I, Kellana C Walton, hereby submit this original work as part of the requirements for the degree of Master of Arts in Psychology.

It is entitled:
Public Mental Health Spending, Services and Policy in Hamilton County, Ohio

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This work and its defense approved by:

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Abstract

The estimated annual economic burden of serious mental illness is $317 billion, excluding costs associated with comorbid conditions, incarceration, homelessness, and early mortality. This sum is equivalent to about $1,000/year for every man, woman, and child in the United States (Kessler et al., 2008). A critical need exists for a thorough examination of public mental health care spending. This information is important so that policy makers, foundations, and community agencies can make informed and rational planning decisions regarding the optimal mix of services to provide. It is commonly believed that the decrease in public funding for mental health has had the effect of focusing money on chronic illnesses to the exclusion of funding for prevention, early intervention, or treatment of acute disorders. The purpose of this descriptive study was to document how public dollars have been spent on mental health by examining what problems and populations are being addressed and by whom. In addition, the study documented the distribution of county spending by source, identified the top service providers, and ascertained spending priorities amongst the provider agencies. Finally, this research addressed the implications of those spending patterns, likely future outcomes, and offered policy recommendations. It was necessary to review data from the individual agencies which received and distributed public funds. The data were gathered in Hamilton County, OH, based on the largest providers given the difficulty of state or multi-county analysis. The initial step was obtaining budgets from the Hamilton County Mental Health Recovery and Services Board for fiscal year 2010 (FY 2010) and creating a report which tracked the flow of funds from their sources to the agencies that delivered services. Then, funder expenditures and agency services were integrated and findings were discussed by local mental health experts via individual interviews. Results showed that ten agencies were responsible for approximately 82% of public mental health spending in Hamilton County. Federal funding represented approximately 52% of
total funding, while local tax support contributed 36% and state funding was less than 12%.

Total spending on prevention services accounted for only 2% of the total mental health budget.

Chronic care was by far the largest expenditure in the county. The top ten agencies spent an average of $10,640 per chronically ill client in federal, state, and local funds on mental health services in FY 2010. Conversely, less than $100 was spent per client on prevention services. Key informant interviews provided insight into why little systemic attention is paid to prevention.

While 100% of agency leaders agreed that prevention is important and critical in stemming the growing unmet mental health treatment need, there were commonly cited barriers to shifting priorities, centering on the difficulty of measuring impact. Preventing an even greater percentage of unmet need in our communities requires a re-examination of funding priorities, activities, and policies. More advocacy for mental illness prevention and mental health promotion is needed. Providers need to create an evidence-based practices prevention clearinghouse. Finally, it is important to increase the percentage of the mental health budget spent on prevention.

Keywords: mental health, mental health spending, mental health policy, mental illness prevention
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Introduction

The societal burden associated with impaired functioning caused by mental illness is well documented (Insel, 2008; Kessler, et al., 2008; Mark et al., 2007; Hogan, 2002). In 2006, U.S. mental health spending was 6% of total health care spending which in turn was 16% of U.S. gross domestic product. Total health costs are on track to reach 20% of GDP in 2016 but this estimate doesn’t capture the full economic costs of mental illness (Insel, 2008). Serious mental illness was estimated to be associated with a loss of $193 billion in personal earnings in the total U.S. population in 2002. To put this cost in perspective, it is larger than the $145 billion economic stimulus package proposed by President Bush in January 2008 to help avoid an economic recession in the United States (Kessler et al., 2008). Studies comparing cost of illness show that the magnitude of mental disorder impairment is higher than that of most physical disorders. For example, although only 6% of all U.S. spending on health care is dedicated to mental illness treatment, nearly one-third of illness-related days in which workers could not carry out daily activities as usual are related to mental versus physical disorders (Colton & Manderscheid, 2006). This disparity exists because most persons with mental disorders do not get treatment and treatment rates are much higher for physical than mental disorders with similar levels of impairment (Kessler et al, 2008; Kessler et al., 2005).

There is emerging evidence suggesting that most adult mental disorders should be reframed as extensions of juvenile disorders. Research shows that childhood adversities are associated with increased risk of adult mental disorders and also predict greater disorder-related impairment (McLaughlin et al., 2010). A 2003 longitudinal study of adults with mental illness revealed that 74% - 77% had received a diagnosis before 18 years of age and 50% - 58% before 15 years of age, depending upon treatment type (Kim-Cohen et al., 2003). It is estimated that
33% of youth will meet lifetime criteria for a Diagnostic and Statistical Manual of Mental Disorders (DSM) mental disorder. Simultaneously, nearly 10% of children and youth are estimated to meet the Substance Abuse and Mental Health Services Administration criteria for a Serious Emotional Disturbance (Merikangas et al., 2009). Generalized Anxiety Disorder and Social Anxiety Disorder are the two of the most prevalent adolescent disorders. The co-occurrence of anxiety disorders and mood disorders is also notable as there is evidence that anxiety expressed early in life is followed by depression in adulthood (Merikangas et al, 2009). Additionally, a substantial proportion of children with Attention Deficit Hyperactivity Disorder (ADHD) continue to meet full criteria for ADHD as adults. Specifically, 50% of children with ADHD continue to meet DSM-IV criteria for ADHD as adults (Lara et al., 2009).

With specific mental health disorders, there is strong evidence of gender and racial/ethnic disparities. This is important to note because overall mental health prevalence rates and trends may not reflect the amount of distress in subgroups. Often time these populations are members of groups who may be at a disadvantage, socially, economically and politically, compromising equity and social justice in health or mental health access and status.

