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MENTAL ILLNESS AND SUBSTANCE ABUSE

HELPING NORTH CAROLINIANS FIGHT MENTAL ILLNESS AND SUBSTANCE ABUSE

locke

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Mental Illness and Substance Abuse:

Helping North Carolinians Fight Mental Illness and Substance Abuse

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Executive Summary

Substance abuse, severe mental illness, homelessness, poverty, crime, and other social disorders are now seemingly rampant problems. Videos taken from the streets of Los Angeles and Philadelphia and shared on social media show the explosion of people living in conditions similar to those found in developing countries. This is an issue states and cities must address, but what is the best way to help some of the most vulnerable members of the public while also breaking the cycle of mental illness induced poverty, drug dependency, violence and other issues plaguing communities?

It's a public policy issue that states like North Carolina should carefully consider, especially given the correlation between mental illness and homelessness. According to the Kaiser Family Foundation, there are only enough psychiatrists, psychologists, psychiatric nurses, addiction counselors and mental health or family and marriage counselors to address 13.4% of the state's needs.[1] The vast majority of those with serious psychiatric conditions, like schizophrenia and bipolar disorder, are unable to get the care they require to help them lead productive and fulfilling

lives. This increases the risk of these vulnerable people falling through the cracks and perhaps ending up in the criminal justice system.

To help address this, some of the suggestions in this piece include abolishing North Carolina's Certificate of Need laws to allow for more psychiatric and substance abuse care by both expanding total capacity and allowing for the wider distribution of facilities. Used appropriately, involuntary commitment can be a useful tool, and North Carolina's involuntary commitment laws appear sufficient to address most situations without becoming an echo of the abusive practices in the past. Nonetheless, this change would be contingent upon increasing the ability to train and or attract medical professionals with specialized training in addressing mental health related issues and complications, which should be somewhat easy as Duke University is listed by *U.S. News & World Report* as the 9th best psychiatric medical school in the nation. Involuntary outpatient commitment is another useful tool in treating mental illness, and North Carolina should continue its laudable use for those mental illness sufferers who pose no danger to others.

Introduction

Homeless rates are on the rise. The National Alliance to End Homelessness reports an increased number of people living on the streets, after hitting a low in 2016. Given the current downward economic trends, including a recession and continued inflation, the problem will probably only get worse.

In 2020, North Carolina had approximately 8.8 homeless individuals per 10,000, or 9,280 people.[2] It could be that upwards of 25% or more of these individuals are dealing with severe mental illness (SMI), which usually includes schizophrenia and bipolar disorder, and upwards of 45% are dealing with some sort of mental illness, like depression. Substance abuse is also a significant comorbidity.[3]

The increase in homelessness, mental illness, SMI, substance abuse and other issues can lead to an increase in crime both perpetrated by those who are struggling with housing and against them, as in the cases of serial killers recently captured after targeting these vulnerable people in California[4] and the East Coast.[5]

To keep North Carolina streets safe and to address the crippling effects of mental illness on individuals and families, policy makers have to simultaneously bolster health services for SMIs, offer substance abuse counseling, and assist those already caught up in the criminal justice system by providing them with the mental health services they may have been lacking that resulted in eventual criminal activity.

WHY ADDRESSING SEVERE MENTAL ILLNESS MATTERS

There are many reasons for public policy makers to have concerns about SMI, including direct governmental costs, private insurer costs, crime, poverty, homelessness, child neglect, substance abuse and other issues.

What Mental Illnesses Are the Subject of Concern?

"Mental illness" includes a broad range of issues, many of which are primarily individual in their effects. *Mood disorders* consist of a wide range of mental difficulties from mild to severe, including depression or bipolar disorder. Depression's symptoms can range from so mild that it may not be recognized or so severe that the sufferer spends twelve or more hours per day in sleep — and yet still has no energy or interest in life when awake.[6]

Mood disorders can also be relatively mild. While a person with a mild

mood disorder may have quite serious mental health issues that require professional attention, he or she is less likely to become embroiled in the criminal justice system.

But that's not always the case. Some mood disorders can cross the line from personal battle to public problem. For example, those individuals with bipolar disorder II, previously called manic depression, are generally able to live productive and fulfilling lives. Their bouts with mania are not as severe, though they do suffer more from chronic depression.[7] Occasionally, these individuals do develop psychotic symptoms, such as hallucinations, that break their connection to reality. Bipolar disorder I sufferers have more severe mood swings and willingness to take risks[8] and, as we will see later, are overrepresented among murderers.

By comparison, *psychotic disorders*, such as schizophrenia, can impair a person's grasp on reality. Unsurprisingly, these afflictions make it difficult to find and maintain employment, especially if the condition remains untreated or the treatment is inconsistent.

Schizophrenia is one of the most serious psychiatric conditions and is described by the Mayo Clinic as a "serious mental disorder in which people interpret reality abnormally."[9] These individuals may see "some combination of hallucinations, delusions and extremely disordered thinking and behavior that impairs daily functioning, and can be disabling." These delusions and hallucinations can be incredibly severe. They range from hearing voices to believing that the world is about to end, which can sometimes lead those sufferers to extreme acts of violence both against others and themselves.

For example, Kyle Odom of Idaho believed that Martians were in control over the government and other institutions. Odom believed one of those "Martians" was cleverly disguised as a Pastor Tim Remington, who he shot six times.

IMAGE: DRAWING BY SCHIZOPHRENIC KYLE ODOM OF ONE OF THE "MARTIANS" HE BELIEVED WERE CONTROLLING WORLD GOVERNMENTS AND INSTITUTIONS.

