



In recent decades, the internet and other technological advancements have transformed our world and the ways in which we share, receive, and access information and services. When SARS-CoV-2 emerged in late 2019, however, North Carolinians suddenly and unexpectedly needed to be able to access information and services while remaining at home in accordance with policies intended to reduce the transmission of the virus. Robust broadband infrastructure, affordable high-speed internet connectivity, access to computers and other internet-enabled devices, and digital literacy became key components of ensuring access to health care services, remote instruction, and other essential services and supports for North Carolinians at home. Many North Carolinians, particularly in rural, low socioeconomic status, and historically marginalized communities,¹ were unable or struggled to access these essential services and supports. During the pandemic, these inequities were also reflected in higher rates of learning loss and widened educational gaps, which may impact individual income and family economic stability for many years beyond the pandemic period. While many people initially shifted to remote/virtual school, work, and health care access with the assumption that operations would return to normal after the pandemic, many of these temporary adaptations have become lasting changes. These permanent shifts open up new opportunities, but also heighten the risks of being disconnected from technology-dependent services and supports.

“The pandemic has shown that high-speed internet is no longer a luxury, it is an indispensable utility required for functioning as a citizen of the 21st century. Health care changed during the pandemic, raising concerns about digital equity and inclusion and access to care, as well as social determinants of health like education and participation in the economy. In the context of life-or-death situations in medicine, lack of access to broadband should be viewed as life-threatening.”² – Tracy Doaks, President and CEO, MCNC, Member of Carolinas Pandemic Preparedness Task Force, “Digital Equity and High-Speed Health Born From the COVID-19 Crisis.” *North Carolina Medical Journal* July 2021, 82 (4) 266-270.

The North Carolina Department of Information Technology (NCDIT) estimates that at least 1.1 million households across the state are impacted by inadequate access to internet and other related services. This disparity is often referred to as the “digital divide.” In a recent report outlining digital equity strategy post-pandemic, NCDIT estimates that of these households, approximately 430,000 are without a home laptop or desktop computer, 180,000 are without a smartphone, and at least 260,000 households lack access to a high-speed internet connection.³ Affordability of high-speed internet represents another challenge to closing the digital divide. Nearly 1.3 million households across the state only have access to high-speed internet service that costs upwards of 2% of household monthly income on average when priced at \$60 per month. Of the total number of individuals or households without internet access in North Carolina, 37% earn less than \$20,000 per year and 16% earn between \$20,000 and \$74,999 per year.⁴ Many

of these North Carolinians also have low digital literacy, defined by NCDIT as “the ability to use information and communication technologies to find, evaluate, create and communicate information,” which also requires cognitive and technical skills.⁵ As a result, these North Carolinians may be unable to find and receive telehealth services, participate in remote instruction and other educational or training opportunities, find employment by searching for opportunities online, or work in positions that require remote accessibility.⁵

The ability to participate in educational and training opportunities, find employment online, and otherwise participate in an increasingly technological world is important in the context of North Carolina’s economic stability. Prior to the COVID-19 pandemic, North Carolina had the 12th lowest median household income in the country, with 14% of households earning incomes below the poverty line and more than 30% of the state’s population living in households within 200% of the federal poverty level.¹ Out of 100 counties across the state, 11 have been categorized as *persistent poverty counties*, defined by the U.S. Congressional Research Service as counties that maintained poverty rates of 20% or more for the past 30 years based on census data.⁶ The COVID-19 pandemic has further strained households across the state, leaving many North Carolinians struggling to pay bills, find housing, and adequately care for themselves and their loved ones, while also widening gaps among rural communities and communities of color.¹

“Individuals also need the resources and wherewithal to comply with public health laws. It is easy to issue a stay-at-home order. It is considerably harder to enable people to sustain themselves and their families during a stay-at-home order or to ensure that small businesses survive shutdowns. For this reason, many of the most crucial laws during this or any pandemic are not those that empower officials but those that support individuals and small businesses, especially those in vulnerable communities. Sick leave, expanded access to health insurance, access to broadband internet, and protections against evictions and utility shutoffs are only some of the critical measures that need to be implemented if our public health laws are to succeed and the U.S. response is to be even remotely equitable.”⁷

Source: COVID-19: The Promise and Failure of Law in an Inequitable Nation, *Am J Public Health*. 2021;111(1):47-49.

