

Psychiatric Community Crisis Services for Youth



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KEYWORDS

- Community • Child • Family • Psychiatry • Crisis • Emergency • Services
- Interventions

KEY POINTS

- Epidemiologic data reflect increasing numbers of children and families presenting to emergency services for psychiatric care; however, standard emergency departments are often under-resourced to effectively meet their needs.
- A variety of care models have been devised to better support youths and families in psychiatric crises; these include mobile crisis services, phone triage lines, and observation and brief residential services.
- Key tenets to implementing such services include coordination with community stakeholders, leverage and collaboration with existing agencies, assessment and application for funding sources, evaluation and education around staffing needs, and continued quality improvement.
- Data reflect improved outcomes clinically and financially when communities implement a continuum of crises services.

INTRODUCTION

Children and families are seeking behavioral health care in record numbers, often with severe symptoms, including suicidal ideation, aggression, high risk-taking behaviors, and psychosis. In most communities, children and families in crisis present to emergency departments (EDs), which are often ill prepared and/or underequipped to provide adequate psychiatric evaluation, stabilization, and discharge planning. Given the challenges faced by our traditional medical systems in meeting these needs, communities can greatly benefit from developing and expanding psychiatric crisis care services for youths and families.

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In this article, the authors highlight 2 crisis care models that have been successfully implemented at the community and state level. The authors review the development, implementation, as well as the clinical and financial outcomes of these models.

Data reflect what many health providers anecdotally observe: a continuous increase in children and families seeking care for psychiatric crises, including suicidal ideation, aggression, psychosis, substance intoxication, and severe family conflict. National data between 2006 and 2011 indicate a 50% increase in hospital admissions for mental health conditions, a 21% increase in ED visits for primary psychiatric concerns in children 10 to 14 years old, and a total of \$11.6 billion spent on mental health in hospital settings during this time frame.¹ With nationwide shortages of child psychiatric providers (particularly in rural and poor, urban areas²), a decrease in number and availability of inpatient and residential beds, and insufficiently developed community-based treatment systems, children and families often face limited options for crisis care outside of standard emergency services.³ Unfortunately, EDs often lack appropriate space and/or professionals with psychiatric training; so youths and families often face long wait times and limited options for intervention and follow-up. Children who are directed to inpatient admission may spend days boarding in EDs and inpatient medical floors, which occupies prized medical space and can be disruptive and stressful for youths and families.¹ Furthermore, there is limited evidence that inpatient treatment is the most effective treatment of many conditions, such as conduct disorder; other models of care are more effective for many children and families.³ With these considerations in mind, it is clear that thinking outside the box to consider a continuum of crisis care services can better meet community needs.

The Substance Abuse and Mental Health Services Administration (SAMHSA) defines crisis services as a “continuum of services provided to individuals who experience a psychiatric emergency, with goals of stabilizing and improving psychological symptoms of distress, and engaging individuals in an appropriate treatment service to address the problem that led to the crisis.”⁴ Crisis services generally involve screening, evaluation and risk assessment, brief solution-focused interventions, and referral and linkage to ongoing care. Many communities have adult crisis services, such as assertive community treatment and crisis intervention teams, which engage with individuals in their community setting and interface with law enforcement to provide care; however, such services are less prevalent for children and adolescents.⁴

Additional examples of core crisis services include phone triage and warm lines that help with assessment and referral of youths to appropriate services; mobile crisis units that “go out into the community to begin the process of assignment and definitive treatment outside of a hospital or health care facility”;⁴ and psychiatric teams embedded within EDs that respond to psychiatric needs or incorporate short-term observation and residential beds.⁴

Several communities have implemented psychiatric crisis services for youths; this article describes the development and integration of programs in Ventura County, California and in Connecticut. The development and implementation of these crisis services share several themes: teamwork with community stakeholders; leverage and development of current services; expanded hiring and training for staff; and ongoing evaluation and collection of outcome measures, including psychiatric admission rate, repeated use of the ED, and linkage to ongoing treatment.

The Ventura County Non-Hospital-Based Continuum of Care Model for Youths in Mental Health Crisis

Ventura County, California is situated along the Pacific Coast between Los Angeles and Santa Barbara counties; it has a population of approximately 850,000.⁵ Ventura

County Behavioral Health (VCBH) is the primary public mental health agency in this county, serving youths and adults with serious emotional and behavioral dysfunction and substance use disorders.

