



Accessing Children's Mental Health Services in Massachusetts

WORKFORCE CAPACITY ASSESSMENT

10.29.09

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Executive Summary

The children's mental health system in Massachusetts is undergoing significant transformation and reform. There are currently two public initiatives that provide the impetus to improve access and quality of mental health services for children and families across the Commonwealth. Both the Massachusetts Children's Behavioral Health Initiative (CBHI) and Chapter 321: An Act Relative to Children's Mental Health put forth frameworks that provide for increased screening, identification, early intervention, and treatment for children and families in need of services.

While there is a great deal of discussion regarding how best to enhance access to children's mental health care in Massachusetts, there is limited information available regarding the capacity of the provider workforce to meet the needs of children with mental health issues. The Blue Cross Blue Shield of Massachusetts Foundation (Foundation) commissioned a research project with two research partners, The Lewin Group and DMA Health Strategies, to improve knowledge regarding the nature and capacity of the licensed professional workforce in the children's mental health service delivery system in Massachusetts. To assist the research team, the Foundation assembled an Advisory Group of key stakeholders to provide input and feedback throughout the project.

PROJECT GOALS

Specifically, the project sought to:

- Develop an estimate of need for children's mental health services in Massachusetts
- Assess child and family mental health service delivery capacity among licensed providers, including: psychiatrists, psychiatric clinical nurse specialists, psychologists, social workers, mental health counselors, and marriage and family therapists
- Identify variation in capacity to meet the mental health needs of children and families, including variation by geography, linguistic ability, and cultural competence

- Document challenges to meeting current demand for services, such as provider retention, reimbursement, and barriers to entry

METHODOLOGY

To address the project goals, the study involved several components:

- **A targeted literature review** was conducted to: 1) identify and document prior research pertaining to children's mental health workforce capacity; 2) define key concepts to address in the study; and 3) develop estimates of supply, demand, and prevalence. Except for a few seminal reports, the literature review revealed a paucity of research and data on issues pertaining *specifically* to the supply and adequacy of the children's mental health workforce, both nationally, and at the state and local levels.

SUMMARY OF FINDINGS

Approximately 70,000 children in Massachusetts are estimated to have a severe mental health need, while as many as 216,000 are estimated to have a diagnosable mental health disorder. Prevalence is greatly affected by a child's demographic characteristics, such as race, ethnicity and income. Consequently these needs will differ among various populations and differ geographically by the socioeconomic profile of the region.

It is challenging to define capacity in a complex mental health system. In the context of a national mental health workforce shortage, Massachusetts is doing exceptionally well. Rates of psychiatrists and other professionals per 100,000 are well above the national averages. Despite this, there is a widespread belief in Massachusetts that there are significant shortages in

For the purposes of this report, “child provider” is defined as those who currently provide mental health services and serve a caseload that is at least 10% children and adolescents (ages 0 to 21).

- **A survey of licensed mental health providers in Massachusetts** was conducted, stratified by prescribing providers (psychiatrists and clinical nurse specialists (CNS)) and non-prescribers (licensed psychologists, licensed mental health counselors (LMHC), licensed independent social workers (LICSW), licensed social workers (LCSW), and licensed marriage and family therapists (LMFT)). The final response rate for both prescribers and non-prescribers was just over 19%. A subsample of child providers, defined as those who serve a caseload that is at least 10% children and adolescents (ages 0 to 21), is the basis for most of the analyses.
- **Key informant interviews**, to supplement provider survey data, were conducted with stakeholders across Massachusetts. Informants were asked to discuss the adequacy of the Massachusetts mental health workforce from their perspectives, the factors that most affect providers' decisions about what kind of work to do within the direct care field, and their recommendations to improve workforce capacity.¹

the mental health workforce. Stakeholders, advocates, pediatricians, and families report difficulties in finding clinicians, receiving timely appointments, and recruiting clinicians to their workplaces. Defining the capacity of the workforce is difficult to quantify due to complex factors such as a wide variety of different insurers and health plans in which not all providers participate; particularly, a relatively large number who do not participate in public health plans where prevalence of mental illness is known to be higher; and a lack of data on the race and ethnicity of the workforce, as well as linguistic and cultural competence.

Many Massachusetts provider practices are full, particularly child psychiatry practices. Across all provider types, 32% of providers reported full practices, and another 39% had only 1 to 2 slots available. This was pronounced in metropolitan Boston and Western Massachusetts. This is consistent with the information obtained in interviews. Several community clinics reported wait times for child psychiatry of up to three

¹ A complete roster of individuals interviewed is provided in Appendix C.

months and psychiatrists reported serving families who had made multiple attempts to locate and schedule an appointment with other psychiatrists.

Families face challenges finding the “right” provider for their children. There are multiple considerations involved in finding the right provider. These include characteristics of the child such as age, language spoken, need, and severity; insurance issues—who accepts the child’s insurance; and availability, including open appointments outside school hours and a location convenient for the child and family to travel for ongoing treatment. Almost all (98%) of providers responding to this survey work evening and/or weekend hours. However, it is unclear whether these providers meet the other needs of children and their families. Survey results clearly suggest that there are not sufficient providers to meet the language and cultural needs of children.

Providers consistently cite low rates of reimbursement, administrative burden and significant time on unreimbursed care coordination as reasons for not participating on insurance panels. The type of infrastructure that is generally available to primary care providers and other ambulatory specialists does not support administrative requirements for private mental health practitioners; consequently, the burden usually falls solely on the provider. Child practitioners in the survey reported that 7 to 12% of their time is spent on unreimbursed collateral contacts, significantly more than reported by adult providers.

More than half of providers plan to leave the state or the field in the next five years. The most critical finding from this study may be that, on average and across disciplines and age categories, 54% of providers plan to leave the field or the state of Massachusetts in the next five years. The workforce is aging and, nationally, half of all mental health professionals are likely to retire in the next 20 years. Data collected through this study are consistent with this pattern. In addition, 41% of clinicians under age 35 report that they are planning to leave either the state or the field in the next five years. The rate of entry of new licensees for all ages is roughly 25% to 30% over the same time period. As a result, the rates of available professionals are expected to decline significantly over the next five years.

RECOMMENDATIONS

Addressing current and future capacity constraints within the children’s mental health workforce will require common goals and strategies for broad adoption by public and private purchasers, licensing bodies, government agencies, professional associations, providers, and other stakeholders. Our analyses revealed the following potential strategies, presented by barriers to care and corresponding recommendations.

Perceived shortage of child psychiatrists and clinical nurse specialists

- Encourage public and commercial health plans to work with psychiatrists to refine payment rates/models and administrative processes that will incentivize psychiatrists to participate on insurance panels
- Explore opportunities to provide or support training and supervision to prepare CNS to serve children
- Share financing of the Massachusetts Child Psychiatry Access Project (MCPAP)² by both public and private purchasers

Shortage of non-prescribers, with little ability to monitor access and capacity

- Conduct further analysis to identify options for increasing the number and capacity of providers available to treat ethnically and linguistically diverse children and their families in Massachusetts
- Develop approaches to track mental health access, capacity, and demand routinely across the state, perhaps as part of the regular planning done by the Department of Mental Health under the CMHS Block Grant to address the mental health needs of the whole population

Difficulty in identifying the “right” provider for children

- Provide better information to families (and other referral sources) to aid them in the search process via a statewide information system that includes the participation of all mental health disciplines

² MCPAP is a state funded program that provides telephonic psychiatric consultation to enrolled primary care clinicians for any child in their practice, regardless of their insurance coverage. It also offers assistance in locating a well-matched therapist or psychiatric prescriber in a convenient location who has openings.

Providers of all ages plan to leave the field or to leave Massachusetts in the next five years

- Conduct further analysis of potential payment mechanisms and models to compensate providers for the levels of care coordination inherent in children's mental health care
- Consider expanding the Commonwealth's existing loan forgiveness programs to include other licensed mental health professionals
- Forge partnerships between commercial and public payers and professional associations to explore opportunities to decrease administrative burden (e.g., common applications across purchasers, streamlining of authorization procedures)
- Reinforce the mental health of Massachusetts' children as a public health priority by raising awareness of the need for services and the valuable contributions of our current workforce

Declining training opportunities

- Study options available for strengthening the internship system, increasing the number of trainees in mental health professions, and incentivizing service in underserved areas of the state
- Explore opportunities to remove barriers to billing for services provided by well-supervised interns in approved training programs
- Enhance professional training programs by collaborating with internship providers to develop well-integrated classroom-based and applied training that better prepares students to provide evidence-based services that meet the needs of Massachusetts' diverse communities

Licensure data lacks providers' race and ethnicity, languages spoken, and email addresses

- Encourage Massachusetts licensing bodies to collect more detailed information to assist with ongoing oversight and future studies related to tracking the workforce, possibly through legislation

- Establish better coordination between the Department of Mental Health (DMH), MassHealth, and Massachusetts licensing bodies to develop coordinated strategies to address identified workforce issues

The current study produced important information about the licensed mental health workforce, where and how they work, their plans for the future, their concerns, and their areas of satisfaction. However, a more detailed study of the workforce characteristics of the children's mental health safety net is needed. The majority of the providers surveyed work in private and group practice. It was beyond the scope of this effort to survey non-licensed mental health practitioners who play particularly important roles in the mental health safety net or to survey those licensed providers who work primarily in organizations and clinics. More can be learned from surveying mental health clinics directly.

In many ways, Massachusetts is at the dawn of a new era of commitment to children's mental health services. As CBHI expands the paraprofessional and community-based workforce, it will be critical to continue to improve our understanding of the workforce and safety net provider capacity. With expanded parity requirements in Massachusetts and health reform plans for chronic disease and payment reform, commercial insurers and public plans will have to develop new strategies to deliver and pay for services more cost effectively. Ultimately, Medicaid (MassHealth) and commercial insurers, the purchasers of services, need to agree on some common goals and strategies to address these issues.

The Children's Mental Health Act, the Children's Behavioral Health Initiative, and parity for behavioral health have aligned to create an unprecedented opportunity for change. Massachusetts is on the precipice of a truly exceptional children's mental health system. The foundation of that system is its workforce. The changes recommended in this report require new and improved collaborations across state agencies, across payers, across disciplines, and across institutions of professional education. They call for innovative thinking to attract, retain, and reward the individuals who choose to dedicate their life's work to helping our children reach their fullest potential.

1 Introduction

The children's mental health system in Massachusetts is undergoing significant transformation and reform. There are currently two public initiatives that provide the impetus to improve access and quality of mental health services for children and families across the Commonwealth. Both the Massachusetts Children's Behavioral Health Initiative (CBHI) and Chapter 321: An Act Relative to Children's Mental Health have put forth frameworks that provides for increased screening, identification, early intervention, and treatment for children and families in need of services.

A. GOALS OF THE ASSESSMENT

While there is a great deal of discussion regarding how best to *enhance access* to children's mental health care in Massachusetts, there is limited information available regarding the *capacity* of the provider workforce to meet the needs of children with mental health issues. The Blue Cross Blue Shield of Massachusetts Foundation (Foundation) commissioned a research project with two research partners, The Lewin Group and DMA Health Strategies, to improve knowledge regarding the nature and capacity of the licensed professional workforce in the children's mental health service delivery system in Massachusetts. Specifically, the project sought to:

- Develop an estimate of need for children's mental health services in Massachusetts (Section 3)
- Assess child and family mental health service delivery capacity among licensed providers, including: psychiatrists, psychiatric clinical nurse specialists, psychologists, social workers, mental health counselors, marriage and family therapists (Section 4)
- Identify variation in capacity to meet the mental health needs of children and families, including capacity by geography, linguistic ability, and cultural competence (Section 4)
- Document challenges to meeting current demand for services, such as provider retention, reimbursement, and barriers to entry (Section 5)

To assist the research team, the Foundation assembled an Advisory Group of key stakeholders to provide input and feedback throughout the project. A list of Advisory Group members is included in the Acknowledgements section.

B. UNDERSTANDING THE NATIONAL CONTEXT AND MASSACHUSETTS ENVIRONMENT

Various state and national policies and trends will affect the children's mental health workforce in Massachusetts in coming years. While state and national parity laws increase access to treatment, the attendant increase in service demand is a strain on the current mental health workforce. Mental health reform efforts emphasize more effective and responsive treatments through the use of evidence-based practices

and community-based services, which require additional training for mental health providers. Finally, two recent initiatives in Massachusetts, the Children's Behavioral Health Initiative and Children's Mental Health Act, elevate expectations of the mental health work force by specifically targeting improvements in current practices related to screening, assessment, and service delivery.

The following section provides specific detail on the major policies and trends affecting the mental health work force in Massachusetts.

Licensed mental health practitioners of all kinds are qualified to conduct assessments, determine diagnoses, develop treatment plans, and provide therapies for individuals, couples, families, and groups. Their training involves formal graduate education, supervised field training, and post-graduate supervised experience.

PSYCHIATRISTS Psychiatrists are MDs with a specialty in psychiatry; some study a second specialty in child and adolescent psychiatry. Psychiatrists can prescribe and monitor psychotropic medications, and many provide therapy.

CLINICAL NURSE SPECIALISTS (CNS) In Massachusetts, CNS are advanced practice nurses, with a Masters or Doctorate degree, who specialize in Psychiatry. CNS can earn the right to prescribe and monitor psychotropic medications.

PSYCHOLOGISTS Clinical psychologists are licensed at the Doctoral level and may specialize in psychological or neuropsychological assessment, including diagnostic test administration, assessment, and treatment recommendations, as well as provide therapy.

LICENSED INDEPENDENT CLINICAL SOCIAL WORKERS (LICSW), MENTAL HEALTH COUNSELORS (LMHC), AND MARRIAGE AND FAMILY THERAPISTS (LMFT) Clinical Social Workers, Mental Health Counselors, and Marriage and Family Therapists are Master's or Doctoral trained clinicians, licensed by the state, to provide therapy, case management, and treatment planning.

LICENSED CLINICAL SOCIAL WORKERS (LCSW) In Massachusetts, LCSWs are graduates who have not completed the supervised work and examination needed to become licensed by the state on an independent basis.

UNLICENSED MENTAL HEALTH WORKERS Mental health workers with high school, Associates, or Bachelors degrees provide (under supervision) care management, rehabilitation, behavior management, mentoring, milieu support, respite, and other supportive roles. A number of the positions in the new CBHI Community Service Agencies will be filled by staff of this level.

The U.S. mental health workforce is aging, with the majority currently over age 50.

1. Parity

Parity laws expand coverage for mental health and addictions treatment, which increases the demand for services. Mental health parity legislation passed in Massachusetts in 2000 required the nondiscriminatory provision of services in health plans for “biologically-based mental disorders.”³ Legislation passed in 2008 expanded the diagnoses to include eating disorders, post traumatic stress disorder, substance abuse disorders, and autism.⁴ The 2008 legislation also defined children’s services according to the Substance Abuse and Mental Health Services Agency (SAMHSA) definition, which provides parity based on several additional factors that include: 1) an inability to attend school, 2) the need for hospitalization, or 3) a pattern of conduct or behavior that poses a serious danger to self or others. Federal legislation passed in 2008 complements and reinforces the Massachusetts parity statutes, as both the federal and state laws require health plans to provide mental health or addiction treatment benefits with the same financial terms, requirements, conditions, and treatment limitations for behavioral health that are applied to physical health conditions.⁵ The recent Children’s Health Insurance Program Reauthorization Act of 2009 (CHIPRA) also includes parity provisions. Together, these state and federal laws expand insurance coverage requirements, thereby increasing potential service access and demand on the mental health workforce.

2. National workforce issues

Recent studies and national estimates show that the capacity of child and adolescent mental health providers falls significantly short of projected need.

The Annapolis Coalition, a national effort to convene mental health and substance abuse stakeholders, reviewed and synthesized the literature and range of issues related to workforce development in the field of mental health and substance abuse. The resulting report, “An Action Plan for Behavioral Health Workforce Development,” published by SAMHSA in 2007, served as a catalyst for the field to address the inadequacy of the mental health work force.⁶ In the special section on Children and Family Issues, SAMHSA reported that:

“ The US Bureau of Health Professions estimates that in 2020, 12,624 child and adolescent psychiatrists will be needed, far exceeding the projected supply of 8,312 such psychiatrists (American Academy of Child and Adolescent Psychiatry [AACAP], 2001)... Shortages of school psychologists and social workers exist in most regions and particularly in rural areas (Duffy et al, 2004).”⁷

³ Chapter 80 of the Acts of 2000. See also Division of Insurance Bulletins 2000-10, 2002-07 and 2003-11.

⁴ Chapter 256 of the Acts of 2008, An Act Relative to Mental Health Benefits.

⁵ Paul Wellstone and Pete Domenici Behavioral Health and Addiction Equity Act of 2008.

⁶ M. A. Hoge, et al. “An Action Plan for Behavioral Health Workforce Development.” The Annapolis Coalition on the Behavioral Health Workforce (Cincinnati, Ohio), Contract Number 280-02-0302 with SAMHSA, U.S. Department of Health and Human Services, 2007.

⁷ American Academy of Child and Adolescent Psychiatry. “Meeting the mental health needs of children and adolescents: Addressing the problems of access to care.” Washington, DC: Report of the AACAP Task Force on Work Force Needs, 2001.

Concerns about workforce capacity are driven by data showing an aging workforce, with the majority of mental health professionals (e.g., 65% of psychiatrists, 66% of psychologists, and 58% of social workers) over age 50, indicating a coming wave of retirements.⁸

Current training curricula do not align with certain competencies increasingly needed in direct service settings. The Annapolis Coalition cites gaps between educational preparation and the competencies demanded in actual direct service, including skills in developing partnerships with families, culturally competent service delivery, implementing comprehensive cross-agency interventions, individualized care, and home and community-based approaches.⁹

Nationally, little research and data exist to assess the adequacy of the current workforce to meet the demand for children's mental health services. The Annapolis Coalition Report points to the lack of ongoing, usable data for planning and capacity building to address areas of need, such as culturally responsive care. Data on race and ethnicity are limited, and professional licensing boards in Massachusetts and many other states do not track race and ethnicity.

“There is a striking lack of data, not only about the workforce, but also about workforce development practices. The scattered information that does exist has no uniformity, which hinders cross-comparison or aggregation of the data to examine trends.”¹⁰

3. Changes in Practice Expectations

A shift toward evidence-based practices and community-based care will require a significant investment in the training of the workforce.

Increasingly, the mental health field is moving toward using evidence-based practices and community-based care delivery to improve the effectiveness and efficiency of services for children and families. These trends will require significant changes in the training of the workforce.

Workforce training challenges likely will delay the uptake and spread of EBPs. It can take more than a decade for the broad adoption of proven interventions in practice.

8 F. F. Duffy, et al. "Mental health practitioners and trainees." Mental Health, United States, 2002 (pp. 327-368; DHHS Publication No. SMA 04-3938). Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.

9 M. England, "Training the existing workforce." Administration and Policy in Mental Health, 25, 23-26, 1997; M. Hansen. "The need for competencies in children's public mental health services: A CASSP discussion paper of the Pennsylvania CASSP training and technical assistance institute." Printed with permission of John Wiley & Sons, Inc.; J. Morris and J. Hanley, "Human resource development: A critical gap in child mental health reform." Administration and Policy in Mental Health, 28, 219-227, 2001.; S. Pires. "Human resource development." Creating systems of care in a changing society (pp. 281-297). Baltimore, MD: Paul H. Brookes, 2001.

10 M. A., Hoge, et al. "An Action Plan for Behavioral Health Workforce Development, A Framework for Discussion."

Evidence-based practices: The use of evidence-based practices (EBP) is a major focus across all areas of health care, including mental health and substance abuse services. Adoption and spread of evidence-based practices is still in its early stages and will continue to evolve. For children's mental health services, evidence-based guidelines are being created to determine which medications, psychotherapeutic approaches, therapies, and service strategies work best for a variety of conditions.¹¹ It can take more than a decade for proven interventions to be adopted in widespread practice.¹² Currently, 47 states promote, require, or support the use of evidence-

4. Health Care Reform

The priorities of health care reform pose significant capacity and training challenges for the Massachusetts children's mental health workforce. Health care reform priorities include investing in early child development, achieving parity between physical and mental health benefits, reducing disparities in health care, and emphasizing the use of evidence-based practices for more effective and cost-effective care. Each of these issues relies on a comprehensive workforce that is culturally competent and trained in evidence-based practices. As in other states, the Massachusetts mental

With improved and higher rates of screening in pediatric primary health care due to CBHI and Chapter 321, there likely will be increased demand for mental health services for children.

based practices regionally, while only 19 states (not including Massachusetts) do so statewide.¹³

Community-based care and family support: The provision of care for children and adolescents with serious mental health needs continues to shift from institutions to community-based care, including "wraparound" services or "systems of care" that aim to keep youth in the community, preventing hospitalizations and residential placements. While the evidence suggests that children receiving care in the community have better outcomes than those in institutions, there can be challenges associated with providing care in the community, particularly workforce training issues.

health workforce focuses primarily on adults. For professionals working with children, there is an increased need for training in early childhood mental health and evidence-based practices. As parity is implemented and access is increased, there likely will be increased demand for both mental health services and a trained work force. Constant advances in psychopharmacology require highly skilled prescribers to conduct medication evaluations and prescribe medications. Eliminating disparities will require multi-cultural, multi-lingual professionals.

¹¹ J. Koppleman. "The Provider System for Children's Mental Health: Workforce Capacity and Effective Treatment." NHPF Issue Brief, #801: October 26, 2004.

¹² M. A. Hoge, et al. "An Action Plan for Behavioral Health Workforce Development, A Framework for Discussion."

¹³ J.L. Cooper, et al. "Unclaimed Children Revisited: The Status of Children's Mental Health Policy in the United States." National Center for Children in Poverty, 2008.

5. Massachusetts' Changing Environment

Two recent initiatives in Massachusetts are transforming the existing children's mental health system to be more proactive and responsive in addressing the needs of children and families in the Commonwealth.

