of these war metaphors as having clear demarcation points, as though they are separate and distinct battlefields, whereas in fact they are building blocks, interdependent with one another, overlapping and cascading events, cycling around to resurface whenever needed. They are, for all intents and purposes, a war on our analytical thinking: our ability to find interrelationships and individual and population characteristics that develop predictive patterns across seemingly

**Figure 1.1 U.S. Policy Strategies Since the 1960s**
different systems. This same perspective can be applied to the overlapping fields of the practice and science of public health and criminal justice systems and their strategies for battling these policy shifts.

For example, public health systems may track high rates of malnutrition, dilapidated homes and communities, injuries, and substance abuse, while criminal justice systems may be tracking an increase in theft, abuse, violence, and drug-related crimes. Although these may appear to be distinct, they directly or indirectly overlap in their similarities, theories, methods, lexicon, and practices—particularly when addressing aberrant, maladaptive, or criminal behaviors that harm individuals, families, and communities.

The balance of this chapter addresses these national policy changes, ascendance, shifts, theories, and practices by framing how the war metaphor has been used and how each shift has seeded the development of epidemiological criminology by helping to shape its import in understanding dynamic and maladaptive criminogenic behaviors and pathologies.

The War on Poverty

In 1964, the Johnson administration began the war on poverty, a national undertaking of monumental proportion. The impact of this social engineering spanned the theoretical, social, political, educational, health, and economic landscape. It branched into areas of health, education, and welfare, while continuing to creep into all manner of policymaking and decision-making systems. These programs ranged from the establishment of Head Start and the Job Corps to the introduction of Medicare and Medicaid. As the war on poverty raged on, the debate expanded into asking questions as to whether the war was actually increasing or decreasing poverty, social dependency, or health problems.

As the debate marched forward from the 1960s to the present day, still with many unanswered questions, other issues became part of the debate that has since incorporated aberrant and criminal behavior, specifically delinquency and crime. Questions have been asked about whether poverty is a cause of crime, or whether crime is a consequence of poverty, or whether the war on poverty had any impact on crime, direct or indirect. Almost fifty years after the inception of the war on poverty, the debate continues in the literature and policy circles while still running its course and is no less volatile than it was years ago (Murray, 1984).

From the perspective of epidemiological criminology, the complexity of the war on poverty demands scrutiny, examination, and critical thinking as to the reasons
or rationale that policymakers use to help explain or justify the war’s success or failure. Over almost five decades, many studies from across disciplines—economics, labor, social epidemiology, and criminology, among many others—continue to cite poverty as a main social determinant of crime (Huang, Laing, & Wang, 2004; Kawachi, 2000; Stricker, 2007). The war on poverty was never intended to address the social determinants of crime, yet it has been brought into this debate.

Figure 1.2 depicts national crime and poverty data spanning almost fifty years. These data clearly indicate that crime, especially violent crime, has continued to show a marked decline for the past twenty years. Even in the midst of a national poverty rate of 15 percent, the national time-series data in Figure 1.2 show a steady state for almost the past thirty years. The debates that continue to precipitate the poverty or economics perspective have placed a burden on interdisciplinary thinking by neglecting or discouraging other explanatory causes or reasons. Accepting blindly this association that economic status and crime are directly linked has forced analyses down a path that has led policymakers, practitioners, and scientists to miss other critical explanations or factors (Akers & Lanier, 2009). For example, when examining data that stretch beyond the individual and consider neighborhood poverty more broadly, socioeconomic status becomes less a predictor of crime generally and violent crime specifically (Silver, Mulvey, & Monahan, 1999). Therefore, there continues to be a compelling need to integrate and blend diverse data into the poverty and crime debates, which may add to both the validity of the data and their complexity.

The biopsychosocial and environmental determinants (that is, the risk factors) of crime are complex, encompassing a number of interdisciplinary risk factors that are critical to an analysis from the professions of epidemiology and public health and criminology and criminal justice. For example, among the criminal determinants may be socioeconomic status, race, social support networks, physical and social environments, life skills, biology, gender, culture, education, and other normative issues (Buonanno, 2003). Yet in spite of these risk factors, which may share an association with both poverty and crime, they continue to be used by policymakers as a rationale or justification to try to mitigate or lessen the impact or burden they may have on or may contribute to social welfare, public health, and criminal justice systems and policies. A report from the U.S. Government Accountability Office (2007a) argues that while criminal behavior may not be justifiable, it can be explained due to a person’s economic circumstances. Although such explanations are far more complex than simply an economics argument, they do set the stage for deeper analysis of the science, principles, precepts, and methods of epidemiology and criminology.
Figure 1.2 Crime and Poverty Rates, 1960–2009

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**Sources:** Adapted from “FBI, Uniform Crime Reports, prepared by the National Archive of Criminal Justice Data.” UCR data are at http://www.ucrdatatool.gov. National or state offense totals are based on data from all reporting agencies and estimates for unreported areas. Rates are the number of reported offenses per 100,000 population. The 168 murder and nonnegligent homicides that occurred as a result of the bombing of the Alfred P. Murrah Federal Building in Oklahoma City in 1995 are included in the national estimate. The 2,823 murder and nonnegligent homicides that occurred as a result of the terrorist attacks of September 11, 2001, are not included. The poverty data were adapted from DeNavas-Walt, Proctor, and Smith (2009).

