



***Rhode Island Behavioral Health Project:
Final Report***

Submitted to:

Rhode Island

Executive Office of Health and Human Services

Department of Health

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EXECUTIVE SUMMARY

Rhode Island's vision is to ensure that all of its residents have the opportunity to achieve the best possible behavioral health and well-being within healthy local communities that promote empowerment, inclusion, and shared responsibility. In its continuing efforts to fulfill this vision, the Rhode Island Executive Office of Health and Human Services (EOHHS); the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH); Department of Health; and the Office of the Insurance Commissioner (OHIC) contracted with Truven Health Analytics to develop a series of reports that quantify statewide demand, spending, and supply for the full continuum of behavioral health services in the state. Subsequent to these analyses, Truven Health was asked to develop a summary report recommending practices, policies, and system structures to further the goal of providing accessible, high quality, and affordable care.


A keystone of the analyses was a population health approach. The population health model organizes population groups across the lifespan, providing an effective conceptual framework for addressing behavioral healthcare issues. Since the population health approach identifies need, prevention, and treatment services by age group, Rhode Island requested that all data be evaluated by lifespan stage (e.g., infants, children, adolescents, adults, older adults). This framework was critical because it grounded data analysis, interpretation, and subsequent policy recommendations in the knowledge that behavioral health disorders may be preventable developmental conditions, and that different age groups require different types of interventions and services. To provide context for the data and highlight opportunities for improvement, statistics for Rhode Island were compared with those of other New England states and national averages.

From a planning perspective, the population health lifespan approach allows us to look at the critical points in the development of behavioral issues from before birth through to older adults. This approach allows us to intervene earlier and treat more individuals at the right level of care e.g. primary, secondary, tertiary care levels.




Below are **key findings and recommendations** from the analyses.

Recommendation 1. Children in Rhode Island face greater economic, social, and familial risks for developing mental health and substance use disorders than children in other New England states and the nation. These greater risks necessitate that Rhode Island place greater emphasis on investments in proven, effective, preventive services and supports for children and families. 

A variety of factors—including biological attributes, individual competencies, family resources, school quality, and community-level characteristics—can increase or decrease the risk that a person will develop a mental or substance use disorder.

- Children in Rhode Island faced greater economic, social, and familial risks for the development of mental health and substance use disorders than children in other New England states and the nation.
- Unemployment among parents in Rhode Island is higher than in other New England states, **more children live in single parent households**, more children have inconsistent insurance coverage, and one in five children in Rhode Island is poor. These socio-economic challenges help explain why children and adolescents in Rhode Island experienced higher rates of adverse childhood events and subsequent behavioral health conditions such as ADHD, major depression, and illicit drug use than children and adolescents in other New England states and nationally. 
- These higher risk factors are expressed in adulthood as higher prevalence rates of disease. **Adults in Rhode Island have higher rates of drug abuse and dependence and serious psychological distress than other New England states and the national averages.**

Rhode Island can reduce the burden of mental health and substance use conditions by first prioritizing infants, children and young people from vulnerable families and doing the following:

- Reducing the impact of parental mental health and addiction issues on infant and child development by reducing the impact of parental addiction on emotional attachment and infant development, conflict and violence. 
- Increasing access and early responses for children with interrelated developmental, behavioral and mental health issues by increasing investments in evidence-based preventive services and supports for children and families. Effective prevention and early intervention services include:
 - screening pregnant women for mental health and substance use disorders;
 - evidence-based home visiting and parent skills training;
 - early childhood intervention services; and
 - early childhood and school-based programs. 
- Working to coordinate and align local community sector partners, including mental health and addiction services where appropriate, to ensure that effective prevention responses are provided, since many prevention opportunities for early intervention fall outside mental health and addiction services.
- Accompany this increased investment in services with better data collection and reporting to monitor service provision and outcomes across multiple state agencies, payers, and settings.
- Address the shortage of Department of Children, Youth & Families (DCYF) case workers (24% vacancy rate in 2012). The case loads of current case workers is about 21 cases per DCYF worker, which is much higher than the national best practices target of 14 cases per worker.^{1,2} 

¹ The Annie E. Casey Foundation. Rhode Island Department of Children, Youth & Families. Assessment, Findings, and Recommendations. May 20, 2014.

² Rhode Island Senate. Senate Task Force on the Department of Children, Youth, and Families and the Family Care Networks. January, 2015. <http://www.rilin.state.ri.us/Reports/Family%20Care%20Networks.pdf>

- Within Rhode Island, monitor and prioritize the national, long-standing concern that there are generally not enough child psychiatrists to keep up with the behavioral health needs of children and adolescents.^{3,4}

Recommendation 2: Rhode Island should shift financing and provision of services away from high-cost, intensive, and reactive services toward evidence-based services that facilitate patient-centered, community-based, recovery-oriented, coordinated care.

Rhode Island spends more on direct and indirect behavioral healthcare than most other states.

Overall, Rhode Island devoted \$853 million to behavioral health treatment in 2013 (Cost Report), which was approximately 1.6 percent of its gross domestic product, significantly above the national average of 1.2 percent.^{5,6} However, public financing for behavioral health care for adults and adolescents has dropped from \$110 million in 2007 to \$97 million in 2014; within that, state funding went from \$60 million in 2007 to \$38 million in 2014. State funding for substance abuse services dropped from about \$15.5 million to \$5 million.⁷ In addition:

- Individuals in Rhode Island are more likely to report unmet need for behavioral healthcare services than adults in any other New England State.
- Rhode Island adults die more frequently from narcotics overdose than adults in other New England states.
- Rhode Island is spending more in total on behavioral healthcare services primarily because of relatively greater expenditures on inpatient care and prescription medications.
- Adults in Rhode Island had the highest rate of psychiatric general hospital admissions among New England states and nationally (Demand Report).
- One in five Rhode Island Medicaid beneficiaries hospitalized for a mental illness had no follow-up mental health treatment 30 days after discharge.

³ Kim, Wun Jung. "Child and adolescent psychiatry workforce: a critical shortage and national challenge." *Academic Psychiatry* 27.4 (2003): 277-282.

⁴ Thomas, Christopher R., and Charles E. Holzer. "The continuing shortage of child and adolescent psychiatrists." *Journal of the American Academy of Child & Adolescent Psychiatry* 45.9 (2006): 1023-1031.

⁵ Note: This value does not include indirect costs of behavioral health illness (e.g., criminal justice and welfare).

⁶ Details of all cost analysis appear in Appendix B of the Cost Report.

⁷ BHDDH budget analysis document. State dollars include Medicaid match and overall dollars include federal Medicaid match.

Rhode Island is getting too little “bang for its behavioral healthcare buck” because it is investing relatively little in the services that can keep people in the community and on a path to recovery.

