A Dysfunctional System: Policy Recommendations for the Adult (18-65) Homeless and Severely Mentally Ill Population in Oregon

by
Donielle Miller

A THESIS

submitted to

Oregon State University

Honors College

in partial fulfillment of
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degree of

Honors Baccalaureate of Science in Biology
(Honors Associate)

Presented December 4, 2018
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AN ABSTRACT OF THE THESIS OF

Donielle Miller for the degree of Honors Baccalaureate of Science in Biology presented on December 4, 2018. Title: A Dysfunctional System: Policy Recommendations for the Adult (18-65) Homeless and Severely Mentally Ill Population in Oregon.

Abstract approved:_____

Courtney Campbell

Adults with severe and persistent mental illness (SPMI) are overrepresented in the homeless population, and Oregon's homeless population has expanded in recent years. In the 1950s, the mentally ill were moved out of the state hospitals and into the community. However, due to a lack of support services in the community many of these individuals have not thrived outside of the institution. This has created a system oriented toward crisis, where individuals with SPMI frequent emergency rooms and jails. The lack of affordable housing in Oregon has exacerbated these problems by making it difficult for individuals to obtain one of the most basic necessities, a place to call home. The United States Department of Justice entered into negotiation with Oregon Health Authority after finding Oregon's service insufficient, and the resulting agreement called the Oregon Performance Plan was published in 2016. Since then, the state has continued to struggle to provide services for one of its most vulnerable groups, the adult (18-65) homeless population with severe and persistent mental illness.

Key Words: Severe and persistent mental illness, homeless, policy, affordable housing, criminalization

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I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

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Donielle Miller, Author

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Introduction

Statement of the Problem

On the night of January 7, 2017, a disoriented Karen Batts removed her clothing and died of hypothermia on the floor of a parking garage in Portland, Oregon. The 52-year-old was a former high school honors student, outgoing cheerleader, and college graduate (Anderson, 2017). Unfortunately, she succumbed to schizophrenia as a young adult and failed to keep regular contact with her family, eventually becoming homeless. Karen's story is one that has become all too common in Oregon. According to a 2015 report by Multnomah County Chair Deborah Kafoury and Executive Director of the non-profit Street Roots, Israel Bayer, deaths among the homeless tripled from 2011-2015.

In 2017 several high-profile deaths caught the attention of policymakers and the public, Karen's heartbreaking death among them. Just a few months before her death, she had been evicted from a low-income housing facility for seniors called Oak Apartments because she owed $338 in past due rent (KGW Staff, 2017). Other losses included a child born to a mentally ill and homeless mother which died within hours due to exposure. The mother was found barefoot and disheveled at a Portland bus stop holding the baby in her coat and later told police the child was a result of an immaculate conception (Jaquiss, 2017). Twenty-nine-year-old Zachary Young was living in a wooded area outside of Portland when he passed away due to the frigid weather (Harbarger, 2017).

Severe mental illness and homelessness often overlap in Oregon. As a result, individuals reach crisis states. These people require frequent treatment in the emergency room and increasingly interact with law enforcement. These trends allude to underlying problems in Oregon's mental health care system and housing industry; they require attention as public health and humanitarian issues.

In 2017, Mental Health America (MHA) ranked Oregon 2nd in the nation for prevalence of mental illness among adult citizens. For access to mental health care services, MHA ranked Oregon 21st. The 2017 Department of Housing and Urban Development (HUD) point-in-time (PIT) report authored by Henry, Watt, Rosenthal, and Shivji indicated that the homeless count in Oregon increased 6% from the last complete count in 2015, from 13,176 individuals to 13,953.[1]

Further analysis of the numbers revealed that individuals with serious and persistent mental illness (SPMI)-14% of the homeless population-are part of an especially vulnerable group. They are more often unsheltered,[2] and the unsheltered population saw an 8% increase compared to a 3% increase reported for the sheltered population (Henry et al, 2017, p. 12). Oregon has the fourth highest percentage of unsheltered homeless persons, 58.9% (Henry et al, 2017, p. 12).

In Multnomah county, homeless interviewees listed unaffordable rent as the number one reason they were homeless (Hamilton, 2018). In addition, SPMI has been established as a risk factor for homelessness (van Wormer, 2012), suggesting that

[1] It should be noted that the PIT count is necessarily an underestimate. It does not account for those who are living with family or friends or "doubling up;" living in jails or similar institutions; or who are sleeping in remote and invisible locations. Estimates put the count as high as 2.5 to 10.2 times as high as what is listed in the PIT report. Source: National Law Center on Homelessness and Poverty.
[2] According to HUD, unsheltered homelessness is defined as a primary nighttime location in a public or private place not designated for, or ordinarily used as, a regular sleeping accommodation for people (for example, the streets, vehicles, or parks). Source: Bolton, 2017.

addressing mental health and housing affordability are both vital to addressing the issue of homelessness in Oregon.

Homelessness can also predispose individuals to a myriad of illnesses, including mental illnesses such as depression and anxiety (van Wormer, 2017). Low socioeconomic status (SES) is correlated to higher rates of early death and chronic disease (Oregon Health Authority [OHA], 2018). Twenty-three percent of Oregon's adults living at or below the federal poverty line report frequent mental distress,[3] in contrast to fourteen percent of those living above the poverty line[4] (OHA, 2018).

As of 2016, 12% of Oregon's adult population was living below the federal poverty line (OHA, 2018). Adults with disabilities are nearly twice as likely to live below the poverty line as are adults in rural and frontier areas (OHA, 2018). The relationship between mental health and housing status is complex. Formulating policy recommendations to address Oregon's growing population of homeless adults with severe mental illness will require an analysis of the state's housing crisis and mental health system.

The Department of Housing and Urban Development's 2017 point-in-time homeless count cited lack of affordable housing and inadequate median incomes as potential causes for the swelling homeless population in the state (Henry et al, 2017). Oregon is the sixth fastest growing state (Bolton, 2017), with over three-fourths of the growth being fueled by movement of people from out of the state (OHA, 2018). This is stretching the housing capacity and driving up costs as demand consistently outpaces supply. At the same time, median incomes in Oregon have stagnated.

[3] Experienced mental distress in more than 14 of the last 30 days. Source: Oregon Health Authority.
[4] The poverty line in Oregon is defined as an annual gross income of $12,140 or less for one individual. Source: Oregon Center for Public Policy.

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Urban areas like Portland host most of the state's homeless population. Multnomah County contains 30% of the homeless population, followed by Lane, Marion, Deschutes, and Clatsop (Bolton, 2017). However, rural areas have a higher percentage of homeless individuals (Bolton, 2017).

Working with Democrat Ted Hallock from Portland and Republican dairy farmer Hector McPherson from Linn County, Governor Tom McCall spearheaded a movement to conserve land in Oregon and protect farmland from development in the 1970s (Gifford, 2014; Robbins, 2002). The passage of Senate Bill 100 in 1973, which established the Department of Conservation and Development, was the nation's most progressive land use law to date and still governs land use and development in Oregon (Robbins, 2002). SB 100 established a requirement for cities to submit Urban Growth Boundaries (UGBs) with justification under the enacted "Statewide Planning Goals," including limitation of urban sprawl and protecting the most valuable agricultural land and forests (Oates, 2018).

In Portland and other cities, UGBs have been a point of contention in the debate about affordable housing. UGBs and a myriad of other regulations govern housing development across the state. Oregon's offering of beautiful scenery and its population's collective conservation mindset set it apart from other states. However, Oregon's leaders will need to reassess the balance between conservation, culture, and development to grapple with the issue of homelessness.

Oregon's public mental health care system is currently guided by Chapter 426 of the Oregon Revised Statues, and changes are being implemented according to the Oregon Performance Plan (OPP). The OPP is the result of a United States Department

of Justice (USDOJ) investigation into Oregon's mental health services. The investigation found Oregon's mental health care system inadequate and inconsistent with the principles of the Civil Rights of Institutionalized Persons Act (CRIPA). Recommendations were made to move toward community-based treatment in accordance with the Americans with Disabilities Act (ADA). Oregon Health Authority conducted a series of townhalls with stakeholders across the state, resulting in the Behavioral Health Collaborative (BHC) Report. This report further outlined the deficiencies in Oregon's mental health system and proposed possible solutions. The OPP and BHC establish noble goals for service improvement rooted in evidence-based practices. Yet, thousands of Oregonians remain underserved.

Some unforeseen results of the growing adult homeless and severely mentally ill population are overutilization of emergency department services creating a "revolving door" phenomenon and "boarding" of patients in the emergency department. Furthermore, individuals with SPMI who are homeless increasingly interact with law enforcement and are diverted into the criminal justice system. Indirectly, mental illness and homelessness are being criminalized because adequate mental health services and housing support resources are not being provided to some of the state's most vulnerable citizens.

This analysis is unique in looking at the impact of state policies on mentally ill and homeless individuals. While much has been published about the homeless population and mentally ill population in Oregon, there is a need for research aimed at the overlap between the two populations. This will provide insights for development of evidence-based and equitable policies. This is especially important

because the adult homeless and severely mentally ill population in Oregon utilizes an exceptionally high percentage of public services, making it even more important to ensure that these resources are being used efficiently. Oregon is uniquely positioned to implement effective strategies for reaching this population. Oregon's Coordinated Care Organizations (CCOs) provide a scaffolding onto which new policies can be built.

The Providence Center for Outcomes Research & Education summarizes the situation in a 2014 report as follows:

> Oregon's Coordinated Care transformation has created a rare opportunity to break down the artificial wall between health care and public health. By combining a global Medicaid budget, new flexibilities in how health care dollars can be spent, and strict accountability for population health, Oregon has created both an imperative and an architecture for profound change. What it has not created is a roadmap: the how is still up to local communities. The state's Coordinated Care Organizations (CCOs) are actively looking for new, effective, community facing strategies that can generate positive health outcomes in the communities they serve. The time is ripe to rigorously evaluate these emerging strategies in order to systematically identify and spread the most effective approaches. (p. 1)

The bottom line is that there is an extensive homeless population in Oregon, and much of this population suffers from severe mental illness which makes them particularly vulnerable. The current crisis-based system favors costly and unsatisfactory treatment in emergency rooms and corrections institutions. To address

these issues, the state will need to correct deficiencies in its mental health care system, most importantly by making housing a top priority for individuals in this population; for long-term success, the overall housing inventory in the state must be expanded and evidence-based community mental health services need to be prioritized.

In the following section there will be a historical overview which contrasts the era of moral treatment in the late 1800s to early 1900s with the eugenics movement which took hold shortly thereafter. This will provide perspective about the societal attitudes which led to those policies and will illuminate how those beliefs and policies shaped the treatment of mental illness in Oregon.

The literature review will open with a closer look at the population-the adult (18-65) homeless and severely mentally ill population in Oregon. Next, the deficiencies in Oregon's mental health system and housing market will be outlined and the current policies will be explained. Evidence-based practices will be explored at the end of the literature review, providing ideas for policy development in Oregon. Throughout the literature review, it will become apparent that lack of affordable housing, while not the only factor which precipitates a state of homelessness and severe mental illness, is one of the largest underlying issues.

This analysis will investigate three main inquiries:

1. How do adult (18-65) homeless and severely mentally ill individuals fare in Oregon's current mental health system?
2. What housing resources are available to adult (18-65) homeless and severely mentally ill persons in Oregon?

3. Is the adult (18-65) homeless and severely mentally ill population being criminalized in Oregon?

Targeted policy recommendations, listed in order of importance, can be found in the concluding section.

Background

Moral Treatment

It is worth taking a moment to include an overview of moral treatment to provide historical perspective for the recommendations offered in this analysis. Oregon's first institution for the mentally ill, the Hawthorne Asylum, was opened in the late 19th century and was modeled after the principles of moral treatment (Askin, 2018). While this philosophy has largely been relegated to history, for several decades in the 18th and 19th centuries it was the dominant philosophy for treatment of the mentally ill. During that time patients fared relatively well.

Moral treatment originated in France and England. A French physician named Philippe Pinel is known as the father of moral treatment. In the French Revolution period, he developed "*traitement morale*" (Whitaker, 2002, p. 21). Pinel condemned prevailing medical treatments including bleeding, emetics, and harsh contraptions to frighten and torture patients into compliance, opting instead for a healing method based on respect for individuals and the creation of a supportive environment (Whitaker, 2002, p. 21-22). Around the same time, Quakers in York, England opened an asylum based on similar principles.

The moral treatment movements in France and England were both products of an era of reform and rebellion. The French Revolution called for liberty, equality, and fraternity, so Pinel's ideas agreed with the prevailing ideals of the revolutionary camp in France (Harman, 2003, p. 47). The Quakers opened the York Asylum in response to the death of Hannah Mills while she was a patient in an existing institution (Whitaker, 2002, p. 23). Like Pinel, the Quakers rejected the prevailing medical

methods. Their religious beliefs precluded the use of violence in treating the mentally ill.

Pinel's approach entailed taking detailed patient histories and praising each patient's unique virtues. He aimed to develop a nurturing and supportive environment instead of a harsh and frightening one. In his 1801 treatise he advocated the idea that mental illness was not caused by an organic lesion of the brain but was a natural response to stress such as relationship strain, trauma and poverty (Whitaker, 2002, p. 22). He hired lay superintendents who had a philanthropic outlook, and attendants were taught to never strike patients. They were taught to treat patients with a "mildness of tone" (Whitaker, 2002, p. 22).

The Quakers decided that their "brethren" would be treated with gentleness and respect. The needs of the ill were prioritized over the ideas of the superintendents (Whitaker, 2002, p. 23-24). Their York Retreat in England had beautiful gardens, and patients were provided ample food and drink. The Retreat hosted social events, and patients were kept busy with sewing, gardening, reading, and board games (Whitaker, 2002, 23-24). In *Mad in America*, Robert Whitaker sums up the Quakers' philosophy as follows: "In essence, the Quakers sought to hold up to their patients a mirror that reflected an image not of a wild beast but of a worthy patient capable of self-governance." (p. 24)

The York Retreat produced impressive results, with a reduction in patient violence and increased recovery rates. No attendants were seriously injured for fifteen years after it opened. During that same period, the Retreat boasted a 70% recovery

rate for patients who had been ill for less than 12 months and 25% recovery[5] for those who had been chronically ill prior to admission (Whitaker, 2002, p. 24). Notably, most patients had been ill for at least a year and had been in other asylums where they were deemed incurable; thus, their amicability at the York Retreat was not due to the mildness of their condition.

Moral treatment had some basic tenets. These included a small facility, usually capped around 250 patients (Whitaker, 2002, p. 25). Aesthetics were highly emphasized. Facilities were placed in in the countryside, and buildings had elaborate architectural designs. Patients were provided opportunities for work, recreation, and exercise. There was a reward system for good behavior and restraints were used as a last resort. Patients had a great deal of freedom and autonomy. Patients published newspapers, attended lectures, took carriage rides, developed patient governments, and formed sports teams (Whitaker, 2002, p. 25-27). One of the most important features was that superintendents must be reasonable and humane, mild and gentle, but not necessarily medically trained.

Whitaker summarized the merits of moral treatment on page 25 of *Mad in America*:

> No longer were they to be viewed as animals, as creatures apart. They were, instead, to be seen as beings within the human family-distressed people to be sure, but 'brethren.' The man had an inner capacity for regaining self-control, for recovering their reason. The ultimate source of their recovery lay inside themselves, not in the external powers of medicine.

[5] Recovery was defined as never relapsing into illness.

Moral treatment took hold in America in the early 1800s. The first moral treatment asylum was opened by the Quakers in 1817, and several others followed soon after (Whitaker, 2002, p. 25). Moral treatment reigned as the primary treatment modality for several decades until it was supplanted by the strictly medical theories pushed by neurologists after the Civil War (Whitaker, 2002, p. 37). In 1844, thirteen asylum superintendents created the Association of Medical Superintendents of American Institutions for the insane (AMSAII) to advocate for their interests. They passed a resolution that asylums should always have a physician as chief executive officer and superintendent. Dr. J. C. Hawthorne, who opened Oregon's first asylum, was one of the early members of AMSAII. These changes represented the medicalization of mental illness and spelled the end of moral treatment. Medical interventions such as bleeding, emetics, and restraints were reintroduced, and asylums lost many of their key elements, most notably their philanthropic superintendents and small staff to patient ratios.

One of moral treatment's drawbacks was that it was based on a highly paternalistic physician-patient relationship. However, moral treatment was also based on a fundamental respect for patients. This respect was not regained in policy until the late 20th century and has still not been fully realized in practice.

Eugenics-The Beginning of a Dark Period

The end of moral treatment spelled the beginning of a much darker period for the mentally ill. Robert Whitaker explains the transition in *Mad in America*:

> At the beginning of the twentieth century, that generous attitude toward the mentally ill disappeared in American society. It was replaced by a belief-

> touted as grounded in science-that the severely mentally ill were carriers of defective 'germ plasm,' and as such, posed a perilous threat to the future health of American society. In a stream of scientific articles, newspaper editorials, and popular books, the mentally ill were described as a degenerate strain of humanity, 'social wastage' that bred at alarming rates and burdened 'normal' Americans with their great expense of paying for their upkeep. America's embrace of that notion led to a wholesale societal assault on the severely mentally ill. (p. 41-42)

The eugenics movement was the brainchild of Sir Francis Galton, the half cousin of Charles Darwin. He was inspired by Darwin's *Origin of Species*. The idea that humans had evolved from lower life forms led him to the conclusion that not all humans are, in fact, created equal. He reasoned that selective breeding of humans could lead to the perfection of the human race. In 1869, a decade after Darwin's text rocked the scientific community, Galton published his own work titled *Hereditary Genius* (Whitaker, 2002, p. 43). He proposed the idea that charity to the poor or mentally ill be contingent upon them agreeing not to reproduce. In 1883, Galton coined the term "eugenics," which means "well-born," and he touted eugenics as a new field which would improve the human stock (Whitaker, 2002, p. 44).

Galton's ideas were amplified and put to action by the elite in the United States. The American Eugenics Society was founded in 1926 and rapidly expanded until it had chapters in 28 states (Whitaker, 2002, p. 54). The eugenics movement called for the segregation and compulsory sterilization of the mentally ill, and eventually it called for their elimination. The 1927 *Buck v. Bell* United States

Supreme Court case declared compulsory sterilization constitutional, and by 1945 over 45,000 Americans had been forcibly sterilized, half of which were institutionalized in mental hospitals (Whitaker, 2010, p. 59-60).