Overview

In 2014, county mental health providers and advocates raised formal concerns about increasingly limited local options for assessment, referral, and stabilization of youths in mental health crisis, leading to overuse of local EDs as interim placements. These concerns were evidenced by data: within the preceding 3 years, there had been a dramatic increase (68%) in calls, 43% increase in involuntary holds, and a 37% increase in psychiatric hospitalizations fielded by the countywide, mobile Children's Intensive Response Team. The county's only psychiatric hospital for youths was often full, as were other hospitals statewide, so many children were admitted far from home. At times, the Ventura County Adult Inpatient Unit would temporarily house youths until an adolescent bed opened; however, they soon ceased this practice, as they were not clinically licensed or equipped to handle this population, which led to further ED backups.

To better meet the community's burgeoning mental health needs, a Children's Crisis Task Force was developed. Stakeholders included individuals from the public health system, EDs, juvenile probation, child welfare, law enforcement, and mental health treatment agencies. The task force's mission was to evaluate best practices for youths in mental health crises and devise recommendations for a countywide continuum of care services. The task force embraced services as a mobile mental health crisis team, short-term crisis and residential units, and a community aftercare team to ensure connection with services. VCBH was charged with implementation of the model, either directly or through contractual arrangements with other clinical organizations (Fig. 1).

The VCBH clinical administrative team toured several programs that provided innovative crisis services for inspiration and examples; they decided to contract with a locally based nonprofit agency (Seneca) that had experience providing a youth mobile crisis response team, partial hospitalization, one-to-one intensive stabilization services, and short-term crisis residential programs. The County Board of Supervisors supported the purchase and remodeling of facilities to house the services.

Clinical staff were hired and trained and connected with county leadership to develop assessment and treatment protocols and procedures. This process involved multiple meetings to assure clear communication, definitions of roles and responsibilities, and seamless transitions of youths through the continuum of services. Specific flow charts were developed to assist EDs, schools, and group homes on protocols for accessing crisis services. A checklist was devised to help ED staff and first responders determine if a youth would need medical screening before admission to the psychiatric services. VCBH also expanded and retrained their existing adult mobile crisis team to include youth services.

Program Details

The Ventura County Children's Crisis Continuum consists of 4 main components: a 24/7 mobile VCBH crisis team, the less than 24-hour crisis stabilization unit (CSU), the short-term crisis residential team (CRT), and aftercare and connection to outpatient mental health services and other local resources through the VCBH Rapid Integrated Support and Engagement (RISE) Team (Fig. 2).

The Ventura County Mobile Crisis Team provides 24/7 crisis intervention, stabilization, and evaluation for county residents of all ages, regardless of