- Revenue controlled by the state mental health agency in multi-service mental health organizations in Rhode Island ranked lowest among New England states at \$69 per 10,000 population compared to a high of \$213 per 10,000 population in Vermont.⁸
- From 2011 to 2013, the proportion of spending on behavioral healthcare services from Medicaid has been between 31 and 32 percent, with private insurance covering around 20% and Medicare covering about 9%. All other payers, comprised of spending by federal, state, and local governments; spending out of pocket by consumers directly for treatment or for insurance copayments and deductibles; other private insurance payments made by plans other than the three from which we gathered information; and philanthropic spending accounted for 41 to 43 percent of spending (see Appendix B, Table 5 of Cost Report).
- Among privately insured state residents, health plans spent an average of \$468 per enrollee for behavioral health disorders. By age group, health plans spent \$9/enrollee for beneficiaries that were 0-1 years of age, \$118/enrollee for beneficiaries that were 2-4 years of age, \$395/enrollee for beneficiaries that were 5-11 years of age, \$904/enrollee for beneficiaries that were 12-17 years of age, \$666/enrollee for beneficiaries that were 18-24 years of age, \$498/enrollee for beneficiaries that were 25-64 years of age, and \$70/enrollee for beneficiaries that were 65 years of age or older.
- Rhode Island’s Medicare population cost an average of \$481 per enrollee for behavioral health disorders. By age group, Medicare spent \$1,347/enrollee for beneficiaries that were 18-24 years of age, \$1,206/enrollee for beneficiaries that were 25-64 years of age, and \$229/enrollee for beneficiaries that were 65 years of age or older. There was no spending for residents age 0-1, or 12-17. Spending for children age 5-11 is suppressed because of the small number of claims.
- Among Medicaid and private insurance payers, the largest share of total spending by age group for behavioral health treatment was for individuals aged 12–17 years.
- After 2011, Rhode Island had no Assertive Community Treatment (ACT) programs, an evidence-based service model for persons with severe and persistent mental illness that suffer significant functional impairments e.g. inability to consistently perform the range of practical daily living task required for basic adult functioning in the community. (Supply Report).
- **The rate of homelessness among those served by the Rhode Island mental health system was higher than the national average (5% versus 3.3%).** Yet, only 2.6 percent of individuals with serious mental illness served by the Rhode Island mental health system received supportive housing (Demand and Supply Reports).
- There are not enough mental health professionals working in some of Rhode Island’s Federally Qualified Health Centers (FQHCs) (Supply Report).
- Rhode Island has fewer behavioral health and substance abuse counselors per capita than other New England states (Supply Report). The lack of substance abuse human resource capacity is significant given clients with persistent high service needs i.e. those that use acute inpatient

⁸ Vermont’s spending as noted includes budgeting for children’s mental health. If Rhode Island’s DCYF children’s mental health budget is included in this estimate, the total increases to \$93 per capita for Rhode Island rather than \$69.

psychiatric services, have a history of criminal justice involvement, are homeless are person with coexisting substance use disorder of significant duration.

- Rhode Island has no mental health programs offering specialized services for traumatic brain injury, and had the lowest percent of mental health facilities offering programs specifically designed for Veterans or for individuals with Alzheimer’s disease or Dementia (Supply Report).
- Recently, Rhode Island closed a number of residential treatment beds, with adolescent substance use disorder residential treatment being hit the hardest (Supply Report).

Increasing investment in these types of community-based services, and integrating them more fully into other insurance programs such as Medicaid, Medicare, and private insurance, can move Rhode Island to a more cost-effective behavioral healthcare system.

Recommendation 3: Rhode Island should enhance its state and local infrastructure to promote a population-based approach to behavioral healthcare. Specifically, Rhode Island should: (1) routinely generate and disseminate behavioral healthcare need, supply, use and spending information across funding and organizational silos; (2) develop planning processes that involve and incentivize disparate organizational, financing, and delivery systems; and (3) create accountability measures that are tied to population-level outcomes.

Rhode Island incurs significant costs from the consequences of mental health and substance use disorders, yet these costs are largely hidden. For example, from Truven’s Cost Report:

- Rhode Island spends nearly 10 percent of its total state budget on providing services that stem from behavioral health conditions, such as:
 - the costs of housing prisoners who are incarcerated because of addiction and serious mental illnesses;
 - the cost of caring for children whose families are disrupted by substance use disorders and mental illness;
 - and the cost of providing social services such as disability insurance to individuals who are unable to work because of serious mental illness or addictions.

Yet, because of the silos in the way information is reported and incentives are dispersed, the connections between actions taken in one corner of the system and outcomes in another are obscured. When service gaps exist in the behavioral healthcare continuum, the costs to other business sectors and state agency budgets such as labor, healthcare, housing, and criminal justice are directly impacted. These negative impacts can exacerbate pressure on the behavioral healthcare system. For example, reducing the mental health budget by reducing intensive services (e.g. ACT teams) will produce lower Medicaid costs, but it appears to have increased emergency department and acute inpatient care costs. It also is likely to add to the caseloads in the criminal justice/forensic system, contribute to increased housing instability (i.e. homelessness) and unemployment among persons with severe and persistent mental illness.

The situation creates pressure on the behavioral healthcare system to add more crisis services, more acute services, group home beds, etc., which adds pressure to further cut community supports that prevent individuals from requiring these deep end services.

A state funded residential treatment program that keeps an individual with addiction from cycling back into the hospital for another detoxification is not apparent to the Medicaid program that pays for these services. **In other words, having a better continuum of care in the community reduces a reliance on hospitals and prisons.**

A difficult, but critical, challenge for Rhode Island will be to ensure that its State agencies develop a coordination process between its leadership and management structure, based on a common vision and shared priorities that focus on outcomes. State structures within Rhode Island must ensure that local communities are aligned to establish age-specific care pathways and that local, multi-sector assets are being leveraged to actively support people in new ways to live fulfilling lives within their own communities.

Rhode Island is engaging in a number of new innovations that may be helpful in meeting this challenge such as its State Innovative Model Test Grant, applying for SAMHSA's Certified Community Behavioral Health Clinic planning grant and the Opioid Treatment Program Health Home State Plan Amendment. Connecting these various initiatives to efforts to generate a comprehensive population-based system for the provision of behavioral healthcare services will be a useful starting place.

Further, the State will need to have "evidence-informed" discussions that make use of local epidemiological findings and engage multiple sectors of local communities such as health, social welfare, criminal justice, and education in a comprehensive system of services and prevention and recovery supports. Such information will also provide needed insight into how special needs individuals with severe and persistent behavioral problems are being addressed. This population includes, but is not limited to, individuals with:


- Behavioral health issues and developmental disability;
- Behavioral health issues and neuropsychiatric issues or acquired brain injury;
- Various forms of persistent psychosis with severely regressive or assaultive or suicidal behaviors (i.e. persons with persistent symptoms of schizophrenia);
- Persons with co-occurring substance abuse disorders and mental illness;
- Concurrent substance dependence disorders;
- Severe forensics or criminal involvement;
- Transitional youth (first episode psychosis);
- Elderly persons with psychogeriatric challenges; and
- Behavioral Health issues that belong to various local racial or ethnic minority groups.

Identifying these special needs populations across the life span, along with the type of cost-effective services that they will require, will have implications for service array, specialty network structure, and the type of specialized workforce that needs to be developed.

KEY FINDINGS ACROSS LIFESPAN

Below are the key findings from the supply, demand and cost reports developed as part of this project. The findings have been organized by the following age groupings: zero to 18; 18 to 64; older adults aged 65 and over; and all ages. State-Specific results of this study that pulled data from multiple sources⁹ by age group indicate a number of risk factors faced by Rhode Islanders across the lifespan that demonstrate that our population is at high risk for experiencing behavioral health conditions in their lifetime.

