Connected
A CONNECTED NATION Initiative

Addressing Your Community's Unique Needs

Maverick County, Texas
Executive Summary

September 2022

CONNECTED NATION
connectednation.org

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Methodist Healthcare Ministries of South Texas, Inc. is a private, faith-based, not-for-profit organization dedicated to creating access to health care for uninsured and low-income families through programs and services, strategic grant-making and advocacy in 74 counties across South Texas.

The mission of Methodist Healthcare Ministries is "Serving Humanity to Honor God" by improving the physical, mental, and spiritual health of those least served in the Rio Texas Conference area of The United Methodist Church.

The mission also includes Methodist Healthcare Ministries' one-half ownership of the Methodist Healthcare System – the largest health care system in South Texas. This creates a unique avenue to ensure that Methodist Healthcare System continues to be a benefit to the community by providing quality care to all, and charitable care when needed.

Overview

Maverick County Overview

Today, technology plays a pivotal role in how businesses operate, how institutions provide services, and where consumers choose to live, work, and play. A community's success has become dependent on how broadly and deeply it adopts technology resources, which include access to reliable, high-speed networks; the digital literacy of residents; and the use of online resources for local business, government, and leisure.

As such, Maverick County stakeholders partnered with the Connected Nation Texas (CN Texas) Connected Community Engagement Program to conduct a study designed to determine the availability of broadband infrastructure; how county residents are adopting and using broadband services; and what action steps would have the greatest impact toward improving broadband access, adoption, and usage across every local sector.

Pursuant of this goal, between February and June 2022, Maverick County conducted a comprehensive survey of broadband technology access and adoption across the community that collected responses from 643 households. CN Texas staff also met with county officials to determine community needs and gather qualitative data for consideration in the study.

This study approached broadband holistically, focusing on the quality of life offered when residents and community leaders alike access, adopt, and use broadband in a productive and meaningful capacity. With this approach, the assessment identified issues and action opportunities necessary to close the local Digital Divide.

Data collected as part of the engagement played an integral role in developing a unique, locally informed action plan for Maverick County. This document provides a summary of that assessment, as well as recommendations for improving broadband and technology access, adoption, and usage. Additionally, CN Texas created an interactive map that is available here.

MAVERICK COUNTY, TEXAS QUICK FACTS
Population 57,887
Households 15,563
Median Household Income $41,385
Poverty Rate 26.2%
Adults with a Bachelor's Degree or Higher 15.7%
Hispanic or Latino 94.9%
Households with Broadband Access[1] 98.79%

Source: https://data.census.gov/cedsci/profile?g=0500000US48323

[1]The current FCC definition of broadband is a minimum of 25 Mbps download and 3 Mbps upload. These data are derived from CN Texas and last updated in January 2022. https://connectednation.org/texas/planning/ Access represents the share of households where broadband service is available. Not all households who can access broadband service actually subscribe.

Maverick County Overview

55.4%

of households in Maverick County report subscribing to fixed internet service

For households that do not subscribe to home internet service, the top barriers are the cost of internet service and a lack of broadband service availability.

98.4% of households in Maverick County have access to internet service at speeds needed to run many modern applications (100 Mbps downstream and 10 Mbps upstream). Statewide, 93.6% of households have internet access at these speeds.

Nearly 3 out of 5 employed survey respondents in Maverick County (59.9%) report teleworking in some capacity. Of those, 28% telework every day, and an additional 21% telework several days per week.

35.2% of households and 37.5% of businesses reported that they were dissatisfied with their current internet service. The top reasons for dissatisfaction were slow speeds, high prices, and unreliable connections.

More than 8 out of 10 households (84.3%) said they would like to have improved or additional options for home internet service.

Infrastructure Results

Maverick County Infrastructure

According to CN Texas broadband data initially released in January 2022, followed by additional public feedback, field validation, and provider input, 98.79% of Maverick County households have access to broadband of at least 25/3 Mbps, the current definition of broadband set forth by the Federal Communications Commission (FCC). Broadband service in Maverick County is distributed throughout the county, with a concentration in the city limits of Eagle Pass and along the Texas-Mexico border.

Below is the list of internet service providers (ISPs) in Maverick County.

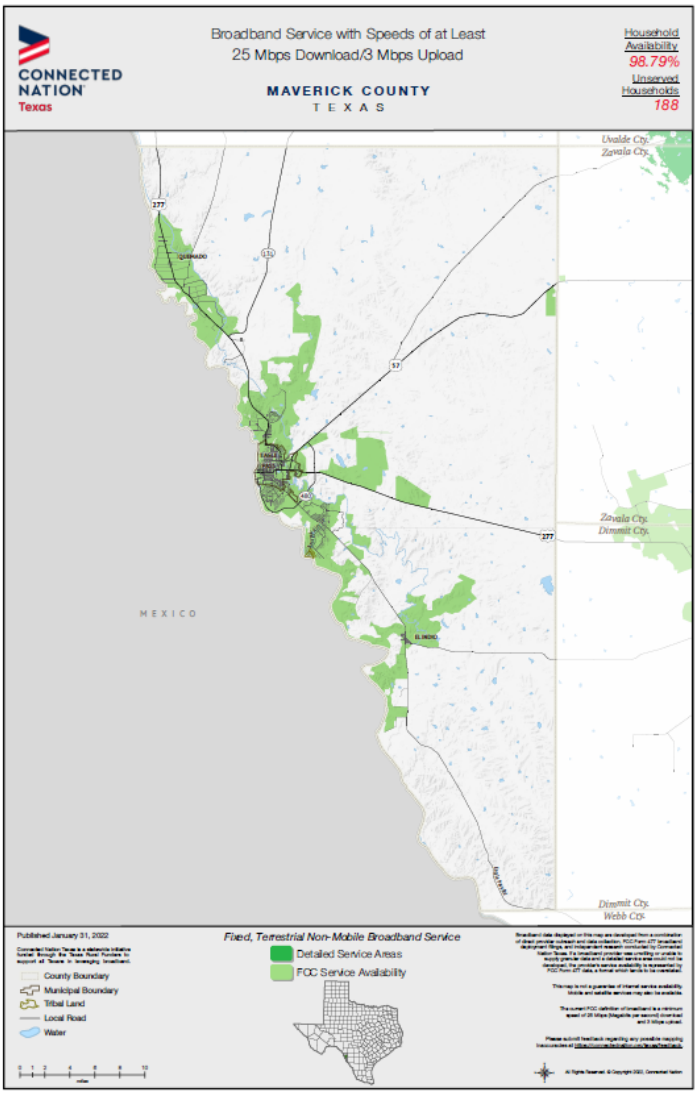
BROADBAND INFRASTRUCTURE QUICK FACTS
Unserved Households (25/3 Mbps) 188
Households Served (10/1 Mbps) 99.40%
Households Served (25/3 Mbps) 98.79%
Households Served (50/5 Mbps) 98.38%
Households Served (100/10 Mbps) 98.38%