Oregon is among 33 states which enacted eugenics laws. According to the Oregon State Library, the first eugenics law in Oregon was drafted by Dr. Bethenia Angelina Owens-Adair and created the Oregon Board of Eugenics. It was passed in 1909 by the legislature but was vetoed by Governor George Chamberlain (Oregon State Library, 2017). The second bill was passed and was signed into law by Governor Oswald West in 1913, but it was repealed via referendum because of the advocacy of the Anti-Sterilization League (Oregon State Library, 2017).

The bill was reintroduced and signed into law in 1917 (Oregon State Library, 2017). The 1917 version established the Board of Eugenics, to prevent "the procreation of feeble-minded, insane, epileptic, habitual criminals, moral degenerates and sexual perverts, who may be inmates of institutions maintained by public expense, by euthanizing and providing for the sterilization of persons with inferior hereditary potentialities" (Smolensky, 1957, p. 290-292). The board was composed of the State Board of Health and superintendents of Oregon State Hospital, Eastern Oregon State Hospital, State Institution of the Feeble-Minded, and Oregon State Penitentiary. (Smolensky, 1957, p. 290-292).

In 1921, the 1917 statute was deemed unconstitutional by the Marion County Circuit Court (Oregon State Library, 2017). After revising its procedures, the Board of Eugenics was reinstated, and it continued operations without interruption from 1923 to 1967 (Oregon State Library, 2017). In 1967 the name was changed to the

Board of Social Protection, but their practices remained unchanged (Oregon State Library, 2017). The last known forced sterilization in Oregon occurred in 1981 (Oregon State Library, 2017). A subcommittee of the senate repealed the eugenics statute and abolished the board in 1983 (Oregon State Library, 2017). Governor John Kitzhaber, who had been a member of that subcommittee, issued an apology for the practices of the Board of Eugenics on December 2, 2002. (Reynolds, 2002). A total of 2,648 Oregonians were forcibly sterilized (Oregon State Library, 2017).

Oregon's mentally ill population was subjected to a wide range of cruel and unusual practices from 1883, when they were moved from Portland to Salem, until the late 20th century. They were "treated" with metrazole therapy, insulin coma therapy, electric shock therapy, lobotomy, restraints, and overcrowded and unsanitary facilities (Goeres-Gardner, 2013). This is the historical backdrop against which policy development is occurring; the idea of community treatment is relatively new, but the principles of treating vulnerable persons with dignity and respect are being rediscovered for the first time since the moral treatment era. Understanding the historical context makes it clear that policy formulation is a high-stakes game for the state's vulnerable populations.

Treatment of Mental Illness in Oregon: Historical Perspective

Mental health has been a concern for leaders in Oregon since it was a territory. One of the state's prominent historical figures, John Day, battled mental illness on the Oregon Trail while traveling with John Jacob Astor (Nikkel, 2002). The namesake of the coastal town of Astoria, Astor added Archibald Pelton to his party on his way to the Oregon Territory (Nikkel, 2002). Pelton, too, had become mentally

unstable after witnessing a massacre and had been living with a Native American tribe until he was stabilized. His irregular behavior made such an impression on the Chinook Indians that his name came to mean "mental affliction" in the Chinook language (Nikkel, 2002).

With the emergence of mentally ill individuals in the Oregon territory, the local and state governments took steps to address the care of these people. In 1843 the Oregon Territorial government was established. This government mandated a jury system to label an individual as mentally ill, after which those diagnosed as such would be managed by a trio of assigned guardians (Nikkel, 2000). A payment schedule was arranged in which the ill person's assets were first involuntarily liquidated, the guardians pitched in, and finally the county paid remaining fees. In 1844, a law was passed which stated that mentally ill individuals should be "let out publicly… to the lowest bidder, to be boarded and clothed for one year." (Larsell, 1945, p. 297). In 1855, counties requested and were granted state funds; however, this aid was revoked a year later. This design established early on a contention between state and local governments in funding and carrying out care for the mentally ill.

The precursor of the Oregon State Hospital was founded in 1861 by Dr. J. C. Hawthorne (Askin, 2018). Hawthorne was a native of Pennsylvania who moved to California to invest in the gold industry. There, he opened a medical practice and held a seat in the state legislature before moving to Oregon in 1857 (Askin, 2018; Cutler, 2001). He was one of the first members of the Association of Medical Superintendents of American Institutions for the Insane (Cutler, 2001).

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Dr. Hawthorne was awarded a contract by Multnomah County to administrate the county's poor farm on Canyon Road (Askin, 2018). In 1861, Dr. Hawthorne and his business partner, Dr. A. M. Loryea, opened the first treatment facility for the mentally ill in the Northwest Territory on the corner of 12th Avenue and Salmon Street (now Hawthorne Street) in Portland, Oregon (Askin, 2018). The land was donated by James Stephens, Dr. Loryea's father-in-law (Historical Research Associates, Inc., 2008).

The Hawthorne Asylum care model was based on the principles of moral treatment. Dr. Hawthorne was familiar with the tenets of moral treatment, as he was raised in the heart of Quaker territory in Pennsylvania (Askin, 2018). He modeled his asylum after the teachings of reformers such as Thomas Kirkbride, the superintendent for the Pennsylvania Hospital for the Insane (Askin, 2018; Whitaker, 2002). The building was influenced by moral treatment architectural recommendations, which called for aesthetically pleasing facilities (Oregon State Hospital Museum Project, 2010).

Dr. Hawthorne and Dr. Loryea treated patients with kindness and consistency, allowing them access to the grounds. Entertainment was provided via reading, writing, socialization, music, and exercise. Dr. Hawthorne personally purchased burial plots at the Lone Fir Cemetery near the asylum for patients whose remains were not claimed (Mata, 2017). Some of the common medical treatments of the time were implemented, such as laxatives to calm manic patients, and restraints were used as a last resort (Goeres-Gardner, 2013, p. 30).

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In 1862, Dr. Hawthorne and Dr. Loryea petitioned the state legislature to offer a contract for bid for the care of the state's mentally ill. They were the only bidders, so the maximum rate of $10 per patient per week was accepted by the state legislature (Askin, 2018). Because of the relatively high fees, Dr. Hawthorne was investigated several times for fraud and mistreatment of patients by Governor Addison Gibbs and the legislature, although charges were never brought. In fact, the asylum received great reviews every biennium. Even the prominent Dorothea Dix visited and expressed her approval (Askin, 2018).

The facility's population expanded quickly, from 77 patients in 1866 to 194 in 1874 (Nikkel, 2002). At its peak, about 200 patients were treated per year (Cutler, 2001). By 1877 the fees incurred by the state for payment to the asylum accounted for 52% of the state's budget (Nikkel, 2002), or $70,000 for 230 patients (Historical Research Associates, Inc., 2008).

Dr. Hawthorne passed away in 1881, and two years later his patients were transferred to the state-run Oregon State Insane Asylum in Salem (Nikkel, 2002). Just the year before, the Oregon Legislature had passed a law allowing the state to open a publicly-operated facility (Askin, 2018). The Salem facility was designed by Salem architect W. F. Boothby and was also modeled after the ornate example of the early moral treatment asylums in New England (Oregon State Hospital Museum Project, 2009).

By the turn of the century, the asylum population had grown to over 1,000 patients (Nikkel, 2002). In 1907, Oregon State Insane Asylum was renamed Oregon State Hospital (OSH), and in 1908 Fairview Home was opened to address the need to

separately treat developmentally disabled persons (Nikkel, 2002). In 1913, several hundred patients were transferred to the new Eastern Oregon Insane Asylum in Pendleton. During that year, the Oregon State Board of Control was implemented to oversee the state psychiatric institutions and other state-run facilities, including schools, hospitals, and penitentiaries (Halvorson, 2003).

Early in the twentieth century, efforts to shift care of the mentally ill to the communities were underway, although these did not take hold for several decades. In the 1930s, the community-based child guidance clinic was created as an outpatient extension of the University of Oregon Medical School in Oregon (Ungers, 1999, p. 3), later renamed Oregon Health and Science University. At that time, most community-based programs were targeted at children with an emphasis on early intervention to prevent chronic illness in adulthood. In the 1940s, World War II pulled many medical practitioners away from the hospitals to the battlefront, causing a staff shortage in the state hospitals. This, along with changing attitudes toward the mentally ill, would contribute to a stronger movement toward deinstitutionalization in the next decade.

As asylum populations peaked in the 1950's, several other mental hospitals opened temporarily in Oregon, including the Columbia Park Hospital in the Dalles, the Dammasch State Hospital in Wilsonville, and the Holladay Park Medical Center in Portland (Askin, 2000). By 1958, the number of patients in the state hospital peaked at 5,073 (Ungers, 1999, p. 4); for comparison, the state currently funds 650-700 psychiatric beds (Fuller, Sinclair, Geller, Quanbeck, & Snook, 2016). It is worth noting that in the 19th and early 20th centuries it was common for people with

disabilities of many kinds to be admitted to mental hospitals, which inflated the numbers (Ungers, 1999, p. 2).

This period continued to be a dark time for the mentally ill. In 1937 metrazol convulsive therapy and insulin coma therapy were introduced to OSH (Goeres-Gardner, 2013, p. 23). Insulin coma therapy was pioneered in the 1920s by Viennese psychiatrist Manfred Sakel (Whitaker, 2002, p. 85). This "therapy" consisted of injecting patients with insulin to induce a hypoglycemic coma followed by a dose of glucose to bring them out of the coma. He hypothesized that the trauma caused by this near-death experience could cure mental illness (Whitaker, 2002, p. 85). Later a U.S. Public Health Study found that 5% of patients had died from the procedure, and most who survived fared poorly in the long term (Whitaker, 2002, p. 90). Metrazol convulsive therapy similarly caused brain damage and was later found to be detrimental. In 1947 the Board of Control authorized the first lobotomy at OSH (Goeres-Gardner, 2013, p. 230.

The 1950s marked the beginning of the deinstitutionalization movement. Governor Hatfield called for the development of community programs for those living with mental illness (Nikkel, 2018). His community mental health programming is the precursor for Oregon's current network of Community Mental Health Programs, now serving all the state's 36 counties. In 1960 the census for Oregon State Hospital and Eastern Oregon State Hospital decreased to 4,577, which was the first recorded decrease in the state's history (Ungers, 1999, p. 7). The Mental Health Division was established by the State Board of Control in 1961 via ORS 430, and by 1969 the Board of Control was terminated (Halvorson, 2003). The duties of the

agency were divided up among the Department of General Services, Department of Human Resources, Secretary of State's Office, Governor's Office, State Treasury, and State Highway Commission (Halvorson, 2003).

The Civil Rights Movement provided another incentive to move the mentally ill out of institutions and into the community. The 1964 Civil Rights Act outlawed discrimination or segregation in places of public accommodation based on race, color, religion, national origin, or disability.

In 1973, the Community Mental Health Programs Act established three regions for coordinating state hospitals and community programs, as well as three main program areas: Alcohol and Drug, Mental and Emotional Disturbances, and Mental Retardation and Developmental Disabilities (Nikkel, 2002). President Kennedy reinforced the community care model at a federal level in 1963 with the Community Mental Health Centers Act, which offered matched funds to states that implemented community care models (Nikkel, 2002). The state of Oregon was ineligible for the federal dollars because it could not match them. "The Ultimate Goal, A Plan For Today," which outlined a plan to provide a variety of services, including halfway houses, rehab services, and vocational training, was published as a step toward adhering to the national and state goal of community-based care (Ungers, p. 3). Meanwhile in 1977 the Psychiatric Security Review Board (PSRB) was implemented to oversee people ruled guilty of a crime but deemed insane (Goeres-Gardner, 2013, p. 23).

In the 1970s, the National Institutes of Mental Health developed the Community Support Program Model to better address the needs of the chronically

mentally ill in the community. Based on this program, a Governor's Task Force on Mental Health, published in 1980, spurred the passage of the Local Mental Health Services Act in 1981 (Ungers, 1999, p. 48). This required that the mentally ill be treated to the "greatest extent possible" in the community (Ungers, 1999, p. 11). This came just after the passage of the Civil Rights of Institutionalized Persons Act (CRIPA) in 1980, which was intended to improve institutional care by requiring treatment to be delivered in the "least restrictive" manner (OHA, 2017b), a key principle of the Oregon Performance Plan. In 1981 the use of lobotomy was outlawed in Oregon (Goeres-Gardner, 2013, p. 23).

In 1990 the Americans with Disabilities Act was passed by Congress. This act solidified the commitment to treat the mentally ill in the community instead of in institutions. The Title II Integration Mandate requires that state and local governments "administer programs, services, and activities in the most integrated setting appropriate to the needs of qualified individuals with disabilities." (OHA, 2017b). The state now had a legal onus to treat mental illness in the "most integrated" setting rather than the "least restrictive." Forty years after the initial deinstitutionalization trend, a federal law delineated a requirement for community-based care based on the civil rights of the disabled mentally ill. This was a major civil rights victory, but community treatment has not yet lived up to the standards of the ADA.

As the state transitioned from institutional to community-based care, programs came to rely more heavily on federal funds than General Fund dollars. In 1965, Medicaid Title XIX greatly expanded resources for the elderly and disabled and

increased the state's dependence on federal dollars for psychiatric care. In the 1980s, 35% of the state's mental health budget was supplied by the federal government; by the 1990s, that number had increased to 72% (Ungers, 1999, p. 13).

The demographics of the State Hospital also changed throughout the twentieth century as the funding and treatment models shifted. Early on, the elderly comprised about one third of the patients, but by 1989 they only comprised 9%. (Ungers, 1999, p. 19). This is partially because, as the elderly were moved into care homes and other housing units in the community, the beds were filled with forensic patients-those who had been arrested for crimes but were being held because they pled insanity.

The first forensic ward opened in OSH in in 1962, and before long the one forensic ward had turned into three, with more forensic patients being housed in OSH than criminal institutions (Ungers,1999, p. 19). As forensic patients became more widely distributed in state institutions, they were moved under the jurisdiction of the Psychiatric Security Review Board. By the end of the twentieth century, young adult males comprised most of the OSH population (Ungers, 1999, p. 19).

In 1999, the *Olmstead* case of the United States Supreme Court sparked investigations into state services for the mentally ill. In 2002, U.S. District Judge Owen Panner ruled that Oregon had violated the rights of mentally ill criminal defendants by making them wait weeks to months in county jails (Goeres-Gardner, 2013, p. 23). In 2006 the United States Department of Justice (USDOJ) opened an investigation of Oregon's mental health services, dubbed the CRIPA (Civil Rights of Institutionalized Persons Act) investigation by those working within the state government (Cissie Bollinger, personal communication, 2017). The same year, the

OSH Site Selection Criteria Committee chose Salem for a 620-bed facility to be opened in 2011 and a 360-bed facility in Junction City to be opened in 2013 (Goeres-Gardner, 2013, p. 23).

The USDOJ Investigation began with an investigation of Oregon State Hospital that found Oregon's services to be lacking and in violation of civil rights principles. The USDOJ issued a report in 2008. An agreement was reached between the State of Oregon and the USDOJ in 2012, but by 2014 the state system still did not meet federal standards. The agreement was re-negotiated at that time, and these negotiations continued until 2016 when the Oregon Performance Plan (OPP) was published (Cissie Bollinger, personal communication, 2017). The Oregon Performance Plan is the current guiding document for mental health service development in the state. Its two primary goals are to increase early intervention and community-based services while decreasing utilization of institutions and congregate care (Cissie Bollinger, personal communication, 2017). While this document is intended to bring Oregon into compliance with federal requirements by 2019, there are still many changes that need to be implemented.

Some important changes have occurred since the beginning of the USDOJ investigation, the most notable being the establishment of Oregon's system of Coordinated Care Organizations (CCOs) in 2013. This system was established to manage the dental, physical, and behavioral health of persons receiving Medicaid (Saxton, 2017).

As is evident in the historical overview, several points of contention have always been present within Oregon's mental health care system. These include

contention over funding for mental health care, shifting location of treatment services, and civil rights of the mentally ill. The changes in treatment philosophies, administration structures, funding models, and location of treatment resources throughout Oregon's history reflect the state's evolving relationship with its mentally ill population.

Limitations of the Study

Developing policies to reduce homelessness and improve mental health outcomes is a complex process. There are many factors that contribute to adults becoming mentally ill and homeless. Thus, this analysis is necessarily limited in scope. Particularly, a full economic analysis of any policies proposed here would be necessary before implementation. The mentally ill homeless population is difficult to accurately count. Data varies by time, location, collection methods, and the willingness of the population to engage. Thus, there are some inconsistencies among the available data, making all numbers estimates.

Literature review

Defining the Population: Oregon's Adult (18-65) Homeless and Severely Mentally Ill Population

The 2017 point-in-time (PIT) report listed 13,953 homeless individuals living in Oregon (Bolton, 2017). Fourteen percent of Oregon's homeless population, or 1,953 individuals, suffer from a serious mental illness. Those with a substance abuse disorder or serious mental illness are more often unsheltered[6] than those in the general population, and the unsheltered population grew 5% more than the sheltered group (Bolton, 2017). Seventy-two percent of those with a serious mental illness are unsheltered (Bolton, 2017). It is important to note that these numbers are necessarily estimates, as it is challenging to quantify a population that is transient and even more challenging to accurately assess the mental status of every person counted. Because of these challenges, it is likely that these numbers are underestimates.

It is estimated that 15% of the homeless population across the nation is chronically homeless[7] (Bolton, 2017). This minority of the homeless population consumes most of the resources. Chronically homeless individuals consume an average of 50-60% of resources for homeless people in communities and cost $20,000-$45,000 per year per capita in emergency services costs (Pendleton, 2016). In Oregon, the chronically homeless make up an even higher percentage of the whole

[6] According to HUD, unsheltered homelessness is defined as a primary nighttime location in a public or private place not designated for, or ordinarily used as, a regular sleeping accommodation for people (for example, the streets, vehicles, or parks). Source: Bolton, 2017.

[7] Chronic homelessness is defined by HUD as a homeless individual or head of household with a disability who: lives in a place not meant for human habitation, in an Emergency Shelter, or a Safe Haven; AND has been homeless continuously for at least 12 months (stays in an institution of fewer than 90 days do not constitute a break); OR has been homeless on at least 4 separate occasions in the last 3 years where the combined occasions total at least 12 months (occasions are separated by a break of at least 7 nights). Source: Bolton, 2017.

homeless population at 24%, a total of 3,387 people (Bolton, 2017). Nearly three-quarters of these individuals are unsheltered (Bolton, 2017).