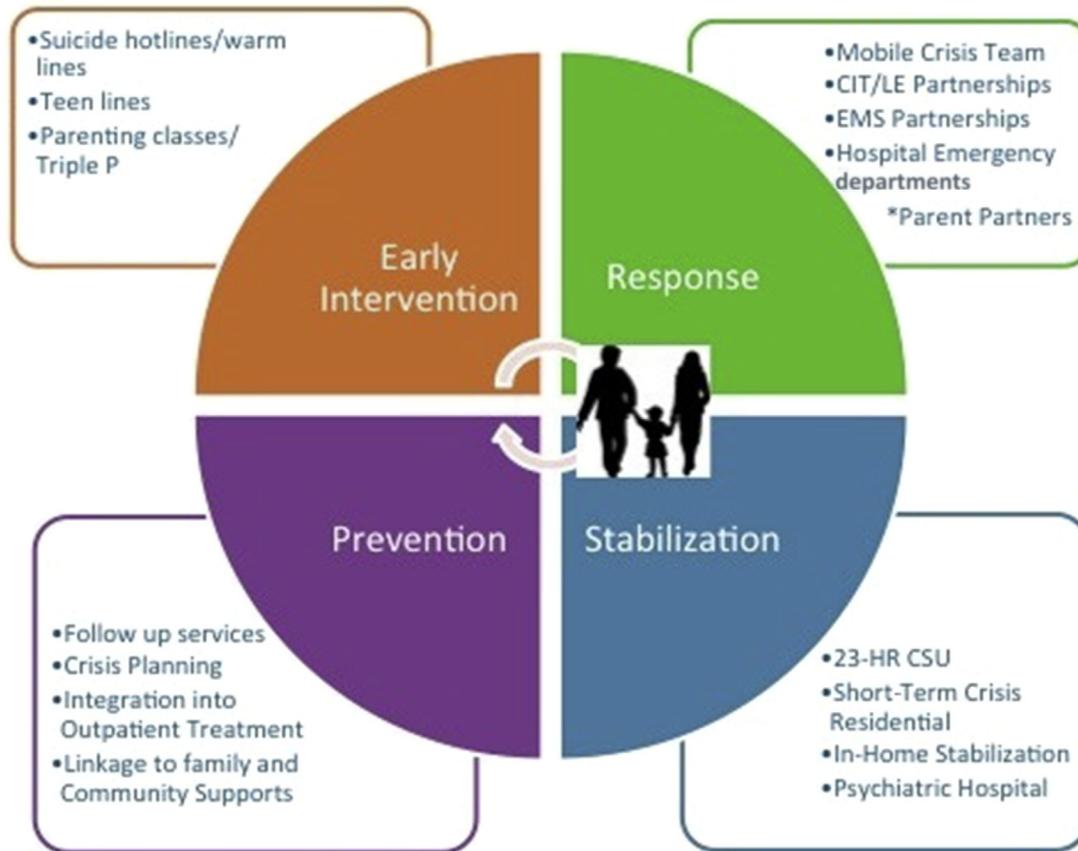


Fig. 1. Ideal full continuum of crisis services. EMS, emergency medical services; LE, law enforcement.

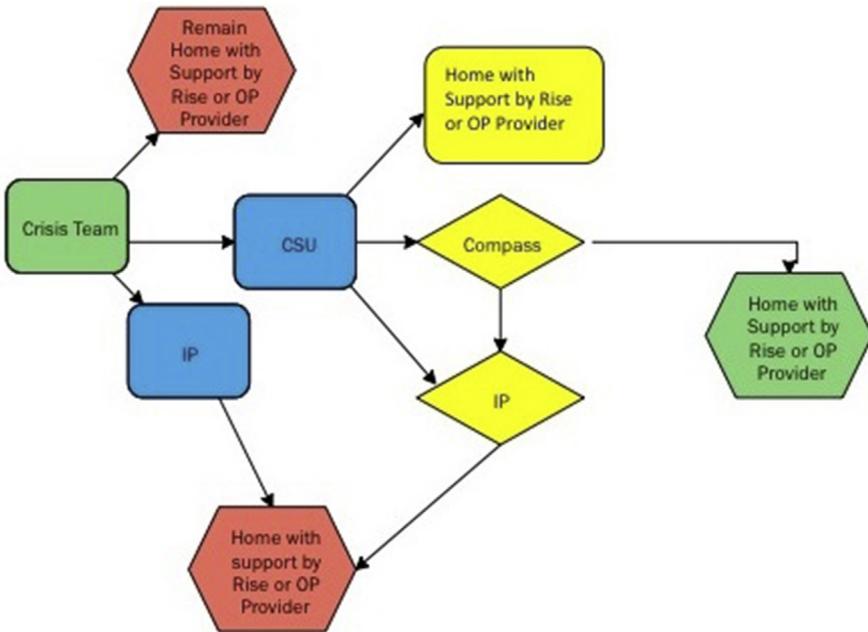


Fig. 2. Children's crisis continuum of care. IP, inpatient; OP, outpatient.

insurance status. Patients can be referred to higher levels of care when indicated. Goals for the mobile crisis team are to deescalate mental health crises and use tools to help youths remain at home/in the community, including safety planning and connecting families to resources and mental health services. The mobile crisis team can respond to any setting, including residences, schools, EDs, mental health and ambulatory care clinics, and Juvenile Hall. Staff represent many disciplines, including social workers, family therapists, nurses, and psychiatric technicians, and often respond to crises in pairs. They are supervised and supported by 2 program-specific administrators. The mobile crisis team is funded through a combination of direct billing to MediCal (California Medicaid) or private insurance, funds from the California Mental Health Services Act (MHSA), and state sales tax.

