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Socioeconomic and Geographical Inequalities in Mental Health

Combining Social and Health Sector Perspectives

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During my summer 2009 experience as a medical clinic intern at Fan Free Clinic (FFC) in Richmond, VA, I witnessed the importance of mental health to patients' overall wellbeing on a daily basis. In addition to interacting with the low-income, uninsured clinic patients through a variety of clinic responsibilities, my primary project for the summer was to evaluate and offer suggestions for improvement of the clinic's pro – bono mental health services program. This project further acquainted me with many of the challenges that low income individuals face both in maintaining their mental health and in accessing mental healthcare services. As part of my project research, I learned about the US mental healthcare system, the traditional routes by which low-income patients receive care, and the severe stigma often associated with mental illness. In addition, I travelled to other agencies in both Richmond and Roanoke, VA that offer formal mental health services for low-income patients. Through personal observations and discussion with both practitioners and administrators, I developed an informed perspective on many of the issues that exist at the intersection of poverty and mental health. At the conclusion of the summer, I provided a report summarizing my brief, summer-long foray into mental health and concluded the document with a suggested framework for improving and expanding the FFC pro-bono mental health program. The ideas in this paper are mainly the product of intensive research into the relationship between mental health and poverty; however, my personal field-work experiences at both FFC and subsequently Rockbridge Area Free Clinic (RAFC) originally motivated and continue to inform this writing.

The Importance of Mental Health for Low-Income American Adults

Mental illness and poverty are intimately intertwined, with causality running in both directions between these two phenomena. This linkage becomes especially apparent when observing the typical case of a free clinic patient suffering from mental illness. For instance, a

fictitious but representative patient, John, was recently fired from his minimum wage job as a factory employee for erratic behavior and substandard work performance stemming from his chronic depression. John's high stress, paycheck-to-paycheck lifestyle prior to his firing coupled with his monotonous, low-paying job is representative of the situations faced by many low-income Americans. Such conditions form a breeding ground for mental illness that increases susceptibility to such diseases as depression or substance abuse. The debilitating effects of John's mental illness prevented him not only from maintaining his employment but also from finding new work to support his family. The stress and lack of income that resulted exacerbated John's depression, making him even less able to work or afford treatment for his mental illness. The illness eventually became so severe that John struggled to carry out his day-to-day life or enjoy spending time with his family. In short, mental illness consumed John's life; however, as an impoverished minimum-wage worker, John lacked the financial means to buffer against or escape this vicious cycle created by the interplay between mental illness and poverty. John ultimately received assistance to overcome his poor mental health by first confronting his mental illness and subsequently obtaining access to regular medication management and psychotherapy with a volunteer psychiatrist at the local free clinic. Unfortunately, John represents the lucky minority of individuals who are able to both attain access to affordable mental health treatment and overcome the social stigmas associated with receiving mental healthcare. Mental health is arguably either equally or perhaps even more important than physical health for low-income adults between 18 to 65 years of age; yet, mental health rarely receives the focus and consideration it warrants.

Physical health issues such as cardiovascular disease and cancer currently dominate the attention of both the medical research community and health outreach efforts. However,

neuropsychiatric disorders actually account for a greater share of the total US disability burden, measured in disability-adjusted life years (DALYs), than all cardiovascular diseases and cancers combined.[1] More specifically, unipolar depression is the leading individual contributor to the total disability burden not only out of all neuropsychiatric disorders but also out of all individual diseases across all categories. Depression alone accounts for 10.3 percent of the total number of years lost to illness, disability, or premature death within the US population. The National Institute of Mental Health (NIMH), using data from the 2001-03 National Comorbidity Survey Replication (NCS-R), reports that 26.2% of US adults suffer from a mental illness over any one year period.[2] Of these individuals suffering from mental illness, approximately 45% suffer from two or more mental illnesses concurrently. Lifetime prevalence values in the US adult population are 20.8% for mood disorders such as depression and 28.8% for anxiety disorders, including post-traumatic stress disorder and certain phobias. It should also be noted that women are at a much higher risk of developing a mood or anxiety disorder in comparison to men.[3]

The higher incidence of mental illness among impoverished persons in comparison to that seen among wealthier populations is well documented. Individuals in the lowest strata of socioeconomic status (SES) are two to three times more likely to suffer from a mental disorder than those in the highest SES bracket. Additionally, lower SES persons are more likely to have higher levels of psychological distress.[4] More specifically, "socioeconomic status is inversely related to both major depression and depression symptoms."[5] Research conducted in the early

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[1] "NIMH Statistics," National Institute of Mental Health, last modified July 29, 2010, accessed March 7, 2011, http://www.nimh. nih.gov/statistics/index.shtml.
[2] Ibid.
[3] Ibid.
[4] U.S. Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity—A Supplement to Mental Health: A Report of the Surgeon General* (Rockville, MD: U.S. Department of Health and Human Services, 2001), 39.
[5] Nancy E. Adler et al., "Socioeconomic Status and Health: The Challenge of the Gradient," *American Psychologist* 49 (Jan 1994): 19.

1980's through the Epidemiologic Catchment Area Study (ECA) survey reveals a, "consistent inverse relationship between socioeconomic position and psychiatric disorders."[6] When health status is measured by fifths of income, the prevalence of depressive or anxiety disorders within individual income groups declines regularly in moving from the poorest fifth to the highest fifth. Percent prevalence values are 18.2%, 13.2%, 11.2%, 10.0%, and 7.4% for the poorest, below middle, middle income, above middle, and highest income fifths respectively.[7] This negative gradient between income and mental illness is recognized consistently within several epidemiological analyses.[8] [9]

The mental illness that disproportionately plagues lower SES individuals has consequences for persons' functioning both inside and outside the labor market. Psychiatric disorders reduce employment rates in both men and women by a minimum of 11%. Additionally, mental illness leads to decreases in both the number of work hours and earnings.[10] Serious mental illness is "estimated to be associated with a loss of $193.2 billion in personal earnings in the total US population," with 75.4% of this total representing reduced earnings and the remainder accounting for complete losses in income.[11] Beyond these reductions in functioning inside the labor market, a myriad of convincing stories can be told depicting the mechanisms by which mental illness also reduces functioning outside the labor market. Poor mental health negatively affects functioning both within community, religious, and spiritual ties

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[6] Yan Yu and David R. Williams, "Socioeconomic Status and Mental Health," in *Handbook of the Sociology of Mental Health*, ed. Carol S. Aneshensel et al. (New York: Plenum Publishers, 1999), 153-54.

[7] Roland Sturm and Carole Roan Gresenz, "Relations of income inequality and family income to chronic medical conditions and mental health disorders: national survey," *BMJ* 324 (Jan. 2002): 2.

[8] Julie G. Kosteniuk and Harley D. Dickinson, "Tracing the social gradient in the health of Canadians: primary and secondary determinants," *Social Science and Medicine* 57 (2003): 269.

[9] Ronald C. Kessler et al., "The Epidemiology of Major Depressive Disorder: Results from the National Comorbidity Survey Replication," *JAMA* 289 (June 2003): 3100.

[10] Susan L. Ettner, Richard G. Frank, and Ronald C. Kessler, "The Impact of Psychiatric Disorders on Labor Market Outcomes," *Industrial and Labor Relations Review* 51 (Oct 1997): 75.

[11] Ronald C. Kessler et al., "Individual and Societal Effects of Mental Disorders on Earnings in the United States: Results from the National Comorbidity Survey Replication," *American Journal of Psychiatry* 165 (2008): 709.

as well as in the spheres of education, personal relationships, and family life.[12] The negative impacts of poor mental health on parenting and family life include: "less sensitive and competent parenting than other parents, with depressed mothers less likely to be emotionally available and affectionate" as well as "lower family cohesion and poorer communication than other families."[13] While there is some current literature that explores the effects of poor mental health on functioning outside the labor market, the volume of available literature is certainly limited. A likely obstacle to this research is the difficulty of quantifying outcomes within such contexts as social interactions, family life, or community involvement. Nonetheless, there is a significant need for additional future research that focuses on obtaining empirical evidence of mental health problems reducing functioning outside the labor market.

The constitution of the World Health Organization defines health as, "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."[14] Therefore, mental health can be viewed as one essential component to the greater overall health of an individual. Mental health is of intrinsic value to individuals' daily lives and functioning. Mental health status can affect peoples' abilities to fulfill their roles and obligations as a parent, spouse, friend, employee, and community member. For instance, "mental health problems in the workplace have serious consequences for worker performance, absenteeism, accidents, and overall worker productivity."[15] Beyond purely economic and labor market effects, statistics

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[12] U.S. Department of Health and Human Services, *Mental Health: A Report of the Surgeon General* (Rockville, MD: U.S. Department of Health and Human Services, 1999), 225.

[13] D. Mayberry and A. Reupert, "Parental Mental Illness: a review of barriers and issues for working with families and children," *Journal of Psychiatric and Mental Health Nursing* 16 (2009): 784-85.

[14] "Constitution of the World Health Organization," World Health Organization, last modified October 2006, accessed March 8, 2011, http://www.who.int/governance/eb/who_constitution_en.pdfl.