Police arrested Odom at the White House when he went after another "Martian," President Barack Obama. Odom's manifesto wrote that "'hypersexual' beings from Mars who live underground and inside the moon have been controlling human civilization for millions of years." He believed these beings controlled many of the world's governments.[10]

It was only after going through "counseling and medication" did he realize that the pastor was not an alien.[11]

Another example is Corrine Reed of Coos Bay, Oregon, who developed a delusional disorder in her forties. She was convinced that the sizzling sound that she heard was her body on fire. She attempted suicide at least once, and started starving herself to death, in the belief that food and water aggravated the fire. She was involuntarily committed for a year, where she made significant progress and was then released. Sadly, Corrine Reed starved herself to death.[12]

There are numerous other similar situations where the public and public figures can be at risk of someone suffering from a mental illness. The best way for the state of North Carolina to mitigate some of these tragic outcomes is to address this illness through assisting and supporting those struggling with SMIs, like schizophrenia, with a strong health infrastructure and dedicated social workers and family members. Though remission has been achieved in 20-60% of cases,[13] schizophrenia is a lifelong illness. It can best be treated with early interventions, which can

mitigate some of the more severe complications and improve the long-term outlook.[14]

This article focuses heavily on SMIs that include schizophrenia and bipolar I disorder, not because other forms of mental illness are unimportant, but because SMIs appear to be disproportionately involved in the tragedies that are of most concern to policymakers.

The Centers for Disease Control and Prevention (CDC) reports that more than 50% of Americans will struggle with a mental illness or disorder at some point in their life. One in five will experience a mental health challenge in a given year. Children also suffer from mental health issues, ranging from mild to severe in similar rates. SMIs affect 1 in 25 Americans, and they include schizophrenia, bipolar disorder, and major depression.

These issues can have an immense impact on the economy, with the CDC stating that suicide costs the U.S. economy $68 billion and homicide $36 billion, "and this is just the costs for medical care and lost work." The other costs include those who are left behind and struggle with "long-term physical, psychological, and emotional consequences." As the CDC's National Violent Death Reporting System explains: "Violence erodes entire communities—reducing productivity, decreasing property values, disrupting social services, and making people feel unsafe in the places where they live, work, and learn."[15]

North Carolina should be especially concerned about the impact severe mental illness has on the state. The 2012-2014 National Survey on Drug Use and Health found that 4.85% of North Carolina's population suffers from an SMI, which put North Carolina in the top quintile of states in terms of adults suffering from SMIs.[16]

Direct Governmental Costs

Schizophrenia's costs have been thoroughly studied. "The estimated excess economic burden of schizophrenia in the US in 2019 was $330.6B, including $62.3B in direct health care costs (19%), $19.7B in direct

non-health care costs (5%), and $251.9B in excess indirect costs (76%). The largest drivers of indirect costs were caregiving ($112.3B), premature mortality ($77.9B), and unemployment ($54.2B)."[17] The Schizophrenia & Psychosis Action Alliance released a report revealing the staggering $281.6 billion direct and indirect costs associated with the disorder in 2020.[18] Currently, "mental disorders" accounts for 3.2% of those who receive Social Security, some of which are not SMIs (autism spectrum disorders, developmental disorders).[19] This should not be a surprise; a person with severe mental illness who lacks an advocate (either a social worker or a relative) to help them through the application process is unlikely to receive benefits.

Because schizophrenia has such a low recovery rate[20] — *perhaps* aggravated by failure to treat the illness early enough[21] — and because most schizophrenics, when first afflicted, have decades of life left, the resulting social costs are extraordinary. Until deinstitutionalization, it was common for almost half of *all* hospital beds (not just mental hospital beds) to be occupied by the mentally ill.[22]

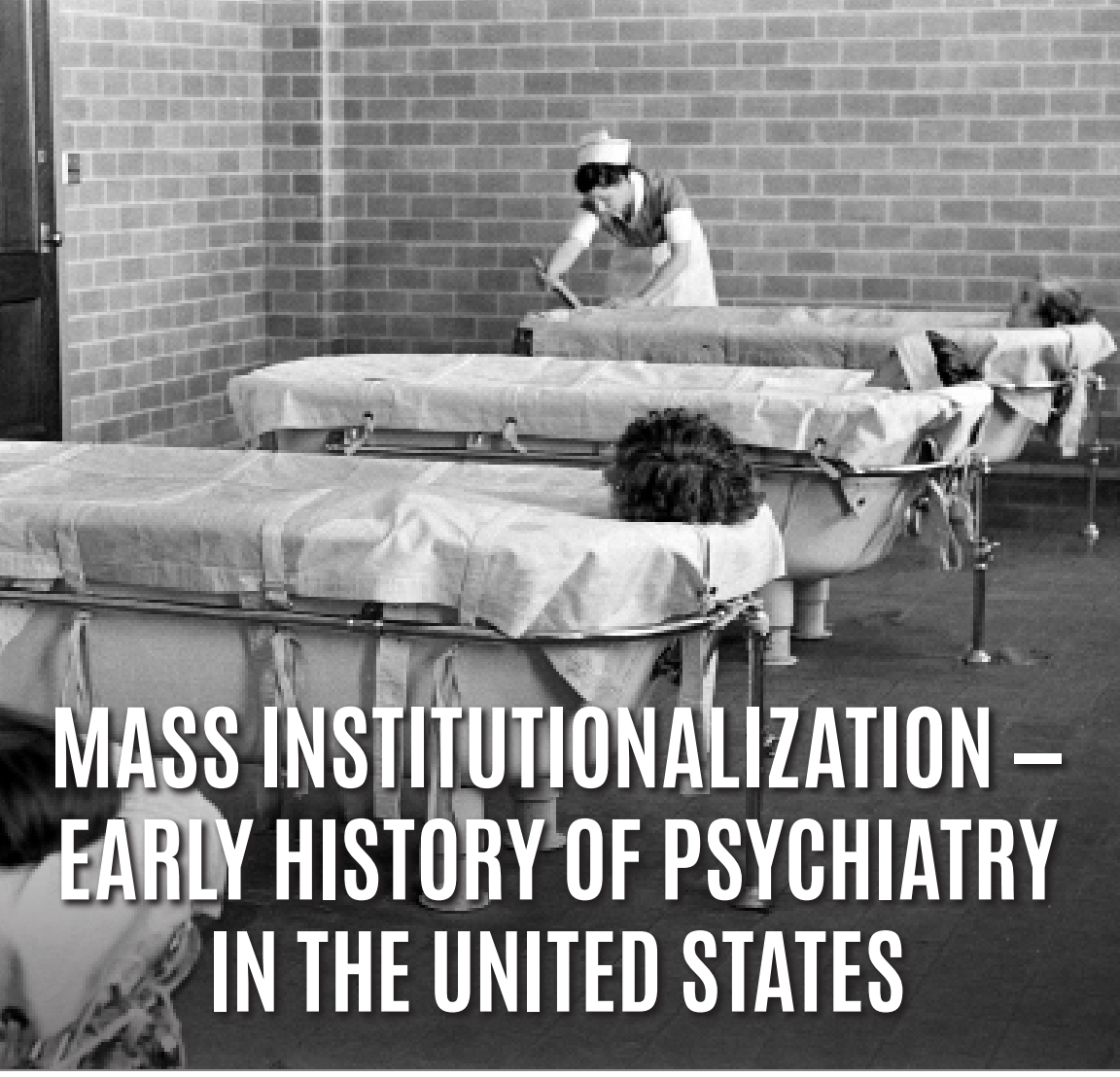
Private Party Costs

One consequence of the Affordable Care Act of 2010 was a mandate ensuring that "patients with early-onset schizophrenia" were included on their parents' employer-based health plans." A 2018 article by Zhang et al. in the journal *ClinicoEconomics and Outcomes Research* highlighted costs associated with privately insured schizophrenia:

> *Although the prevalence of schizophrenia in privately insured patient populations is low, the overall annual U.S. cost burden of schizophrenia is up to $63 billion, including about $23 billion (~35%) in excess direct health care costs ($8.0 billion for long-term care; $7.0 billion for outpatient care; $5 billion for medications; and $2.8 billion for hospitalization); $9 billion (~15%) in direct non-health care costs; and $32.4 billion (~50%) in total excess indirect costs.*[23]

Along with costs to insurers, families often find it difficult to care for those suffering from SMIs without assistance, either financially or through care facilities. Some medications are also difficult to access due to being under Risk Evaluation and Mitigation Strategies (REMS) restrictions, which severely limits certain medication distributions over concerns that they would have potentially dangerous and life-threatening complications. This includes the anti-psychotic clozapine,[24] which works exceptionally well as an FDA-approved medication for treatment resistant schizophrenia.[25] However, it can decrease white blood cell counts and requires constant monitoring. Doctors have to apply to REMS to even get permission to prescribe, and then pharmacies that provide the drug to patients must receive certification.

As a result of all of these cumbersome requirements, outpatient clozapine distribution is difficult for those who do not have a strong support system. This is perhaps why those with schizophrenia and other SMIs remain on the streets and fail to get the psychiatric care that they need. To get these patients on a more stringent medical regime, in-patient treatment could perhaps be a life-saving measure, but law enforcement and government regulators remain hesitant about forcing people into institutions given some of the historic abuses and horrors that have occurred.



MASS INSTITUTIONALIZATION – EARLY HISTORY OF PSYCHIATRY IN THE UNITED STATES

Those with mental disabilities have, at times, not been treated well by authorities and mental health professionals throughout the history of this country. There have been severely disturbing documented instances of abuse, neglect, and ignorance of those who suffer from an illness of the mind.

But that's not how it started. Though there were some public hospitals that housed those with mental illnesses,[26] by the mid-1800s, there was an effort to build beautiful facilities that could house and assist those suffering from mental health issues, providing an environment where they could be cured and hopefully rejoin society. This was called the "Moral treatment," and encouraged by Dorothea Dix, who went around the country working to get those with mental illness out of poorhouses and jails and into asylums.[27]

The growth in the asylum population, exacerbated by the failure of the "moral treatment," the rise in neurosyphilis, and public funding, resulted in crowded, decrepit, and terrible conditions. Their patients, many of whom didn't have a mental illness but were merely destitute, often had

"With the rise of the eugenics movement there was a growing belief that certain social problems were inherited, like prostitution, shiftlessness, and poverty, and could only be resolved by forced sterilization."

little or no interaction with the outside world and were unable to leave. As a result, abuse and neglect was often rampant.

Some of this came to light in 1887 through the work of Nellie Bly, one of the world's first female undercover journalists. She famously feigned amnesia to get committed to the famous Women's Lunatic Asylum on Blackwell's Island in New York. While undercover, she documented that not only were the mentally ill committed, but healthy individuals as well. Some of those held, who often could never get out once admitted, were perfectly sane but could not speak English and were unable to convince hospital staff of their mental health. Bly documented the physical and emotional abuse from caretakers, which included cold showers, filthy living conditions, spoiled food, and more for an article eventually titled, "Ten Days in a Madhouse."[28]

Her experience was not unique.

The situation didn't get much better in the ensuing decades. With the rise of the eugenics movement there was a growing belief that certain social problems were inherited, like prostitution, shiftlessness, and poverty, and could only be resolved by forced sterilization.

This disdain for those who struggled in society was eventually the foundation of a case that made its way up to the Supreme Court of the United States in 1927, known as *Buck v. Bell*.[29] The case focused on Carrie Buck, a young woman who was raised as a foster child and had been allegedly raped by the nephew of her foster parents. She was deemed feebleminded and promiscuous and committed to the Virginia State Colony for Epileptics and Feeble-Minded and ordered sterilized.[30] To ensure his

right to do so would stand legal scrutiny, the colony's superintendent filed an appeal against the Virginia law that went all the way up to the Supreme Court.

Justice Oliver Wendell Holmes wrote the decision supporting Virginia's sterilization measures, writing the famous words, "Three generations of imbeciles are enough," as Carrie's mother and daughter were also accused of also being feebleminded. This decision, which has never been overruled, still stands.

Throughout the Depression and World War II, state governments were chronically short on funds. One result was that states allowed their public mental hospitals to deteriorate, with limited expansion and worsening staff to patient ratios. Insufficient building and staffing budgets led to severe overcrowding and a decline in the quality of care.[31] One ward for incontinent men held 300 patients — who were never given clothes, presumably, to reduce laundry requirements. A lack of rooms meant that patients slept in corridors.[32] While a few states recognized the severity of these problems, most did not — and even states that confronted the problem found themselves helpless to make changes during the war.[33]

But a shift in this philosophy of mass institutionalization of those deemed a burden on society changed after the full horrors of the Nazi policies were revealed. Reports uncovered the Nazis' practices of forced murder of those with mental illness, both children and adults, and the sterilization of victims in concentration camps. To the shame of the United States and its psychiatric community, Nazi doctors cited the *Buck v. Bell* decision in their defense.[34]

Though some abusive practices continued, such as the use of the exceptionally damaging lobotomies, the advancement of psychiatric drugs in the 1950s provided hope that some of those housed in insane asylums may be able to function outside those confining doors.[35]

THE DEINSTITUTIONALIZATION MOVEMENT

Deinstitutionalization describes the conscious decision both by states and judges to severely limit involuntary commitment of people affected with SMI to mental hospitals starting in the 1960s, as promising new psychiatric drugs like chlorpromazine (Thorazine) became available. As fewer patients were committed, state hospitals needed less beds and some of these facilities began to close, leaving voluntary patients with fewer treatment options.