The CSU provides assessment, stabilization, and referral to mental health services for Ventura County youths ages 6 to 17 years, regardless of insurance status. It is licensed as a less than 24-hour, unlocked, 4-bed outpatient facility; youths can be accepted on a voluntary or involuntary basis. CSU is staffed by a multitude of providers, including masters' level clinicians, nurses, mental health counselors and child and adolescent tele-psychiatrists. Youths are assessed to determine if they can be stabilized enough to return home or require transfer to the CRT or inpatient psychiatric hospital for further intensive treatment. The goal of CSU treatment is to help youths and caregivers stabilize from acute crisis, develop a safety plan, and link with outpatient mental health providers. Direct billing to MediCal provides funding for services, supplemented by MHSA and the state sales tax fund (and possibly state funds in the future) (Figs. 3 and 4).

The Short-Term Crisis Stabilization Unit, called COMPASS, is an unlocked facility that serves up to 2 youths aged 12 to 17 years who are initially admitted to the CSU

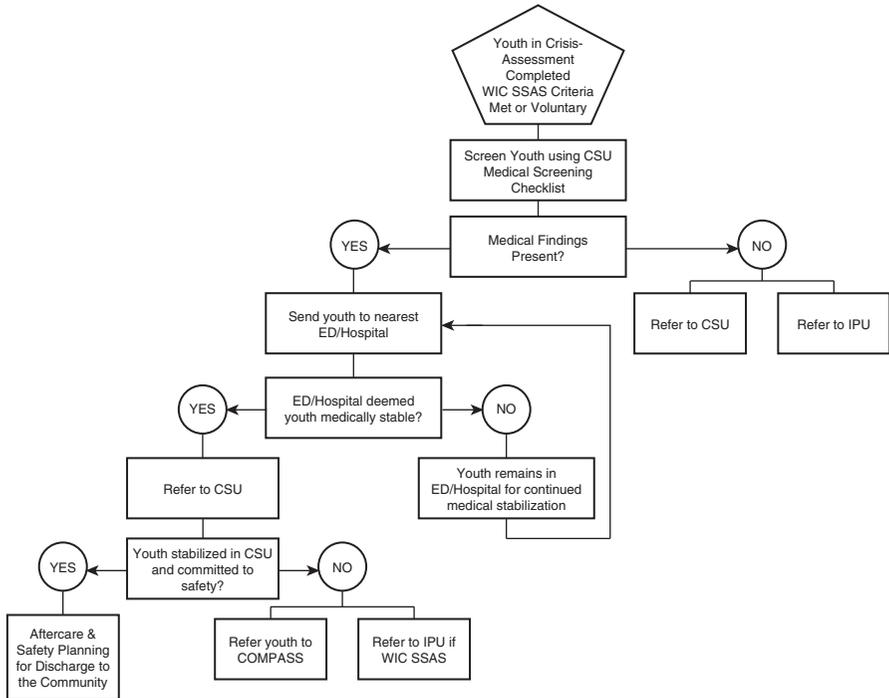


Fig. 3. Referral flow chart. COMPASS, Comprehensive Assessment and Stabilization Service (short term residential for Medi-Cal youth 12–17); CSU, VCBH Crisis Stabilization Unit-psychiatric treatment for youth 6–17 (regardless of insurance); ED, emergency department; Findings, medical findings based on checklists; IPU, inpatient psychiatric unit; VCBH, Ventura County Behavioral Health.

but require further stabilization and treatment services before returning home. Like the CSU, a multidisciplinary team staffs COMPASS; a tele-psychiatrist provides psychiatric assessment and follow-up for youths and consults with the treatment team, manages medication, and collaborates with outpatient mental health providers. While on the COMPASS unit, youths also receive intensive individual and family therapy, case management, and referral to aftercare services. An onsite teacher, funded by the county school districts, provides for temporary educational needs. At any point during their stay, youths can be transferred to a psychiatric hospital if needed. Otherwise they return home with a plan for outpatient mental health services, with aftercare services by the RISE program as appropriate. The length of stay may range from a few days to months. COMPASS is also operated by Seneca through a direct contract with VCBH: at this point only youths with Medi-Cal are eligible, but VCBH is exploring contracts with private insurance carriers as well.