Recent studies have shown that there are increased depressive symptoms among Hispanic youth, particularly among Mexican-Americans, compared with their white and African American counterparts (Twenge & Nolen-Hoeksema, 2002). This is troubling in light of U.S. population trends that signal an exponential increase in the Hispanic population in years to come (“Current Population Reports,” 2010). Additionally, depression is the leading cause of mental and economic impairment for individuals between the ages of 15 - 44 (Mark et al., 2007). Before adolescence, there is little difference in the rate of depression in boys and girls. But between the ages of 11 and 13 there is a precipitous rise in depression rates for girls. By the age of 15,
females are twice as likely to have experienced a major depressive episode as males. (“Women and Depression,” 2007). Although the median prevalence rate of ADHD only ranges from 3% to 4%; the increased prevalence of ADHD in boys has been well established (Twenge & Nolen-Hoecksema, 2002). This poses a problem since men are less likely to seek mental health treatment than women (Golberstein, Eisenberg & Gollust, 2008).

**Costs of Mental Illness**

Mental disorders impose an enormous emotional and financial burden on ill individuals and their families. They are also costly for our nation in medical resources used for care, treatment, rehabilitation (direct costs) and reduced or lost productivity (indirect costs), to say nothing of the emotional burden imposed on family members.

Except where noted, the following sections on the costs of and spending on mental illness are a synopsis of key findings from a 2000 report sponsored by SAMSHA and the National Institutes of Health (NIH), Mental Health: A Report of the Surgeon General. This 2000 publication is the most current and exhaustive exploration of mental health costs that was available.

*Direct Costs*

Mental health expenditures for treatment and rehabilitation are an important part of overall health care spending but differ in important ways from other types of health care spending. Many mental health services are provided by separate specialty providers—such as psychiatrists, psychologists, social workers, and nurses in office practice—or by facilities such as hospitals, multiservice mental health organizations, or residential treatment centers for children. Insurance coverage of mental health services is typically less generous than that for general
health, and government plays a larger role in financing mental health services compared to overall health care.

In 1996, the United States spent more than $99 billion for the direct treatment of mental disorders, as well as substance abuse, and Alzheimer’s disease and other dementias.

More than two-thirds of this amount ($69 billion or more than 7% of total health spending) was for mental health services. Spending for direct treatment of substance abuse was almost $13 billion (more than 1% of total health spending), and that for Alzheimer’s disease and other dementias was almost $18 billion (almost 2% of total health spending).

Despite the historical precedent for linking all these disorder groups together for diagnostic and cost accounting purposes, they are handled differently by payers and providers. A majority of private health insurance plans have a benefit that combines coverage of mental illness and substance abuse. However, most of the treatment services for mental illness and for substance abuse are separate and use different types of providers. This separation causes problems for treating the substantial proportion of individuals with comorbid mental illness and substance abuse disorders, who benefit from treating both disorders together (Drake et al., 1998).

Alzheimer’s disease and other dementias historically have been considered as both mental and somatic disorders. However, recent efforts to destigmatize dementias and improve care have removed some insurance coverage limitations. Once mostly the province of the public sector, Alzheimer’s disease now enjoys more comprehensive coverage, and care is better integrated into the private health care system. Inequities in coverage are diminishing (U.S. Department of Health and Human Services Task Force on Alzheimer’s Disease, 1984; Goldman et al., 1985).
As indicated, coverage differs for treatment of substance abuse and Alzheimer’s disease. With respect to financing policy, both conditions are outside the scope of this report; thus, they will not be included in the spending estimates that follow.

*Indirect Costs*

Indirect costs of illness are incurred through reduced labor supply, public income support payments, reduced educational attainment, and costs associated with other consequences such as incarceration or homelessness. Another kind of indirect cost results from the high rate of medical complications associated with serious mental illness, leading to high rates of emergency room care, high prevalence of pulmonary disease (persons with serious mental illness smoke 44% of all cigarettes in the United States), and early mortality (a loss of 13 to 32 years). While indirect costs have been challenging to quantify, they are critical for informing public policy (Insel, 2008).

The *indirect costs* of all mental illness imposed a nearly $79 billion loss on the U.S. economy in 1990 (the most recent year for which estimates are available) (Rice & Miller, 1996). Those costs, adjusted for inflation in 2012 would be approximately $137 billion. Most of that amount ($63 billion) reflects morbidity costs—the loss of productivity in usual activities because of illness. But indirect costs also include almost $12 billion in mortality costs (lost productivity due to premature death), and almost $4 billion in productivity losses for incarcerated individuals and for the time of individuals providing family care. For schizophrenia alone, the total indirect cost was almost $15 billion in 1990. These indirect cost estimates are conservative because they do not capture some measure of the pain, suffering, disruption, and reduced productivity that are not reflected in earnings.
The fact that morbidity costs comprise about 80% of the indirect costs of all mental illness indicates an important characteristic of mental disorders: Mortality is relatively low, onset is often at a younger age, and most of the indirect costs accrue from lost or reduced productivity at the workplace, school, and home (Rupp et al., 1998).

**Mental Health Spending**

In 1996, the United States spent more than $99 billion for the direct treatment of mental disorders, as well as substance abuse, and Alzheimer’s disease and other dementias. Of the $69 billion spent in 1996 for diagnosis and treatment of mental illness, more than 70 percent was for the services of specialty providers, with most of the remainder for general medical services providers.

*Public versus Private Spending*

Funding for the mental health service system comes from both public and private sources. In 1996, approximately 53% ($37 billion) of the funding for mental health treatment came from public payers. Of the 47% ($32 billion) of expenditures from private sources, more than half ($18 billion) were covered by private insurance. Most of the remainder were out-of-pocket payments. These out-of-pocket payments include copayments from individuals with private insurance, copayments and prescription costs not covered by Medicare or gap (i.e., supplementary) insurance, and payment for direct treatment from the uninsured or those insured who choose not to use their insurance coverage for mental health care.