The foundation for this deinstitutionalization model – driven in no small part by humane goals – required states to either treat or release people suffering with an SMI. The hope was that this would encourage states to provide adequate care or risk the release of potentially dangerous sufferers on the streets. Advocates were betting that legislators would not run the risk of allowing mentally ill people to return to the streets. Other motives for deinstitutionalization were ideological in nature. The Marxian view that the mentally ill were victims of a capitalist system was widely held by a number of intellectuals.

"A combination of insufficient funding and ideological opposition to mass institutionalization largely led to the deinstitutionalization movement."

Along with French philosopher and activist Michel Foucault, writers such as David Rothman, Andrew Scull, and Roy Porter decided that the early nineteenth century expansion of insane asylums was not a response to increasing mental illness, or the complexities of the mentally ill living in increasingly anonymous big cities, but a method by which capitalism segregated those who were not suited to work in the new and more regimented system of urban factories.[36]

Concerns about due process violations were another important motivation during the 1960s. While many states had involuntary commitment laws that abided by the due process standards, others did not.

A combination of insufficient funding and ideological opposition to mass institutionalization largely led to the deinstitutionalization movement.

Some have reimagined deinstitutionalization as a “living independently” movement. For those suffering from developmental delay problems, or other nonpsychotic problems, this might well have been a good alternative. For persons suffering SMIs, this often meant sleeping on the street or in SRO (Single Room Occupancy) hotels from disability check to disability check.

Though the intentions were good, this deinstitutionalization led to an unintended consequence, most especially for those dealing with severe mental illnesses. While some people with SMIs had strong family and social work support, many did not. These people were more likely to become homeless and perhaps engage in criminal activity and substance abuse.

Deinstitutionalization and Crime

Steven P. Segal of the University of California, Berkeley studied state-to-state variations in murder rates and mental health care, controlling for socioeconomic, demographic, and geographic data. He concluded that "[l]ess access to psychiatric inpatient-beds and more poorly rated mental health systems were associated with increases in the homicide rates of 1.08 and 0.26 per 100,000, respectively." (Since the national average homicide rate was 7.4 per 100,000 people for 2020,[37] more access to beds is clearly quite important in reducing homicide rates; "poorly rated mental health systems" matter, but not as dramatically.)

Segal observed an even greater difference from the variation in involuntary civil commitment (ICC) laws. "Broader ICC-criteria were associated with 1.42 less homicides per 100,000" or a bit more than one-fourth of the national homicide rate. In short, states where involuntary commitment of the mentally ill was relatively easy had significantly fewer murders than states where it was very hard.[38]

Before deinstitutionalization, many afflicted with SMIs were involuntarily committed to state mental hospitals where they were guaranteed a bed. They had no need to scavenge food from dumpsters. Their nonpsychiatric medical care was also guaranteed. Few would have had access to crack, meth, or fentanyl. Many of the services that are now provided in a haphazard, decentralized way (when provided at all) were centrally located with the sufferer. This centralization both improved cost efficiency and resulted in a higher provision of needed services. For those whose history of violence had estranged them from family, this may have been the only practical solution.

Many of the deinstitutionalized or never institutionalized people afflicted with SMIs never recovered. Many of these men and women now slept under bridges, on park benches, and on steam grates. One anecdotal example is Joyce Brown, who also went by the name Billy Boggs, a homeless person who lived on the streets of New York City in 1987. She became something of a poster child for the dangers of voluntary deinstitutionalization. Her behavior was clearly psychotic: "She urinated and

"The New York Civil Liberties Union filed suit, arguing that her essential dignity as a human being was denied by her involuntary hospitalization, and that she should not be forced to take psychiatric medications against her will."

defecated on the streets, ... ran recklessly into heavily trafficked streets, and exposed herself when assistance was offered."[39] Other aspects of her behavior were, at the very least, eccentric, such as tearing up money that passers-by gave her. Psychiatrists diagnosed her as paranoid schizophrenic.[40]

Brown was sleeping on a steam grate in freezing weather when the city authorities hospitalized her against her will. The New York Civil Liberties Union filed suit, arguing that her essential dignity as a human being was denied by her involuntary hospitalization, and that she should not be forced to take psychiatric medications against her will. Rather than seeing her living conditions as a sign of mental illness, the NYCLU characterized it as ''a fearless, independent life style"[41] and the courts agreed. As Judge Lippman, who first heard the NYCLU's suit against Brown's involuntary treatment described her situation:

> *Who among us is not familiar with the tattered, filthy, malodorous presence of the wretched homeless? ... The blame and shame must attach to us, not to them. The predicament of Joyce Brown and the countless homeless raises questions of broad social, economic, political and moral implications not within the purview of this court.*[42]

The courts upheld Brown's right to refuse treatment. The hospital concluded that there was no point in holding Brown against her will, if they were not allowed to treat her mental illness. Brown's brief time hospitalized appears to have done her some good, but, eventually, the core problem of mental illness returned. Reporters found her once again living on

a steam grate less than two months later, "shouting obscenities at passersby" and begging for money.[43]

"When it came to mental health treatment, with deinstitutionalization every state became a laboratory."

