



## Using Telehealth for Mental Health

School-based telehealth program increases access to mental health services for disadvantaged youth after Hurricanes Rita, Katrina, and Ike

### SUMMARY

Mental health problems among children and families in Galveston, Texas, intensified in the wake of three major hurricanes that struck the area between 2006 and 2008.

In response, from 2006 through 2011 staff at the [University of Texas Medical Branch](#) launched and ran [Telemedicine for School-Based Mental Health](#), a project to provide mental health services to disadvantaged students in Galveston County. Under the program, clinicians on the university campus used videoconferencing to evaluate and treat students, while case managers in schools coordinated their care.

The project aimed to improve students' overall mental health while reducing absenteeism, drug use, and violent behavior.

### Key Results

In interviews and reports to the Robert Wood Johnson Foundation (RWJF), project staff cited these results:

- They established mental health clinics in nine middle schools and high schools in four districts in Galveston County, and a clinic at the Galveston County Juvenile Justice facility designed to divert children from the justice system.
- The clinics provided counseling to 3,247 youths, mostly through videoconferencing.
- The project became the primary provider of pediatric psychiatric services in Galveston County, according to the project directors.

### Funding

RWJF supported this project from July 2006 to July 2010 with two grants totaling \$734,442. It started as part of the [Robert Wood Johnson Foundation Local Funding Partners](#) program; the second grant was outside the program.

## CONTEXT

The stresses of Hurricanes Katrina and Rita in August and September 2005 intensified the need for adolescent and child mental health services in Galveston, Texas, where 60 percent of students are eligible for free or reduced-price lunch. Hurricane Ike, which hit the area in September 2008, made this need even more urgent.

Many of Galveston County's children suffered from attention deficit hyperactivity disorder (ADHD), depression, eating disorders, and post-traumatic stress even before the hurricanes hit, according to project directors Ben Raimer, MD, and John F. Thomas, PhD, LCSW. However, many of these youths had never seen a mental health counselor because of an inability to pay for such services, a lack of transportation, and social stigma, among other barriers.

The University of Texas Medical Branch was already staffing primary care clinics in four schools in the district, and staff had used telemedicine to provide mental health services in rural areas. However, the university had not combined the two approaches to create a school-based telemedicine system.

The University of Texas Medical Branch (UTMB), in Galveston, includes the [UTMB Center for Telehealth Research and Policy](#). Raimer is senior vice president for the Office of Health Policy and Legislative Affairs at UTMB, and Thomas is the office's program director.

### RWJF's Interest in This Area

RWJF supported this project under its *Robert Wood Johnson Foundation Local Partners Funding Program*, in which local foundations match RWJF grants for projects developed at the local level. (See the [Program Results Report](#).)

RWJF previously supported the use of telemedicine for underserved populations. In 2009, for example, RWJF awarded a three-year, \$5 million grant to [Project ECHO](#) (Extension for Community Healthcare Outcomes), which uses telemedicine to bring specialty care to patients with chronic medical conditions in rural and underserved areas of New Mexico. (See the Grantee Profile on [Project ECHO](#).)

For an overall account of RWJF's response to Hurricanes Katrina and Rita, see *In the Eye of the Storm*.

## THE PROJECT

From 2006 through 2011, staff at the [University of Texas Medical Branch](#) launched and ran [Telemedicine for School-Based Mental Health](#) to provide services to disadvantaged students in Galveston County. Under the program, clinicians on the university campus

used videoconferencing to evaluate and treat students, while case managers in schools coordinated their care.

The project aimed to improve students' overall mental health as well as reduce absenteeism, drug use, and violent behavior.

Cases included:

- *A seven-year-old girl with ADHD brought in by her mother for difficulty in school.* The child had had life-long exposure to violence and traumatic events. Her biological father was not in her life, and multiple stepfathers had been violent with her mother, once setting her on fire in front of the child. She had lived in four different shelters in two years, and witnessed the death of her toddler brother when he was run over by a car. The mother was bipolar.
- *A 14-year-old girl suffering from post-traumatic stress disorder, anxiety, and depression.* She had been raised by her grandmother owing to her parents' drug use, and had had no contact with her father—who was in and out of jail—in 10 years. She also had limited contact with her mother. She came to the clinic in constant fear after having been sexually assaulted by a gang member, and had tried to commit suicide by eating poisonous plants.
- *A six-year-old boy with severe ADHD and oppositional defiant disorder.* The student had multiple school reports of dangerous and abusive behavior toward staff and other students. He had reportedly turned an entire classroom "inside out" numerous times, throwing chairs around the room, removing all clothes and backpacks from hooks, running out of the classroom, and tackling and beating children in the hallway and outside.

For many students, Telemedicine for School-Based Mental Health offered not just a first opportunity to consult a mental health professional, but also "their first opportunity to be treated...in a holistic way, connected to other services that met their complex needs," Thomas noted.

### **Hurricane Ike Brings Greater Urgency**

When Hurricane Ike hit the Texas coast in September 2008, a 12–14-foot storm surge forced Galveston officials to evacuate more than 90 percent of residents, and some remained out of their homes for weeks. "The impact on the children of Galveston was catastrophic," according to a grantee report to RWJF. Low-income families, in particular, struggled to replace basic items, including children's clothing.

When schools reopened, "teachers and counselors had problems with children who before the storm had not been problem prone," according to the report. Referrals to the telemedicine program "skyrocketed": the number of visits in October 2008 alone equaled the total for the project's first year. In response, RWJF awarded a second grant to allow

staff to expand the program to more schools and districts, train more school employees to use the equipment, and inform more parents about the program.

To help evaluate the project, staff asked participating parents to complete a survey at the end of each year, or when their children left treatment.