**Prevention and Mental Health**

Given the disparity between the cost of treating mental health illnesses and dollars available to spend on them, the logical and sustainable method for managing the burdens caused by these disorders is prevention. Research has shown that early and focused prevention efforts
can greatly reduce the economic, psychological, and social costs incurred by families and societies afflicted by poor mental health (Greenberg, Domitrovich, & Bumbarger, 2001). There is a wide range of evidence-based preventive interventions and policies available for implementation. For example, SAMHSA maintains a National Registry of Evidence-based Programs and Practices (NREPP). These programs have been shown to reduce risk factors, strengthen protective factors, and decrease psychiatric symptoms and the onset of some mental disorders. They also improve positive mental health, contribute to better physical health and generate social and economic benefits (Weisz et al., 2005; WHO, 2004). These multi-outcome interventions illustrate that prevention can be cost-effective. Research is beginning to show significant long-term outcomes. A meta-analysis of 177 primary prevention programs designed to prevent behavioral and social problems in children and adolescents revealed that the average participant surpassed the performance by 59% to 82% of those in a control group, and outcomes reflect an 8% to 46% difference in success rates favoring prevention groups (Durlak & Wells, 1997).

**What do we know about prevention?**

Biological, psychological, and societal risk and protective factors have been identified across the lifespan from as early as fetal life. Many of these factors are malleable and therefore potential targets for prevention and promotion measures (Weisz et al., 2005; WHO, 2004). Children’s trajectories of mental health problems can become evident as early as kindergarten. A study conducted by Essex and colleagues (2009), revealed that by 5th grade, children with recurrent comorbid symptoms had the greatest mental impairments, physical health problems, and service use. These children can be identified quite accurately by 1st grade. The results of this study suggest that preventative measures via universal screening at school entry can effectively
identify children likely to develop recurrent comorbid symptoms, and would provide a basis for developing optimal targeted intervention programs. Prevention of substance dependence has shown promise as an important secondary outcome of interventions for early-onset mental disorders (Meyer et al, 2009).

Analyses of youth from various studies have shown that child and adolescent mental disorders are related to a wide array of adverse outcomes. Etiologic research and prevention policy should focus more on childhood mental disorders, as most adults with mental disorders are found to have a juvenile psychiatric history (Kim-Cohen et al., 2005). The risk factors for the development of mental disorders in children are generally thought of as being either Child characteristics which are attributes such as gender, age, ethnicity, physical health, cognitive and psychological function, pre- and perinatal exposures to illness, physical stress, alcohol, drugs, nutrition, infections and other environmental agents, and lifetime history of environmental exposures to toxins, stress, infections, social environment and stressful life events; Family/Parent characteristics which include parental education, age, social class, employment, psychiatric and medical history, and family function, structure; or neighborhood characteristics which are broader contextual influences on the health of children and their families (Goodman, 1997). Still, perhaps the most common and potent risk factor for the development of mental disorders in children is a parental history of mental disorders.

What works in prevention?

There are six important features of evidence-based prevention programs. The first is that they use a research-based risk and protective factor framework that involves families, peers, schools, and communities as partners to target multiple outcomes. Secondly, the programs must be long term, age specific, and culturally appropriate. They must also foster development of
individuals who are healthy and fully engaged through teaching them to apply social–emotional skills and ethical values in daily life. Additionally, these programs should aim to establish policies, institutional practices, and environmental supports that nurture optimal development. It is also critical to select, train, and support interpersonally skilled staff to implement programming effectively. Finally, the most effective programs incorporate and adapt evidence-based programming to meet local community needs through strategic planning, ongoing evaluation, and continuous improvement. (Weissberg, Kumpfer & Seligman, 2003).

**Prevention Science and a Public Health Approach**

Prevention science emerged in the early 1990s as an interdisciplinary field to address the need for an integrated model for promoting wellness. Methods and principles derived from epidemiology, human development, psychopathology, and education were synthesized to create a strong didactic base. The framework of prevention science is essentially a public health model that shapes the design, delivery, and sequence of research and intervention strategies. In the area of mental health, the objectives of prevention science are to reduce both the incidence and the relapse of various psychological disorders and also to promote positive adaptation and adjustment for the general population (Kellam, Koretz, & Moscicki, 1999).

Prevention science recognizes the pressing need to develop and expand theory, practices, and services that emphasize prevention, early identification, and interventions geared toward health promotion (Hage et al., 2007). Thus, prevention, as defined by researchers in this field, encompasses three progressive and targeted interventions that are intended to reduce the occurrence of new cases of disease: (a) universal prevention, delivered to a whole population (e.g., a school, community, nation) without regard to risk; (b) selective prevention, targeting subpopulations based on a known risk factor for developing a disorder (e.g., coping skills
training for asymptomatic offspring of parents with anxiety disorders); and (c) indicated
prevention, reserved for individuals showing elevated but nonclinical (minimal but detectable)
symptoms of a particular disorder (e.g., coping skills training for a child with anxiety symptoms
not yet meeting the criteria for an anxiety disorder).

Prevention strategies are widely designed to be deliberate strategies for promoting
change. These strategies can involve direct contact between provider and client such as
individual or group counseling or less direct contact as it occurs through media campaigns,
systems change, or public policies (Herman et al., 2010). The most cost-effective treatment of
depression is prevention, and prevention more generally could improve the well-being of
millions of children and adolescents, saving the nation as much as $247 billion per year
(National Academy of Sciences, 2009). The example of depression illustrates the kind of cost-
effective informed decisions that should be made about mental health funding.