At the same time that deinstitutionalization was in full swing, hypothermia deaths in America were on the rise. In 1979, the death rate was 0.32/100,000 people. By 1983, the death rate had increased to 0.42/100,000. Hypothermia death rates dropping back below 0.3/100,000 in 1990.[44] (Just for comparison, the CDC has reported that the death rate for hypothermia between 2018-2020[45] was 0.11/100,000 for women in metro areas and 0.29/100,000 for men.) Not every person who died of hypothermia was necessarily mentally ill, but it's a high probability as the homeless death rate is spiking, growing to 7,877 in 2020 compared to 6,345 in 2018.[46]

Some died when their delusions led them to acts of violence against the wrong person or were regarded as easy pickings by criminal predators, as evidenced by the arrest of two serial killers in 2022 who were targeting the homeless. Studies completed in multiple cities find homeless people are disproportionately crime victims. A detailed survey in Birmingham, Alabama, found that homeless people are victimized in "'personal crimes of contact' (such as robbery, assault, and larceny)" at approximately four time the rate of the general population of the U.S.[47]

When it came to mental health treatment, with deinstitutionalization every state became a laboratory. Given the varying policies, the results can give psychiatrists and other mental health professionals a great framework for determining the policies that can best help vulnerable people within communities. Different states experimented with involuntary outpatient commitment (IOC) at different times. North Carolina was an early adopter, beginning in 1984.[48]

North Carolina's law allowed a court to order such treatment for those

"Members of the IOC sample were often arrested less and less prone to violence, despite the artificial placement of high-risk members in the IOC group."

who were not in imminent danger, but were "in need of treatment … to prevent further disability or deterioration which would predictably result in dangerousness."[49] Unlike some of the later adopters, North Carolina apparently substituted the involuntary outpatient commitment for hospitalization, to seemingly avoid widening the power over to those suffering with SMIs.[50] Of course, IOC might also be cheaper than inpatient commitment.

In North Carolina, *early* studies indicated that IOC made little difference, probably because the courts were reluctant to use this new procedure. In addition, community mental health professionals were reluctant to treat involuntary patients. Many of them lacked knowledge of how to use IOC.[51]

Other studies argue that while IOC allowed clinicians to refer noncompliant people afflicted with SMIs for examinations, the law did not allow involuntary medication. Nonetheless, "persons under OPC [outpatient commitment] in North Carolina almost universally believe that the court order requires them to take medication as prescribed as well as to keep scheduled appointments with a mental health service provider."[52] While this early evaluation suggested there was room for improvement, subsequent research found clear evidence of IOC effectiveness.

One study randomly divided an experimental population into a control group and an IOC group with one exception: those with a history of weapon violence or physical injury to others were all placed in the IOC group.[53] Members of the IOC sample were often arrested less and were less prone to violence, despite the artificial placement of high-risk members in the IOC group.[54]

Later research involving controlled experiments (one group of patients released from hospital under IOC, another exempt from IOC for a year) showed IOC was quite effective:

> *[P]atients who underwent sustained outpatient commitment and who received relatively intensive outpatient treatment had fewer hospital admissions and fewer days in the hospital, were more likely to adhere to community treatment, and were less likely to be violent or to be victimized. Extended outpatient commitment was also associated with fewer arrests of participants with a combined history of multiple rehospitalizations and previous arrests. The intervention was particularly effective among individuals with psychotic disorders.*[55]

"For those who are in danger of decline without supervision, IOC seems to be an effective protection of both public safety and the interests of people affflicted with SMIs."

IOC is clearly an effective strategy, both for public expense and alleviating suffering. For men and women who represent a threat to themselves or others, involuntary in-patient commitment remains a necessary step. For those who are in danger of decline without supervision, IOC seems to be an effective protection of both public safety and the interests of people afflicted with SMIs.

IOCs appear to save money as well, even relative to traditional outpatient treatment:

> *A follow-up cost analysis of the New York program was conducted using observational data from the AOT [Assisted Outpatient Commitment] group and a comparison group of voluntary recipients of intensive community-based treatment in New York City and 5 counties elsewhere in New York State. In the New York City AOT group, net costs declined 43% in the*

first year after assisted outpatient treatment began and an additional 13% in the second year. In the 5-county AOT group, costs declined 49% in the first year and an additional 27% in the second year. The AOT-related cost declines were about twice as much as those seen for the voluntary group, indicating that although AOT requires a substantial investment of state resources, it can reduce overall service costs for individuals with serious mental illness.[56]


BROADER SOCIAL COSTS

Along with direct costs to government and private party insurers, there are consequences and outcomes associated with severe mental illness that cause general damage to the economy:

> *The estimated per patient economic burden from SMI [serious mental illness] is high, similar to other health conditions such as cancer and diabetes. Moreover, the lifetime patient burden is augmented by the comparatively young age of onset, with the median age of diagnosis ranging from fifteen to thirty. … Previous reports show that SMI is associated with a median of ten years of potential life lost, with estimates ranging as high as more than thirty years lost, and $16,000 (in 2002 dollars) in reduced earnings annually.*[57]

Along with being a detriment to the individual sufferer, this lowered lifetime income is also a drag on the economy. With the right treatment, however, some of these costs could be mitigated and some SMI sufferers perhaps could become more productive within society.

Comorbidity and Severe Mental Illness

In addition to the costs associated with treatment of people afflicted with SMIs, there are various comorbidities that cause other costs to society, either publicly or privately funded, that need to be considered in seeking a coherent public policy response. As discussed by Buckley et al. in the journal *Schizophrenia Bulletin*,

> *The abuse of alcohol and/or illicit drugs by patients with schizophrenia is a remarkably common phenomenon … "the rule rather than the exception." In the ECA study, it was estimated that 47% of patients with schizophrenia also had a lifetime diagnosis of substance abuse disorder. This is consistent with findings from a variety of other epidemiological and clinical studies, both in the United States and worldwide. In general terms, substance abuse comorbidity is associated with a variety of negative consequences for the course of schizophrenia (see table 5), with medication nonadherence often appearing as a "final common pathway" for these effects.*[58]

Substance Abuse and SMIs

There is an increasing body of evidence that marijuana use (especially heavy use) "in adolescence or early adulthood" is a contributing factor to the development of schizophrenia and psychosis. Although "most people who imbibe cannabis do not develop schizophrenia," the enormous costs of even a slight increase in schizophrenia should raise serious questions about the push to legalize marijuana.[59] North Carolina officials, including the governor, have supported decriminalization of "possession of small amounts of marijuana."[60] Other states further down the decriminalization path are seeing unsurprising results. Researchers from "University of California—San Francisco reviewed more than 28 million hospital records from Colorado, New York and Oklahoma from 2010 to 2014."

They found that "Colorado hospital admissions for cannabis abuse increased after the drug was legalized in the state. Researchers found that car accidents in Colorado increased 10% after legalization and increases in alcohol abuse and overdoses that resulted in injury or death increased by 5%."[61]

"Causality in the relationship of the substance abuse to the SMI may go both ways: the substance abuse may cause the SMI, but it may also be a sufferer's response to the illness."