[15] Bruce Lubotsky Levin et al., "A Public Health Approach to Mental Health Services," in *Mental Health Services: A Public Health Perspective*, ed. Bruce Lubotsky Levin et al. (New York: Oxford University Press, 2010), 7.

cannot begin to quantify the reduction in quality of life that results from the negative effects of mental illness on parenting abilities, family life, and personal happiness.

A significant link also exists between mental and physical health, as research has shown that, "individuals with mental disorders are more at risk for medical illnesses, for communicable and non-communicable diseases, and for injury."[16] Additionally, poor physical health also certainly has the potential to lead to declines in mental health as well. Physical health status has been shown to be significantly and negatively correlated with levels of mental distress.[17] Poor mental health is also associated with a 19% increase in likelihood of being underweight, a 27% increase in the risk of being obese, and a 99% increase in the probability of being a regular smoker. High psychological distress is also correlated with a 77% decrease in the likelihood of self reporting excellent or good health as well as increases in the risks of visiting the emergency room and experiencing high difficulty in physical functioning of 51% and over 300% respectively.[18] Mental illness not only has multiple effects on many different areas of societal functioning but also is caused and exacerbated by a wide variety of factors. This, in part, makes many mental illnesses difficult to prevent, diagnose, and treat. On a very basic level, persons' mental health statuses greatly influence their lives in general and, more fundamentally, who they are as members of society; mental health affects individuals' abilities to develop and maintain relationships, experience emotions, think independently, and navigate the intricacies of living in modern society. The importance of mental health detailed above is generally applicable to all individuals suffering from mental illness regardless of their socioeconomic status. However,

[16] Ibid.
[17] Kosteniuk and Dickinson, "Tracing the social gradient in the health of Canadians: primary and secondary determinants," 274.
[18] Philayrath Phongsavan, Tien Chey, Adrian Bauman, Robert Brooks, and Derrick Silove, "Social capital, socio-economic status and psychological distress among Australian adults," *Social Science and Medicine* 63 (2006): 2554.

mental health is possibly of even greater importance for low-income American adults who often lead more stressful lives without many of the safety net mechanisms enjoyed by their wealthier counterparts.

The Role of Mental Health in Fair Equality of Opportunity for Normal Functioning

Since mental health, by the World Health Organization's definition, is a component of overall health, the general discipline of public health ethics can be utilized to selectively apply its arguments and frameworks to the specific arena of mental health. Sudhir Anand claims that "we should be more averse to, or less tolerant of, inequalities in health than inequalities in income."[19] Health, and by extension mental health, is not a normal good that is bought and sold in the marketplace. Whereas income has instrumental value, health, as a special good, has not only instrumental value but also intrinsic value as well. Normal goods such as a sports car or a new set of golf clubs are different from special goods such as health because health "is directly constitutive of a person's well-being" and "enables a person to function as an agent–that is to pursue the various goals and projects in life that she has reason to value."[20] Rawls argues under his difference principle that inequalities in income are necessary to reward higher skilled people for performing more demanding jobs, with the stipulation that these income inequalities in turn benefit the disadvantaged members of society. Additionally, income inequalities, especially in capitalist systems, are cited to incentivize and propel people towards higher productivity. Applying this same logic to health immediately demonstrates that health is a special good and distinct from income, as inequalities in health fail to provide individual incentives to improve health where society as a whole also benefits from these inequalities.[21] Norman Daniels

[19] Sudhir Anand, "The Concern for Equity in Health," in *Public Health, Ethics, and Equity*, ed. Sudhir Anand et al. (New York: Oxford University Press, 2004), 16.
[20] Ibid., 17-18.
[21] Ibid., 17.

observes that "many who are not at all troubled by significant inequalities in income, wealth, or opportunities for a higher quality of life are particularly troubled by health inequalities."[22] Special goods such as health "'are what free and equal persons need as citizens.' These goods support their *capabilities* to function as free and equal citizens."[23] This distinction of health as a special good also aligns with the dogma of specific egalitarianism, which essentially states that certain specific goods such as health are necessities of life that should be distributed more equally than the free market would, given an unequal distribution of income.[24] Ultimately, this special moral importance of health prohibits allowing health to be bought and sold in the marketplace based on different individuals' fair shares of income and wealth.

Daniels distinguishes health not only as a special good but also as an intermediate between a true social good and a purely natural good. The distinction between a social good and a natural good is different from that between a special good and a normal good. A natural good emanates from a lottery that is beyond society's control. In essence, the genetics and pathologies behind the immutable, 'scientific' determinants of health outcomes result in health being partially classified as a natural good. However, "much disease and disability is not simply a product of the natural lottery but is influenced by the social lottery as well."[25] There are more determinants to health, and in turn mental health, outcomes than simply the purely biological and luck-of-the-draw medical effects over which society has little relative control. In addition to the natural lottery, "social conditions – including class, gender, race, and ethnic inequalities in obtaining various goods – contribute significantly to the distribution of disease and disability."[26]

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[22] Norman Daniels, *Just Health: Meeting Health Needs Fairly* (New York: Cambridge University Press, 2008), 81.
[23] Ibid., 50. [Daniels' emphasis]
[24] Anand, "The Concern for Equity in Health," 17.
[25] Daniels, *Just Health: Meeting Health Needs Fairly*, 58.
[26] Ibid.

Given what is known about mental illnesses, these social factors arguably play an even larger role in the determination of mental health status than they do in the generation of physical health status. Thus, mental health is unique for both its classification as a special good and its hybrid determination by both natural and social factors.

Amartya Sen's capability approach, when applied to the space of mental health, makes the connection between mental health's distinctions as a special, social, and natural good and the concept of fair equality of opportunity. Health, by both its intrinsic value and standing as a special good contributes to a person's basic capability to function at an acceptable level relative to the norms of the society in which they live. Human capability is, in essence, both what a person can effectively do or be as well as the ability to choose a life that the agent or individual has reason to value.[27] In the name of social justice, Sen cites the need for a "fair distribution as well as efficient formation of human capabilities."[28] In turn, Sen defines capability as "a set of n-tuples of functionings, reflecting the person's ability to lead one type of life or another."[29] The capability approach, especially as it is concerned with mental health, is considered a procedural approach to justice.[30] The primary concern is not over specific mental health outcomes; rather, the focus is on the freedom to effectively pursue an appropriate range of opportunities that necessarily includes the achieved outcome as well as other unfulfilled possibilities. In essence, poor mental health limits this freedom to take advantage of the full range of opportunities.

An adequate capability set is synonymous with an individual's fair share of the normal opportunity range. The normal opportunity range can be defined as "the array of life plans that

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[27] Ibid., 65.

[28] Amartya Sen, "Why Health Equity?," in *Public Health, Ethics, and Equity*, ed. Sudhir Anand et al. (New York: Oxford University Press, 2004), 23.

[29] Amartya Sen, *Inequality Reexamined* (Cambridge, Massachusetts: Harvard University Press, 1992), 40.

[30] Fabienne Peter and Timothy Evans, "Ethical Dimensions of Health Equity," in *Changing Inequalities in Health: From Ethics to Action*, ed. Timothy Evans et al. (New York: Oxford University Press, 2001), 29.

people find it reasonable to choose, given their talents and skills."[31] Disease and disability such as mental illness diminish individual fair shares of the normal opportunity range. By both Rawls' principle of fair equality of opportunity and Sen's capability approach, social justice requires protection of the normal opportunity range. Protecting normal functioning helps to protect the range of opportunities, and "health needs are paradigmatic among an important category of basic needs, things we need to maintain normal functioning."[32] Therefore, meeting health needs, as Daniels concludes, "promotes normal functioning, and normal functioning, in turn, protects people's fair share of the normal opportunity range."[33] This framework can be applied to the narrower arena of mental health and viewed as ethical justification for the special moral importance of mental health in the process of fair equality of opportunity for normal functioning. Good mental health is essential to achieve normal functioning in society, and normal functioning preserves individuals' fair shares of the normal opportunity range. Because of the social justice requirement to protect the normal opportunity range, society has an obligation to take action towards diminishing negative changes in mental health relative to the level of normal social functioning.

Mental health is integral to normal functioning through several important pathways. Martha Nussbaum expands upon Sen's capability approach by specifying a list denoting ten central human capabilities, which includes life, bodily health, bodily integrity, senses/imagination/thought, emotions, practical reason, affiliation, other species, play, and control over one's environment.[34] Not surprisingly, mental illness poses a threat to every one of

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[31] Norman Daniels, Bruce Kennedy, and Ichiro Kawachi, "Health and Inequality, or, Why Justice is Good for Our Health," in *Public Health, Ethics, and Equity*, ed. Sudhir Anand et al. (New York: Oxford University Press, 2004), 75.

[32] Daniels, *Just Health: Meeting Health Needs Fairly*, 46.

[33] Ibid., 77.