**Current Status of Prevention Spending**

On a national level, mental health prevention is not a priority. For example, in 2009, the
National Institutes of Health received $10.4 billion of stimulus funds, but not much of that
money was spent on prevention research, as less than 3% was allocated to the Department of
Mental Health (NIH, 2009). This is a significant problem. Dr. Michael Hogan, chair of the
President’s 2003 New Freedom Commission on Mental Health stated the problem more clearly,
“The excess costs of untreated or poorly treated mental illness in the disability system, in
prisons, and on the streets are part of the mental health care crisis…we are spending too much on
mental illness in all the wrong places” (Hogan, 2002). It is possible that a misappropriation of
public funds is occurring in Hamilton County, OH which is reflected in the central hypothesis.
With the scarcity of knowledge of how funds are distributed and spent at local levels, public
funds are possibly being inadvertently misspent, while providers of care forgo opportunities to impact before they begin.

Aggregate national health expenditures are available, but these statistics only estimate costs for services that the federal government fully or partially funds. Local and state costs/funding are undocumented thus unknown. Funding systems are fragmented, with no clear boundaries between health and mental health services, so no one actually knows how much is being spent or how funds are allocated at the state or community level. A critical need exists for a thorough examination of public mental health care spending and services. Lacking this information, policy makers, foundations, community agencies, and others in the public sector cannot make informed and rational planning decisions in order to ameliorate these problems. The results of the proposed research will create an informed dialogue about how mental health is funded, what services are funded, and whether the mix of services is appropriate.

**Specific Aims**

The information reported in this study is limited to public funding, as private dollars are notoriously difficult to account for (Hurley, 2004). In addition, these figures pertain to mental health but do include substance abuse and behavioral health. The data were gathered in Hamilton County, OH, based on convenience and the difficulty of state or multi-county analysis. It is commonly believed that the decrease in public funding for mental health has had the effect of restricting money to chronic illnesses versus prevention, early intervention, or treatment of acute disorders. The purpose of this descriptive study is to document how public dollars are being spent on mental health by examining what problems and populations are being addressed and by whom. In addition, the study will document the distribution and flow of county spending by source, identify the top service providers and ascertain the determinants of spending priorities
amongst the provider agencies. Finally, this research will address stakeholders’ perspectives on policy and the implications of those policies and spending patterns.

**Methodology**

This research is a descriptive study; however this report breaks new ground because it presents expenditures data collected at the county level through county departments of mental health and alcohol and drug addiction services, the county mental health board, and local mental health agencies. It expands upon other research that used state level aggregate data and provides a more complete picture of spending on mental health services. In particular, this report shows actual spending on prevention and is not limited to approximations. No other report gives as much detail, provides as much consistency across agencies or offers direct feedback from leaders of service agencies regarding their priorities on local public mental health spending and services.

*Expenditures Data Sources*

Mental health, behavioral health, and substance abuse expenditures data are available on the county level through three main sources: ODMH, ODADAS, and the county mental health board in this case the Hamilton County Mental Health and Recovery Services Board (HCMHRSB). The amount of data that each of these sources contributes is not detailed enough to determine total county spending. County boards keep a record of the amount of federal funds and the required state matching funds for specific federal programs, but they generally do not collect the total amount of public funds spent by local agencies or private dollars which are spent on public mental health services.

Because this study aimed to track total county spending on mental health, behavioral health, and substance abuse services, it was important to include the additional spending not accounted for at the levels of the ODMH, ODADAS, or the Board. The state-level spending data that organizations such as SAMSHA, the National Alliance for Mental Illness (NAMI), and
Mental Health America (MHA) publish are exhaustive and are widely used to make comparisons across states on total government spending. For purposes of this study, however, they would not have been ideal. County level data was preferred because state level data is so highly aggregated that it does not allow for a breakdown of spending to the level appropriate for ascertaining specific categories of spending. Because this study aimed to examine how spending on prevention compared to chronic care, acute care and treatment, it was necessary to review data from individual agencies which received public funds.

Participants¹

The top ten service providers in Hamilton County receive and spend approximately 82% of all public mental/behavioral health and substance abuse dollars. The following is a brief description of those agencies in order of the amount of public funding received.

Talbert House

Talbert House is a community-wide nonprofit network of social services with over 30 programs focusing on prevention, assessment, treatment and reintegration. Talbert House was founded in 1965 as an experiment to integrate ex-offenders back into the community. Today, Talbert House operates multiple service sites in conjunction with its affiliates throughout Greater Cincinnati. The services are offered to a broad-based population with the agency’s mission in mind: to improve social behavior and enhance personal recovery and growth. Talbert House served 26,000 children, adolescents, and adults in FY 2010 in more than 30 programs at 20 locations.

Greater Cincinnati Behavioral Health Services

Greater Cincinnati Behavioral Health Services (GCB) was formed in July 2004 as a result of a merger of two other mental health agencies, Cincinnati Restoration, Inc. (CRI) and Queen

¹ Agency descriptions were summarized from information provided on their respective websites.
City Case Management (QC/M). The merger of these two organizations in 2004 created GCB, the most comprehensive mental health agency serving adults with severe mental illness in Hamilton County. GBC’s mission is to assist persons with mental illness and related barriers to lead productive and fulfilling lives.

*Centerpoint Health*

Centerpoint Health is a comprehensive behavioral health care provider in Hamilton County, Ohio. Its mission is to strengthen the communities it serves by providing mental health care to children, adults and families. With five neighborhood-based locations throughout Hamilton County, Centerpoint serves children, adults and families. Centerpoint's four operational areas: Outpatient Counseling, Adult Case Management, Adult Support Services, and Crisis and Prevention Services. The agency's vision is to provide the region’s best mental health care to help everyone live a productive and healthy life.