**Note:** 2009 poverty trend data were not listed in the source provided.
For instance, the literature has shown an associative (not causative) link between poverty and crime, particularly property crime (U.S. Government Accountability Office, 2007b); however, little research uses data based on sound evidence to help guide policy decisions regarding the strength of this association. Shifting back and forth between individual-level (micro) and community-level (macro) risk factors is an approach to help avoid pigeon-holing our analysis on the war on poverty through the lens of epidemiological criminology by expanding our thinking to see the complexities associated with any one explanation. And as we frame an analysis between the war’s impact on poverty and crime as a by-product, it is essential to consider the right methodological tools and strategies to enhance analytical understanding, especially when policy decisions are being considered.

Since the start of the war on poverty, various research methods and techniques, such as anecdotal evidence, case studies, systematic reviews, meta-analysis, and comparative analysis, among many others, have been used to help explain or justify the success or failure of the war. Yet conventional researchers and policy analysts still neglect to consider some of the basic and fundamental precepts of epidemiology, which states that an association is not equivalent to causation. Moreover, notwithstanding the various methods and techniques of epidemiology, which follow approaches similar to those of the social and behavioral sciences, the war on poverty has had a tendency to rely on similar findings that have shown associations between crime and poverty across separate and distinct disciplines or policy perspectives while continuing to neglect the potential value of an integrated framework.

In other words, for almost fifty years, the war on poverty has been thought of in the context that exposure to poverty can lead to crime as the disease outcome or where crime has tended to be viewed as a result of poverty. From these perspectives, researchers and policymakers are making assumptions that may be somewhat precarious and wrongly applied. In well-established social and behavioral science theory, a concept referred to as ecological fallacy holds that inferences (or stereotypes) should not be made about the individual based solely on aggregated data collection and analysis around group characteristics. The belief that individual members of the group (for example, those who are impoverished) have, on average, the same characteristics as the entire group (for example, aberrant or criminal behaviors) has often been used to argue for or against the war on poverty. Schwartz (1994) indicates that “poverty as an individual characteristic and poverty as a neighborhood characteristic may exert different, independent effects on health. Consequently, individual and aggregate correlations of this variable will be discrepant” (p. 820).
Within the context of an epidemiological criminology perspective, the reverse must also be calculated and considered, as in the case of the dose, or level of exposure to or fear of crime (Jackson & Stafford, 2009), that may lead to poverty as an outcome, such as when crime is rampant in a neighborhood and residents fear starting businesses, opening store fronts, undertaking microenterprises, or going to school to better their job opportunities (Morenoff & Lynch, 2004; Hale, 1996). Figure 1.3 serves to illustrate another point of view that has often been neglected by both researchers and policymakers who may be focused on the poverty-crime nexus. For example, the left side of Figure 1.3 exemplifies more of the conventional thinking (that crime is an outcome depending on the level of exposure to poverty), while the right side provides another frame of reference in which poverty serves more as an outcome, depending on the level and intensity of the exposure to crime, either individually or communally.

We still need to examine closely how this nexus of the poverty-crime (and public health) link can be effectively analyzed and evaluated. During the war’s inception, it was not clear whether data that were being reported focused on the individual or population determinants, a critical distinction. Rather, it was a blended argument that has many scientists and policy analysts unclear as to which method or analytical strategy to use. This distinction is crucial when analyzing or reporting on the individual-population link relative to the poverty-crime and community relationship (Wikstrom & Loeber, 2000). Aday (2005) suggested that if only an epidemiological perspective is considered, we might neglect to distinguish between individual health determinants such as education, employment, and income, and

### Figure 1.3 Outcome of Exposure to Poverty or Crime

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<th>Poverty</th>
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Prevalence of Disease Compared to Exposure and Nonexposure

\[
\frac{a}{a+b} \text{ vs. } \frac{c}{c+d}
\]

Prevalence of Exposure Compared to Disease and Nondisease

\[
\frac{a}{a+c} \text{ vs. } \frac{b}{b+d}
\]
the determinants of population health outcomes (Aday, 2005). These arguments are not new, yet they remind us to try to better understand the many dynamic risk factors that intersect or influence the poverty-crime duality argument.

In summary, since the inception of the war on poverty, most of the attention has influenced, or biased, our perceptions and analytical thinking toward the easier and more conventional explanations, a debatable point to say the least. Yet the matrices shown in Figure 1.3 provide another perspective in computing this distinction between crime and poverty as separate outcomes. Since the war on poverty began, it has never been clear at what point crime becomes a factor for either the supporters or detractors of the war’s success or failure. Even dating as far back as the late 1960s and early 1970s, the debate and challenges were raised in how best to evaluate and measure this association across major policy programs and strategies that focused specifically on public health, corrections, and poverty (Maltz, 1972).

The War on Crime

The war on crime’s earlier companion, the war on poverty, shared a common ancestry: the assumption that cities could not effectively address the increasing rates of poverty and were ill equipped technologically and professionally to deal with increasing crime rates and urban violence (Jackson & Carroll, 1981). These assumptions, valid or not, spawned the movement toward national policies and strategies for the war on crime.

