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# INCARCERATION AND THE HEALTH OF THE AFRICAN AMERICAN COMMUNITY

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#### Abstract

This article reviews evidence linking incarceration and health, with a particular focus on African Americans, who are disproportionately affected by the incarceration system. Although inmates generally suffer from worse health than comparable, non-institutionalized adults, this comparison is not uniformly the case, and some of the strongest negative effects of incarceration emerge after release, suggesting that the struggles of reintegration into society are as important as the conditions of incarceration. We review evidence for the basic relationship between incarceration and health from individual-level and aggregate-level studies, as well as from evidence and speculation regarding potential mediating mechanisms. Many questions remain regarding these mechanisms and, by extension, which policies are most promising for reducing incarceration's impact on health. Among other issues, the incarceration-health connection also raises fundamental questions regarding the level of harm society is willing to accept as part of routine punishment for criminal behavior.

**Keywords:** Health, Incarceration, Racial/Ethnic Disparities, Infectious Disease, Stress, Stigma

### INTRODUCTION

Since the early 1970s, the incarceration rate has risen precipitously in the United States, and this expansion has profoundly impacted African American men. What, however, are the consequences of incarceration for the health of former inmates and the families and communities to which they return? This article reviews research on the effects of incarceration on health with a particular focus on African Americans. Although we focus on empirical studies, reviewing both individual-level and aggregate-level research, we also highlight emerging areas of indirect speculation. The complexity of incarceration's effects on health demands a broad conceptual framework, which we emphasize here with the hope of encouraging future research.

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#### Patterns of Incarceration

The prison system has grown enormously over the last thirty years, characterized by an increase in both its stock and flow. Prior to the mid 1970s, the prison incarceration rate fluctuated in a narrow range around one hundred incarcerations per 100,000 persons. Beginning in 1973, however, the rate began a steady upward march, growing by approximately 6% per year and passing the 500 mark in the first decade of the twenty-first century (Glaze and Bonczar, 2007). As of 2009, over 2.4 million prisoners and parolees were under supervision, and an additional four million ex-prisoners were in the population (Uggen et al., 2006). Combining the current and the ex-prisoner figures, more than six million U.S. citizens have served time in a penitentiary, representing about 2.9% of the adult population, 5.5% of the adult male population, and 17% of the African American adult male population (Uggen et al., 2006).

For those concerned with health, the phenomenon of racialized mass incarceration (Bobo and Thompson, 2010) has two important features. For one, the penal system is indeed "mass" in the sense that it is now large enough to affect an entire demographic group, not simply a small group of individuals (Garland 2001). Furthermore, the category of current and former inmates has characteristics of a status group, rather than a class or caste, meaning that former inmates share a negative credential that affects their life chances irrespective of their social origins (Uggen et al., 2006). These two features are particularly relevant to understanding how incarceration affects the health of inmates and communities. They suggest that the health risks of incarceration are "fundamental" in the sense that they may be linked to health through a variety of different mechanisms, not unlike socioeconomic status itself (Link and Phelan, 1995).

#### The Health of Inmates: Descriptive Evidence

At a descriptive level, current inmates clearly have elevated levels of illness, especially given their relatively young age. Estimates vary among studies, depending on sampling and survey instrument, but the general picture is clear. Inmates report higher levels of chronic illness, but not for all conditions. A report by the National Commission on Correctional Health Care (2002) provides perhaps the most generalizable estimates. The Commission reports that approximately 18% of inmates have hepatitis C, and just over 7% have tuberculosis, rates far higher than found in the U.S. population as a whole. Similarly, about 1.5% of inmates have HIV/AIDS, although the number of AIDS-related deaths in prison is declining, much as it is in the general population (Maruschak 2010a). Asthma (8.5%), diabetes (4.8%), and hypertension (18.3%) are also common, but of these only asthma is elevated relative to the U.S. population as a whole. Another study reports that inmates have *lower* levels of obesity and, further, that racial and ethnic disparities are smaller in prisons and jails than in the general population (Binswanger et al., 2009). Nevertheless, chronic conditions are in general quite prevalent among prisoners: between 39% and 44% have a chronic medical condition of some kind (Maruschak 2010b; Wilper et al., 2009). Similarly, inmates suffer from higher levels of mental illness, but not for all disorders and not among all inmates. Federal prisoners have higher levels of schizophrenia, dysthymia, and bipolar disorder, but few have high rates of major depression. As many as 25% of inmates have a prior psychiatric diagnosis of some kind (Wilper et al., 2009).

