

Using Telehealth to Improve Maternal and Child Health Outcomes in Georgia

The Georgia Department of Public Health's Office of Telehealth and Telemedicine partnered with county health departments to successfully implement a telehealth network in all 159 counties in the state. The telehealth and telemedicine programs aim to improve access to healthcare services, address workforce shortages, and reduce health disparities across Georgia.

According to the Georgia House Rural Development Council, 124 of the state's 159 counties are considered rural. Many women and children living in remote areas experience poor health outcomes due to provider shortages, hospital closures, lack of transportation, and financial barriers. Small scale telehealth efforts started over 20 years ago in Georgia to combat high rates of infant and maternal mortality. "Telehealth" is [defined](#) as "the use of electronic information and telecommunications to support long-distance clinical health care, health-related education, and health administration." "Telemedicine" is [defined](#) as "the use of medical information exchange from one site to another via electronic communication to improve the patient's clinical health status."

Georgia's legislature contributed to the success of telehealth in the state by increasing funding for the programs and encouraging multidisciplinary collaboration. The Georgia Department of Public Health (GDPH) also established partnerships with health providers, private healthcare organizations, and federal agencies, identifying the health needs and capacity of each of Georgia's 18 [public health districts](#). Partnering with specialists and other telehealth entities has been an important driving force for program expansion.

Steps Taken:

Nurses in Georgia's county health departments use GDPH-provided telemedicine carts to facilitate video conferences between patients and specialty providers for a variety of healthcare services. Each cart includes equipment such as a stethoscope, otoscope, general examination camera, dermo scope and, depending on the type of clinic, an ultrasound or colposcope. Health departments with telemedicine carts have access to approximately 200 additional medical specialists through an agreement between GDPH and the Georgia Partnership for Telehealth, a nonprofit provider telehealth network.

Women, Infants, and Children Nutrition Program

- In 2011, with support from the [Special Supplemental Nutrition Program for Women, Infants, and Children \(WIC\)](#), GDPH expanded its telehealth services across the state.

- Georgia's WIC telehealth services provide lactation and nutrition education to 300,000 clients every month.
- Georgia's Centering Pregnancy Program has a 98 percent adherence rate for follow-up care.
- Georgia's Children's Medical Services Program provided clinical services to 3,800 children within a 12-month period.

- To increase staff capacity and participant enrollment, the WIC program utilizes telehealth services in county health departments and WIC clinics. WIC staff, including a breastfeeding coordinator, connect virtually with women to provide lactation education, individual and group nutrition services, and formula management.
- County health departments provide participating mothers with breastfeeding education through virtual breastfeeding boot camps, including six 30-minute workshops on topics ranging from pumping to skin protection.

High-Risk Obstetrics Clinics

- In 2011, GDPH partnered with the Southwest Georgia Public Health District and an Atlanta maternal-fetal medicine specialist to provide telemedicine consultations for African-American and Hispanic women with high-risk pregnancies through the Centering Pregnancy Program. This public-private partnership was nationally recognized for reducing preterm labor rates in its targeted population from 18.8 percent to 8 percent across 500 pregnancies in an 18-month period.
- The Centering Pregnancy Program's high-risk obstetrics clinics typically serve cohorts of 12 women with similar gestational due dates. Cohorts meet in person for nine two-hour sessions before the 28th week of pregnancy, followed by meetings every two weeks until the 36th week of pregnancy. The maternal-fetal specialist participates virtually from her office in Atlanta. Sessions include individual assessments, facilitated discussions, and referral to specialty services if needed.
- The program provides childcare services to mothers during visits to reduce rates of missed appointments and loss to follow-up.