The RISE program was developed as an innovative outreach engagement and referral team to serve Ventura County individuals of all ages who are having difficulty accessing mental health services. Referral sources include EDs, law enforcement, psychiatric hospitals, NAMI and other family/peer support groups, schools, and the CSU and COMPASS programs. Providers for the RISE program assess an individual's basic needs, provide connection to resources (eg, to food bank, bus tokens, shelter,

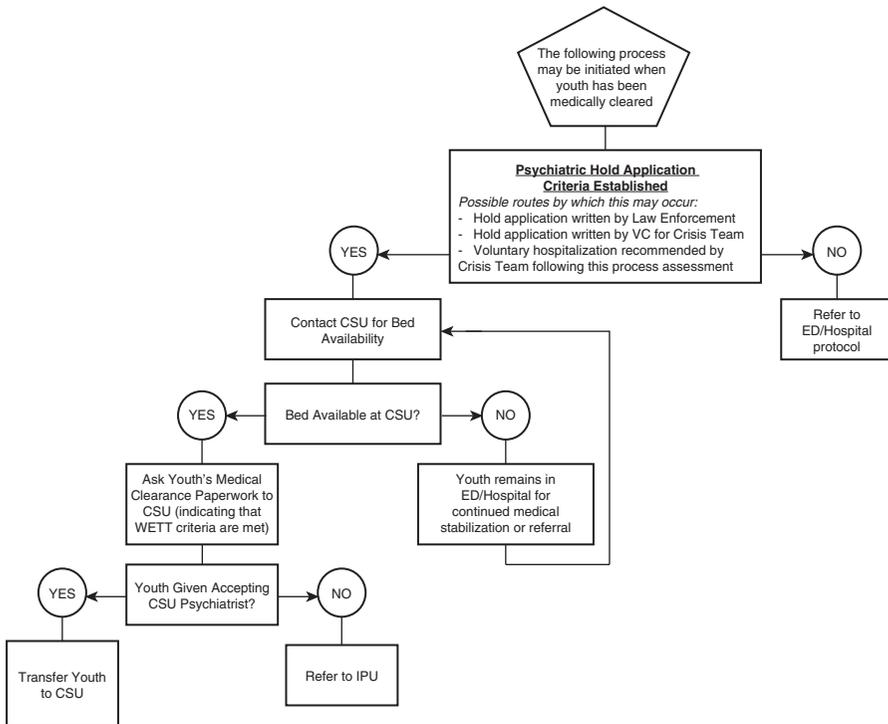


Fig. 4. ED CSU protocol flow chart. CSU, VCBH Crisis Stabilization Unit (psychiatric treatment for youth 6–17 years (regardless of insurance); ED, emergency department; IPU, inpatient psychiatric unit; VCBH, Ventura County Behavioral Health; WETT, walk, eat, talk, toilet.

transportation), and refer to outpatient mental health services. Parent Partners from United Parents, a local peer support nonprofit agency contracted with VCBH, work closely with the RISE team to encourage increased caregiver involvement through the shared experience of raising a child with mental health challenges. RISE staff and Parent Partners can initiate contact with youths and families during hospitalization or in the CSU or COMPASS program. It is funded through a state crisis services grant awarded to VCBH as well as direct billing to MediCal.

Data

Between May 2016 and June 2017, the Mobile Crisis Team responded by phone or in person to 1503 calls; 33% of calls originated from local EDs, 24% from school, 16% from an outpatient treatment provider, 12% from a family member, and 12% from law enforcement (Fig. 5). Fifty-eight percent of the calls involved a youth already enrolled in services through VCBH.

In terms of insurance status, 66% had MediCal, 25% private insurance, and 9% were uninsured or unknown insurance status.

Eighty-four percent of the calls were due to concerns about self-harm and 13% percent for harm to others. The Mobile Crisis Team responded in person to 84% of the calls. Regarding crisis resolution, 52% of the calls were stabilized in the community, 24% were hospitalized involuntarily, 5% hospitalized voluntarily, and 16% were resolved by phone intervention (Fig. 6).

| Asset Type | Amount |
|---------------------|----------|
| Local ED | \$33,000 |
| Local School | \$24,000 |
| Outpatient Provider | \$16,000 |
| Family Member | \$12,000 |
| Law Enforcement | \$12,000 |

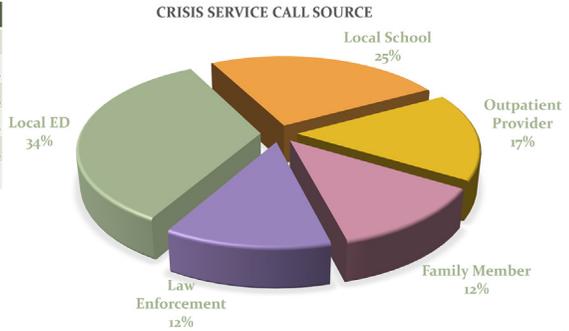


Fig. 5. Crisis service: call source.