The Massachusetts Children's Behavioral Health

Initiative: CBHI was developed in response to a 2006 court ruling that found MassHealth, the Massachusetts Medicaid program, deficient in providing Seriously Emotionally Disturbed (SED) children with appropriate behavioral health services. The "Rosie D. v. Romney" case was based on non-compliance with Medicaid provisions for Early and Periodic Screening, Diagnosis and Treatment (EPSDT) behavioral health screening for children ages 0 to 21, and the lack of coordinated community-based services to maintain SED children at home rather than in residential settings. In response, the state is working to meet and exceed court mandates by: 1) dramatically improving EPSDT behavioral health screening; 2) providing a range of home- and community-based services for any child on Medicaid; and 3) setting up a system of 32 contracted Community Service Agencies (CSA) across the state to provide Intensive Care Coordination for SED children using the wraparound model. The CSAs were implemented on July 1, 2009 and additional home and community-based services will become available by the end of 2009. Commercial insurers are increasingly paying for behavioral health screenings, but it is unclear whether they will purchase the new wraparound and care coordination services. There potentially will be increased demand for services to children due to higher rates of screening in primary care. In the Medicaid system, there is an increased demand for paraprofessional home-based workers to staff wraparound models. It is unclear what role mental health providers in private practice will play in CBHI.

Massachusetts General Laws Chapter 321, "An Act Relative to Children's Mental Health": The Children's Mental Health Act, signed into law in August 2008, aims to improve the quality of, and access to, mental health care for children. The law includes provisions for early detection, rapid movement from acute care to community-based settings, and increased collaboration between public schools and mental health providers. It also puts increased, high-level state agency attention on children's mental health. Chapter 321 calls for monthly meetings of Commissioners of the various child-serving agencies within the Massachusetts Executive Office of Health and Human Services (EOHHS), the development of a broad-based Children's Mental Health Advisory Council, and the implementation of a Department of Mental Health (DMH) Research Center charged with identifying and addressing workforce training needs and evidence-based practices. A provision to establish payment for certain coordination of care activities (including collateral contacts) was not included in the final bill; however, a new bill has been filed in the current legislative session.¹⁴

¹⁴ A collateral contact is defined by Senate Bill 757 as face-to-face or telephonic consultation of at least 15 minutes by a licensed mental health professional with parties determined by the licensed mental health professional to be necessary to make a diagnosis and to develop and implement a treatment plan.

2

Methodology

The goals of this research project included:

- Developing an estimate of need for children's mental health services in Massachusetts (Section 3)
- Assessing child and family mental health service delivery capacity among licensed providers, and variation in capacity by geography, linguistic ability, and cultural competence (Section 4)
- Documenting challenges to meeting current demand for services, such as provider retention, reimbursement, and barriers to entry (Section 5)
- Developing a set of policy, practice, and research recommendations (Section 6)

To address these goals, the study involved several components, including: 1) a targeted literature review; 2) a mail and web survey of licensed prescribers and licensed mental health professionals (without the ability to prescribe) in Massachusetts; and 3) key informant and stakeholder interviews to supplement survey data.

A. LITERATURE REVIEW

A targeted literature review was conducted to: 1) identify and document prior research pertaining to children's mental health workforce capacity; 2) define key concepts to address in the study; and 3) develop estimates of supply, demand, and prevalence that are presented in Section 3. Except for a few seminal reports, the literature review revealed a paucity of research and data on issues pertaining *specifically* to the supply and adequacy of the children's mental health workforce, both nationally, and at the state and local levels.¹⁵

Based on our review of the literature, the following definitions are used for the purposes of this study:

PREVALENCE Defined as the total number of cases of the disease in a defined population at a given time. Estimates of prevalence rates for mental health vary considerably due to the use of different diagnostic definitions. Data show that prevalence of some conditions corresponds to household income, race, and ethnicity.

DEMAND Defined as total client requests for services. Demand for services from mental health providers does not equal prevalence rates, and results from a combination of perceived need and motivation to seek services. Factors affecting demand include a lack of identification and recognition of mental health conditions, stigma about mental illness, and preferences to seek treatment in a primary care rather than a mental health setting.

ACCESS Defined as ability of clients to obtain desired services. Access to services is affected by the supply of services and providers, as well as a variety of other factors, including availability, location, cultural and linguistic competency, insurance and affordability, eligibility determination, and appropriate provider-client match.

Although children receive mental health services from their pediatricians and other non-licensed mental health workers, these providers were beyond the scope of this study due to the challenge of systematically and efficiently sampling these individuals.

¹⁵ L. Huang, et al. "Transforming the Workforce in Children's Mental Health."

B. MAIL AND WEB SURVEY OF LICENSED MENTAL HEALTH PROVIDERS

Survey Target Population. The goal of this study was to survey licensed mental health providers in Massachusetts. The label “licensed mental health practitioner” encompasses several different provider types, each with slightly different skill sets and roles in the treatment of children’s mental health.

It was not possible to stratify the provider sample to ensure adequate responses from providers of color or those serving diverse communities and populations. Therefore, an attempt was made to administer additional targeted surveys to clinics serving diverse populations around the state. Unfortunately, the response rate from this survey was too low to yield any meaningful information and, therefore, is not included in this report.

Survey Design. To gather information on the supply of licensed mental health professionals in Massachusetts, two four-page surveys were developed, one tailored to prescribing providers (psychiatrists and clinical nurse specialists) and one for non-prescribers (licensed psychologists, LMHCs, LICSWs, LCSWs, and LMFTs). Copies of the surveys are presented in Appendix A and Appendix B of this report. Providers were grouped into these two broad groups (prescribers and non-prescribers) to reflect the differences in their training and scopes of practice in the mental health system. In addition, this classification of providers is consistent with the approach taken in the most recent workforce research.¹⁶

The surveys covered a range of topics, including:

- Provider demographics, including race, ethnicity, and language spoken
- Provider specialty
- Provision of direct care
- Hours spent on direct care
- Hours spent on associated tasks, including collateral work
- Location and type of practice site
- Provider income and debt load
- Future plans to work in the field
- Satisfaction
- Caseload by age
- Reasons for not serving children
- Experience serving children
- Referral sources
- Public and commercial insurance panel participation¹⁷

TABLE 1

Sampling Approach

PROVIDER TYPE	TOTAL PROVIDERS	PROVIDERS USED IN SAMPLING	SAMPLE SIZE
Non-Prescribers: Licensed Psychologists, LICSWs, LCSWs, LMFTs, and LMHCs	27,053	25,727*	7,029
Prescribers: Psychiatrists and Clinical Nurse Specialists^	3,455	3,455	3,455
Total	30,508	29,182	10,484

*Excludes providers with addresses outside Massachusetts and contiguous states

^Not all clinical nurse specialists are able to prescribe medication

16 A. Ellis, et al. “County Level Estimates of Mental Health Professional Supply in the United States.” *Psychiatric Services*, 60:10; October, 2009.

17 A provider panel is defined as those providers with whom an insurer (commercial or public) contracts to provide services to those insured.

TABLE 2 Response Rate

PROVIDER TYPE	SURVEYS SENT	RETURNED MAIL	TOTAL "HITS" [*]	RECEIVED	RESPONSE RATE
Prescriber	3,455	122	3,332	521	15.64%
Non-prescriber	7,029	69	6,961	1,461	20.99%
Total	10,484	191	10,293	1,982	19.26%

^{*}Number of surveys sent to accurate addresses

Survey Administration. To identify and obtain contact information for licensed providers in Massachusetts, the research team procured electronic lists from each licensing body in the state. The lists included mailing addresses for individual licensees, but not demographic information (e.g., gender, race/ethnicity, age).

As shown in Table 1, the prescriber survey was mailed to the universe of licensed psychiatrists and clinical nurse specialists in Massachusetts. Because of the large number of licensed non-prescribers, a random sample, stratified by six geographic regions, was drawn for the non-prescribers (licensed psychologists, LICSWs, LCSWs, LMFTs, and LMHCs). The six regions, commonly used by the Massachusetts Department of Children and Families, included Metro Boston, Southeast, Northeast, Central Massachusetts, Western Massachusetts, and Boston.

All surveys were sent via US mail on July 17, 2009. Following the first mailing, all non-respondents received a reminder postcard, mailed on August 7, 2009. The survey response period ended September 4, 2009. Survey respondents were given the option of completing the survey via mail or online. All survey results are anonymous.¹⁸

Response Rate. Approximately 90% of respondents returned the survey through the US mail, while the remainder took the online version of the survey. The final response rate for both prescribers and non-prescribers was just over 19% and is based upon responses received divided by the "hits," or the actual number of surveys sent to accurate addresses (Table 2).

For the purposes of this report, "child provider" is defined as those who currently provide mental health services and serve a caseload that is at least 10% children and adolescents (ages 0-21).

See Appendix D, Table 1 for a more extensive breakdown of the percent of children and adolescents in "child provider's" caseload. The majority of analyses presented in this report are limited to respondents that met the "child provider" definition.

- The child provider sample represents approximately 37% of the total respondents to the survey (N=735). Item response to survey questions varies and is noted in table footnotes.
- One quarter (25%) of the prescriber respondents met the "child provider" inclusion criteria, compared to 41% of the non-prescribers.

¹⁸ Results are only linked to respondent IDs and the name and address files that link to respondent IDs have been retained only by the survey research subcontractor.

→ If analyses are based on a different sub-sample of data, this is noted in the specific section where the results are reported.

Composition of the Child Provider Sample

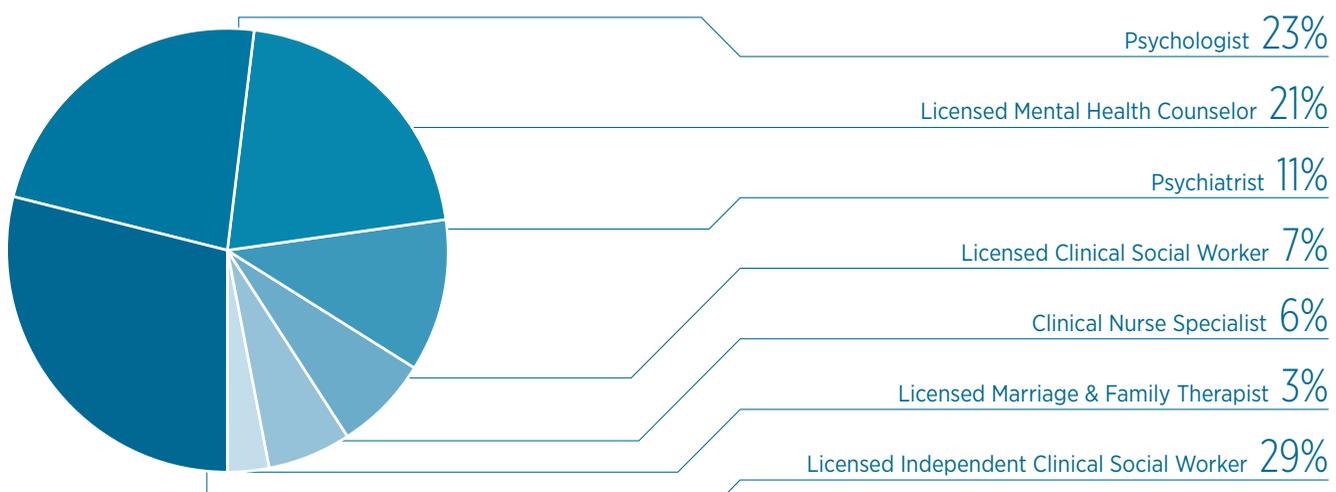
As shown in Figure 1, the sample of survey respondents meeting the definition of “child provider” varies by profession. The sample is comprised primarily of non-prescribers (29% LICSWs, 23% licensed psychologists, 7% LCSWs, 3% LMFTs, and 21% LMHCs). Prescribers represent less than 20% of the sample (11% psychiatrists and 6% clinical nurse specialists).¹⁹ Throughout the remainder of the report, LICSWs, LMFTs, and LMHCs are combined for analysis since they provide similar services and are all eligible to bill third party payers, unlike LCSWs.

C. KEY INFORMANT AND STAKEHOLDER INTERVIEWS

To supplement provider survey data, key informant interviews were conducted with representatives of the following groups:

- Professional licensing boards
- Department of Public Health, Health Care Workforce Center
- Insurance companies (commercial and public)
- Provider trade associations and several of their members
- Community health centers
- A large group practice of mental health providers
- Schools of social work and psychology
- Representatives of public schools and the Department of Education
- Representatives of the Department of Youth Services
- Massachusetts Chapter of the American Academy of Pediatrics and several primary care physicians
- Representatives of consumer organizations
- Representative of the Center for Multicultural Mental Health

FIGURE 1 Composition of Child Provider Sample (N=735)



Source: Provider Survey

¹⁹ 82% of CNS in the sample are able to prescribe medication and an additional 5% are seeking prescribing privileges

Informants were asked to discuss the adequacy of the Massachusetts mental health workforce from their perspectives, the factors that most affect providers' decisions about what kind of work to do within the direct care field, and their recommendations to improve workforce capacity. A complete roster of individuals interviewed is provided in Appendix C.

D. STUDY LIMITATIONS

Representativeness of Sample. This survey collected information from licensed mental health professionals only, and did not include the non-licensed workforce. In addition, the majority of respondents work in private or group practices. Therefore, findings cannot be generalized to the entire workforce of children's mental health providers in Massachusetts which involves non-licensed providers, as well as diverse practice sites in a range of community-based settings.

Contact information for the licensed mental health professionals was obtained from lists provided by the licensing boards representing each profession. Because the licensing boards do not maintain databases that include demographic characteristics (e.g., gender, race, and in most cases age) or type of population served (e.g., children, adults, etc.), it was not possible to control for representativeness at the outset by stratifying the sample. Sensitivity analyses could not be conducted to test the representativeness of the sample of returned surveys. The exception to this limitation was for psychiatrists and psychologists for whom age data were available. Sensitivity analyses on the age distribution comparing the universe of licensed psychiatrists and psychologists to those responding to the survey showed a skew toward over-representation of older respondents in both groups.

3

Supply and Demand for Children's Mental Health Services in Massachusetts

The following section presents findings from the targeted literature review relevant to the supply of and demand for children's mental health providers in Massachusetts.

TABLE 3 Mental Health Personnel by Discipline
 Estimated number of clinically active or clinically trained mental health personnel by discipline, Massachusetts and US

	PSYCHIATRISTS PER 100,000 2001	PSYCHIATRIC NURSING 2000	PSYCHOLOGISTS PER 100,000 2002	SOCIAL WORKERS PER 100,000 2002
Massachusetts rate	31.9	(NE region) 21.8	66.3	94.4
National average	13.7	6.5	31.0	35.3
Sources:	Clinically active psychiatrists in the private sector, excluding residents and fellows. AMA, 2002		2000 American Psychological Assn Directory Survey, 2002.	NASW membership data, Spring 2002

Source: R.W. Manderscheid and M.J. Henderson, eds. Mental Health, United States, 2002

A. SUPPLY

Massachusetts has a higher rate of psychiatrists and social workers than any other state, and is in the top three states for rates of psychologists per resident.

Nationally, researchers and stakeholders are concerned about the current mental health workforce capacity and the trends for the future. Key factors include recruiting and retaining staff, career advancement opportunities, salaries, and training and supervision. According to the Annapolis Coalition on the Behavioral Health Workforce, “there is substantial and alarming evidence that the current workforce lacks adequate support to function effectively and is largely unable to deliver care of proven effectiveness in partnership with people who need services.”²⁰

There is very limited standardized data to assess the quantity of mental health professionals available in the United States. In 2002, it was estimated that there were slightly more than one-half million clinically trained and active mental health professionals in the US.²¹

As shown in Table 3, Massachusetts has an extensive mental health workforce compared to other states. Compared to all states, there are more psychiatrists and social workers per hundred thousand total state residents, and Massachusetts ranks in the top three in psychologists per hundred thousand residents.²²

B. PREVALENCE AND DEMAND: DEMOGRAPHICS OF CHILDREN IN MASSACHUSETTS

The Massachusetts children’s mental health workforce needs to be responsive to the needs of diverse populations across the state. Several demographic characteristics affect the prevalence of, demand for, and utilization of children’s mental health services, including race, geography, language, and household income. *Prevalence is greatly affected by a child’s demographic characteristics.* Low-income children experience higher rates of mental health problems than those with higher incomes, and African American and Hispanic children experience higher rates of mental health problems than White children, though these differences are partly explained by different distributions of income in the different ethnic/racial groups.²³ Factors such as stigma and the availability of culturally and linguistically-competent service providers also affect demand for services.

Race and Geography. Based on 2005 estimates, there are approximately 1.6 million children ages 0 to 19 in Massachusetts²⁴. As shown on Table 4, a quarter of these children are non-white (11% Hispanic, 8% non-Hispanic Black, 5% Asian, and less than 1% American

20 M. A. Hoge, et al. “An Action Plan for Behavioral Health Workforce Development.” The Annapolis Coalition on the Behavioral Health Workforce (Cincinnati, Ohio), Contract Number 280-02-0302 with SAMHSA, U.S. Department of Health and Human Services, 2007.

21 R.W. Manderscheid and M.J. Henderson, eds. Mental Health, United States, 2002 (DHHS Pub. No. SMA-04-3938). Rockville, MD: US, 2004; H. Harwood. “Survey on Behavioral Health Workplace” Frontlines, 2002.

22 R.W. Manderscheid and M.J. Henderson, eds. Mental Health, United States, 2002 (DHHS Pub. No. SMA-04-3938). Rockville, MD: US, 2004

23 E. Howell. “Access to Children’s Behavioral Health Services under Medicaid and CHIP.” New Federalism: National Survey of America’s Families, Series B, No. B-60, August 2004.

24 United States Census Bureau, 2005 Population Estimates. Please note that these estimates are the most recent available from the Massachusetts Community Health Profile (MasCHIP) that stratify by age, race, and ethnicity at the level of cities and towns.

TABLE 4 Distribution of Children's Race by Geographic Region

RACE	BOSTON	CENTRAL	METRO	NORTHEAST	SOUTHEAST	WESTERN	TOTAL
Non-Hispanic White	39%	82%	82%	73%	85%	72%	75%
Non-Hispanic Black	28%	4%	6%	3%	8%	8%	8%
Hispanic	24%	10%	5%	17%	5%	18%	11%
Asian	8%	4%	8%	6%	2%	2%	5%
American Indian	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%

Source: United States Census Bureau, 2005 Population Estimates

Indian or Pacific Islander). Their race and ethnicity not only have bearing on their likelihood of experiencing a need for mental health services, but also affects what kinds of linguistic and cultural competencies are needed in their service providers.

These numbers vary considerably across the state. Over half of children in Boston are Black or Hispanic, close to evenly split, and the region also has the highest percentage of Asians at 8%. The Northeast and Western regions stand out with high percentages of Hispanic children, 17% and 18% respectively. The Northeast also has a percentage of Asian children slightly higher than the state average. The Central, Southeast and Metro regions have greater percentages of White children and fall below the state average for all other groups. Even within the regions that fall below state averages, there are communities with significant diverse populations whose children may need linguistically or culturally competent services.

Language Spoken. The Massachusetts Department of Elementary and Secondary Education collects data to identify the number of children who may need linguistically competent services. In the 2008-2009 school year, of the entire enrollment of public and charter schools in the Commonwealth, 14% or 135,685 children did not speak English as their first language, and 6% or 53,289 have Limited English Proficiency (LEP). Similar percentages would be expected among children needing mental health services, and it is possible that a higher percentage would have family members who have LEP.

Household Income. Socioeconomic status and conditions of poverty influence prevalence rates of mental health conditions, particularly depression, however relatively few of the studies focus on children.²⁵ A review using 1988 data from the National Health Indicators Survey identified a range of poor outcomes associated with poverty: poor children were more likely to have had emotional problems, experienced child abuse and neglect, and less likely to have received treatment.²⁶ A recent study from Brazil identified a strong association between race and poverty with social competence and behavior problems.²⁷ The negative effects of poverty on child health and development are undisputed;²⁸ the prevalence of mental health conditions is less clear.²⁹

Massachusetts regions differ considerably in the rate of children living in households with incomes below 185% of the federal poverty level. Most of these children qualify for Medicaid or CHIP coverage. As seen in Table 5, 22% of Massachusetts families with children fell below 185% of poverty in 2000. The Boston region stands out with a much higher rate of poverty among families, nearly double the percentage of other regions,

25 V. Lorant, et al. "Socioeconomic inequalities in depression: a meta-analysis." *Am J Epidemiol*, Feb, 157: 98-112, 2003; K. Mossakowski. "Exploring the Mental Health Consequences of Family Socioeconomic Background: A National Longitudinal Analysis" Paper presented at the annual meeting of the American Sociological Association, Montreal Convention Center, Montreal, Quebec, Canada Online. <http://www.allacademic.com/meta/pl03248_index.html> {2009-05-25}. D.A. Regier, et al. "One-month prevalence of mental disorders in the United States and sociodemographic characteristics: the Epidemiologic Catchment Area study." *Acta Psychiatr Scand*, 88(1): 35-47, 1993 Jul.

26 J. Brooks-Gunn and G.J. Duncan. "The effects of poverty on children." *Future Child*, 7(2):55-71, 1997.

27 S.G. Assis, J.Q. Avanci, Rde V deOliveira. "Socioeconomic inequalities and child mental health." *Rev Saude Publica*, Aug; 43 Suppl 1:92-100, 2009.

28 G.J. Duncan, et al. "How Much Does Childhood Poverty Affect the Life Chances of Children?" *American Sociological Association*, 1998.

29 T. Konrad, et al. "County Level Estimates of Need for Mental Health Professional in the United States." *Psychiatric Services*, 60:10; October, 2009.

followed by Western Massachusetts at an average of 31%. In contrast, the Central, Northeast and Southeast regions meet the state average of 22% families in poverty, while this rate is lowest in the Metro region at 12%.