Homelessness is associated with higher risk for multiple health problems. Homelessness is tied to higher risk of trauma, assault, skin disorders, extremity injury, malnutrition, parasitic infection, dental disease, venereal disease, degenerative joint disease, and acute respiratory disease ("Health Problems of Homeless People," 1988). Of concern is the greater prevalence of tuberculosis among homeless individuals, identified by studies conducted in New York and Boston in the 1980s. While the prevalence of tuberculosis in the homeless population has decreased in Oregon since the 1990s (OHA, 2016b), this remains a point of concern.

Mental illness, particularly severe and persistent mental illness (SPMI), is a known risk factor for homelessness ("Health Problems of Homeless People," 1988). As mental health deteriorates, people's ability to fulfill their responsibilities and cope with stressors fails. This predisposes them to job loss and homelessness. Severe mental illnesses such as schizophrenia and bipolar disorder can contribute to homelessness and exacerbate efforts to regain stable housing in the absence of support services. In contrast, milder emotional disturbances such as anxiety, phobia, and depression are often precipitated by the stress of homelessness ("Health Problems of Homeless people," 1988).

There are several issues unique to the mentally ill homeless population that must be considered when developing policy. Many of these individuals are distrustful of authority figures, including physicians, and are reluctant to use medications consistently ("Health Problems of Homeless people," 1988). It can be difficult for

providers to establish relationships with these patients. Providers often become frustrated by poor compliance, high rates of missed appointments, bizarre behaviors or disheveled appearance in the clinic, and poor reimbursement ("Health Problems of Homeless People," 1988).

Based on the data in the 2017 PIT report, Oregon has at least 2,506 individuals who are chronically homeless and unsheltered, and 1,406 individuals who are unsheltered and severely mentally ill, with a high degree of crossover between these groups (Bolton, 2017).

Deficiencies in Oregon

Oregon's Housing Crisis

Lack of affordable housing is placing a burden on most Oregonians, but people of color, people with disabilities, and those who earn low incomes are most adversely affected. In Oregon's State Health Assessment (2018), Oregon Health Authority found that affordable housing was listed as the most prominent issue by stakeholders.

According to the Census Bureau, Oregon is the sixth fastest growing state (Bolton, 2017), with over three-fourths of the growth being fueled by immigration of people from out of the state (OHA, 2018). As Josh Lehner with the Office of Economic Analysis puts it, "Oregon is a victim of its own attractiveness" (Riley, 2018). The Office of Economic Analysis projects a population of 4.5 million by 2020 (OHA, 2018). The population was 4,142,776 as of July 1, 2017 (Bolton, 2017), an 8.1% increase from the last count in 2010. Thus, Oregon's population is projected to

grow at an increased rate of 8.6% in the next several years. Most of this growth is occurring in the Portland metro area and Bend area.

Since 2011, the rental vacancy rate in Oregon has hovered between 3.9% and 4.9%, with some areas much lower. The national average has gone from 9.5% to 7.1% in the same period (Diller & Sullivan, 2018). In 2011, the median family income (MFI) in Oregon was $63,100, and nearly 40% of Oregon's households earned at or below 80% MFI, placing them in the low- or moderate-income category ("Oregon Housing and Community Services' [OHCS] Summary of Housing and Homeless Needs Assessment for the 2016-2020 Consolidated Plan").

According to the National Low Income Housing Coalition, in 2013 there were estimated to be 22 affordable and available rental units available for every 100 renters in Oregon with income at or below 30 percent of median family income (MFI). For renter households at or below 50 percent of MFI there were estimated to be 42 units affordable and available for every 100 renters in Oregon. The coalition reports that Oregon would need to create a little more than 103,000 rental units affordable for households at or below 30 percent of MFI to meet the existing demand (OHCS Summary). Just to meet the needs of the chronically homeless, the Corporation for Supportive Housing estimates that Oregon needs 12,388 units of housing (Brown & LaBar, 2018).

The National Low Income Housing Coalition defines a Cost Burden as expenditure of more than 30% of income on housing. Spending over 50% of income on housing is a Severe Cost Burden (Aurand, Emmanuel, Yentel, & Errico, 2017). In Oregon, half of households experience a Cost Burden and a third of households

experience a Severe Cost Burden for housing, with racial and ethnic minorities and people with disabilities making up a disproportionate percentage of these groups (OHA, 2018).

Households of color are more likely than white households to have lower incomes and therefore are disproportionately represented in the number of low income households with housing problems. For instance, African Americans make up 1.5 percent of the entire population in Oregon, but they make up 3.9 percent of all households earning 30 percent or less of MFI (OHCS Summary). Furthermore, they make up 4.2 percent of households at this income level with one or more severe housing problems. Similarly, Hispanics make up 7.1 percent of the state's population, but 9.6 percent of households with income at or below 30 percent of MFI and 11 percent of households at this income level with one or more severe housing problems (OHCS Summary).

Oregon's homeownership rate has historically been below the national average. As of 2017, Oregon had the ninth lowest homeownership rate in the U.S. Homeownership rates among communities of color are significantly lower than for the white population. In Oregon, the homeownership rate for the white population is 63 percent compared to just 30 percent for African-Americans, 42 percent for Hispanics and Native Americans, and 58 percent for Asian Americans (Brown & LaBar, 2018).

Urban areas like Portland host most of the state's homeless population. Multnomah County contains 30% of the homeless population, followed by Lane, Marion, Deschutes, and Clatsop (Bolton, 2017). However, rural areas have higher

rates of homelessness than urban areas. In 2017, rural counties had a rate of 4.9 per 1,000 versus 3.0 per 1,000 in urban areas (OHA, 2018). The tight housing market places many Oregonians in a precarious situation, where they are spending so much on housing that they cannot cover any unexpected expenses and are at a high risk of becoming homeless. With this high demand, those who are already homeless face enormous barriers to acquiring secure and affordable housing, especially if they also struggle with mental illness.

Because the Portland metro and Bend areas have absorbed most of the influx of migration from other states and contain a high proportion of the state's homeless population, their housing profiles are summarized below.

Portland metro area

The greater Portland area faces a housing shortage of 48,000 homes, or approximately the number of homes in all of Gresham (Hamilton, 2018). In Portland, there is a surplus of affordable homes for those who make 50-80% of the MFI while all other income categories face a deficit of affordable housing. The most glaring deficit is for those who earn 0-30% of MFI. For this demographic there is a shortage of 36,000 homes, representing roughly three-fourths of Portland's housing deficit (Hamilton, 2018). In the Portland metro area, waiting lists for publicly subsidized housing can be up to seven years long, making this resource essentially unavailable (Griffin, 2018).

Many higher earners "rent down," or choose housing which would also be affordable to those with lower income. This further depletes the housing income for the lowest earners. Per every 100 renter households, there are 21 affordable and

available units for those who earn 0-30% MFI, 45 for those who earn 30-50% MFI, 181 for those who earn 50-80% MFI, and 58 for those who earn over 80% MFI (Hamilton, 2018).

Similar issues occur in Washington, and Clackamas counties, each of which has about half the amount of affordable homes to meet the needs of their residents making 50% MFI or less (Hamilton, 2018). Regulated rental homes[8] are concentrated in north, northeast, northwest, and southwest Portland, although the need is widespread throughout the Portland metro area.

Private sector unregulated apartments make up the bulk of the affordable units, as only 17% of Portland metro's units are protected (Hamilton, 2018). However, the supply of affordable rental units in the private market is rapidly changing as landlords upgrade to obtain higher-payer renters. According to researchers at Portland State University, from 2006 to 2017 90% of apartment buildings sold were these less expensive units. Sales are more prevalent in racially diverse areas, with 60% of sales occurring in these areas. This means that people of color are especially at risk or losing affordable housing (Hamilton, 2018).

There are essentially two camps advocating for change in Portland: Proponents of greater public funding for subsidized housing, and those who advocate relaxation of regulations to encourage more private sector expansion. The former usually dominates the policy arena due to Portland's political makeup.

Jim Bernard, the chair of the Clackamas County Board, is a Democrat. His Republican cousin, Andy Duyck, is the Washington County Board chair. Duyck

[8] Regulated rental homes are subsidized by the federal government to ensure affordability. Source: Hamilton

would like to see the government remove restrictions on development (Griffin, 2018). He states that,

> Anytime you raise taxes on housing to try to solve the housing problem, you're just doing harm to a different group of people. And it's not just landowners that you're doing harm to, you're also doing harm to renters because the landowners will pass on the increased cost to the renters.

Bernard sees Duyck's opinions as naïve. He says that "we're paying for it anyway" (Griffin, 2018). He supported Portland's Ballot Measure 26-99, a $652.8 million bond measure for affordable housing which passed in 2016 (Griffin, 2018). The bond will be used to purchase, demolish, and rebuild an apartment building in Old Town on Sixth Avenue which is currently known as The Westwind (Njus, 2018). The new building will have on-site mental health and addictions services (Njus, 2018). Duyck did not support the bond measure, although both voted for Oregon's Measure 102 which recently passed, amending the state constitution to allow local governments to propose bonds for financing affordable housing with nongovernmental entities (Oregon Secretary of State, 2018). The perspectives expressed by Duyck and Bernard illuminate the philosophical difference underlying the types of housing solutions being proposed in the state.

Nearly everyone agrees that there is a need for more affordable housing. The philosophical rift occurs when deciding whether the government should become more or less involved. One perspective views it the government's responsibility to ensure opportunities for housing and, for those who need it, mental health care services. A

competing view would have government's role greatly reduced in the housing and health care industries to allow more free market innovation.

In 2017, a proposal for a new apartment building in the Pearl District was denied. The proposed Fremont Place Apartments would have consisted of a 17-story building with 275 apartments. The intended site sat against the Willamette River Greenway and was denied because it blocked views (Cortright, 2018), although the city council cited proximity to the river as the primary reason (Andersen, 2018). Opposition was largely from an anti-housing group seated in nearby high-dollar condos, critical of compromising the city's "integrity." (Andersen, 2018). The denial drew criticism from the deregulation camp. They pointed out that this building would have created more homes for a higher income bracket, freeing up more homes for lower earners. In addition, they cited the fact that the proposal was denied after initial approval, which tells new developers that they do not have much certainty in the approval of new developments (Andersen, 2018).

Portland recently adopted an inclusionary zoning policy. Inclusionary zoning ties affordable housing to new construction projects by requiring that a certain percentage of units be affordable and that affordability be guaranteed for a set number of years. Portland's new inclusionary zoning policy requires that 20% of new apartment buildings with 20 or more units be affordable and that this will be guaranteed for 99 years (Cortright, 2018). Joe Cortright, an urban economist and former Executive Officer of the Oregon Legislature's Trade and Economic Development Committee, criticizes this new policy. He believes these requirements

will deter new development. New apartment proposals have precipitously dropped since the inclusionary zoning housing ordinance was put into effect (Cortright, 2018).

An alternative to publicly subsidized housing is being demonstrated by Rob Justus and John Murphy. Justus served on Portland's committee to create the Ten-Year Plan to End Homelessness. He founded one of Portland's prominent nonprofits, JOIN, before venturing into low-income housing development. Justus criticizes building requirements and bureaucratic inflation which drive project prices up. He says, "What is wrong with the system is there is a fixation on addressing multiple social issues on the backs of poor people" (Korn, 2014). In addition, he pointed out that since the Ten-Year Plan was approved, the staff of the Portland Housing Bureau has doubled. "It's not about the people on the street," he says." It's about sustaining these big social service agencies" (Korn, 2014).

John Murphy is the president of Portland Rehabilitation Center Northwest (PHC Northwest), a nonprofit that provides training and job opportunities to developmentally disabled people in the area. He began to research affordable housing solutions when many of his clients were unable to access his services due to inability to secure housing. He invested $14 million to purchase apartment buildings that had been built with public dollars with rent prices contracted with HUD (Korn, 2014). He found that managing the buildings become impractical due to the laundry list of regulations that came with the government contracts.

Justus and Murphy met and agreed on a plan to build sustainable housing for $70,000 per unit, a third of the average price per unit for public housing projects (Korn, 2014). PHC Northwest provided $1.9 to build Snowberry Apartments on 151st

Avenue and Burnside Street. Justus agreed to build units for $70,000 each, making it possible to charge $625 for studio apartments and $675 for two-bedrooms which was based on what Murphy's clients could afford (Korn, 2014). If he failed to deliver, he had to repay PHC Northwest the $1.9 million. Justus was successful.

He credited his success to several factors. First, having money up front allowed him to acquire materials at low prices He was able to save on materials and legal costs by not taking pubic money, estimating about $100,000 savings from the latter (Korn, 2014). The Snowberry did receive a $350,000 waiver of system development fees. Justus compared the price of the Snowberry to the $253,000 per unit cost of apartments at the publicly-funded Bud Clark Commons which opened in 2011 (Korn, 2014).

Bud Clark Commons was significantly more expensive than the Snowberry. However, Bud Clark Commons offers integrated health care services (The Center for Outcomes Research & Education, 2014). Because it is a supported housing facility, Bud Clark Commons had more requirements for construction. Therefore, Justus's comparison was not entirely fair.

Bend Area

Since 2013 Bend has seen a 10% increase in population, or the addition of 8,000 new residents (ECONorthwest, 2017). The 2018 point-in-time report indicated that in the tri-county area-Crook, Deschutes, and Jefferson Counties-there was a total of 1,301 homeless individuals, 555 unsheltered and 232 sheltered (Myers, 2018). In

addition, there were 514 "precariously housed."[9] Deschutes county had the highest number of unsheltered individuals at 45%. Bend had 508 homeless individuals in 2018, down from 659 in 2017 (Myers, 2018). Economic issues were the primary listed cause of homelessness, followed by family issues, health issues, law issues, and violence/abuse (Myers, 2018). In Bend, resources are available to those with mental illness who need help with housing, but lack of available units prevents these from being utilized. People often access assistance via residential treatment facilities and temporary motel stays (Shorack, 2015). This demonstrates how the constrained housing supply is affecting the most vulnerable citizens, especially those who are homeless and who suffer from severe mental illness.

According to the 2017 Landscape Report by ECONorthwest, Bend has housing deficits for the low-income population, or those making less than area median income (AMI), and of mid-market housing for those making 80-175% of AMI for a family of four. Since 2012, median incomes for renters have increased by 4.8% while rents have increased 36% in the same period. For home owners, median incomes have increased by 8.3% since 2012 while for-sale prices have increased 42% (ECONorthwest, 2017). Over a third of households are cost-burdened. The rental vacancy is 1%, and the for-sale vacancy is 2% (ECONorthwest, 2017).

Historically, a phenomenon known as filtering has provided sufficient mid-market housing. Filtering occurs when property owners upgrade to newer and more costly units, making their depreciated units available to lower earners. However, this

[9] People "at-risk" of homelessness or in unstable housing situations, such as "doubled-up" and not on a lease. Source: Myers, 2018.

process is no longer providing adequate mid-market housing in Bend and many other parts of Oregon.

Bend needs rental housing priced to be affordable for people earning 60% of AMI and below. Eighty-five percent of renters earning less than $35,000 are paying more than 30% of their incomes in housing costs (ECONorthwest, 2017). Because there is an undersupply of affordable homes for those earning less than 60% MFI, people in this income bracket are often forced to find housing which costs more than they can afford, exaggerating their cost burden.

Bend lacks more than 4,700 units of housing affordable to households earning less than $25,000 per year (ECONorthwest, 2017). On the other hand, nearly half of the homes sold in Bend in 2016 were in the $75,000-$100,000 range, making them affordable to those who make 125-175% AMI, only 13% of Bend's population (ECONorthwest, 2017).

ECONorthwest identified high cost of land, permit fees, systems development charges, and zoning regulations as barriers to affordable housing development (ECONorthwest, 2017). These development costs necessitate investing about $1.40 per square foot for new apartments, making new units unaffordable to most renters (ECONorthwest, 2017). Because Bend's market has historically favored single-family units, land zoning limits increased density via development of multifamily units such as duplexes and triplexes.

Some changes that have been proposed to the local government include expansion of the Urban Growth Boundary, support for infill development to increase density, and allowing for mixed opportunity areas for multifamily housing (ECONorthwest,

2017). In accordance with these suggestions, the city of Bend recently expanded its UGB by 2,380 acres and is already looking toward the next expansion (ECONorthwest, 2017). Josh Lehner, an analyst for the Oregon Office of Economic analysis, states that the UGB should include enough land to allow for 20 years of expansion, yet many areas have not included enough room to keep up with growth (Riley, Ehrlich, & Baxter, 2018).

Both Bend and Portland have experienced an influx of new residents. However, there are differences in the issues belying their housing shortages. Whereas Portland has a glaring deficiency of housing for low-income individuals, Bend has a shortage of housing for low-income and mid-income earners. As a result, the two cities will need to employ unique strategies to encourage development of housing that is most appropriate for the needs of their populations. This comparison highlights the importance of allowing localities to assess their unique housing needs. However, state and local policies need to address the more universal issue of regulations which disincentivize new housing.

Rural Oregon

Urban areas and growing cities are not the only parts of the state suffering from a housing shortage. While not as highly publicized, rural Oregon is also struggling to meet the demand for housing. In eastern Oregon, 80% of households below 60% MFI are cost burdened, and some of the highest populations of people earning less than 15% MFI are in Klamath, Lake, Harney, and Malheur counties (OHA, 2018).

A DYSFUNCTIONAL SYSTEM

In rural Oregon, lack of housing impacts low and middle-income households alike. In a 2017 *Streets Roots News* article, Zuhl explains that it is common for middle income workers, such as construction workers, technicians, teachers, and firefighters, to commute from the outskirts, fill hotel rooms, or even temporarily sleep in cars because they are unable to find housing. Many people have jobs yet are unable to find housing because vacancy rates are so low.

Rural Oregon's population growth has been 50% higher than the average for rural America in the 1990s and has been twice as fast since the early 2000s; in that same time, new construction growth has been about 30% lower than the national average (Lehner, 2018). In southern Oregon, the vacancy rate is close to 1% (Zuhl, 2017). This is making it difficult for employers hire and retain help, not because people are unwilling to work but because they are unable to find housing close to the jobs.

Reasons for this shortage include lack of funding and fewer financing options, land use constraints, and less economic capital to draw in developers (Zuhl, 2017). Many rural governments lack the capacity to plan for and facilitate new housing development (Brown & LaBar, 2018, p. 9).

According to the census, the per-capita incomes in Clatsop, Lincoln and Tillamook counties from 2010 through 2014 were below $26,300, with Tillamook the lowest at $22,417 (Hammill, 2015). That is significantly lower than the per-capita income of over $31,000 in Multnomah County. With lower incomes in coastal communities, the rents that affordable projects could charge might not even be

enough to cover operating costs, let alone pay down construction debt (Hammill, 2015).