For the CSU, in 2016 to 2017, there were 241 admissions (47 of these readmissions). With regard to insurance status, 67% of youths had MediCal and 33% had private or no insurance. Girls accounted for 58% of the admissions, and 82% were aged 12 to 17 years. Half of the youths identified themselves as Latino. The most common primary admitting diagnoses were depressive disorder (61%), anxiety/stress related/adjustment disorder (21%), conduct disorder (4%), nonspecific mood disorder (4%), bipolar disorder (2%), and attention-deficit/hyperactivity disorder (2%). Approximately 56% were admitted on an involuntary hold. In terms of disposition, 62% were successfully diverted from an inpatient hospitalization.

For COMPASS, in the first 3 months, 4 youths were admitted; the initial was an especially aggressive child who required a high level of attention, preventing any other admissions for almost 2 months while awaiting placement in an out-of-state residential treatment center.

CONNECTICUT'S MOBILE CRISIS INTERVENTION SERVICE

Overview

Connecticut's Mobile Crisis Intervention Services (Mobile Crisis) is a core element of the state's children's behavioral health service array, funded and overseen by the

| Asset Type | Amount |
|-----------------------------|----------|
| Stabilized in the Community | \$52,000 |
| Hospitalized Involuntarily | \$24,000 |
| Hospitalized Voluntarily | \$5,000 |
| Resolved by Telephone | \$12,000 |

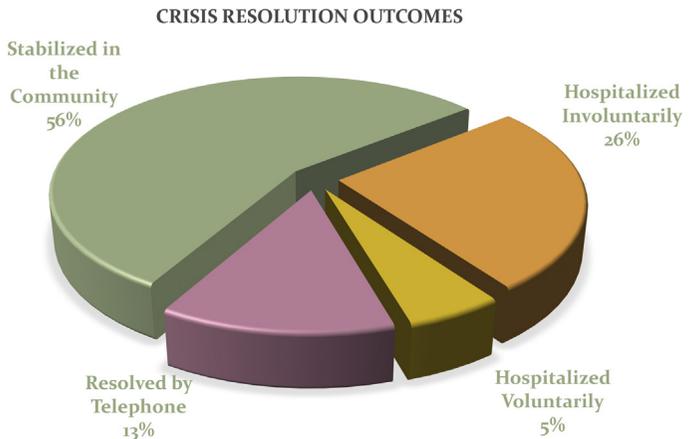


Fig. 6. Crisis resolution outcomes.

Connecticut Department of Children and Families (DCF). Connecticut DCF is one of the country's few consolidated children's agencies, with statutory responsibility for child protection, children's behavioral health, and substance abuse services and prevention. Connecticut's Mobile Crisis service embodies many of the best practices identified by SAMHSA, including 24/7 availability, rapid deployment to home or community locations, warm phone lines, crisis stabilization, crisis safety planning, short-term treatment, and linkage to ongoing care.⁴

A key feature of Connecticut's model is that the caller, not the call center intake specialists or responding providers, defines what constitutes a crisis. In many crisis response services, calls are triaged by varying criteria, often including a determination by the provider as to whether the call represents a true crisis. By allowing a crisis event to be defined by the caller, referrals are infrequently screened out, which helps to facilitate early identification and intervention and allows children and families broader access to the behavioral health system. To further support accessibility and convenience, Mobile Crisis is available free of charge to all children in the state younger than 18 years (or younger than 19 years if still enrolled in school) regardless of system involvement, insurance type, or ability to pay. Connecticut DCF provides sufficient grant funds to Mobile Crisis providers to ensure this level of accessibility, and providers supplement DCF grant funds with third-party reimbursement from Medicaid and commercial insurance.

The primary goals of Mobile Crisis are to keep children out of the ED, inpatient hospitals, and out-of-home placement, whenever community-based service delivery can be provided as a safe and effective alternative. Mobile Crisis service providers collaborate closely with families, community services and supports, schools, and EDs.