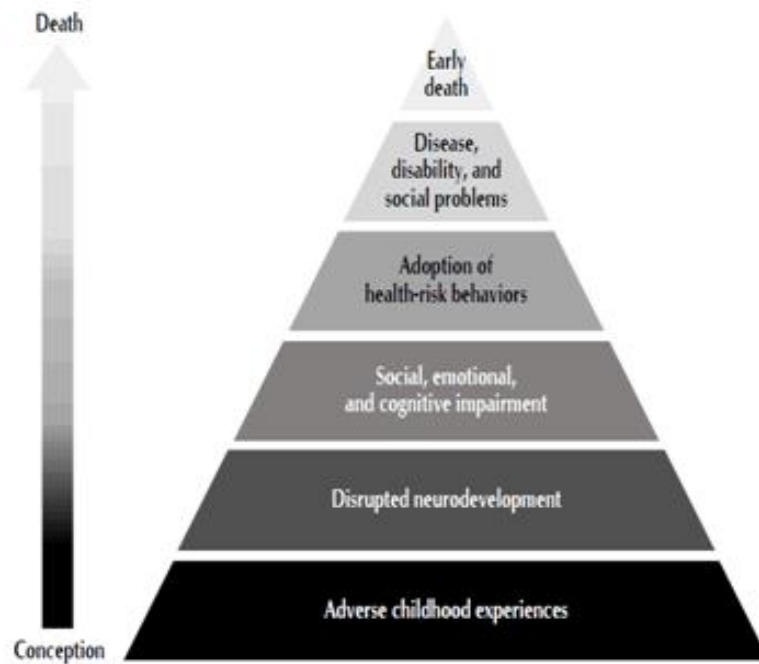
Rhode Islanders zero to 18 years old

A variety of factors—including biological factors, individual competencies, family resources, school quality, and community-level characteristics—can increase or decrease the risk that a young person will develop a *behavioral health condition*. Factors that are known to increase the risk of behavioral health conditions include spending more time in poverty during childhood, maternal depression, child maltreatment and neglect, poor parenting, and marital conflict. These factors tend to have a cumulative effect: A greater number of risk factors and for some individuals a longer exposure (such as to parental mental illness) increase the likelihood of negative outcomes. Conversely, a greater number of protective factors (e.g., resources within the individual, family strengths, access to mentors, and good education) decrease the likelihood of negative outcomes. The Adverse Childhood Experiences (ACE) study demonstrated these powerful associations. The authors found a strong relationship between the exposure to abuse or household dysfunction during childhood and multiple risk factors for several of the leading causes of death in adults.¹⁰ Adverse childhood events include exposure to substance abuse, mental illness, violent treatment of mothers or stepmothers, and criminal behavior in the household. 



⁹National Survey of Children’s Health, National Survey of Drug Use and Health, Healthcare Cost and Utilization Project, Pregnancy Risk Assessment Monitoring System and Rhode Island Kids Count.

¹⁰ Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine*. 1998;14(4):245-258.

Figure 3. Mechanisms by Which Adverse Childhood Experiences (ACE) Lead to Poor Outcomes in Adulthood



Source: Centers for Disease Control and Prevention

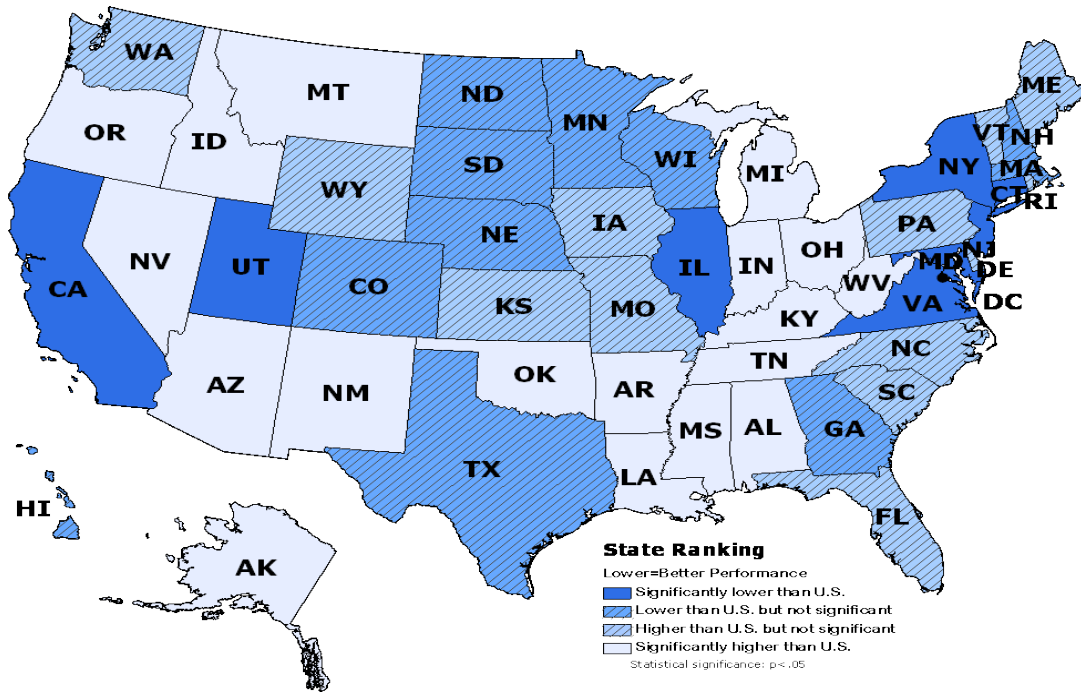
Some socioeconomic circumstances are harder for families in Rhode Island than for families in other states, increasing the risk for developing behavioral health conditions. Unemployment among parents in Rhode Island is higher than in other New England states, more children live in single parent households, and more children have inconsistent insurance coverage. As noted  by the *2014 Rhode Island Kids Count Fact Book*, children most at risk of not achieving their full potential are children in poverty. Approximately one in five children in Rhode Island is poor.¹¹ 

These risk factors place children at higher risk for adverse childhood events and their sequela. Data from the 2011–2012 National Survey of Children’s Health show that Rhode Island is higher than the national average in the percentage of children who have had two or more adverse childhood experiences.¹²

¹¹Rhode Island KIDS COUNT. 2014 Rhode Island Kids Count Factbook. Providence, RI: Author; 2014. <http://www.rikidscount.org/Portals/0/Uploads/Documents/2014Factbook-noart.pdf>

¹² Nationwide, 22.6 percent of children met the indicator. Across states, the range was 16.3 percent to 32.9 percent.