Rural Oregon's new construction is about 30% less than in rural America overall (Lehner, 2018). In John Day, only three site-built homes have been built since 2008 (Moore, 2018). While incomes in rural Oregon are consistent with averages for rural communities across the nation, home prices in rural Oregon are 30% higher and rental prices are 16% higher (Lehner, 2018).

Except for Lane County, all of Oregon's coastal counties are among the least affordable counties in the nation (Zuhl, 2017). In these communities, there is additional stress due to the construction of vacation homes. Coastal economies largely depend on tourism dollars. In these areas, expansion of vacation housing has outpaced the national average while development of workforce housing has stagnated (Lehner, 2018). Many California and Seattle natives have purchased this vacation housing, and they are able to use these addresses for voting. Meanwhile, residents who work in the community must now commute from outside city limits, meaning that they lose their local voting power (Zuhl, 2017).

From 2010 to 2014, 46 new homes were built in Tillamook County. The Oregon Coast faces unique challenges to new growth, such as limited land for development and risks from flooding, landslides, and tsunamis. Tara Parry, vice president for human resources at the Tillamook County Creamery Association (best known for the Tillamook Cheese Factory), told *The Oregonian* that the lack of housing threatens the long-term viability of the company. About 500 of its 779

employees are in the Tillamook area. The business provided $50,000 of the county housing task force's $90,000 budget, with the Meyer Memorial Trust making up the rest. (Hammill, 2015). This another example of how lack of affordable housing threatens the stability of communities and makes citizens vulnerable to psychiatric stress, economic hardship, and homelessness.

John Day has implemented a new program to stimulate growth. For projects located in the city's urban renewal area, which covers 20% of the land in the city, the government is offering to pay builders system development charges of $7,400 and 7% cash rebates on new home construction. For remodels, property owners can earn a 15% cash rebate based on the increase in the property's assessed value (Moore, 2018). Part of the funding for this project will come from the Department of Land Development and Conservation. The city hopes for 100 new homes and 100 home remodels in the next 20 years. This would be a 12-15% increase in housing stock, and in total they expect a $150,000 increase in tax revenue upon completion (Moore, 2018).

The John Day initiative highlights another problem for rural communities-infrastructure. John Day is hoping to draw in individuals looking for a retirement or second home, as well as those who will live in John Day and work remotely from home. However, like many rural areas, internet service is limited in John Day (Moore, 2018). Rural communities must address these kinds of infrastructure challenges to compete with more populous areas for new development.

To address the housing crisis across the state, innovations in the private and public sectors will be necessary. To facilitate sustainable long-term housing growth, it makes sense to remove some of the cumbersome regulations which deter developers, slow down building projects, and drive up costs. However, the state government does play a role in providing a safety net to some of the most vulnerable citizens. Whether they are operated by private or public entities, facilities for housing and providing mental health care services to the homeless and severely mentally ill population will be more expensive to operate than standard living facilities. The ideal scenario would be a robust housing industry which responds to the pressures of the free market and a government-provided safety net which efficiently connects individuals to appropriate resources.

Mental Health Care Provider Shortage

Oregon also has a lack of mental health providers. Twenty-four of Oregon's thirty-six counties are deemed geographical mental care health profession shortage areas (HPSAs)[10] (OHA, 2013). According to the Kaiser Family Foundation, Oregon has about one-third of the number of psychiatrists needed to serve people in these areas. The state needs 84 more psychiatrists to achieve a population-to-psychiatrist ratio of 30,000 to 1 (20,000 to 1 where high needs are indicated) in all HPSAs (Kaiser Family Foundation, 2017).

[10] HPSAs are designated as having a shortage of primary medical care, dental or mental health providers. They may be urban or rural areas, population groups or medical or other public facilities. Qualifications are typically met if the population-to-provider ratio exceeds a required threshold (for example: 3,500 people for every Full-Time Equivalent primary care physician for Primary Medical Care), and if care is not available or are beyond capacity in the surrounding areas. For geographical HPSAs, the entire population in the designated area is identified as underserved and resources are considered over-utilized. Source: Oregon Health Authority Office of Rural Health

For all of Oregon, the average population-to-practitioner ratio is 930 for primary care and 6,437 for psychiatry, although practitioners and other healthcare resources are concentrated in urban areas (OHA, 2013).

Recognizing the need to address healthcare workforce shortages in the state, the Oregon State Legislature formally recognized the workforce shortage, and in 2011 the first collaborative report from several health profession licensing boards was published on Oregon's health care workforce. Data was based on licensure information provided by the licensing boards.

Of 10,822 physicians practicing in the state, 527 are practicing psychiatry; two of Oregon's 918 nurse practitioners are practicing psychiatry (OHA, 2011). Linn, Polk, Umatilla, Tillamook, and Wasco counties all have population-to-physician ratios over 20,000 (OHA, 2011). Over half of the behavioral health staff with prescriptive authority are in the Portland metro area, as are 49% or registered nurses who work with mental health (OHA, 2011). Data is incomplete for social workers, counselors, and psychologists.

There are several potential strategies to closing the provider gap, including financial incentives for health care providers, technological tools, and increased multidisciplinary work among physicians, pharmacists, and social workers.

Emergency Department Boarding

Adults who are homeless and severely mentally ill often reach crisis states and require emergency treatment at local hospitals. When the deinstitutionalization movement began in the 1950s, the intention was for people with mental illnesses living in institutions to be moved into independent living situations and become

integrated into the community life. This movement occurred relatively quickly with little support for people experiencing the transition. People who moved into the community were rarely given adequate occupational support, assistance to ensure success in living independently, or resources for becoming connected to their community. As a result, many of the mentally ill became homeless, and two of their main points of entry into the mental health system became the emergency department and the criminal justice system.

The phenomenon of psychiatric "boarding" has recently come under criticism. In a 2014 guest column to *The Oregonian*, a local emergency physician called ED boarding "barbaric." Dr. Meieran described a problematic situation in her statement:

> If you put an otherwise high-functioning person with excellent coping skills in a room without windows, without human contact except for someone staring at them, with minimal exercise, for days on end, the experience would traumatize. For someone with mental illness, not understanding the system and not knowing what to expect, it's devastating.

In 2016, Oregon State University's College of Public Health and Human Sciences was commissioned to study the phenomenon of "boarding" psychiatric patients in the emergency department (ED). The resulting report, titled "ED Boarding of Psychiatric Patients in Oregon," documented the extent of ED boarding across the state.

The study utilized three data sets from the Emergency Department Information Exchange (EDIE), hospital discharge abstracts, and Medicaid claims and enrollment data. In total, the comprehensive study included 690,245 unique ED episodes involving 290,181 individuals from Oct. 1, 2014 through Sep. 30, 2015. The

researchers only included data which appeared in two of the three data sets, resulting in a study of roughly half of the ED episodes in Oregon for that period (Yoon, Luck, Cahn, Bui, & Govier, 2016, p. 8).

The team defined ED boarding as holding a patient in the ED for over 6 hours (Yoon et al, 2016, p. 8). Based on the 6-hour threshold, the researchers estimated that 2.1% of all ED visits are psychiatric boarding episodes. This represents 29,763 ED visits (Yoon et al, 2016. p. 8). They found that boarding leads to poorer quality treatment for patients, with exacerbation of symptoms in the chaotic environment, increased medication errors, and increased use of restraints (Yoon et al, 2016, p. 21).

Boarding is also stressful for ED staff and costly for hospitals. Hospitals are not always reimbursed for treatment because they are legally required to treat regardless of the patient's ability to pay as outlined in the Emergency Medical Treatment and Activity Labor Act (EMTALA). As a result, estimated average costs to hospitals range from $2,000 to over $6,000 per psychiatric boarding case (Yoon et al, 2016, p. 22).

Some of the causes of boarding include lack of outpatient treatment capacity, lack of crisis response or other alternative treatment options, barriers to discharge from ED directly to community destinations, and limited inpatient or subacute resources for patient with the most severe psychiatric emergencies (Yoon et al, 2016, p. 9).

Nationally, boarding is more common among homeless patients, with 43% of homeless patients experiencing boarding compared to 20.5% who have a private residence. Beech, Parry, & Valiani (2000) found that 9% of psychiatric referrals to the ED were from police services (as cited in Yoon et al, 2016, p. 13). Brunero (2007)

found that these referrals were commonly for crises such as schizophrenia symptoms, psychotic episodes, and suicidal ideation (as cited in Yoon et al, 2016, p. 13). Patients referred by police were treated in the ED two to three times more often than other patients (Yoon et al, 2016, p. 14). The patients described in these studies represent a group of highly vulnerable persons who are unhoused and who suffer from SPMI. These individuals use an exceptional amount of resources while being unsatisfactorily served by the mental health system.

Yoon et al identified several causes of the psychiatric boarding phenomenon, one of which is lack of available inpatient psychiatric beds. In response to the deinstitutionalization movement, the state drastically reduced the number of inpatient psychiatric beds available in the state. Nationally, there has been a 96.5% decrease in the number of psychiatric beds in state hospitals since the 1950s (Fuller, Sinclair, Geller, Quanbeck, & Snook, 2016, p. 1). Of the remaining beds, 50% are used by forensic patients (Fuller et al, 2016, p. 1).

According to Fuller et al (2016), the minimum per capita number of psychiatric beds recommended in literature ranges from 40-60 per 100,000 people (p. 3). From 2010 to 2016, Oregon lost 47 state hospital beds, a decrease from 700 to 653 beds (Fuller et al, 2016, p. 8). This means Oregon has 16.2 beds per 100,000 people, well below the recommended amount (Fuller et al, 2016, p. 3).

Of Oregon's 653 beds, 416 (63.7%) are designated forensic beds (Fuller et al, 2016, p. 16). This makes Oregon one of 15 states where over 50% of the remaining state hospital beds are occupied by forensic patients (Fuller et al, 2016, p. 17). The civil commitment population in Oregon State Hospital has been increasing since 2010

(Yoon et al, 2016, p. 54). As much as 40% of the "370"[11] population occupying OSH beds was arrested for misdemeanors and could be treated in the community if resources were available (Yoon et al, 2016, p. 54). The lack of community services also prevents timely discharge from OSH, further exacerbating the bottleneck.

The Social Security Amendments of 1972 expanded Medicaid coverage to include inpatient services for individuals under 21 years in "institutions for mental disease" (IMDs), including hospitals, nursing facilities, or other institutions primarily engaged in providing diagnosis, treatment, or care of persons with mental illness; the 1988 Medicare Catastrophic Act narrowed the definition of an IMD to a facility with a maximum of 16 beds (Yoon et al, 2016, p. 19). Collectively, these acts limit Medicaid coverage of inpatient mental health services for adults aged 21-64 years in acute or long-term institutions with more than 16 beds which primarily focus on mental health. This "IMD exclusion" has contributed to the decline of inpatient beds by creating a financial incentive to provide care in other settings.

There are several factors contributing to psychiatric boarding in EDs. These include lack of robust community alternatives and financial disincentives for expanding inpatient capacity to meet demand. Currently, the 370 population dominates the state's inpatient bed supply.

Re-institutionalization in Jails and Prisons

The other major consequence of deinstitutionalization without community support has been diversion of homeless and severely mentally ill individuals into the criminal

[11] The .370 population refers to Oregonians who have been court ordered for detainment in the Oregon State Hospital or outpatient restoration in the community according to Oregon Revised Statute 161.370. Civil Commitments occur when individuals are deemed to pose a threat to themselves or others. Source: Oregon Revised Statutes.

justice system. Because severe mental illness can cause bizarre and disruptive behaviors, individuals with SPMI often encounter law enforcement officers and are required to spend time in jail or prison when they break laws. These individuals are mostly arrested for petty crimes. In Oregon, more individuals are treated for severe mental illness in jails and prisons than in psychiatric facilities or hospitals (Fuller, Kennard, Eslinger, Lamb, & Pavle, 2010). For inmates, the prevalence of mental illness is significantly higher for women (Zaitz, 2011).

In Oregon, the odds of being treated for severe mental illness in a jail or prison compared to a hospital are three to one, and there are about 3,000 individuals with SPMI in Oregon's jails and prisons (Fuller et al, 2010, data available at https://mentalillnesspolicy.org/ngri/jails-vs-hospitals.html0). Thus, rather than being deinstitutionalized, individuals with severe mental illness have been pushed out of state psychiatric facilities and are being re-institutionalized in corrections facilities.

Estimates for the prevalence of mental illness in Oregon's corrections institutions are as high as seven in ten inmates (Zaitz, 2011). Many corrections institutions now have dedicated wards for the mentally ill, offering more beds than the state hospital system. This is evidence of failed policies; namely, the drastic reduction of psychiatric beds in medical settings without creation of community services to compensate.

Treatment of mental illness in jails and prisons poses a myriad of problems. These institutions are not designed to facilitate recovery of mental health, nor are staff hired as mental health care workers. Individuals with severe mental illness often have high recidivism rates or become "frequent fliers;" cost more than non-mentally ill inmates;

are more likely to suffer self-harm and to be traumatized by other inmates or staff; create management issues; and often stay longer than non-mentally ill individuals (Fuller et al, 2010).

The reasons for their longer stays vary. Especially for those who are homeless upon arrest, payment of bail, fines, and attorney fees may be impossible. Because life in corrections institutions is based on obedience to staff, the erratic and resistant behaviors of severely mentally ill inmates often leads to infractions and punishments. Extensive disciplinary histories can prevent early release and usually lead to punishments which further exacerbate the mental health issues (Abramsky & Fellner, 2003).

The increasing numbers of severely mentally ill individuals being treated in corrections institutions present ethical and budgetary problems. This increase is the result of the deinstitutionalization movement and expansion of laws which criminalize the activities of homeless and severely mentally ill individuals. Policy change is necessary to reverse this alarming trend.

Current Policy Concepts in Oregon

The Oregon Performance Plan

The Oregon Performance Plan is the current guiding document used by Oregon Health Authority to implement changes in the mental health system. In 2006, the United States Attorney General opened an investigation into the quality of treatment at Oregon State Hospital and ruled it inadequate based on the Civil Rights of Institutionalized Persons Act (CRIPA) (OHA, 2017). The DOJ investigation was a long time coming, as reform efforts had already been ongoing for many years. Even

before deinstitutionalization began in the 1950s, efforts were being made to improve standards of care in the institutions, and these efforts continued after the mentally ill were largely moved into the community.

CRIPA was passed in 1980 and established protections for all individuals in state or local public facilities. The act defined a "public facility" as any facility owned, operated by, managed by, or providing services on behalf of a state or a state's political subdivision, and its main purpose was to improve treatment within institutions (OHA 2017). Another key allowance of the act was for the U.S. Attorney General to investigate potential violations, which led to the 2006 investigation of Oregon's institutions.

The groundbreaking Americans with Disabilities Act (ADA), passed in 1990, again changed thinking about the care and rights of the mentally ill. The guiding principle of the act was that these individuals should not just be treated in the least restrictive manner, but in the most integrated setting (OHA, 2017b). This declared that the mentally ill not only had a right to autonomy, but support for being an active part of the community, and it shifted the focus from institutional care to community-based care. A well-known clause of the act calls for "reasonable accommodation" for disabled persons to access and participate in available programs and services. Forty years after the initial deinstitutionalization effort, a major piece of legislation had been passed to outline the right of persons with disabilities to be a part of the larger community.

In 1999, the *Olmstead* case was reviewed by the United State Supreme Court. Based on the ADA, the case was ruled in favor of patients, declaring that "unjustified

isolation is discrimination based on disability" (OHA, 2017b). In principle, this court decision improved the standards of care for the mentally ill by stating that it is unlawful to isolate the mentally ill in the community or institutions.

Because of the 2006 CRIPA investigation, the USDOJ published a report on the state of treatment in OSH. An additional investigation in 2010 reviewed the state's mental health care system based on the *Olmstead* case, resulting in a demand to improve the system or face penalties. By 2012, Oregon Health Authority and the USDOJ had reached an agreement which included a plan for the state to move into compliance with federal law.

In 2013, Oregon established its 16 Coordinated Care Organizations as an experimental system for integrating behavioral, physical, and oral healthcare services for Oregonians enrolled in the Oregon Health Plan, Oregon's Medicaid program (OHA, 2017a). In 2014, the agreement was renegotiated, as the state failed to reach compliance standards per the original contract. The negotiation took two years, from December 2014 to July 2016, and they resulted in the Oregon Performance Plan which is the current guiding document for development of mental health services in the state as of July 1, 2016 (OHA, 2017a).

The Oregon Performance Plan is scheduled to bring the state into compliance with federal regulations by 2019. The plan includes yearly goals to develop a mental health care system based on collaboration between OHA, community mental health programs, mental health care providers, and coordinated care organizations (OHA, 2016a). The primary goal is to treat patients almost entirely in the community. The specific efforts called for in the plan include increased assertive community treatment

(ACT), mobile crisis units, peer services, criminal justice diversion, supported housing, and supported employment (OHA, 2016a). By implementing these community services, the state plans to decrease demand for emergency room care, secure residential treatment facilities, acute psychiatric care, and OSH beds (OPP, 2016a).

The bottom line is that the Oregon Performance Plan is intended to promote self-determination and choice, emphasizing a patient-centered paradigm of care. The Oregon Performance Plan's self-proclaimed purpose is to "better provide adults in Oregon with severe and persistent mental illness with community services that will assist them to live in the most integrated setting appropriate to their needs, achieve positive outcomes, and prevent their unnecessary institutionalization" (OHA, 2016a, p. 1).

The Behavioral Health Collaborative

In 2015, Senator Sara Gelser, D-Corvallis and former Oregon Health Authority director Lynne Saxton toured the state conducting a series of behavioral health town halls. They collected information on the current state of the behavioral health system from experts, consumers, peers, and family members. The Behavioral Health Collaborative was convened in July 2016 at Director Saxton's request to assess policy, financing, and infrastructure needs to further integrate and update Oregon's behavioral health system (OHA, 2017a).

The Collaborative included a diverse set of over 50 stakeholders, including consumers, human services, education, housing, CCOs, commercial insurers, mental health care providers, residential providers, local government, tribal health

representatives, law enforcement, advocacy groups, the legislature, mental health courts, drugs courts, community supports, and Early Learning Hubs (OHA, 2017a, p. 1). Five subgroups were constructed which were titled Data, Payment Reform and Finance, Workforce, Outcomes, and Waste.