Broadband data released by CN Texas in January 2022: https://connectednation.org/texas/mapping-analysis/

PROVIDER	TECHNOLOGY	MAXIMUM DOWNLOAD SPEED (Mbps)	MAXIMUM UPLOAD SPEED (Mbps)
AT&T Southwest	Fiber	1000	1000
AT&T Southwest	DSL	18	1.5
AT&T Southwest	Fixed Wireless	10	1
Inova Data Solutions	Fixed Wireless	20	5
Pathway	DSL	18	1
Rural Texas Broadband	Fixed Wireless	10	1
Spectrum	Cable	940	35
T-Mobile	Fixed Wireless	25	3

Maverick County Infrastructure

Below is Maverick County's (25/3 Mbps) map. To access the full map, go to https://connectednation.org/texas/county-maps/ and select Maverick County from the list. Portions of the county are served by internet service providers (ISPs) offering slower advertised speeds, and those areas are not shown on this map.



Broadband data published by CN Texas in 2022:
https://connectednation.org/texas/mapping-analysis/

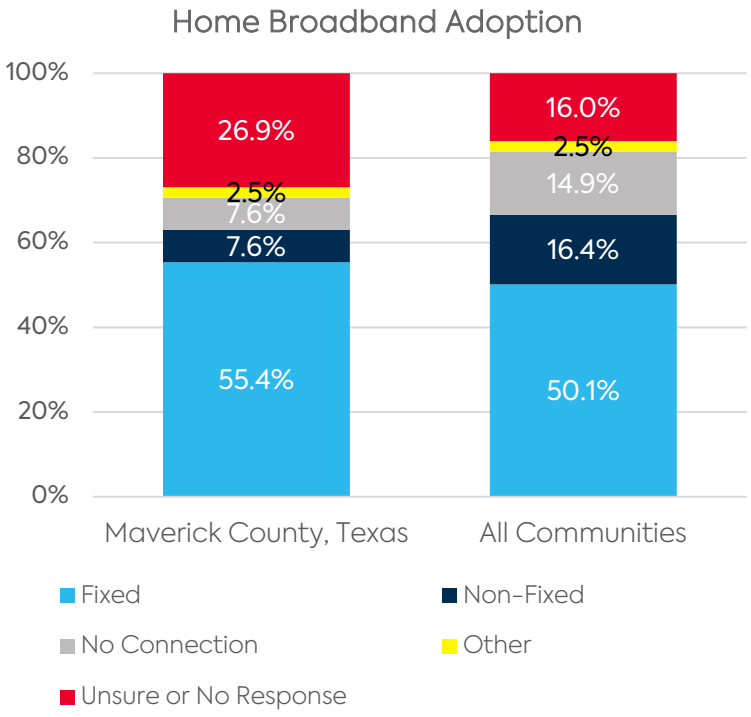
The first step in understanding the status of broadband infrastructure in Maverick County, and statewide, is having accurate maps. Accordingly, CN Texas works with providers to develop a variety of broadband maps at the state and county level. Data shown on this map are derived from a combination of direct provider outreach and data collection, FCC Form 477 broadband deployment filings, and independent research conducted by CN Texas. If a provider was unable or unwilling to supply granular data and a detailed service area could not be developed, the provider's service is represented by Form 477 data, a format that tends to overstate the service territory. To access the interactive map, click here.

Household Survey Results

Household Survey Results

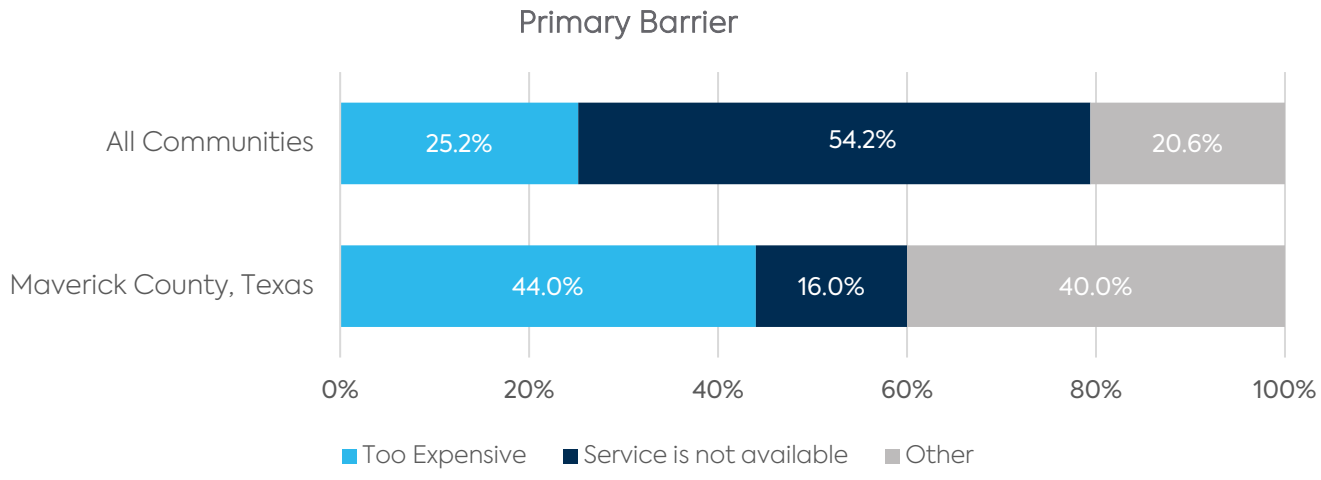
The following section provides an overview of results from a broadband survey conducted in Maverick County between February and June 2022. Altogether, CN Texas received 643 survey responses from households across the county; respondents provided insights into their internet connectivity, or lack thereof. Survey data from Maverick County respondents are compared to data from hundreds of other rural Connected communities that participated in the program across Michigan, Ohio, Texas, and Pennsylvania to benchmark and identify areas for improvement.

ADOPTION



In Maverick County, 55.4% of households that took the survey subscribe to fixed broadband service delivered via cable, DSL, fiber, or fixed wireless technology, while 7.6% indicate they have internet service delivered via dial-up, satellite, or mobile wireless service. This leaves 7.6% without internet and 26.9% of survey respondents unsure of what service they have, or provided no response.

Among those without a home internet connection, 44% said they did not have broadband because it was too expensive, and 16% said service is not available. Other possible survey selections included: not owning a computer (6%); not needing the internet (4%); not knowing enough about the internet to feel comfortable using it (2%); having internet access elsewhere, such as work, school, or the library, (10%); and other (18%).