Figure 4. State Rankings of Adverse Childhood Experiences

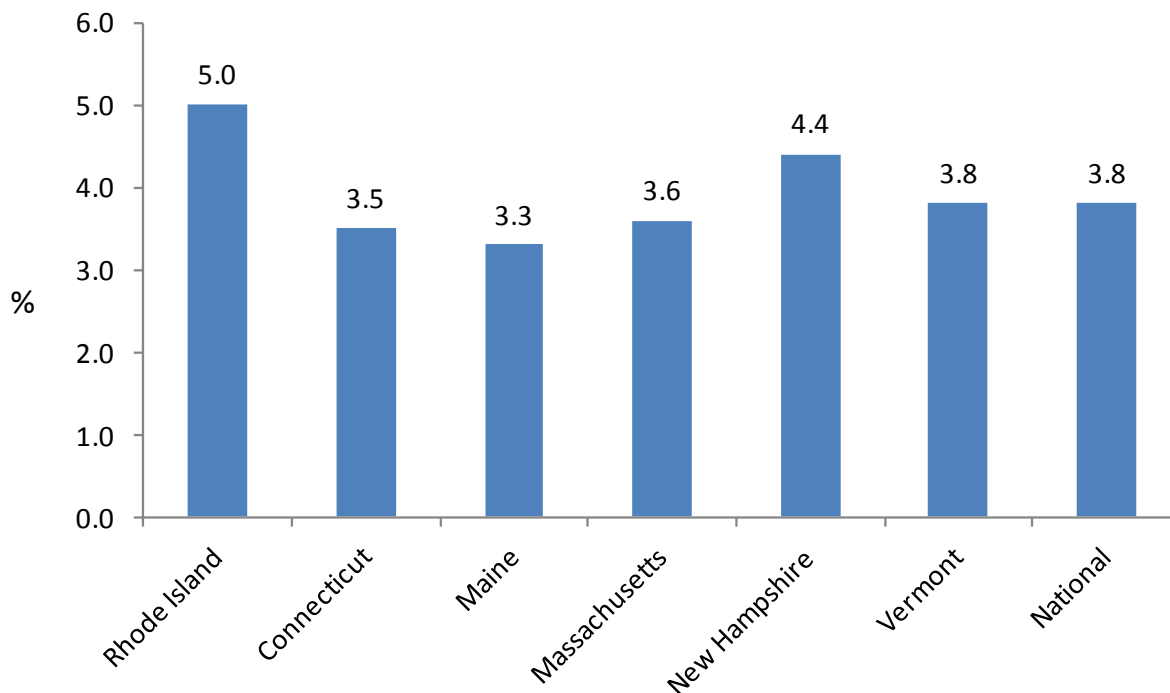


Source: Data Resource Center for Child & Adolescent Health

Adverse childhood events interrupt neurodevelopment and begin to present as social, emotional, and cognitive impairments. Consistent with this scientific insight, Children and adolescents aged 5–17 years in Rhode Island had higher rates of attention deficit hyperactivity disorder than most other New England states and national averages. Adolescents aged 12 – 17 were more likely to have major depressive episodes than other New England states and the national average.

These higher rates of social, emotional, and cognitive impairments can subsequently lead to adoption of health risk behaviors. Adolescents in Rhode Island had higher rates of illicit drug use than the other New England states and the national average (Figure 5).

Figure 5. Percent of Adolescents Aged 12–17 Years Who Had Illicit Drug Use or Dependence in the Past Year in New England States and the United States, 2012-2013



Source: National Survey of Drug Use and Health

Problems that can increase the risk of behavioral health conditions in the future include infants exposed to severe maternal depression or abuse or neglect; low birth-weight for gestational age babies and birth complication; attachment issues; and poor infant health. All of these can contribute to a maladaptive developmental trajectory whereby infants are unable to achieve age-appropriate events such as taking first steps and speaking first words. Specifically in Rhode Island, for infants ages 0 to 2, the results showed that:

- 8% of births in RI (FY 2012) were considered low-birth-weight babies.¹³
- 10.3% of mothers (FY 2011) reported postpartum depressive symptoms¹⁴
- 10.5% of mothers (FY 2011) reported having alcoholic drinks during last 3 months of pregnancy.¹⁵
- 9.7% mothers (FY 2011) have smoked during last 3 months of pregnancy.¹⁶

¹³ Centers for Disease Control and Prevention, National Center for Health Statistics

¹⁴ Centers for Disease Control and Prevention Pregnancy Risk Assessment Monitoring System

¹⁵ Ibid

- 4.1% (FY 2011-2012) had problems relating to the typical “building blocks” of positive well-being, such as attachment behavior issues.

Physical growth delays and/or **failure of the environment** to provide the necessary support and stimulation can manifest a range of behavioral problems. For children aged 2-4 years, indicators of this kind of stress include exhibition of disruptive behaviors that can be caused by trauma such as maltreatment, out-of-home placements in foster care, family catastrophic events or parental conflict. In addition emotional problems such as (mild, moderate, severe/persistent) anxiety, depression, post-traumatic stress, eating and feeding problems (often related to parental abuse and violence) that stunts the capacity to regulate emotions and form secure primary relationships can lead to a lifelong disability to form healthy relationships. According to Truven’s Rhode Island Behavioral Health Demand results taken from the National Survey of Children’s Health:

- 5.9 % of mothers surveyed were in poor mental health.
- 5% of fathers with children aged 0-5 surveyed were in poor mental health.
- 61.1% reported having no adverse childhood experience (e.g., socioeconomic hardship, divorce, death of a parent, parent in jail, or living with someone with drug misuse or with mental health issues).

Similarly, children ages 5 to 12 who cannot perform academic tasks at grade level and/or who show social incompetence, impulsivity, and aggressive behavior are at high risk during this period for developing behavioral health problems, especially disruptive behavior disorders, anxiety and depressive disorders. A relatively small number in this age group are seriously emotionally disturbed. Furthermore, nearly half of children with early-onset conduct problems experience persistent, serious, life-course problems (e.g., crime, violence, drug misuse and unemployment). According to Truven’s Rhode Island Behavioral Healthcare Demand results:

- Percentage with serious emotional disturbance (2001)¹⁷

<u>Age of Population</u>	<u>%</u>
4-5 years old:	11.6%
6-7 years old:	15.0%
8-9 years old:	15.7%
10-11 years old:	15.7%

¹⁶ Ibid

¹⁷ 2001 U.S. National Health Interview Survey - A household survey conducted throughout the year by face-to-face interviews from the U.S. Census Bureau. Most recently available data is from the year 2001.

- Children aged 6-11 years (2011-2012)¹⁸:
 - 9.3% of children had a mother in poor mental health
 - 4.7% of children had a father in poor mental health
 - 50.1% of children with no adverse childhood experiences
- 13.7 % of youth aged 4-17 years have ever had attention-deficit/ hyperactivity (2011)¹⁹

In the mid to late adolescent years, depression and anxiety levels increase to approach adult levels. It is best practice to intervene early to identify and treat both bipolar disorder and psychoses (e.g. schizophrenia) to minimize their potential life-time impact. Conduct disorders are much more established by this age, and when linked with depression, the risk of suicide and peer conflicts increase. Combined with problems related to drugs or alcohol, which are affecting progressively younger age groups, a range of deficits can emerge that result in a wide range of impaired social or academic functioning (e.g., dropping out of school and engaging in risky behaviors such as reckless driving, aggression, unsafe sexual practice, early pregnancy, and poor vocational choices). Impaired social or academic functioning can then further exacerbate behavioral health issues. According to Truven’s Demand Report:

- 11.3% of adolescents, aged 12-17 years were with at least one major depressive episode in the past year (2012-2013)²⁰
- Percentage with severe emotional disturbance (2001)²¹

<u>Age of Population</u>	<u>%</u>
12-13 years old:	17.0%
14-15 years old:	14.6%
16-17 years old:	10.4%

- Adolescents aged 12-17:
 - 6.5% (2012-2013) had illicit drug or alcohol abuse or dependence.²²
 - 2.4% (2012-2013) had illicit drug dependence in the past year.²³
 - 1.2 % (2012-2013) with alcohol dependence in the past year.²⁴

¹⁸ National Survey of Children’s Health

¹⁹ Centers for Disease Control and Prevention. Attention-Deficit/Hyperactivity Disorder (ADHD): State-Based Prevalence Data of Parent Reported ADHD Diagnosis by a Health Care Provider, 2011

²⁰ National Survey on Drug Use and Health

²¹ 2001 U.S. National Health Interview Survey—a household survey conducted throughout the year by face-to-face interviews from the U.S. Census Bureau

²² National Survey on Drug Use and Health

²³ Ibid

- 4.5% with prevalence of developmental delay.²⁵
- 3% teens, aged 16-19, not in school/not high school graduates (2013).²⁶

In addition, one in five (19.0%) children ages six to 17 has a diagnosable mental health problem, and one in ten (9.8%) has significant functional impairment (Kids Count Factbook, 2015). Roughly 8,000 adolescents (9.9 % of all adolescents) per year in 2009-2013 had at least one Major Depressive Episode (MDE) within the year prior. This percentage has increased significantly since the 2009-2010 survey of 8.1%.