[34] Martha Nussbaum, "Capabilities as Fundamental Entitlements: Sen and Social Justice," *Feminist Economics* 9 (July 2003): 41-42.

these ten specified capabilities. Mental illness can lead to early death or suicide. It can lead to poor physical health and difficulty applying or processing senses, thoughts, and emotions. As mentioned previously, the negative consequences of mental illness can exist both inside and outside the labor market, affecting virtually all aspects of life. To complete Nussbaum's list, deficits in mental health can also result in reduced reasoning abilities, difficulty forming and maintaining relationships, inability to enjoy life and nature, and trouble in controlling one's political and physical environments. Thus, there are a myriad of mechanisms by which mental illness can lead to a capability deficit that negatively impacts both normal functioning and realization of the normal opportunity range. An integral qualification necessary to the inclusion of capability within the fair equality of opportunity framework is that individuals must have the effective freedom to choose what functionings they desire to pursue.[35] This is not to say that anyone freely chooses to suffer from mental illness but rather that society can only be held responsible for providing fair equality of opportunity for functioning, not for directing specific outcomes. Society should seek to expand freedom but should not specify what persons must do with it. In short, society has an obligation to identify and address mental health deficits, especially among low-income populations, in order to preserve fair equality of opportunity for normal functioning.

This argument justifying action towards mitigating mental health deficits is contingent on society possessing the medical or technological capacity to effectively and efficiently treat mental illnesses. A decision limit is necessary in instances where fair equality of opportunity is not possible for all people because of unavoidable resource constraints. Under resource constraints, Daniels claims that "in the 'game' of delivering health care or meeting a broader set

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[35] Harlan Beckley, "Capability as Opportunity: How Amartya Sen Revises Equal Opportunity," *Journal of Religious Ethics* 30 (Spring 2002): 113-14.

of health needs, fair-minded people will seek reasons they can accept as relevant to meeting health needs fairly."[36] The answer supplied in response to the challenge of allocation under resource limits is provided by Daniels in his 'accountability for reasonableness' framework, which requires that "the reasons or rationales for important limit-setting decisions should be publicly available" where the "reasons must be ones that fair-minded people can agree are relevant for appropriate patient care under resource constraints."[37] Thus, demonstrating that treatment of mental illness is effective and not prohibitively costly is necessary to justifying action. The 1999 US Surgeon General's report on mental health states, "mental disorders are treatable… An armamentarium of efficacious treatments is available to ameliorate symptoms. In fact, for most mental disorders, there is generally not just one but a *range* of treatments of proven efficacy."[38] Ettner et al. support this claim in writing: "advances in pharmacotherapy have led to progress in treating even the most debilitating psychiatric disorders, such as major depression, bipolar disorder, and schizophrenia."[39] A thorough cost-benefit analysis reveals that productivity losses from mental illness far outweigh the costs of treatment. For instance, in 1997 terms, the treatment of depression through anti-depressants is 60-65% effective and costs $920 per year while average losses in yearly income due to the mental illness are estimated at $2,098 for women and $4,679 per men.[40] In short, treatment of mental health deficits is effective at relatively low costs; therefore, society retains its obligation to alleviate mental illness through both Daniels' accountability for reasonableness framework and fair equality of opportunity for normal functioning.

[36] Daniels, *Just Health: Meeting Health Needs Fairly*, 118.
[37] Ibid., 117.
[38] US Dept. of Health and Human Services, *Mental Health: A Report of the Surgeon General*, 64-65.
[39] Susan L. Ettner, Richard G. Frank, and Ronald C. Kessler, "The Impact of Psychiatric Disorders on Labor Market Outcomes," 75.
[40] Ibid.

Inequalities in Mental Health

There is a host of inequalities in relation to mental health that have the potential to jeopardize fair equality of opportunity of normal functioning. However, this paper specifically focuses on mental health inequalities in relation to socioeconomic status and geography. The existence of an income gradient in overall health, and more specifically in mental health, is widely known and researched, with the majority of studies focusing on the relationship to physical health.[41] Specific mental illness prevalence data supporting this income gradient in mental health was discussed previously. It should also be noted that the strength of the negative correlation of mental illness with SES differs between different individual mental disorders.[42] Depressive disorders such as dysthymic disorder or major depressive disorder and anxiety disorders such as panic disorder or generalized anxiety disorder both adhere to the income gradient in mental health, exhibiting higher prominence among low SES populations. Substance abuse disorders also are more prevalent among low income persons.[43] Surprisingly, at least one source also provides evidence for strong negative relationships between SES and both schizophrenia and cognitive impairment. Interestingly, bipolar disorder is one of very few mental illnesses that does not show a correlation with income.[44] It appears that the vast majority of all specific mental disorders that have negative consequences for functioning are negatively correlated with SES. This indiscrimination in the mental health income gradient is likely a partial result of the bidirectional causality between SES and mental illness. Ultimately, lower

[41] Interestingly, while there is an obvious link between absolute levels of income and mental health status, no significant relation exists, "between *income inequality* and depressive disorders or anxiety disorders." [author's emphasis]; Sturm et al., "Relations of income inequality and family income to chronic medical conditions and mental health disorders: national survey," 4.

[42] Richard A. Miech et al., "Low Socioeconomic Status and Mental Disorders: A Longitudinal Study of Selection and Causation during Young Adulthood," *The American Journal of Sociology* 104 (Jan 1999): 1120.

[43] C. Muntaner et al., "Social Class, Assets, Organizational Control and the Prevalence of Common Groups of Psychiatric Disorders," *Social Science and Medicine* 47 (1998): 2047.

[44] Carles Muntaner et al., "Socioeconomic Position and Major Mental Disorders," *Epidemiologic Reviews* 26 (2004): 54.

SES individuals are disproportionately burdened by mental illnesses that both reduce their abilities to function normally and endanger fair equality of opportunity.

For the general population, 17.9% of all US adults receive treatment for a mental health problem.[45] More specifically, 41.1% of all individuals with a mental disorder received healthcare treatment for that illness over the past year, with a third of these recipients receiving only the minimally adequate treatment for their mental illness.[46] [47] Low SES is correlated with both lower utilization of and lower access to mental health services. An analysis of mental health services utilization data from the NCS-R concludes that "low education and low income were associated with increased odds of not receiving any treatment (income), not receiving specialty care among HC patients (education), and receiving less adequate specialty treatment than other patients in the MHS sectors (education)."[48] When examining adults with family incomes less than 200%, 150%, and 100% of the federal poverty line (FPL), epidemiological data indicates that 14.8%, 15.7%, and 17.0% of US adults respectively receive mental health treatment in a given year.[49] Despite the proven higher prevalence of mental illness among low SES populations, all of these treatment rates for individuals with family incomes less than 100%, 150%, or 200% of the FPL are lower than the overall mental health treatment rate among all Americans. Interestingly, these data indicate that, within the low SES bracket, poorer individuals have a greater chance at receiving treatment. To explain this apparent anomaly, Wang et al. hypothesize that "the near poor do not qualify for often more generous entitlements

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[45] Philip S. Wang et al., "Twelve-Month Use of Mental Health Services in the United States," *Archives of General Psychiatry* 62 (June 2005): 631.
[46] Ibid.
[47] "NIMH Statistics."
[48] [HC = health care , MHS = mental health specialty]; Wang et al., "Twelve-Month Use of Mental Health Services in the United States," 637.
[49] "National Estimates of Health Insurance Coverage, Mental Health Utilization, and Spending for Low-Income Individuals," Samuel H. Zuvekas - Agency for Health Care Policy and Research, accessed April 8, 2011, http://www.ahrq.gov/data/meps/lowinc/lowinc.htm.

for the indigent."[50] In short, low SES individuals exhibit higher prevalence of and bear the greater burden of mental illness in comparison to their wealthier counterparts, yet they remain the least likely to access mental health services and receive treatment for their mental illnesses.

Geographical inequalities in mental health predominantly consist, not of unequal prevalence of mental illness, but rather of disparities in access to and quality of treatment. In this context, the geographical characteristic refers to the degree of rurality or urbanicity of an area, quantified as the point a location resides on the rural-urban continuum used by the US Department of Agriculture. Different classifications include varying degrees of metropolitan, rural, or urban counties that are demarcated by population size. Other factors that may affect mental health status, such as different income or SES levels, are controlled for when assessing geographical inequalities. An analysis from the National Comorbidity Survey Replication (NCS-R), controlling for socio-demographic characteristics, found that "major depressive disorder was largely unrelated to geography (region of the country or urbanicity)."[51] An additional study noted higher 12 month and lifetime prevalence rates of major depression in urban areas and in fringe areas of urban counties than in rural areas, "but most of the rates were not significantly different."[52] Similarly, a study utilizing the National Survey of Families and Households found "few rural/urban differences in depressive symptoms and subjective happiness."[53] In light of these findings that no significant differences in overall prevalence of mental illness exist between urban and rural areas, it should be noted that urban versus rural distinctions may often be

[50] An alternative explanation might be that the very poor are more likely to suffer from mental illness and therefore need more healthcare oriented assistance than the near poor.; Wang et al., "Twelve-Month Use of Mental Health Services in the United States," 638.
[51] Kessler et al., "The Epidemiology of Major Depressive Disorder: Results from the National Comorbidity Survey Replication," 3099.
[52] Frederick O. Lorenz, K. A. S. Wickrama, and Hsiu-Chen Yeh, "Rural Mental Health: Comparing Differences and Modeling Change," in *Critical Issues in Rural Health*, ed. Nina Glasgow et al. (Ames, Iowa: Blackwell Publishing, 2004), 76.
[53] Ibid.