The first major policy initiative that garnered increased national attention to the war on crime was in 1965, when the Department of Justice established the Office of Law Enforcement Assistance as part of the Johnson administration’s effort to expand the federal government’s role in crime prevention. Three years later, Congress passed the Omnibus Crime Control and Safe Streets Act in 1968, which led to the creation of the Law Enforcement Assistance Administration (LEAA). During this time, more than six hundred new criminal justice and criminology academic departments were established (Akers & Lanier, 2009). By the mid-1970s, that number had swelled to over 729 criminal justice programs as more than one thousand academic institutions increased their numbers of criminal justice, criminology, and law enforcement programs (Akers, 1992).

This enormous increase in academic programs would, it was thought, lead to strategies designed to treat this superspread epidemic of violent crime that was plaguing the nation. In addition to the slower infusion of knowledge interventions
into crime prevention, the federal government had to take more immediate and
decisive action to try to stop this skyrocketing rate of violent crimes. This accel-
erated increase in the violent crime rate was analogous to a fast-growing cancer:
the only way to intervene and remove it was through aggressive and focused
treatment—targeted law enforcement, increased incarceration, and changes in due
process (Huq & Muller, 2008).

These strategies were, arguably, stop-gap measures or, figuratively speaking, a
finger in the dam, to stave off the continued flood and expansion of violent crime.
This approach, which continues to be hotly debated, nonetheless serves to mirror
more global fears. For example, when the former Soviet Union launched the first
satellite into space in the 1950s, legitimate fear permeated the nation and our
national policy leaders. In response, the United States marshaled its resources
and responded aggressively by attempting to send rocket after rocket into space,
to no avail. Only when massive funding (and a change in thinking) was channeled
into interdisciplinary science, technology, engineering, and mathematics educa-
tional training programs did this begin to have an effect on the U.S. space program,
culminating in 1969 when the first astronauts landed on the moon. Not unlike
the space race, the United States confronted a real threat: a skyrocketing violent
crime rate. Arguably, this fear led to significant funding being directed to criminal
justice academic programs and criminal justice enforcement and detection systems
that have now been added to the arsenal of tools to combat violent crime.

It is important to note that while the Omnibus Crime Control and Safe Streets
Act and LEAA were policy strategies designed to intervene and treat this explosion
of crime, especially violent crime, it appears to have been affected by and mingled
with the race riots, civil rights movements, and antiwar protests of the 1960s
and early 1970s (Simon, 2007). A result of these aggressive “treatment strategies”
was a significant increase in annual criminal justice system expenditures, ranging
from $11 billion in 1971 to $112.8 billion in 1995 (Maguire & Pastore, 1999)
to over $228 billion in 2007 (Kyckelhahn, 2011)—a 1,972.7 percent increase.
However, during the early 1970s, racial composition in cities and black mobiliza-
tion for civil rights issues proved to be strong predictors of police municipal
expenditures (Jackson & Carroll, 1981).

These expenditures, along with many others, served to create a criminal justice–
industrial complex that has stretched far beyond the early expenditures used to keep
the health of the public safe during public protests. For almost forty years, the
criminal justice system expanded to keep pace with the increase in violent crime,
although it began tapering off in 1990.
The Metaphor of the Industrial Complex

Gareth Morgan (2007) notes that “ways of seeing are also ways of not seeing,” in his introduction to the use of metaphor and imagery in the study of organizations. We humans like stories, and we tend to use images that make sense to us. This is reflected in the idea that there are basically only a few story plots available to writers, and most can be found in Shakespeare’s work. Everything else is simply a variation on those themes.

For the past decade or so, many who have been critical of the expansion of prisons during the late 1980s and 1990s have turned to the idea of the prison industrial complex (Davis, 1998). Davis borrowed the concept from earlier discussions of the military industrial complex set out in President Eisenhower’s farewell speech to the nation in 1960. Other writers have examined the links among Congress, elite academic institutions, and the remainder of the “complex” (Mills, 1956).

Part of Davis’s critique, and of others who echo concerns with what they call “mass incarceration,” is the disproportionate impact of the use of imprisonment on people of color. Her critique also said that this siphons off government funds from educational and social welfare programs. The perceived “vast profits” of private prisons and the projected expansion of privatized punishment were also features of the critique. Davis provides a brief yet comprehensive outline of how the private sector benefits from technologies and services provided to prison facilities in general.

In the first decade of the twenty-first century, the American Civil Liberties Union popularized the metaphor of the “school-to-prison pipeline” (Wald & Losen, 2003) to decry the perceived increase in the impact of zero-tolerance disciplinary policies in schools:

The “school-to-prison pipeline” refers to the policies and practices that push our nation’s schoolchildren, especially our most at-risk children, out of classrooms and into the juvenile and criminal justice systems. This pipeline reflects the prioritization of incarceration over education. (ACLU, n.d.)

The consistent themes across the prison industrial complex and the school-to-prison pipeline metaphors are the impact of increasingly punitive policies on (Continued)
vulnerable populations. These are especially harsh when combined with pullbacks on social programs that many have argued are necessary to reduce poverty-associated crime.