One study of "risk factors for new-onset Bipolar Disorder (BD) in a community sample of young adults" found that "[t]obacco, cannabis, cocaine/crack, other substances abuse/dependence increased the relative risk for BD."[62] Causality in the relationship of the substance abuse to the SMI may go both ways: the substance abuse may cause the SMI, but it may also be a sufferer's response to the illness.

A recently published study measuring prenatal cannabis exposure (PCE) and adolescent brain cognitive development found "PCE is associated with persisting vulnerability to broad-spectrum psychopathology as children progress through early adolescence. Increased psychopathology may lead to greater risk for psychiatric disorders and problematic substance use as children enter peak periods of vulnerability in later adolescence."[63] This study also argues that widespread use of cannabis represents a substantial risk to in utero development, much like fetal alcohol syndrome.

An additional North Carolina issue is the effect that Certificate of Need (CON) laws have on psychiatric care and substance abuse treatment. Congress passed the National Health Planning and Resources Development Act in 1974, which mandated states create CON laws.[64] Requiring a CON to be granted by state medical authorities as a prerequisite for expanding or creating hospitals, or for adding specialized equipment,

was adopted in nearly all states in the 1970s. They believed that they "could slow the medical arms race in which hospitals compete on the basis of providing the latest medical technology and services that could result in expensive duplication of services and inefficient use of capital."[65] As an example of what drove such concerns: if every hospital bought a CAT scanner, it would drive up medical care spending and some of those CAT scanners may sit unused. The supposed wasted money on CAT scanners would need to be recouped by hospitals via higher prices. That local hospitals would be best positioned to determine the extent of their needs goes overlooked by CON supporters. Moreover, that this seemingly "excess" capacity would encourage competition in medical care and provide extra capacity in emergency circumstances seems not to have occurred to the experts.

Research examining the effects of CON laws and the repeal of the federal law mandating them soon led to many states repealing CON requirements.[66] Examination of CON on all-cause mortality concluded: "Certificate of Need laws have no statistically significant effect on all-cause mortality. Point estimates indicate that if they have any effect, they are more likely to increase mortality than decrease it."[67]

A recent examination of the consequences of CON in North Carolina found that in addition to a general increase in medical care costs, it has very specific, harmful consequences for psychiatric and substance abuse treatment:

> *In a study co-authored with Dr. Eleanor Lewin of Women & Infants Hospital, we measure how CON affects psychiatric hospitals in the 25 states that require CON for psychiatric services (see map). Controlling for a variety of factors, we find that CON is associated with a state having 20% fewer psychiatric hospitals and those hospitals being 5.3 percentage points less likely to accept Medicare. According to 2018 data from the National Mental Health Services Survey, North Carolina had 15 psychiatric hospitals, 12 of which accepted Medicare. Based on our estimates, if North Carolina repealed its CON*

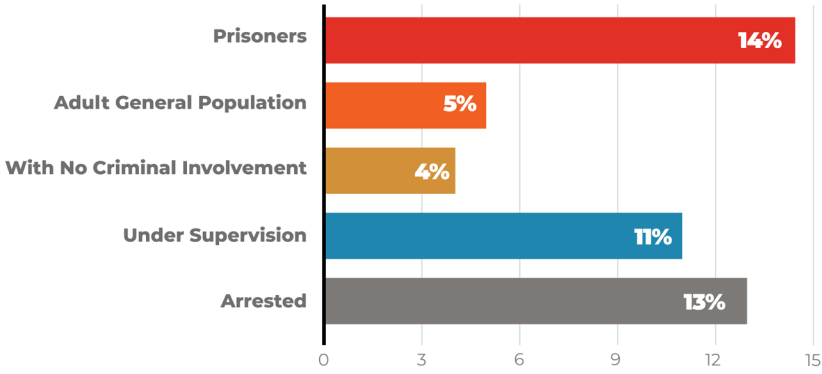
requirement for psychiatric hospitals, it would be expected to have 18 psychiatric hospitals, of which 15 or 16 would accept Medicare.[68]

In sum, North Carolina policymakers can enable greater availability of treatment options for the state's mentally ill by eliminating its CON restrictions on psychiatric services and facilities.

SMIs and Crime

It should be no surprise that people suffering SMIs are disproportionately participants in the criminal justice system. "According to the Bureau of Justice Statistics, at midyear 2005 more than half of all prison and jail inmates had a mental health problem, including 705,600 inmates in State prisons, 78,800 in Federal prisons, and 479,900 in local jails. These estimates represented 56% of State prisoners, 45% of Federal prisoners, and 64% of jail inmates."[69]

Serious Psychological Distress (SPD) as an Indicator of Mental Health Problems in Prisoners



SOURCE: BUREAU OF JUSTICE STATISTICS, NATIONAL INMATE SURVEY, 2011–2012; AND SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION, NATIONAL SURVEY ON DRUG USE AND HEALTH (NSDUH), 2009–2012.

A study of prisoners and jail inmates in 2011-12 found that 44.3% of jail inmates had a "mental health problem" history, as well as 36.9% of prison

inmates.[70] As of 2002, about 26,000 inmates in state prisons across the United States who were convicted of murder were also mentally ill. A detailed examination of Indiana prison inmates convicted of murder found that 18 percent were diagnosed with "schizophrenia or other psychotic disorder, major depression, mania, or bipolar disorder."[71] More recent systematic reviews of the literature concerning prison inmates continue to show schizophrenia and bipolar disorder sufferers disproportionately incarcerated relative to the general U.S. population.[72]

Research into other nations found similar disparities. According to Eronen et al.: "Data obtained from a Swedish birth cohort indicates that men with major mental disorders are four times more likely than men with no disorder or handicap to commit a violent offense. The corresponding risk for females is 27 times greater.... In Denmark, a study with a follow up period of more than 25 years demonstrated that 20 percent of male and 44 percent of female homicide offenders had a diagnosis of psychosis." In Finland, "Schizophrenia increased the odds ratio of committing homicides by about tenfold among both genders. Schizophrenia without alcoholism increased the odds ratios by about sevenfold among men, and schizophrenia with alcoholism by about seventeen-fold. The corresponding ratios for women were about fivefold for schizophrenia without alcoholism and more than eightyfold for schizophrenia with alcoholism."[73]