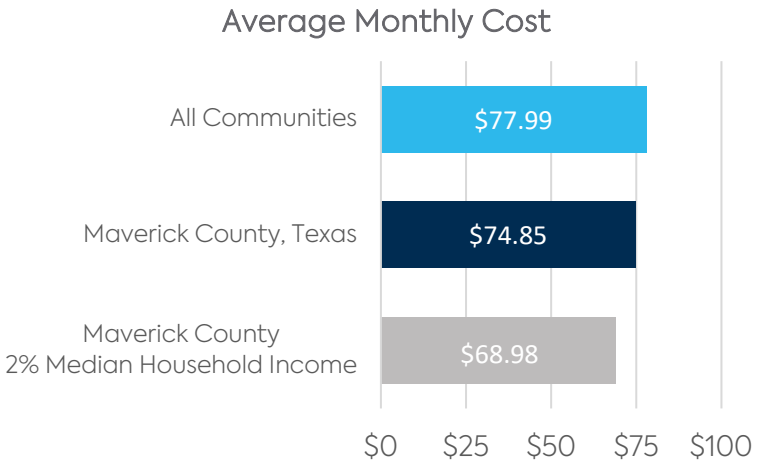


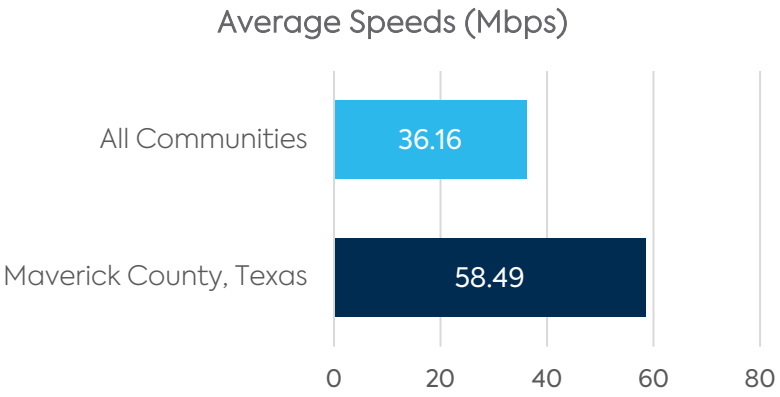
Household Survey Results

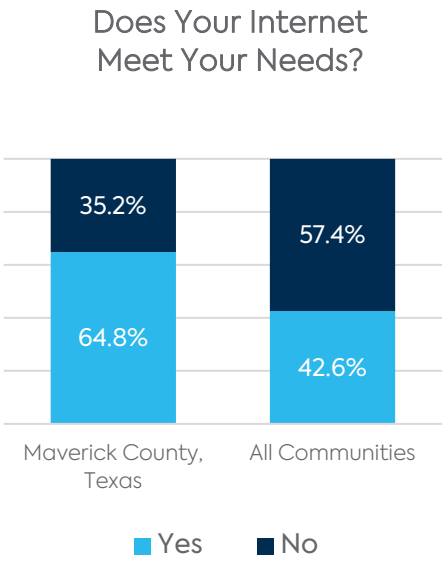
CONNECTION DETAILS

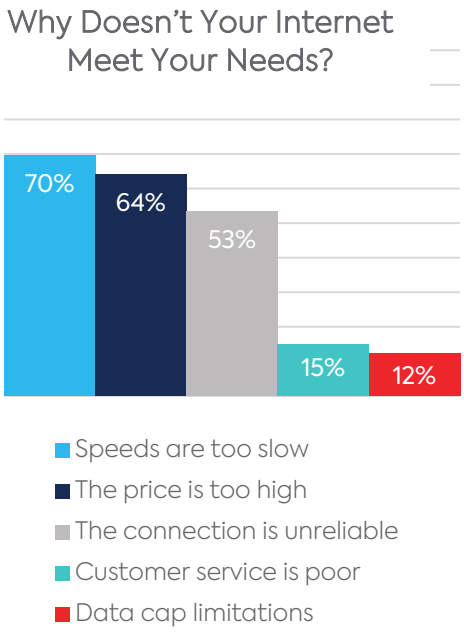
Two percent of monthly income is a recognized standard measurement for the affordability of a home internet connection. In Maverick County, two percent of the monthly income would be $68.98 per month; however, respondents indicate that their internet connection costs are higher on average, at about $74.85 per month.

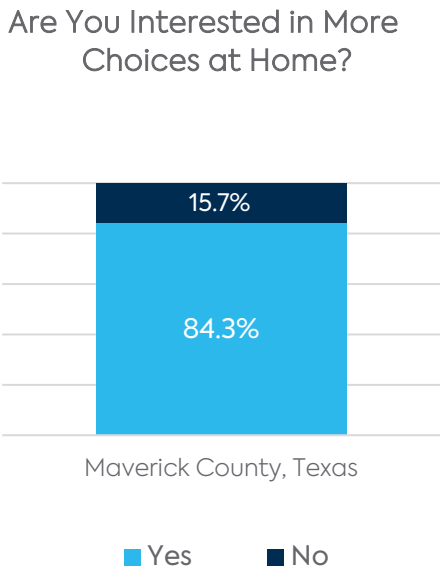
The FCC currently defines broadband as an internet connection with a download speed of at least 25 Mbps and upload speed of at least 3 Mbps. On average, respondents indicate that their connection's download speed is 58.49 Mbps, which is above the minimum defined speed.









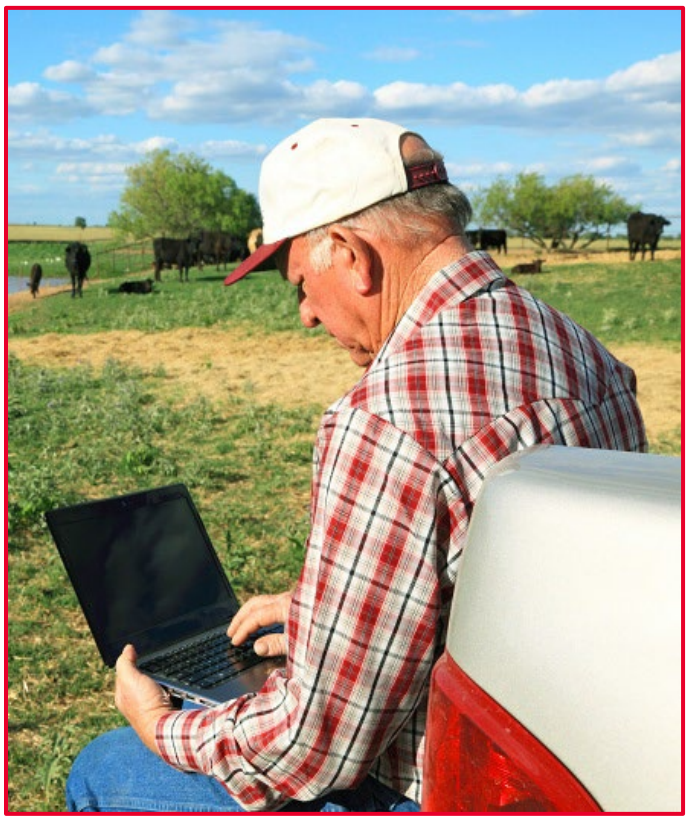


Household Survey Results

More than half (64.8%) of responding households indicate that their internet connection meets their needs. This is a higher rate of satisfaction than households in other communities (42.6%).