C. ESTIMATING PREVALENCE OF MENTAL ILLNESS, NEED AND DEMAND FOR MENTAL HEALTH SERVICES AMONG CHILDREN IN MASSACHUSETTS

One of the goals of this study is to develop an estimate of need for children's mental health services in Massachusetts. Based on a literature review, there are numerous strategies for estimating prevalence of mental illness and demand for mental health services. The following section assesses different strategies for developing estimates.

Prevalence studies offer the most rigorous basis for estimating the number of children likely to have a need for mental health services based on defined conditions. Prevalence should be considered as a maximum measure of need, since not all diagnosable mental health conditions need treatment and some families are not motivated to seek treatment. However, selecting a rate is challenging.

There is considerable variation in children's mental health prevalence rates across different studies, largely due to inconsistent methodologies across the studies. Different definitions of the scope and severity of mental health conditions result in different rates of prevalence.

Mental Illness Prevalence Estimates. The most comprehensive epidemiological studies of mental health problems in American children date from the 1990s. A SAMHSA meta-analysis of the literature identifies the rate of diagnosable mental health disorders in the range of 20% among children 9 to 17.³⁰ More recently, a seven-year study of children in North Carolina by the Great Smoky Mountains project found the short term (with the past 3 months) incidence rate to be 13% among children ages 9 to 16. However, when examined over time, the incidence rate was much higher, at 37% for the seven year study period.³¹ A study in Great Britain, which included younger children (whose rates of prevalence are lower than older children) and which excluded disorders falling outside of the three largest classifications of disorders, found a rate of 10%.³²

SED Prevalence Estimates. The SAMHSA meta-analysis also addressed prevalence of Serious Emotional Disturbance (SED). SED is defined as a diagnosable disorder that causes

TABLE 5 Children in Families with Incomes Below 185% FPL

REGION	# FAMILIES WITH CHILDREN UNDER 18 WHO ARE UNDER 185% OF POVERTY	PERCENT OF ALL FAMILIES WITH CHILDREN
Boston	72,792	43%
Central	106,446	21%
Metro	207,771	12%
Northeast	127,452	22%
Southeast	150,990	22%
Western	98,088	31%
Total	763,539	22%

Source: Mass CHIP, 2000 Census

30 R.M. Friedman, et al. "Prevalence of Serious Emotional Disturbances in Children and Adolescents, Behavioral Health, United States, 1996." Substance Abuse and Behavioral Health Services Administration, 1996.

31 A.J. Costello, et al. "Prevalence and Development of Psychiatric Disorders in Childhood and Adolescence." Archives of General Psychiatry. Vol. 60, Aug, 2003.

32 H. Meltzer, et al. "The behavioral health of children and adolescents in Great Britain: Summary Report." Office for National Statistics, London, England, 1999.

problems in a child's functioning. SED is further categorized as involving either "significant functional impairment," or "extreme functional impairment." The SAMHSA meta-analysis found that 9% to 13% of children meet the standard for SED with significant functional impairment, and 5% to 9% (who are included in the percentage with significant functional impairment) meet the standard for SED with extreme functional impairment.³³ Acknowledging the correlation between household income and rates of mental illness, SAMHSA recommends that states higher than the national average in household income select lower prevalence rates and states lower than the national average household income select higher rates. Massachusetts, with higher than average household income, uses a rate of 10% for significant functional impairment and 6% for extreme functional impairment in its most recent state plan.

Prevalence versus Need for Services. The rate of prevalence of a diagnosable disorder is not necessarily the same as the need for services. The National Survey of American Families collected data on children's mental health conditions, and on their use of mental health services. The survey used a six item version of the Child Behavior Check List to identify children with emotional and behavioral problems based on parental responses about their child's behavior in the past three months. The cutoff point on the behavior scale was set to identify a high level of emotional and behavioral problems. The survey also requested information about children's use of mental health services. In the Massachusetts sample, the survey found that 7% of children ages 6 to 17 met the standard for a mental or emotional problem in the past 3 months.³⁴

Utilization Rates as a Proxy for Service Demand.

While estimates of mental health service demand compared with need are limited, actual penetration or utilization rates provide benchmarks of the rate at which Massachusetts children are currently using mental health services. Given that Massachusetts benefits and coverage are comprehensive and our workforce supply is high by national standards, utilization or penetration rates may in fact be a reasonable proxy for service demand.

The Health Employer Data Information Set (HEDIS) has developed a standardized measure of access to mental health services (penetration rate) that is reported for all NCQA-accredited health plans. HEDIS measures the percentage of children receiving an outpatient mental health service from a specialty provider (mental health services provided by primary care providers are excluded) during a 12-month period, compared to the number enrolled in the health plan. Table 6 shows national rates of mental health utilization for commercial preferred provider organizations, commercial HMOs, and HMOs serving Medicaid populations. Most of these rates fall well below the prevalence rates presented earlier. Massachusetts HEDIS utilization rates are substantially above the national levels, with Massachusetts commercial utilization rates for 13-18 year old youth from 75% to 99% higher than national rates. MassHealth HMO rates were approximately 50% higher than the national Medicaid HMO rates.

³³ R.M. Friedman, et al. "Prevalence of Serious Emotional Disturbances in Children and Adolescents, Behavioral Health, United States, 1996."

³⁴ R. Sturm, R.S. Ringel, and T. Andreyeva. "Geographic disparities in children's mental health care." *Pediatrics*, 112(4):e308, 2003 Oct. <<http://pediatrics.aappublications.org/cgi/content/abstract/112/4/e308>> (9/10/2009).

TABLE 6 HEDIS Children's Mental Health Specialty Provider Utilization Rates by Plan Type and Age

HEDIS—NATIONAL PENETRATION RATES OF OUTPATIENT MENTAL HEALTH 2008

	FEMALE	MALE	TOTAL
Ages 0-12			
Commercial PPO	2.5%	4.1%	3.3%
Commercial HMO	2.8%	4.7%	3.7%
Medicaid HMO	4.6%	7.7%	6.2%
Ages 13-18			
Commercial PPO	6.8%	7.5%	7.1%
Commercial HMO	7.6%	8.3%	8.0%
Medicaid HMO	11.2%	12.0%	11.7%

HEDIS—MASSACHUSETTS PENETRATION RATES OF OUTPATIENT MENTAL HEALTH 2008

	FEMALE	MALE	TOTAL
Ages 0-12			
Commercial PPO/HMO	5.7%	9.4%	7.6%
Medicaid HMO	6.4%	10.4%	8.4%
Ages 13-18			
Commercial PPO/HMO	14.6%	13.4%	13.9%
Medicaid HMO	17.1%	17.6%	17.3%

Source: 2008 HEDIS Quality Compass

Child utilization data were also obtained separately from MassHealth and two commercial plans. For MassHealth, the three rates ranged from 8.4% (ages ranged from 0 to 21) to 26.2% (ages 0-18). These rates were for access to *any* behavioral health service and count total enrollment using the same methodology as HEDIS. Behavioral health services also included any substance abuse services provided to adolescents and all mental health services, not just outpatient services. Thus, they are not directly comparable to the HEDIS data shown above. MassHealth states that the rates it provided for use of any mental health service are not more than 1% higher than the outpatient rates. The populations also differ slightly in terms of age. Finally, the needs of MassHealth enrollees, including the children in Department of Children and Families and individuals with disabilities, are greater than the general population.

Rates for access to any mental health service by enrolled children under 19 in two large commercial plans were 15.5% and 13%. The 13% rate includes mental health services provided in primary care as well as specialty mental health services. These rates are not far from the HEDIS commercial rates for older children. Since these rates include younger children as well, these plans are likely somewhat higher than the state average. Taken together, the MassHealth, HEDIS and other Commercial data appear to indicate high overall access rates for Massachusetts children; significantly greater than 10% for children and youth under 19 years of age. The exact number cannot be inferred from these disparate data.

TABLE 7

Prevalence Estimates for 3 Levels of Need

	N	%
All Children*	1,633,194	—
Level of Need		
Children with SED with extreme functional impairment [^]	70,464	4%
Children with SED with significant functional impairment [^] (includes the 4% of children with extreme functional impairment)	106,269	7%
Children with any diagnosable mental health disorder [°] (includes children with SED)	216,296	13%

Notes on Sources and assumptions

*** 2005 Estimates, US Census by Age Group**

[^] Assumptions for estimating prevalence of SED with extreme functional impairment

6% of children ages 10-19: Corresponds to MA DMH State Plan 6% rate for SED with extreme functional impairment
 2.5% of children ages 0-10: Corresponds to the 2.5% MA DMH rate of children ages 0-8 considered to be SED in need of services

[^] Assumptions for estimating prevalence of SED with significant functional impairment.

10% of children ages 10-19: Corresponds to MA DMH State Plan 10% rate for SED with significant functional impairment
 3.0% of children ages 5-9: Assumption: Slightly more than the 2.5% MA DMH rate of children ages 0-8 considered to be SED in need of services
 2.5% of children ages 0-4: Corresponds to the 2.5% MA DMH rate of children ages 0-8 considered to be SED in need of services

[°] Assumptions for estimating prevalence of any diagnosable mental health disorder

20% of children ages 10-19: Corresponds to SAMHSA³⁵ 20% rate of prevalence for any diagnosable mental health disorder for ages 9-17
 8% of children ages 5-9: Assumption: Slightly less than the 10% rate found in Great Britain³⁷ for an age group that included older children with higher prevalence
 4% of children ages 0-4: Assumption: More than the MA DMH³⁸ rate of children ages 0-8 considered to be SED in need of services, and less than our assumption for children ages 5-9

In addition, the quality and extent of their care cannot be inferred from these types of measures. These are youth who have received at least one mental health service in a 12 month period. They may not stay engaged in services and data are not available on the types of professionals they see. Furthermore, these high penetration rates do not ensure that children with the most significant needs are getting services; the National Survey of the American Family found that only about half of higher need children in Massachusetts had used mental health services in the past year.³⁵

Estimating Prevalence Rates in Massachusetts. This report estimated the number of children that would need services using a range of prevalence rates from children with the most severe needs to those with any level of diagnosable mental health problem. Estimates are consistent with SAMHSA estimates and with those of the Department of Mental Health for children with SED. The selected prevalence rates were applied to the 2005 Census estimates of children ages 0 to 19. Using this method, of the 1.6 million children in Massachusetts aged 0 through 19 in 2005, an estimated 70,000, or 4%, have the most severe need (SED with extreme functional impairment) while as many as 216,000, or 13%, would have some diagnosable mental health disorder (Table 7).

35 R. Sturm, R.S. Ringel, and T. Andreyeva. "Geographic disparities in children's mental health care."

36 R.M. Friedman, et al. "Prevalence of Serious Emotional Disturbances in Children and Adolescents."

37 H. Meltzer, et al. "The behavioral health of children and adolescents in Great Britain: Summary Report."

38 MA Department of Mental Health, State Mental Health Plan, SFY2009-2011.

Regional Estimates of Need in Massachusetts: To estimate need on a regional basis, the research team employed the most expansive definition of need, any diagnosable disorder, applying it to the age ranges of the different regions. Table 8 presents the number and percent of children in need of mental health services by region and those children as a percent of the total child population of the region. This method accounts for differences in age distribution between the regions. While the differences are small in magnitude, it shows that the Western region has the highest percentage of children in need, while Boston has the lowest percentage. Unfortunately, the method does not account for significant demographic differences such as race, ethnicity, and income, which are also likely to affect prevalence. Given the Boston region's great ethnic diversity and low income, accounting for these factors would likely substantially increase the need shown in the Boston region and affect other regions accordingly.

National prevalence data do not provide any reliable estimates of disparities in prevalence by race and income that would allow accounting for these factors.

According to these methods, the Metro area, primarily because of its high number of children, has 26% of the statewide need, while Boston has 10%. If Massachusetts has highly accurate need indicators, resources could be distributed to meet regional needs. However, the limitations of these estimates point to the necessity for much more study on need as well as current patterns of regional service use. Better data on prevalence are also needed. Results of the statewide Child and Adolescent Needs and Strengths (CANS) assessments being implemented by CBHI can provide relevant data for such analyses in the near future.³⁹

TABLE 8 Regional Estimates of Need

REGION	CHILDREN IN NEED IN REGION	TOTAL CHILD POPULATION	CHILDREN IN NEED AS A PERCENT OF THE TOTAL REGIONAL POPULATION	REGIONAL NEED AS A % OF STATEWIDE TOTAL
Boston	21,346	166,006	12.9%	10%
Central	30,593	229,965	13.3%	14%
Metro	56,247	430,939	13.1%	26%
Northeastern	36,672	281,621	13.0%	17%
Southeastern	41,943	312,800	13.4%	19%
Western	29,494	211,863	13.9%	14%
Total	216,296	163,3194	13.2%	100%

Source: 2005 Census Data and prevalence estimates outlined in notes to Table 7. Prevalence Estimates for 3 Levels of Need

39 J.B. Dilley, et al. "The Validity of the Child and Adolescent Needs and Strengths Assessment." <http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=ED495282&ERICExtSearch_SearchType_0=no&accno=ED495282>

4

Workforce Supply and Capacity in Massachusetts

Given the need for children's mental health services in Massachusetts, it is important to better understand the actual capacity of the children's mental health workforce in Massachusetts.

The following section presents data on children's mental health providers in Massachusetts that responded to the survey. Topics covered include: demographics of survey respondents, service availability, practice setting and schedules, time spent on administrative and collateral tasks, caseload characteristics, and geographic and linguistic capacity. Findings presented combine data from the targeted literature review, the provider survey, and key informant interviews.

A. DEMOGRAPHICS OF SURVEY RESPONDENTS

This section presents the demographic characteristics of the child providers that responded to the survey. Overall, the majority of respondents are white, female, and have been in practice more than 15 years. Additionally, 45% of respondents are over the age of 55. These trends signal some concerns regarding the workforce in Massachusetts, including significant differences in the racial/ethnic distribution of providers compared to youth, and an experienced, yet aging workforce that will retire over the next decade.

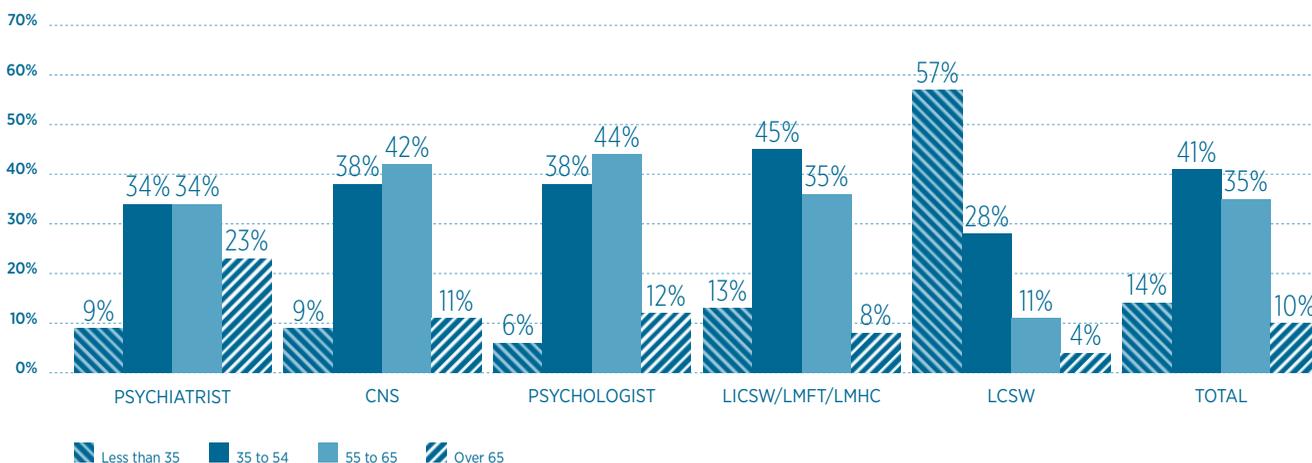
Gender and Race. Overall, 72% of the children's mental health providers that responded to the survey are female, although more than half (58%) of the responding psychiatrists are male. Respondents are also predominantly white, yet psychiatrists and LCSWs showed the most diversity, with at least 13% of the sample reporting a race other than White. Additionally, less than 10% of each provider type is Hispanic/Latino. See Appendix D, Tables 2, 3, and 4

for more detailed information on gender and race breakdowns by provider type.

Age. Psychiatrists, clinical nurse specialists, and psychologists reported similar age patterns in the survey sample, with the majority over the age of 55 and fewer than 10% under the age of 35 (Figure 2). Conversely, a majority of LICSW/LMFT/LMHCs are under the age of 55 and more than half (57%) of LCSWs are under the age of 35, which is not surprising because the LCSW is the first level of licensure leading to an LICSW.

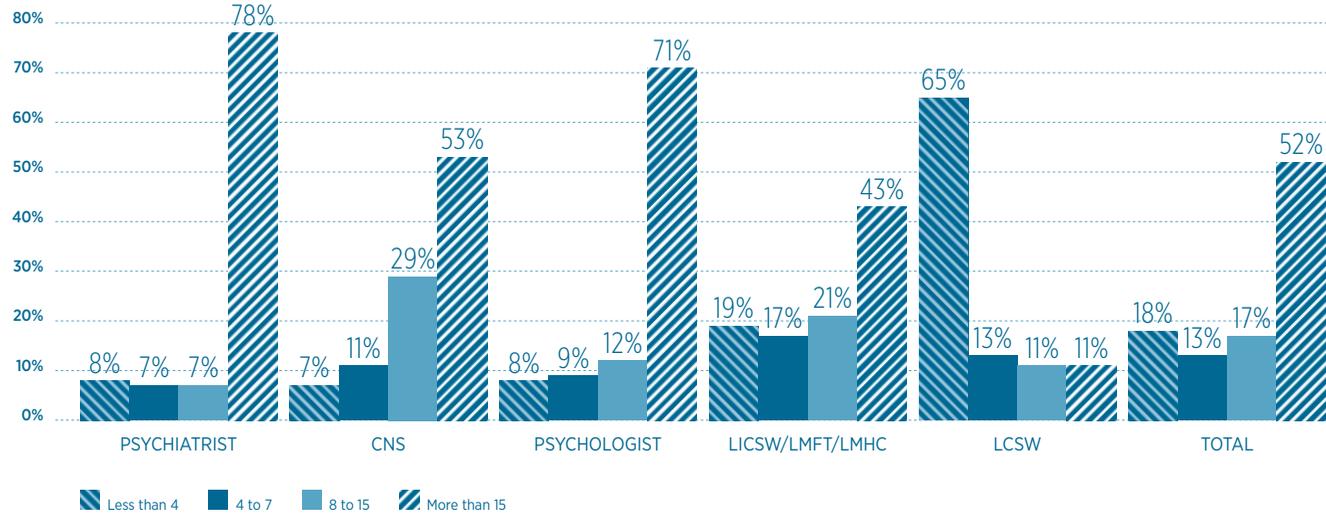
Years of Practice. As shown in Figure 3, given the age distribution, it is not surprising that a majority of psychiatrists, clinical nurse specialists, and psychologists reported more than 15 years of practice post licensure. More than 40% of LICSW/LMFT/LMHCs reported more than 15 years of practice post licensure. In contrast, 65% of LCSWs have less than 4 years of practice post licensure, reflecting that the LCSW is the first level of licensure leading to LICSW.

FIGURE 2 Age of Respondents



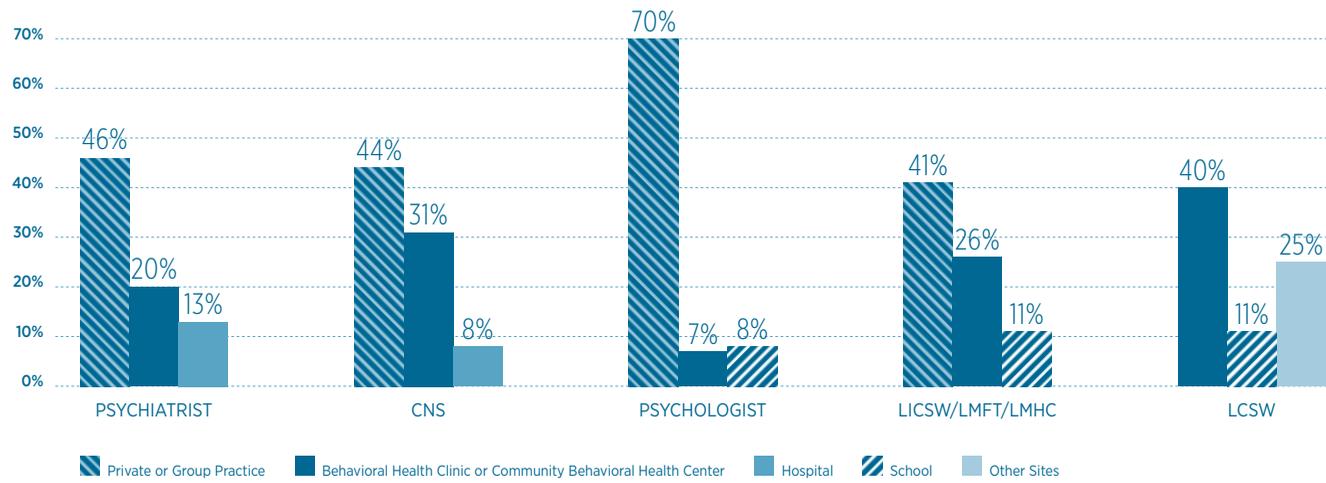
Note: See Methods section for comparison of Psychiatrist and Psychologist ages in the sample to Psychiatrist and Psychologist ages in the universe
 Source: Provider Survey—respondents with a caseload of at least 10% children; N=713

FIGURE 3 Years of Practice



Source: Provider Survey—respondents with a caseload of at least 10% children; N=722

FIGURE 4 Respondents' Employers



Source: Provider Survey—respondents with a caseload of at least 10% children; N=727

TABLE 9

Hours of Direct Care per Week

HOURS OF DIRECT CARE SERVICES PER WEEK	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Less than 10	5%	2%	7%	9%	15%	8%
10 to 19	10%	22%	20%	25%	19%	22%
20 to 29	28%	18%	30%	36%	40%	33%
30 to 39	29%	40%	31%	20%	19%	25%
40 and over	28%	18%	12%	10%	6%	13%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=730

B. SERVICE AVAILABILITY: PRACTICE SETTINGS AND SCHEDULES

Mental health providers are employed by a variety of employers and many work at more than one practice site. Both of these factors may affect access to care by children and families. Additionally, most providers work varying schedules and do not spend all of their time providing direct care services, which also affects service provision capacity.