According to the BHC Report, the goal was to collect data to inform the development of a "coordinated, seamless health care system that treats individual as a whole person-not a collection of problems and diagnoses" (p. 2). Another important goal of the BHC was to identify policy changes which would produce the triple aim-better population health, better quality of care, and reduced per capita costs of care.

The BHC Report named goals of creating a more individual and family-centered system, establishing a "no wrong door approach" to accessing mental health care, increasing early intervention and prevention to avoid crisis, aligning provider payments with outcome goals, improving equity within the system, emphasizing trauma-informed care, decreasing cultural/language barriers and stigma, and improving data collection, tracking, and sharing (OHA, 2017a, p. 4).

The BHC identified fragmentation within the current mental health care system in Oregon, citing "artificial silos" between physical, behavioral, and oral health care which creates barriers to patients and makes it more difficult for health care providers to work together (OHA, 2017a, p. 1). Mental health care services are often separated from other health care services by location and payment method. Even within the umbrella of mental health care services, quality of care and reimbursement varies because individuals receive services in outpatient settings,

emergency departments, OSH, and in jails. Administrative barriers make coordination of care among these institutions difficult.

The BHC identified lack of consideration of the social determinants of health such as housing, education, employment, and transportation (OHA, 2017a, p. 4). It also found that the quality and availability of these resources varies greatly by region. Evaluating service delivery, the collaborative found that mental health care is often not provided in culturally and linguistically competent ways (OHA, 2017a, p. 4).

To achieve its stated goals, the BHC recommended several policy changes. These included instituting a regional governance model to create a single point of shared responsibility, establishing a minimum standard of care for all behavior health workers, carrying out a healthcare workforce assessment with subsequent development of a plan to address shortages, and utilization of health information technology for data collection (OHA, 2017a, p. 1-2).

Certificate of Need Law

Certificate of Need (CN) laws originated after passage of the 1974 federal Health Planning Resources Development Act (Cauchi & Noble, 2018). This act was intended to restrain healthcare costs and encourage consolidation of healthcare services. This was to be accomplished via a mandate for states to create regulatory agencies to review proposals for new healthcare facilities and equipment or expansion of existing facilities (Cauchi & Noble, 2018).

In response to the mandate, all states except Louisiana eventually passed CN laws (Cauchi & Noble, 2018). The federal government has since rescinded its

recommendation, and in 1987 the federal mandate was repealed (Cauchi & Noble, 2018). However, Oregon and several other states retain CN laws.

Proponents of CN laws argue that healthcare services and products are not subject to typical economic forces, and CN laws limit health-care spending by requiring an evaluation of need before continuing with new projects (Cauchi & Noble, 2018). Opponents claim that, by limiting competition, CN laws actually drive prices up. In addition, they claim that there is too much potential for decisions to be based on politics instead of actual community need because the review boards are often populated by existing providers/company representatives (Cauchi & Noble, 2018; Flatten, 2018).

Oregon has had a Certificate of Need law since 1971 (Cauchi & Noble, 2018). The law includes hospital facilities, specialty inpatient care facilities in hospitals, and long-term care facilities, all of which encompass facilities where the mentally ill might be treated. The regulatory agency is Oregon Health Authority's Public Health Division. Oregon's CN law is outlined in Oregon Revised Statute (ORS) 442.315. According to the statute, a CN must be approved for equipment replacements/upgrades which exceed $1 million. The statute does not apply to "basic health services," although trauma care, inpatient psychiatric services, and inpatient chemical dependency services are explicitly excluded as "basic health services." Subsection (9) states that individuals and entities operating according to this statute are exempt from antitrust laws which might otherwise interfere with compliance (ORS 442.315).

Oregon's CN law has spurred controversy. In January 2016, a company called NEWCO Oregon Inc. applied to construct a 100-bed inpatient psychiatric hospital in Wilsonville. (Flatten, 2018; J. High, 2017). The company is a part of Universal Health Services, which operates many psychiatric hospitals across the nation. The estimated cost of the facility was $35.8 million, all of which was to be funded by the company (Flatten, 2018).

At the time, the average occupancy rate for psychiatric hospitals in the Portland region was 86%. At another inpatient facility owned by NEWCO in the Portland area, the occupancy rate usually ran between 90-95% (Flatten, 2018). Despite these numbers, the CN for NEWCO's new facility was denied. The primary reasons were lack of need for additional inpatient facilities in the Portland area and insufficient proof that the facility would lead to an increase in reasonable access to services (J. High, 2017). Other concerns were that opening a new, for-profit institution would have a negative impact on current providers, and OHA cited Oregon's intent to move toward outpatient treatment (J. High, 2017).

Instead of NEWCO's proposed facility, a consolidation of the beds offered by several major hospital systems was approved (J. High, 2017; Flatten, 2018). Oregon Health and Science University (OHSU), Legacy Health, Kaiser Permanente, and Adventist Health collectively contributed $40 million in addition to $3 million invested by Multnomah County (Diehl, 2017) to open the Unity Center for Behavioral Health in 2017. The Unity Center provides emergency, inpatient, and outpatient care. It has 102 beds available, a net loss of 10 beds from what was previously offered by each institution independently (VanderHart, 2017).

NEWCO filed a claim against the state of Oregon a month after its CN was denied. NEWCO alleged that OHA was catering to existing entities by "unnecessarily and artificially limiting the availability of in-patient psychiatric hospital facilities, promoting anti-competitive collusion between hospital monopolies, facilitating anti-competitive agreements, limiting consumer choice, and otherwise denying Oregon consumers the benefits of an effective remedy for these and other violations" (Flatten, 2018). However, a lawsuit was never filed, and NEWCO has entered mediation with the state to determine if the rejection of the CN can be overturned or modified (Flatten, 2018).

Oregon's CN law is a major barrier to development of much needed mental health services and facilities. It is likely that both NEWCO's proposed facility and the Unity Center could have been quickly filled considering the high prevalence of mental illness in the state and large numbers of homeless and severely mentally ill individuals in Portland metro area. Like the unnecessary regulations on housing projects, this law is an unneeded hurdle for development of mental health resources.

The Unity Center

When the Unity Center opened, the plan was for 75% of patients admitted for emergency care to be stabilized within 24 hours and for all other patients to stay for a maximum of eight days (VanderHart, 2017). However, this has not been happening. Psychiatric emergency centers such as the Unity Center have been proposed as a strategy for decreasing ED boarding. Bill Osborne, the supervisor of the Multnomah County Commitment Services program, told *Portland Mercury* that patients are waiting an average of 2 days in the emergency wing before getting an inpatient bed

(VanderHart, 2017). The Unity Center has not released information on length of stay before transfer from other hospitals. Thus, the Unity Center is beginning to suffer from boarding much like other emergency centers.

Just as Yoon et al identified a large 370 population in the OSH as a contributing factor to ED boarding, Osborne pointed out that he is seeing an increasing number of civil commitment cases, or people who are unable to care for themselves and possibly pose a threat to themselves or others. Over 40% of the beds at Unity Center are occupied by civil commitment patients who commonly stay for a month or longer (VanderHart, 2017), and it is increasingly receiving referrals for 370 patients. The high number of individuals with SPMI occupying forensic and civil commitment beds alludes to the poor state of mental health services in Oregon. Facilities like the Unity Center are a drop in the bucket, and they will continue to be overwhelmed until the state invests in preventative instead of reactionary care.

In his interview with the *Portland Mercury,* Osborne cited some of the Oregon Performance Plan's targets as exacerbating factors. The OPP proposes that by June 30, 2019 90% of individuals who are ready to transition from OSH will be discharged within 20 calendar days (OHA, 2016a, p. 9). Osborne believes that OSH is prematurely discharging patients to remain in compliance with the OPP's targets (VanderHart, 2017). The state government has continued to constrain the supply of inpatient beds, despite increasing demand. In the 2017-2019 Governor's Budget, Governor Brown proposed closing the Junction City facility which had 174 inpatient beds (MacDonald, 2017).

It is clear from the ED boarding data and reports on length of stay at the Unity Center that the state needs more inpatient beds. While the Oregon Performance Plan strictly calls for limits on inpatient treatment, it would be beneficial to renegotiate those targets in light of the recommendations on minimum numbers of per capita psychiatric beds.

Oregon's Statewide Housing Plan

In recognition of the state's housing crisis, Oregon Housing and Community Services has launched an initiative to produce a statewide housing plan by winter 2019 (Oppenheim, 2017). Like the BHC, the initiative began with a scan of the current situation and development of agency priorities, with community stakeholder feedback (Oppenheim, 2017). Oregon's Housing and Community Services has hired ECONorthwest and Enviroissues to develop a plan to create more affordable housing.

Enviroissues held focus groups in Deschutes, Coos, Clackamas, Lincoln, Douglas, and Harney counties (Enviroissues, 2018, p. 2). There were also open forum discussions hosted for farm workers in Hermiston, Hillsboro, Hood River, Klamath Falls, Ontario, and Woodburn (Enviroissues, 2018, p. 3). In January 2018, Enviroissues published a report on the community input to date. Several key themes were identified, reinforcing what previous data and research have indicated.

The focus group discussions revealed that the housing crisis is statewide and affects the entire housing continuum and all income ranges. Renters face increasing fees to secure rental housing, and landlords are being more selective based on credit history and criminal background due to high demand (Enviroissues, 2018, p. 3). Some renters expressed concern about no-cause evictions, listing this possibility as a reason

for accepting subpar living conditions (Enviroissues, 2018, p. 14). The housing shortage disproportionately affects the elderly, people with disabilities, people of color, single-parent households, and youth-all groups who tend to have low incomes (Enviroissues, 2018, p. 4). In 2017, 65% of white households owned their homes, compared to 46% of native American households, 43% or Hispanic households, and 35% African American households (OHCS, 2018). For citizens with SPMI and other disabilities, stakeholders expressed interest in expanding permanent supportive housing and implementing the housing first approach (Enviroissues, 2018, p. 5). They also emphasized a desire to increase collaboration with mental health providers to increase integration of services.

Stakeholders identified state and local regulatory policies as barriers to developing affordable housing. According to the Enviroissues report, there is a lack of land zoned appropriately and with infrastructure ready for new development. Other regulatory barriers included fees, System Development Charges, UBGs, and lack of incentives for developers (Enviroissues, 2018, p. 6). In some communities, lack of regulation was a problem. This is particularly a problem in coastal regions and other areas with tourism-based economies, where rental and vacation properties are displacing affordable homes for local residents (Enviroissues, 2018, p. 6).

For low-income residents, specific concerns were high cost burden, lack of housing supply, poor housing quality, requests for innovative housing solutions, concerns about housing discrimination, and requests for a centralized resource for supportive services with trauma-informed staff (Enviroissues, 2018, p. 5).

Declared goals of the Statewide Housing Plan include responding to housing inadequacies which disproportionately affect vulnerable populations and strengthening partnerships between public, private, and non-profit entities (Juntunen & Hewitt, 2018, p. 2). To do this, the state will collaborate with stakeholders to develop a shared understanding of racial equity and eliminate systemic injustice facing communities of color (Juntunen & Hewitt, 2018, p. 2). The plan will include strategies to prevent or eliminate homelessness for at least 25,000 Oregonians, specifically calling for functionally ending[12] homelessness for veterans and children (Juntunen & Hewitt, 2018, p. 2).

The plan calls for expansion of permanent supportive housing and will triple the pipeline of affordable rental housing up to 25,000 homes by 2023 (Juntunen & Hewitt, 2018, p. 3). The plan emphasizes homeownership and plans for at least 6,500 households in the low- and mid-income ranges to be assisted in purchasing homes, with an emphasis on assistance for people of color (Juntunen & Hewitt, 2018, p. 3). There will also be emphasis on collaborating with rural communities to double the pipeline of projects and provide community-specific assistance (Juntunen & Hewitt, 2018, p. 3).

The Statewide Housing Plan is a good step toward policymakers acknowledging the importance of the social determinants of health, and preliminary reports suggest some encouraging strategies. However, the final proposals are yet to be published.

Evidence-Based Practices

[12] Functionally ending homelessness occurs when the number of individuals experiencing homelessness is less than the number of individuals being connected with permanent housing each month. Source: Governor Brown's 2018 Housing Policy Agenda.

An evidence-based practice (EBP) is defined as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of a client" (National Coalition to End Homelessness, 2018). Practices are generally deemed evidence-based only after research has proven significant positive outcomes in two or more controlled studies. (National Coalition to End Homelessness, 2018).

Fidelity is an important concept to consider when implementing evidence-based practices. Fidelity refers to the degree to which a practice model adheres to the key principles, as supported by research (Hrouda, 2015, slide 14). For all evidence-based practices, higher fidelity to key principles is tied to better outcomes.

There are several strategies that have been successful in Oregon and other areas for rehabilitating and supporting adults with SPMI who are homeless. At a fundamental level, all successful strategies have recognized the multifaceted nature of their struggles and implemented tools to create a comprehensive, supportive environment to foster recovery. Some of the most common EBPs are the housing first approach, permanent supportive housing, supported employment, assertive community treatment, trauma informed care, mobile crisis services, and criminal diversion including the sequential intercept model.

Housing First Approach

According to the National Alliance to End Homelessness (2016), the Housing First Approach "is a homeless assistance approach that prioritizes providing permanent housing to people experiencing homelessness, thus ending their homelessness and serving as a platform from which they can pursue personal goals and improve their quality of life" (p. 1). This approach is based on the idea that

people must acquire essentials such as stable shelter and food before attending to other priorities such as pursuing a fulfilling career or battling substance abuse issues.

There is academic context for this model. In the mid-1950s, psychologist Abraham Maslow proposed his theory that humans are motivated by a hierarchy of needs, beginning with basic survival necessities such as shelter, food, clothing, and reproduction (McLeod, 2018). According to his theory, individuals become progressively motivated by physiological needs, safety needs (employment, health, property), love and belonging (intimacy, relationships, sense of belonging), esteem (status, freedom, self-esteem), and self-actualization (a desire to become the best that one can be); only after the most visceral needs are met do people concern themselves with more philosophical pursuits (McLeod, 2018).

Within a housing first approach, individuals are free to choose their housing arrangement, including the type and location of housing and if they want a roommate. They are not required to complete any programming or utilize services to obtain or retain housing, although services are offered throughout the process as needed (National Alliance to End Homelessness, 2016).

In short, the housing first approach is rooted in the belief that stable, permanent housing is the foundation for recovery, and that recovery is best accomplished when individuals freely choose to engage instead of being coerced into doing so. It also depends on the assumption that mentally ill individuals are capable of taking charge of their recovery.

The housing first approach encourages utilization of motivational interviewing, which encourages providers to let patients direct the conversation, thus

unleashing their internal motivation and interests (Siegel, 2017). The similarity of this rationale to the teaching of the Quakers in colonial America is striking. The Quakers developed moral treatment to "hold up to their patients a mirror that reflected an image not of a wild beast but of a worthy person capable of self-governance." (Whitaker, 2002, p. 24).

Aubry, Nelson, & Tsemberis (2015, p. 469) summarize the housing first approach as follows:

> The core program principle of consumer choice is actually undergirded by a more profound assumption concerning psychiatric disabilities, which is that most people with psychiatric diagnoses are in fact capable of making reasonable choices, even as they continue to struggle with psychiatric symptoms. The teams support the consumer when the choice made results in failure, and failure does not mean discharge from the program or relinquishing the opportunity to make further decisions. The housing first approach supports recovery by using a respectful and hopeful approach, building on people's strengths, and celebrating the successes, small and large, along the way.

Another key component of the housing first approach is that it emphasizes integration into the community. With a housing first approach, housing units are obtained within the community, often from private landlords. More than 20% of the units in a single facility are not secured for individuals within the housing first program to encourage integration within the broader community (Aubry et al. 2015, p. 469). This is important because integration is a key principle of the ADA. Thus,

housing first is a superior choice compared to buildings built solely to house mentally ill and homeless individuals when evaluated based on the principles of the ADA.

The housing first approach contrasts with a "housing ready" approach, which requires that individuals progress through shelters and halfway houses and be enrolled in treatment programs before having a shot at permanent housing (Surowiecki, 2014). Housing first was pioneered by Sam Tsemberis, PhD, in the 1990s in response to the existing fragmented system for treating mentally ill, homeless individuals. At the time, the housing ready approach dominated. Tsemberis's housing first approach implemented trauma-informed care and a harm-reduction[13] model, resulting in voluntary wraparound services (Siegel, 2017).

A housing first approach typically comes in two forms, targeted at different populations: permanent supportive housing and rapid re-housing (National Alliance to End Homelessness, 2016). The former is aimed at those with chronic mental and physical health problems, disabilities, and substance abuse disorders. Individuals and families are offered long-term rental assistance and supportive services. In contract, rapid re-housing offers short-term services to house people as quickly as possible. Services often include housing identification, rent and move-in assistance, and case management (National Alliance to End Homelessness, 2016). This model is best suited to more transient episodes of homelessness for individuals and families.

Most importantly, this model is effective. A growing body of evidence indicates that a housing first approach is effective for achieving the triple aim: improved

[13] The harm reduction model is a set of strategies aimed at reducing the negative consequences of drug use, based on a respect for the rights of people who use drugs. It emphasizes meeting drug users where they are at, providing services for safer use, managed use, and abstinence. Source: Harm Reduction Coalition.

patient experience, improved population health, and reduced per capita cost of services. Those in PSH report greater autonomy and satisfaction, less domestic violence and mental health crises necessitating emergency treatment, less substance abuse, and more engagement in education and employment (National Alliance to End Homelessness, 2016).

Because individuals are more stable when their housing is secure, they are less likely to enter jails, hospitals, and emergency shelters, which saves communities money. Studies have reported per capita savings between $31,545 and $46,000 over two-year periods (National Alliance to End Homelessness, 2016). PSH boasts a 98% long-term housing retention rate, and after a year of being rapidly re-housed 75-91% of people remain housed (National Alliance to End Homelessness, 2016).

A Canadian study published in 2015 also found the housing first approach to be effective. This randomized controlled trial included just over 2,000 people enrolled in a program called At Home/Chez Soi which operated in five major Canadian cities. In this study, 1,198 individuals received a housing first treatment, while 950 received treatment as usual (Aubry et al, 2015, p. 471). Over 24 months, those in the housing first program had stable housing 63-77% of the time, versus 24-39% of the treatment as usual group (Kunkle, 2015)).

A significant finding from this study was that the housing first group had supportive services available, although they were less comprehensive than the services offered in some other pilot projects. Participants met with a case manager who could help with financial assistance and housing placement. The cost of this program was $14,177 per participant per year, compared with $22,257 for assertive

community treatment programs (Kunkle, 2015). Thus, for less severely impaired individuals, more conservative services can still be effective at improving long-term stable housing retention. This leaves more comprehensive ACT resources for the most severely impaired.