²⁴ Ibid

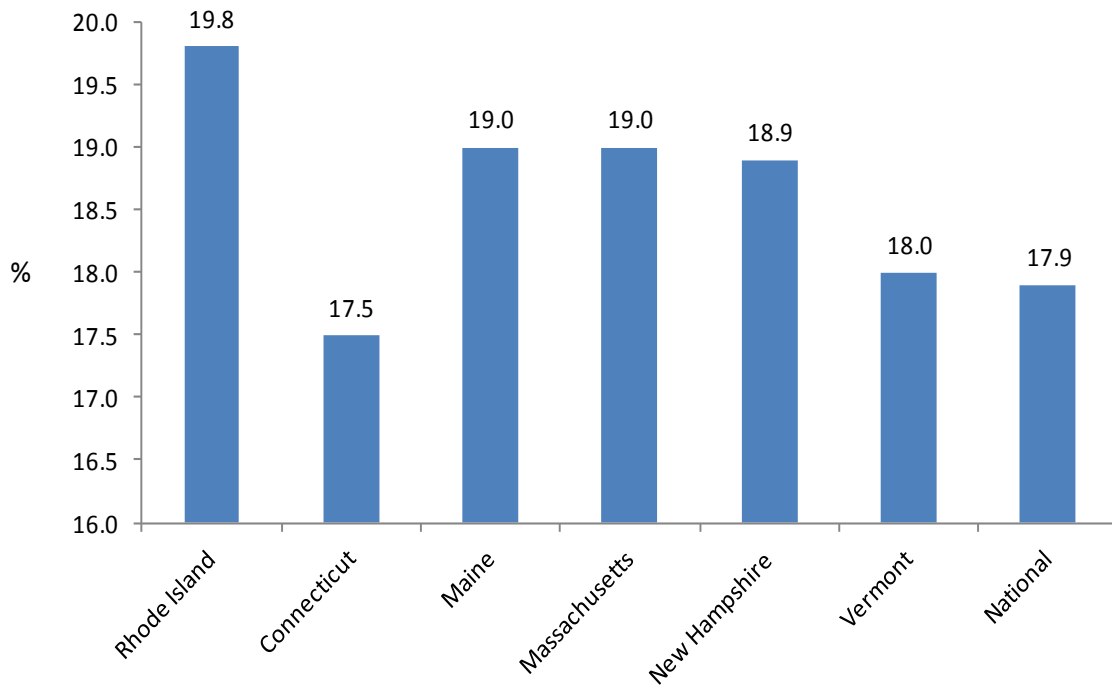
²⁵ National Survey of Children's Health

²⁶ National KIDS COUNT

Rhode Islanders 18 to 64

As adults, these risk factors place individuals at higher risk for disease, disability, and social problems. Young adults in Rhode Island ages 18 – 24 years older were more likely to have serious psychological distress than young adults in other New England states and nationally (Figure 6).

Figure 6. Adults Aged 18-24 Years, With Any Serious Psychological Distress in the Past Year in New England and the United States, 2010/2011

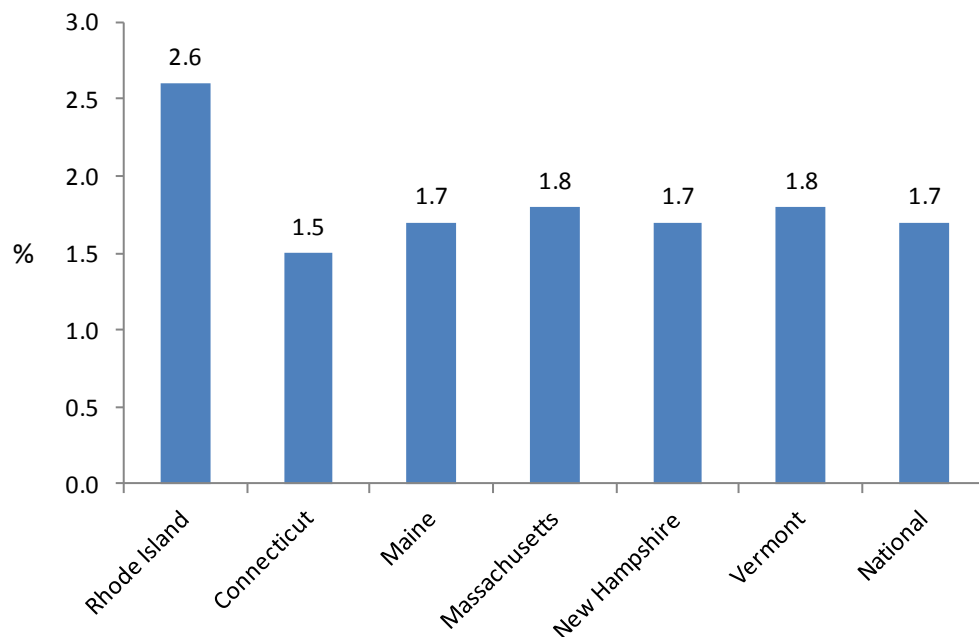


Source: National Survey of Drug Use and Health

Adults ages 25 – 64 in Rhode Island are more likely to have illicit drug dependence or abuse in the past year than adults in other New England States or nationally (Figure 7).

Half of all lifetime cases start by age 14 and three fourths by age 24 (Kessler et. al, 2005), and as a result many young adults will have continuing problems, disorders, or vulnerabilities from earlier years. Behavioral health disorders are most common among young adults aged 18 to 25 years.

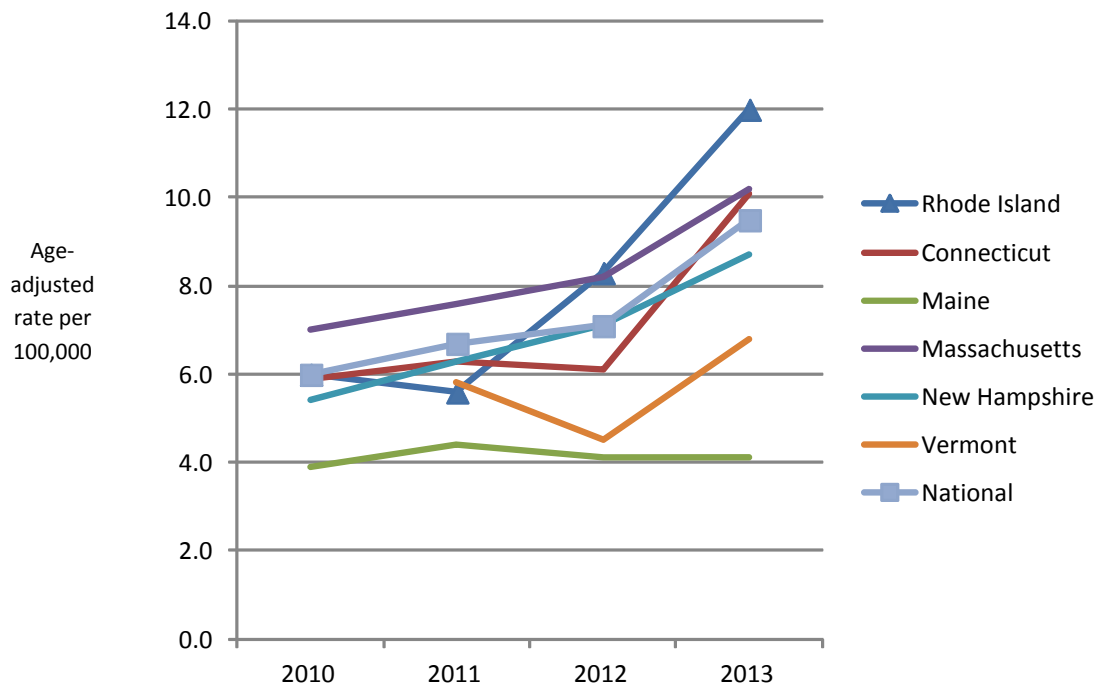
Figure 7. Illicit Drug Dependence or Abuse in the Past Year among Adults in New England and the United States, 2012/2013