Program Details

Connecticut's Mobile Crisis system has 3 core components. The first is the provider network, which is organized around 6 primary contractors that collectively operate 14 sites, strategically located throughout the state to ensure full geographic coverage and the capacity for rapid response. Mobile crisis sites are generally located within large community mental health centers for children that operate a broad array of mental health and substance abuse services. Each of the 6 primary contractors employs a Mobile Crisis Director, site supervisors, and a sufficient number of master's level licensed (or license-eligible) clinicians to meet the demand at peak hours. In addition, each Mobile Crisis contract provides for dedicated psychiatric consultation with a board-certified child and adolescent psychiatrist. Following the initial response, clinicians can work with a family for up to 6 weeks, although the average service duration is 2 to 3 weeks. Core services include rapid mobile response, crisis stabilization, brief treatment, and referral and linkage to ongoing care.

The second component of the Mobile Crisis system is the statewide call center. Referrers can access Mobile Crisis by dialing 2-1-1 anywhere in the state. The statewide call center is open 24/7 and is operated by the United Way of Connecticut; it is staffed by trained intake clinicians. Hours of mobility are 6 AM to 10 PM on weekdays and 1 PM to 10 PM on weekends and holidays. For calls fielded during mobile hours, the 2-1-1-intake clinician collects basic information, including name, age, location, and the nature of the concern. Then the call is transferred to the appropriate mobile crisis provider for that child's location. For calls that arrive during nonmobile hours (4.5% of all calls), the caller speaks to the intake specialist, who then notifies the local provider for follow-up during mobile hours the following day.

The third component of Connecticut's Mobile Crisis system is the Performance Improvement Center (PIC). The PIC is housed at the Child Health and Development Institute of Connecticut and is responsible for data analysis, reporting, quality

improvement activities, standardized practice development, and workforce development. The 2-1-1 and Mobile Crisis providers record information for every episode of care in DCF's Web-based data collection system; the PIC extracts those data for analysis of key indicators, including sociodemographic and clinical characteristics, performance measures, and outcomes. Key performance measures include benchmarks, such as episode volume, mobile response rates, and mobile response times. Mobile Crisis providers are required under contract with DCF to provide a mobile response to at least 90% of all calls and to arrive on site in 45 minutes or less for at least 80% of all mobile responses. Performance indicators and other data elements are reported on a monthly, quarterly, and annual basis for the statewide network, for each of the 6 contracted service areas and each of the 14 provider sites. Data are shared openly and transparently with all providers and DCF and are made available to the public at www.empsct.org. Those data are used to inform the development of quarterly performance improvement plans.

Data

Since robust data collection on the service began in fiscal year 2010, Mobile Crisis has provided 81,400 episodes of care. In fiscal year 2017 alone, Mobile Crisis provided 13,461 episodes of care, a rate of 16.5 per 1000 children in the state and 31.65 per 1000 among children living in poverty (Fig. 7).

Approximately 40% of referrals to Mobile Crisis are from families and 35% are from schools; approximately 65% are enrolled in Medicaid and 30% are privately insured. Mobile Crisis serves a roughly equivalent number of boys and girls; the largest proportion of youths served are 13 to 15 years old (33.2%). Of the children for whom race was reported, most of the children served were white (62.0%), followed by black (23.0%) and other race (12.1%). Approximately 32% of youths served identified as Hispanic (any race). Importantly, the percentage of youths served by the Mobile Crisis who identify as black or Hispanic is higher than the percentage in the statewide population (46% of children served by Mobile Crisis are black or Hispanic compared with 34% of the statewide population composed of black and Hispanic youths), in contrast to many behavioral health programs that tend to underserve youths of color.⁵⁻⁸ On key

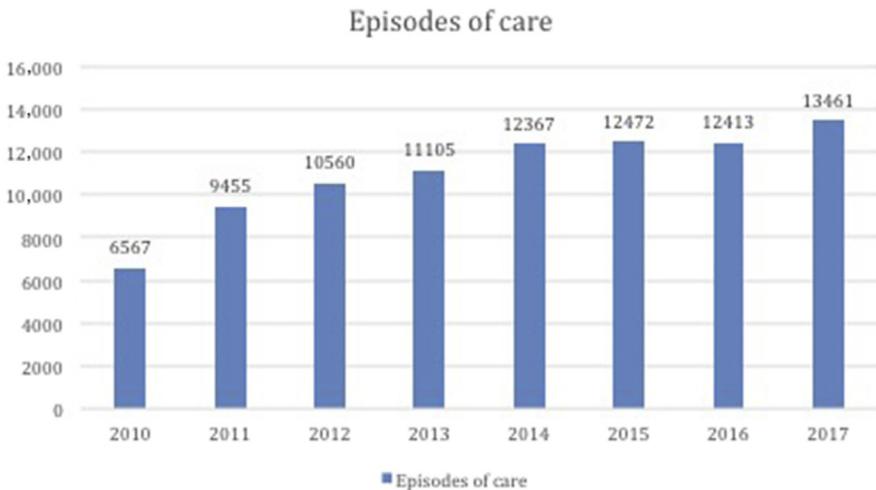


Fig. 7. Number of episodes of care by year.