Various programs throughout the United States have demonstrated the effectiveness of this approach. In 2003 the federal government called on states to create 10-year plans to eliminate homelessness (Pendleton, 2016). New York pioneered a housing first approach with a harm-reduction model. Their program was known as the Pathways to Housing and was implemented in New York City (Aubry et al, 2015, p. 471). Not only were individuals moved into stable permanent housing with support services, but they were provided free needles and condoms. There was absolutely no requirement that their behavior change before they could access housing and services. After implementation, they achieved an 85% housing rate after 12 months (Pendleton, 2016).

New York's success inspired leaders in Utah to test a similar program. After a successful pilot project, the housing first approach became the key element of the state's 10-year plan to end homelessness. The state built over 100 housing units for the program and took a housing first approach, targeting the most vulnerable individuals in their homeless population first (Pendleton, 2016). The state reports a 91% reduction in their chronically homeless population over 10 years (Pendleton, 2016). Recall that the chronically homeless population typically accounts for 50-60% of resources allocated to the homeless. Thus, a 91% reduction in the chronically homeless population equates to an impressive return on investment.

These outstanding results should be received with a word of caution. According to the National Law Center on Homelessness & Poverty, at least part of the decline in Utah's homeless population is a result of a change in the way homelessness was defined in their point-in-time count (Stanley, 2017, p. 10). They cite a 2016 review of the data and counting procedures by Kevin Corinth at the American Enterprise Institute which revealed that Utah's reduction in the homeless population was likely less than reported because of changes in the methodology used to analyze the data (Stanley, 2017, p. 10) Nonetheless, Utah accomplished a sizeable reduction in its chronically homeless population by implementing a housing first approach.

Permanent Supportive Housing

Permanent supportive housing is one of the primary strategies proposed by Governor Kate Brown in her 2018 Housing Policy Agenda and is mentioned in preliminary reports on the Statewide Housing Plan. It is also called for in the Behavioral Health Collaborative. Permanent supportive housing is time-unlimited housing provided for people with mental illness or substance abuse disorder who are homeless or disabled.

A 2016 study by the Providence Center for Outcomes Research & Education (CORE) looked at Medicaid claims data and service utilization for residents before and after moving into permanent supportive housing in the Portland metro area. They found that residents utilized primary care 23% more and the emergency department 37% less in the year after moving in compared to the year before which translated into an average $84 decrease in Medicaid claims per month per resident (Wright, Li, Vartanian, & Weller, p. 7-8).

Residents reported greater access and quality of care after moving in. There was, however, still a lack of dental and mental health care. Roughly a third of the residents reported being unable to access dental or mental health care when they needed it (Wright et al, 2016, p. 9). Forty-three percent reported that they believed their health had improved since moving in (Wright et al, 2016, p. 9).

The study included a difference of differences analysis to explore the effects of different kinds of on-site services on health outcomes. The three categories of services were health services/staff (doctors, nurses, and transportation to get to offsite clinics), social services/staff (community health workers and social workers), and wellness services/staff (food services, fitness, and other residential activities). They found that having health staff onsite was correlated to a significant reduction in emergency department usage (Wright et al, 2016, p. 11-12). The other services were not related to significant differences in healthcare utilization, although the study analyzed availability, not usage, of services. Thus, the results could be based on which services residents were most aware of.

A multivariate regression model indicated that integrated health services were a predictor of decreased ED visits, while controlling for age, race, gender, and health risk (Wright et al, 2016, p. 13-14). PSH itself was also a predictor of decreased ED usage. Having health staff onsite was the single most important cost reduction factor and strongest predictor of decreased ED usage (Wright et al, 2016, p. 9, 13).

A 2014 meta-analysis by Rog et al (2014) fount that permanent supportive housing decreased homelessness, increased housing tenure, and decreased ED visits and hospitalization. However, there were limitations in determining the components

of the model which were most impactful. Rog et al recommended implementing an evaluation and reporting requirement for permanent supportive housing policies.

While it does not explicitly name permanent supportive housing, the Oregon Performance Plan does call for supported housing. The OPP defines "supported housing" as follows:

> Permanent housing with tenancy rights and support services that enables people to attain and maintain integrated affordable housing. Support services offered to people living in supported housing are flexible and are available as needed and desired but are not mandated as a condition of obtaining tenancy. Tenants have a private and secure place to make their home, just like other members of the community, with the same rights and responsibilities. Supported housing enables individuals with disabilities to interact with individuals without disabilities to the fullest extent possible. (OHA, 2016a, p. 4)

Under the OPP, supported housing must be scattered site housing, with no more than two people living in an apartment or house, with separate rooms for each (OHA, 2016a, p. 5). Clients must be able to choose their housemates. To be considered supported housing under the OPP, no more than one unit can be used to provide supported housing for an individual with SPMI in buildings with two to three units. For larger buildings, no more than 25% of the units can be designated for individuals with SPMI who are referred by OHA or its contractors (OHA, 2016a, p. 5). The OPP bars housing where providers can reject individuals due to medical needs or substance abuse history (OHA, 2016a, p. -5).

Supported Employment Services/Competitive Integrated Employment

A large body of evidence suggests that people with mental illness are interested in and capable of working, and that securing employment is beneficial to their independence, level of functioning, quality of life, and self-esteem (Stout & Hayes, 2005). Key elements of supported employment include work in an integrated setting with competitive work options and wages, rapid placement, ongoing vocational supports, consideration of clients' preferences, and situational assessment.

Prior to the emergence of supported employment, persons with disabilities were usually limited to sheltered workshops, adult day programs, and volunteer work (Wehman, 2012). These situations segregated individuals with disabilities from the rest of the work force and provided limited opportunities for transferable skill development and competitive wages.

Supported employment has been developed to provide opportunities for those with the most significant disabilities, who often need ongoing supports and have a nonexistent or limited work history (Wehman, 2012). The 1998 Amendments to the Rehabilitation Act, Title IV of the Workforce Investment Act outlined the requirements for supported employment as follows:

> Competitive work in integrated work settings consistent with strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choices of individuals with the most significant disabilities for whom competitive employment has not traditionally occurred and for whom competitive employment has been interrupted or intermittent as a result of a significant disability. (As cited in Stout & Hayes, 2005)

Supported employment is based on the idea that everyone, even those with severe disabilities, are able to work and contribute. It emphasizes competitive employment opportunities with long-term support services. These support services are provided as needed by the client, on or off-site in a way that does not interfere with performance of duties or cause stigma toward the client. One of the important ways that individuals can be supported is by providing a mediator between the client and employer and/or coworkers (Wehman, 2012).

Supported employment should offer work in an integrated setting where employees can earn minimum wage or above. Employment outcomes are better when patients participate in integrated jobs at minimum wage and above than when they worked in sheltered work programs (Wehman, 2012).

Competitive work opportunities should be offered where clients are integrated with nondisabled peers. This allows for role-modeling and development of a network with peers outside the disabled community. The "place-then-train" principle states that individuals should be trained on the job to prevent problems with transferring skills to new, unfamiliar settings. These ideas are referred to as the transfer of training and employment as normalization principles (Cook & Razzano, 1992, p. 24-25). These principles are consistent with the ADA's integrated setting and reasonable accommodation requirements.

Early studies on supported employment showed promising results. In 1997, Bond, Drake, Mueser, & Becker found that 58% of clients in supported employment achieved competitive employment, compared to 21% in the control group who received traditional vocational services. Employment earnings and length of

employment were also better for the supported employment group. Their study showed that supported employment did not increase stress or lead to increased hospitalization.

In 1987, the Robert Wood Johnson Foundation awarded a three-year grant to Thresholds, a psychosocial rehabilitation agency in Chicago, Illinois to add supported employment services to their existing portfolio of resources (Cook & Razzano, 1992, p. 23). Thresholds had been offering temporary employment support to their members, but they found that a year after leaving the program the employment rate dropped from 50% to 38% and that those who had received services for longer had better rates of employment (Cook & Razzano, 1992, p. 24). They had been using the transitional employment (TE) model pioneered at Fountain House in 1948 (Cook & Razzano, 1992, p. 27). The TE model uses time-limited job placement at minimum wage or above. Clients progress through a series of temporary placements to acquire a work history and learn job skills. Services are offered throughout the process, including housing programs, social skills development, medication management, and recreational activities (Cook & Razzano, 1992, p. 27).

In response to their findings, Thresholds developed time-unlimited employment services and offered ongoing support on and off site. Their new program was developed to provide maximum flexibility. This was the reason for providing services for as long as needed and on an as-needed basis.

At intake, members interested in employment were placed on crews within the agency, such as maintenance or kitchen crews, to develop useful job skills. After reviewing these skills with case workers to discuss their preferences and abilities,

they worked with their treatment team to find a suitable placement. Once placed, a mobile job support worker (MJSW) was assigned to provide ongoing, as-needed, on site or close by support services (Cook & Razzano, 1992, p. 28-30).

Over three years, 1,170 clients received services and the proportion employed throughout that time averaged 81.9% (Cook & Razzano, 1992, p. 34-35). They found that those who had been hospitalized for psychiatric reasons six or more times needed more support and were especially in need of time-unlimited services.

The OPP defines supported employment services as

> Individualized services that assist individuals to obtain and maintain integrated, paid, competitive employment. Supported employment services are provided in a manner that allows individuals to work the maximum number of hours consistent with their preferences, interests and abilities and are individually planned, based on person-centered planning principles and evidence-based practices. (OHA, 2016a, p. 4)

The OPP defines Competitive Integrated Employment as full- or part-time work at minimum wage or higher, at a rate comparable to employees without disabilities who have similar skills; with eligibility for the level of benefits provided to other employees; in an integrated location with nondisabled persons; and, as appropriate, opportunities for advancement that are similar to those for other employees who are not individuals with disabilities and who have similar positions. (OHA, 2016a, p. 3). The Oregon Supported Employment Center of Excellence scores competitive integrated employment programs on fidelity (OHA, 2-16a, p 3).

Taken together, these definitions in the OPP provide a framework for developing supported employment services for mentally ill homeless Oregonians.

Assertive Community Treatment

Assertive Community Treatment (ACT) is an evidence-based practice which utilizes a multidisciplinary team to provide community-based care to those at risk of psychiatric crisis (Hrouda, 2015). ACT is one of the most heavily studied EBPs. It has been shown to substantially reduce psychiatric hospital use, increase housing stability, and moderately improve symptoms and subjective quality of life. It is also known to reduce ED visits and psychiatric hospitalizations (Fuller, Sinclair, Geller, Quanbeck, & Snook, 2016, p. 4). In addition, ACT is highly successful in engaging patients in treatment (Bond, 1997). Like the other evidence-based practices, high fidelity is correlated with better outcomes (Bond, 1997).

ACT is costly, although it has been demonstrated to offset costs of expensive emergency room treatment for psychiatric crisis (Hrouda, 2015). ACT is best suited for those who have severe and persistent mental illness and who have functional limitations or frequent or prolonged hospitalization; it is also known as a "hospital without walls" (Stout & Hayes, 2005).

The Oregon Performance Plan describes ACT as targeted at individuals with severe and persistent mental illness who have severe functional impairments and who have not responded to traditional psychiatric outpatient treatment. Services are provided by a single multidisciplinary team consisting of a psychiatrist, a nurse, and at least two case managers. The goal is to help keep the individual in the community and out of a structured service setting such as residential or hospital care.

There are six characteristics of ACT outlined in the Oregon Performance Plan: Low client to staff ratio, service provision in the community, shared caseloads among team members, 24-hour staff availability, direct provision of services by the team instead of referring to other agencies, and time-unlimited services (OHA, 2016a, p. 2). The Oregon Center for Excellence for Assertive Community Treatment began working in 2014 to implement high fidelity ACT programs in Oregon. As of 2016, there were 18 high fidelity ACT teams in Oregon with anticipation of another 8 reaching fidelity in the year (Yoon et al, 2016, p. 58).

Trauma Informed Care

According to Trauma Informed Oregon, trauma-informed care (TIC) is "an approach, based on knowledge of the impact of trauma, aimed at ensuring environments and services are welcoming and engaging for service recipients and staff. (Trauma Informed Oregon). While a universal definition does not exist, there are some fundamental principles of trauma informed care.

First, TIC is a recognition of what trauma is and that it has lifelong effects on victims. Trauma is the Greek word for "wound" (Kenan, 2018). According to ANEW Life & Work, trauma is an experience that overwhelms a person's coping resources (Watts, p. 5). Trauma is the response to a stressful event, and traumas are remembered for years. Traumatic events trigger a fight, flight, or freeze response, resulting from activation of the sympathetic nervous system. This results in behavior being governed by the amygdala, which regulates emotional responses and emotional memories; the prefrontal cortex, which allows for executive functioning is

deemphasized. Thus, an emotional, survival instinct overrides the area of the brain which is responsible for logical functioning.

Because the amygdala plays a critical role in memory formation for events related to emotional stimuli, traumatic events tend to stick with people throughout their lifetimes, and some stimuli can "trigger" people who have experienced trauma. People who have experienced trauma often develop coping mechanisms which exacerbate their social functioning.

Reports on the prevalence of trauma vary. A survey of 9,282 American adults aged 18-54 found that 60% of men and 51% of women experienced at least one traumatic event in their lifetimes (Richardson, 2014). Sexual trauma is especially prevalent among women. According to the National Sexual Violence Resource Center, one in five women and one in seventy-one men are raped during their lifetimes (National Sexual Violence Resource Center, 2015). The 2018 point-in-time report for the Tri-County area found that 60% of the homeless population had experienced domestic violence (Myers, 2018, p. 24). Homelessness itself can also be viewed as a traumatic experience.

Providers must recognize the prevalence of trauma and its impact on physical, mental, and emotional health, and behaviors and engagement of services. It is vitally important that service providers recognize how systems and service delivery practices can re-traumatize individuals (Trauma Informed Oregon). TIC recognizes these problems and offers strategies for minimizing re-traumatization.

One possible consensus definition by Hopper, Bassuk, & Olivet (2010) is "a strengths-based framework that is grounded in an understanding of and

responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment." (as cited in Trauma Informed Oregon).

Programs that utilize TIC have demonstrated better outcomes than treatment as usual programs. TIC has been related to better patient self-esteem, improved relationships, and increased safety. TIC has also been related to increased housing stability, and decreased use of crisis-based services (Hopper, Bassuk, & Olivet, 2010).

Mobile Crisis Services

Mobile crisis services are designed to de-escalate psychiatric emergencies in the community to prevent hospitalization or encounters with law enforcement. Crisis services include crisis hotlines, crisis intervention teams, mobile crisis teams, and crisis stabilization beds. Mobile crisis services are part of a continuum of crisis services.

Guo, Biegel, Johnsen, and Dyches (2001) found that mobile community-based crisis services reduced the rate of hospitalization. Treatment in the community resulted in an 8% decrease in hospitalization and 51% reduction in hospitalization after initial crisis compared to hospital-based intervention. In a comprehensive review of the different types of crisis services, The Substance Abuse and Mental Health Services Administration (SAMHSA) reports decreased use of emergency services, decreased feelings of isolation, reduction in psychological pain, and reduced suicidal ideation in those who use mobile crisis services (SAMHSA, 2014).

Wilder Research (2013) found that the return on investment for mental health crisis stabilization programs in Minnesota was $2.16 for every dollar invested (as cited in SAMHSA, 2014, p. 14). Scott (2000) found that mobile crisis services resulted in a 23% decrease in average cost per case compared to police intervention (as cited in SAMHSA, 2014, p. 14).

> The Oregon Performance Plan defines mobile crisis services as
>
> Mental health services for people in crisis, provided by mental health practitioners who respond to behavioral health crises onsite at the location in the community where the crisis arises and who provide a face-to-face therapeutic response. The goal of mobile crisis services is to help an individual resolve a psychotic crisis in the most integrated setting possible, and to avoid unnecessary hospitalization, inpatient psychiatric treatment, involuntary commitment, and arrest or incarceration (OHA, 2016a, p. 4).

There is a demand for crisis services in Oregon. In 2013 37,931 Oregonians with SPMI used a crisis hotline, and over 9,000 used mobile crisis teams and walk-in centers (Diehl, 2017).

Criminal Diversion/Sequential Intercept Model

Since the deinstitutionalization movement, the adult homeless and severely mentally ill population has increasingly interacted with law enforcement and is overrepresented in the jail system. Fifty-four percent of homeless persons have a prior history of arrest, and one study placed the average number of arrests for homeless individuals as high as 19 (Mayer & Reichert, 2018). These individuals are often arrested for petty crimes, such as loitering, lying or sleeping in a public place,

sleeping in a vehicle, or panhandling (Mayer & Reichert, 2018). Because of these statistics, several strategies for criminal diversion have been developed, the most prominent of which is the sequential intercept model (SIM).

The sequential intercept model was developed in the early 2000s by Mark Munetz, MD and Patricia Griffin, PhD (Policy Research Associates, 2017). According to Fuller, Sinclair, Geller, Quanbeck, & Snook (2016), it is "a conceptual model for preventing mentally ill individuals from becoming entangled further in the criminal justice system. The model includes practices such as mobile crisis teams and de-escalation training for law enforcement officers" (p. 4).

The Center for Mental Health Services GAINS Center outlines the five intercept points: Contact with law enforcement, initial detention and court hearing, mental health court and jail-based services after incarceration, reentry, and parole or probation (Mack, 2017). The Sequential Intercept Model is designed to create diversion programs to keep people with SPMI illness in the community instead of the criminal justice system. This is accomplished by educating law enforcement officers about de-escalation techniques and available diversion services, creation of alternatives to incarceration such as crisis services, provision of services in correctional facilities which are sufficient according to ADA and CRIPA, and reentry services which connect individuals with community services when they are released from corrections institutions (Mack, 2017).

The Conference of State Court Administrators also advocates for what they call "Intercept 0," which is intervention prior to contact with law enforcement. To do this, they call for "capacity-based" assessment of individuals instead of evaluation of

future conduct in considering court-ordered treatment (Mack, 2017). Currently, individuals must reach a point where they pose a threat to themselves or others before court-ordered treatment can be administered. An alternative criterion would be based on the individuals need for treatment, which would allow for earlier intervention.