Chapter 8 (Ensuring the Availability of Health Care Services) and **Chapter 9** (Addressing Disparities to Promote Whole-Person Health and Economic Stability) also include strategies from the task force to improve economic stability and promote access to health care and other essential services and supports. **Chapter 5** (Strengthening the Health Care and Frontline Essential Workforces) includes strategies to support workers and employers.

State-Level Initiatives to Close the Digital Divide

Closing the digital divide and achieving digital equity are critical to promoting the health, safety, and well-being of North Carolinians by ensuring ongoing access to health care services, remote instruction, and other services and supports before, during, and after future COVID-19 surges and other public health emergencies. Closing the digital divide is also critical to supporting small businesses in unserved or underserved areas of the state without access to affordable high-speed internet in efforts to modernize their practices, which can strengthen the stability and resilience of North Carolina's economy.

The state has implemented several strategies to close the digital divide, achieve digital equity, and support other efforts to address the challenges caused or exacerbated by the COVID-19 pandemic. In July 2021, Governor Cooper unveiled a five-year strategic plan to achieve digital equity by addressing broadband infrastructure and access, the affordability of high-speed internet services, and digital literacy in North Carolina. To implement this strategic plan, the state has invested nearly \$1 billion in funds from the American Rescue Plan Act in combination with \$30 million in state appropriations, which must be spent by December 31, 2024.⁸ Of these funds, \$971 million will be used to build critical broadband infrastructure in unserved areas, while \$50 million will be used to address digital literacy. The strategic plan also calls for significant private sector investment to provide affordable high-speed internet services and expand broadband infrastructure.⁹

The Division of Broadband and Digital Equity, housed within NCDIT and established with the goal of supporting the implementation of Governor Cooper's strategic plan, is assessing progress made toward closing the digital divide and achieving digital equity by tracking several key performance measures over time: (1) households with broadband access; (2) households with broadband internet subscriptions; (3) households with children with broadband internet subscriptions; and (4) rates of high-speed internet adoption by race and ethnicity.⁹

Spotlight: Strategic Economic Development Plan for the State of North Carolina

In this plan, the North Carolina Department of Commerce (NC Commerce) outlines a number of goals, strategies, and tactics that reflect an evolving economic landscape in North Carolina. The plan's goals align with ongoing efforts by NCDIT to close the digital divide with a specific focus on supporting North Carolina's workforce and businesses. Included in the NC Commerce plan:

- Prepare communities across North Carolina to be more competitive in growing and attracting a talented workforce and businesses.
- Maximize the benefits of improved broadband access by advancing high-speed internet adoption and digital skills of North Carolina's businesses and workforce.
 - Support efforts to expand access and lower costs of at least 100:20 Mbps for more than 98% of North Carolina households.
 - Improve awareness and enable North Carolinians to realize the benefits of high-speed internet through digital literacy and upskilling aimed at accessing the digital economy.
 - Assist small businesses with managerial, workforce, and technical barriers to adopting internet-based technologies to enhance their operations.¹⁰

The task force's recommendations in **Chapter 7** include actions that can be undertaken across the state to improve access to information and services before, during, and after public health emergencies. These recommendations focus on increasing access to affordable high-speed internet in unserved and underserved communities, ensuring internet-enabled devices for students, and supporting partnerships to close the digital divide. **Chapter 7** also focuses on telehealth services, understanding that closing the digital divide is a key aspect of promoting ongoing access to health care services and supports in a remote setting. Together, the recommendations below will build the capacity of communities across the state to receive information and effective communications from state and local entities, which is covered in **Chapter 6** (Data-Driven Decision-Making and Effective Communications to the Public).

Recommendation 7.1
Strengthen broadband infrastructure and improve digital equity.