performance indicators, all 6 service areas met or exceeded the benchmark that at least 90% of referrals will result in a mobile response (statewide average of 93%) as well as the benchmark that at least 80% of all mobile responses will occur in 45 minutes or less (statewide average of 88%, median response time of 27 minutes). With respect to the estimated cost savings of Mobile Crisis, in fiscal year 2017, 449 referrals were inpatient diversions. Of these referrals, 62% (278) were youths enrolled in Medicaid. These diversions resulted in an estimated saving of \$2,945,966 in Medicaid costs.

SUMMARY/DISCUSSION

Recent data indicate that many children and families first seek mental health care in emergency settings; this can be associated with less favorable clinical outcomes and can be financially taxing.^{1,9} Thus, communities can benefit from the development and expansion of a continuum of nonhospital youth psychiatric crisis care services to better meet their needs. As reviewed in this article, there are multiple types of crisis services, ranging from phone triage lines, to mobile crisis units, to brief stabilization and observation units for youths. By using a continuum of crisis services, communities can help divert youths away from EDs, provide the most appropriate level of evaluation and assessment, and refer and coordinate to longer-term outpatient services.

For communities hoping to expand community crisis services, collaborating with key local stakeholders, identifying funding sources, evaluating/leveraging existing services, and expanding staffing and training are important foundational tenants. Hospitals and communities can establish clear policies and practices to ensure early identification of youths who are appropriate for diversion from the ED and toward community-based alternatives, whenever these services can be provided as a safe and effective alternative. The community can also improve education around appropriate use of the ED, how to access community-based alternatives, and also to help communities formalize linkages between hospitals and community-based resources.

REFERENCES

1. Torio CM, Encinosa W, Berdahl T, et al. Annual report on health care for children and youth in the United States: national estimates of cost, utilization, and expenditures for children with mental health conditions. *Acad Pediatr* 2015;15(1):19–35.
2. Kim WJ, Bechtold D, Brooks BA, et al, American Academy of Child and Adolescent Psychiatry Task Force on Workforce Needs. Child and adolescent psychiatry workforce: a critical shortage and national challenge. *Acad Psychiatry* 2003;27:277–82.
3. Vanderploeg JJ, Lu JJ, Marshall JJ. Mobile crisis services for children and families: advancing a community-based model in Connecticut. *Child Youth Serv Rev* 2016; 71:103–9.
4. Substance Abuse and Mental Health Services Administration (SAMHSA) crisis services: effectiveness, cost-effectiveness, and funding strategies [Report No. (SMA)-14-4848]. Available at: <http://store.samhsa.gov/product/Crisis-Services-Effectiveness-Cost-Effectiveness-and-Funding-Strategies/SMA14-4848>. Accessed October 5, 2017.
5. U.S. Census Bureau (2016). Quick facts: Ventura County, California. Available at: <https://www.census.gov/quickfacts/fact/table/venturacountycalifornia/PST045216>. Accessed October 5, 2017.
6. Shannahan RS, Fields S. Services in support of community living for youth with serious behavioral health challenges: mobile crisis response and stabilization

- services. Rockville (MD): Substance Abuse and Mental Health Services Administration; 2016.
7. Alegria M, Vallas M, Pumariega A. Racial and ethnic disparities in pediatric mental health child and adolescent psychiatric clinics. *Child Adolesc Psychiatr Clin N Am* 2010;19(4):759–74.
 8. Marrast L, Himmelstein D, Woolhandler S. Racial and ethnic disparities in mental health care for children and young adults: a national study. *Int J Health Serv* 2016;46(4):810–24.
 9. Gill PJ, Saunders NS, Gandhi S, et al. Emergency department as a first contact for mental health problems in children and youth. *J Am Acad Child Adolesc Psychiatry* 2017;56(6):475–82.e4.