The sequential intercept model incorporates many of the other evidence-based practices. Intercept 1 includes crisis services such as mobile crisis units, ACT, supported employment, and peer supports. It also calls for crisis intervention training, wraparound services, and outpatient commitments (Ramirez, 2015). Intercept 2 incorporates continued support services throughout the first court appearance. In addition, it includes training for judicial staff, supported housing, and case management (Ramirez, 2015). Intercept 3 includes diversion to specialty courts such as mental health courts and services throughout the incarceration process. Services include system navigators, early identification of inmates with mental illness, medication management, and expansion of .370 projects (Ramirez, 2015). Intercepts 4 and 5 consist of support services during reentry into the community and probation or parole.

A 2017 study by Gill and Murphy consisted of a five-year follow up after provision of jail diversion services, including case management, community-based mental health services, and supported housing referred by a prosecutor's office. Individuals in the program had lower recidivism, decreased number of arrests, and shorter sentences than those not referred to services. However, there is a need for further research on the effectiveness of the SIM.

The Oregon Performance Plan calls for the use of criminal diversion services and the SIM. The OPP defines "jail diversion services" as

> Community-based services that are designed to keep individuals with behavioral health issues out of the criminal justice system and, instead, supported by other community-based services, such as mental health services, substance abuse services, employment services, and housing. Jail diversion services are intended to minimize contact with law enforcement, avoid jail time, and/or reduce jail time. These services are intended to result in the reduction of the number of individuals with mental illness in the criminal justice system or Oregon State Hospital (OHA, 2016a, p. 3-4).

The Oregon Performance Plan calls for increasing the use of the Sequential Intercept Model, which it defines as

> The model which describes a series of junctures in the criminal justice system where interventions can be made to prevent an individual with mental illness from entering the criminal justice system or from becoming further involved in the system, by instead receiving appropriate community-based mental health interventions, to the benefit of the individual and the community (OHA, 2016a, p. 4).

Regulations as Barriers to Affordable Housing

In 1991, a federal Advisory Commission on Regulatory Barriers published a study titled *"Not In My Back Yard": Removing Barriers to Affordable Housing*. This report found that exclusionary, discriminatory, and unnecessary regulations create barriers to affordable housing, and it called for regulatory reform as an essential

component to local, state, and federal housing policies (HUD, 2005). The report listed several ways in which regulations increase housing costs, all of which ultimately do so by constraining the housing supply. These include restrictions on market rate and affordable housing options, such as higher density housing, multifamily rental housing, accessory units, and manufactured homes (HUD, 2005, p 3). They also include infrastructure costs, local building practices, bureaucratic inertia, and property taxes (HUD, 2005, p. 3)

In addition, a major social barrier to affordable housing development was identified. This was dubbed "not in my backyard" or "NIMBY" sentiment. Essentially, this is the resistance of local residents and policymakers to new affordable housing projects because they are concerned about changing neighborhood demographics, increased traffic and congestion, and drains on local resources (HUD, 2005. p. 3). The ultimate result of these forces is an increase in overall housing prices, forcing moderate income workers to commute farther and making it nearly impossible for many low-income individuals and families to access housing.

Several studies in the early 2000s confirmed the role of regulations in driving up housing costs. In 2003, Ben-Joseph documented an increase in the complexity of the regulatory system over the preceding two decades, naming this as the single greatest problem producing new housing units (as cited in HUD, 2005, p. 4). In 2004, Sundig and Swoboda found that regulations decreased housing supply and increased prices by as much as $40,000 (as cited in HUD, 2005, p. 4). A 2000 study in New Jersey found that excessive regulations could increase final home price by 35% (As cited in HUD, 2005, p. 4).

Other studies documented housing price increases resulting from specific policies, including strict zoning practices, slow permit approval processes, bans on manufactured homes and other lower-cost housing units, and growth control measures. In 2000, Phillips and Goodstein documented that the Urban Growth Boundary in Portland, Oregon has increased the median house prices in the greater Portland area (as cited in HUD, 2005, p. 4).

In response to these findings, HUD established America's Affordable Communities Initiative: Bringing Homes Within Reach Through Regulatory Reform. According to the initiative, affordable housing is accessible to low- to moderate-income families at no more than 30% of their income. Policies create barriers to affordable housing when they prohibit, discourage, or excessively increase the cost of new or rehabilitated affordable housing without sound compensating public benefits (HUD, 2005, p. 1).

Many of the regulations which are barriers to affordable housing have been put in place to protect the environment, ensure safe housing, or for other notable reasons. However, there are many regulations in place which are outdated, redundant, or overreaching (HUD, 2005). HUD names several such types of regulation in its report, including restrictive zoning, excessive impact fees, growth controls, inefficient and outdated building and rehabilitation codes, multifamily housing restrictions, and excessive subdivision controls (p. 5). Examples of local barriers to affordable housing were seen in the review of the housing markets in Portland, Bend, and rural Oregon.

Andrews et al (2015) outlined some of the barriers that developers face in Oregon. Public and private housing projects serve different purposes and therefore have

different funding structures. Because affordable housing projects necessarily come with rent caps and limits on rent increases, they cannot typically be paid for without government subsidies. In Oregon, one of the primary subsidies is the Low Income Housing Tax Credit (LIHTC).

Developers who wish to use the LIHTC to build affordable housing must proceed through a cumbersome and costly application process. Applications can cost up to $40,000 (Andrews et al, 2015, p. 13). Furthermore, developers are pressured to add superfluous features to proposed projects to gain extra points on the Oregon Housing and Community Services scoring system, as acceptance or rejection often comes down to one or two points (Andrews et al, 2015, p. 13).

Other common hoops that developers must jump through are multiple review processes, prevailing wage requirements, workforce training requirements, sustainability/green feature requirements, urban renewal expectations, and other amenity requirements (Andrews et al, 2015, p. 14-15).

These types of problems are what drove Justus and Murphy to independently build the Snowberry apartments in Portland. Speaking of the multitude of requirements for affordable housing projects, another local developer, Eli Spevak, told the *Portland Tribune*, “Unfortunately, we have this presumption that it’s inhumane to let people live in housing that’s below some standard. It’s more inhumane to let the standard be so high that many people have no housing at all.” (Korn, 2014).

Literature Review in Summary

Oregon has a large population of adults who are homeless and severely mentally ill. These individuals increasingly seek treatment in emergency departments and are moved into jails and prisons as their mental health issues are not properly addressed in the community. The Oregon Performance Plan is the current guiding document for mental health service development in the state. The OPP inspired the Behavioral Health Collaborative, an investigation into emergency department boarding, and the developing Statewide Housing Plan. The OPP sets targets to move service provision out of institutions and into the community by implementing evidence-based practices, but the state has struggled to meet the targets laid out in the OPP since its publication. Oregon's mental health system remains fragmented and crisis-based. These problems are further exacerbated by a lack of prioritization of the social determinants of health, especially housing within the mental health system. Even where housing resources are offered, there are often very few units available because the housing supply in Oregon is not keeping up with demand. This housing crisis is most acutely felt by those with low incomes, disabilities, and people of color, all of whom are overrepresented in the adult homeless and severely mentally ill population. There are solutions to these problems. There are evidence-based community mental health practices which could be implemented in Oregon to reduce the incidence of psychiatric crisis, and there are recommendations for minimum numbers of per capita inpatient psychiatric beds to serve those who do require hospitalization. Local and state policies can be adjusted to allow expansion of the housing supply, and the state government is already beginning to consider housing as

a vital precursor to mental health. These solutions will be explored more thoroughly in the section on policy recommendations.

Discussion of Research Questions

The following research questions were selected to highlight some of the most pertinent issues facing Oregon's mental health care system.

1. How do adult (18-65) homeless and severely mentally ill individuals fare in Oregon's current mental health system?
2. What housing resources are available to adult (18-65) homeless and severely mentally ill persons in Oregon?
3. Is the adult (18-65) homeless and severely mentally ill population being criminalized in Oregon?

Discussion of Research Questions

1. **How do adult (18-65) homeless and severely mentally ill individuals fare in Oregon's current mental health system?**

Jason Renaud, founder of the Mental Health Association of Portland, provided a good summary of the situation when stated that, "The mental health system in Oregon is a public health disaster" (Diehl, 2018). Oregon's mental health care system is currently crisis-based, and the goal of community treatment has not been achieved.

The USDOJ investigation which resulted in the Oregon Performance Plan found that 74% of Oregon's spending on SPMI went toward "restrictive, institution-based settings," including the state hospital and intensive inpatient treatment centers. (Diehl, 2018). Much of the behavioral health budget is put toward OSH and treatment in corrections institutions, although the latter is not named in Oregon Health Authority's budget. The 2017-2019 Governor's Budget dedicates 20% of OHA's General Fund budget to OSH (MacDonald, 2017).

Treatment in OSH and jails is expensive. In 2013, a year of treatment in OSH cost an average of $344,925 for a patient in the 370 population (Diehl, 2018). This is far more expensive than the costliest community-based alternative. After Medicaid reimbursement, ACT costs an average of $5,634 per patient (Diehl, 2018). Oregon's crisis-based system is ineffective from a medical standpoint and inefficient from a fiscal standpoint.

Individuals who have mild mental illness and maintain a high enough level of functioning to consistently attend appointments and independently access resources can receive treatment and maintain community living. However, for those whose

mental health deteriorates the situation is grimmer. Once individuals' mental health deteriorates to the point that they are missing appointments and failing to fulfill other responsibilities there is little support available until they reach a crisis point. This impacts housing status in two ways. If these individuals are housed, they are likely to lose their residence by failing to pay bills or maintain the space appropriately. In addition, they are more likely to struggle to regain housing if they become homeless. According to Dworkin (2010), "The mental health care system in Oregon lives largely in two silos, one for patients stable enough to keep counseling appointments and take drugs as prescribed, the other a web of courts, hospitals and jails for people in crisis."

While the state government continues to struggle to create a coherent behavioral health system, the mentally ill in the state suffer. Amidst the turmoil described above, Oregon was declared to have the second highest prevalence of mental illness out of the states and was ranked 21st in the nation for access to mental health care services by Mental Health America (Mental Health America, 2017). In 2015, 40% of Oregonians rated their mental health as "not good." In 2016, 771 Oregonians committed suicide, a phenomenon which has been trending upward (Diehl, 2018). According to the initial Behavioral Health Collaborative Report, only about half of the adults who needed mental health care received it in 2016, and only half of those who were treated said that the treatment helped (OHA, 2017a, p. 5).

During the spring of 2018, the think tank State of Reform interviewed Oregon Health Authority's new director, Patrick Allen, and inquired about the state of

behavioral health services in Oregon. Allen described a complex and opaque system, from the viewpoint of administrators and recipients.

To comply with requirements laid out in the Oregon Performance Plan, in 2016 Oregon Health Authority reorganized its behavioral health system, integrating the former Addictions and Mental Health Division into the Health Systems Division, Public Policy Division, and Public Health Division. As a result, behavioral health dollars became nearly impossible to track in the $14.54 billion-dollar OHA budget (High, 2018). Director Allen expressed intentions to tease out the behavioral health dollars and create accountability, but currently behavioral health funding lacks clear structure.

In June 2017, the Behavioral Health Collaborative issued the Behavioral Health Collaborative Implementation Update on the progress of the workgroups. Initially the BHC created four workgroups. The update called for the creation of three additional workgroups, hired a consultant to produce more reports, created a survey about implementation, and advised some terminology changes (M. High, 2018). Only one workgroup produced policy recommendations.

Prior to this confusion in 2013, Oregon was ranked 11th out of the states for per capita spending on mental health services at $183, well above the national average of $119 (Diehl, 2018). Yet, a recurring theme across government documents from all agencies is that there is a lack of resources. The state suffers more from poor allocation of resources than an overall lack thereof.

A DYSFUNCTIONAL SYSTEM

Plagued by a combination of inefficient spending, fragmentation in service delivery, and bureaucratic inertia, Oregon's mental health system is not aligning with the intentions stated in the Oregon Performance Plan and is not adequately caring for those in need. The state's housing crisis is exacerbating the problem by making one of the most essential social determinants of health inaccessible to many of the state's most vulnerable residents.

M. High (2018) puts it this way: "Despite attempts at integration, behavioral health in Oregon looks much the same as mental health treatment systems of the past, fragmented, fractured, and at many times bewildering to the patients and families that need the system's help the most."

2. **What housing services are available to adult (18-65) homeless and severely mentally ill persons in Oregon?**

The federal government provides some housing assistance to Oregonians. The federal government primarily provides assistance through financial assistance to public housing, Housing Choice Vouchers (Section 8), project-based rental assistance, and the Low Income Housing Tax Credit (LIHTC) (Diller & Sullivan, 2018).

Oregon has 22 public housing authorities (PHAs) which represent mostly counties, with some small counties combined. Oregon's public housing authorities provided 4,487 units as of 2017; this means that Oregon has 1.25% of the nation's population but 0.4% of the total public housing units (Diller & Sullivan, 2018). The federal government provides the Housing Choice Voucher (HCV) program, or Section 8. This provides a voucher for low-income, disabled, or elderly persons to live in private housing. This accounts for 41,568 units in Oregon, and Oregon uses 2% of the nations' HCV inventory (Diller & Sullivan, 2018). Thus, Oregon favors HCV over public housing.

While the HCV gives individuals more control over where they live, their housing choices can be limited by high rental prices, as their voucher amount is limited. Individuals also potentially face difficulty finding eligible properties and discrimination, although discrimination was outlawed in 2014 (Diller & Sullivan, 2018). Like all other forms of housing, public housing and Section 8 eligible properties are in short supply. Most PHAs have long waitlists. Home Forward,

Portland's PHA, last opened in 2016 for the first time since 2012 (Diller & Sullivan, 2018).

Another form of federally subsidized housing is the project-based voucher (PBV). These are attached to a specific unit where the owner agrees to rent to low-income individuals. In Oregon, there are about 2,500 PBVs, 2,100 of which are in the Portland area (Sullivan & Diller, 2018). HUD directly administers project based rental assistance, accounting for 9,708 housing units in Oregon (Sullivan & Diller, 2018).

About 27% of Oregon's households claim the mortgage interest tax deduction, resulting in an average of $2,000 to each household (Diller & Sullivan). Many of these households are not low-income. The Low-Income Housing Tax Credit (LIHTC) allows investors in qualified rental properties to reduce their federal income taxes for ten years by somewhere between 4% and 9% (Diller & Sullivan, 2018). LIHTC projects require that housing is guaranteed to be affordable. Initially the program required 15 years of affordability, although Oregon now requires a minimum of 60 years (Diller & Sullivan, 2018). The LIHTC helps fund about twice as many units as public housing.

In total, about 3% of Oregon's households receive federal assistance (Diller & Sullivan, 2018). About 153,000 low-income households in Oregon pay over half of their income for housing without assistance, and about 56,000 in that income range receive assistance (Prasch, 2017).

The state has developed a database of affordable housing units called the Affordable Housing Inventory available through the Department of Health and

Human Services. It is available at https://data.oregon.gov/Health-Human-Services/Affordable-Housing-Inventory/bq26-qyg4/data. According to the inventory, Oregon has a total of 65,780 affordable units. Of that total, 2,084 are designated for individuals with alcohol and drug addiction, 228 are for individuals who have been released from a corrections institution, and 2,229 are for homeless individuals (data set available at https://www.oregon.gov/ohcs/Pages/research-data-resources.aspx). There are also private and nonprofit shelters, although these are sparse in rural areas. For perspective, recall that the 2017 PIT report counted 13,953 homeless individuals in the state, with at least 2,506 who are homeless and unsheltered and 1,406 who are homeless with SPMI (Bolton, 2017).

3. Is adult (18-65) homeless and severely mentally ill population being criminalized in Oregon?

"I was sickened to read that my brother was seen wiping feces on a toilet and later licking that same toilet and nobody did anything but take notes." This statement was made by Richard Thomas regarding his 23-year-old brother, Bradley, who passed away in the Lincoln County Jail because staff had failed to recognize that he was in a medical crisis (Bernstein, 2016). Bradley had a history of mental illness, and after being jailed for a petty crime (suspicion of menacing and harassment), his mental health deteriorated and he eventually passed away. Thomas's family was granted a $2.85 million settlement from Lincoln County in October 2017 after an autopsy showed that Thomas died of dehydration after jail staff failed to address his mental and physical problems (Kavanaugh, 2017). This tragic story highlights some of the problems with housing severely mentally ill individuals in jails-the environment causes their condition to worsen, and staff are not equipped to deal with these crises.

In Oregon, more individuals are treated for mental illness in jails than in hospitals (Diehl, 2018). Encounters with law enforcement and the criminal justice system can be wasteful at best and deadly at worst. In 2010 Jack Collins was shot and killed by a police officer in Portland (Jung, 2010). A homeless man with a history of alcohol abuse, eleven days before the shooting he had been at the Portland Police Bureau's Central Precinct to deliver a spotty confession of a 42-year-old crime. While he was there, he had asked for mental health care (Jung, 2010). He was referred to Cascadia Behavioral Health, but because there is not a protocol for continuity of care or follow up the Precinct did not know if he ever received services (Jung, 2010).

A DYSFUNCTIONAL SYSTEM

Since 2003, most individuals killed by police have suffered from mental health problems (Diehl, 2018).

Criminalization of homelessness and disability has a long history. Oregon's discriminatory laws date back to the poor laws of Fourteenth Century England (Marek, 2017). The poor, disabled, and unhoused were viewed as untrustworthy and criminal. Oregon had vagrancy laws early in its history which criminalized unemployment and lack of productivity (Marek, 2017). Eventually most vagrancy laws were deemed unconstitutional, but similar laws have been passed under different names. Across the state, homeless people face bans on sleeping in public areas, begging, and camping in public.

The American Civil Liberties Union (ACLU) studied county and municipal codes in 75 of Oregon's most populous cities and the 27 counties in which they are located. They found 224 laws which criminalize homelessness by limiting standing, sitting, and sleeping in public places; camping or lodging in public places; begging, panhandling, or soliciting; and loitering (Marek, 2017, p. 12). Four-fifths of the cities had some restriction on sleeping or camping, with a total of 125 anti-sleeping laws (p. 13).

Most mentally ill individuals who end up in corrections institutions are brought in for petty crimes such as the ones identified by the American Civil Liberties Union (Torrey et al., 2014). ORS 166.025, which outlaws disorderly conduct, is a common citation for mentally ill homeless individuals who exhibit bizarre behaviors because of their illness (Marek, 2017).

Laws that criminalize homelessness fail to address the issues that lead to these behaviors and result in steps which exacerbate poverty and mental illness. Individuals who enter the criminal justice system face fines and bail charges which they often cannot pay. These problems are compounded as the individual advances through the system because having a criminal record makes it harder to acquire housing and employment after they leave the system. As was noted in the previous section, the state database lists only 228 housing units for those with a criminal history compared to over 2,000 for those with mental illness or the homeless; this alludes to the heightened stigma that accompanies a criminal history. Furthermore, conditions in jails and prisons exacerbate mental illness (Torrey et al, 2014).