*Central Clinic*

Founded in 1923, Central Clinic has been providing quality behavioral health and forensic services for over 85 years to children, adults and families. Central Clinic serves as an outpatient mental health agency for Hamilton and Butler Counties and as a forensic clinic for the Hamilton and Clermont Counties, including the Municipal Court and the Court of Common Pleas. The Clinic also operates a system of managed care for the Hamilton County Mental Health and Recovery Services Board-funded services. In addition, Central Clinic is the outpatient training arm for the Department of Psychiatry at the University of Cincinnati Medical Center.

*Central Community Health Board*

The mission of the Central Community Health Board (CCHB) is “to provide community leadership and comprehensive behavioral health programs that support a strong, well-functioning
community and assist residents of southwest Ohio and surrounding areas to achieve their greatest potential and well-being” (Central Community Health Board, n.d.). CCHB’s main focus is Early Prevention and Intervention Project (EPIP). Staff specifically works with clients in Hamilton County chemical dependency treatment programs to train and educate them in prevention of HIV and other sexually transmitted diseases. Using culturally competent risk-reduction strategies, this project delivers HIV early intervention services including education, risk assessment, HIV counseling and testing and case management.

St. Joseph’s Orphanage (SJO)

St. Joseph’s Orphanage is a proven leader in children's mental health recovery, providing residential, educational and community treatment programs for children who have been abused or neglected, are severely emotionally disturbed or developmentally disabled. Every year, SJO changes the lives of 1,600 children from the Greater Cincinnati community and across the country.

Children’s Home of Cincinnati

The Children’s Home of Cincinnati provides vulnerable children and their families with therapeutic treatment and special education designed to help them overcome social, behavioral, and learning challenges. The Children’s Home provides services in the areas of child care, family support, special education, and mental health.

Multi County Systems Agency (MCSA)

MCSA is the Multi County System Agencies. It is a partnership of Hamilton County’s four major child-serving agencies: Department of Job and Family Services, Juvenile Court, Mental Health and Recovery Services Board, and the Board of Mental Retardation and Developmental Disabilities. Together, these agencies fund a contract to manage an integrated
care system for highly troubled children who have contact with multiple systems (child welfare, mental health, juvenile court, mental retardation, alcohol and drug, etc.)

**EXCEL**

EXCEL provides permanent housing for homeless individuals and families with severe mental illness. EXCEL is a member of the Shelter Plus Care program which consists of permanent housing programs that include supportive services as part of participation.

**St. Aloysius’ Orphanage (SAO)**

St. Aloysius Orphanage provides programs and services for children in the areas of partial hospitalization, after school partial hospitalization, and residential care. The outpatient clinic provides evaluation and ongoing medication management for children ages 5-18. SAO’s in-school therapists provide individual, family and group therapy as well as psychiatric medication services on site for school districts in Hamilton and Butler Counties, including Cincinnati Public Schools.

**Included Services**

Many different types of programs provide mental health services. Some serve only children, many serve both adults and children, and others are focused on specific populations and do not specify an age range. Therefore, to guide data collection efforts, decision rules were used to decide whether particular services fit within the study’s definition of mental health, behavioral health, and substance abuse services. The three main rules were: (1) to include all spending on programs that were designed to provide mental health, behavioral health, or substance abuse services using public dollars (e.g., Medicaid/Medicare, levies, etc.); (2) to include all spending on programs that were designed to provide mental health, behavioral health, or substance abuse services to the public no matter the funding source (e.g., private dollars used to fund a school
bullying prevention program); and (3) to exclude spending on services provided in corrections systems and state hospitals. The information collected was grouped into four categories of programs that represent the major types of services funded with public dollars. This grouping facilitates an understanding of the strategies agencies use in serving the community. The categories were (1) prevention, (2) treatment, (3) acute care, and (4) chronic care.

Prevention refers to services that aim to eliminate or reduce the initial onset of a mental disorder or emotional or behavioral problem, including the elimination or reduction of comorbidity (HHS, 2003). Prevention services focus on promoting mental health; intervening early to prevent and address emerging mental health problems; decreasing the negative impact of mental illness and eliminating stigma associated with emotional problems and mental illness (ODMH, n.d.; IOM, 1994). Treatment refers to services that aim to manage, reduce or eliminate a mental disorder or emotional or behavioral problem in the context of treatment. Acute care is defined as short-term (with a median length of stay of approximately 30 days or fewer), 24-hour, inpatient care and emergency services provided in hospitals; short-term, 24-hour care provided in residential treatment facilities for children; and treatment in other crisis and urgent care service settings. Chronic care is defined as long-term (with a median length of stay of approximately 31 days or more), 24-hour, inpatient care provided in hospitals; and long-term, 24-hour care provided in residential treatment facilities for children (IOM, 1994).

Measures

Agencies fund a wide variety of programs, many of which are unique to a particular group in the population the program serves and its service design. In order to compare spending across agencies, program descriptions were used to classify the programs into the four categories described above. Instead of solely analyzing county spending on an agency-by-agency basis, the
The study also drew conclusions based on the four categories of services provided by most agencies. The study examined spending for fiscal year (FY) 2010. Agencies fiscal years all ran from July 1 through June 30.

**Data Collection**

Before requesting expenditure data for any of the ten provider agencies, the author contacted the Board’s Vice President of System Performance who provided technical assistance and provided the Board’s FY’ 10 budget which contains funding sources and allocations to provider agencies. From that budget, a list was generated of the top ten highest funded provider agencies that fit into the study’s categories. Once the list was created a written communication was sent to key personnel at each agency inviting them to participate in the study by providing basic budget information which included funding sources and program allocations. In some cases, these numbers were available online via the agency’s website to be collected directly, but detailed program information was not available for any agency. Each agency was then contacted to confirm participation and obtain the requested data. Detailed information for eight of the ten agencies was provided after attending a provider meeting hosted by the highest funded agency, Talbert House and asking for participation in this project.