When asked why their connection does not meet their needs, 70% of dissatisfied households indicate that the speed is too slow, 53% say the connections are unreliable, and 64% indicate that the price is too high. Respondents could choose more than one reason for dissatisfaction.

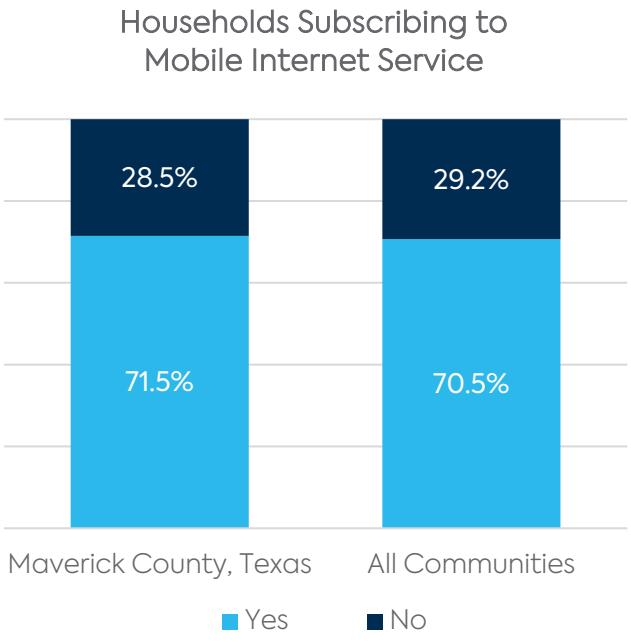
Most respondents (84.3%) indicate that they are interested in additional internet choices for their home.



MOBILE CONNECTIVITY

More than 2 out of 3 (71.5%) of households report they subscribe to mobile internet service that they access via a smartphone or similar mobile device. This is a little more than what is reported in other Connected communities (70.5%).

Additionally, 29.6% of mobile-connected households report that they either rely on those mobile connections as their primary source of home internet connectivity or use mobile service to connect other household devices to the internet.



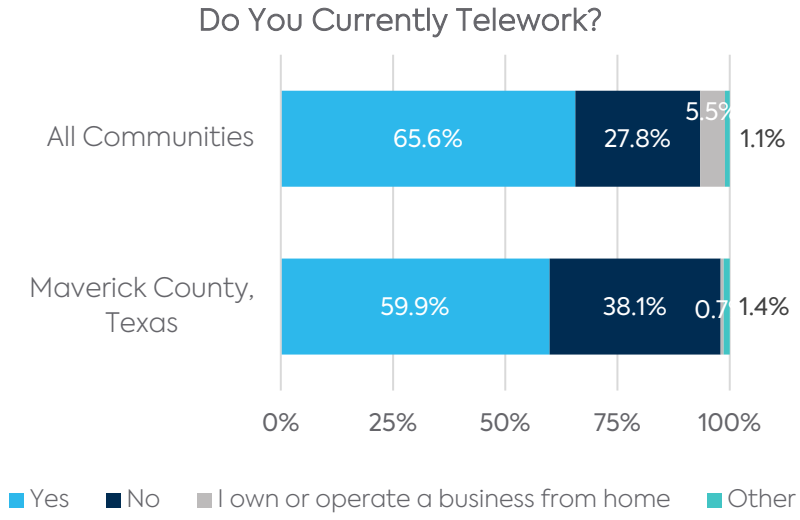
Household Survey Results

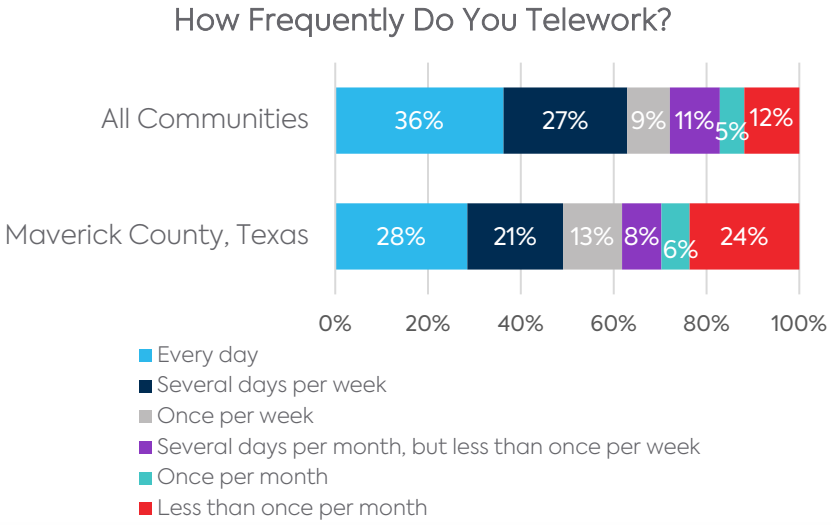
TELEWORK

Teleworking, or telecommuting, refers to working outside of the conventional workplace by way of telecommunications or computer-based technology. The COVID-19 pandemic forced many organizations to allow their staff to telework.

Teleworking is quickly becoming a critical part of growing a local economy because it represents an opportunity to attract and retain employees, even when employees are not located in the same community as their employers. However, this only works if those employees have access to advanced broadband infrastructure.

Nearly 3 out of 5 employed survey respondents (59.9%) indicate that they currently telework; 62% of these teleworkers work remotely at least once per week, while 28% of this group telework every day.





Recommendations

Recommendations

The following recommendations are presented to assist Maverick County in expanding broadband access and adoption throughout the community.

Goal 1: Improve internet speeds and digital equity in Maverick County through greater education, participation, and planning.

Objective: Establish broadband leadership and increase buy-in among community stakeholders.

The Maverick County Connected Community Engagement gathered a diverse group of community stakeholders, empowered them with knowledge, and created a large amount of interest and enthusiasm around improving internet connectivity in the region. This enthusiasm should be fostered to further develop the community initiative, Connect Maverick.

CN map data, published in January 2022, show that Maverick County is 98.79% served at 25 Mbps download and 3 Mbps upload, with 188 households unserved at 25/3; and 98.38% served at 100 Mbps download and 10 Mbps upload, with 253 households unserved at 100/10.

Federal funding programs exist to subsidize internet infrastructure buildouts in high-cost areas, which include rural areas with low population density, but these programs have many requirements and limitations. Community leaders should educate themselves about existing and upcoming programs to determine if opportunities exist for Maverick County.