Types of Practices and Employers. To gain a better understanding of where services are delivered, the survey asked providers to identify up to three sites where they currently practice. Respondents report working at a variety of practice sites, with at least 30% in each provider type reporting working at more than one location.

Providers also identified the employer type at each practice site. Figure 4 presents the top three employers for each provider type (see Appendix D, Table 10 for a total breakdown of employers). Practice

sites include: private or group practice, behavioral health clinic or community behavioral health center, hospital, or school. As shown in Figure 4, across providers, the largest share of sites where providers deliver services is in private or group practices. Psychologists reported the highest proportion of private or group practice sites (70%). It is interesting to note the small percentage of providers working in the schools, which is a natural community-based setting for providers to screen, assess, and deliver services to children.

Hours Worked in Direct Care. Providers spend varying amounts of time providing direct care services. As shown in Table 9, a higher proportion of prescribers compared to non-prescribers spend more than 30 hours in direct care weekly.

Table 10 presents average direct service hours per child provider. Providers vary by discipline in the number of direct service hours worked per week. On average, however, none of the provider types spend more than 30 hours on direct service per week.

TABLE 10 Direct Services Hours per Provider

CHILD PROVIDERS	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Number of child providers	86	45	168	382	54	735
Total direct service hours	2,600	1,256	4,096	8,772	1,097	17,821
Hours per child provider per week	30	28	24	23	20	24

Source: Provider Survey—respondents with a caseload of at least 10% children; N=735

TABLE 11 Working Hours Breakdown

PERCENT OF TOTAL WORKING TIME SPENT ON:	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Direct care services	63%	62%	56%	53%	49%	56%
Tasks associated with direct care	21%	27%	25%	29%	37%	27%
Other activities	16%	11%	19%	18%	15%	17%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=707

TABLE 12 Availability of Weekend and Evening Hours

AVAILABILITY OF EVENING AND WEEKEND HOURS	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Routinely work both evening and weekend hours	28%	27%	21%	32%	21%	28%
Routinely work weekend hours	6%	5%	5%	3%	5%	4%
Routinely work evening hours	57%	60%	72%	64%	71%	66%
Routinely work neither evening nor weekend hours	9%	8%	2%	1%	3%	2%
Total	100%	100%	100%	100%	100%	100%

*Evening and weekend hours are in addition to regular working hours

Source: Provider Survey—respondents with a caseload of at least 10% children; N=556

Distribution of Total Working Hours Across Providers.

Table 11 presents the average distribution of total working hours providers spend on direct care, tasks associated with direct care, and other activities. Most providers spend a majority of their working hours providing direct care services and a quarter of their time performing tasks associated with direct services (e.g., billing and follow up, unreimbursed collateral time, record keeping and administration).⁴⁰ Compared to the other provider types, LCSWs spend relatively fewer hours in direct service, which likely reflects that their licensure status requires more supervision, documentation, and administrative activities. As shown in Table 11, providers spend 11% to 19% of their time engaging in other activities, such as teaching, research, consultation, and administration, as well as working in another field.

Child Provider Flexibility in Working Weekends and Evenings. Given that children are often in school during standard working hours, it is important for children's mental health providers to offer weekend and evening hours. Respondents were asked if they work evening or weekend hours. In total, 98% of providers work evening or weekend hours and 28% of providers routinely work both evening and weekend hours (Table 12). However, many providers work at multiple practice sites, but do not offer evening or weekend hours at all sites (see Appendix D, Table 11).

C. ADMINISTRATIVE TASKS ASSOCIATED WITH DIRECT CARE AND COLLATERAL SERVICES

In addition to understanding hours worked by providers, it is important to understand how providers spend their work time. The following section presents findings on time spent engaging in administrative and collateral tasks.

Administrative Tasks and Time. Clinicians perform a number of different administrative tasks, including submitting applications to participate in insurance panels, requesting service authorizations, understanding benefits and protocols across plans, and scheduling and billing processes.

- *Applications for Credentialing.* The process for application and credentialing is essentially the same for most health plans (public and commercial), requiring the same information and documentation. However, health plans request the information in their own formats and are inflexible in accepting information in a different format that may have already been prepared. This requires additional time from providers and can constitute a barrier to participation in insurance panels.
- *Service Authorization Requests.* With mental health parity laws, there is seldom a need to request authorization for initial outpatient services, but authorization is often required for additional services, more intensive outpatient services, and other more intensive community-based services often considered intermediate level of care (e.g., in-home therapy, family stabilization). Psychological and neuropsychological assessments also require additional authorizations. Children's psychotropic medications often require some form of prior approval since most have not been approved specifically for children. Non-standard dosing may also require such approval. Once approvals are received, the approval number must be noted and included when the service is billed, necessitating careful recordkeeping and coordination with billing.

⁴⁰ Further discussion of time spent on collateral and administrative tasks is addressed in section on provider satisfaction.

TABLE 13 Time Spent on Direct Care and Tasks Associated with Direct Care

% OF TIME SPENT ON DIRECT CARE AND TASKS ASSOCIATED WITH DIRECT CARE	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Time spent on direct care	75%	70%	69%	65%	57%	67%
Time spent on unreimbursed collateral	7%	7%	8%	9%	12%	8%
Time spent on other tasks associated with direct care	18%	23%	23%	26%	31%	25%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=684

Clinicians perceive that care coordination takes considerably more time for children than for adults.

Child practitioners report that 7% to 12% of their time is spent on unreimbursed collateral contacts, significantly more than reported by adult providers.

TABLE 14 Time Spent on Unreimbursed Collateral

% OF TOTAL TIME	PRESCRIBER		NON-PRESCRIBER		
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW
Child Providers where at least 75% of caseload is children	9%*	8%	8%*	10%*	12%
Child Providers where at least 50% of caseload is children	8%*	9%	9%*	9%*	12%
Child Providers where at least 10% of caseload is children	7%	7%	8%*	9%*	12%
Adult Providers who have never worked with children	6%	6%	5%	6%	15%

* Statistically significant difference (at the 5% level) in time spent on unreimbursed collateral as compared to adult providers – for more on statistical analyses see Appendix D, Tables 12, 13, and 14

Note: Sample size varies between the four groups; Adult Providers N=545; Child Providers (10%) N=683; Child Providers (50%) N=427; Child Providers (75%) N=258

→ *Understanding Benefits/Coverage across Plans.*

Each insurance plan has different benefits as well as different formats and criteria for requesting and receiving authorization. Clinics, group practice staff, and privately practicing clinicians must be sure to provide treatment for each child consistent with their covered benefits, criteria, and processes for authorization.

→ *Scheduling and Billing Processes.*

Scheduling of outpatient visits is another component of administration. Billing also requires significant time. Providers stated that some plans pay very slowly and that there are often errors in payment, necessitating follow-up and often rebilling in order to be paid. A recent article in the Boston Globe⁴¹ reported that average Massachusetts health insurance claims are paid within 39 days and denials or claims reviews affect an average of 9% of claims. MassHealth rates were the highest in both categories.

Because providers are often involved in other activities, the time on direct care and associated tasks shown in Table 11 was broken down in more detail to look specifically at the tasks associated with direct care and unreimbursed collateral hours that professionals report. As shown in Table 13, providers spend between 18% and 31% of their time on “other tasks associated with direct care” (i.e., administrative tasks). For all provider types, minimizing duplicative and unproductive administrative tasks could make available additional time for direct services among licensed professionals.

Collateral Tasks and Time. Providers commonly express concerns regarding unreimbursed collateral time and administrative burden. Collateral work, often called care coordination, is defined as assessments, consultations, or planning with other [service] providers in children’s lives, such as family members, teachers, primary care physicians, and other medical specialists. Care coordination is recognized as an important function in pediatric mental health, just as it is in primary care medical homes and in the chronic disease management model. There is strong evidence that treating the behavioral health problem of a child or a youth requires the involvement of the child’s family members, and this is recognized in most insurance benefits which cover parent consultation and family therapy as billable services in relation to a child with a diagnosed behavioral health problem⁴². Care coordination, however, is recognized as a service activity reimbursable only by Medicaid.

Time Spent on Unreimbursed Collateral Time. Survey respondents were asked to report time spent on unreimbursed collateral services. The distribution of unreimbursed collateral time is similar across provider types and hours worked. The share of unreimbursed collateral time was lowest for psychiatrists and CNS who spent 7% of their direct care associated time on this task. Psychologists spent 8% and LICSW/LMFT/LMHCs spent 9%. More detail on the time spent on unreimbursed collateral time is included in Appendix D, Table 8.

Clinicians perceive that care coordination demands for treating children exceed what is required in treating adults. Table 14 shows that there are differences between child and adult providers regarding time spent on unreimbursed collateral time, particularly for psychologists and LICSW/LMHC/LMFTs. Child providers reported spending between seven and twelve percent of their time on unreimbursed collateral time, in comparison to an average of 6% for most adult-only providers.

41 http://www.boston.com/business/healthcare/articles/2009/05/28/insurers_ranked_on_payment_records/—Last Accessed on 9/22/09

42 However, many plans prohibit payment if the service is provided on the same day as a therapy visit.

TABLE 15 Percent Time Spent on Specific Mental Health Conditions by Provider Type

TIME SPENT TREATING CONDITIONS?	ADJUSTMENT OR MOOD DISORDERS	DEVELOPMENTAL PROBLEMS*	DISRUPTIVE BEHAVIOR PROBLEMS	ANXIETY DISORDERS	SUBSTANCE ABUSE DISORDERS	PSYCHOTIC DISORDERS	COMPLEX PROBLEMS
Prescribers (Psychiatrists, CNS)							
Less than 5%	3%	34%	8%	3%	50%	56%	7%
5 to 50%	71%	64%	77%	89%	46%	44%	61%
More than 50%	26%	2%	15%	8%	4%	1%	31%
Total	100%	100%	100%	100%	100%	100%	100%
Non-Prescribers (Psychologists, LICSW/LMFT/LMHC, LCSW)							
Less than 5%	5%	55%	14%	10%	56%	79%	33%
5 to 50%	64%	40%	71%	76%	37%	20%	50%
More than 50%	31%	5%	15%	14%	8%	1%	17%
Total	100%	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=638

*Developmental problems include developmental disabilities (mental retardation), autism, Aspergers and learning and communications disorders

D. CASELOAD CHARACTERISTICS

To gain a better understanding of the mix of clients (acuity and severity) providers carry in their caseloads, respondents were asked to estimate, from their total caseloads, the percent of time spent treating children with specific mental health conditions. Table 15 presents the distribution of time across conditions by provider type (prescriber v. non-prescriber).

In addition to treating a variety of conditions, providers treat specific populations of children. As shown in Table 16, overall, providers reported spending more than a third (37%) of their direct service time treating children from families with multiple problems. Respondents reported spending more than a quarter of their direct service time treating children who are victims of abuse or neglect, and one-fifth of their direct service time on children with histories of hospitalizations for behavioral health problems.

Providers were also asked to report the share of children with serious emotional disturbance (SED) in their caseloads. The average proportion of providers' caseloads with SED ranged from 63% for psychiatrists to 41% among licensed psychologists (Table 17).

TABLE 16

Specific Populations of Children

SPECIAL CHILD POPULATIONS*	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
From families with multiple challenges	33%	40%	24%	40%	52%	37%
Are victims of abuse or neglect	22%	26%	18%	29%	44%	27%
Have been hospitalized for behavioral health problems	25%	24%	13%	19%	26%	20%
Have co-occurring medical conditions	15%	15%	16%	10%	10%	12%
Have co-occurring substance abuse conditions	11%	11%	9%	13%	8%	11%
Are gay, lesbian, bisexual, transgender, questioning	6%	5%	6%	5%	4%	5%

*If children fell in more than one category they are counted in both

Source: Provider Survey—respondents with a caseload of at least 10% children; N=584

TABLE 17

Average Percent of Caseload with SED

Percent	PRESCRIBER		NON-PRESCRIBER		
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW
Percent	63%	59%	41%	50%	54%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=646

TABLE 18 Private Practice Availability

	PRESCRIBER		NON-PRESCRIBER		TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	
Full, I maintain a waitlist	56%	33%	36%	20%	32%
1 to 2 slots open	25%	33%	43%	42%	39%
3 to 5 slots open	7%	20%	11%	16%	13%
Can almost always accept new clients	12%	13%	10%	22%	16%
Total	100%	100%	100%	100%	100%

Source: Provider Survey –respondents who work in private practice and have a caseload of at least 10% children; N=437

E. CAPACITY TO PROVIDE CARE

Health Provider Shortage Areas (HPSA). The US Health Resources and Services Administration (HRSA) is responsible for the identification of health provider shortage areas in geographic areas, population groups or health care facilities. HPSAs are identified in primary care, dental and mental health services. Massachusetts has HPSA designations in: low income areas of New Bedford and Worcester; for the homeless in Boston; in 36 of the at least 52 Community Health Centers across the state, including one Community Mental Health Center which operates a small health center; and in certain correctional facilities. The HPSA standards for provider to population ratios for mental health shortage areas are 6000:1 for core mental health professionals and 20,000:1 for psychiatrists.

Providers with Open Panels. A majority of psychiatrists who work in private practice report that their practice is full most of the time (Table 18). LICSW/LMFT/LMHCs are the most likely to work at a practice that can accept new patients; however, CNS also have a larger percentage of practices with slots open for new clients.

Geographic Variation. Geography is a well-recognized factor affecting access to mental health services in Massachusetts. Table 19 presents the capacity of practitioners with private practices by region. Respondents were asked to report the number of

slots they had open and their capacity to take on new clients at any particular time. This capacity varies considerably by region. The Central and Western regions have the largest percentage of providers reporting at least three to five open slots, compared to the Northeast and Boston with the fewest open slots reported. Across the regions, more than one-fifth of providers working in private practice report that their practices are full most of the time.

Lack of cultural and linguistic capacity. The race and ethnicity of children in the state affects the needed capacity for linguistic and cultural competencies in mental health service delivery. As presented in Section 3, Massachusetts has an ethnically diverse population of children and the providers responding to the survey are not racially or ethnically diverse, nor do they serve caseloads with non-English speakers. As shown in Table 20, overall, only 6% of the survey respondents are not white. Across all provider types, the vast majority (95%) of clients are English speaking. Psychiatrists, clinical nurse specialists, and LCSWs report the highest share (8%, 7%, and 6% respectively) of clients speaking languages other than English, the most common of which is Spanish (see Appendix D, Table 15).

TABLE 19

Private Practice Availability by Region

HOW FULL IS YOUR PRACTICE MOST OF THE TIME?	BOSTON	CENTRAL	METRO	NORTHEAST	SOUTHEAST	WESTERN
Prescribers (Psychiatrists and CNS)						
Full	33%	0%	56%	33%	44%	82%
Open*	67%	100%	44%	67%	56%	18%
Total	100%	100%	100%	100%	100%	100%
Non-Prescribers (Psychologists and LICSW/LMFT/LMHC)						
Full	18%	39%	28%	26%	18%	19%
Open*	82%	61%	72%	74%	82%	81%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents who work in private practice and have a caseload of at least 10% children; N=437

* Open practices include those with at least one open slot.

TABLE 20

Race of Providers

RACE	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
White	87%	96%	97%	95%	86%	94%
Asian/Pacific Islander	12%	2%	0%	1%	4%	2%
American Indian or Alaskan Native	0%	0%	1%	1%	0%	1%
Black or African American	0%	2%	1%	1%	6%	1%
Other	1%	0%	1%	2%	4%	2%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=719

5

Mental Health Workforce Dynamics that Affect Capacity

In addition to understanding the location and hours providers work, it is important to consider other factors that can affect workforce capacity, including participation in public and commercial insurance panels, future employment plans, and job satisfaction. The analyses presented in the Insurance Participation section are limited to child providers who indicated that they work at a private or group practice—those who currently provide direct mental health services and serve a caseload that is at least 10% children and adolescents (N=473). The Future Plans section includes analyses on child providers in any practice setting.

A. PRIVATE PRACTICE PROVIDERS INSURANCE PARTICIPATION

The majority of respondents across disciplines (with the exception of LCSWs) working with children report working in private or group practices (88% of psychologists, 84% of psychiatrists, 69% of clinical nurse specialists, and 59% of the remaining independently licensed clinicians (LICSW, LMFT, LMHC)).

As Figure 5 shows, most survey respondents across provider types participate in both public and private panels. Psychologists (43%) and LICSW/LMFT/LMHCs (30%) are more likely to participate solely on private sector panels than psychiatrists (22%) and clinical nurse specialists (26%). Notably, a significant percentage of prescribers (17% of psychiatrists and 10% of clinical nurse specialists in private practice) report not participating in either private or public insurance panels, suggesting that they serve families willing to pay for services themselves, or whose insurance plans will reimburse for out-of-panel services.

FIGURE 5 Insurance Participation

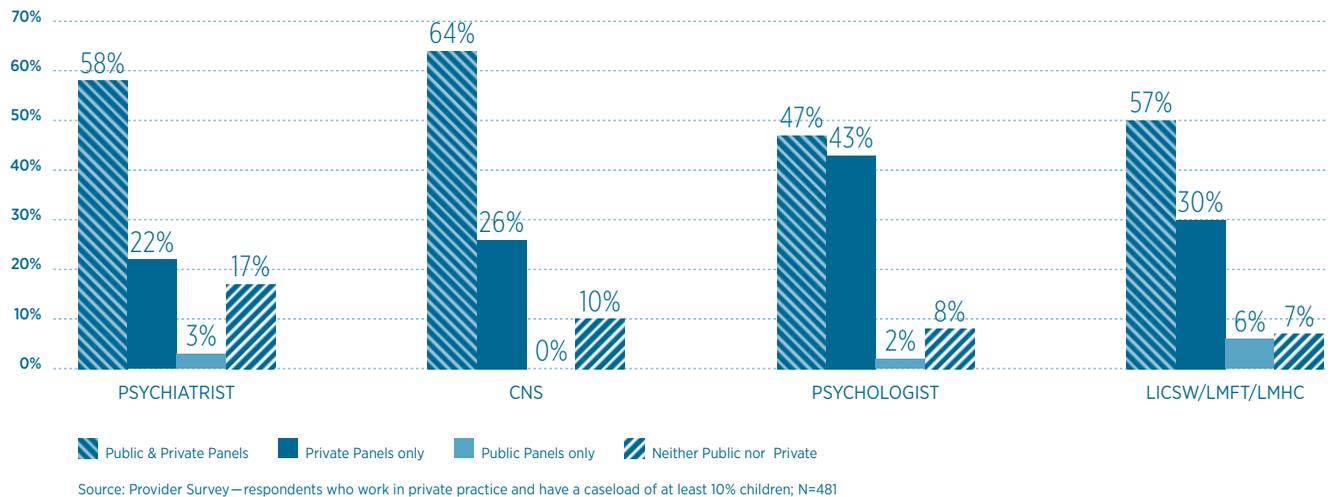
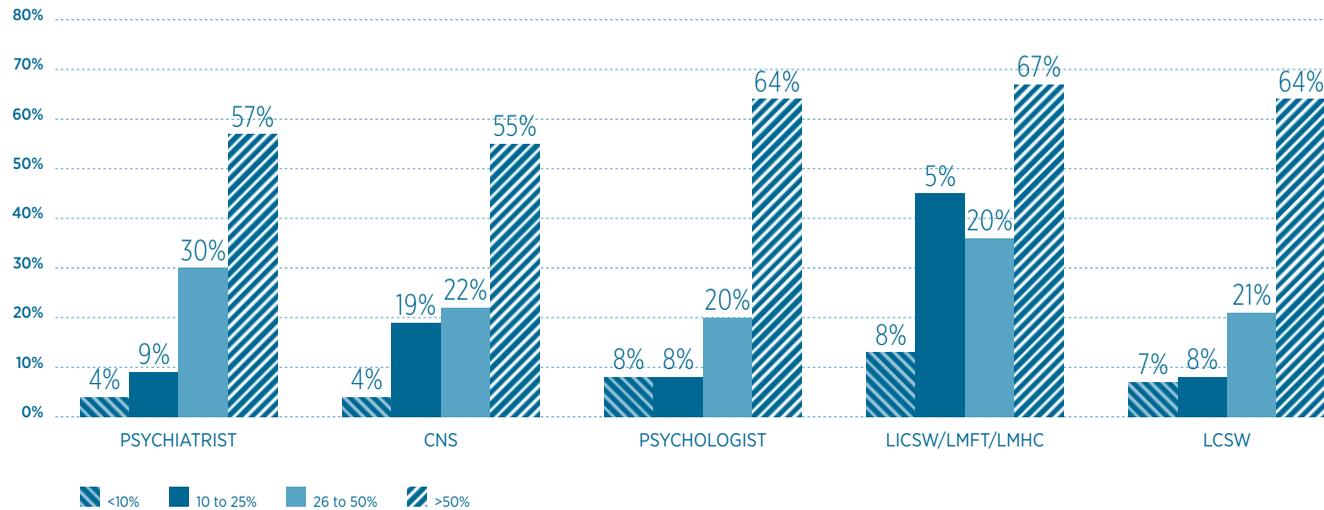


TABLE 21 Insurance Panel Participation

INSURANCE PANEL PARTICIPATION	PRESCRIBER		NON-PRESCRIBER		TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	
Commercial Insurance Panel Participation	81%	90%	90%	87%	87%
Public Sector Panel Participation	61%	65%	49%	63%	58%

Source: Provider Survey—respondents who work in private practice and have a caseload of at least 10% children; N=473

FIGURE 6 If on Commercial Panel, Percent of Caseload Covered by Commercial Plans



Source: Provider Survey—respondents who work in private practice and have a caseload of at least 10% children; N=378

Commercial Panel Participation. Most private practitioners (81% to 90%) are on at least one commercial insurance panel (Table 21). Across disciplines, half to two-thirds of clinicians on commercial panels report that more than 50% of their caseloads are children with commercial insurance coverage (Figure 6).