correlated with many other determinants of mental health. The relationship between mental health outcomes, geography, and other determinants such as race, income, or culture is complex and interconnected, as "rurality is confounded with poverty and poverty with occupational structure, race, and ethnicity."[54] The small, insignificant rural-urban differences seen in mental health may not be directly related to the rural or urban location itself but rather due to socio-demographic factors that are concurrently correlated with both mental illness and geography.[55] While no substantial differences in overall mental illness exist between rural and urban areas, recent findings indicate that the prevalence rates of certain specific mental disorders do differ significantly by geography. Antisocial personality disorders, incidences of multiple disorders, and overall illegal drug use are higher in urban areas. Conversely, alcohol abuse and suicide rates of men in particular are higher in rural areas in comparison to more urban settings. Interestingly, although the overall prevalence of depression itself does not vary with geography, the specific symptoms of major depressive disorder do show significant correlations with urbanicity or rurality. Cognitive impairment is a more common depression symptom within rural areas, whereas dysphoria and anxiety are more prevalent symptoms within urban areas.[56] In short, geographical inequalities in mental health are neither as significant in terms of overall prevalence nor as well researched as SES inequalities.

While the significance of inequalities in prevalence of mental illness in urban versus rural settings is minor, there are substantial inequalities in access to and use of treatment through mental health services treatment mechanisms. Research demonstrates that, in comparison to an urban location, rural residence is associated with a significantly higher likelihood of receiving

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[54] Ibid.

[55] John C. Fortney et al., "The Association Between Rural Residence and the Use, Type, and Quality of Depression Care," *Journal of Rural Health* 26 (Summer 2010): 206.

[56] Lorenz et al., "Rural Mental Health: Comparing Differences and Modeling Change," 77-78.

pharmacotherapy but a significantly lower likelihood of receiving psychotherapy.[57] Additionally, metropolitan area residents are approximately 1.5 times more likely to receive mental health treatment than those individuals living in rural areas.[58] To demonstrate not only a lack of use but a lack of access as well, 20% of rural counties lack sufficient mental health services versus a 5% level within metro-area counties. In conjunction, approximately 75% of rural areas lack a psychiatrist, and nearly 90% of mental health professional shortage areas are in rural locations.[59] Further evidence that rural mental health services are insufficient is that, despite farm families having better than average mental health, the suicide rate for farmers in rural areas is almost twice the national average.[60] It is possible that non-health sector determinants of mental health may actually be less negative or more beneficial in rural areas but that this benefit is cancelled out by comparatively worse access to mental healthcare resources. This hypothesis is consistent with the data demonstrating the concurrent insignificance of rural versus urban disparity in prevalence of mental illness and significance of geographical differences in mental healthcare.

Determinants of Mental Health Inequalities

In line with the previous discussion of Daniels' definition of health as both a natural and social good, determinants of SES and geographical inequalities in mental health can be divided into either health sector or non-health sector factors.[61] The general public tends to "concentrate

[57] Fortney et al., "The Association Between Rural Residence and the Use, Type, and Quality of Depression Care," 211-12.

[58] "Mental Health Treatment for Rural Poor and Minorities," Emily J. Hauenstein, last modified March 2006, accessed March 16 2011, http://www.nursing.virginia.edu/Research/srmhrc/shortages/Rural-Mental-Heath-Treatment.pdf.

[59] Larry D. Gamm et al., *Rural Healthy People 2010: A Companion Document to Healthy People 2010*, Vol. 2 (College Station Texas: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center, 2003), 165.

[60] Lorenz et al., "Rural Mental Health: Comparing Differences and Modeling Change," 78.

[61] There are also naturally occurring biological or genetic determinants of mental health that determine susceptibility to certain mental illnesses. Such factors are likely not significantly connected with social or healthcare sector

on medical care rather than social determinants"[62] despite the fact that, as Sen concludes, "health equity cannot only be concerned with inequality of either health or health care, and must take into account how resource allocation and social arrangements link health with other features of states of affairs."[63] In response to this connection between social factors and health, Daniels adds an "appropriate distributions of other social determinants of health" entry to his listing of health needs.[64] The necessity of looking beyond healthcare factors in determining the origins of health emanates from the realization that "Health is produced not just by having access to medical prevention and treatment but also, to a measurably great extent, by the cumulative experience of social conditions across the lifecourse."[65] This duality in the determinants of overall health is likely even more applicable to mental health, where an individual's environment and interpersonal relationships have a substantial effect on their mental health status. SES and geographical mental health inequalities each result from both social and health sector determinants of mental health.

Social Determinants of SES and Geographical Inequalities

Social determinants of SES and geographical inequalities in mental health include such factors as age, gender, race/ethnicity, discrimination, marital status, home environment, social support networks, civic engagement, social capital, and child abuse or neglect.[66] [67] Many social determinants of these mental health disparities are also endogenous to the SES and geographical

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determinants and are not controllable via current medical technologies. Therefore, these genetic determinants are not within the scope of this paper and will not be discussed further.

[62] Daniels, *Just Health*, 102.

[63] Sen, "Why Health Equity?" 24.

[64] Daniels, *Just Health*, 42-43.

[65] Ibid., 79.

[66] Matthew Fisher and Fran Baum, "The social determinants of mental health: implications for research and health promotion," *Australian and New Zealand Journal of Psychiatry* 44 (2010): 1058.

[67] Factors such as age, gender, and race may be better classified as natural instead of social determinants. The initial determination of these natural factors is largely independent of social processes; however, age, gender, and race differentially interact with social issues and processes to result in varied effects on mental health. These interactions are relevant to this discussion of social determinants and are thus included within that context. The effects of these natural determinants are controllable to an extent, so they can fall under consideration as social determinants.

variables themselves. These endogenous factors include income, level of education, employment status, type of employment, and rurality/urbanicity. Many of these factors represent larger social problems that are firmly rooted within society. Additionally, these determinants exert effects extending well beyond the arena of mental health. It is important to note that social factors may also act indirectly on mental health by affecting the health sector determinants of mental health as well. Due to the difficulty of quantifying the social determinants of mental health, there is relatively little empirical research within this area, with even fewer studies that utilize data for US adults.

The primary framework used to describe how social factors elicit SES and geographical disparities in mental health is a system of primary and secondary determinants. In essence, primary determinants, which are general socioeconomic and demographic factors, result in changes in the magnitude and frequency of stressors, the secondary determinants of health. In turn, theses stressors act through mechanisms of personal control, self-esteem, social support, and social involvement to differentially affect mental health.[68] The measurable socioeconomic and demographic statistics such as SES or geography thus have an indirect effect on mental health by acting through stressor mechanisms. Stressors or "secondary determinants of health include biological and psychosocial intermediaries between the social environment and health. These secondary determinants, or 'downstream factors' include…issues *related to* working and living conditions."[69] Chronic stress or ongoing exposure to these stressors heightens the possibility of suffering from mental health problems. In other words, "certain adverse social conditions may detrimentally affect mental or physical health by acting as stressors, triggering arousal of neural and somatic stress responses. Extended exposure is thus seen as likely to

[68] Kosteniuk et al., "Tracing the social gradient in the health of Canadians: primary and secondary determinants," 265.
[69] Ibid., 266.

produce chronic stress arousal, contributing to increased risk of…a mental health problem."[70] From a biochemical perspective, "chronic stress dysregulates elements of the stress system," resulting in either elevated or decreased activity of stress components.[71] Prolonged deviation from the normal baseline level of stress system activity is seen as a primary contributor to many forms of mental illness. In short, a myriad of primary socioeconomic and demographic determinants of mental health chronically induces stressors, resulting in SES and geographical inequalities in mental health.

Social Determinants of SES Inequalities

Due to the volume and breadth of information that surrounds the social determinants of mental health, an in-depth analysis is not within the scope of this paper. A briefer systematic overview with summary conclusions regarding the different social factors affecting mental health follows. Social determinants of SES inequalities consist of endogenous and exogenous factors. The SES statistic incorporates measures of income, education, and occupation or employment, and there are specific mechanisms by which these factors that are endogenous to SES result in socioeconomic inequalities in mental health. However, there are also many other factors, termed exogenous to the SES statistic, that also result in disparities in mental health by SES. Endogenous factors include income, level of education, employment status, and type of employment. Because, as established earlier, a higher prevalence of mental illnesses exists among lower income populations, these individuals are under tremendous chronic stress that induces mental illnesses. A lack of financial security "might regularly give rise to states of anxiety about the possible consequences of, say, not keeping up with rent, or an inability to pay

[70] Fisher et al., "The social determinants of mental health: implications for research and health promotion," 1058.
[71] Ibid.

medical or utilities costs."[72] Income correlates with several other social determinants such as working conditions, education, location of residence, gender, race, or general lifestyle to also have an indirect effect on mental health. Education also influences mental health inequality with respect to SES. Lower levels of educational attainment result in lower income. Additionally, lower education among the poor "might be significant as limiting a person's internal or social resources available to decisively solve problems, and thus may constitute a deficit in resilience to social stressors," thereby increasing their susceptibility to mental illness.[73] Third, unemployment has catastrophic effects on mental health. Unemployed individuals are much more likely to suffer from a mental illness. Loss of work is positively and significantly correlated with increased depression, anxiety, and somatization.[74] Loss of control over one's social role or means to support themselves financially can act to increase stress levels, resulting in greater risk of mental illness. Fourth, a person's type of employment shapes SES inequalities in mental health. Jobs that either give the worker little control over their actions or are exceptionally demanding result in high levels of worker stress.[75] A higher proportion of such jobs are held by low-wage workers, so lower SES populations experience more negative effects on their mental health as a result. In essence, the mechanisms by which the mental health of the poor is negatively targeted by these four endogenous SES factors have important implications for understanding how to alleviate SES inequalities in mental health.