Action 1 – Establish a permanent Broadband Council to advise the county, and appoint a broadband liaison to lead the effort.

To continue the work of the Maverick County Broadband Committee, a permanent council should be formed, and a liaison selected. Establishing leadership is essential. Whether paid or volunteer, part time or full time, this person will be the point of contact for broadband in the county. The council will help the county stay up to date on all things broadband, including new construction projects in the region, new laws, and funding opportunities, as well as maintain a local presence to keep the community interested and engaged in the process.

Members of the Broadband Council should include representatives from a wide variety of community stakeholders, such as:

- **Health Care:** Local physicians or hospital staff
- **Government:** County Judge, County Commissioners, Mayor, City Council, County IT Director
- **Education (K-12):** Superintendents, School IT Directors

- **Education (Higher Education):** University, community college, trade schools or workforce training
- **Public Safety:** County Sheriff's Office, Police Departments, Fire and Rescue and surrounding Volunteer Fire Departments, Emergency Medical Services
- **Agriculture:** County Agriculture Agent, leading agriculture producers
- **Business:** Chamber of commerce, economic development agencies
- **Community At-Large:** A local resident who is interested in furthering the broadband agenda of Maverick County

Broadband Council responsibilities should include:

- Keep abreast of state and national broadband policy initiatives and notable broadband news.
    - The Broadband Council should keep up to date on publications, events, and policy briefs published by the Texas Governor's Broadband Development Council (GBDC) and Broadband Development Office (BDO), as well as monitor notable broadband developments via industry newsletters and focused research.
    - Stay up to date on state and federal broadband legislation.
    - Attend workshops, webinars, meetings, and general trainings that discuss broadband specifically and telecommunications generally.
- Keep the community informed of projects and progress, and invite participation to maintain community buy-in and high adoption rates. Getting community buy-in is essential to long-term success and sustainability of community initiatives, and requires community support, transparency, and engagement. Not only will this help keep the momentum going, but will show internet service providers there is true interest for expanded service in the area, which will encourage greater investment in the region.
- Apply for applicable state and federal grants.
- Ensure digital engagement in Maverick County in all community sectors (telehealth, telework, online learning, Wi-Fi in businesses, etc.)
- Provide digital literacy and digital skills assistance to the community's at-risk populations.
- Participate in regular meetings. The Council should meet at least once a month. Meetings can be held virtually, in person, or in a hybrid capacity to accommodate members' needs. These meetings should provide updates on community activities, allow time for guest speakers and presentations, and offer an open forum for discussion about broadband advancements in Maverick County.

Timeline: Establish an official Broadband Council and select a countywide liaison immediately.

Action 2 – Maintain open communication and positive relations with internet service providers (ISPs) working in Maverick County, as well as those that have plans to work in the county or have received federal funding to begin local construction projects.

This communication should include regular check-ins with ISPs to stay abreast of construction and expansion progress or changes in plans, to identify obstacles or challenges they are facing, and to communicate community goals and objectives. Open communication allows for ISPs to better understand community needs, and for communities to better understand the barriers ISPs face. This understanding can encourage creative problem solving, which can lead to finding solutions through public-private partnerships.

Public-private partnerships are arrangements between public entities, such as local governments, and private entities, such as ISPs, to achieve a common goal. They are often, but not always, funding arrangements. Additionally, the county should strive to be an environment that is amenable to business. This means having easy-to-use websites that allow ISPs and vendors quick access to relevant information, as well as fostering a business environment that rewards open communication and timely resolution of concerns.

ISPs working in Maverick County:

PROVIDER DOING-BUSINESS-AS NAME	TECHNOLOGY	WEBSITE	MAX. DOWNLOAD SPEED (Mbps)	MAX. UPLOAD SPEED (Mbps)
AT&T Southwest	Fiber	http://www.att.com	1000	1000
AT&T Southwest	DSL	http://www.att.com	18	1.5
AT&T Southwest	Fixed Wireless	http://www.att.com	10	1
Inova Data Solutions	Fixed Wireless	https://inovadata.net/	20	5
Pathway	DSL	http://www.aciglobal.com/	18	1
Rural Texas Broadband	Fixed Wireless	http://www.rtxbb.net	10	1
Spectrum	Cable	http://www.charter.com	940	35
T-Mobile	Fixed Wireless	http://www.t-mobile.com	25	3

The Rural Digital Opportunity Fund (RDOF) Phase I is a federal funding program for ISPs that auctioned off census blocks for internet deployment in 2020. To be eligible, a census block could not have service of at least 25/3 Mbps (based on Form 477 data), or have an ISP already committed to providing service via the CAF II auction, the USDA ReConnect program, or state-specific programs.

RDOF winners in Maverick County include LTD Broadband LLC, which won bids for $9,732 to serve 10 locations, and Resound Networks LLC, which won bids for $2,443,446 to serve 342 locations.

The Broadband Council should meet with RDOF winners. Initial conversations should include updates about the application progress, buildout plans, and timelines. Winning ISPs have eight years to fulfill deployment. The exact deployment schedule is determined by the carriers themselves, not the FCC.

Timeline: The Broadband Council should reach out to ISPs for an initial meeting with community stakeholders and decision makers as soon as leadership is established.

Action 3 – Incorporate broadband development and planning in local budgets.

Broadband expansion will bring added benefits to the community and its residents, including expanded employment opportunities, innovation, and quality-of-life improvements. Under advisement from the Broadband Council, the county should commit funds to expand broadband access, adoption, and use, setting aside resources that reflect the broadband priorities of the community.

In March 2021, the American Rescue Plan Act of 2021 (ARPA) established the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) to provide state, local, and tribal governments with the resources needed to respond to the Coronavirus pandemic and its economic effects. Maverick County is the recipient of $11,406,060 in ARPA SLFRF funds. The city of Eagle Pass is the recipient of $6,472,267 in ARPA SLFRF funds. The SLFRF provide substantial flexibility for each government to meet local needs — including support for households, small businesses, impacted industries, essential workers, and the communities hardest hit by the crisis. Other allowable uses are "to make necessary investments in water, sewer, or broadband infrastructure." The Final Rule for the program, released in 2022, made it even easier to use these funds for broadband if communities deemed it necessary, and they had funds remaining.

Additional funding could come from existing revenue, planned contributions, public or private grants.

Action 4 – Consider a targeted field validation.

FCC data tend to be overstated. Field validation will verify where installations actually exist. Field validation would entail locating, identifying, and documenting targeted wireline platforms, such as digital subscriber lines (DSL), hybrid fiber coaxial (HFC), fiber-to-the-home (FTTH), middle-mile fiber optic transport lines, and fixed-wireless transmit locations, and then mapping infrastructure assets and ISP boundaries. Such work would allow the county to accurately assess, map known broadband speeds and delivery platforms to verify the existing FCC data, and identify areas of need. Field validations are helpful if you suspect that your county's FCC data is overstated and/or if you would like to identify areas of need or opportunity.