A close examination of health care services in prisons reveals similarly complex patterns. Although the quality of prison health care services is heterogeneous and perhaps low in general (Restum 2005), bearing in mind the poverty that most

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inmates experienced prior to prison is important. Given that many inmates come from impoverished backgrounds, the quality of services available to inmates before incarceration was already low (Smedley et al., 2003), which is perhaps reflected in mortality patterns. Patterson (2010) finds that the mortality rate of African American men in prison is actually lower than among African American men outside of prison and, further, that the Black-White mortality difference essentially disappears within prison. Although firearms and motor vehicle accidents account for some of the differences between Black prisoners and non-prisoners, these causes cannot wholly explain the mortality gap, suggesting, Patterson argues, some role for prison health care. Consistent with this claim, evidence for the high use of medical diagnostic and treatment services among inmates is available. Many inmates resume treatments while incarcerated that may have previously lapsed prior to incarceration (Wilper et al., 2009). Furthermore, at least 70% of prisoners with a medical problem report seeing a medical professional while incarcerated, and slightly more report receiving a medical exam or blood test since admission (Maruschak 2010b). While encouraging, these facts are hardly cause for celebration insofar as they reveal the general paucity of health resources available to impoverished racial minorities. Whites, after all, do not show lower mortality in prison. Nevertheless, these findings suggest a potentially sharp distinction between short and long-term incarceration effects; indeed, this is what research reveals with respect to mortality and morbidity. Among former inmates, for example, mortality is relatively high, especially in the first two weeks following release, even after adjusting for basic demographics (Binswanger et al., 2007).

# Disentangling the Effects of Incarceration on Current and Former Inmates

Although much of the above research is descriptive and cross-sectional, this research raises implicit questions about whether incarceration is causally related to poor health. Claims of causality are complicated, however, by the forces of selection into prison, which are often directly linked to health. Many inmates arrive in prison with preexisting conditions, and many more are at risk for poor health by virtue of their education levels, poverty, and childhood background. Even so, recent evidence suggests that incarceration negatively impacts health and, furthermore, that any positive short-term effects of incarceration are likely outweighed by its long-term negative effects.

For instance, evidence exists for the intra-prison spread of infectious disease. Khan et al. (2005) have documented the ongoing transmission of hepatitis B in a high-security facility. At baseline, 20.5% of inmates were infected with the virus, and a year later 3.6% showed evidence of a new infection. Several older studies show smaller incidence rates of .8% (Hull et al., 1985) or 1.3% (Decker et al., 1985), but nonetheless provide evidence for intra-prison transmission. While these incidence rates may appear low when expressed absolutely, they are as much as one hundred times greater than the general U.S. incidence rate.

Other studies estimate even larger relationships in broader data. Using over a decade of case-level data, a variety of controls, including for the prevalence of crack cocaine, and a dynamic model sensitive to the incubation time of HIV, Johnson and Raphael (2009) find strong evidence for an effect of male incarceration rates on male and female AIDS rates, suggesting effects both inside and outside prison. Other studies have explored the role of incarceration in the spread of infectious disease within geographic units ranging in size from communities and states (Thomas and

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Torrone, 2006; Wildeman 2010a, b) to nations (Stuckler et al., 2008), and likewise find evidence for strong effects, albeit with somewhat less attention to causality than Johnson and Raphael.

Although infectious disease is an important element in the prison-health relationship, incarceration has been linked to other diseases with less obvious vectors. Longitudinal data are beginning to make the case for a long-term effect on morbidity and mortality and, at the same time, beginning to disentangle processes of selection from processes of causation. Using fixed-effects to account for unobserved heterogeneity, Schnittker and John (2007) find an elevated risk of disability following release from prison. Schnittker and John also find that the length of a prison sentence is generally unrelated to risk of disability: even a short sentence is sufficient to increase disability, although those who serve unusually long sentences may be at risk for poor health regardless of incarceration. Using propensity score matching, Massoglia (2008a) likewise concludes that sentence length is generally unrelated to health outcomes and finds elevated levels of infectious disease and stress-related disorders among those with a history of incarceration. Incarceration does not, however, increase the risk for all health problems in a uniform fashion. Massoglia (2008a) reports small and insignificant effects on conditions such as epilepsy or anemia, which have no obvious mechanism related to incarceration. Moreover, incarceration may possibly have some positive long-term effects (not to mention short-term effects) for a handful of diseases. Freudenberg et al. (2005), for example, report declines in drug and alcohol problems among former inmates, suggesting that some inmates "go straight" after release.