The expansion of the private prison boom of the late twentieth century has largely crawled to a halt. Of course, in cash-strapped times, we are hearing Florida’s governor and legislature propose the largest single privatization of a prison system and the total privatization of prison health care in that state’s system. However, with the exception of that one proposal, the use of private prisons has remained below 10 percent of the U.S. state prison systems. The privatization of jails has slowed and in some cases reversed itself. And in both criminal and juvenile justice systems, referrals and commitments to incarceration have slowed and declined. That is, crime has continued to decrease, at least through the time we are writing this book. Many school systems have abandoned the zero-tolerance policies decried in the school-to-prison pipeline critique. The disproportionate minority involvement at all levels of the criminal and juvenile justice systems has not improved, however, so there must be other fundamental determinants. What are they?

Largely overlooked in the past two decades, and perhaps set to increase under the Affordable Care Act of 2010, is the expanding biomedical-health-insurance industrial complex (or, as we call it, the public health–industrial complex). Health care costs, and the private health insurance costs associated with them, have increased at rates matched only by the cost of higher education. The reliance of many large institutions of higher education, public and private, on federal government grants to finance health research is an underexamined area. The profits made from biomedical patents and other health-related products by universities, from public funding or in partnership with private industries, places universities squarely in the midst of the public health–industrial complex. There are few other examples of taxpayer-funded transfers of wealth to the upper middle class more blatant than such grants, yet they remain largely unchallenged for their benefit to the public.

As we note throughout this book, population-level health conditions have not improved appreciably with the public funding of the public health–industrial complex. Minorities and low-income populations in the United States, and African American and Native populations in particular, remain the
most affected by infectious and chronic disease in just about every category. Supporters of the recent Affordable Care Act, recently upheld as a tax and as constitutional by the U.S. Supreme Court, promises that access to required preventive care and medical care for those who need it the most will reduce these differentials, although there is no clear evidence that this new legislative tax will have any impact whatsoever. Only time will tell if the promise is enough and is an accurate prediction.

To return to Morgan’s dictum, we ask the question, if attention was being focused on the perceived ills of the prison industrial complex, is the public health–industrial complex taking cover for its lack of delivering on promises made to receive more of our public (and private) wealth? Was this a case of health occupations receiving a disproportionate cut of the public purse worried about the mote in the eye of the prison industrial complex while ignoring the beam in their own eye? It depends on which metaphor causes you the least personal discomfort.

In 1970, public health activities accounted for approximately $1.4 billion; by 2008, expenditures rose to $69.4 billion, a change of 4,857.1 percent (National Center for Health Statistics, 2011). The expansive role that public health has played at times has blurred the intersection between the criminal justice system and the public health–industrial complex, in which the administrators of public health are there to manage and monitor all manner of the nation’s health with vast amounts of taxpayer revenue being funneled into the industrial complex. Yet the public health-industrial complex downplays its little-known role of enforcing compliance to health standards and criteria, especially with respect to the criminal justice systems of control and enforcement. This relationship can lead to little accountability or a tug-of-war for power and authority. That is, both systems share a number of powers and protocols, such as their efforts toward prevention, care, treatment, control, or quarantining strategies of individuals or groups in need of medical, psychological, educational, or social services. More broadly, both industrial complexes share a common set of bureaucratic, judicial, economic, and special interest mandates. In other words, this intersection does not differentiate the role of public health in this industrial complex. For example, stretching back to 1944, the Public Health Service Act was codified, effectively giving the federal government,
through the surgeon general or his designees, the legal authority to prevent, treat, control, or quarantine individuals who pose a threat of disease to the health and well-being of the general public (Public Health Reports, 1944). This charge opened the door for all manner of interactions between the criminal justice and public health systems.

Whichever the approach, public health or criminal justice–related, it has led to aggressive interventions or enforcement when the public’s health, safety, or well-being has come into question. That is, the attention given to the war on crime brought to the forefront where the fields of public health and epidemiology could more readily contribute, especially when targeted enforcement and incarceration strategies increased. It was during the early 1980s that violence was seen as a public health issue (Satcher, 1995; Sullivan, 1991; Koop, 1989). Criminology, on the other hand, recognized the tools of public health and epidemiology for decades, even prior to Cressey’s seminal article in 1960.

Figure 1.2 showed that crime skyrocketed soon after the war on poverty stretched into all manner of social welfare, education, and health programs. Yet at this same time, poverty rates started to decrease. The reasons for this increase in violent crime and decrease or even stabilization in poverty rates are many and complex. Some criminological theorists attempt to explain increases in crime as a by-product of psychosocial pathologies, poor family relations, the benefits of committing the crime that may outweigh the cost of getting caught, sociobiological abnormalities, moral indifference and perceived social injustice, economics, peer influences, lack of educational attainment, substance abuse, and opportunity (Akers & Sellers, 2009; Schmalleger, 2009; Carrabine, Iganski, Lee, Plummer, & South, 2004).