Responsible parties

- County Judge
- Commissioners Court
- Maverick County Broadband Council
    - Maverick County Judge
    - Mayor of Eagle Pass
    - Eagle Pass Maverick County Economic Development Alliance
    - Methodist Healthcare Ministries
    - K-12: Eagle Pass ISD
    - Maverick County Ag Extension Office
    - Eagle Pass Economic Development
    - Eagle Pass Public Library
    - Higher Ed: Sul Ross State University, Southwest Texas Junior College
    - Kickapoo Traditional Tribe of Texas
    - Maverick County Sheriff

Resources

- Governor's Broadband Development Council
- The Texas Statute
- The 2021 Governor's Broadband Development Council's Report
- The 2020 Governor's Broadband Development Council's Report
- The Texas Broadband Development Office
- The Texas Broadband Plan 2022
- Coronavirus State and Local Fiscal Recovery Funds, County Allocation
- Final Rule
- CN's list of Current Broadband Funding
- BroadbandUSA: Federal Funding Guide
- Guide to Federal Broadband Funding Opportunities in the U.S.

Broadband readiness

- Texas Broadband Providers by County
- Smart Cities Readiness Guide
- Next Century Cities Becoming Broadband Ready Toolkit
- Municipal Boards: Best Practices for Adoption Technology

Broadband leadership

- City of Memphis: Broadband Project Manager, Senior
- Letter: Do your part on broadband
- The Anatomy of a Community Broadband Manager
- TARA Leadership: Rondella Hawkins

Goal 2: Ensure that Maverick County residents have access to internet, regardless of income level.

Objective: Help Maverick County's low-income residents access the internet by making it more affordable.

Of survey respondents without internet, 44% said it is too expensive, 16% said it is not available, and 6% have no computer at home. In addition, 10.3% use mobile internet as the primary home internet source, and 19.3% use mobile internet to connect other devices to the internet.

Public libraries can be a great resource for these residents. These critical community institutions are where those without internet at home go to connect to Wi-Fi and use public computers.

Action 1 – Share information with the community about internet subsidy programs and low-cost internet packages.

Federal subsidy programs are available to assist low-income residents with the cost of internet. The Maverick County Broadband Council should ask area ISPs if they participate in these programs. If ISPs do not participate, the Broadband Council should find out why, and what can be done to encourage them to do so.

There are two main internet subsidy programs:

Lifeline is a federal program administered through the Federal Communication Commission (FCC) Universal Service Administrative Co. that lowers the monthly cost of phone or internet services. Eligible consumers can get up to $9.25 off the cost of phone, internet, or bundled services each month. Households can qualify based on income or participation in federal or tribal assistance programs.

The Affordable Connectivity Program (ACP) was created to help households that are struggling to afford internet service. The ACP provides a $30 a month credit toward internet service ($75 a month for qualifying residents on tribal lands) and up to $100 for the purchase of a device. Households can qualify based on income or participation in federal or tribal assistance programs. To receive the connected device discount, consumers must enroll with a participating ISP that offers connected devices. The ISP provides the discount to the consumer. According to the FCC, a significant number of households nationwide that could qualify for the ACP have yet to enroll. Communities can use the ACP Tool Kit to promote the program to residents. Getting residents signed up for this program is one of the quickest and easiest ways to make an impact in your community.

ISPs often have their own low-cost programs, so customers should always ask about options. The Infrastructure Investment and Jobs Act of 2021 (IIJA) requires ISPs that receive federal grant money to offer low-cost service to eligible low-income households.

Free or low-cost internet programs available in Maverick County offered by ISPs are:

- AT&T: Access from AT&T and ACP; for more information click here.
- Charter: Spectrum Internet Assist and ACP; for more information click here.

The Broadband Council should promote this information to the community by placing it on a broadband resources page on the county website, by advertising in the newspaper, providing updates in monthly school newsletters, posting flyers in public buildings throughout the county, and through public discussions at Commissioners' Court and City Council meetings.

Timeline: Broadband Council should begin sharing information about affordability programs immediately.

Resources

- Lifeline
- Affordable Connectivity Program (ACP)
- ACP Consumer Outreach Toolkit ACP Participating providers

Goal 3: Bridge digital literacy gaps in Maverick County to improve workforce and higher education readiness, and quality of life.

Objective: Utilize public libraries to access the full benefits of technology by offering digital literacy training for residents, businesses, public officials, and students.

Libraries are community hubs. They are sources of information, education, and community engagement. Libraries are perfectly suited to serve as hubs for technology resources. Further, Eagle Pass Public Library is a large facility with space for classes, and Library Director Cristina Olivas has an interest in offering more digital resources to the community.

Action 1 – Improve internet speed at Eagle Pass Public Library and Quemado Public Library.

Survey responses from libraries in Maverick County indicate that the average internet speed among library branches and community organizations is 23.92 Mbps, which is below the minimum speed for broadband. Libraries should research and pursue the best available internet service in the area. Libraries, like schools, need to have the fastest speeds available in the community because they are often where those without internet at home go to get online, apply for jobs, study, and where many people are online at the same time.

The Federal Communications Commission (FCC) has special funding for schools and libraries to help pay for internet costs, called E-Rate. In Texas, most accredited public libraries are eligible for an 80% discount, with more than a quarter eligible for a 90% discount. Eagle Pass Public Library participates in E-Rate, but the Quemado Public Library has not yet been able to get certified to participate in the program. The Broadband Council should help the Quemado Public Library research and understand the requirements to get certified for E-Rate.

Library broadband infrastructure would be an allowable use of American Rescue Plan (ARPA) Coronavirus State and Local Fiscal Recovery Funds.

Additional support should be sought from Maverick County, the city of Eagle Pass, grant organizations, and the community at large, as library services are important community resources that are available to all residents. Finding additional resources to make public libraries community technology hubs would be of great benefit to the residents of Maverick County.

Timeline: Options to improve library internet speeds should be pursued immediately.

Action 2 – Eagle Pass Public Library should consider hiring a digital navigator and offer digital literacy classes to residents to improve workforce readiness and computer literacy.

In answering digital literacy questions, Maverick County survey respondents mark a majority of answers with, "I know a little" to "I am comfortable with this," for a wide range of technological skills. This shows high interest in learning computer skills, although they ranked below other Connected communities in many skills. Libraries and community organizations can often require users to have basic digital literacy to access their information or apply for services. Organizations of all kinds are being forced to become digital literacy trainers just to provide their primary service. Digital navigators are trusted guides who assist community members in internet adoption and the use of digital devices. Digital navigation services include ongoing assistance with affordable internet access, device acquisition, training and technical skills, and application support. Most often housed in a public library, they are a community's go-to resource for online assistance. Grants are sometimes available for these positions. Maverick County would benefit from having a digital navigator to assist its residents.