Source: National Survey of Drug Use and Health

Ultimately, early adverse childhood experiences place individuals at higher risk of early death. Consistent with this conceptualization, adults in Rhode Island have higher age-adjusted death rates from narcotics and hallucinogens than the national average (Figure 8).

Figure 8. Deaths Attributed to Narcotics or Hallucinogens for Individuals of All Ages

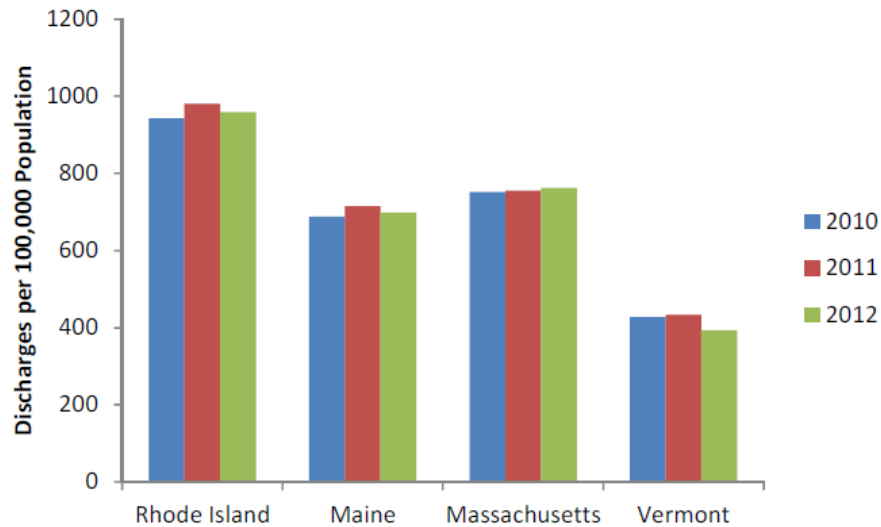


Source: Centers for Disease Control and Prevention, Underlying Cause of Death

Rhode Island is investing significantly in meeting the behavioral health needs of its residents. The state devoted an estimated \$853 million to behavioral health treatment in 2013, which was approximately 1.6 percent of its gross domestic product and exceeded the national average of 1.2 percent. Rhode Island also spends millions of dollars on criminal justice services, disability services, and other human services that often are related to behavioral health conditions. We estimate that nearly 10 percent of the Rhode Island state budget can be attributed to the consequences of behavioral health conditions.

Rhode Island’s hospital discharge rate for mental and substance use disorders was 26 percent higher than the next highest New England state (Massachusetts) and almost 150 percent higher than Vermont (Figure 9).²⁷

Figure 9. Hospitalizations per 100,000 Population for Mental and Substance Use Disorders Were Higher in Rhode Island Than in Maine, Massachusetts, or Vermont, 2010–2012



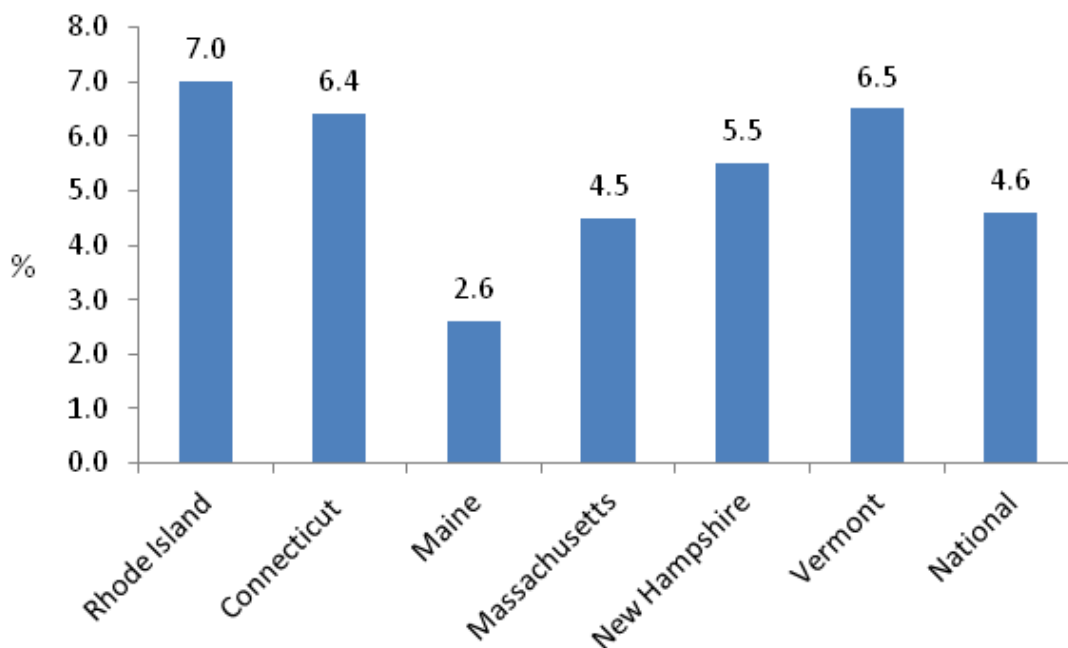
Source: Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project. Data were downloaded from <http://hcup.ahrq.gov/> on December 16, 2014.

Our analysis of the supply of behavioral health services in Rhode Island was not able to compare psychiatric bed supply to other New England States or national data, though the Cost Report compared spending per enrollee, which was generally higher than other New England States - likely due, in part, to high use of inpatient hospitalizations.

²⁷ Many Vermont residents use hospitals in other states (primarily in New Hampshire), resulting in an abnormally low discharge rate from Vermont hospitals.

Adults in Rhode Island were more likely to report **unmet need** for treatment of mental and substance use disorders than residents in the other comparison states (Figure 10).

Figure 10. Percentage of Adults Aged 18 Years and Older with Perceived Unmet Mental Health Care Need in New England and the United States, 2011



Source: National Survey of Drug Use and Health. Substance Abuse and Mental Health Services Administration. Behavioral Health, United States, 2012.