Exogenous determinants of SES inequalities include age, gender, race/ethnicity, marital status, social support networks, social capital, and child abuse or neglect. First, age is a significant demographic factor that contributes to SES inequalities. Research demonstrates that

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[72] Ibid., 1061.
[73] Ibid.
[74] Margaret W. Linn, Richard Sandifer, and Shayna Stein, "Effects of Unemployment on Mental and Physical Health," *American Journal of Public Health* 75 (May 1985): 505.
[75] Fisher et al., "The social determinants of mental health: implications for research and health promotion," 1058.

age is significantly and negatively correlated with prevalence of mental illness.[76] As individuals age, they typically accumulate wealth, and their income tends to increase with their growing work experience. Older individuals are also more likely to have greater stability in their lives, leading to reduced levels of stress. There are obviously individual exceptions to these potential mechanisms; however, on average, these represent two significant pathways by which age is a determinant of higher levels of mental illness among the poor. Second, gender also differentially affects mental health, as there are significantly higher rates of mental illness in females, especially with regard to depression and anxiety disorders.[77] Gender discrimination, gendered violence, relegation to submissive roles within the home and workplace, and higher stress associated with domestic work and raising children are possible ways in which female stress levels are elevated and risk for mental illness is increased. This heightened stress level is especially apparent with poor single mothers. The wage gap between men and women leads to female incomes being less on average than those of males; therefore, these mechanisms by which females exhibit higher prevalence of mental illness are contributors to SES inequalities in mental health. Third, when controlling for other factors such as SES, the prevalence of overall mental illness is not significantly greater for minority populations in comparison to whites.[78] However, the poverty rate for minority groups is greater than the overall poverty rate, leading to an overrepresentation of minorities in the low SES bracket that exhibits the highest rates of mental illness. Racial discrimination is one specific mechanism by which minorities might be under higher levels of chronic stress. This targeted stress might result in increases in certain specific

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[76] "Prevalence of Serious Mental Illness Among US Adults by Sex, Age, and Race in 2008," National Institute of Mental Health, accessed March 26, 2011, http://www.nimh.nih.gov/statistics/SMI_AASR.shtml.

[77] Jill Astbury, "Gender and Mental Health," accessed March, 22, 2011, http://www.psiquiatriasur.cl/portal/uploads/gendermh-harvard_99.pdf , (Global Health Equity Initiative – Harvard Center for Population and Development Studies, Dec. 1999): 10.

[78] Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 42.

mental illnesses among minorities. Fourth, unmarried or single people exhibit higher rates of mental illness compared to married individuals.[79] Additionally, married couples are less likely to be poor and therefore comprise a greater proportion of the higher SES brackets that correspond with lower prevalence of mental illness. Married couples may have better social support and less isolation that both serve to reduce their stress levels, resulting in a lower likelihood of mental illness. Fifth, lower levels of social capital and decreased access to social support networks seen among low income populations through "strong social reciprocity, civic and social participation, and high levels of trust and bonding… can buffer the negative effects of life events on mental health for individuals already under stress."[80] Finally, there is strong evidence that developmental conditions as a child are an exceptionally important determinant of adult mental health. Janet Currie concludes that "Mental health conditions in early childhood are predictive of future outcomes both because mental health conditions are likely to persist, and because early mental health problems have independent and persistent negative effects."[81] Children born into low SES families not only are more likely to remain in that low SES bracket but also are more likely to be a victim of child abuse or neglect.[82] Although this paper focuses on mental health problems in US adults, it is impossible to sufficiently characterize the social determinants of SES inequalities without mentioning the long-term effects that originate in childhood but continue to manifest themselves into adulthood. Social determinants that are either exogenous or endogenous to SES act through a wide variety of manners to result in SES inequalities in mental health. It is important to note that, as detailed in the social causation

[79] Phongsavan et al., "Social capital, socio-economic status and psychological distress among Australian adults," 2552.
[80] Ibid., 2547.
[81] Janet Currie and Mark Stabile, "Mental Health in Childhood and Human Capital," *NBER Working Paper Series* 13217 (July 2007): 27.
[82] "Fact Sheet: Children, Youth, and Families & Socioeconomic Status," American Psychological Association, accessed April 5, 2011, http://www.apa.org/pi/ses/resources/publications/factsheet-cyf.aspx.

versus social selection debate, causality may run in both directions between mental illness and the social determinants. To date, research determining the primary direction of this causality has failed to reach consistent conclusions; however, it is likely that significant causality runs both from mental illness to the social determinants and vice-versa.

Social Determinants of Geographical Inequalities

Where individuals live within a community or region is largely determined by their level of income, social class, and a host of other factors. Additionally, the location of a person's residence may also play a pivotal role in determining their SES. It is impossible to completely divorce social determinants of geographical inequalities from determinants of SES inequalities. However, there are unique factors specific to the geography or rurality/urbanicity of a person's home environment that influence mental health. Similar to the social determinants of SES inequalities in mental health, there are factors, both endogenous and exogenous to the rurality or urbanicity of an area, that effect geographical inequalities. The endogenous determinants simply include the effects emanating directly from the specific rural or urban nature of a location. Exogenous determinants of geographical disparities in mental health include civic engagement, community violence, and social structure. The mechanisms for these determinants follow the common framework of primary determinants resulting in secondary stressors that, in turn, affect mental health. As stated previously, the prevalence rates of mental disorders are not significantly different between rural and urban areas; however, rural Americans have much lower access to and use of mental health services in comparison to urban residents. A logical explanation for the congruency between rural and urban prevalence of mental illness is an offsetting effect between social and health sector determinants. In comparison to urban areas, rural areas likely have more beneficial or less negative social determinants of mental health; however, this relative benefit

within social factors is cancelled out by the more detrimental health sector determinants in rural areas. It should be noted that, especially in comparison to determinants of SES inequalities, literature on social determinants of mental health in the context of geographical differences is extremely limited and in gross need of future expansion.

The characteristics associated with distinctively rural or urban areas affect the mental health of residents in different ways and to different degrees, with mental health being more negatively influenced by urban attributes. The overall fast-paced, busy nature of urban life raises chronic stress levels, which further increases the susceptibility of urban residents to mental illnesses. Additionally, within urban areas, individuals may have the feeling of being "alone in a crowd," where they are "spatially proximate to others yet socially distant from them, shunned by wider society but also voluntarily retreating from social contact."[83] This feeling of social isolation is ironically exacerbated by the surrounding high population density and high activity level of urban life because the individual is made more aware of his or her loneliness. With these increased stress levels and relative anonymity in urban communities, "the city duly becomes… a site of exclusion, threat and only limited safety."[84] On the contrary, rural life generally operates at a slower pace, although rural lifestyles are not necessarily any less stressful in comparison to urban areas. Within rural areas, "people are often spatially distant from neighbors but more socially proximate to them than in urban localities."[85] This rural paradox in mental health creates more inclusion for residents, which fosters greater development of relationships as well as a greater sense of social support. Increased social support and relative prevention of mental health problems in rural areas exists because "unlike in urban

[83] Hester Parr, Chris Philo, and Nicola Burns, "Social Geographies of Rural Mental Health: Experiencing Inclusions and Exclusions," *Transactions of the Institute of British Geographers* 29 (Dec 2004): 402.
[84] Ibid.
[85] Ibid., 403.

neighborhoods, where densities of social traffic and service provision may blur potential collective obligations to proximate vulnerable people, in rural areas such reciprocal relationships are less easy to avoid or ignore."[86] These beneficial factors combined with the lower levels of chronic stress within rural areas serve to mitigate the negative effects of the social determinants of mental health in rural areas.

Beyond the endogenous effects on mental health of the basic urban or rural nature of a location, exogenous social determinants of geographical inequalities in mental health include civic engagement, community violence, and social structure. Civic engagement is important to the maintenance of good mental health, as it allows individuals to establish relationships and assume a meaningful role within their community. J. Eric Oliver demonstrates a significant negative correlation between population size of an area and three measures of civic involvement including contacting local officials, attending a community board meeting, and attending an organization meeting.[87] Therefore, the higher levels of community involvement within rural areas may serve to reduce the likelihood that these residents will suffer from a mental illness. Elevated levels of community violence and crime in urban over rural areas also influence mental health by increasing levels of stress among community residents. The causal link between community violence or crime and adult mental illness has been shown to originate from violence witnessed or experienced during the formative child and adolescent years.[88] Current levels of crime and violence elevate community worry and fear, resulting in chronic stress that negatively impacts mental health. The differing social structures of urban and rural areas may also play a

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[86] Ibid., 412.