In 1990 national crime surveillance data showed that violent crime was beginning to drop at an accelerated rate (see Figure 1.2). The possible reasons for this decrease encouraged theorists to postulate explanations: various law enforcement strategies began to show an impact, increased incarceration had removed the most violent from within communities, antipoverty programs had an impact, and so on. One theory was that because society had locked up a large proportion of criminal elements, it avoided a superspread of violent crime (Blumstein & Wallman, 2006). In addition, with the advent of the crime victim’s movement in the 1970s, victims, especially women, became more comfortable reporting crimes against them. Regardless of which theory or combination of theories had the greatest impact on the decrease in the crime rate, one thing has been clear: violent crimes have been declining for twenty years, and the scientific community does not clearly know why.
In the context of epidemiological criminology, there exists a demarcation or bifurcation between the criminal and victim (the agent and host, respectively). This binary or dyadic relationship is often overlooked by mainstream epidemiologists who study violence as a public health issue and criminologists who study either criminal behavior or victimology. Yet these disciplines seem not to focus much attention on this dyadic relationship and their intersection theoretically, conceptually, and methodologically. Rather, there tends to be more of a focus on the macroenvironmental influences while sidestepping a detailed examination of the criminal-victim interaction. For the right questions to be asked about the war on crime, it is imperative that a conceptual framework help frame the questions. From an epidemiological criminology perspective, studying the war on crime requires a conceptual framework to begin the process of understanding the intersection of and interaction between these relationships and to bring into the matrix the environment and its normative characteristics. Figure 1.4 illustrates conceptually how best to differentiate the criminal-victim relationship and continuum. In this relationship, a number of factors influence the criminal-victim nexus or our analytical or practical understanding. These can include theories, types of injuries, type of crime, location, and how the separate systems functioned. Given the complexities of these relationships, countless numbers of factors can influence or otherwise have an impact on the criminal and victim.

In summary, for more than forty years, the war on crime has witnessed significant changes in federal, state, and local policies, strategies, enforcement practices, and academic programs. The “get tough on crime” attitude that swept through the 1970s and early 1980s ultimately led to an increase in the fear of crime, longer sentences for incarceration, the construction of more prisons, new technologies (such as various types of criminal tracking systems and more advanced

### Figure 1.4 Relationship Between Criminal and Victim

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<td>Criminal Justice</td>
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<td>Epidemiology</td>
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<td>Criminology</td>
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**Note:** The eight empty cells are a conceptual illustration to assist in considering the many factors and dimensions that can affect each of these independent relationships.
forensics), and an emerging “blame the victim” mentality (Simon, 2007). To date, given the massive amounts of data across diverse disciplines, some scholars and practitioners have argued that we now have a body of evidence that demonstrates that rehabilitation programs have led to a marked decrease in recidivism and drug use (Abramsky, 2010).

The War on Drugs

If the war on crime was an umbrella strategy to paint prevention with the broadest possible brush, the war on drugs has been the fine point of the brush, detailing the strategies for targeted regions, populations, health conditions, and incarceration. From as far back as Prohibition in the 1920s and 1930s, when the production, transportation, sale, and consumption of alcohol was statutorily considered illegal, drugs, narcotics, hallucinogens, and other substances have experienced a push-pull relationship between the criminal justice and public health systems. The question that is often asked, even in contemporary and popular media, is whether the drugs being used are a public health or a criminal justice issue (Fields, 2009).

Understanding the drug war is not a question of whether it is or is not a criminal justice or public health issue, because the answer is straightforward: it is both. The critical question is to what extent the drug war has contributed to the well-being of individuals, families, groups, communities, and the nation. To view the drug war from an either-or perspective is naive. The war on drugs crosses the battle lines of both public health and criminal justice. Since its inauguration in 1971 by President Richard M. Nixon, many battles, literally and figuratively, have been fought on the streets, alleyways and byways, in homes, and between families, across systems of justice and throughout prevention programs.

Yet the need to go beyond a user-focused problem to more of an integrated systems perspective addresses the salient points that an epidemiological criminologist would turn to when beginning an analysis. Although it is critical to collect important user data, such as the user characteristics and their demographics, it is also necessary to step back and broaden one’s perspective and use other analytical tools. For example, over the past forty years, the war on drugs has seen many victims. From a public health perspective, the definition of victim often includes not only the user of the drugs but also those who commit crimes in support of their use or addiction.

However, more often than not, public health neglects to consider the broader health impact of the larger pool of victims: the innocent victims who may be
walking down the street and get caught between the crossfire of a drug war or rival drug gangs; innocent victims who are out and about town and find themselves victims of robbery by drug users or dealers; or those who are at home while it is being burglarized by a user or addict in search of money or other valuables that will be used to buy drugs to feed their addiction.

Broadly speaking, the innocents have been caught between the colliding worlds of the illegal drug–industrial complex and the criminal justice and public health–industrial systems. Since the war on drugs and even before, innocent victims have unwittingly been thrust into the middle of this war, thereby being subjected to the effects and consequences of both the criminal justice and public health systems. The vulnerability of the public’s health also encompasses young people and others who may be pressured to distribute, sell, inject, or ingest drugs, thereby becoming addicted and subjected to the full force of the criminal justice system, ranging from arrest to incarceration (Moore & Elkavich, 2008). These are the many victims who expand our deeper analytical understanding of the war on drugs. Whatever the case, public health victimology crosses over into the criminal justice system directly and indirectly. A user’s harmless acts can become harmful health and criminal justice outcomes due to many circumstances.