Some argue that SMI disparities in prison and jail populations reflect sampling bias problems, as those who are mentally ill may be disproportionately arrested by police based on assumptions of criminal tendencies. To correct for such possible bias in assessing SMI effects on violence, several studies have surveyed the general population for mental illness and violent behavior. Such studies require very large general populations to get statistically meaningful information on what is a relatively small fraction of the population. As a result, there have been only a few general population surveys for this purpose. A 2001-2002 general population survey of violence and mental illness found that persons with certain SMIs were significantly more likely to commit acts of violence,

with some specific disorders in that same more violent category than the general population: depression, bipolar disorder, non-agoraphobic panic disorder, specific phobias, paranoid, schizoid, histrionic and obsessive-compulsive personality disorders. While most people with psychiatric disorders are not violent, "The public health burden of violent behavior, however, is clearly greater among individuals with psychiatric disorders... than among individuals with no psychiatric disorders."[74] An older study performed diagnosis and gathered self-reports of violent behavior, using a noninstitutional sample of 10,059 people.[75] This study found that the mentally ill had 5.56 times the violence rate of those with "no disorder." While this ratio is less than those derived from arrest records, it may be an artifact of the difficulties in getting the most severely mentally ill to sit down for a research interview. Reviews of other studies suggest that the severely mentally ill are disproportionately violent.[76]

"Severe mental illness *alone* may not cause violence, but the nearly universal comorbidity with substance abuse can increase violent crime."

The great risk is the combination of mental illness and substance abuse.[77] Even those who have published studies that concluded the mentally ill are not disproportionately violent, when controlling for substance abuse, acknowledged that, "Mental disorder has a significant effect on violence by increasing people's susceptibility to substance abuse. When first discharged, patients were twice as likely as their neighbors to be abusing substances, and alcohol and drugs raised the risk of violence for patients abusing them even more than for others."[78] More recent work reports that "40% of the offenders with schizophrenia had concurrent substance abuse, higher than a comparison group of individuals with schizophrenia in the community, of whom 26% abused substances."[79] Severe mental illness *alone* may not cause violence, but the nearly universal comorbidity with substance abuse can increase violent crime.

The Secret Service's National Threat Assessment Center's study of school

"As the total institutionalization rate rose, murder rates fell, and vice versa, and with a correlation so strong that any social scientist would call this an extraordinarily strong signal that deinstitutionalization increases murder rates."

shooters reported that, "According to national prevalence rates, nearly 20% of children are diagnosed with at least one mental health and/or behavioral disorder. In this study, a documented mental health diagnosis was received by fourteen (40%) of the attackers prior to their attacks."[80]

There are multiple examples readily available showing these connections: the mass murderer at the Navy Yard in 2013 held "the delusional belief that he was being controlled or influenced by extremely low frequency electromagnetic waves."[81] He had previously called Newport, Rhode Island police concerning someone who "sent three people to follow him and keep him awake by talking to him and sending vibrations into his body" from adjoining hotel rooms.[82] The mass murderer who attempted to kill Rep. Gabby Giffords was judged unfit to stand trial because of mental illness.[83] Space alone precludes giving even a short list of the many mass murderers who were either found mentally incompetent to stand trial or, as is common for those who were never taken into custody, clearly evinced mental illness before their irrational crimes.

Other methods of examining the relationship between mental illness and murder demonstrate a statistically significant correlation that strongly suggests a causal relationship. Bernard E. Harcourt's examination of total institutionalization rates (prison plus mental hospital population) and murder rates from 1928 to 2000 on a national basis found an astonishingly strong negative correlation between the total institutionalization rate and the murder rate: -0.78. As the total institutionalization rate rose, murder rates fell, and vice versa, and with a correlation so

strong that any social scientist would call this an extraordinarily strong signal that deinstitutionalization increases murder rates.

Harcourt found that even when adjusting for changes in unemployment and the changing fraction of the population that was at the peak ages for violent crime, the negative correlation remained strong and did a better job of predicting both the 1960s rise and the 1990s decline in murder rates than the other models traditionally used by criminologists.[84] When Harcourt used state-level data for institutionalization and murder rates and controlled for even more variables, the statistically significant negative correlation remained for 44 states. Only six states showed no significant negative correlation between total institutionalization rates and murder rates.[85]

Providing medical care within the prison and jail system is a legal obligation to avoid unnecessarily causing the inmate to suffer.[86] Mental health care is similarly an obligation.

As Sheitman and Williams explained in the *North Carolina Medical Journal*, "It is estimated that 10 times more individuals with serious mental illness are in U.S. jails and prisons than in state psychiatric hospitals, and some of the nation's largest facilities housing the mentally ill are correctional centers." North Carolina's prisons provide beds for 168 prisoners suffering from SMIs, including some awaiting trial who "require behavioral health services that exceed what can be administered at the jail." In 2018, "6,100 prisoners were on the NC DPS [Department of Public Safety] mental health caseload, with about 5,100 being prescribed psychotropic medication." While North Carolina provides these services, prison is not an ideal setting for such care. "[T]he primary mission of the prison system is public safety; all other functions (including health care delivery) are secondary to this primary mission."[87]

There is no question that mentally ill prisoners need treatment, but one side effect of this less-than-optimal location for mental health care is cost. Involuntarily treating the severely mentally ill in state mental hospitals or through outpatient care ***before*** they commit a serious felony

"Advocates for the outpatient treatment of the mentally ill argue that community mental health treatment is far less expensive than prison."

reduces the number of needed prison cells and treatment costs.

Advocates for the outpatient treatment of the mentally ill argue that community mental health treatment is far less expensive than prison. As an example, in the 2000s, Pennsylvania estimated it cost $51,100 per year to incarcerate a mentally ill prisoner, compared to $28,000 for a mentally healthy inmate. Recent research in North Carolina found that: "Those who were arrested, and received less mental health treatment, cost the government $95,000 during the study period. Those not arrested received more treatment and cost the government approximately $68,000 during the study period."[88]

Preventing felonies is of course good not only for prison costs, but also for overall criminal justice system costs, and of course the safety of communities.