Public Panel Participation. Among survey respondents, fewer private practitioners participate on public panels than commercial panels. Nevertheless, half to two-thirds do participate on at least one public panel. Psychiatrists were the most likely to report participating in public panels (61%), while psychologists were least likely to report participation (49%). As Figure 7 shows, public sector clients represent a relatively small part of most private practitioners' caseloads, however there

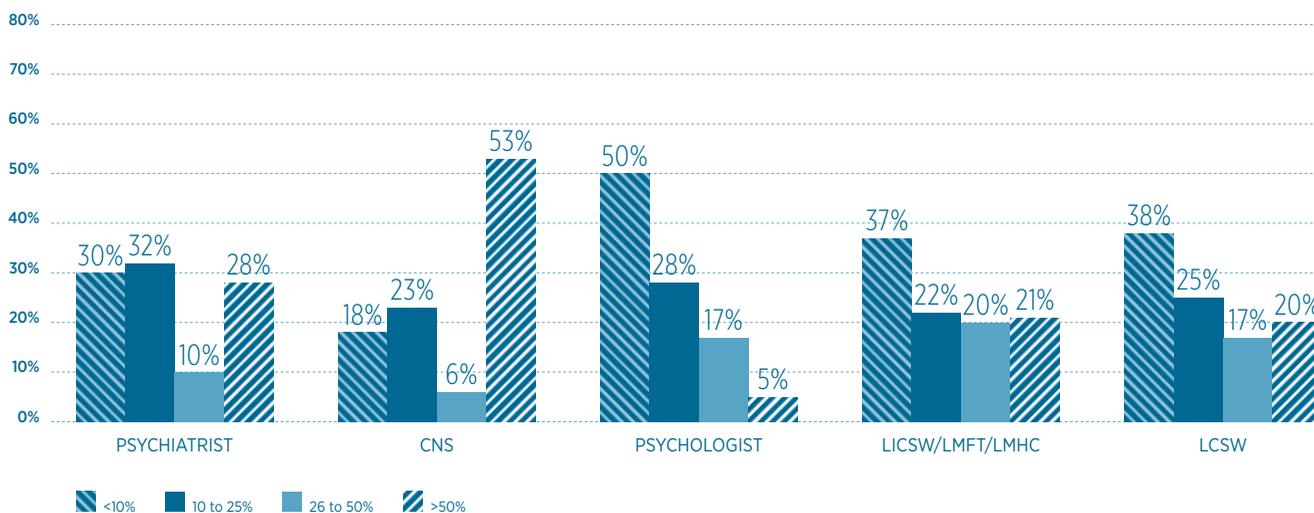
is considerable variation across disciplines. Nearly 50% of clinical nurse specialists reported that public sector clients comprise over half of their caseloads, compared to only 5% of psychologists. Sixty-three percent of psychiatrists, 78% of psychologists, and 60% of LICSW/LMFT/LMHC serve public sector clients in one quarter of their caseload or less.

Private Practitioners not on panels. Most private practitioners not currently on commercial or public panels do not want to join one (Table 22), and most have never applied. The exception is LICSW/LMFT/LMHC, 52% of whom would like to join a commercial panel. The desire of private practitioners currently not on public panels to join one varies considerably by discipline, ranging from 48% of LICSW/LMFT/LMHCs to 14% of psychiatrists.

Fewer practitioners working in private practice report serving on public panels than private panels.

Half to two thirds participate on public panels, but public sector clients represent a relatively small part of most private practitioner caseloads.

FIGURE 7 If on Public Panel, Percent of Caseload Covered by Public Plans



Source: Provider Survey—respondents who work in private practice and have a caseload of at least 10% children; N=237

Disincentives for Panel Participation. Respondents reported several disincentives to participating on public and private panels. Among the practitioners not wanting to participate on private panels, two thirds of psychiatrists, nurses, and psychologists report low rates of payment as the deterrent. Additionally, two-thirds of psychiatrists cited difficult authorization processes, and two-thirds of psychologists and nearly 60% of LICSW/LMFT/LMHCs cited excessive paperwork as a major disincentive.

Similar disincentives were identified for participating in public panels. Respondents not currently on a public sector panel and not interested in joining cited low rates of payment as the most common disincentive (75% CNS, 70% psychiatrists and psychologists, and 53% LICSW/LMFT/LMHCs). Nearly half of the respondents also cited excessive paperwork; up to 40% cited the burdensome application process (42% LICSW/LMFT/LMHCs, 32% psychologists, 25% CNS, and 17% psychiatrists). Lack of compensation for necessary collateral work was cited by 30-40% of the psychiatrists, psychologists and LICSW/LMFT/LMHCs, with fewer (25%) of CNS identifying this as a barrier. About a third of psychiatrists also cited difficult authorization processes, unnecessary oversight, and late or incorrect payments as other reasons for not applying.

Private Practitioner Referral Sources. The most commonly cited source of client referrals across provider type included current and prior clients, primary care providers or specialists, and other clinicians (Table 23). Direct referrals through insurance or managed care companies were relatively low, ranging from 16% for CNS to 43% for LICSW/LMFT/LMHCs, suggesting that insurance companies have an opportunity to improve strategies for making referrals.

B. PROVIDER RETENTION

Respondents were asked about their plans for the next five years and results were among the most striking findings of this survey. *As shown in Table 24, very high percentages of respondents, even among younger clinicians, intend to leave direct care or leave the state within the next five years.* Not surprisingly, 74% of psychiatrists and 70% of psychologists over 65 years old plan to leave the field, as do 57% of LICSW/LMFT/LMHCs of the same age. However, of more concern, 40% to 60% of younger age groups, including 67% of psychologists under 35 and 54% of psychiatrists between 35 and 54 expect to leave the state or leave direct care. CNS appear to be an exception. None of the CNS respondents ages 35 and younger plan to leave the state or direct care.

TABLE 22 Interest in Panel Participation

PANEL PARTICIPATION INTEREST	PRESCRIBER		NON-PRESCRIBER		TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	
Would you like to be on a commercial panel?*					
Yes	21%	0%	20%	52%	34%
No	79%	100%	80%	48%	66%
Total	100%	100%	100%	100%	100%
Would you like to be on a public panel?^					
Yes	14%	27%	35%	48%	37%
No	86%	73%	65%	52%	63%
Total	100%	100%	100%	100%	100%

Source: Provider Survey—respondents who work in private practice and have a caseload of at least 10% children;

*Not on a Commercial Panel N=61;

^Not on a Public Panel N=197

TABLE 23 Referral Sources

FREQUENT REFERRAL SOURCES*	PRESCRIBER		NON-PRESCRIBER		TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	
Current and prior clients	65%	68%	66%	69%	67%
Primary care providers or specialists	67%	77%	67%	52%	61%
Other clinicians	75%	71%	55%	51%	57%
School personnel	21%	23%	41%	39%	36%
Insurance or managed care companies	26%	16%	33%	43%	35%
Courts or law enforcement	0%	10%	5%	10%	7%
Child welfare staff	7%	6%	5%	9%	7%
Referral service or my professional association	1%	3%	7%	7%	6%
Crisis teams or emergency departments	7%	6%	0%	5%	4%
Other	7%	3%	3%	10%	7%
None	0%	0%	1%	0%	0%

*Respondents were asked to select 3 sources

Source: Provider Survey—respondents who work in private practice and have a caseload of at least 10% children; N=473

TABLE 24 Respondents' Plans for the Future Percentage of respondents who plan to leave the state or leave direct care in the next five years

PLANS FOR NEXT FIVE YEARS BY AGE GROUP	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Age: Less than 35	50%	0%	67%	46%	37%	43%
Age: 35 to 54	54%	41%	50%	52%	54%	51%
Age: 55-65	50%	44%	64%	62%	67%	60%
Age: Over 65	74%	40%	70%	57%	50%	64%
Total: All Ages	56%	39%	58%	54%	44%	54%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=705

40% to 67% of younger age groups plan to leave the field or the state in the next five years, 67% of psychologists under age 35 and 54% of psychiatrists age 35 to 54

C. PROVIDER SATISFACTION AND FACTORS AFFECTING RETENTION AND RECRUITMENT

A variety of factors contribute to the problem of retention presented in Tables 25-29. These factors include: current levels of satisfaction with work, compensation, and debt load. To consider the magnitude of the retention problem on workforce capacity, it is important to consider current trends in licensure, as well as strategies for recruiting current clinicians to expand their target populations to include children and adolescents.

1. Satisfaction

Respondents were asked to indicate the top two factors that would most improve their satisfaction working as a child clinician (Table 25). Across

disciplines, financial support for collateral work and higher pay were the top two factors most frequently identified for improving satisfaction, followed by decreased administrative burden.

2. Compensation and Debt

Income. There was a general consensus among key informants interviewed that payment rates for outpatient mental health services are low, which translates into low revenues for clinicians in private practice and low salaries in other practice settings. Data show that 36% of full time psychiatrists report income in the range of \$100,000 to \$149,999, with another 40% reporting higher levels of income (Table 26). A third of full-time clinical nurse specialists (Table 26) and a third of the full-time psychologists (Table 27) reported earning between \$75,000 and

TABLE 25 Factors Associated with Provider Satisfaction

WHAT WOULD MOST IMPROVE YOUR SATISFACTION WORKING AS A CHILD CLINICIAN?*	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Financial support for collateral work	61%	73%	66%	54%	27%	57%
Higher pay	43%	60%	44%	58%	86%	55%
Decrease in administrative demands	23%	38%	31%	30%	29%	30%
Receiving relevant training and supervision	6%	15%	3%	24%	35%	17%
Decrease in amount of collateral work required	17%	23%	21%	12%	12%	15%
Reduction of risk/liability	14%	23%	8%	14%	14%	13%
Ability to work normal business hours	14%	8%	18%	10%	16%	13%
No changes: I am satisfied	16%	8%	8%	6%	2%	7%
Other	4%	5%	6%	8%	0%	6%

*Respondents were asked to choose 2 factors

Source: Provider Survey—respondents with a caseload of at least 10% children; N=667

\$99,999. Most LICSW/LMFT/LMHCs respondents reported salaries in the range between \$35,000 and \$74,999, while the salary range reported by LCSWs was \$35,000 and \$49,999 (Table 27).

Debt Load Post-Graduation. Clinicians often carry loans from graduate education. Such loans are particularly high for child psychiatrists. Child psychiatry is a sub-specialty that requires Board Certification in adult psychiatry and one to two additional years of education to qualify for Board Certification in child psychiatry. This additional expense and delay in starting full time work is similar to that of other medical sub-specialties. However, while payment rates for child psychiatry are sometimes differentiated from adult psychiatry, both fall below that of most other medical specialties.

The majority of respondents carried some amount of debt from their education. At the time of graduation, more than three quarters of prescribers over the age of 45 carried debt of less than \$50,000, but more than half of those under 45 carried a debt of \$ 50,000 or more (Table 28). A similar trend appears for non-prescribers, with those younger than 45 carrying a larger debt load at graduation than those over the age of 45 (Table 29).

Disparities in the income to loan debt ratio is a barrier for some mental health providers to remain in the field. For example, nearly 70% of LCSWs under age 45 have \$25,000 to \$75,000 in student loan debt. Of those working full time, a third earn less than \$35,000 and nearly half (46%) earn less than \$50,000 annually.

TABLE 26 Prescriber Income

INCOME	PSYCHIATRIST		CNS	
	FULL TIME	PART TIME	FULL TIME	PART TIME
Less than \$50,000	2%	17%	13%	42%
\$50,000 to \$74,999	5%	11%	25%	25%
\$75,000 to \$99,999	12%	11%	34%	33%
\$100,000 to \$149,999	36%	33%	22%	0%
\$150,000 to \$199,999	21%	22%	0%	0%
More than \$200,000	24%	6%	6%	0%
Total	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=128

TABLE 27 Non-Prescriber Income

INCOME	PSYCHOLOGIST		LICSW/LMFT/MLHC		LCSW	
	FULL TIME	PART TIME	FULL TIME	PART TIME	FULL TIME	PART TIME
Less than \$25,000	9%	12%	9%	24%	10%	43%
\$25,000 to \$34,999	5%	12%	14%	22%	23%	21%
\$35,000 to \$49,999	8%	18%	28%	17%	46%	7%
\$50,000 to \$74,999	28%	29%	33%	29%	10%	21%
\$75,000 to \$99,999	32%	20%	11%	6%	8%	7%
More than \$100,000	18%	10%	6%	1%	3%	0%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=589

TABLE 28 Prescriber Debt at Graduation

DEBT LOAD	PSYCHIATRIST		CNS	
	45 OR YOUNGER	OLDER THAN 45	45 OR YOUNGER	OLDER THAN 45
No debt	28%	20%	18%	35%
Less than \$50,000	22%	55%	27%	59%
\$50,000 to \$74,999	22%	11%	27%	6%
\$75,000 to \$99,999	0%	5%	9%	0%
\$100,000 to \$149,999	17%	6%	0%	0%
\$150,000 to \$199,999	6%	5%	9%	0%
More than \$200,000	6%	0%	9%	0%
Total	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=129

Note: Results are not adjusted for inflation

TABLE 29 Non-Prescriber Debt at Graduation

DEBT LOAD	PSYCHOLOGIST		LICSW/LMFT/LMHC		LCSW	
	45 OR YOUNGER	OLDER THAN 45	45 OR YOUNGER	OLDER THAN 45	45 OR YOUNGER	OLDER THAN 45
No debt	13%	18%	15%	21%	7%	42%
Less than \$25,000	20%	56%	23%	50%	21%	17%
\$25,000 to \$34,999	10%	12%	31%	20%	29%	17%
\$35,000 to \$49,999	15%	9%	19%	5%	26%	25%
\$50,000 to \$74,999	15%	2%	11%	2%	14%	0%
\$75,000 to \$99,999	18%	1%	1%	1%	2%	0%
More than \$100,000	10%	2%	1%	1%	0%	0%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=594
 Note: Results are not adjusted for inflation

TABLE 30 New Licensees as a percent of Existing Workforce

2008 Percentage	PRESCRIBER		NON-PRESCRIBER		
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW
2008 Percentage	4.6%	0.7%	2.9%	5.9%	13.7%

Source: Massachusetts Professional Licensure Databases

D. RATES OF ENTRY INTO LICENSURE FALL SHORT OF NEEDED REPLACEMENT RATES

For many reasons including compensation, administrative demands, and other factors, more than 50% of current professionals plan to leave Massachusetts or the field over the next five years (see Table 24). This holds true across disciplines and age groups for those under the age of 65. Turnover is a significant problem; however these data indicate serious dissatisfaction with the field as a whole. As

Table 30 shows, replacement rates in Massachusetts fall short of likely retirements in the next decade. Independently licensed professionals are not entering the workforce at a level needed to sustain the current supply. In fact, the rates of entry over five years (2008 percentage times 5) are roughly one half of the rates of planned departure.

TABLE 31

Reasons for not Serving Children by Provider Type

WHY DON'T YOU PROVIDE SERVICES TO CHILDREN?*	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Not credentialed/trained to serve children	87%	92%	62%	38%	27%	64%
Prefer to work with adults	39%	37%	59%	64%	82%	52%
Too much time needed on non-billable collateral	12%	11%	26%	20%	5%	17%
The type of treatment I offer is not appropriate for treating children	9%	6%	16%	23%	27%	15%
Concern about liability/risk	10%	17%	5%	7%	5%	9%
Inconvenient hours	2%	1%	8%	7%	5%	5%
Easier to build an adult practice	3%	2%	7%	6%	5%	5%
Hard to build full time practice serving children	1%	1%	2%	3%	0%	2%
Couldn't find a job treating children with income at desired level	0%	1%	1%	2%	5%	1%
Other	3%	0%	6%	11%	5%	6%

Source: Provider Survey—respondents who have never provided services to children; N=596

E. ATTRACTING LICENSED PROFESSIONALS INTO CHILD WORK⁴³

The analyses presented below focus on survey respondents who are not currently providing direct mental health services to children. Because it was not possible to mail the survey only to mental health providers with caseloads that contained children, some of the survey respondents have never provided services to children. Additionally, some survey respondents are not currently working in direct care or have left the mental health field all together.

1. Adult Providers

The data presented in this section focus on survey respondents who reported that they have never worked with children (N=604). Reasons respondents do not serve children varied by discipline (Table 31). A high percentage of psychiatrists (87%) and CNS (92%) identified lack of credentialing or training to serve children as the most important reason and a

majority of non-prescribers identified that they prefer to work with adults. However, smaller percentages, 39% of psychiatrists and 37% of CNS, indicated that their preference was to work with adults. While there appears to be limited potential to attract practitioners working with adults to work with children (overall 52% of providers prefer working with adults), there seems to be some potential for attracting at least some adult prescribers into working with children if training can be provided.

For psychologists, the percentage citing a lack of training was similar to the percentage reporting a preference for working with adults, suggesting that they may have chosen training consistent with their preference. For LICSW/LMFT/LMHCs, a preference for working with adults was the most significant reason for not serving children. Sixty-four percent of independently licensed and 82% of LCSWs prefer to work with adults.

⁴³ While most analyses presented are limited to survey respondents who reported that they currently provide direct mental health services and serve a caseload that is at least 10% children and adolescents (ages 0 to 21), the analyses in this section focus on survey respondents who are not currently providing direct mental health services to children.

TABLE 32 Increasing the Likelihood of Working with Children

WHAT WOULD IMPROVE YOUR LIKELIHOOD OF PROVIDING SERVICE TO CHILDREN?*	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Nothing—I do not wish to treat children	73%	56%	65%	68%	64%	67%
Receiving relevant training and supervision	18%	40%	14%	13%	27%	19%
Financial reimbursement of collateral work	14%	26%	18%	16%	0%	16%
Reduction of risk/liability	10%	17%	9%	5%	5%	9%
Higher pay	0%	0%	11%	13%	9%	7%
Decreased expectations for collateral time	5%	5%	7%	8%	5%	6%
Ability to work normal business hours	2%	2%	8%	7%	9%	5%
Other	0%	0%	0%	2%	0%	1%

*Respondents were asked to choose 2 factors

Source: Provider Survey—respondents who have never provided services to children; N=588

A strong preference for working with adults is reflected in responses to the question, “What would improve your likelihood of providing service to children?” Seventy-three percent of psychiatrists and 64% to 68% of LICSW/LMFT/LMHCs and psychologists said that nothing would improve their likelihood because they do not want to serve children (Table 32). Among LICSW/LMFT/LMHCs and psychologists, financial reimbursement for collateral work, higher pay and relevant training would improve likelihood. Clinical nurse specialists, however, were more open to serving children. Only 56% did not want to treat children, and 40% indicated that receiving relevant training and supervision would improve their likelihood of serving children. Financial reimbursement for collateral work was important for 26% of clinical nurse specialists.

2. Respondents Not Providing Direct Mental Health Services

A small group of survey respondents (2% to 6%) work in the mental health field, but do not provide direct care. The data presented in this section focuses on respondents not currently providing direct mental health services and is not limited to only child providers (N=389). Factors affecting this decision varied by discipline (Table 33). A majority of psychiatrists are retired. Across the other provider types common responses included accepting a non-clinical position, pursuing a different career, and needing higher pay.

TABLE 33 Decision Not to Provide Direct Care among Providers Working in Mental Health

WHAT MOST AFFECTED YOUR DECISION NOT TO PROVIDE CARE?	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Needed higher pay	7%	18%	20%	29%	27%	25%
Accepted a non-clinical position	7%	32%	25%	27%	13%	23%
Pursuing a different career	21%	18%	30%	17%	25%	21%
Retired	59%	23%	23%	12%	23%	19%
Wanted to avoid administrative demands	7%	14%	20%	14%	7%	13%
Burned out	14%	14%	7%	15%	10%	13%
Unemployed or laid off	3%	5%	2%	8%	11%	8%
Other	31%	18%	16%	20%	11%	19%
Not applicable, never provided direct BH services	0%	0%	2%	7%	8%	6%

*Respondents were asked to choose 2 factors

Source: Provider Survey—respondents who are not currently providing direct care services (NOT limited only to child providers); N=373

Of the licensed mental health professionals not currently providing direct services, many would consider re-entering direct service provision (Table 34). Close to half of psychiatrists and 70% or more of other professionals would consider doing so (see Appendix D, Table 22). When asked what would entice them to return to direct service, answers differed among professions. However, the same factors that most closely relate to satisfaction for people working as child clinicians would make returning to direct service more attractive for this group. Higher pay, decreased administrative burden, and financial support for collateral work were consistently among the most frequently cited enticements across professions. However, for psychiatrists, half identified reduction of liability, the most frequently identified enticement. More than half (56%) of clinical nurse specialists identified receiving relevant training and supervision as the enticement most needed, and for LCSWs this was the second most frequently cited enticement.

3. Providers Not Currently Employed or Volunteering in Mental Health

This section presents data on survey respondents who are not currently working in mental health (N=326). Ten percent or less of psychiatrists, clinical nurse specialists, and psychologists and less than 20% of LICSW/LMFT/LMHCs reported being not currently employed or volunteering in mental health (Table 35). Approximately two-thirds of the psychiatrists who are not currently employed or volunteering in the field of mental health are retired. More than 30% of CNS, LICSW/LMFT/LMHCs, and LCSWs are either employed in another field and plan to return to mental health or are unemployed and seeking employment in the mental health field.