Recommendation 7.2
Support ongoing access to clinically appropriate telehealth services and medications.

Recommendation 7.3
Improve the transition to remote learning for school systems, teachers, students, and their families during public health emergencies.



The following organizations are responsible for implementing Recommendations 7.1 – 7.3:

- North Carolina Department of Information Technology
- North Carolina Department of Health and Human Services, NC Medicaid
- Commercial insurers and Centers for Medicaid and Medicare Services (CMS)
- North Carolina Department of Public Instruction
- MCNC
- Faith-based and other community-based organizations
- Foundations and other private funders

RECOMMENDATION 7.1

In the early weeks and months of the COVID-19 pandemic, North Carolinians were encouraged to avoid unnecessary travel outside of their homes to reduce the spread of SARS-CoV-2. Without high-speed internet access, North Carolinians in need may have been unable to obtain essential health care services as providers shifted to telehealth to deliver care. Inadequate access to high-speed internet also created a number of challenges for students, teachers, and school systems, contributing to learning loss and widened educational gaps. Throughout the COVID-19 pandemic, rural and historically marginalized communities have been disproportionately harmed by inadequate access to health care and tools to support remote learning, as well as other services and supports. In response, the task force recommends the following to ensure access to these services and supports, while also improving North Carolina's ability to rapidly transition to remote delivery before, during, and after public health emergencies:

RECOMMENDATION 7.1

Strengthen broadband infrastructure and improve digital equity.

Strategy 7.1a: The North Carolina Department of Information Technology should continue to work with private and public sector partners to strengthen broadband infrastructure, improve digital equity, and close the digital divide by:

1. Establishing and tracking performance measures to assess digital equity, support strategic planning to promote digital equity, and examine opportunities to use current performance measures more effectively.
2. Mapping initiatives and partnerships to promote coordination around efforts to assess and address gaps and needs across the state.
3. Partnering with NC Medicaid and commercial insurers to assess the effects of digital equity initiatives on utilization of telehealth services and resulting health outcomes.

DESIRED RESULT

Ongoing partnerships and investments in building and maintaining broadband infrastructure to ensure that all North Carolinians can access telehealth services, learn remotely, and obtain other needed services and supports before, during, and after public health emergencies, along with concerted efforts to help our most vulnerable communities navigate an increasingly technological world.

WHY DOES THE TASK FORCE RECOMMEND THIS STRATEGY?

Strategy 7.1a acknowledges the significant progress made by the North Carolina Department of Information Technology (NCDIT) in recent years to close the digital divide and encourages continuing collaboration with private and public sector partners to address ongoing needs for high-speed internet and other resources, particularly among rural, historically marginalized, and other vulnerable communities across the state. **Strategy 7.1a.1** builds on this work by asking NCDIT and its private and public sector partners to support data-driven decision-making by establishing and tracking performance measures to assess the state's progress toward achieving digital equity and ensuring the effective use of current performance metrics. The task force also identified the need for a map that reflects current and potential partnerships to better assess gaps and strengthen coordination around closing the digital divide, recognizing that ongoing collaboration between NCDIT and its partners has been a valuable asset (**Strategy 7.1a.2**).

Vulnerable communities often rely on Medicaid coverage to access essential health care services. High-speed internet access is important to ensuring that these communities are able to utilize telehealth services during times of crisis and beyond, leading the task force to recommend a partnership between NC Medicaid—a division within the North Carolina Department of Health and Human Services—and NCDIT. The task force underscored the importance of this partnership to better understand the impact of improved digital equity (including such components as access to and affordability of high-speed internet, as well as improved digital literacy) across the state on the utilization of telehealth services and resulting health outcomes among Medicaid beneficiaries. **Strategy 7.1a.3** also builds on a 2019 partnership between NCDIT's Broadband Infrastructure Office and another agency within NCDHHS—the Office of Rural Health—to study broadband and telehealth assets and opportunities, as well as broadband gaps and health disparities, in 20 counties in the western part of the state.^{11,12}