[87] J. Eric Oliver, "City Size and Civic Involvement in Metropolitan America," *The American Political Science Review* 94 (Jun 2000): 367.

[88] John C. Buckner, William R. Beardslee, and Ellen L. Bassuk, "Exposure to Violence and Low-Income Children's Mental Health: Direct, Moderated, and Mediated Relations," *American Journal of Orthopsychiatry* 74 (2004): 413.

role in the formation of geographical inequalities within mental health. Urban poverty is typically concentrated into certain locations, known colloquially as ghettos; however, in rural settings, "economically stressed families are not ghettoized into disadvantaged communities but live side by side with prospering and resilient families."[89] Thus, in comparison to rural areas, urban areas create more stressful environments for families by concentrating poverty, along with a myriad of other social issues, into a tight geographical area; this leads to higher susceptibility of developing a mental illness for urban residents. The social determinants of SES and geographical inequalities in mental health are wide reaching into many of the larger social issues that plague American society; however, pinpointing many of the specific causes of these inequalities is ultimately necessary for mitigating the disparities through policy and practice.

Health Sector Determinants of SES and Geographical Inequalities

Consistent, high-quality mental healthcare is necessary in both the prevention and treatment of mental illness. The origins of health sector determinants can be divided into three categories: healthcare system factors, patient factors, and healthcare provider factors. Additionally, barriers to equitable mental healthcare can be broken down into personal/family, structural, and financial categories. Health sector determinants of SES and geographical inequalities in mental health include, for example, such factors as access to, affordability of, and quality of mental healthcare as well as availability/quality of mental health insurance and stigmatization of receiving treatment. The effects and mechanisms of these health sector determinants are much more direct and obvious than many of those discussed for SES inequalities. This readily apparent causality makes reform to the healthcare system a popular and politically salient issue. However, it is important to remember that both social and health sector factors together play significant roles in contributing to inequalities in mental health. The

[89] Lorenz et al., "Rural Mental Health: Comparing Differences and Modeling Change," 80.

majority of research on disparities in mental healthcare focuses on differences between racial/ethnic groups, but there is a substantial amount of literature that looks into SES and geographical inequalities as well.

An understanding of the basic structure of the US mental healthcare system is essential to understanding how its functioning may cause inequalities in mental health. The mental health service system can be divided into four major sectors including the specialty mental health sector, the primary care sector, the social services sector, and the support network sector. Specialty mental healthcare occurs within outpatient settings, psychiatric hospital units, or psychiatric hospitals and incorporates treatment by psychiatrists, psychologists, and psychiatric nurses. Primary healthcare includes visits to internists, pediatricians, family practice physicians, and nurse practitioners; it is used as the initial entry point into the mental healthcare system and is often a mode of care for less severe disorders. The social services sector includes social services, school-based counseling, prison-based services, and vocational rehabilitation. Fourth, the support network sector simply incorporates more informal self-help groups and peer counseling programs. More specifically within these four sectors, public mental health services include government run mental hospitals, Medicaid and Medicare coverage for mental health in the private sector, and federal programs such as the community mental health block grant or the community support program.[90] State-run community services boards are the entry points into this public sector of the mental healthcare system. Additionally, the 1963 Community Mental Health Centers Construction Act led to the implementation of community mental health centers (CMHCs) across the United States. CMHCs have evolved a great deal to the present day, where

[90] US Department of Health and Human Services, *Mental Health: A Report of the Surgeon General*, 405-07.

they currently are funded primarily by Medicaid and provide a host of mental health services.[91] Finally, mental health programs available at free clinics represent a last-resort, safety net mechanism of care.

Health Sector Determinants of SES Inequalities

The lower access to and utilization of mental health services within low SES populations can be explained through a host of specific mechanisms that are too numerous to individually discuss in detail. However, the primary health sector determinants of SES inequalities in mental health include worse quality of mental healthcare, inadequate access to treatment, and poor patient understanding of mental illness or the mental healthcare system. The high proportion of minorities within the low SES bracket leads to many of the racial or ethnic disparities in mental health service delivery having a significant effect on SES-based mental health inequalities. In contrast to physical healthcare, the quality of mental healthcare is much more dependent on the development of a trustworthy relationship between patient and provider. Specifically, psychotherapy and mental health counseling both rely on consistent, clear communication during the clinical encounter. Several recent studies have found that, in comparison to whites, minorities, specifically African Americans, more often cite fear of mental health treatment or past disrespect by a mental health provider as reasons for not seeking mental health services.[92] This mistrust on part of the patient is accompanied by an underrepresentation of minorities within the mental health services workforce. In 2005, the total US population was 13% African American, yet only 3% of psychiatrists and 2% of psychologists were black; this disparity is

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[91] Thomas W. Doub, Dennis P. Morrison, and Jan Goodson, "Community Mental Health Centers," in *Mental Health Services: A Public Health Perspective*, ed. Bruce Lubotsky Levin et al. (New York: Oxford University Press, 2010), 349-53.

[92] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 29.

consistent across all other minority groups.[93] There is less cultural understanding and trust in a clinical encounter when patient and provider are from different racial groups; this results in poorer quality mental health services for minority and low income patients. The lack of co-experience between patient and provider in different minority or SES groups can result in clinician bias, stereotyping, or discrimination. Although it has declined over time, racial discrimination remains embedded in society and influences "diagnosis, treatment, prescribing medications, and referrals."[94] For example, it has been shown that "minority patients are less likely than whites to receive the best available treatments for depression and anxiety."[95] In addition to these clinical encounter factors, the bias in mental health treatment research also negatively affects the quality of mental health services received by low SES populations. Minority patients are significantly underrepresented in medical studies evaluating the efficacy of treatments for various mental illnesses, as in nearly "all clinical trials reporting data on ethnicity, very few minorities were included and not a single study analyzed the efficacy of the treatment by ethnicity or race."[96] Regardless of how well a physician or mental health specialist may be able to communicate with and impartially evaluate a minority patient, they will be unable to effectively treat that patient without sufficient knowledge and understanding from research and clinical trials. In essence, "to be most effective, treatments need to be tailored and delivered appropriately for individuals according to age, gender, race, ethnicity, and culture."[97] However, when mental health services providers do not have the knowledge and available resources to establish these individualized treatments, the quality of services provided to low SES or minority

[93] Jeanne Miranda et al., "Mental Health in the Context of Health Disparities," *American Journal of Psychiatry* 165 (Sept 2008): 1105.
[94] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 32.
[95] Ibid.
[96] Ibid., 35.
[97] Ibid., 36.

patients often suffers as a result. Both ineffective clinical encounters and the research bias act to reduce the quality of mental health services provided to low SES patients.

The determinants of access to mental healthcare are numerous, as the Surgeon General's 1999 report broadly summarizes factors affecting access to mental health services as including:

> clinical status and personal and sociocultural factors affecting desire for care; knowledge about mental health services and the effectiveness of current treatments; the level of insurance copayments, deductibles, and limits; ability to obtain adequate time off from work and other responsibilities to obtain treatment; and the availability of providers in close proximity, as well as the availability of transportation and child care.[98]

Inadequate access to mental health treatment for low SES persons is primarily the result of both structural barriers within the mental healthcare system as well as financial barriers such as the inadequacy or unavailability of mental health insurance. Recent research on structural barriers to mental health services has indicated that disparities in receiving preventive mental healthcare are "attributable to organizational characteristics, including location, resources, and complexity of clinic or practice."[99] Additionally, "coordination, continuity, and comprehensiveness of services delivered," have been cited as organizational determinants of access to mental health treatment for low SES populations.[100] Mental health provider shortages in high poverty areas also form barriers to access of services. Data compiled from the NCS-R, US Census, and Medical Panel Expenditure Survey demonstrate that a $1000 increase in per capita income corresponds to a 1.3% decrease in unmet need resulting from provider shortage.[101] This SES disparity in access extends across all types of treatment, as high income families are more likely than low income families to use general medical services, mental health specialty services, and non-health care

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[98] US Department of Health and Human Services, *Mental Health: A Report of the Surgeon General*, 424.
[99] Amy M. Kilbourne et al., "Advancing Health Disparities Research Within the Health Care System: A Conceptual Framework," *American Journal of Public Health* 96 (Dec 2006): 2117.
[100] Ibid.
[101] Kathleen C. Thomas et al., "County-Level Estimates of Mental Health Professional Shortage in the United States," *Psychiatric Services* 60 (Oct 2009): 1325.

services in response to a mental illness.[102] However, even in locations where low SES populations have geographical access to mental health services, tremendous financial barriers remain. Mental healthcare, much like healthcare in general, is prohibitively expensive for low-income, uninsured patients. By 2010 US Census estimates, a little over 16.7% of US adults are medically uninsured.[103] However, even individuals with regular health insurance often are not sufficiently insured for the high costs associated with mental health services. Most private insurance plans either do not cover mental health at all or place strict limitations on mental health coverage. Individuals with private insurance are typically limited to a lifetime amount of $25,000 of coverage for mental health care. This amount does not even approach the costs of most mental illnesses that require expensive, life-long treatment. Mental health insurance parity legislation has been largely ineffective in improving access, as it has not applied to "Companies with fewer than 50 employees or which offered no mental health benefit."[104] Thus, mental health insurance parity has only affected a very limited group. Structural and financial barriers to accessing mental health treatment, such as provider shortages or inadequate mental health insurance, are significant health sector determinants of SES inequalities in mental health.