TABLE 34 Incentives to Re-enter Direct Service

IF YOU WOULD CONSIDER RE-ENTERING DIRECT SERVICE, WHAT WOULD ENTICE YOU TO RETURN?	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Higher pay	36%	38%	39%	57%	48%	51%
Decrease in administrative burden	36%	31%	42%	33%	20%	32%
Financial support for collateral work	14%	38%	36%	28%	9%	26%
Receiving relevant training and supervision	21%	56%	15%	13%	43%	22%
Being able to work regular business hours	29%	13%	15%	22%	20%	21%
Reduction of risk/liability	50%	25%	15%	16%	16%	19%
Decrease in amount of collateral work required	29%	13%	18%	11%	2%	12%
None of the above	7%	0%	6%	3%	0%	3%
Other	14%	13%	18%	16%	18%	16%

*Respondents were asked to choose 2 factors

Source: Provider Survey—respondents who are not currently providing direct care services (NOT limited only to child providers); N=241

TABLE 35 Employment Status of Licensed Providers Not Working in Mental Health

EMPLOYMENT STATUS	PRESCRIBER		NON-PRESCRIBER			TOTAL
	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	
Employed in another field—do not plan to return to field	8%	18%	23%	20%	23%	24%
Employed in another field—plan to return to field	4%	29%	23%	22%	22%	20%
Retired	67%	29%	30%	17%	20%	21%
Unemployed—seeking employment in field	13%	6%	0%	10%	8%	9%
Unemployed—not seeking to be employed	0%	0%	0%	2%	5%	4%
Unemployed—not seeking employment in field	0%	0%	3%	4%	9%	2%
Other	8%	18%	20%	25%	13%	20%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents who are not currently employed or volunteering in mental health; N=292

F. TRAINING, SUPERVISION, AND INTERNSHIPS

Growing demands for a well-trained mental health workforce, coupled with declining mental health workforce numbers underscore the importance of investing in the workforce pipeline with education and training resources. According to key informant interviews with professional psychology and masters' level training programs, clinical training for direct service positions includes supervised practica and post-graduate, supervised experience to obtain licensure as an independent practitioner. All the professions require some form of post-graduate experience. Psychiatrists receive their practical training in hospital internships, residencies, field placement, and child psychiatry fellowships. Social work and mental health counseling require field placements during their formal education.

Most teaching hospitals receive additional funding to cover the costs of responsibilities to teach psychiatric interns, residents, and fellows. Behavioral health centers have found that internship programs greatly assist their ability to recruit clinicians, since they often hire graduates who have participated in their internship programs. They can receive Medicaid

payment at a 50% reimbursement rate for services provided by supervised interns, but this does not cover the full cost of administering internships. A recent study by YOU, Inc. documented the supervision and training costs of clinical internships at \$3,991 per intern⁴⁴, and there is no additional public or private funding specifically directed at training other than grants. In the current economic climate, when clinics have been closing programs in response to funding cuts, most organizations cannot sustain this level of expenditure without outside resources. It will become increasingly difficult for clinics to continue to support these internships.

Some key informants are calling for commercial payers to contribute to the costs of training the behavioral health workforce. Currently they do not pay for services provided by interns, some do not pay for services by recent graduates working under supervision in clinics, and all restrict their panels to private practitioners who have two to five years of experience. This means that the entire cost of clinical internships and supervised practice years is borne by public payers.

Lower rates or lack of reimbursement for interns and no funding other than grants make it increasingly difficult for clinics to support internships

⁴⁴ E. Gega and B. Flanzbaum. "Annual Report of Costs Associated with Training and Supervision of Interns: FY 2007-2008." YOU, Inc.

6

Discussion and Recommendations

The following section presents a discussion of study findings, as well as policy, practice, and research recommendations based on these findings. Several major themes emerge from this study, including:

- Defining capacity is challenging
- Access to services requires that families have the right information
- Child psychiatry is the scarcest resource
- Improving provider referrals is important for better access
- Reimbursement problems limit supply
- More than half the providers plan to leave the field or Massachusetts in five years
- Training and internships are needed
- Regulatory and legal challenges compound the difficulties of ensuring an adequate mental health workforce

A. THE CHALLENGES OF DEFINING CAPACITY IN A COMPLEX SYSTEM

In the context of a national mental health workforce shortage, Massachusetts is doing exceptionally well. Rates of psychiatrists and other professionals per 100,000 are well above the national averages (See Table 3). Three very recently published studies by the Center for Health Services Research at the University of North Carolina⁴⁵ provide county level estimates of adult mental health need and professional supply of services. Taken together, these studies analyzed county level supply of professionals and estimated shortages based on the prevalence of serious mental illness (SMI) among adults and the professional staff needed to serve individuals with SMI and the general population. These studies used a novel, not previously published estimation methodology that has been recommended to the US Health Resources Services Administration for adoption in the designation of provider shortages. Estimates of provider need are based on mental health utilization data for individuals with SMI from the National Co-Morbidity Survey and for those without SMI from the 2000 Medical Expenditure Panel Survey. Findings confirm that the supply of mental health professionals in Massachusetts is significantly higher than much of the country.

The current study methodology differs from these three studies in the following ways: 1) a focus on child need and children's mental health professionals, rather than adult need; 2) the use of a survey of all licensed professionals to obtain data, rather than estimations from large public data sets (including the Bureau of Labor Statistics, Census data, licensing files, National Co-Morbidity Survey and the Medical Expenditure Panel Survey); and 3) the identification of practice sites and specific work hours, rather than using the residence or office address of professionals. Further analysis is needed to determine how this new methodology may be useful for children's mental health service planning in Massachusetts.

Despite the relatively high levels of workforce supply, there is a widespread perception in Massachusetts that there are significant shortages in the mental health workforce. Stakeholders, advocates, pediatricians, and families report difficulties in finding clinicians, receiving timely appointments, and recruiting clinicians to their workplaces. Defining the capacity of the workforce is quite difficult to quantify due to complex factors such as:

- The health system in Massachusetts and across the country involves a wide variety of different insurers and health plans in which not all providers participate
- A relatively large number of professionals do not participate in public health plans where prevalence of mental illness is known to be higher
- A lack of data on the race and ethnicity of the workforce, as well as linguistic and cultural competence

In addition, the issue is not just about supply, but also the match between providers and clients. Parents need to find the "right" provider for their child's age, need, and severity, who accepts the specific type of insurance, has openings during hours when the child and family are available, and is located conveniently for an ongoing course of treatment. If the child needs a male provider, has limited English proficiency, or is enrolled in Medicaid, the ability to find that provider is even more limited. Organizational affiliations often limit outside access. Because child psychiatry is a scarce resource, mental health clinics often require that the child be established with a therapist before psychiatry can be requested. In the Boston area, a number of hospitals with large psychiatry services restrict access to children who have a pediatrician affiliated with the hospital.

45 T. Konrad, et al. "County Level Estimates of Need for Mental Health Professional in the United States." *Psychiatric Services*, 60:10; October, 2009; A.Ellis, et al. "County Level Estimate of Mental Health Professional Supply in the United States." *Psychiatric Services*, 60:10; October, 2009; K. Thomas, et al. "County Level Estimates of Mental Health Professional Shortage in the United States." *Psychiatric Services*, 60:10; October, 2009.

B. THE RIGHT INFORMATION IS NEEDED

Family members interviewed for this study asserted that families experience difficulty accessing the right information to find a therapist and this information generally is not available through provider search tools. Currently, there is no agreement in the field regarding the types of information that would be most helpful to families. While insurers and professional associations offer matching services, the number of and variation in information provided by these services likely add to the confusion experienced by parents. A statewide information and referral system that includes representation of all disciplines would facilitate the streamlining and standardization of information available to parents.

C. CHILD PSYCHIATRIC ACCESS IS THE GREATEST CHALLENGE

A consistent theme across the stakeholder interviews is that Massachusetts' children and families face significant difficulties in accessing child psychiatry. Moreover, according to survey data, a majority of psychiatric practices were full, particularly in Boston and Western Massachusetts. Several community clinics interviewed reported wait times for child psychiatry of up to three months, and psychiatrists reported serving families who had attempted to locate and schedule an appointment with multiple other psychiatrists.

Massachusetts established the Massachusetts Child Psychiatry Access Program (MCPAP) to assist primary care physicians and their patients with the difficulties and delays experienced in finding mental health services. Most pediatric primary care providers in the Commonwealth are enrolled in this program, which is available to children and families with any type of insurance. MCPAP provides psychiatric consultation to PCPs and provides assistance in locating a psychiatrist or therapist who has openings and is a good match for the child's need. For children requiring more timely assistance, MCPAP providers can perform psychiatric assessments, usually within 2 to 3 weeks; clinical assessments; or provide transitional therapy until the appropriate community-based provider is available to see the child and family.

MCPAP Care Coordinators reported that it is generally possible to find well-matched therapy services on a timely basis, although in more rural areas and when insurance companies have less extensive panels, this process can take considerably longer. Finding a psychiatrist can be more difficult than scheduling appointments with other mental health providers and the study results support this. Waits were reported by MCPAP staff to be two months in Western Massachusetts, at best.

D. OTHER REFERRAL AND MATCHING SERVICES ARE AVAILABLE

In addition to MCPAP, Project INTERFACE is a collaboration of public schools, community agencies, health care organizations, and families. Funded in part by MCPAP and local towns, Project INTERFACE is operated out of the Freedman Center at the Massachusetts School of Professional Psychology. It seeks to improve access to mental health and wellness services. Project INTERFACE collects information on mental health resources in and around each of the cities and towns served and assists hundreds of families and youth each year with finding an appropriate therapist or other provider. Several of the professional associations, such as the National Association of Social Workers Massachusetts, the Massachusetts Association for Marriage and Family Therapy, the Massachusetts Psychological Association, and the Massachusetts Mental Health Counselors Association, also operate services for finding therapists in Massachusetts. Each of these services covers the professionals who are members of the association and are available to all. The services vary in the extent to which they are web-based and offer personal matching assistance.

Insurers are aware of the long waits for families to access child psychiatrists, and generally keep their panels open for child psychiatrists and clinical nurse practitioners. However, the insurers interviewed believe that their panels of therapists are sufficient in most parts of the state. Plans maintain searchable computer directories of their mental health panels, and most also have staff who assist their members

The most critical finding from this study may be that, on average and across disciplines and age categories, more than 50% of the providers want to leave the field or the state of Massachusetts in the next 5 years.

in locating therapists. Family members as well as MCPAP care coordinators, find information from insurance plans to be of mixed value. They note that some insurers offer an on-line search resource that is highly accurate and up to date, while others include many providers who are no longer participating in the panel. Trade Associations, which maintain registries of members with private practices, indicate that clinicians' participation in insurance panels changes frequently, making it difficult to keep insurance panel participation information current. Keeping these registries updated is a very time consuming task and provider availability can change quickly.

Reimbursement Is Low and Unreimbursed Time is Significant

Providers consistently cite low rates of reimbursement as a reason for not participating on insurance panels. Providers on insurance panels spend considerable time on administrative functions. The type of infrastructure that is generally available to primary care providers and other ambulatory specialists does not support administrative requirements for private practitioners; consequently, the burden falls solely on the provider.

Unreimbursed collateral time is a significantly larger problem for children's mental health providers compared to adults. A common complaint heard in interviews was the large amount of collateral time involved with treating children. Most likely, the lack of reimbursement for collateral time serves to keep the current ratio low. However, most family members, researchers and clinical specialists argue that significantly more time may be required for effective care.

More than Half of Providers Plan to Leave the State or the Field in Five Years

The most critical finding from this study may be that, on average and across disciplines and age categories, more than 50% of the providers want to leave the field or the state of Massachusetts in the next 5 years. The workforce is aging and, nationally, half of all mental health professionals are likely to retire in the next 20 years. Data collected through this study are consistent with this pattern. Yet a remarkable number of younger clinicians report that they are planning to leave either the state or the field. The rate of entry of new licensees is roughly 25-30% over the same time period. As a result, the rates of available professionals may decline significantly over the next five years. There are many reasons for this projected attrition, but the most important involve reimbursement levels and administrative burden. New models of reimbursing professionals that would allow for some reimbursement of collateral time and reduce the need for authorizations, prior approvals and other paperwork could reverse this trend. Loan forgiveness programs have been widely adopted nationally and here in Massachusetts for other health professions but are extremely limited for mental health. The many issues identified here, taken as a whole, paint an alarming picture of a field in disarray and in decline.

Training and Internships are Needed

Training is critical, both for current practitioners and for those entering the field. According to Key Informants, training opportunities are disappearing or non-existent. The additional training needed by psychiatrists and certified nurse practitioners in order to prescribe for children is extensive. There is no statewide plan for training in evidence-based practices, and the likely surge in need for home and community-based services as a result of the Children's Behavioral Health Initiative calls for a new kind of "wraparound" training, both for credentialed clinicians and for paraprofessional workers.

At the present time, a lack of funding for training programs for clinical internships or fieldwork placements, combined with no or lower rates of reimbursement for interns at their placements, threatens the ability of professionals entering the field to gain the practical experience required for their degrees. Additionally, those opportunities to expose students to child work through these internships and potentially increase the child workforce are extremely limited.

Regulatory and Legal Changes Pose a Significant Impact on the Workforce

Regulatory and legal changes will have a significant impact on the workforce over the next several years. The Court Order in the children's mental health lawsuit, known as "Rosie D.," required MassHealth to pay primary care providers for mental health screening during well child visits. Commercial plans

have also adopted this benefit. Providers report an increase in primary care referrals for mental health services as a result. The lawsuit has also required MassHealth to implement more intensive community-based and home-based services for children with SED, but it is not yet clear whether commercial plans will include those services in their benefit plans. The Massachusetts Division of Insurance has just issued new definitions of intermediate care, and commercial plans will have some obligation to make these types of services available to their members when medically necessary. Taken together these changes will likely increase demand for services and shift the types of services delivered to more community programs and an increased number of paraprofessionals.

The recent expansion of parity benefits and statewide reforms of the Children's Behavioral Health Initiative and the Children's Mental Health Act, hold great promise for mental health in Massachusetts. However, they are likely to place greater pressure on the workforce and can undermine the efforts. Commercial insurance generally lags behind MassHealth in determining which services are covered, and the types of providers that can be reimbursed, though the costs of MassHealth coverage and the needs of its enrollees are known to be higher. With the majority of practitioners in private practice rather than clinic settings and many of them preferring the higher rates and reduced administrative burdens associated with self-pay clients, both public and commercial payers are challenged with finding ways to attract and maintain a sufficient mental health workforce to meet child and family needs.

Opportunities to expose students to child work through internships and fieldwork placements are extremely limited.

E. RECOMMENDATIONS

The following recommendations are offered to begin addressing the issues identified in this report. These recommendations are intended for broad adoption by public and private purchasers, licensing bodies, government agencies, professional associations, providers and other stakeholders.

1. There is a perceived shortage of child psychiatrists and clinical nurse specialists to meet the need for psychiatric assessment and prescribing despite the high rates of Massachusetts prescribers per thousand. Stakeholders reported difficulty finding psychiatric care and long waits to obtain an initial appointment. The MCPAP program somewhat mitigates this problem and provides significant assistance to families and pediatricians in finding prescribers and therapists.

→ Massachusetts can capitalize on the current psychiatric capacity by encouraging public and commercial health plans to work with psychiatrists to develop payment rates and new payment models, as well as administrative processes that will incentivize psychiatrists to participate on insurance panels.

→ Given the willingness of many clinical nurse specialists to work with children if provided appropriate training and supervision, Massachusetts can explore opportunities to provide or support training and supervision to prepare clinical nurse specialists to serve children.

→ MCPAP provides a service that benefits all children and families, yet the costs are born ultimately by MassHealth through the Massachusetts Behavioral Health Partnership. To ensure continued access to this important resource, the costs should be shared by both public and private purchasers.

2. In some geographical areas and for some populations there are shortages of non-prescribers, but there is little ability to track and assess mental health access and capacity across Massachusetts. Primary care physicians and families find it difficult to identify providers for their children's needs.

→ The access problems identified by virtually all stakeholders interviewed can be addressed by improving information available to families and other referral sources and providing assistance in identifying providers through a statewide information system that includes the participation of all disciplines. Web based tools, such as Network of Care,⁴⁶ can provide consistent and comprehensive information to a wider audience than the separate efforts currently maintained by insurers and professional associations. Provider data can be updated directly by providers so that it remains current. MCPAP and Project INTERFACE are two examples of referral services that should be considered for wider adoption and would benefit from a statewide provider system.

→ Survey data demonstrate that there is a significant shortage of providers available to treat ethnically and linguistically diverse children and their families in Massachusetts. Further analysis is needed to identify options for increasing the actual number and capacity of these providers available to serve the communities that most need them.

→ Massachusetts mental health planning efforts should develop approaches to track mental health access and capacity routinely across the state, such as making this a more explicit part of the regular state planning conducted by the Department of Mental Health under the CMHS Block Grant to address the mental health needs of the entire population. The planning process could more explicitly track demand for and availability of the full range of services statewide, as well as identify and recommend opportunities to improve access for individuals at all levels of need and with all types of insurance coverage.

3. Current providers of all ages indicate an intention to leave Massachusetts or leave the field in the next five years and there is an urgent need to reverse this attrition rate. Three factors stand out in the survey and interviews as contributing to this trend. There is broad consensus that effectively serving children requires more time for care coordination than serving adults. The report findings provide some support for this, though existing levels of unreimbursed

⁴⁶ See www.networkofcare.org

collateral time for providers serving children are likely low because of the lack of reimbursement by commercial payers. Unreimbursed collateral time is consistently identified as the most significant disincentive for provision of care to children. Low rates of pay and high administrative burden are also important disincentives.

- Further analysis of potential payment mechanisms and models to compensate providers for the levels of care coordination inherent in children's mental health treatment is needed.
- The Commonwealth could consider expanding its existing loan forgiveness programs to include a broader mix of licensed mental health professionals.
- Commercial and public payers might benefit from working with professional associations to explore opportunities to decrease administrative burden. These efforts should seek to foster the development of a positive sense of partnership in meeting children's mental health needs.
- The mental health of our children and the valuable contributions of our current workforce should be reinforced as a public health priority. A broad based collaboration of organizations is needed to raise public awareness of the need for services. This should be accomplished through a variety of media and public service campaigns.

4. Training for mental health clinicians is supported primarily by community mental health centers, mental health clinics, academic medical centers, and other publicly funded programs. In the current climate of cutbacks, these programs are at risk and the needs are growing for training new workers and retraining our current workforce in the adoption of evidence-based practices.

- Strong training systems are critical to the long-term sustainability of the workforce. Further study is needed on the options available for strengthening the internship system, increasing the number of trainees in mental health professions, and incentivizing service in the underserved areas of the state. One key change is to remove any barriers to billing for services provided by well-supervised interns in approved training programs.

- Professional training programs are enhanced when they collaborate with internship providers to develop well-integrated classroom-based and applied training that better prepares students to provide evidence-based services that meet the needs of Massachusetts' diverse communities.

5. Data collected during licensure and relicensure should include essential information such as providers' race and ethnicity, languages spoken, and email addresses.

- Massachusetts licensing bodies should collect more detailed information to assist with ongoing oversight and future studies related to tracking the workforce. This is essential. To be most efficient, it requires a consolidated data system, uniform standards for licensing applications and web based methods for relicensing by professionals. The current rules and administrative systems governed by different Boards are unwieldy and disjointed. Legislation may be required to enable this.
- In addition, DMH and MassHealth should establish better coordination and collaboration with Massachusetts licensing bodies to develop coordinated strategies to address identified workforce issues. For example, DMH and MassHealth service specifications could work together to ensure that community agencies more effectively assess workforce training needs. DPH should also more explicitly address mental health issues in its public health initiatives.

6. A more detailed study of the workforce characteristics of the children's mental health safety net is needed. This study has produced important information about the licensed mental health workforce, where and how they work, their plans for the future, their concerns, and their areas of satisfaction. However, because information (such as insurance participation) is not generally available to individuals working in clinics or other safety net providers, this study limited many of these questions to professionals in private practice. It was also beyond the scope of this effort to survey non-licensed mental health practitioners who play particularly important roles in the mental health safety net. More can be learned from surveying mental health clinics directly.

They often provide the critical services that allow children with mental health needs to participate in their communities succeed in school and make connections with others. They are also often more representative of the communities they serve.

In many ways, Massachusetts is at the dawn of a new era of commitment to children's mental health services. As CBHI expands the paraprofessional and community-based workforce, it will be critical to continue to improve our understanding of the workforce and safety net provider capacity. With expanded parity requirements in Massachusetts and health reform plans for chronic disease and payment reform, commercial insurers and public plans will have to develop new strategies to deliver and pay for services more cost effectively. Ultimately, MassHealth and commercial insurers, the purchasers of services, need to agree on some common goals and strategies to address these issues.

The Children's Mental Health Act, the Children's Behavioral Health Initiative, and parity for behavioral health have aligned to create an unprecedented opportunity for change. Massachusetts is on the precipice of a truly exceptional children's mental health system. The foundation of that system is its workforce. The changes recommended in this report require new and improved collaborations across state agencies, across payers, across disciplines, and across institutions of professional education. They call for innovative thinking to attract, retain, and reward the individuals who choose to dedicate their life's work to helping our children reach their fullest potential.

Appendix A

Prescriber Survey

Blue Cross Blue Shield of Massachusetts Foundation Behavioral Health Workforce Survey for Prescribing Providers

Thank you for participating in the following survey to better understand provider capacity as a barrier to accessing effective children's behavioral health (BH) services in Massachusetts. Please answer each of the following questions, following the instructions to skip questions or sections, where appropriate.

You can take this survey online at www.xx.xxxxxxxxxxxxxx.