Since the inception of the war on drugs, the battleground has often been thought of more as a criminal justice problem. However, in the world of public health, what has often been overlooked has been the broader implications and complexities across systems of relationships that follow chains of drug custody—of where and when the illegal drugs are manufactured, distributed, sold, bought, and consumed, on the one hand, and interdicted by law enforcement, on the other hand. This process sets the stage for an epidemiological criminology framework with respect to analyzing the war on drugs.

From 1970 to 2006, the United States estimated that drug abuse soared from 415,600 to 1,889,810, a 354.7 percent increase (Benson, 2009; U.S. Bureau of Justice Statistics, 2011). This increase reflects an extraordinary jump in arrests. Table 1.1 depicts national data on crime rates, both violent and property, and estimated drug arrests from 1970 to 2006. These data illustrate that while crime peaked in 1990, drug arrests continued to increase in absolute numbers, demonstrating a continued and targeted focus on drug-related crimes.

Crime rates and number of drug arrests have helped to show how public health programs can benefit from and incorporate data into their rubric of analysis. Descriptive data over the past forty years have helped public health from an epidemiological criminology perspective by viewing integrated criminal justice data in

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ESTABLISHING A HISTORICAL FRAMEWORK

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terms of percentage change and percentage differences over time. Interrupted time series data have served to demonstrate where public health or criminal justice interventions had an effect. Table 1.2 shows that drug arrests were increasing in the 1970s, achieving their highest rates between 1980 and 1990, with an increase of 87.5 percent; at the same time, violent crime increased by 22.3 percent. This table provides a fair and accurate picture as to how crime and drug arrests coincided.

Together, Tables 1.1 and 1.2, which provide the same data, offer different perspectives over the past forty years with respect to changes in violent crime and property crime, along with significant increases in estimated drug arrests. As a result of continued increases in drug arrests, in 1989 Dade County, Florida, became the first to establish drug courts. There are now over 2,419 of these drug courts nationally (U.S. National Institutes of Justice, 2011). In theory and practice, they are to provide alternatives to jail and prison for substance abusers. This effort has led to what we call a treatment-incarceration nexus (or, what some call “therapeutic justice”) that has served in a small way to bridge the disciplinary divide between the public health and criminal justice systems.

Apart from this initial effort, the debate continues to rage on as to whether public health treatment programs or criminal justice incarceration strategies have had the

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Violent Crime Rate&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Property Crime Rate&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Number of Drug Arrests&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>203,235,298</td>
<td>363.5</td>
<td>3,621.0</td>
<td>415,000</td>
</tr>
<tr>
<td>1980</td>
<td>225,349,264</td>
<td>596.6</td>
<td>5,353.3</td>
<td>580,900</td>
</tr>
<tr>
<td>1990</td>
<td>249,464,396</td>
<td>729.6</td>
<td>5,073.1</td>
<td>1,089,500</td>
</tr>
<tr>
<td>2000</td>
<td>281,421,906</td>
<td>506.5</td>
<td>3,618.3</td>
<td>1,579,500</td>
</tr>
<tr>
<td>2006</td>
<td>299,398,484</td>
<td>473.6</td>
<td>3,334.5</td>
<td>1,889,800</td>
</tr>
</tbody>
</table>

<sup>a</sup>Murder, forcible rape, robbery, and aggravated assault.
<sup>b</sup>Burglary, larceny-theft, and motor vehicle theft.
<sup>c</sup>Actual numbers (that is, not rate estimates) are from http://bjs.ojp.usdoj.gov/content/glance/tables/drugtab.cfm.

**Source:** FBI, Uniform Crime Report, prepared by the National Archive of Criminal Justice Data. Rates are the number of reported offenses per 100,000 population.
greater impact on the war on drugs. Even as we examine data in all forms, the impact of the war on drugs is still best exemplified by the absolute number of incarcerated populations within the United States: well over 2.3 million persons (U.S. Bureau of the Census, 2010), with a disproportionately large number of those being incarcerated for drug-related crimes. When individuals on probation or parole are added, these reach 5,018,855 more people under community supervision (U.S. Department of Justice, 2010).

The complex relationship of public health and criminal justice converges and intersects when placed within the context of the drug war at both the microlevel and macrolevel, where social and structural forces have an impact on how much the drug war has influenced treatment and incarceration (Dunlap et al., 2010; Dobkin & Nicosia, 2009).

Table 1.2 Percentage Changes by Years and Crime

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Percentage change</td>
<td>10.8</td>
<td>10.7</td>
<td>12.8</td>
<td>6.38</td>
<td>47.3</td>
</tr>
<tr>
<td>Percentage difference</td>
<td>10.3</td>
<td>10.1</td>
<td>12.0</td>
<td>6.2</td>
<td>38.2</td>
</tr>
<tr>
<td>Violent crime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage change</td>
<td>64.1</td>
<td>22.3</td>
<td>–30.6</td>
<td>–6.5</td>
<td>30.2</td>
</tr>
<tr>
<td>Percentage difference</td>
<td>48.6</td>
<td>20.1</td>
<td>36.1</td>
<td>6.7</td>
<td>26.3</td>
</tr>
<tr>
<td>Property crime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage change</td>
<td>47.8</td>
<td>–5.2</td>
<td>–28.7</td>
<td>–7.8</td>
<td>–7.9</td>
</tr>
<tr>
<td>Percentage difference</td>
<td>38.6</td>
<td>5.4</td>
<td>33.5</td>
<td>8.2</td>
<td>8.2</td>
</tr>
<tr>
<td>Estimate drug arrests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage change</td>
<td>39.7</td>
<td>87.5</td>
<td>45.0</td>
<td>19.6</td>
<td>355.0</td>
</tr>
<tr>
<td>Percentage difference</td>
<td>33.1</td>
<td>60.9</td>
<td>36.7</td>
<td>17.8</td>
<td>127.8</td>
</tr>
</tbody>
</table>