For adults ages 18 to 64, the risk factors contribute to what might be expected in terms of academic/occupational/social functioning, lowered life satisfaction, increased adversity (e.g., homelessness, TANF, SSDI, higher rates of unemployment, poor work productivity, higher risk of accidents, DUIs, suicide, accidental drug overdose, victimization, and low family-marital satisfaction), increased treatment utilization, criminal arrests, and reduced global functioning. In addition, mental disorders are associated with risk factors for chronic disease such as smoking, reduced activity, poor diet, obesity, and hypertension; however, **these lifestyle factors have not yet been shown to mediate associations with morbidity and mortality.**

According to Truven’s Rhode Island Behavioral Health Demand Report:

- Young Adults aged 18-24: In Rhode Island 18 – 24 year-olds were more likely to have serious psychological distress (19.8%) than young adults in other New England states (range 17.5% - 19.0%) and nationally (17.9%).²⁸
 - 4.9% (2012-2013) with serious mental illness in the past year.
 - 19.9% (2012-2013) with any mental illness in the past year
 - 19.8% (2010-2011) with serious psychological distress in past year.
 - 9.7% (2012-2013) with one major depressive episode/past year.
 - 6.3% (2012-2013) with illicit drug dependence
 - 8.3% (2012—2013) with alcohol dependence in the past year
 - 13.6% (2010-2011) who have ever used cocaine
- Adults aged 26-64 (FY 2012-2013):²⁹
 - RI is more likely to have illicit drug or alcohol dependence or abuse (9.0%) in the past year than adults in other New England States or nationally. 5.0% with serious mental illness
 - 20.2% with any mental illness
 - 8.2% with one major depressive episode in the past year
 - 12.8% who used drugs in the past month
 - 3.5% with alcohol dependence in the past year
 - 15.4% marijuana use in the past year among adults
- In 2013, Rhode Island (per 100,000) had a higher age-adjusted death rate from narcotics and hallucinogens than any other New England State or the national average.³⁰

²⁸ National Survey on Drug Use and Health

²⁹ National Survey on Drug Use and Health

³⁰ Centers for Disease Control and Prevention, National Center for Health Statistics

Rhode Islanders 65 and above (Older Adults)

For older adults in RI (65 years or more), behavioral health issues can contribute to increased functional impairment, inappropriate usage of health care services, cognitive disability, risk of unnecessary institutionalization such as nursing homes, and slower or lack of recovery from medical illness and early death. From Truven's Demand Report:

- Older Adults (FY 2012-2013)³¹
 - 5.2% of Rhode Islanders who are 50 + years have a severe mental illness
 - 13.5% have any mental illness
 - 5.8% have dependence or abuse of illicit drugs or alcohol past year

Medicare spent an average of \$229/enrollee for beneficiaries that were 65 years of age or older.

RECOMMENDATIONS

We highlighted the statistics in the *Findings* section above to illustrate opportunities for Rhode Island to improve its behavioral health delivery system. Although Rhode Island allocates significant resources to its behavioral health delivery system, the service, financing, and organizational accountability mix may not be distributed in a manner that leads to optimal, cost-effective, outcomes. In other words, Rhode Island has the *scaffolding* for a high-performance behavioral health system, but the *glue* that allows this framework to produce high-quality, cost-effective results could be strengthened.

Without the glue that ties these services together, children experience toxic stresses that put them at high risk for the development of behavioral health disorders. Individuals may cycle into and out of hospitals, choose not to take their medications, develop physical illnesses such as diabetes and hepatitis, become homeless or imprisoned, and are at much higher risk of early death.

This challenge is not unique to Rhode Island. As the behavioral health system moved away from state-funded, institutionalized care, the challenges of coordinating multiple funding streams and services to create a patient-centered, high-performing system have come to the forefront.³² As recently noted by Glied and Frank³³:

³¹ National Survey on Drug Use and Health

³² The President's New Freedom Commission on Mental Health. *Achieving the Promise: Transforming Mental Health Care in America*. Final Report. HHS Pub No. SMA-03-3832. Rockville, MD; 2003. Available at <http://govinfo.library.unt.edu/mentalhealthcommission/reports/reports.htm>

The "mainstreaming" of persons with mental illness and substance use disorders has left a policy void, where governmental institutions responsible for meeting the needs of mental health patients lack resources and programmatic authority.

Given the findings of this investigation, we recommend the following areas for future policy and programmatic focus:

- Greater investment in prevention and early intervention
- Shifting the financing of services towards **evidence-based and promising practices** that facilitate better care coordination and are community based, which will help avoid high-cost hospitalizations
- Developing population-based measures and accountability, as well as a collaborative infrastructure, across agencies and service systems to achieve better prevention and treatment outcomes.

Greater investment in prevention and early intervention

Although Rhode Island has an innovative vision and system for addressing the needs of children and adolescents, the state may see significant benefits from greater investment in primary and secondary preventive services for these individuals and their family supports.

This conclusion echoes one made recently in the Report Issued by the Rhode Island Senate Task Force on the Department of Children, Youth, and Families and the Family Care Networks³⁴:

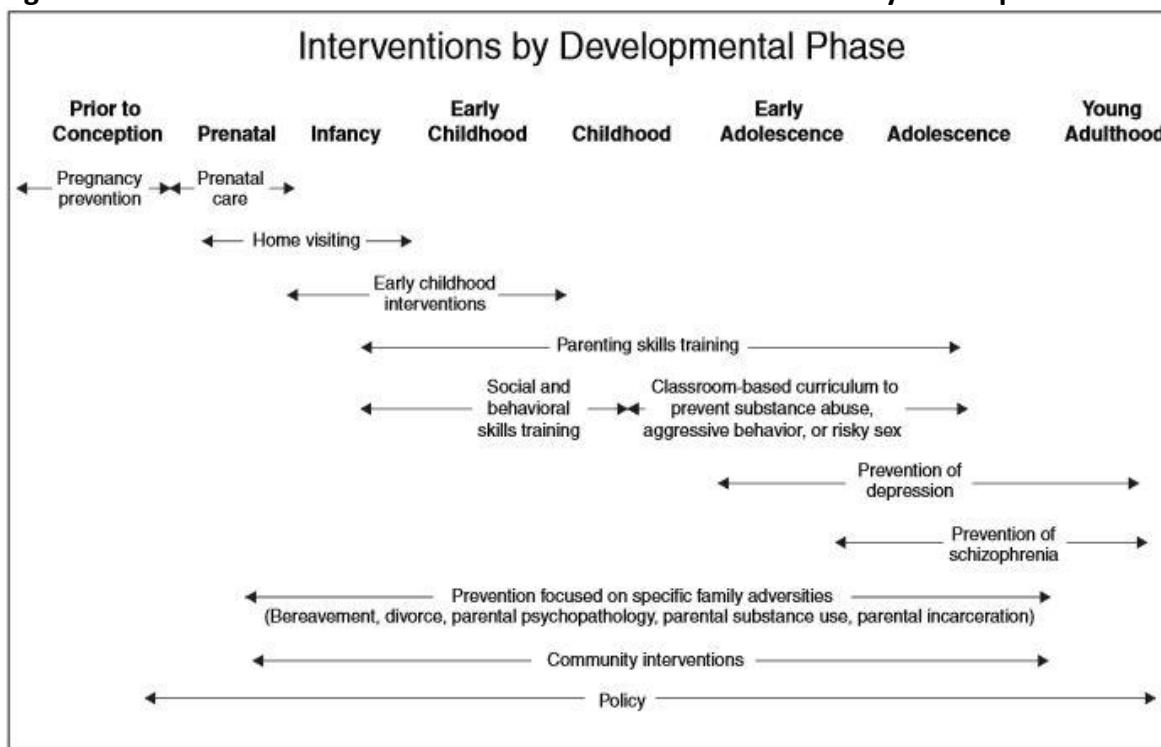
RECOMMENDATION: The state should increase investments in proven effective preventive services and family supports to...improve outcomes for children and youth, and reduce the need for more intensive services.