1. Please indicate your provider type:	Psychiatrist						Clinical Nurse Specialist
	Psychiatrist	Child psychiatrist	Child and adolescent psychiatrist	Adolescent psychiatrist	Addiction Medicine	Geriatric psychiatrist	Do you have prescribing privileges? Yes <input type="checkbox"/>
Board eligible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No, but I am seeking privileges <input type="checkbox"/>
Board certified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No, not seeking privileges <input type="checkbox"/>
1.a Any other medical specialties: _____ <input type="checkbox"/> Board eligible <input type="checkbox"/> Board certified							

2. Year of Birth: _____
3. Gender: Male Female
4. Race: American Indian or Alaska Native Asian/Pacific Islander Black or African American White Other _____
5. Hispanic /Latino: Yes No
6. Please indicate your years of practice post-licensure: Less than 3 4 to 7 8 to 15 more than 15
7. Have you provided clinical supervision? Yes No
- 7.a If yes, please indicate your years of providing clinical supervision: Less than 3 4 to 7 8 to 15 more than 15

8. Are you currently employed or volunteering in the field of BH?

Yes. If yes, do you provide direct BH services to clients? Yes, skip to question 12.

No. If no, please indicate your employment status below.

<input type="checkbox"/> Employed in other field – plan to return to field	<input type="checkbox"/> Unemployed – seeking employment in field	<input type="checkbox"/> Unemployed – not seeking to be employed
<input type="checkbox"/> Employed in other field – do not plan to return to field	<input type="checkbox"/> Unemployed – not seeking employment in field	
<input type="checkbox"/> Retired	<input type="checkbox"/> Other: _____	

QUESTIONS FOR INDIVIDUALS NOT CURRENTLY PROVIDING DIRECT BH SERVICES

9. What most affected your decision not to provide direct care? Please indicate 2 factors.
- Retired Accepted a non-clinical position in BH Needed higher pay Not applicable, never provided direct BH services
- Pursuing a different career Wanted to avoid administrative demands Burned out Unemployed or laid off
- Other: _____
10. Would you consider re-entering direct service provision? Yes No Not applicable
11. If you would consider re-entering direct service, what would entice you to return? Please indicate 2 factors.
- Receiving relevant training and supervision Higher pay Decrease in administrative demands/burden
- Being able to work regular business hours Reduction of risk/liability None of the above
- Financial support for collateral work (e.g., contact with schools and other providers) Decrease in amount of collateral work required Other: _____

Thank you. You have completed the survey. Please return this survey to RDT, PO Box XXXX, Woburn MA xxxxx by xx/xx/09.

QUESTIONS FOR INDIVIDUALS CURRENTLY PROVIDING DIRECT BH SERVICES

12. In general, how much time do you spend providing direct BH care and doing associated administrative and collateral work: (enter estimated hours)
- Estimated hours of direct care services _____ per week Estimated hours of tasks associated with direct care _____ per week
- 12.a. How many hours of your direct care services are provided on a volunteer basis? _____ per week (If none, please enter 0.)
- 12.b. How is your time spent on tasks associated with direct care? (enter estimated percentage, totaling to 100%)
- Unreimbursed collateral time _____% Getting insurance co. authorizations _____% Billing and follow-up _____%
- Record keeping and administration _____% Issuing prescription renewals _____% Other: _____% (Please Specify) _____%
13. In general, how many additional hours per week (outside of those dedicated to provision of direct care and associated tasks) do you spend working?
- _____ hours per week All my time is related to direct service. Please skip to question 14.
- 13.a. How do you spend the time that is not associated with provision of direct care services? (enter estimated percentage, totaling to 100%)
- Managing or supervising direct services _____% Teaching _____% Research _____% Consultation _____% Working in another field _____%
- Administration (not associated with direct care provision) _____% Other: _____% (Please Specify) _____%
14. Please indicate the languages in which you are capable of delivering services and the percent of your caseload (totaling to approximately 100%) served in the languages you identify below. (If you communicate with any member of the child's family in another language, please count the family as being served in that language)
- English _____% Portuguese _____% Mandarin Chinese _____% American Sign Language _____%
- Spanish _____% Vietnamese _____% Cantonese Chinese _____% Other _____%
- (Please Specify) _____%

If you have a private or group practice, please **skip to question 32**.

If you do not, you have completed the survey. **Thank You! Please return this survey to RDT, PO Box XXXX, Woburn MA XXXXX by xx/xx/xx**

QUESTIONS FOR CHILD PRACTITIONERS

23. Please indicate the number of years you have provided services to children and families: _____

24. Please indicate the number of CMEs you have completed related to services for children in the past 24 month period: _____

25. Are you receiving supervision for your child-related services? Yes No

26. Please indicate whether you treat the following conditions. If so, approximately what percentage of your time in a typical week do you spend treating them?

	Don't treat these conditions	5% or less	5%-25%	25%-50%	50% or more
Adjustment or Mood Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developmental problems - Autism spectrum; PDD; Learning, Motor, Communication Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disruptive Behavior Problems – Conduct, Oppositional Defiant, ADHD, Explosive Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anxiety Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Substance abuse disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychotic disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complex problems with disorders from more than one cluster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify any condition that you treat for at least 25% of your time) _____				<input type="checkbox"/>	<input type="checkbox"/>

27. For what percent of children ages 0 to 21 do you also provide education or active treatment for their family members or caregivers? 5% or less 5-25% 25-50% more than 50%

28. On average, what percent of your caseload has conditions equivalent to the following definition of serious emotional disturbance (SED)? _____%

SED is defined as any child from birth up to age 18 who currently or at any time during the past year has had a diagnosable mental, behavioral, or emotional disorder that resulted in functional impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities.

29. If you provide treatment for special child populations, on average, what percent of your direct service time per week do you spend providing treatment for the following special child populations? (If children you serve fall into more than one category, you can count them in both.)

Not applicable, don't serve these special populations Are gay, lesbian, bisexual, transgender, questioning _____% Are victims of abuse or neglect _____%

From families with multiple challenges _____% Have co-occurring substance abuse conditions _____% Have co-occurring medical conditions _____%

Have been hospitalized for behavioral health problems _____% Other _____% (Please Specify) _____

30. What would most improve your satisfaction working as a child clinician? Please indicate 2 factors.

- Receiving relevant training and supervision
- Higher pay
- Decrease in administrative demands/burden
- Ability to work normal business hours
- Reduction of risk/liability
- No changes; I am satisfied.
- Financial support for collateral work (e.g., Contact with schools and other providers)
- Decrease in amount of collateral work required
- Other: _____

CLINICAL NURSE SPECIALIST (WHO DO NOT PRESCRIBE)

If you are a psychiatrist or a CNS with prescribing privileges AND you have a private individual or group practice, **Skip to question 32**.

If you do not, you have finished the survey. **Thank you! Please return this survey to RDT, PO Box XXXX, Woburn MA XXXXX by xx/xx/xx**

31. If you don't prescribe, do you ever see children for whom psychopharmacology is warranted? Yes No

31a. If yes, who generally manages medications for your patients? Primary care physician Psychiatrist Nurse Practitioner Other

31b. If yes, what is the average wait time to get an appointment for medication evaluation and management? Less than 14 days 15 to 30 days 31 to 60 days More than 60 days

If you have a private individual or group practice, **continue to question 32**.

If you do not, you have finished the survey. **Thank you! Please return this survey to RDT, PO Box XXXX, Woburn MA XXXXX by xx/xx/xx**

QUESTIONS REGARDING PRIVATE AND GROUP PRACTICE

32. What are your most frequent referral sources? Please indicate 3 sources.

- Current and prior clients
- Primary care providers or specialists
- Child welfare staff
- Referral service of my professional association
- School personnel
- Courts or law enforcement
- Other clinicians
- Insurance or managed care companies
- None
- Other: _____
- Crisis teams or emergency departments

33. How full is your practice most of the time? Full. I maintain a waitlist I usually have 1 to 2 slots open for new clients I usually have 3 to 5 slots open for new clients Full, with no waitlist. I can almost always accept new clients

Public Sector Panels: For the following questions, we are interested in your participation on health plan panels that serve public sector clients. These include provider panels with MBHP, Network Health, BMC Healthnet, Fallon and Neighborhood Health Plan.

34. How many public sector panels do you participate in, and what percentage do they represent of your current caseload?

Number of public panels: _____ Percent of caseload: Less than 10% 10-25% 26-50% More than 50%

35. If you are not on the panel for a public payer, would you like to be? Yes No. **Skip to question 36.**

35a. If you would like to be on a public sector panel, have you ever applied to one? Yes No

35b. If so, were you accepted? Yes, for all I applied to Yes, for some I applied to No, I was not accepted. **Skip to question 37.**

36. If you would not like to be on a public sector panel, why? Please indicate 2 factors.

- Burdensome application process
- Difficult authorization process
- Low rates of payment
- Excessive paperwork
- Unsophisticated clinical staff
- Lack of compensation for necessary collateral work
- Unnecessary oversight
- Late or incorrect payments
- Other, please describe _____

Commercial Insurance Panels

37. How many commercial insurance panels do you participate in, and what percentage do they represent of your current caseload? If none, **continue to question 38.**

Number of commercial panels: _____ Percent of caseload: Less than 10% 10-25% 25-50% More than 50%

38. If you are not on a commercial insurance panel, would you like to be? Yes No. **Skip to question 39.**

38a. If you would like to be on a commercial insurance panel, have you ever applied to one? Yes No

38b. If so, were you accepted? Yes, for all I applied to Yes, for some I applied to No, I was not accepted

39. If you do not want to be on a commercial insurance panel, why? Please indicate 2 factors.

- Burdensome application process
- Difficult authorization process
- Low rates of payment
- Excessive paperwork
- Unsophisticated clinical staff
- Lack of compensation for necessary collateral work
- Unnecessary oversight
- Late or incorrect payments
- Other, please describe _____

40. What percent of your clients pay you directly? (That is, you do not bill an insurance company for their services.)

Less than 10% 10 - 25% 25 - 50% More than 50%

40a. What percent of your clients do you estimate are solely self-pay?

(That is, they do not receive any reimbursement from an insurance company.)

None Less than 10% 10 - 25% 25 - 50% More than 50%

41. If you are a prescriber, what is the estimated percentage of your direct service time spent on the following activities? (enter estimated percentage, totaling 100%)

Assessment _____% Medication Evaluation _____% Medication Management _____% Therapy _____% Other: _____% (Please Specify: _____)

42. Please indicate your usual and customary fee for the following services. How many minutes of service does it cover?

Psychiatric Assessment		Medication Management	
Fee	Number of Service Minutes	Fee	Number of Service Minutes
<input type="checkbox"/> \$99 and under		<input type="checkbox"/> \$49 and under	
<input type="checkbox"/> \$100 - \$149		<input type="checkbox"/> \$50-\$99	
<input type="checkbox"/> \$150-\$199		<input type="checkbox"/> \$100-\$124	
<input type="checkbox"/> \$200-\$249		<input type="checkbox"/> \$125-\$149	
<input type="checkbox"/> \$250-\$299		<input type="checkbox"/> \$150-\$174	
<input type="checkbox"/> \$300-\$349		<input type="checkbox"/> \$175-\$200	
<input type="checkbox"/> \$350-\$399		<input type="checkbox"/> \$200 and above	
<input type="checkbox"/> \$400 or more			

43. If you are not a prescriber, what is your average usual and customary fee per hour of direct service?

- \$99 and under
- \$125-\$149
- \$175-\$200
- \$225 or more
- \$100-\$124
- \$150-\$174
- \$200-\$224

44. Do you offer a sliding scale for self-pay clients? Yes No

44a. If yes, what is the average percentage discount you offer? _____%

Thank you. You have completed the survey. Please return this survey to Research Data Technology, PO Box XXXX, Woburn MA XXXXX by xx/xx/x

Appendix B

Non-Prescriber Survey

Blue Cross Blue Shield of Massachusetts Foundation Behavioral Health Workforce Survey for Non-Prescribing Providers

Thank you for participating in the following survey to better understand provider capacity as a barrier to accessing effective children's behavioral health (BH) services in Massachusetts. Please answer each of the following questions, following the instructions to skip questions or sections, where appropriate.

You can take this survey online at www.xx.xxxxxxxxxxxxxxx

1. Please indicate your provider type:	<input type="checkbox"/> Licensed psychologist	<input type="checkbox"/> LICSW	<input type="checkbox"/> LCSW	<input type="checkbox"/> Licensed Marriage & Family Therapist (LMFT)	<input type="checkbox"/> Licensed Mental Health Counselor (LMHC)
--	--	--------------------------------	-------------------------------	--	--

2. Year of Birth: _____
3. Gender: Male Female
4. Race: American Indian or Alaska Native Asian/Pacific Islander Black or African American White Other _____
5. Hispanic /Latino: Yes No
6. Please indicate your years of practice post-licensure Less than 4 4 to 7 8 to 15 more than 15
7. Have you provided clinical supervision? Yes No 7a. If yes, please indicate your years of providing clinical supervision Less than 4 4 to 7 8 to 15 more than 15

8. Are you currently employed or volunteering in the field of BH?

Yes. If yes, do you provide direct BH services to clients? Yes, skip to question 12

No. If no, please indicate your employment status below.

<input type="checkbox"/> Employed in other field – plan to return to field	<input type="checkbox"/> Unemployed – seeking employment in field	<input type="checkbox"/> Unemployed – not seeking to be employed
<input type="checkbox"/> Employed in other field – do not plan to return to field	<input type="checkbox"/> Unemployed – not seeking employment in field	
<input type="checkbox"/> Retired	<input type="checkbox"/> Other: _____	

QUESTIONS FOR INDIVIDUALS NOT CURRENTLY PROVIDING DIRECT BH SERVICES

9. What most affected your decision not to provide direct care? Please indicate 2 factors.

Retired Accepted a non-clinical position in BH Needed higher pay Not applicable, never provided direct BH services

Pursuing a different career Wanted to avoid administrative demands Burned out Unemployed or laid off

Other: _____

10. Would you consider re-entering direct service provision? Yes No Not applicable.

11. If you would consider re-entering direct service, what would entice you to return? Please indicate 2 factors.

Receiving relevant training and supervision Higher pay Decrease in administrative demands/burden

Being able to work regular business hours Reduction of risk/liability None of the above

Financial support for collateral work (e.g., contact with schools and other providers) Decrease in amount of collateral work required Other: _____

Thank you. You have completed the survey. Please return this survey to RDT, PO Box XXXX, Woburn MA xxxxx by xx/xx/09.

QUESTIONS FOR INDIVIDUALS CURRENTLY PROVIDING DIRECT BH SERVICES

12. In general, how much time do you spend providing direct BH care and doing associated administrative and collateral work: (enter estimated hours)

Estimated hours of direct care services _____ per week Estimated hours of tasks associated with direct care _____ per week

12a. Are any of your hours of direct care services provided on a volunteer basis? No Yes If yes, how many hours per week? _____

12b. How is your time spent on tasks associated with direct care? (enter estimated percentage, totaling to 100%)

Unreimbursed collateral time _____% Getting insurance co, authorizations _____% Billing and follow-up _____%

Record keeping and administration _____% Other: _____% (Please Specify) _____%

13. In general, how many additional hours per week (outside of those dedicated to provision of direct care/associated tasks) do you do you spend working? _____ hours per week N/A, All my time is related to direct service. Please Skip to question 14.

13.a. How do you spend the time that is not associated with provision of direct care services? (enter estimated percentage, totaling to 100%)

Managing or supervising direct services _____% Teaching _____% Research _____% Consultation _____% Working in another field _____%

Administration (not associated with direct care provision) _____% Other: _____% (Please Specify) _____%

14. Please indicate the languages in which you are capable of delivering services and the percent of your caseload (totaling to approximately 100%) served in the languages you identify below. (If you communicate with any member of the child's family in another language, please count the family as being served in that language.)

English _____% Portuguese _____% Mandarin Chinese _____% American Sign Language _____%

Spanish _____% Vietnamese _____% Cantonese Chinese _____% Other _____%

(Please Specify) _____%

15. If you are currently delivering direct services, please answer the following for up to 3 practice sites. Answer for the sites where you carry the most cases.

	Practice Site One:	Practice Site Two:	Practice Site Three:
Zip Code* of each site:			
<i>* If you provide mobile or homebased services, please enter zip codes for the communities where you most frequently deliver services.</i>			
Estimated percent of your direct service time spent at this site:	_____%	_____%	_____%
Please indicate your employer at each site. Please indicate 1 from the list below:			
Private or group practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mental Health Clinic or Community Mental Health Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community Health Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other primary care practice or clinic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preschool/child care program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Child or adolescent residential program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Child welfare or juvenile justice program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adult day or residential program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please indicate the type of services that you provide at the site for this employer. Please indicate all that apply:			
Assessment and diagnosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychological or neuropsychological assessment (incl. testing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office based outpatient therapy (Individual, group, family)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schoolbased treatment services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homebased treatment services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Case Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychiatric Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inpatient behavioral health treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do you routinely work any weekend hours at this site?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Do you routinely work any evening hours at this site?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

16. What was your total income as a BH practitioner last year?

- Less than \$25,000
 \$25,000 to \$34,999
 35,000 to \$49,999
 \$50,000 to \$74,999
 \$75,000 to \$99,999
 More than \$100,000

17. What was your total debt load at the time of completion of your graduate degree?

- Less than \$25,000
 \$25,000 to \$49,999
 \$50,000 to \$74,999
 \$75,000 to \$99,999
 \$100,000 to \$149,999
 More than \$150,000
 No debt

18. What are your intentions for the next five years in regard to providing direct behavioral health care in Massachusetts?

- Continue providing direct care in Massachusetts, primarily to adults
 Continue providing direct care in Massachusetts, primarily to children
 Continue providing direct care in Massachusetts to a mixed child and adult clientele
 Leave direct care provision or leave Massachusetts
 Other: _____

19. On average, in all your sites, indicate the percentage of your caseload (totaling to 100%) that is:

Children from infancy through 3 years old _____%
 Children ages 4 to 7 _____%
 Children ages 8 to 11 _____%
 Adolescents ages 12 to 21 _____%
 Adults ages 22 to 64 _____%
 Adults ages 65 and over _____%

20. Have you ever provided services to children? Yes, please skip to question 23. No, please continue to question 21.

QUESTIONS FOR ADULT PROVIDERS

21. Why don't you provide services to children? Please indicate 2 factors.

- Not credentialed/trained to serve children
 Inconvenient hours
 Prefer to work with adults
 Concern about liability/risk
 Too much time needed on non-billable collateral
 Couldn't find a job treating children with income at desired level
 Hard to build a full-time practice serving children
 Other: _____
 The type of treatment I offer is not appropriate for treating children
 Easier to build an adult practice

22. Would any of the following improve the likelihood of your providing services to children? Please indicate 2 factors.

- Nothing – I do not wish to treat children Receiving relevant training and supervision Decreased expectations for collateral time
 Reduction of risk/liability Ability to work normal business hours Financial reimbursement of collateral work
 Higher pay Other _____

If you have a private or group practice, please skip to question 32.

If you do not, you have completed the survey. Thank You! Please return this survey to RDT, Inc., PO Box XXXX, Woburn MA XXXXX-XXXX by XX/XX/XX.

QUESTIONS ABOUT YOUR PRACTICE WITH CHILDREN

23. Please indicate the number of years you have provided services to children and families: _____

24. Please indicate the number of CEUs you have completed related to services for children in the past 24 month period: _____

25. Are you receiving supervision for your child-related services? Yes No

26. Please indicate whether you treat the following conditions. If so, approximately what percentage of your time in a typical week do you spend treating them?

	Don't treat these conditions	Less than 5%	5%-25%	26%-50%	More than 50%
Adjustment or Mood Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developmental problems - Autism spectrum; PDD; Learning, Motor, Communication Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disruptive Behavior Problems – Conduct, Oppositional Defiant, ADHD, Explosive Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anxiety Disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Substance abuse disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychotic disorders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complex problems with disorders from more than one cluster.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (specify any condition that you treat for at least 25% of your time) _____				<input type="checkbox"/>	<input type="checkbox"/>

27. For what percent of children ages 0 to 21 do you also provide education or active treatment for their family members or caregivers? Less than 5% 5-25% 26-50% More than 50%

28. Do you ever see children for whom psychopharmacology is warranted? Yes No, Skip to question 29.

28a. If yes, who, in general manages medications for your patients? (check all applicable) Primary care physician Psychiatrist Nurse Practitioner Other

28b. If yes, what is the average wait time to get an appointment for medication evaluation and management? Less than 14 days 15 to 30 days 31 to 60 days More than 60 days

29. On average, what percent of your caseload has conditions equivalent to the following definition of serious emotional disturbance (SED)? _____%

SED is defined as any child from birth up to age 18 who currently or at any time during the past year has had a diagnosable mental, behavioral, or emotional disorder that resulted in functional impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities.

30. If you provide treatment for special child populations, on average, what percent of your direct service time per week do you spend providing treatment for the following special child populations? (If children you serve fall into more than one category, you can count them in both.)

Not applicable, don't serve these special populations Are gay, lesbian, bisexual, transgender, questioning _____% Are victims of abuse or neglect _____%
 From families with multiple challenges _____% Have co-occurring substance abuse conditions _____% Have co-occurring medical conditions _____%
 Have been hospitalized for behavioral health problems _____% Other _____% (Please Specify) _____

31. What would most improve your satisfaction working as a child clinician? Please indicate 2 factors.

- Receiving relevant training and supervision Higher pay Decrease in administrative demands/burden
 Ability to work normal business hours Reduction of risk/liability No changes; I am satisfied.
 Financial support for collateral work (e.g., Contact with schools and other providers) Decrease in amount of collateral work required Other: _____

If you have a private individual or group practice, continue to question 32.

If you do NOT have a private or group practice, you have finished the survey. Thank you! Please return this survey to RDT, Inc., PO Box XXXX Woburn MA XXXXX XXXX by XX/XX/XX

QUESTIONS REGARDING PRIVATE AND GROUP PRACTICE

32. Who are your most frequent referral sources? Please indicate 3 sources.

- Current and prior clients Primary care providers or specialists Child welfare staff Referral service of my professional association
 School personnel Courts or law enforcement Other clinicians Insurance or managed care companies
 None Other: _____ Crisis teams or emergency departments

33. How full is your practice most of the time?

Full, I maintain a waitlist I usually have 1 to 2 slots open for new clients I usually have 3 to 5 slots open for new clients Full, with no waitlist, I can almost always accept new clients

Public Sector Panels: For the following questions, we are interested in your participation on health plan panels that serve public sector clients. These include provider panels with MBHP, Network Health, BMC Healthnet, Fallon and Neighborhood Health Plan.