An iterative process of speaking with various agency leaders to track down expenditure amounts was then undertaken. Often the key informants were not able to provide the information broken down by the programs requested, and the author had to contact department or program staff. Program descriptions were collected to ensure that the program did meet the study’s decision rules. After a final spreadsheet was prepared, the author contacted the agency key informants and conducted interviews to gather qualitative data during which the individual agency quantitative data was confirmed.
For the requested programs, 2010 fiscal year expenditures by program types: prevention, treatment, acute care, or chronic care was provided. Agency representatives were also asked to identify programs serving youth versus adults and to provide the name of all funding sources. They were then able to check this expenditure data against Board provided information to ensure that they were consistent. Finally, the author chose to collect FY 2010 data because, at the time, it was the latest year for which actual data were available at the local level, and appropriations or estimates were not desired as they could vary substantially from the reported actuals.

**Key Informant Interviews**

Potential key informants were considered by the author on the basis of their leadership or knowledge role in one of the participant agencies. It was important that they were able to speak about the public mental health system in Hamilton County as well as having an awareness of the specific services offered. An interview protocol was developed to ensure consistency between interviews. The interview guide consisted of mostly open-ended questions regarding the quantitative findings, prevention, and the functioning of the local mental health system.

Key informants were then invited to participate by letter, followed by a telephone call to arrange a convenient time and place for the meeting. Most interviewees preferred using the telephone for practical reasons, but two were conducted in person. The duration of the interviews was between 20 and 45 minutes and they were conducted by the author. The participants were free to deviate from it and the author intervened only to clarify issues or introduce a new question. Probes were used as needed to gain full understanding of the response. These included: “Would you give me an example?” and “Can you elaborate on that idea?”

The interviews were not audio recorded and participant responses were recorded by hand on the interview guide. Once the all of the interviews were completed the author read through the
interview responses to look for patterns or themes among the participants. These grouping helped inform the policy recommendations. There was one question that seemed more difficult than others to answer. It was: “From what category should funds be taken to increase the funding needed for prevention?”

Public Funding Flow

Public mental health funds distributed in Hamilton County are received via two main processes. The first is where federal and state public funds (including federal block grants and Medicaid dollars) are allocated to local mental health boards through ODMH and ODADAS. ODMH collaborates with county mental health and recovery boards, and with community agencies, to provide services and supports built on evidence-based best practices. The 50 publicly funded county boards contract with more than 400 provider agencies to serve individuals in their communities, including Medicaid-eligible recipients. ODMH certifies that the community provider agencies meet the requirements contained in the Ohio Administrative Code and obtain appropriate behavioral health accreditation. ODMH also receives funds from the Ohio General Assembly and distributes those funds to local mental health systems that are administered by alcohol, drug addiction and mental health (ADAMH) or mental health and recovery services boards. The distribution of funds is broadly guided by the intent of the Ohio General Assembly. Within that broad guidance, ODMH provides direction and creates priorities for the use of funds to provide a continuum of services that meet consumers’ needs and that is run efficiently, effectively and results in quality outcomes.

ODADAS plans, initiates, and coordinates an extensive system of services designed to prevent abuse and treat Ohio’s addicted populations. The Department coordinates the alcohol and other drug services of state departments, the criminal justice system, law enforcement, the

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2 Description of the flow of public funds in Hamilton County is summarized from the ODMH website.
legislature, local programs, and treatment/prevention professionals. To that end, ODADAS has formed a productive partnership with the Alcohol, Drug Addiction and Mental Health Services/Alcohol and Drug Addiction Services (ADAMHS/ADAS) Boards in running Ohio’s alcohol and other drug system. ODADAS establishes standards for prevention and treatment programs in the state and provides funding and technical assistance to the publicly funded prevention and treatment system. ODADAS allocates funds to each of the 50 ADAMHS and ADAS Boards who, in turn contract with and offer support to the alcohol and other drug prevention and treatment programs in their counties.

ODADAS and ODMH have joined to orchestrate a combined community planning process that engages consumers, family members, providers and other community constituents. After a description of current circumstances, boards are expected to identify capacity development targets for treatment and recovery support services and prevention services. The departments then evaluate the boards’ community plan submissions and provide a consolidated response to each board. ODMH and ODADAS then distribute funds to each county mental health board using a formula which also incorporates takes population, demographics, service availability and other factors in determining the allocation. The other main mechanism through which local funds are received is via local tax levies. Levy dollars are distributed by the Hamilton County Commissioners and can be disbursed to the local board and or directly to service providing agencies.
Results

The results of the study show how public dollars are being spent on mental health and substance abuse by examining what problems and populations are being addressed and by whom. In addition, spending by source, the top service providers and spending priorities amongst the provider agencies are displayed. Finally, the most pertinent finding of the key informant interviews is presented in a quantitative format.

How Much Do Federal, State, and Local Governments Spend on Mental Health Related Services in Hamilton County?

Table 1 shows the total amount of funding received by the HCMHRSB by source. Federal funding represents approximately 52% of total funding, while local tax support contributes 36% and state funding is nearly 12%. For FY 2010 the required state Medicaid match was 37.86% of the federal amount.

<table>
<thead>
<tr>
<th>Source</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
<th>Total Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid/Non-Medicaid</td>
<td>$55,630,284</td>
<td>$12,627,732</td>
<td>$68,258,016</td>
<td></td>
</tr>
<tr>
<td>SAMHSA Journey Grant</td>
<td>$1,125,000</td>
<td>$122,573</td>
<td>$1,125,000</td>
<td></td>
</tr>
<tr>
<td>State Medicaid Match</td>
<td>$12,627,732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State Direct Payments</td>
<td>$582,573</td>
<td>$582,573</td>
<td>$582,573</td>
<td></td>
</tr>
<tr>
<td>Mental Health Levy</td>
<td>$38,894,257</td>
<td>$38,894,257</td>
<td>$38,894,257</td>
<td></td>
</tr>
<tr>
<td>Drake AOD Services Levy</td>
<td>$1,322,184</td>
<td>$1,322,184</td>
<td>$1,322,184</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$56,755,284$13,210,305</td>
<td>$40,216,441</td>
<td>$110,182,030</td>
<td></td>
</tr>
</tbody>
</table>

What is the concentration of mental health spending power amongst top ten local provider agencies in Hamilton County? What is total spending per agency?