According to the Organization for Economic Cooperation and Development (OECD), one-third of working-age Americans lack basic digital skills, while 1 in 6 are unable to use email, search the internet, or use other basic online tools (Ezell 2021). Maverick County ranked below other Connected communities in digital skills. Survey data show residents could benefit from many types of digital literacy skills training, from very basic computer skills and cybersecurity to expanded uses of technology like social media, buying and selling online, smarthome devices, and industry-specific training. Survey data also indicates that residents are interested in this kind of training.

Great partners in digital literacy could be the public library branches in Eagle Pass and Quemado. Survey responses indicate that some basic computer skills training is already being offered; expanding these training opportunities would be a great benefit to the community.

Additionally, Sul Ross University could be a partner in digital training endeavors. The campus has a computer lab on site with more than a dozen computers and some of the fastest internet speeds in the region.

Timeline: Eagle Pass Public Library should begin or expand digital literacy training within six months.

Action 3 – Maverick County should offer website and social media classes for local businesses and public officials.

More than one-half of respondents (55%) interact online with non-local businesses daily or at least once a week, and 62% interact with local businesses daily or weekly, but only 58.8% of responding local businesses indicated that they have a website. This is an area of opportunity. Improving the online presence of businesses can keep more revenue local.

Thirty-four percent of Maverick County survey respondents say they never interact with public safety websites. Almost 19% never interact with local government websites, and 35.7% never interact with the library website. This means residents are going online and interacting, just not with the county's public-facing websites. More online interaction with public-facing websites can improve community communications and program efficiency.

To boost local business in Maverick County, the Broadband Council should encourage local business owners to become more digitally literate and comfortable online, and to consider ways to improve their sales by offering information and revenue opportunities online. Classes should be offered to encourage local businesses and public officials to develop websites, update and maintain their websites regularly, use social media and e-commerce. Websites that are not frequently updated, or that do not have engaging or relevant content, are not widely used.

A 2018 study commissioned by Google, "Connecting Small Businesses in the U.S.," found the main reason businesses weren't engaging online was not lack of access, but lack of an understanding of the value it brings. According to the study, "Amongst the least digitally engaged small businesses, 40% believe that digital tools are 'not relevant for my business' and 38% believe 'they are not effective for my business.' This indicates that less digitally engaged businesses may be unaware of the benefits associated with digital tools.'" Small businesses that are active online are three times as likely to have recently hired additional workers than those that are not.

Timeline: Maverick County should begin digital literacy training for businesses and public officials within six months.

Responsible parties

- Libraries and library boards
- Schools
- Broadband providers
- Local and county governments

Action 4 – Offer additional advanced technology skills training for middle school and high school students to foster an interest in technology.

Maverick County community members identified technology training for students as an area of opportunity. The community expressed interest in expanding advanced computer skills training for local students to better prepare them for college and inspire careers in technology. This is a worthwhile goal and should be encouraged.

Technology training needs are constantly evolving. The World Economic Forum Future of Jobs and Skills Report stated that today's most in-demand occupations or specialties did not even exist 10 years ago, and future jobs will require only higher levels of technology literacy than in the past. Maverick County community members want to encourage Maverick County middle and high school students to have an interest in tech jobs and prepare them for a future where all jobs will be tech jobs. Many resources exist for curriculum, grants are available, and partnering with local institutions could help achieve this.

The Broadband Council could partner with school districts, such as the Eagle Pass Independent School District, area educational institutions, such as Sul Ross University, and other interested community stakeholders, to offer advanced digital literacy and computer skills training for students ages 14 to 18.

Possible ideas could include expanding classes within Eagle Pass ISD or creating after-school or summer programs like free coding camps or "hackathons." Training locations could include Sul Ross University's Rio Grande College Eagle Pass campus, which has a computer lab on site with more than a dozen computers and some of the fastest internet speeds in the region.

Timeline: Maverick County should begin research and planning for additional advanced technology training for students within six months.

Responsible parties

- Connect Maverick
- Maverick County Broadband Council
- Area K-12 and higher education institutions
- Community stakeholders

Resources

E-Rate

- E-Rate resources page

Digital Navigators

- National Digital Inclusion Alliance (NDIA)

Digital Literacy, many free resources exist for digital literacy training

- Digital Learn – Free courses to learn anything about computers
- Digital Literacy Curriculum for K-12
- Free Applied Digital Skills – Google for Education
- Live, Virtual Classes for Seniors
- On-Site Technology Training for Small, Rural Michigan Businesses

Middle school and high school technology classes resources

A few examples of similar community initiatives for inspiration:

Montgomery Can Code **Camp** is a public-private partnership between Montgomery College in Montgomery County, Maryland, the Montgomery County Economic Development Corp., and the Montgomery County Public Schools to host a free coding camp that has introduced thousands of middle school students to future tech careers. Read more about it here.

The **T.D. Jakes Foundation STEAM Academy Hackathon** is an annual event sponsored by the Dallas Mavericks and Goldman Sachs that offers a free, two-week immersive experience in technology and innovation for 500 students ages 14 to 18 in Dallas. Read more about it here.

Connected Nation hosts a **Kids Tech Summit**, sponsored by AT&T, where middle and high school students use their digital skills to develop 100% student-led community projects designed to help enhance their out-of-classroom digital learning experience, while offering a real-world opportunity to make a difference in their communities. Read about it here.

Code with Google is a **Google for Education** initiative to help schools teach computer science. It offers a wide variety of tools, resources, and free curricula, in addition to summer programs and hackathons. Find out more about it here.

Goal 4: Ensure that the Maverick County agricultural sector has access to high-speed internet, technology resources, and education to improve efficiency and profitability.

Objective: Improve internet speeds and digital literacy for Maverick County agriculture producers while championing innovation.

Community members identified the agriculture (ag) sector as an area of interest and expressed concerns about missed opportunities in that sector. Further investigation into opportunities in ag tech, ag training, and ag economic development cultivation is warranted. Agriculture is an essential industry, most often located in rural communities that struggle to access high-speed internet. Where agricultural producers have access to high-speed internet, access to technology has transformed the way they work — bringing better outcomes, higher yields, and greater efficiency. Technology will play a large role in agriculture of the future, in how we feed ourselves, protect our natural resources, and conserve our land. The Maverick County Broadband Council should coordinate with the ag community to better understand the technology needs of farmers and ranchers and support their future success.

Action 1 – Advocate on behalf of ag producers to increase internet speeds outside the city limits.

Survey data indicates the average internet speed in the ag sector is 33.8 Mbps. The majority (88%) of ag respondents are online every day, if only to check the weather, 57% at least once a week for USDA information, 57% to buy supplies, 43% to research markets, and 75% to use ag-based websites.

Fifty-seven percent of them use mobile apps for ag — 43% daily and 14% at least once a week. Eighty percent say Wi-Fi is accessible only in their main operations building and its surrounding areas, not the entire operation, and 20% said they access the internet only via cell phone or mobile network.