Poor patient understanding of mental illness and the mental healthcare system is another health sector determinant of SES disparities in mental health. The majority of low income patients suffering from a mental illness have little education and knowledge of mental illness in general, how to navigate the mental health system, and how to follow provider recommendations. Additionally, stigma surrounding mental illness and the receipt of mental healthcare is especially acute within low-income populations. As a result of this societal stigma,

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[102] Wang et al., "Twelve-Month Use of Mental Health Services in the United States," 637.
[103] "Income, Poverty, and Health Insurance Coverage in the United States: 2009," U.S. Census Bureau, accessed 3 April 201, http://www.census.gov/prod/2010pubs/p60-238.pdf, 22.
[104] US Department of Health and Human Services, *Mental Health: A Report of the Surgeon General*, 427.

"people with mental health problems internalize public attitudes and become so embarrassed or ashamed that they often conceal symptoms and fail to seek treatment."[105] In turn, this stigma can be reinforced or exacerbated by a lack of acceptance or understanding by patients' families and local cultures. In some instances, entire cultural groups may disavow the legitimacy of a mental illness or seek to prevent appropriate treatment due to misunderstanding or cultural traditions. Such patient-centered, cultural determinants may be better classified as issues of underutilization as opposed to issues of barriers to access. Underutilization is a product of both health sector and non-health sector determinants. Many times it may not be a lack of understanding but rather a preference for not receiving treatment, as "individual cultural beliefs and familial experiences are known to influence individual preferences about health care access and outcomes."[106] Alternatively, instead of choosing not to acknowledge or take action on a mental illness, low SES persons may simply not recognize their mental illness because of a lack of education on the validity and existence of mental disorders. Poor patient knowledge among low SES populations of how to navigate the often complex bureaucracy of the mental healthcare system or how to follow mental health provider prescriptions or recommendations may also constitute health sector determinants of SES inequalities in mental health.

Health Sector Determinants of Geographical Inequalities

The health sector determinants of geographical inequalities in mental health include stigmatization, local culture, education, distance or transportation barriers, and provider shortage. These determinants parallel many of the factors contributing to SES disparities. As previously argued, the health sector determinants of rural areas are much more detrimental than those of

[105] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 29.
[106] Kilbourne et al., "Advancing Health Disparities Research Within the Health Care System: A Conceptual Framework," 2116.

urban areas. Stigmatization is likely a more difficult hurdle to overcome in rural areas due to the increased visibility and closely-connected nature of rural communities. Unlike urban areas, where individuals who suffer from mental illness might derive a sense of privacy from the isolation that results from being 'lost in the crowd', rural areas, where persons are 'welcomed by the few,' provide less privacy and less opportunity to avoid stigmas surrounding mental illness and the receipt of treatment. In short, anonymity is more difficult to maintain in rural areas; therefore, rural stigma of mental illness may be more difficult to overcome and thus may constitute a greater barrier to accessing treatment in rural areas. Similarly, rural areas are plagued by lower education levels that reduce both knowledge surrounding mental illness and awareness of the importance of mental health. Rural culture may also negatively influence perceptions and practices regarding the legitimacy and utilization of mental healthcare. Thus, stigmatization, poor education, and rural culture may all lead to underutilization of services in rural areas. In addition to encountering heightened stigma and poor education, rural individuals need to travel further distances on average to receive mental healthcare. Rural residents also do not have access to the infrastructure and public transportation resources that are available to urban residents. Regular, consistent attendance is of particular importance for psychotherapy appointments that are of immense importance within mental health treatment. There are three primary types of transportation rural residents can obtain to achieve access to mental health treatment: "(1) individual access (eg. having a drivers license or driving a car), (2) access to a ride from a relative or friend, and (3) access to public transportation."[107] These final two methods are unreliable and often unavailable for many rural residents. Individual access to transportation is dependent both on the financial means to own personal transportation and on

[107] Thomas A. Arcury et al., "Access to Transportation and Health Care Utilization in a Rural Region," *The Journal of Rural Health* 21 (Jun 2006): 35.

being mentally and physically healthy enough to obtain a license and drive a vehicle. This transportation issue is partially a result of the lack of a sufficient number of rural mental health practitioners. The rural mental health provider shortage is another significant factor barring access to mental health services in rural areas. In fact, "a 1-point increase in rurality on the 9-point Rural-Urban Continuum Code corresponded to an increase in unmet need of 3.3 percentage points," resulting from mental health provider shortages.[108] While there is continued need for both counseling and prescribing practitioners, the majority of this provider shortage in rural areas represents a deficiency in psychotherapists over prescribing providers such as psychiatrists. This lack of access to psychotherapy may cause rural residents to "rely more on antidepressant medications than on counseling."[109] Ignoring this vital counseling aspect to the treatment of mental illness constitutes suboptimal treatment for rural residents that may result in geographical disparity in mental health. Health sector geographical disparities in mental health are the result of many structural and cultural factors that disadvantage rural residents' ability to access and receive mental health treatment relative to their urban counterparts.

With respect to health sector determinants of both SES and geographical inequalities in mental health, an important distinction should be made between access to and utilization of the mental healthcare system. Barriers to accessing mental health treatment emanate primarily from the ways in which both the overall system and individual providers function; obstacles to equal *access*, such as structural or financial barriers, are typically products of the mental healthcare system itself. In contrast, *underutilization* of mental health services results not only from health-sector determinants that unequally bar access for certain people but also from social determinants in the non-health sector. These social determinants operate in different ways among lower SES

[108] Thomas et al., "County-Level Estimates of Mental Health Professional Shortage in the United States," 1325.
[109] Fortney et al., "The Association Between Rural Residence and the Use, Type, and Quality of Depression Care," 212.

and rural populations to result in disparate levels of services utilization between different groups. For instance, stigmatization, cultural understanding or perception of mental illness, and general education level all operate outside of the health sector to influence patient utilization of mental health services. In short, there is significant overlap between the health sector and the non-health sector in determining whether or not certain groups of people receive mental health treatment. Although these health sector and non-health sector determinants of access and underutilization both ultimately influence whether or not an individual receives mental healthcare, their origin in different arenas has important implications for where policy measures should be directed.

Policies and Practices to Improve Fair Equality of Opportunity within Mental Health

Historically, efforts to improve the mental health of Americans have focused almost exclusively on addressing health sector determinants. However, future actions should consider incorporating a combination of both health sector and non-health sector policies and interventions to more effectively address SES and geographical inequalities in mental health. These actions would also simultaneously improve the mental health of all Americans. Mental healthcare does have significant preventive effects; however, it is currently structured to allocate the majority of its resources to treatment of existing mental illnesses. By focusing more future policy and resources on the social determinants of mental health, it is possible to mitigate the incidence of mental illness and thereby concurrently reduce the need for treatment. These solutions focusing on prevention over treatment of mental disorders represent more efficient uses of resources by targeting remedies to the origin of the problem.

Non-Health Sector Policies and Practices

The social determinants of mental health consist of an extremely wide range of factors including many major social issues such as poverty or discrimination. Historical efforts have

demonstrated that such problems are far from being easily remedied through policy intervention. However, "where a solid case can be made that public policies outside the health portfolio are likely to affect population health outcomes (for good or ill) this should be taken into account in policy-making processes."[110] As an ambitious but realistic starting point, non-health sector policies to address the SES and geographical inequalities in mental health should include measures to strengthen families, improve upon and expand existing social support networks, increase the funding and reach of welfare programs, improve working conditions and wages for poor, low-skilled workers, and educate the public about the basic facts and importance of mental health. Because one's family is often a person's most effective and reliable social support network, policies designed to support and promote families provide individuals with a mechanism of alleviating the stressors they encounter in other aspects of their lives. Family cohesiveness and strength are vital to maintaining mental health because "strong families are better equipped to cope with adversity and to provide mentally healthy environments for their children."[111] Given the strong influence of child and adolescent mental health on future adult mental health, policies designed to educate parents on mental illness and on how to provide good developmental environments for their children are promising non-health sector actions. Specifically improving social support networks in poor or urban areas is also a potentially effective action towards mitigating SES and geographical inequalities. These policies should incorporate "strategies to build social capital within localized settings."[112] Additionally, these efforts to promote mental health should strive to improve and "build on intrinsic community strengths such as spirituality, positive ethnic identity, traditional values, educational attainment,