As was noted in the 2005 film *New Asylums*, jails are designed to house criminals to protect the community, not to treat mental illness. Yet, as of that year, 500,000 mentally ill Americans were living in prison as opposed to 50,000 living in mental hospitals (Navasky, 2005). Correctional facilities are designed to be places of punishment and discipline. They are not rehabilitation or treatment facilities. If there were an opposite to trauma informed care, it would be treatment of mental illness in a correctional institution. Individuals with mental illness in correctional institutions are more commonly subjected to a variety of traumas, including self-harm and suicide attempts, disciplinary infractions, victimization by other inmates, and use of force by staff (Harney, Johnson, Lacey, & Romano, p. 3).

A particularly harmful practice in correctional institutions is the use of solitary confinement. In 2015, Disability Rights Oregon released a scathing report on the poor conditions in the Behavioral Health Unit of the State Penitentiary (Foden-Vencil,

2018). In 2016, Disability Rights Oregon and the Oregon Department of Corrections signed a memorandum. The Oregon Department of Corrections promised to increase staffing, access to psychiatric care, and time out of cell (Foden-Vencil, 2018). However, the department failed to deliver on its promises, resulting in a 2018 report from Disability Rights Oregon documenting the broken agreement.

By the end of 2017, inmates were spending an average of 23 hours per day in their cells, with three-fourths spending more than an hour per day outside of their cell (Greenberg, 2018). Solitary confinement is known to exacerbate mental illness and even induce psychosis in inmates with no prior history of mental illness (Torrey et al, 2014).

The National Law Center on Homelessness & Poverty points out flaws in the methodologies used in HUD's annual Point-In-Time count. Particularly, they criticize the definition of homelessness, which excludes those who are "doubled up," or living with relatives, and those who are institutionalized in hospitals or jails. In Houston, Texas an expanded count is carried out each year, which includes those in jail who were deemed homeless at arrest, and this count expanded their total homeless population by 57% in 2017 (Stanley, 2017, p 6). Laws which force homeless individuals out of visible areas further contribute to the undercount of the homeless population.

The adult homeless and severely mentally ill population has effectively been criminalized in Oregon. This is harmful to individuals in this population and costly for the state taxpayers.

Policy Recommendations

Looking to the future, Oregon's leaders need to address the deficiencies in the mental health system and make housing a priority in the process of recovery for those who are homeless and severely mentally ill. There are several criteria upon which policy concepts can be evaluated. Policies should be adopted which acknowledge the importance of social determinants of health, especially safe and stable housing; recognize the dignity and autonomy of individuals regardless or mental state or housing status; are based on the idea of empowerment and self-governance to the highest degree possible; are evidence-based and likely to be effective for improving mental health and increasing achievement of stable housing; and which are cost-effective. Policymakers should strive for laws which result in the triple aim-better population health, better patient care, and reduced per capita cost, recognizing that for some services high up-front costs eventually result in a favorable return on investment.

Another important consideration is public perception. Policies must challenge stigma and viewpoints which are not supported by evidence while remaining palatable enough to be approved. Any changes will require strong leadership, persistent advocacy from stakeholders, and momentum to overcome bureaucratic inertia.

A housing first approach should be coupled with health care systems innovation. While discussions about how to increase affordable housing tend to be politically polarizing, publicly funded housing projects and private development both have a place in expanding the housing capacity of the state. Publicly funded housing

is more expensive than private projects, but public units can lead the way in implementing evidence-based practices such as the housing first and harm reduction models and integrated healthcare and social services. The health care system should continue to move toward integrated care and coordinated care delivery. The homeless and severely mentally ill population should be targeted with expanded preventative and outpatient services. In addition, the state should increase its inpatient bed capacity to an appropriate minimum.

Another critical component of affordable housing is the economy. While a full economic analysis is beyond the scope of this paper, it is worth noting that in the last few years Oregon's average income levels have increased and are currently very close to the national average (Lehner, 2017).

Policy recommendations based on the information in this analysis are presented below, in order of importance.

- Take a housing first approach to ending homelessness for adults with severe mental illness.

Oregon should emphasize stable and safe housing with integrated healthcare services for homeless adults with SPMI. This has been done successfully in other states, most notably in Utah. The housing first approach makes housing the foundation for recovery from mental illness for those who are most vulnerable, namely those who are homeless and who have severe mental illness. This makes it the most vital and targeted policy change for the target population in this analysis. Furthermore, the housing first approach is based on respect for persons and autonomy, as individuals choose to engage in services as they are ready. Over the

long term, housing first produces better outcomes than its alternatives and is cost-effective. While up-front costs are high, housing first is cheaper than crisis-based treatment in EDs and jails. Oregon Housing and Community Services is already working with Oregon Health Authority to develop "CCO 2.0," which will integrate housing services with healthcare services, so the foundation for a housing first approach is being laid (Brown & LaBar, 2018, p. 20).

- Increase investment in evidence-based community mental health services.

There is strong support in the literature for the housing first approach, permanent supportive housing, supported employment, assertive community treatment, and the sequential intercept model. Most of these services have been demonstrated to achieve the triple aim. These methods are based on the idea that homeless and severely mentally ill individuals can be successful in the community when provided with adequate support. Simultaneously, they provide an opportunity for the state to make savvy investments in mental health services which are more efficient than its current crisis-based system. Many of these are called for in the Oregon Performance Plan, but the state legislature will need to shift funds toward these community services and away from crisis-based services to fully realize their benefits.

- Implement trauma-informed care at all service delivery points.

All services should be delivered based on the principles of trauma-informed care. TIC recognizes the experiences of individuals and how they can potentially shape their behaviors. Trauma-informed service delivery encourages individuals to initiate and continue to engage in services. This is especially important for individuals

who are homeless and severely mentally ill. Severe mental illness can cause suspicious and distrustful behavior, and individuals in this population have often experienced multiple traumas in addition to being homeless and possibly incarcerated at some point. Thus, implementing TIC is a vital strategy for engaging a difficult-to-reach population.

- Create a psychiatric bed registry.

The state should create a registry for psychiatric beds. This should be a dynamic electronic service which is available to ED staff, law enforcement, and ACT teams or others delivering services in the community. This would allow individuals to receive care faster and would save resources by preventing transportation of patients over long distances to facilities which may or may not have a bed available.

It would also allow for tracking of service utilization and identification of "frequent fliers," or those who are most vulnerable and therefore good candidates for the housing first program. In Lane County, local partners are collaborating to address how to manage frequent users of public safety, emergency, and mental health resources to ultimately break the cycle of homelessness through a project called Frequent User System Engagement (FUSE). By identifying and focusing housing resources toward the highest users of the county jail and local emergency departments, the County has seen significant reduction in use of the jail, police contacts, and emergency services. (Brown & LaBar, 2018, p. 10).

The bed registry would be an adjunct to the other policies proposed here. It would be an important data tracking tool, allowing for better evaluation of policies. By

carefully analyzing outcomes of implemented policies, the state could move toward an effective and evidence-based system.

Virginia and Maryland have developed statewide dashboards to allow ED staff to see all available psych beds (Yoon, 2016, p. 24). The bed registry could be modeled after these dashboards.

- Expand Oregon State Hospital bed capacity.

This is likely to be one of the most controversial recommendations in this analysis. The Oregon Performance Plan places strict targets for moving patients out of the OSH quickly, but the state is facing an overload of 370 and civil commitment patients compared to its inpatient bed capacity which is exacerbating the efforts of the Unity Center and other innovative pilot projects.

While it is important to emphasize community treatment to comply with the ADA, it is equally important to provide inpatient services when needed. According to Fuller et al (2016), the minimum per capita number of psychiatric beds recommended in literature ranges from 40-60 per 100,000 people (p. 3). Oregon currently has 16.2 beds per 100,000 people, well below the recommended amount (Fuller et al, 2016, p. 3).

Yoon et al (2016) found that a 1% increase in inpatient mental health system capacity could lead to a 7% decrease in probability of psychiatric ED visits (p. 67). Thus, this would be a high-yield policy change and would achieve several of the goals mentioned in this analysis, namely a movement toward evidence-based practice and away from crisis-based services. Treatment in an inpatient setting, while not a permanent option, can provide the solace and close attention required to reenter

community life. The state should expand its inpatient psychiatric bed capacity and renegotiate its targets to achieve goals that are based on patient needs rather than arbitrary benchmarks.

- Discourage laws/ordinances that criminalize mental illness.

Restrictions on homeless persons in public places do nothing to address the root causes of homelessness or mental illness. These laws are the product of frustration from community members who perceive individuals in this population as possible threats to public health, public safety, and the value of their communities. Much of these ideas are based on stigma, although there are legitimate problems with people occupying public spaces. There are issues with human waste, garbage accumulation, drug paraphernalia, and disruptive behaviors from those with mental illness. Nonetheless, policies should be aimed at helping these individuals access stable housing, then treatment for mental illness and substance abuse problems when necessary. If such strategies are successfully implemented, laws which criminalized homelessness and mental illness will no longer seem necessary.

- Encourage innovations in healthcare delivery and healthcare technology.

Innovations in healthcare technology offer opportunities for expanding access. Telemedicine allows patients to access virtual sessions with providers (Diehl, 2018), and Oregonians have positive attitudes toward the use of telemedicine (OHA, 2018). Telemedicine could be especially useful in rural areas, where mental health practitioners are less accessible. The Burke Mental Health Emergency Center in Texas provides onsite care by counselors and nurses and is supervised by psychiatrists via telemedicine. This has led to 32% decrease in inpatient psychiatric

hospital beds in participating counties (Yoon, 2016, p. 23.). Because much of Oregon is rural and most psychiatric practitioners are concentrated in its urban areas, telemedicine could be a useful tool for coping with the mental health care provider shortage.

Another strategy for improving access is inclusion of pharmacists in screening for mental illness and suicidal ideation. In 2015, the "Free the Pill" bill was proposed by Representative Knute Buehler in the Oregon Legislature (OLIS). The first of its kind, the bill authorized pharmacists to administer a questionnaire and provide access to self-administered birth control to women 18 and over and under 18 if they had a prior prescription for birth control. This was unique in bringing pharmacists into a more active role of managing a component of women's health care and authorizing prescription medication. To implement this law, HB 2879 was drafted to address legislative and regulatory language, accreditation changes were made in pharmacist education to provide certification for this service, and reimbursement was arranged in conjunction with the new accreditation (Akbarali & Clark, 2017).

Since HB 2879 passed, pharmacist privileges have been expanded to include inhalers and medications for diabetic patients (Akbarali & Clark, 2017). This opens the door to increased pharmacist participation in screening and treating mental illness. It has been demonstrated that pharmacists can effectively administer screening tools such as the Patient Health Questionnaire (PHQ) and provide triage intervention in referring patients to appropriate care (Rubio-Valera et al, 2014). Because Oregon's suicide rate has increased, it could be helpful to have another potential point for screening and intervention. Additionally, this is another way to cope with the mental

health care provider shortage. Pharmacists could play a consulting role in managing medications, especially for patients with a complex psychiatric history who often have comorbidities and require polypharmacy.

- Enforce mental health care parity.

The 2008 Mental Health Parity and Addiction Equity Act (MHPAEA) prohibits differences between mental/behavioral health benefits and medical/surgical benefits, and the Affordable Care Act (ACA) mandates coverage rather than just requiring parity when coverage is provided. Despite these federal protections, there are many inconsistencies in coverage, especially for community-based treatments. This is because, relative to health insurance protocols, community treatment is a new paradigm of care; thus, insurance protocols are not written to consider community-based services. Service availability also greatly varies by type of insurance. The state should prioritize enforcement of these existing policies to ensure coverage of community-based services.

- Advocate for removal of the IMD exclusion.

In conjunction with expanding Oregon State Hospital capacity, the state should advocate for the repeal of section 1905 (a)(B) of the Social Security Act, or the IMD exclusion. This exclusion reduces critical funding for inpatient services.

- Eliminate Certificate of Need law.

Oregon should eliminate ORS 442.315. This law creates an unnecessary barrier to the development of new healthcare facilities. As was demonstrated in the discussion of NEWCO's proposed facility and the Unity Center, there is a high demand for mental health care services. Many of the state's citizens are stuck in a

cycle of intermittent crisis. The CN law only slows the development of badly needed facilities.

- Modify the definition of homelessness for the point-in-time count.

To fully understand the extent of homelessness in the state, the state should conduct an expanded count like Houston, Texas. This expanded count should include persons who were homeless upon arrest. This would also allow the criminalization of homelessness and mental illness to be better quantified.

- Remove regulatory barriers to construction/renovation of affordable housing.

Much as HUD has created an initiative to decrease regulatory barriers to affordable housing, the state can take a leading role and can provide recommendations on how to reduce regulatory barriers. County and municipal governments will need to review regulations to remove redundant requirements and eliminate unnecessary barriers. HUD provides a Regulatory Barriers Clearinghouse to assist states in streamlining their regulations (available at https://www.huduser.gov/portal/rbc/home.html).

This recommendation is less specific to the adult homeless and severely mentally ill population, as most of these individuals could not successfully maintain housing right away without support. However, to take a housing first approach the state will need to provide housing units to these individuals. To make this option more realistic financially, it would be logical for the state to remove regulations which drive up the cost of housing and slow housing development. In the long run, making housing more affordable will prevent many Oregonians from experiencing the threat of homelessness.

The Oregon Business Plan has set a goal of building 30,000 new housing units this year. This number is based on the recommendations of the Office of Economic Analysis which found a need for 24,000 units plus additional units to make up for the current deficit (Riley, 2018). This is an excellent start but reaching that goal will require a reevaluation of current regulations.

Conclusions

In Oregon, many adults who are homeless also suffer from severe mental illness. There are few community resources available to these individuals, which makes it very difficult for them to escape their situation. As a result, their mental health often deteriorates. This leads to visits to the emergency department or encounters with law enforcement. Many of these individuals are filling the available state psychiatric beds as civil commitment patients, cycling in and out of the emergency departments of local hospitals, or living in jails or prisons where their needs are not appropriately addressed.

Better strategies exist. Most importantly, the state government should change its paradigm of care away from these crisis-based services in favor of the housing-first approach. A body of evidence has demonstrated the importance of addressing the social determinants of health. After providing secure and stable housing as a foundation of recovery, these individuals can be voluntarily engaged in mental health care services as tolerated. Other evidence-based practices can be used in conjunction to allow individuals with a history of homelessness and severe mental illness opportunities to work and be diverted away from the criminal justice system. By implementing preventative and evidence-based practices, the state will achieve more effective, more ethical, and more cost-effective care of some of its most vulnerable citizens.

Looking forward, each of the changes proposed here will need a thorough economic analysis before being passed into law. However, prior studies in other states suggest that the methods proposed here will result in long-term savings. After passage

of new policies, the state should carefully track data to assess the efficacy of these practices. Policies should be evaluated on objective measures over the long-term including mental health outcomes, acquisition and retention of housing, employment, incarceration, ED encounters, Oregon State Hospital episodes, utilization of community services such as assertive community treatment or mobile crisis services, and cost of services. In addition, recipients of state services should be asked about their subjective experiences and satisfaction.

The current state of the adult (18-65) homeless and severely mentally ill population is grim, but there is hope for a better system. With intentional and persistent leadership and strong advocacy from stakeholders, the system can be revised and the state's vulnerable citizens can finally be treated as "brethren," acknowledged as dignified human beings and provided opportunities to recover and be supported in an integrated community life.

Personal Statement

My academic background is in the biological sciences, and one of my future goals is to become a physician. Throughout my studies, I have made a point to learn about the humanities, because people are more than just cells and systems of cells; they create their own social systems and modify the world around them. This is why I believe the social determinants of health are so important and should be emphasized in health care and public policy. I enjoy problem solving. For me, the process of identifying a dysfunction and finding a solution is the unifying attraction of medicine and policy.

The issues explored here have a personal connection for me. I have seen individuals I know struggle with mental illness and homelessness and have witnessed firsthand the issues within Oregon's mental health system. This is what initially drew me toward research on the subject. After taking a few classes on mental health, poverty, and social policy at Oregon State University, I decided to write this analysis.

This project has been eye-opening. I have found that the issues surrounding homelessness and mental illness are highly nuanced and tend to inspire strong opinions. While many people have not directly interacted with the homeless and severely mentally ill population, nearly every person has an opinion about it.

I had the opportunity to gain some firsthand experiences while I conducted my research, including volunteering at a local shelter, working as an intern in a state legislative office, and working at a primary care clinic. The issues covered in this analysis were apparent in all these settings. It was instructive for me to consult with individuals within my population of interest, people working directly with this

population in shelters and other access points, policymakers, individuals within state agencies, educators, health care providers, and individuals working in the corrections department to fully appreciate the many perspectives which impact formulation of policies.

I understand frustrations of health providers who work under strict regulations and time constraints and struggle to help individuals who are often noncompliant, inconsistent with keeping appointments, and whose insurance often provides poor reimbursement, when they have insurance at all. I understand that most police officers and corrections officers do their best to limit use of force and incarceration, but frequently lack adequate training in de-escalation techniques for this population or diversion resources besides jail. I understand the concerns of business owners who wish to maintain a positive public image and fear that a large homeless presence will detract from profits. While this is stigmatizing to the homeless, local business owners have a lot to lose if customers are deterred. I understand the difficult environment in which policymakers work, as they try propose and vote for beneficial bills without angering their voting base or losing their bill in an endless chain of committee referrals. I also understand the world in which the homeless and severely mentally ill population lives, where their primary concerns are shelter and food, not appointment times, rules about sleeping in public, or elections. My hope is that policies will be passed based on data to improve the state of this population, but that policymakers and voters will make decisions keeping in mind the individual human lives which will be impacted.

When I first began researching this topic I didn't expect housing to come to the forefront, but the more I learned the clearer it became that housing is the common denominator of all the issues-mental health, homelessness, and criminalization. In my problem-solving process, I identified housing as the piece of the machine which was most fundamentally flawed. While the mental health system needs change, it cannot work optimally without also addressing the housing shortage. Stable and affordable housing is the foundation upon which other policies to address homelessness and severe mental illness should be built. People need their basic needs met before they can move forward.

I hope to pursue the recommendations I have made and would love to see them become realities in Oregon. Moving forward, I hope to serve the population I have studied in the medical field and as an advocate for positive policy change.

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