ADDITIONAL CONTEXT

NCDIT is the responsible organization involved in **Strategy 7.1a**. The Division of Broadband and Digital Equity, housed within NCDIT, was established in 2021 to support the implementation of strategies to close the digital divide in alignment with Governor Cooper's strategic plan.^{3,13} This strategic plan focuses

CHAPTER 7: Improving Access to Information and Services: Broadband Infrastructure, Telehealth, and Remote Learning

on broadband infrastructure and access, digital literacy, and the affordability of high-speed internet services for North Carolinians in need. The state has invested nearly \$1 billion in funds from the American Rescue Plan Act and \$30 million in state appropriations to implement strategies outlined within this plan over a five-year period. Of these funds, \$971 million will be used to build critical broadband infrastructure in unserved areas, while \$50 million will be used to address digital literacy. Significant private sector investment is another key component of the plan for strategies involving the provision of affordable high-speed internet services and the expansion of broadband infrastructure.

In July 2021, Governor Cooper also announced the establishment of the Office of Digital Equity and Literacy, which serves as a statewide resource for broadband access, digital inclusion, and digital literacy in partnership with the Broadband Infrastructure Office.¹⁴ The Office of Digital Equity and Literacy and the Broadband Infrastructure Office are both housed within the Division of Broadband and Digital Equity.

More recently, Governor Cooper announced that North Carolina would participate in the Broadband, Equity, Access, and Deployment (BEAD) program, representing a new partnership with the U.S. Department of Commerce to close the digital divide in North Carolina by bringing additional funding to provide high-speed internet access to unserved households and businesses. Governor Cooper has requested \$5 million in initial planning funds for the state, which will amplify ongoing efforts by the Division of Broadband and Digital Equity.¹⁵

RECOMMENDATION 7.2

The COVID-19 pandemic resulted in rapid changes to the landscape of health care service delivery in North Carolina.^{2,16} When SARS-CoV-2 emerged in late 2019, NC Medicaid had very few policies and provisions in place to enable the delivery of health care services remotely. Within six weeks of the first known COVID-19 case in North Carolina, however, NC Medicaid had mobilized nearly 400 policies, payment codes, and other modifications to help beneficiaries receive health care services without visiting a provider in person.¹⁷ NC Medicaid's planned expansion of telehealth access, which started in December 2019, had previously been estimated to take three years.¹⁸ By September 2020, NC Medicaid had processed more than 1.1 million claims for telehealth services and more than 350,000 telephonic visits.¹⁹

What is telehealth?

The North Carolina Department of Health and Human Services (NCDHHS) defines telehealth as “the use of electronic information and telecommunication technologies to support distance clinical health care, patient and professional health-related education, public health, and health administration.”²⁰ Telemedicine is the use of two-way, real-time, interactive audio and video to provide and support health care when participants are in different physical locations.

- **Telepsychiatry** is the use of two-way, real-time, interactive audio and video to provide and support psychiatric/behavioral health care when participants are in different physical locations.
- **Teletherapy** is the use of two-way, real-time, interactive audio and video to provide and support specialized outpatient therapy care when participants are in different locations.²¹

Although expanded telehealth access helped to bridge the gap for primary care, behavioral health, and certain other services, the total number of services provided among NC Medicaid enrollees declined significantly in the early months of the COVID-19 pandemic. During the first year of the COVID-19 pandemic, telehealth access and utilization varied by race, geography, and health status, with higher telehealth rates among White, urban, and chronically ill North Carolinians compared to other groups.¹⁸ This can be attributed, in part, to the digital divide, which can impact both patients and health care providers. Inadequate access to affordable high-speed internet and low digital literacy are among the factors that contribute to the digital divide, disproportionately impacting North Carolinians in rural and historically marginalized communities, including communities of color. However, since NC Medicaid did not have a robust telehealth history, many providers themselves had not invested in the technology infrastructure to offer this new service immediately.³

Despite these challenges, telehealth access was an important strategy for promoting access to health care at a time when face masks and other personal protective equipment (PPE) were in limited supply, vaccines to reduce the risk of severe COVID-19 and death were not yet available, and reducing SARS-CoV-2 transmission across the state was critical to protecting the capacity of the health care system to respond to the pandemic. Since telehealth involves the delivery of health care services remotely, it also has the potential to reduce structural barriers such as transportation, child care, and inadequate access to paid leave by allowing patients to receive care without traveling to visit a health care provider in person.²² In response, the task force recommends the following to promote access to health care services before, during, and after public health emergencies for North Carolinians in need:

³ Dowler, Shannon. NC Medicaid Chief Medical Officer, NCDHHS. Written (email) communication. September 13, 2022.