[110] Fisher et al., "The social determinants of mental health: implications for research and promotion," 1062.
[111] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 168.
[112] Fisher et al., "The social determinants of mental health: implications for research and promotion," 1062.

and local leadership."[113] More specifically, these policies should strive to implement and strengthen mental health support resources such as local support groups, community organizations, and opportunities for regular, community-wide interaction. Another non-health sector action to mitigate mental health disparity is improving working conditions for low wage workers, specifically targeting high demand, low control occupations that are associated with increased chronic stress and elevated levels of mental illness. Occupational stress management programs have been shown to effectively improve mental health while also improving worker productivity within a host of different occupations.[114] These programs include training on cognitive coping strategies, support group meetings, biofeedback analyses, and training on relaxation/meditation methods.[115] If mandating employers to implement these programs is not effective at reducing stress levels for workers in low control or high demand jobs, then different policy actions could be taken. For example, employment legislation improving working conditions and limiting the amount of certain types of work that can be performed by employees could be implemented. Increasing the funding and coverage of welfare programs such as TANF, unemployment insurance, or Medicaid would also be a possible effective policy strategy to reduce inequalities in mental health. "The reduction of social adversities," such as poverty, community violence, racism, and discrimination, "while a formidable task, may be vital to improving the mental health," of Americans.[116] Improving and expanding coverage of welfare assistance and unemployment insurance programs would increase the incomes of low-income families and provide security for the unemployed. Additionally, increasing Medicaid funding

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[113] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 168.

[114] H. van der Hek and H. N. Plomp, "Occupational stress management programmes: a practical overview of published effect studies," *Occupational Medicine* 47 (1997): 136-37.

[115] Ibid., 135-38.

[116] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 167.

would not only allow for more mental healthcare services to be provided but also improve general physical health. Given the strong correlation between mental and physical health, this expansion and improvement of Medicaid coverage and services would result in an indirect positive effect on mental health. Finally, educating the public on the importance of mental health and the facts concerning mental illness would combat the underutilization of mental health services among lower SES and rural populations. The health sector should certainly bear some of the burden of educating the public and removing barriers to accessing treatment; however, the non-health sector also has a responsibility to improve utilization. These proposed non-health sector actions and policy interventions have potential to improve mental health and mitigate inequalities on their own; however, they would be most effective in combination and in coordination with health sector actions.

Health Sector Policies and Practices

Health sector changes and policy interventions that would be good starting points to improving fair equality of opportunity within mental health include: educating the public about mental illness and access to treatment, increasing the number and diversity of mental healthcare providers, improving coordination, continuity of care, and mental health research in order to increase access to and quality of treatment, and achieving complete parity in mental health insurance coverage. Educating the public would be beneficial not only for improving persons' abilities to navigate the mental healthcare system and receive treatment but also for reducing the societal stigmatization of mental illness. The Surgeon General's 1999 Report on Mental Health proclaims that "to reduce the burden of mental illness, to improve access to care, and to achieve urgently needed knowledge about the brain, mind, and behavior, stigma must no longer be

tolerated."[117] Specifically, this eradication of stigma could be achieved through public health campaigns that simultaneously inform the public about both mental illness in general and the availability and effectiveness of treatments. In order to improve knowledge of how people suffering from mental illness can access treatment, both those at-risk for mental illness and the social services personnel that they often regularly interact with should be informed of mental health services options. Increasing the number and diversity of mental health providers is another action that would potentially reduce SES and geographical inequalities in mental health. While increasing the supply of all types of trained mental health professionals would be beneficial, raising the number of psychotherapy or counseling practitioners would be of particular benefit within rural areas. Additionally, the medical profession should seek to obtain greater racial or ethnic diversity within the mental healthcare workforce. This not only would improve quality of treatment for minorities but also would increase their likelihood of seeking treatment. In the vein of expanding and diversifying the core mental health professions of psychiatry, psychology, social work, counseling, and psychiatric nursing, "Programs that encourage students who are committed to serving racial and ethnic minority communities to enter the field of mental health will help to reduce the mismatch between needs and capacity."[118] Policies improving the quality of mental healthcare as well as those reducing structural barriers to accessing mental healthcare would also be effective health sector interventions to address SES and geographical inequalities. Coordination between the different mechanisms of care within the mental health system is essential to providing individuals with adequate access to quality treatment. "The mental health system is highly fragmented," and primary care should be the

[117] US Department of Health and Human Services, *Mental Health: A Report of the Surgeon General*, 454.
[118] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 167.

primary point of entry for most people into the mental healthcare system.[119] As a result, family practice and other primary healthcare practitioners should be well informed on mental illness and should be able "to make proper referrals and/or to address problems effectively themselves."[120] Additionally, to increase the quality of mental healthcare provided across all levels of SES, mental health treatment practices need to increasingly rely on evidenced-based treatment and also must incorporate a more racially, socially, and economically diverse population for mental health studies and research. Based on the fact that "Repeated surveys have shown that concerns about the cost of care are among the foremost reasons why people do not seek care," focusing policy interventions on removing financial barriers would be another potentially effective strategy to mitigate mental health disparities.[121] To reduce mental health inequalities for all Americans, achievement of mental health parity must be complemented by an expansion of public health insurance to all uninsured individuals. In essence, "steps to equalize health and mental health benefits in public insurance programs will do little to reduce barriers for the millions of working poor who do not qualify for public benefits, yet do not have private insurance."[122] Policy needs to expand the reach of the narrow 1996 Mental Health Parity Act by mandating the placement of mental illness coverage on par with that for somatic illness for the entire population. Cost-benefit predictions of implementing mental health parity indicate that the overall costs would be minimal and that introducing managed care in conjunction with parity might even reduce the overall cost of insurance parity legislation. There are currently also large political barriers to expanding mental health parity; these barriers will ultimately need to be addressed and overcome.

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[119] US Department of Health and Human Services, *Mental Health: A Report of the Surgeon General*, 457.
[120] Ibid.
[121] Ibid.
[122] US Department of Health and Human Services, *Mental Health: Culture, Race, and Ethnicity – A Supplement to Mental Health: A Report of the Surgeon General*, 164.

The recently signed 2010 Patient Protection and Affordable Care Act will have and already has had several significant effects on the US mental health system. The Affordable Care Act will mandate health insurance coverage for 32 million currently uninsured Americans, which will thereby improve access to mental health services for the previously uninsured. Also, both allowing young adults up to age 26 to remain on their parents' health insurance plan and no longer denying coverage for pre-existing conditions should serve to lower the number of uninsured. Most importantly, the Affordable Care Act will seek to achieve more complete mental health parity, when, in 2014, "mental health and substance use disorders will be part of the essential benefits package, a set of healthcare service categories that must be covered by certain plans."[123] With this reduction in the number of uninsured individuals, free clinics will need to reevaluate their role in the healthcare safety net. Free clinics should consider expanding mental health services for the remaining uninsured, such as illegal immigrants, and taking the lead in educating the public regarding both mental illness and available treatment pathways. Many free clinics may also attempt to transition into becoming community health centers that will accept Medicaid and Medicare patients and offer formal mental health services.

It is evident from looking at both the health sector and non-health sector determinants of mental health inequalities that tremendous overlap exists between these two sectors. This overlap is especially obvious with respect to improving utilization of as well as access to mental health services. As stated previously, the health sector alone should not bear the entire burden for educating the public in order to improve utilization of mental healthcare. Instead, concerted policy efforts in both the health sector and non-health sector need to concurrently eliminate not only structural or financial barriers to access but also cultural or educational factors contributing

[123] "The Affordable Care Act & Mental Health: An Update," Pamela S. Hyde, last modified 19 August 2010, accessed 6 April 2011, http://www.healthcare.gov/news/blog/mentalhealthupdate.html.

to underutilization. This concerted action is necessary because neither improving access without increasing utilization nor improving utilization without affecting access will yield maximal increases in the number of people receiving mental health treatment. Ultimately, coordination between the health and non-health sectors will be essential for eliminating SES and geographical disparities in mental health.

Mental illness is an extremely devastating and widespread public health issue within the United States. Social and health-sector determinants of mental health result in certain groups of Americans bearing a disproportionate burden of poor mental health and mental illness. Ethical obligations justify actions towards mitigating inequalities in mental health. However, much like the determinants of mental health are intricate and multifaceted, the potential solutions to remedying mental health inequalities are necessarily multidimensional. Scientific advances in medicine, specifically in the field of mental health, have led to incredible levels of understanding and exciting potential for future treatments. Yet, the social origins of mental health disparity remain difficult to fully elucidate and comprehend. Similarly, as many of the social determinants of mental health represent significant, still unsolved social issues such as poverty and discrimination, successful remedies to these social causes of mental health inequalities have evaded many bright and passionate minds. Going forward, there is a substantial need for additional research and investigation into the origins of and solutions to inequalities in mental health. Given the current level of knowledge in this arena, pursuing the previously proposed interventions would represent an excellent starting point to an overall lengthy quest towards both eliminating socioeconomic and geographical inequalities and achieving fair equality of opportunity in mental health.

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