Homelessness

Homelessness has become a massive problem in the United States, especially in cities run often by progressive leaders who permit open drug use. There was this idea that if people could shoot up their drug of choice safely, that somehow it would encourage more to seek out treatment options. Given the current state of San Francisco, that's a naïve notion at best. Instead of seeing people get healthy, we've seen a massive explosion in drug and substance abuse, crime, violence and sections of some of the nation's largest and most influential cities turned into slums that would rival those found in developing countries like Haiti. A recent review of published studies on mental illness in high-income countries (a problem increasingly present throughout the industrialized world) found that homeless people with any "current mental disorders" was 76.2%; 10.5%

for “schizophrenia spectrum disorders”; and 4.1% for bipolar disorder.[89]

A survey of homelessness in January 2010 found that “26.2% of all sheltered persons who were homeless had a severe mental illness; 34.7% of all sheltered adults who were homeless had chronic substance use issues.”[90] There were similar results from the 1980s surveys.[91] Given some of this consistency, it raises an interesting question: are they mentally ill because they are homeless, or are they homeless because they are mentally ill? Or is the substance abuse that is strongly correlated to SMI the cause of both?

Urban Degradation

Homeless drug addicts have profoundly changed the urban landscape. The following is from a recent CBS News story:

> *San Francisco resident Ricci Wynne said he was on a downtown Muni bus when he came across a group of school children who just finished ice skating Friday. He said he was compelled to shoot video when he saw where they had to get off in the mid-Market neighborhood.*
>
> *"I just seen a plethora of drug dealers and homeless people using, smoking off foil and what not. I mean nothing new right? Nothing new, out of the ordinary that you see, but it was just overloaded with these types of individuals. And they had basically hijacked the transit stop right there on 8th and Mission," said Wynne.*
>
> *Wynne said he works with recovering addicts nearby at the Billie Holiday Center and noted the sights like those he captured in a now viral video posted to Twitter aren't surprising. ...*
>
> *"Now ask yourself this question would you want your children to walk through this squalor just to get home from school?" Wynne asked in the post.*[92]

The scale of homelessness has become so severe that, as reported by Oregon Public Broadcasting, "Increasingly in liberal cities across the country — where people living in tents in public spaces have long been tolerated — leaders are removing encampments and pushing other strict measures to address homelessness that would have been unheard of a few years ago."[93]

Surveys of mentally ill homeless people entering the criminal justice system show that they are clearly overrepresented:

> *Mentally disordered defendants had 40 times the rate of homelessness found in the general population, and 21 times the rate in the population of mentally ill persons in the city. The overall rate of criminal offenses was 35 times higher in the homeless mentally ill population than in the domiciled mentally ill population. The rate of violent crimes was 40 times higher and the rate of nonviolent crimes 27 times higher in the homeless population. Homeless defendants were significantly more likely to have been charged with victimizing strangers.*[94]

Homelessness is by no means limited to America's biggest cities. North Carolina's homeless population is largely in urban areas; however, the problem has spread to the state's smaller towns. Naturally, the highest number of homeless are in the urban areas, but the areas with the highest percentage of homeless people are the more rural, western counties of Transylvania and Swain, both with rates more than five times the state average.[95]

Adding to the social disorder is that "nearly a quarter of North Carolina's homeless population are children." The problem is especially acute in Mecklenburg and Cumberland Counties where 30 percent of the homeless are children.[96]

Poverty

What part does SMI and substance abuse play in poverty? A 1992 survey estimated that, "SMI was over 2 ½ times as likely among adults in poverty than among those not in poverty." Twenty-one percent of adults suffering from SMI are living in poverty.[97]

The size of Social Security Disability checks should be a clue as to the connection. The average Social Security Disability Benefit amount in July 2022 was $1,362.03.[98] Disability benefits are determined based on taxes paid into the system through payroll withholding. Those with high incomes over their years of employment who become disabled receive

checks substantially larger than the average; those who had low working incomes often receive substantially less, with some receiving less than $100 per month, and a large fraction receiving less than $1,000 per month.[99]

Conclusions

- People afflicted with SMIs will inevitably have low incomes because Social Security Disability checks are often small, and it is unlikely that many SMI sufferers are going to be working in high-paying positions instead of collecting disability.
- Deinstitutionalization of SMI sufferers played a significant part in the rise of homelessness in the 1980s, and they remain a substantial part of the homeless population.
- Homelessness is both an individual tragedy and degrades urban life for all.
- Children growing up in homeless families likely suffer impaired healthy maturation, both physical and emotional.
- North Carolina's early use of IOC shows a progressive view of how to help the mentally ill. To the extent that the state can encourage use of IOC for SMI sufferers who are not dangerous to themselves or others along with involuntary hospitalization of those likely to

be dangerous to themselves or others, it can reduce costs while still providing humane treatment of those in need.

- Solving the problems of poverty, homelessness, and violent crime requires us to examine constellations of causes and solutions.

Recommendations

- North Carolina's Certificate of Need requirement should be abolished, allowing free markets to drive down the costs of psychiatric and substance abuse care and expand both total capacity and wider distribution of facilities.
- Maintain North Carolina's current involuntary commitment law. The present law seems to be sufficient.[100]
- Make sure that there is enough capacity to provide mental hospital beds distributed across North Carolina. It appears that involuntary commitment is on the rise in North Carolina.[101] Of course, if there is not enough capacity to treat patients, it will result in a revolving door of observation, short-term treatment, and release to the street. North Carolina appears to recognize the need to increase capacity and opened a new mental hospital in Morganton in 2019.[102] Family visits to patients are emotionally important, and a long drive to visit a loved one may well discourage such visits. Having *some* excess capacity in the system reduces the risk that

some patients may be remote from family and other visitors.

- Any effort to decriminalize marijuana should be taken with caution, given how its use exacerbates the effects of SMIs.

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About the Author

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The John Locke Foundation was created in 1990 as an independent, nonprofit think tank that would work "for truth, for freedom, for the future of North Carolina." The Foundation is named for John Locke (1632-1704), an English philosopher whose writings inspired Thomas Jefferson and the other Founders. The John Locke Foundation is a 501(c)(3) research institute and is funded by thousands of individuals, foundations and corporations. The Foundation does not accept government funds or contributions to influence its work or the outcomes of its research.

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