In general, the mechanisms for negative health impacts are not always clear and probably reflect multiple factors. Some of the risks reflect a transitive logic spanning incarceration and other well-established social risk factors, including employment, income, and the likelihood of marriage, all of which can affect health. Similarly, health insurance and other access issues might play an important role in shaping the long-term effects of incarceration. In some states, inmates are made ineligible for Medicaid during their sentence and have a difficult time reenrolling after release. Other former inmates lack employer-provided insurance and cannot receive benefits from a spouse, and those lucky enough to find insurance are often denied benefits for pre-existing conditions. Processes of this sort may worsen some existing conditions, and these effects will not be captured in studies of incident conditions.

One study, for example, found that HIV patients who had received treatment while incarcerated often returned to prison following release with higher viral loads than they reported at release (Stephenson et al., 2005). However, the effects of incarceration are not only a reflection of diminished socioeconomic resources and, indeed, controlling for such factors only marginally diminishes the estimated incarceration effects on health (Massoglia 2008b; Schnittker and John, 2007). The remaining mechanisms are a matter of important debate but likely reflect discrimination, stress, and other status-linked psychosocial dimensions. Effects of this sort also foreground the importance of a life-course approach to incarceration entails (London and Myers, 2006). While most inmates are first exposed to prison during young adulthood, many health differentials may not be observed until mid-life, when condition rates and disparities across groups become more apparent.

#### Interactions between Race and Incarceration

In light of radically disproportionate incarceration rates by race, whether the effects of incarceration on health are similar for African Americans and Whites is worth

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considering. In other areas, such as labor market outcomes, evidence exists for interactions between incarceration and race, where African Americans with a prison record are doubly disadvantaged (Pager 2003). The theoretical case with respect to health is somewhat less clear, and the empirical evidence is in fact mixed. Part of the problem stems from the basic demographics of incarceration. The relationship between incarceration and poor health could be weaker among African Americans than Whites simply because prison is less selective of high risk among the former than the latter. Similarly, if we imagine that incarceration is linked to poor health by virtue of the stigma of incarceration, it is conceivable that African Americans may suffer less if incarceration is more common in the communities to which they return. However, the opposite relationship is possible. If African Americans are already more vulnerable for poor health, incarceration might simply provide the trigger for disease. Similarly, if incarceration inflates negative stereotypes against African Americans, incarceration might have a larger effect. Some evidence shows that racialized mass incarceration has had the paradoxical effect of increasing the stigma of incarceration in African American communities (Braman 2004; Sampson and Bartusch, 1998). Resolving this issue will require the explicit measurement of the psychosocial context.

Of course, the possibility that incarceration has no more of an impact on African American former inmates than on White former inmates does not imply that the issue is race-neutral. The unusually high prevalence of incarceration among African Americans relative to Whites allows for the possibility that incarceration can actually account for some portion of the racial disparity in health. Several studies have explored this possibility. Massoglia (2008b) reports some mediating effects of incarceration on Black-White disparities, similar to the mediating effects of education, while Schnittker and John (2007) report smaller effects. Johnson and Raphael (2009), meanwhile, find that the bulk of the racial disparity in AIDS among women can be explained by male incarceration. Given the many disadvantages African Americans face, incarceration may not completely account for racial disparities in health, but it may explain certain differences and deserves to be a central concern of future research.