## Other Funding

The project also received funding from local, state, and national agencies and foundations. See the [Appendix](#) for a list of these funders.

## RESULTS

In interviews and reports to RWJF, project staff cited these results:

- **They established mental health clinics in nine middle schools and high schools in four districts.** The project also created a mental health clinic at the Galveston County Juvenile Justice facility, designed to divert children from the justice system by reducing recidivism. When the juveniles are discharged, the school-based clinics work with them to reduce the likelihood of their return to jail.

Students may walk into any clinic without an appointment, or receive a referral from a primary care or other service provider. Students and parents use state-of-the-art videoconferencing equipment, including flat-screen monitors, to interact with mental health clinicians at the University of Texas Medical Branch in real time. Onsite residents or fellows may also test students with oversight via teleconferencing from senior clinicians at the university.

Case managers at the clinics schedule the teleconferencing sessions, and may also refer students and families to community-based providers. The case managers coordinate services, remind students and families of appointments, and arrange transportation, if needed. Electronic medical records allow members of a treatment team to consult with each other.

- **The project provided video-based individual counseling to 3,247 youths, mostly through videoconferencing.** After the project's second year—before Hurricane Ike—surveys showed that:
  - 38 percent of participants were non-Hispanic White, 31 percent were Black, 30 percent were Hispanic, and 1 percent was Asian—mirroring the area's racial and ethnic composition.
  - 52 percent were in high school, 43 percent were in elementary or middle school, and the rest were preschool or post-high school. The project originally targeted adolescents but expanded to other ages because of demand, Thomas said.
  - 59 percent were male.

- 60 percent had no health insurance.
- ADHD was the most common diagnosis, affecting 37 percent of participants.
- **The vast majority of parents and guardians regarded the project as beneficial.** Of 430 respondents who completed the survey,
  - 81 percent said they were "satisfied with services my child received."
  - 75 percent said the program "helped with the child's treatment goals."
  - 81 percent said that "the people at the clinic stuck with us no matter what."
  - 94 percent said that "the staff treated me with dignity and respect."
  - 72 percent said that "as a result of services my child is getting along better with family members.
  - 68 percent said that "as a result of services my child is doing better in school."
- **Project staff worked with local service providers to form a Community Resource Coordination Group, which plans treatment for students with severe mental health challenges.** The state requires every county to provide and coordinate holistic services for such students, but the Galveston group had become "moribund," according to Thomas.
- **The program became the primary provider of pediatric psychiatric services in Galveston County, according to the project directors.** "We initially aimed to provide services to students with no other access," they noted. "However, the program has also become a provider to families with other options."
- **The Texas Legislature named the program a Best Practice Model for replication in other communities, and the federal Agency for Healthcare Research and Quality included the program in its online ["Innovations Exchange."](#)**

## LESSONS LEARNED

1. **Videoconferencing is an effective medium for delivering mental health services.** "Good clinicians are equally effective in person and over "TV,"" according to Thomas. "Children and adolescents like the approach, and it allows for efficient time management of consulting specialists."
2. **Cultural competence and appreciation of racial and ethnic diversity among patients and providers are vital in devising mental health programs.** Project staff did not initially consult some community-based providers, and "it took falling on our face in the first six months to realize that we needed to start over and engage both patients and providers through comprehensive outreach," said Thomas. "Ethnic and gender diversity in our clinical team is now more reflective of the local population."

3. **Sustaining a mental health program requires a varied funding strategy.** The project relied on a "braided model" composed of grants from local and national foundations; state and federal grants; contracts with local agencies, including the Galveston Independent School District; payments from public insurers such as Medicaid and the Children's Health Insurance Program (CHIP); and fee-for-service payments from private insurers. (Project Directors/Raimer, Thomas)

## **AFTERWARD**

In 2010, the Texas Education Agency awarded Telemedicine for School-Based Mental Health \$3.5 million over five years. Project staff has also applied for four federal grants to sustain the program, including a Promise Neighborhood grant from the U.S. Department of Education.

In December 2010, project staff was preparing a paper showing a statistically significant reduction in students' mental health symptoms between their initial counseling session and their third month in the program, according to Thomas.

---

**Prepared by: Paul Jablow**

Reviewed by: Sandra Hackman and Molly McKaughan

Program officer: Jane Isaacs Lowe

Grant ID #s 58030, 65706

Program area: Vulnerable Populations

---

## APPENDIX

### Other Funders

- U.S. Department of Health and Human Services (Social Services Block Grant), \$931,000
- Galveston Independent School District, \$550,000
- Texas Juvenile Probation Commission, \$246,000
- Annie E. Casey Foundation, \$240,000
- Rockwell Fund, \$150,000
- Texas Department of Health and Human Services, \$133,000
- Harris and Eliza Kempner Fund, \$100,000
- Dr. Leon Bromberg Charitable Trust Fund, \$100,000
- Jamail Galveston Foundation, \$100,000
- Moody Foundation, \$100,000
- Mary Moody Northern Endowment, \$100,000

## **BIBLIOGRAPHY**

### **Articles**

#### ***Journal Article***

Thomas JF, Temple J, Perez N and Rupp R. "Ethnic and Gender Disparities in Needed Adolescent Mental Health Care." *Journal of Health Care for the Poor and Underserved*, 22(1): 101–110, 2011. Available [online](#).

### **Communications or Promotions**

#### ***Grantee Website***

[www.utmbhpla.org/oth/Page.asp?PageID=OTH000739](http://www.utmbhpla.org/oth/Page.asp?PageID=OTH000739). Section of the University of Texas Medical Branch website devoted to the project. Galveston, TX: University of Texas Medical Branch.