³³ Glied S, Frank RG. Better But Not Well: Mental Health Policy in the United States Since 1950. Baltimore, MD: Johns Hopkins University Press; 2008.

³⁴ Rhode Island Senate. Senate Task Force On the Department of Children, Youth, and Families and the Family Care Networks. January 2015.

Figure 11 describes interventions that can be effective at preventing the development of behavioral health conditions as children develop through their lifespan into young adults.³⁵

Figure 11. Interventions to Prevent Behavioral Health Conditions by Development Phase



Source: The National Academies. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Report Brief for Policymakers. Washington, DC: National Academies Press; March, 2009.

Preventive intervention programs have been shown to be effective in reducing the odds that a child will develop a mental or substance use disorder. They also have been found to reduce child maltreatment; reduce aggressive, disruptive, or antisocial behaviors among children; improve parent-child interaction; improve academic achievement, high school graduation rates, and college attendance; increase employment and earnings; and reduce arrest rates.³⁶

The types of programs that Rhode Island provides today for children and/or adolescents that they may want to expand or enhance include the following:

³⁵ National Research Council and Institute of Medicine. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions. O’Connell ME, Boat T, Warner, KE, Eds. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press; 2009.

³⁶ O’Connell ME, Boat T, Warner KE, Eds. National Research Council and Institute of Medicine Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions. Washington, DC: National Academies Press; 2009.

- Screening pregnant women for mental health and substance use disorders conditions Evidence-based home visiting and parent skills training (e.g., Healthy Families America, Nurse-Family Partnership, and Parents as Teachers; First Connections; Positive Parenting Program; Common Sense Parenting)
- Early childhood intervention services (e.g., New Beginnings Program)
- Early childhood and school-based programs (e.g., Early Head Start)

These services are provided across an array of settings, state agencies, and payers. Thus, coordination, performance monitoring, and accountability will be critical challenges in treatment-effective and cost-effective service implementation. As recently noted by the National Research Council and Institute of Medicine:

Supporting the development of children requires that infrastructure be in place in more than one system—public health, health care, education, community agencies—to support and finance culturally appropriate preventive interventions at multiple levels.³⁷

Shifting the financing of services towards evidence-based and promising practices that facilitate better care coordination and are community based, which will help avoid high-cost hospitalizations

Although Rhode Island has invested significantly in hospital care for the behavioral health population, the state’s mental health agency budget per capita is one of the smallest in the nation and lowest among the New England States.³⁸ It has no Assertive Community Treatment (ACT) teams. Among Rhode Island Medicaid beneficiaries who were hospitalized for a mental illness, one in five had no follow-up mental health treatment in 30 days. Furthermore, there are not enough mental health professionals working in some of Rhode Island’s FQHCs.

One way to strengthen and improve the state’s behavioral health treatment framework and reduce avoidable hospital admissions is by building Rhode Island’s community-based behavioral health system. Specific examples include the following:

- Review whether the mental health agency budget, which covers care for adults, is

³⁷National Research Council and Institute of Medicine. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions. O’Connell ME, Boat T, Warner, KE, Eds. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press; 2009.

³⁸ The state mental health agency provides care for adults through the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH).

adequate to fund the community based services and supports needed to create a coordinated delivery system that avoids high cost hospitalizations and over-use of prescriptions.

- Identify and implement age-specific prevention and evidence-based treatment practices across the lifespan, such as: Assertive Community Treatment programs; Family Psychoeducation; and Integrated Treatment for Co-occurring Disorders, to improve care transitions and avoid costly hospitalizations.
- Ensure there are enough behavioral healthcare professionals, of all appropriate levels, in FQHCs, community behavioral healthcare organizations (SUD, MH and SA), and DCYF settings.
- Ensure that the system has the capacity to address the needs of special populations across the lifespan, as well as service members and their families.
- Address the shortage of adolescent residential treatment facilities due to recent closures and the future impact of any additional residential closures serving adults and youth with behavioral health disorders.
- Assess the causes and impacts of recently closed community residential treatment beds
- Examine the adequacy of Medicaid reimbursement for behavioral health community services under managed care plans and the fee-for-service system.

Developing population-based measures and accountability across lifespan service systems to achieve better prevention and treatment outcomes

Finally, developing population-based measures and accountability for achieving better population outcomes across service systems will be critical for addressing the challenges identified in this report.

The data gathered for this project provide examples of the types of population level information that can be used by Rhode Island to track the needs of its residents and how the system is performing on meeting those needs.

Additional performance measures can also be useful. The Substance Abuse and Mental Health Services Administration (SAMHSA) National Behavioral Health Quality Framework offers guidance for the identification and implementation of key behavioral health quality measures for use in agency or system funding decisions as well as in monitoring behavioral health services

delivery and outcomes.³⁹ Other sources for measures include the Centers for Medicare and Medicaid Services measure inventory and the National Quality Measures Clearing House.^{40,41}

By tracking population health across the lifespan, prevention, wellness, and outcome measures, the effectiveness of the infrastructure and care delivery system across age groups, payers, and providers will be evident over time. Areas needing improvement will be identifiable and successes may be quantified. Ultimately, developing and tracking measures provide a mechanism to examine and prioritize prevention, treatment, and recovery elements at the payer, system, provider, and population levels.

However, developing performance metrics will not move the system toward improvements if the infrastructure is not developed such that there is cross-system accountability for the performance measures. As recently noted in the National Quality Forum’s June 2015 Draft Report: Multi-stakeholder Input on a National Priority: Improving Population Health by Working with Communities—Action Guide 2.0:

Pieces of the “population health improvement” puzzle are being developed and, in some areas, coming together to create a more complete and effective effort. For example, establishing Accountable Care Organizations that align goals and perspectives across certain healthcare organizations is one approach, but not the same as a comprehensive effort to improve population health. Creating clear incentives is certainly a part of the big picture to improve population health. This is taking place in programs such as Medicare Shared Savings, the IRS community benefit rules for non-profit hospitals, public health accreditation, and the growing use of health impact statements as part of public policy decision making. However, certain pieces of the overall puzzle to achieve better population health at the local, state, and national levels are still missing or hard to find.

Even with a shared commitment to improving population health, this is challenging work. Coordinated collaboration is essential. However, different people and groups may be motivated by competing incentives and interests that are not aligned. Capturing and sharing information may be difficult, not only because the technology involved may not be available or interconnected, but also because of differences in definitions, cultures, viewpoints, regulations, and available resources.

³⁹ Substance Abuse and Mental Health Services Administration. National Behavioral Health Quality Framework. SAMHSA web page. Last updated October 30, 2014. <http://www.samhsa.gov/data/national-behavioral-health-quality-framework>

⁴⁰<http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/CMS-Measures-Inventory.html>

⁴¹<http://www.qualitymeasures.ahrq.gov/>

Looking ahead, as more residents become insured through Rhode Island's Medicaid program or HealthSourceRI, there will be an uptick in demand for behavioral health services in the state. Aligning the needs of the population with an adequate supply and range of services aimed at improving health outcomes through evidence-based, cost-effective care is critical at this juncture. A key challenge for Rhode Island will be moving the system from the delivery of reactive treatment services to one that is focused on improving the health of its children through prevention, early intervention, and delivery of a coordinated, patient-centered array of services to individuals in need of behavioral health treatment. In order for this to be effective, State agencies that address behavioral healthcare must have a coordinated response. This coordinated response must also be aligned with the needs and assets within local communities.