Note: Percentage changes and differences were calculated to illustrate variations over time. Source: FBI, Uniform Crime Reports, prepared by the National Archive of Criminal Justice Data. Rates are the number of reported offenses per 100,000 population.
The War on Terror

The term war on terror refers to intentional acts by certain segments of society to commit grave harm and induce panic and fear in individuals, groups, communities, and nations. Notwithstanding the fact that policymakers, researchers, and writers of all types have added this lexicon to our everyday life, this new metaphor has, for better or worse, helped to shape our understanding of the epidemiology of terrorism, crime, and public health within the context of the war on terror metaphor. In fact, there has been a growing focus on the epidemiology of terrorism. Some have argued that just as we have accepted violence as a public health problem, the field of epidemiology and public health should include the study of terrorism from an interdisciplinary point of view (White, 2002; Post, 1987).

To place the war on terror in perspective, between 1970 and 2007, there were over 1,300 terrorist attacks in the United States, accounting for 3,340 deaths (with 2,994 occurring on September 11, 2001), or an average of 36 attacks per year (START, 2010). Since before the war on terror, the public health system, led by the CDC, has maintained the U.S. Strategic National Stockpile, large stores of medical supplies and medicines to protect and treat the American public in the event of terrorist attacks, epidemics, or natural disasters (CDC, 2011).

However, in the aftermath of the September 11, 2001, attacks, the deficiencies of the public health system became apparent (U.S. Congressional Research Service, 2005). Following the attacks, new legislation went into effect that strengthened public health systems, influence, structures, technologies, and personnel (Chapter Fourteen provides greater detail). Where costs and funding for public health once were a problem (Huq & Muller, 2008; Biever, 2005), the dynamics have changed, especially with respect to the ability of public health to confront a looming menace: bioterrorism.

The events surrounding 9/11 were an awakening for public health and epidemiology (Susser & Susser, 2002). Before this, the professions of public health and epidemiology had thought little about their role in this context. And, conversely, 9/11 brought about another a clarion call to criminal justice practitioners, counterterrorism analysts, and criminologists that the motives, philosophy, rituals, and dogma of extremists cross moral imperatives that defy conventional paradigms and academic traditionalisms. The war on terror, using pre- and post-9/11 perspectives, has served to broaden our conventional theories of public health, crime, and punishment to include the radical crusades of religious or political extremism. It is at this intersection that public health/epidemiology and criminal justice/criminology converge from an epidemiological criminology perspective.
In analyzing the war on terror from an epidemiological criminology framework, it has been apparent that public health, not unlike criminal justice, has confronted many enemies in its battle to fight for the health and well-being of communities, states, regions, or the nation as a whole. When acts of domestic terrorism have occurred, the public health apparatus has, relative to its capability, quickly marshaled its resources to mitigate further harm, risk, or fear. However, more often than not, terrorist acts have forced public health into the world of emergency preparedness and response with more of a focus toward treatment and care.

With respect to prevention, detection, and response, public health has done a dismal job during the war on terror (U.S. Congressional Research Service, 2005). In other words, terrorism had never been thought of as a public health issue, much less a public health-criminal justice issue. It was not until September 11, 2001, that public health received its call to action, though with greater attention to bioterrorism. Yet the diversity in types of terrorist acts has been the biggest challenge for public health, with bombings, shootings, the introduction of pathogens into foods and workplaces, and the destruction of buildings. Some researchers have been describing what can be called the epidemiology of terrorism (White, 2002; Susser & Susser, 2002). They maintain that mass casualty incidents are distinctly different from other known disasters from an epidemiological perspective, in regard to their age, gender, method of destruction, type of injury, and other characteristics (Aharonson-Daniel, Peleg, & ITG, 2005).

In contrast to criminal justice prevention, detection, and response, public health has not been confronted or charged with isolated terrorist incidences as in the case of the Unabomber, Theodore “Ted” Kaczynski, who, in a span of almost twenty years, injured twenty-three and killed three others by means of exploding envelopes. From a public health perspective, terrorist acts in which public health and epidemiologists would be most involved tend to focus on larger segments of the public; in contrast, criminal justice systems tend to focus on individual acts in order to try to thwart devastating events. Developing an integrated framework that complements methods and approaches used in public health and epidemiology, as well as the professions of criminal justice and criminology, has helped cultivate the evolution of the paradigm of epidemiological criminology. Each of these practitioner and scholarly professions for the most part has existed as a separate stand-alone discipline with virtually no theory that can help contextualize their relationship and similarities.