Only 28.6% say their internet meets their needs; 71.4% say it does not. The reasons for dissatisfaction are primarily that speeds are too slow (80%), and the connection is unreliable (40%). Ag-tech innovations will require increased broadband speeds to be connected. County leaders should be mindful of opportunities to improve ag efficiency and profits when making decisions about long-term planning, and make sure ag interests are included.

Action 2 – Partner with the Maverick County AgriLife Extension Office to encourage technology adoption by offering ag-specific technology training and digital literacy, and possibly an ag-tech summit.

The use of agriculture technology applications among survey respondents in Maverick County is not high: 29% of respondents are currently using geofencing; 25% are currently using farm management information systems, connected sensors, and telematic equipment monitoring; and only 13% are currently using variable-rate irrigation, drones, remote integrated displays, hybrid-fuel tractors, and GPS-enabled tractors. Across all listed technologies, 25% to 38% of respondents answered “not interested” in using. This is an opportunity for education. Ag-sector-minded partners could create opportunities to organize product demonstrations, ag-tech seminars, and learning opportunities for

Maverick County ag producers to show them what is available and how it could benefit their operations.

Depending on community interest and participation, education resources could be as simple as sharing links and information about innovations in ag technology on a county broadband resources website or through social media channels. The ag extension office could also partner with the library to offer ag-specific digital literacy training classes. If the community shows an interest, ag-technology speakers could be invited to present workshops or seminars to local farmers and ranchers. More ambitious plans could include hosting an agriculture technology summit that could attract participation from outside the region. There is no doubt that more connectivity and technology will only benefit America's family farms and ranches. The Maverick County Broadband Council should keep the ag sector in mind with all future planning.

Timeline: Ag-sector classes should begin within six months.

Responsible parties:

- Maverick County Broadband Council
- Public libraries
- Maverick County AgriLife Extension Office

Resources

- U.S. Department of Agriculture
- USDA National Institute of Food and Agriculture – resources
- The Texas A&M AgriLife Extension Service
- Texas Rural Leadership Program
- The Farm Journal: Ag Web, technology
- Free online agriculture courses from universities across the globe
- Ku, Linly. "New Agriculture Technology in Modern Farming." Plug and Play, October 06, 2021.

Goal 5: Improve health care outcomes for Maverick County residents by increasing access to broadband technology.

Objective: Encourage health care providers to offer more online options for information and health care delivery, and encourage the expanded use of telehealth and broadband technology to improve health care outcomes for Maverick County residents.

Twenty-first century health care providers have many opportunities to use technology to improve efficiency and outcomes. Telehealth uses electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related

education, public health, and health administration.

Survey data indicate these services could be expanded and promoted more prominently. Health care survey respondents came from a wide variety of community health providers: three hospitals, a nursing rehabilitation facility, an air evacuation ambulance service, two school nurses, and a community clinic. These responses provide an excellent introduction to technology usage and connectivity needs in the community's health care centers.

- 88% keep electronic medical records
- 63% have an online patient information portal
- 38% have self-service patient kiosks
- 63% transmit patient information online daily
- 38% offer patient consultations via video conference daily, whereas 50% never do
- 50% monitor vitals remotely daily
- 50% offer online prompts for medication or therapy
- 50% provide online health or motivational coaching online daily
- 50% offer daily gait, seizure or fall monitoring

This shows that health care providers are using technology, that this usage could be expanded, and that providers need access to broadband to deliver services.

Action 1 – Encourage health care providers to subscribe to the highest internet speed available.

Internet speeds among responding health care providers are slow. The average internet download speed is 25.79 Mbps, and no health care provider said they have download speeds faster than 50 Mbps. This is well below the Connected community national average (60+ Mbps), and even below the average reported speed among households in Maverick County (58.49 Mbps). These speeds are very slow for the access and technology a hospital needs. All the health care providers who responded are located within the city limits of Eagle Pass, an area with 100 Mbps download /10 Mbps upload coverage.

The Broadband Council, or the health care sector representative on the council, should reach out to area hospitals to determine if they are subscribing to the fastest internet subscription available. If not, encouraging hospital administrators to do so would benefit health care outcomes in the county. Faster internet speeds would allow for more efficient service delivery and enable hospitals to offer additional telemedicine options, which would broaden opportunities and outcomes for both patients and providers.

Action 2 – Encourage health care providers that offer telehealth services to do more to promote those services, as well as their online presence in general.

Survey data suggest that residents do not interact with local health care facilities online very often, whether through social media or online communications, and 16% of households indicated that they don't interact with the health care sector at all (compared to 7.2% on average for other Connected communities). However, the health care providers' websites are generally good, and the providers themselves say they interact with the public daily via email (100%), via text (88%), via videoconferencing (38%), and make website updates daily (50%).

These numbers indicate that the Maverick County health care community is ready to take the next step to improve its online presence and engagement. Additionally, where health providers offer telehealth services, they should do more to promote those services. A cursory glance at area hospitals' websites shows no mention of the telehealth services they offer. Having it prominently displayed on websites, with a frequent questions and answers section, would make it easier for people to find out more and consider utilizing telehealth services.

Action 3 – Consider funding a health care technology study to understand and improve telehealth, technology obstacles, and opportunities in Maverick County.

The Broadband Council can further focus on improving community health outcomes by considering an additional study to identify technology-related benefits, barriers, and obstacles, along with recommendations on increasing technology adoption and usage in the health care sector. An analysis of this nature would give area health care providers a deeper understanding of the current situation and what could be done to improve it. A study could include site visits, interviews, focus groups, and data gathering to identify internet connectivity needs, internet-enabled technology usage, Wi-Fi connectivity at health care centers, cybersecurity needs, and state and federal grant opportunities, as well as make recommendations to address these issues. A study could determine how adequately prepared facilities are to provide online services to their patients, if they have the proper tools and training to offer remote services, and what barriers they face to improve and expand their telehealth offerings.

Connected Nation has performed health care technology studies of this nature across the states of Texas and Michigan, gathering data from hundreds of hospitals. They provide valuable insights into a community's health care technology gaps and opportunities. This study would identify ways to help health care providers expand and improve their remote offerings to residents.

Timeline: Broadband Council should begin outreach to health care providers and consider further action within six months.

Responsible parties

- Maverick County Broadband Council
- Maverick County health care providers
- Methodist Healthcare Ministries of South Texas Inc.

Resources

- U.S. Department of Health and Human Services (HHS) Health Resources and Services Administration (HRSA), telehealth resources
- The National Consortium of Telehealth Resource Centers
- American College of Physicians Telehealth Guidance and Resources
- The American Telemedicine Association, telehealth resources
- American Medical Association (AMA) telehealth helpful resources
- Rural Health Information Hub, telehealth resources