Children's Medical Services Program

- GDPH's Children's Medical Services program ([CMS](#)), funded through the [Title V Maternal and Child Health Services Block Grant Program](#), aims to ensure that children with chronic and complex needs have access to affordable, coordinated quality healthcare. In Georgia, access to pediatric subspecialists is particularly limited in rural areas. CMS uses telehealth and telemedicine to provide developmental and genetic services, asthma management, endocrinology, nephrology, pediatric neurosurgery, pulmonology, and sickle cell disease follow-up care.
- CMS has worked with specialty clinics through partnerships with pediatric healthcare systems, university systems, and private specialty providers. CMS recognized that increasing provider shortages necessitated more robust telehealth services to assist children with extensive medical requirements. CMS first implemented its telehealth services at a pulmonology clinic in Valdosta, Georgia, and slowly expanded this work to other counties throughout the state.
- Within a 12-month period, CMS offered 96 days of telehealth consultations at nine sites, based on patient caseload. The program predicts that it will continue to increase each year.
- Using existing Medicaid telehealth billing resources available through the Georgia Department of Community Health, county health departments facilitate reimbursement for presentation and appropriate billing codes for public programs.

Results:

- GDPH's telehealth efforts helped increase access and adherence to care and decrease waiting times and missed appointments, transportation barriers, and healthcare costs for Georgia residents.ⁱ
- GDPH has successfully deployed 23 telemedicine carts in rural public health clinics for high-risk obstetrics, teledentistry, genetic screening, infectious disease treatment, endocrinology, asthma and allergy services, behavioral health services, and teleaudiology services.ⁱⁱ
- The Centering Pregnancy Program notes an increase in adherence to follow-up care, with women actively seeking additional resources.
- In 2016-2017, through telehealth and in-person consultation services, the CMS program served over 3,800 children.
- During the 2016 legislative session, the Georgia General Assembly approved a \$2.3 million line item for the GDPH Office of Telehealth and Telemedicine to support telehealth infrastructure.ⁱⁱ
- GDPH maximized the utility of telemedicine carts and expanded the network of Georgia-licensed and Georgia-based telehealth providers.
- GDPH collaborated with Georgia universities to train medical students on telehealth visits with patients. Currently, Augusta University's HIV and Infectious Disease Program has telemedicine training for their medical students.

Lessons Learned:

- Establishing relationships with care coordinators who serve as facilitators during examinations builds trust, allowing patients and families to feel comfortable using technology.
- A consistent model of care and comprehensive stakeholder engagement are key to ensuring the sustainability and quality of telehealth and telemedicine programs.
- Physician involvement in decision making and training public health nurses and physicians is key to the success of telehealth initiatives.
- GDPH encourages feasibility studies. Through implementation of a pilot program, GDPH was able to demonstrate to stakeholders telemedicine's return on investment, leading to sustainable funding and support.
- GDPH views telehealth and telemedicine services as enhancing existing programs. The team encourages continuous quality improvement, ongoing training, and technology maintenance to provide high quality services. Having tech support available on site or virtually can prevent downtime and reduce unnecessary costs.

Opportunities and Next Steps:

- GDPH will continue to expand its telehealth network with additional sites and services.
- GDPH is implementing a web-based in-home telemedicine pilot program focusing on tele-speech therapy through GDPH's [Babies Can't Wait](#) early intervention program.
- GDPH's Office of Telehealth and Telemedicine is working with the Ryan White Program to develop a formal evaluation process for statewide HIV programs.

- GDPH will adopt a multi-disciplinary approach using technology to facilitate care coordination. This approach will provide an opportunity for all physicians to collaborate and discuss tests, results, and diagnosis, without any duplication of efforts.

For more information:

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ⁱ Georgia Partnership for Telehealth. "Georgia Telehealth Initiative". Available at <https://www.slideshare.net/gatelehealth/suleima-salgado-dph-telehealth-telemedicine-presentation-gpt-conferencessalgad>. Accessed 04-05-2018.

ⁱⁱ ASTHO. "Georgia Case Study: Enhancing Systems to Improve Health outcomes". Available at <http://www.astho.org/Prevention/UHF-Health-Rankings/Case-Study-GA/>. Accessed 03-08-2018.