#### Spillover Effects

Although they are often treated as social isolates, incarcerated persons are in fact embedded in every facet of social life—as neighbors, partners, and parents—which introduces the possibility of spillovers, particularly in communities of color (Comfort 2008; Wakefield and Uggen, 2010). There has been abundant speculation on the neighborhood effects of incarceration, with much of it focused on the spread of infectious disease to others (Golembeski and Fullilove, 2005), but scholars usually have more than directly infectious vectors in mind when they posit a relationship between incarceration and community health. Often, for example, the motivating concepts are social capital, social control, or other broad-scope concepts, which have multiple pathways to disease manifesting amongst many actors. In high-incarceration neighborhoods, for example, as many as 15% of adult males are cycling back and forth to prison, a process Clear (2007) describes as "coercive mobility" and links to social control (p. 73). To the extent that such excessive residential mobility inhibits the formation of interpersonal trust and social capital, community crime and health could worsen. Although no study to our knowledge has explored this issue directly, and work on coercive mobility has been critiqued on causal grounds, incarceration has been linked to social capital in the cross-section (Lynch and Sabol, 2006), and social capital has been linked to community health, albeit inconsistently (Kunitz 2004). The connection between incarceration and community health is further com-

plicated by the potential crime-reductive effects of incarceration, which presumably benefits aggregate health (Lynch and Sabol, 2006).

Incarceration has also been linked to families and family processes, whether in terms of marriage rates, stigma, or the support former prisoners are able to provide their spouses and children (Freudenberg et al., 2005). In a particularly strong statement on the stigmatizing dimensions of incarceration, Braman (2004) reports that the stigma of incarceration is even stronger for family members than it is for the former prisoner, given that family members must contend with social stigma even while the prisoner is away (see also Foster and Hagan, 2007). A relationship between stigma and stress (Link and Phelan, 2001) could make family members susceptible to some of the same illnesses to which prisoners are susceptible (Massoglia 2008a). However, even without the spread of stigma to family members, a relationship between their health and their loved one's incarceration is possible. Returning inmates trying to provide care to their families will, on average, find their efforts challenged by reduced wages, unstable employment, discrimination, and divorce (Huebner 2005; London and Parker, 2009; Lopoo and Western, 2005). Geller et al. (2008), for example, find that incarcerated fathers contribute far less to their families and are more likely to live apart from them. More directly related to health, some evidence shows that paternal incarceration may increase children's aggression and delinquency (Hagan and Palloni, 1990; Murray and Farrington, 2008; Wakefield 2009; Wildeman 2010c), although scholars recognize variation in these effects premised on variation in the characteristics of incarcerated fathers (Murray and Farrington, 2008; Wildeman 2010c).

As before, countervailing considerations are relevant to the effects of incarceration on family functioning. Incarceration could improve the health of communities and families if, for example, incarceration removed violent spouses and parents from neighborhoods and households. Although half of all state-prison inmates were convicted on non-violent offenses, some non-violent prisoners have abusive relationships with their partners (Western and Wildeman, 2009). Furthermore, even the incapacitation of non-violent partners can have some positive implications. For some women, for example, a partner's incarceration provides a spur for greater independence and a more discerning approach regarding household management (Edin et al., 2004; Western and Wildeman, 2009). To resolve issues regarding the net effect of incarceration, it will be necessary to closely examine the dynamics of families and communities and to measure concepts such as stigma.

#### CONCLUSION

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The expansion of criminal punishment and the persistence of racial disparities in incarceration remain concerning for many reasons. A growing body of research suggests that, on balance, incarceration increases the risk for poor health. This relationship has far-reaching implications and raises questions regarding, for example, whether time served in prison exceeds effective punishment, as well as whether the state is responsible for providing care beyond an inmate's time in custody. Our review reveals a complex relationship between incarceration and health, both from the standpoint of outcomes and mechanisms of influence. Nevertheless, the negative effects of incarceration on former inmates are now clear, and it is becoming increasingly clear that incarceration may affect the health or wellbeing of many others as well. We encourage future research exploring the many dimensions of incarceration-health relationships. This includes identifying potential mediating mechanisms and

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putting incarceration in a life-course context, thereby appreciating the cumulative disadvantage that may unfold following even brief periods of incarceration (London and Myers, 2006). We also encourage more research on services and programs that might ameliorate the connection between incarceration and health. In health, as elsewhere, the prison has emerged as a powerful stratifying force that drives and shapes social inequalities, but systematic means are available to reduce its influence on the health of African Americans and other groups.

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