RECOMMENDATION 7.2

Support ongoing access to clinically appropriate telehealth services and medications.

Strategy 7.2a: NC Medicaid should continue to track evidence-based service delivery offerings to expand clinically appropriate health care services for Medicaid beneficiaries.

Strategy 7.2b: NC Medicaid and private insurers should explore opportunities to build the capacity of health care providers to deliver telehealth services by improving digital literacy, offering additional administrative and technical support, and considering potential incentives for health care providers to expand access to telehealth services for beneficiaries.

DESIRED RESULT

Improved access to health care services for all North Carolinians, especially those in vulnerable communities, by strengthening the systems and processes that support and encourage health care providers to deliver telehealth services.

WHY DOES THE TASK FORCE RECOMMEND THESE STRATEGIES?

The task force identified telehealth as an opportunity to more efficiently and effectively deliver health care services to North Carolinians in need before, during, and after future public health emergencies. Ongoing access to telehealth services also holds the potential to reduce health care costs in the long term by addressing structural barriers to receiving care, such as transportation and child care, helping patients to access health care services that were previously inaccessible without an in-person visit to a health care provider. **Strategy 7.2a** asks NC Medicaid to continue to understand the learnings from the pandemic as new services were made available virtually with a focus on changing evidence-based guidelines to stay abreast of the advances achieved during the pandemic.²³ **Strategy 7.2a** also reflects the task force's focus on equity and elevating the needs of historically marginalized and other vulnerable populations, understanding that many Medicaid beneficiaries are among the most vulnerable to severe health outcomes related to COVID-19 and other health conditions. While access has continually improved, including improvement in gaps by race and ethnicity, concerted efforts must remain a top priority to achieve health equity

Strategy 7.2b is designed to promote access to telehealth services for all publicly and privately insured North Carolinians, which includes approximately 90% of the total population of the state,^{24,25} by encouraging the development and implementation of strategies to support health care providers in delivering services remotely. The task force identified the need for administrative and technical support to build the capacity of health care providers to deliver telehealth services, as well as other resources and tools to encourage their participation.