34. How many public sector panels do you participate in, and what percentage do they represent of your current caseload?

Number of public panels: _____ Percent of caseload: Less than 10% 10–25% 26–50% More than 50%

35. If you are not on the panel for a public payer, would you like to be? Yes No, **Skip to question 36.**35a. If you would like to be on a public sector panel, have you ever applied to one? Yes No35b. If so, were you accepted? Yes, for all I applied to Yes, for some I applied to No, I was not accepted. **Skip to question 37.**

36. If you would not like to be on a public sector panel, why? Please indicate 2 factors.

- Burdensome application process Difficult authorization process Low rates of payment
 Excessive paperwork Unsophisticated clinical staff Lack of compensation for necessary collateral work
 Unnecessary oversight Late or incorrect payments Other, please describe _____

Commercial Insurance Panels

37. How many commercial insurance panels do you participate in, and what percentage do they represent of your current caseload?

Number of commercial panels: _____ Percent of caseload: Less than 10% 10–25% 26–50% More than 50%

38. If you are not on a commercial insurance panel, would you like to be? Yes No, **Skip to question 39.**38a. If you would like to be on a commercial insurance panel, have you ever applied to one? Yes No38b. If so, were you accepted? Yes, for all I applied to Yes, for some I applied to No, I was not accepted. **Skip to question 40.**

39. If you do not want to be on a commercial insurance panel, why? Please indicate 2 factors.

- Burdensome application process Difficult authorization process Low rates of payment
 Excessive paperwork Unsophisticated clinical staff Lack of compensation for necessary collateral work
 Unnecessary oversight Late or incorrect payments Other, please describe _____

40. What percent of your clients pay you directly? (That is, you do not bill an insurance company for their services.)

Less than 10% 10 – 25% 26 – 50% More than 50%

40a. What percent of your clients do you estimate are solely self-pay? (That is, they do not receive any reimbursement from an insurance company.)

None Less than 10% 10 – 25% 26 – 50% More than 50%

41. What is your average usual and customary fee per hour of individual treatment?

- \$99 and under \$125-\$149 \$175-\$200 \$225 or more
 \$100-\$124 \$150-\$174 \$200-\$224

42. Do you offer a sliding scale for self-pay clients? Yes No

42a. If yes, what is the average percentage discount you offer? _____%

Thank you. You have completed the survey. Please return this survey to Research Data Technology, PO Box XXXX, Woburn MA XXXXX by xx/xx/x

Appendix C

List of Individuals Interviewed

NAME	AFFILIATION
Carol Allen	President Massachusetts Chapter, American Academy of Pediatrics
Borja Alvarez de Toledo	Vice President, Operations The Guidance Center
Alan Beck	Dean of Doctoral Program Massachusetts School of Professional Psychology
Maurice Boisvert	President and CEO YOU, Inc.
Marybeth Burke	Provider Relations Director Massachusetts Behavioral Health Partnership (MBHP)
Mary Byrne	Program Coordinator and Field Education Salem State College
Joan Cancilla	Member Massachusetts Association for Marriage and Family Therapy
Margaret S. Chapman	CNS, BC, Private practice in child and adolescent psychopharmacology
Don Condie	Secretary Massachusetts Psychiatric Society
Kermit Crawford	Executive Director Center for Multicultural Mental Health
Cathleen Crider	Member, MA Psychological Association in private practice in Psychological Assessment
Eugene J. D'Angelo	Chief, Div. of Psychology & Director, Outpatient Psychiatry Service Children's Hospital Boston
Vicker DiGravio	CEO Association for Behavioral Health
Ken Duckworth	Medical Director National Alliance on Mental Illness Medical Director, Vinfen Corp.
Julia Dyck	Director, Primary Care Office Division of Primary Care and Health Access, Massachusetts Department of Public Health
Elena Eisman	Executive Director Massachusetts Psychological Association
Gretchen Emond	Parent
Stephen Etkind	Strategic Account Executive United Behavioral Health
Suzanne Fields	Director Behavioral Health Unit, Office of Medicaid
Kathleen Hagarty	Executive Director American Academy of Pediatrics, Massachusetts Chapter

NAME	AFFILIATION
Margaret Hannah	Executive Director Freedman Center for Child and Family Development, Massachusetts School of Professional Psychology
Todd Holzman	Past President Massachusetts Psychiatric Society
Jill Lack	Director of Behavioral Health Neighborhood Health Plan
Mary Langevin	Social Worker Department of Youth Services Central Region
Michelle LeGeyt	Clinical Nurse Specialist The Home for Little Wanderers
Laurie Kaslow	Director of Children's Behavioral Health The Dimock Center
David Keller	Primary Care Pediatrician South County Pediatrics
Christopher Kozak	Network Director Beacon Health Strategies
Lisa Lambert	Executive Director Parent/Provider Advocacy League (PAL),
Richard Lynch	Director of Behavioral Health Network Development Blue Cross Blue Shield of Massachusetts
Mary McGeown	Vice President for Programs Massachusetts Society for the Prevention of Cruelty to Children
Margaret Meenan	Director Kids and Teens Assessment Center
Marty Mittnacht	Special Education Services Massachusetts Department of Elementary and Secondary Education
Barbara Morton	Administrator Department of Youth Services Central Region
Audrey Nathan	Associate Clinical Director Comprehensive Psychiatric Associates
David Nefussy	Regional Network Manager United Behavioral Health
Stephen Nemmers	Deputy Director Massachusetts Division of Professional Licensure
Anne Pelletier Parker	Vice-President, Network Management and Recovery Initiatives Massachusetts Behavioral Health Partnership (MBHP)
Nina Rosenberg	Director, Business Development and Corporate Compliance The Home for Little Wanderers
Jeff Simmons	Medical Director, Behavioral Health Blue Cross Blue Shield of Massachusetts

NAME	AFFILIATION
Jack Simons	Assistant Director, Children's Behavioral Health Initiative Massachusetts Executive Office of Health and Human Services
Lisa Simonetti	Lobbyist Massachusetts Psychiatric Society
Darcey Surette	President Massachusetts Association for Marriage and Family Therapy
Laurie Talarico	Nursing Practice Coordinator Massachusetts Department of Public Health
Cindy Telingator	President New England Chapter, American Academy of Child and Adolescent Psychiatry
Judith Thompson	Coordinator of Counseling, Psychology & Community Outreach Worcester Public Schools
Maria Torres	Director Mauricio Gaston Institute, University of Massachusetts, Boston
Catherine Vuky	Clinical Supervisor and Director of Training South Cove Community Health Center
George Webber	Director Division of Professional Licensure
Kristina Whiton	Director of Continuing Education and Clinical Issues Massachusetts Chapter, National Association of Social Workers
Midge Williams	Executive Director Massachusetts Mental Health Counselors Association
Michael Yogman	Co-Chair, Children's Mental Health Task Force American Academy of Pediatrics, Massachusetts Chapter
Barry Zallen	Medical Director, Medical Innovation and Leadership Blue Cross Blue Shield of Massachusetts
Trudy Zimmerman	Assistant Dean for Field Education Boston University School of Social Work
Stefan Krug	Dean Simmons School of Social Work

NAME	AFFILIATION
Staff of the Massachusetts Child Psychiatric Access Project	
Barry Sarvet	MCPAP Co-Medical Director
Jodi DeVine	Western MA Therapist
Arlyn Perez	Western MA Care Coordinator
William O'Brien	Central MA Program Administrator
Mary Jeffers-Terry	Central MA Program Director and CNS
Matthieu Birmingham	Central MA Child Psychiatrist
Martha Moore	Central MA Therapist
Deanna Pedro	Central MA Therapist
Kelly Chabot	Central MA Care Coordinator
Leah Grant	Boston Metro Region I Therapist
Diane Ventura	Boston Metro Region I Care Coordinator
Alexis Hinchey	Boston Metro Region II Therapist
Jessica Thompson	Boston Metro Region II Care Coordinator

Appendix D

Additional Data and Analyses

TABLE 1 Caseload Composition of “Child Providers”

CASELOAD COMPOSITION OF CHILD PROVIDERS	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Caseload of 10 to 24% children and adolescents	14%	22%	21%	12%	6%	15%
Caseload of 25 to 49% children and adolescents	20%	14%	21%	26%	11%	22%
Caseload of 50 to 74% children and adolescents	34%	22%	27%	22%	13%	24%
Caseload of 75 to 100% children and adolescents	32%	42%	31%	40%	70%	39%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=735

TABLE 2 Gender of Respondents

GENDER	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Male	58%	2%	41%	20%	11%	28%
Female	42%	98%	59%	80%	89%	72%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=729

TABLE 3 Race of Respondents

RACE	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
White	87%	96%	96%	94%	86%	94%
Asian/Pacific Islander	12%	2%	0%	1%	4%	2%
American Indian or Alaskan Native	0%	0%	2%	1%	0%	1%
Black or African American	0%	2%	1%	1%	6%	1%
Other	1%	0%	1%	2%	4%	2%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=719

TABLE 4 Respondents of Hispanic/Latino Origin

HISPANIC/LATINO	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Yes	7%	4%	2%	4%	9%	5%
No	93%	96%	98%	96%	91%	95%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=531

TABLE 5 Years Providing Service to Children and Families

# OF YEARS PROVIDING SERVICE TO CHILDREN AND FAMILIES	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Less than 1 year	0%	0%	0%	1%	0%	0%
1 to 4 years	13%	8%	5%	8%	54%	11%
5 to 9 years	14%	25%	8%	22%	22%	18%
10 to 14 years	5%	13%	10%	16%	6%	13%
15 to 19 years	12%	13%	13%	14%	6%	13%
20 to 24 years	18%	18%	18%	13%	4%	14%
25 to 29 years	8%	5%	17%	10%	2%	11%
30+ years	31%	20%	29%	16%	6%	20%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=670

TABLE 6 Hours of Tasks Associated with Direct Care per Week

TASKS ASSOCIATED WITH DIRECT CARE	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Less than 10	47%	33%	46%	36%	20%	38%
10 to 19	37%	53%	36%	38%	42%	39%
20 to 29	14%	5%	9%	19%	27%	16%
30 to 39	0%	7%	6%	5%	9%	5%
40 and over	1%	2%	4%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=707

TABLE 7 Additional Hours Spent Working

ADDITIONAL HOURS SPENT WORKING	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
All my time is related to direct care	40%	52%	36%	41%	58%	42%
Less than 10	23%	21%	27%	20%	11%	21%
10 to 19	23%	12%	17%	20%	13%	19%
20 to 29	5%	10%	10%	8%	4%	8%
30 to 39	1%	5%	6%	6%	9%	5%
40 and over	8%	0%	6%	5%	4%	5%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=702

TABLE 8 Time Spent on Direct Care and Tasks Associated with Direct Care

% OF TIME SPENT ON DIRECT CARE AND TASKS ASSOCIATED WITH DIRECT CARE	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW
Less than 20 hours of direct care and associated tasks per week					
Time spent on direct care	76%	73%	69%	68%	59%
Time spent on unreimbursed collateral	6%	9%	9%	8%	15%
Time spent on other tasks associated with direct care	18%	19%	22%	24%	25%
Total	100%	100%	100%	100%	100%
20 to 35 hours of direct care and associated tasks per week					
Time spent on direct care	75%	66%	70%	66%	59%
Time spent on unreimbursed collateral	6%	7%	7%	9%	14%
Time spent on other tasks associated with direct care	19%	27%	22%	25%	28%
Total	100%	100%	100%	100%	101%
More than 35 hours of direct care and associated tasks per week					
Time spent on direct care	75%	70%	67%	63%	56%
Time spent on unreimbursed collateral	7%	7%	8%	9%	10%
Time spent on other tasks associated with direct care	18%	23%	24%	28%	33%
Total	100%	100%	99%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=684

TABLE 9 Time Not Associated with the Provision of Direct Care

HOW DO YOU SPEND TIME NOT ASSOCIATED WITH THE PROVISION OF DIRECT CARE SERVICES?	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Managing or supervising direct care services	19%	18%	19%	21%	24%	20%
Teaching	28%	31%	14%	10%	4%	14%
Research	12%	2%	8%	6%	9%	7%
Consultation	10%	20%	25%	21%	16%	20%
Working in another field	2%	0%	2%	10%	14%	7%
Administration	20%	15%	18%	21%	21%	20%
Other	9%	13%	14%	11%	13%	12%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=403

TABLE 10 Practice Site

EMPLOYER	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Private or Group Practice	46%	44%	70%	41%	8%	46%
Mental Health Clinic or Community Mental Health Center	20%	31%	7%	26%	40%	22%
School	4%	0%	8%	11%	11%	8%
Hospital	13%	8%	6%	5%	1%	6%
Child or adolescent residential program	7%	8%	0%	2%	7%	3%
Community Health center	4%	3%	0%	3%	0%	2%
Other primary care practice or clinic	1%	0%	2%	2%	1%	2%
Child welfare or juvenile justice program	0%	4%	1%	1%	7%	2%
Preschool/child care program	1%	1%	0%	2%	0%	1%
Adult day or residential program	2%	0%	0%	0%	0%	0%
Other	4%	1%	4%	6%	25%	6%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=727

TABLE 11 Weekend and Evening Hours by Practice Site

WEEKEND AND EVENING HOURS BY PRACTICE SITE	PRESCRIBER PRACTICE SITES		NON-PRESCRIBER PRACTICE SITES			TOTAL PRACTICE SITES
	PSYCHIATRIST SITES	CNS SITES	PSYCHOLOGIST SITES	LICSW/LMFT/LMHC SITES	LCSW SITES	
Provider works both evening and weekend hours at the site	13%	14%	12%	20%	13%	16%
Provider works weekend hours at the site	2%	4%	4%	3%	3%	3%
Provider works evening hours at the site	36%	43%	56%	50%	59%	50%
Providers works neither evening nor weekend hours at the site	49%	39%	29%	27%	25%	31%
Total	100%	100%	100%	100%	100%	100%

*Evening and weekend hours are in addition to regular working hours
 Source: Provider Survey—respondents with a caseload of at least 10% children; N=1016 practice sites; 556 providers

TABLE 12 Child (10% of caseload) vs. Adult Providers—Unreimbursed collateral as a percent of total direct service time

CHILD VS. ADULT PROVIDERS	CHILD PROVIDERS (10%)	ADULT PROVIDERS	DIFFERENCE	CONFIDENCE INTERVAL	STANDARD DEVIATION	P-VALUE
Psychiatrists	6.8%	6.0%	-0.8	-2.6 to 1.1	0.6890	0.4043
CNS	7.4%	6.1%	-1.2	-3.6 to 1.2	0.0642	0.3206
Psychologists	7.9%	4.8%	-3.1	-4.7 to -1.5	0.0589	0.0002
LICSW/LMFT/LMHC	8.6%	6.1%	-2.5	-4.0 to -1.0	0.0868	0.0004
LCSW	11.9%	15.1%	3.2	-4.8 to 11.3	0.1537	0.5100

Statistical Test: Independent t-test

TABLE 13 Child (50% of caseload) vs. Adult Providers—Unreimbursed collateral as a percent of total direct service time

CHILD VS. ADULT PROVIDERS	CHILD PROVIDERS (50%)	ADULT PROVIDERS	DIFFERENCE	CONFIDENCE INTERVAL	STANDARD DEVIATION	P-VALUE
Psychiatrists	8.2%	6.0%	-2.2	-4.4 to 0	0.0710	0.0428
CNS	8.6%	6.1%	-2.4	-5.3 to 0.5	0.0665	0.1041
Psychologists	8.5%	4.8%	-3.8	-5.6 to -1.9	0.0595	0.0001
LICSW/LMFT/LMHC	9.2%	6.1%	-3.1	-4.7 to 1.4	0.0858	0.0002
LCSW	12.1%	15.1%	-3.0	-5.6 to 11.6	0.1596	0.5503

Statistical Test: Independent t-test

TABLE 14 Child (75% of caseload) vs. Adult Providers—Unreimbursed collateral as a percent of total direct service time

CHILD VS. ADULT PROVIDERS	CHILD PROVIDERS (75%)	ADULT PROVIDERS	DIFFERENCE	CONFIDENCE INTERVAL	STANDARD DEVIATION	P-VALUE
Psychiatrists	9.0%	6.0%	-3.0	-6.0 to -0.1	0.0714	0.0411
CNS	8.5%	6.1%	-2.3	-5.7 to 1.1	0.0774	0.1880
Psychologists	8.4%	4.8%	-3.7	-5.9 to -1.5	0.0595	0.0035
LICSW/LMFT/LMHC	9.6%	6.1%	-3.5	-5.5 to -1.6	0.0886	0.0013
LCSW	12.1%	15.1%	3.1	-6.1 to 12.2	0.1637	0.5456

Statistical Test: Independent t-test

TABLE 15 Language of Caseload

LANGUAGE	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
English	92%	93%	98%	96%	94%	95%
Spanish	4%	6%	1%	3%	6%	3%
Portuguese	0%	0%	0%	0%	0%	0%
Vietnamese	0%	0%	0%	0%	0%	0%
Mandarin Chinese	1%	0%	0%	0%	0%	0%
Cantonese Chinese	1%	0%	0%	0%	0%	0%
American Sign Language	1%	0%	0%	0%	0%	1%
Other	1%	1%	1%	1%	0%	1%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=683

TABLE 16 Age of Caseload

CASELOAD BY AGE	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Children from infancy through 3 yrs old	1%	1%	1%	2%	9%	2%
Children ages 4 to 7	10%	9%	8%	9%	8%	9%
Children ages 8 to 11	19%	18%	14%	15%	16%	16%
Adolescents ages 12 to 21	30%	33%	31%	35%	46%	34%
Adults ages 22-64	35%	35%	40%	36%	19%	35%
Adults ages 65 and over	5%	4%	5%	3%	2%	4%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=739

TABLE 17 Reasons for Non-interest in Commercial Panels

IF WOULD NOT LIKE TO BE ON A COMMERCIAL INSURANCE PANEL WHY NOT?	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	TOTAL
Excessive paperwork	55%	33%	67%	57%	58%
Low rates of payment	64%	67%	67%	14%	48%
Difficult authorization process	64%	33%	33%	14%	35%
Burdensome application process	27%	0%	25%	50%	33%
Lack of compensation for necessary collateral work	55%	0%	33%	21%	33%
Unnecessary Oversight	45%	0%	25%	0%	20%
Late or incorrect payments	55%	0%	8%	7%	20%
Unsophisticated clinical staff	18%	0%	8%	7%	10%
Other	18%	0%	17%	21%	18%

Source: Provider Survey—respondents who have a caseload of at least 10% children, work in private practice, are not on a commercial panel and are not interested in being on a commercial panel; N=40

TABLE 18 Reasons for Non-interest in Public Panels

IF WOULD NOT LIKE TO BE ON A PUBLIC SECTOR PANEL WHY NOT?	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	TOTAL
Low rates of payment	70%	75%	70%	53%	64%
Excessive paperwork	43%	25%	49%	44%	45%
Lack of compensation for necessary collateral work	35%	25%	30%	40%	34%
Burdensome application process	17%	25%	32%	42%	32%
Unnecessary Oversight	35%	0%	13%	23%	20%
Difficult authorization process	30%	13%	17%	16%	19%
Late or incorrect payments	39%	13%	9%	12%	16%
Unsophisticated clinical staff	9%	0%	13%	0%	7%
Other	22%	0%	13%	19%	16%

Source: Provider Survey—respondents who have a caseload of at least 10% children, work in private practice, are not on a public panel and are not interested in being on a public panel; N=121

TABLE 19 Percent of Clients who Pay Directly

PERCENT OF CLIENTS TO PAY YOU DIRECTLY	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	TOTAL
Less than 10%	50%	76%	50%	69%	60%
10 to 25%	17%	10%	20%	15%	17%
25% to 50%	17%	3%	13%	7%	10%
50%+	17%	10%	16%	9%	12%
Total	100%	100%	100%	100%	100%

Source: Provider Survey—respondents who have a caseload of at least 10% children and work in private practice; N=425

TABLE 20

Percent of Clients who are solely Self-Pay

PERCENT OF CLIENTS WHO ARE SOLELY SELF-PAY	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	TOTAL
None	17%	23%	13%	26%	20%
Less than 10%	40%	53%	47%	49%	47%
10 to 25%	34%	17%	18%	12%	17%
25% to 50%	5%	0%	10%	7%	7%
50%+	5%	7%	11%	6%	7%
Total	100%	100%	100%	100%	100%

Source: Provider Survey—respondents who have a caseload of at least 10% children and work in private practice; N=441

TABLE 21

Plans for Next Five Years

PLANS FOR NEXT FIVE YEARS BY AGE GROUP	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Continue in MA, primarily to children	11%	20%	12%	10%	0%	11%
Continue in MA to a mixed child adult clientele	8%	2%	3%	5%	15%	6%
Continue in MA, primarily to adults	24%	36%	22%	25%	40%	26%
Leave direct care provision or leave MA	56%	39%	58%	54%	44%	54%
Other	1%	2%	5%	5%	0%	4%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents with a caseload of at least 10% children; N=726

TABLE 22

Re-entering Direct Service Provision

WOULD YOU CONSIDER RE-ENTERING DIRECT SERVICE PROVISION?	PSYCHIATRIST	CNS	PSYCHOLOGIST	LICSW/LMFT/LMHC	LCSW	TOTAL
Yes	47%	70%	79%	71%	69%	69%
No	53%	22%	16%	25%	25%	26%
Not Applicable	0%	9%	5%	4%	6%	5%
Total	100%	100%	100%	100%	100%	100%

Source: Provider Survey—respondents who are not currently providing direct care services; N=349

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