Total mental health spending of the top ten agencies in Hamilton County for FY 10 was $124,137,187. Figure 1 shows total spending by each agency. The HCMHRSB spends 94.7% ($104,342,382) of its annual budget on agency provider contracts. The balance of these agency dollars come from other sources. These dollars account for approximately 82% of total spending on mental health related services in the county.
Figure 1. *Total Mental Health Spending by Top Ten Hamilton County Service Providers*

![Bar chart showing total mental health spending by top ten Hamilton County service providers.](image)

**What is the concentration of substance abuse spending power amongst top eight local provider agencies in Hamilton County? What is total spending per agency?**

Total substance abuse spending of the top 8 agencies in Hamilton County for FY 10 was $15,305,229. Figure 2 shows total spending by each agency.

Figure 2. *Total Substance Abuse Spending by Top Eight Hamilton County Service Providers*

![Bar chart showing total substance abuse spending by top eight Hamilton County service providers.](image)
**How much is being spent on mental health prevention versus chronic care, acute care, and early intervention in Hamilton County?**

Table 2 shows that total spending on mental health prevention services account for only 2% of the total budget. Chronic care is by far the largest expenditure in the county. Examples of chronic care services include in-patient hospitalization, residential treatment and housing, and partial hospitalization.

**Table 2. Spending on services by category**

<table>
<thead>
<tr>
<th>Service</th>
<th>Amount of Total Spending</th>
<th>Percentage of Total Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
<td>$74,482,312</td>
<td>60%</td>
</tr>
<tr>
<td>Intervention</td>
<td>$34,758,412</td>
<td>28%</td>
</tr>
<tr>
<td>Acute</td>
<td>$9,930,975</td>
<td>8%</td>
</tr>
<tr>
<td>Prevention</td>
<td>$2,482,744</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>$2,482,744</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>$124,137,187</td>
<td>100%</td>
</tr>
</tbody>
</table>

**What populations are being served by public funds? How many are being served in each subcategory?**

Table 3 shows that the top 10 agencies spent an average of $10,640 per chronically ill client in federal, state, and local funds on mental/behavioral health services in FY 2010. Conversely, less than $100 is being spent per client on prevention services.

**Table 3. Annual Spending per client by service type**

<table>
<thead>
<tr>
<th>Service</th>
<th>Number of clients served</th>
<th>Average annual cost per client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic</td>
<td>7,000</td>
<td>$10,640</td>
</tr>
<tr>
<td>Intervention</td>
<td>8,086</td>
<td>$4,299</td>
</tr>
<tr>
<td>Acute</td>
<td>4,140</td>
<td>$2,399</td>
</tr>
<tr>
<td>Prevention</td>
<td>26,424</td>
<td>$94</td>
</tr>
<tr>
<td>Total</td>
<td>45,650</td>
<td>$2,665</td>
</tr>
</tbody>
</table>
What do key informants believe about the local mental health system?

Figure 3 shows the responses of key interviewees to the question “From what category should funds be taken to increase the funding needed for prevention?”

Figure 3. Percent of key informants choosing reallocation of funds to aid prevention

Discussion

The results of this study illustrate how important local research is to understanding the way that public mental health systems function. For example, without this level of examination, stakeholders would not realize the impact of local levy dollars on the total county budget or appreciate the role that local mental health boards play in shaping programs and policy in each county. In order to get a clear understanding of the state mental health picture, it is critical to start at the county level and build upwards. The ultimate objective of this study is to expand this process and analysis to the state or regional level thereby creating an even larger impact.

System spending and service priorities for mental health in Hamilton County are determined by the HCMHRSB. Over the past 20 years the HCMHRSB’s focus has been addressing those adults with SMD and children with SED. This decision has resulted in the majority of public dollars being spent on chronic care. Although a percentage of Federal money
via the SAMHSA grant is required to be spent on prevention, the proportion of the overall county budget is miniscule.

Key informant interviews provided insight into why little systemic attention is paid to prevention. While 100% of agency leaders agreed that prevention is important and critical in stemming the growing unmet need, there were commonly cited barriers to effectively advocating for a shift in priorities, centering on the difficulty of measuring impact. Most stated that prevention efforts take substantial time to produce evidence, many studies lack the proper design with a large enough cohorts to observe population changes, the outcomes are hard to measure, and there is great difficulty in securing enough funding to produce a quality prevention study. In addition, there is always pressure to deliver services to clients with identifiable, current needs.

The dearth of dollars being allocated to prevention was also framed in terms of national spending priorities. Consideration has to be given to the entire federal health care budget and the way that mental health spending fits into that bigger health picture. We have to understand what other priorities mental health in general is competing with. One example given compared the measureable and immediate impact of $1 billion spending on The National Strategy for Quality Improvement in Health Care. One of the initiatives diverts non-critical patients from visiting the emergency room and instead directs them to urgent care or other more appropriate facilities resulting in an immediate $8000 savings per person versus spending $1 billion dollars on prevention, which after taking state and county allocations into account, would result in a spending of $25 per child with no immediate, verifiable impact.