In summary, the war on terror has not been part of the lexicon as long as some of the other war metaphors. Nonetheless, its description has galvanized an emerging
way in which public health and criminal justice have begun to work more effectively together. The emerging paradigm of epidemiological criminology will serve to bridge this divide by means of strengthening scientific discussion around the epidemiology of terrorism (White, 2002). The need for understanding the epidemiological criminology of terrorism starts with our ability to expand our analytical perspective to embrace a taxonomy of terrorist acts in order to sequence and classify their impact at the individual (micro); familial, group, or organizational (meso); and societal (macro) levels of both systems of public health and criminal justice.

Conclusion

This chapter has described the role that the emerging paradigm of epidemiological criminology can have in expanding our analytical perspectives across fields of public health and epidemiology relative to their counterparts of criminal justice and criminology. The war metaphors may be unique to the United States, but their principles and approaches play out in other nations too. Poverty exists, crimes occur, drugs are sold and used, and terrorist acts wait in the shadows and eventually occur around the world. A common thread runs through each of these policy strategies, necessitating interdisciplinary thinking. We need to develop analytical tools for more effectively understanding how the effects and consequences of poverty, crime, drugs, and terrorism can be better understood and conceptualized by students, practitioners, scholars, analysts, media, and policymakers.

Summary

From the war on poverty in the 1960s to the war on terrorism today, no one event is credited with establishing this new theory. However, one article, more than any other, began to scratch the surface of these two seemingly distinct disciplines: noted criminologist and sociologist Donald Cressey’s “Epidemiology and Individual Conduct: A Case from Criminology” (1960).

Public health systems may track high rates of malnutrition, dilapidated homes and communities, injuries, and substance abuse, while criminal justice systems may be tracking an increase in theft, abuse, violence, and drug-related crimes. Although these may appear to be distinct areas, they nevertheless overlap in their similarities, theories, methods, lexicon, and practices—particularly when addressing aberrant, maladaptive, or criminal behaviors. Accepting this association that economic status and crime are directly linked has forced current and past analyses down a path that
has led policymakers, practitioners, and scientists to miss other critical explanations or factors. For example, when examining data that stretch beyond individuals and consider neighborhood poverty more broadly, socioeconomic status becomes less a predictor of crime generally and violent crime specifically.

Because the biopsychosocial and environmental determinants of crime are complex, they encompass a number of interdisciplinary risk factors that are critical to an analysis from the professions of epidemiology and public health and criminology and criminal justice. These expenditures, along with many others, have served to create a criminal justice-industrial complex that has stretched far beyond the early expenditures used to keep the health of the public safe during public protests. The expansive role in public health has at times blurred the intersection between the criminal justice system and the public health-industrial complex.

Theories have also been raised that society has the largest proportion of criminal elements locked away, thereby avoiding a “superspread” of continuous and expanded violent crime. The drug war is not a question of whether it is or is not a criminal justice or public health issue, because the answer is straightforward: it is both. Rather, the critical question is to what extent the drug war has contributed to the well-being of individuals, families, groups, communities, or the nation. Apart from this initial effort, the debate continues as to whether public health treatment programs or criminal justice incarceration strategies have had the greater impact on the war on drugs. The war on terror, using pre- and post-9/11 perspectives, has served to broaden our conventional theories of public health, crime, and punishment given the radical crusades of religious or political extremism.

However, with respect to prevention, detection, and response, public health has done a dismal job during the war on terror. From an epidemiological criminologist perspective, the need for understanding the epidemiological criminology of terrorism starts with our ability to expand our analytical perspective to embrace a taxonomy of terrorist acts in order to sequence and classify their impact at the micro-, meso-, and macrolevels of both systems of public health and criminal justice.

**KEY TERMS**

- Counterterrorism
- Criminal justice–industrial complex
- Detection
- Differential association
- Dose
- Epidemiology of terrorism
- Exposure
- Extremists
Health determinants | Response
---|---
Health outcomes | Rituals
Illegal drug–industrial complex | Substance abusers
Incarceration | Superspread
Individual behavior | Taxonomy of terrorist acts
Law Enforcement Assistance Administration | Treatment
Method of destruction | Type of injury
Omnibus Crime Control and Safe Streets Act | War on crime
Policy shifts | War on drugs
Prevention | War on poverty
Public health–industrial complex | War on terrorism

**DISCUSSION QUESTIONS**

1. What are the major historical policy strategies that intersect epidemiology and criminology? Show how these policy shifts and strategies relate to the epidemiological criminology paradigm.

2. Consider how the four major policy shifts relate to different levels of analysis. What are the theoretical factors that led to these shifts?

3. What is the relationship between crime and poverty and biopsychosocial and environmental factors?

4. How can a “super-spread” epidemic of crime relate to both health and criminal behavior?

5. How has the public health industrial complex affected the criminal justice system?

6. Explain the relationship between criminal and victim from an epidemiological perspective and a criminological perspective. What are the public health and criminal justice factors that can contribute to our interdisciplinary understanding?

7. What is the relationship of the war on drugs to treatment and incarceration?

8. What has been the effect of the war on terrorism to our understanding of public health and criminal justice?