One interviewee expressed his opinion that a substantial shift in spending wouldn’t occur during this decade. He believes that until there is a mental health related crisis powerful enough to overcome the myriad of other challenges the general public is are dealing with, ranging from
job and home loss to the impact of worldwide financial institution collapse, mental health won’t be at the forefront of public concern. Political pressures, including the general public sentiment as well as specific constituent concern, allegiance to parties, personal experiences all play a role in shaping the national, state, and local agendas and how funds are prioritized.

Additionally, there are other public health problems such as cancer and heart disease which are facing similar allocation dilemmas. It’s widely believed that if funds were almost entirely shifted from treatment to research that all forms of cancer could be cured within five to ten years but even as high as cancer prevalence is; it’s untenable to take that money away from treatment. However, leaders predict that we will see attention paid to mental health prevention in specific population segments, such as veterans, children, and in emergency/catastrophic situations, e.g. Hurricane Katrina, but not a financial focus on prevention more broadly.

Timing remains a key factor when advocating for policy change, not only within the general population but within the mental health system as well. Currently, Ohio provider agencies and their funders are reeling from the effects of various and multi-layered cuts including the elevation of Medicaid and other cost containment measures. Understandably planning for and managing these changes are the focus of many agencies as they attempt to maintain and salvage programs and staff, while ensuring continuity of services to communities.

**Limitations**

The scope of this project and the complexities of deciphering ten different agency budgets mean that smaller service providers were omitted. Due to the focus on the largest agencies, the unique contributions of smaller agencies are not represented. This exclusion may result in decreasing the acknowledgement of the range and breadth of factors impacting the local mental health system. Additionally, the policy perspectives of those smaller agencies are not included.
Policy Recommendations and Implications

“Psychologists and mental health professionals have a role to play in furthering the development of sound public policies that support social–emotional health and wellness in the very young…” (Nelson & Mann, 2011). To reduce the health, social and economic burdens of mental disorders it is essential that greater attention is paid to prevention and promotion in mental health at the level of policy formulation, legislation, decision-making and resource allocation within the overall health care system at all levels. Inevitably, the lack of funds specifically aimed at prevention services will lead to even larger SMD adult and SED child populations which are the current focus of the HCMHRSB. Preventing an even greater percentage of unmet need in our communities requires a re-examination of funding priorities, activities, and policies. While these policy recommendations are based on feedback from Hamilton County providers, many of these themes are universal and can be applied more broadly to other communities and counties.

1. Advocate for mental illness prevention and mental health promotion

An ecologic view of mental health should be taken, and support structures should be built not just for individual patients but also for the community. Mental health professionals should advocate for decision-makers to develop comprehensive mental health programs with a strong preventive component that focuses on building strengths and resilience, not just on problems, and that involves community resources. Active membership in advocacy groups, such as the Mental Health Advocacy Coalition of Southwest Ohio, will allow mental health professionals to advance the prevention agenda. In addition, framing child and youth mental health as a public health issue would take some of the financial burden off of local and states systems, by reducing fragmentation and variation across regions. Using this approach will demonstrate how prevention science holds promise for helping our field realize its quest to affect the human condition on a
system versus individual level. Advocacy activities should be focused on integrating research, service, training, and policy activities if the goals of prevention science are to be realized.

2. **Create an evidence-based practices prevention clearinghouse for providers.**

   An oft-cited barrier to advocating effectively for additional prevention dollars is the perceived lack of evidence-based prevention research. A community-supported resource center should collect, develop, and act as a clearinghouse for resources, tools, and expertise to support provider efforts. Providers could then judge the relative merits and cost-effectiveness of alternative prevention models. Examples of information to be disseminated are the reviews that the CDC Community Guide Task Force conduct that evaluate the scientific evidence concerning the effectiveness of community-based prevention programs to ensure accuracy and objectivity.

   Best practices from the health promotion field could be used as a framework to determine the center’s tasks such as: evaluating and disseminating benchmarks for mental health prevention programs and policies; creating a mental health prevention surveillance and tracking system that monitors current provider efforts and disseminates information related to design, implementation, and evaluation of programs; evaluating mental illness prevention tools currently in use in the field; and ensuring that the evidence-based information on mental health prevention is readily available to providers in an easy-to-use form.

3. **Increase the percentage of the mental health budget spent on prevention.**

   Over 60% of the key informants interviewed believe that a proportion of funds should be shifted from acute services to prevention services. Specific reasons mentioned were inefficiencies around short term hospital stays regarding length of stay and opportunities for providing more efficient wraparound services upon release. Dollars aimed at prevention are only 2% of the current annual budget. Perhaps, both the HCMHRSC and providers could take advantage of any
flexibility in their budgets to allocate more dollars to prevention services. That is, those dollars not specified by the funder to be spent on chronic care, treatment, or acute services could be used for prevention. If no changes are made it’s not hard to imagine the magnitude of the problems that will occur. Although the projected population growth rate of 1.6% over the next 10 years seems modest, this means that an additional 9,600 adults and children will forgo needed mental health services over that time period. If these calculations are extrapolated to the state and national levels the impact is even more severe.

Another way that increased funding for mental health prevention might be achieved is through the integration of primary care and mental health services. New healthcare models such as collaborative family healthcare and health homes show promise for both promoting the importance of mental health prevention and providing a financial viable way of supporting prevention services.

**Summary**

If the broader objectives outlined in these policy recommendations are not achieved the economic, societal, and individual costs of poor mental health will continue to grow, especially in the most vulnerable populations. To combat this, mental health funders, providers and other shareholders must be aligned in terms of their goals: keeping people healthy and containing ballooning mental health care costs. Most mental health professionals understand that focusing on prevention is the only way to address the rising unmet need in our communities. As part of the ongoing debate regarding mental health spending, more attention should be directed at asserting the value of mental health prevention effort in achieving long-term improvements in the health and well-being of Americans.
References