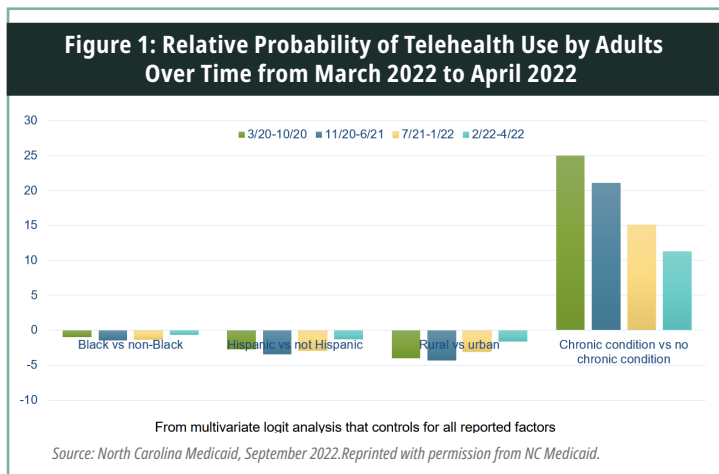
ADDITIONAL CONTEXT

NC Medicaid, a division within NCDHHS, is the responsible organization involved in **Strategy 7.2a**. Since Medicaid transformation started on July 1, 2021,²⁶ NC Medicaid provides oversight to North Carolina's Medicaid and NC Health Choice programs, which includes working with contracted prepaid health plans (PHPs) in their implementation of managed care for Medicaid beneficiaries enrolled in standard plans. As a result, NC Medicaid has been well positioned and has been assessing the impact of telehealth services on access to health care for this population and implementing strategies to ensure ongoing access for the health care services that can be effectively delivered in remote settings under **Strategy 7.2a**. NC Medicaid will also be well positioned to assess the impact of telehealth on Medicaid beneficiaries who will be enrolled in tailored plans once these plans are launched in December 2022.²⁷ Throughout the COVID-19 pandemic, these beneficiaries have continued to receive services through NC Medicaid Direct, the state's fee-for-service program, pending the launch of the tailored plans.²⁸

NC Medicaid and private insurers are the responsible entities involved in **Strategy 7.2b**. NC Medicaid provides oversight to the PHPs to ensure robust networks of health care providers for Medicaid beneficiaries, along with quality of care and other outcomes, allowing for information and insight into what health care providers need to promote access to telehealth services for Medicaid beneficiaries.²⁹ Similarly, private insurers are able to assess health care provider needs within their networks with the goal of promoting access to telehealth services for privately insured North Carolinians. It is important to note that **Chapter 8** (Ensuring the Availability of Health Care Services) includes strategies to address the coverage gap with the goal of improving the health of uninsured North Carolinians.

RECOMMENDATION 7.3

In the spring of 2020, many school districts became responsible for delivering instruction remotely for the first time. Remote learning is defined as "learning that takes place outside of the traditional school setting using various media and formats, such as but not limited to: video conference, telephone conference, print material, online material, or learning management systems."³⁰ Students from economically disadvantaged families were disproportionately impacted by remote instruction, in large part due to limited access to internet connectivity and devices.^{31,32}



CHAPTER 7: Improving Access to Information and Services: Broadband Infrastructure, Telehealth, and Remote Learning

NCDIT has made significant investments and progress to close the digital divide. As of June 2022, 81% of North Carolina households with children have high-speed internet subscriptions, and the state's goal is 100% by 2025.³³ Families without broadband access are disproportionately families of color,³³ and these families are also less likely to own a computer or tablet that would enable students to log on to receive interactive remote instruction.³⁴ Many students from economically disadvantaged families who were able to access broadband internet utilized their parents' smartphones for remote instruction in 2020; in addition, many students' and families' internet access was not of sufficient quality or reliability to be adequate for remote instruction.^{35,36} To better determine gaps in access, Session Law 2021-180 (Senate Bill 105) requires the State Board of Education to establish and maintain a publicly available digital learning dashboard that displays disaggregated data on student access to digital devices both in school and out of school, the types of devices students are able to access, and their access to out-of-school internet connectivity.^b Many school districts and states are exploring one-to-one (1:1) computing initiatives, which guarantee every student has access to a tablet or computer.³⁷ However, effective remote instruction requires much more than internet connectivity and devices—it requires student engagement, strong teaching, and technological skills.³⁸

flexibility or resources to provide additional instruction for their children.⁴⁰ Ensuring access to high-quality remote instruction for North Carolina's students must incorporate the necessary internet and device access, as well as training and support for parents and guardians to improve student engagement. In response, the task force recommends the following:

RECOMMENDATION 7.3

Improve the transition to remote learning for school systems, teachers, students, and their families during public health emergencies.

Strategy 7.3a: The North Carolina Department of Public Instruction should evaluate existing one-to-one (1:1) computing initiatives to (1) assess their effectiveness and impact on student learning and (2) consider whether the 1:1 model should be pursued statewide based on the results of this evaluation.

Strategy 7.3b: The Digital Teaching and Learning Division within the North Carolina Department of Public Instruction should partner with public and charter schools, also known as Public School Units (PSU), faith-based organizations, and other community-based organizations to provide digital literacy training and technical assistance to parents and guardians. These organizations should share learnings from these trainings with MCNC (a technology nonprofit based in North Carolina) to inform MCNC's ongoing provision of direct technologies (connectivity, cybersecurity, and consulting) to PSUs.

STRATEGY 7.3a

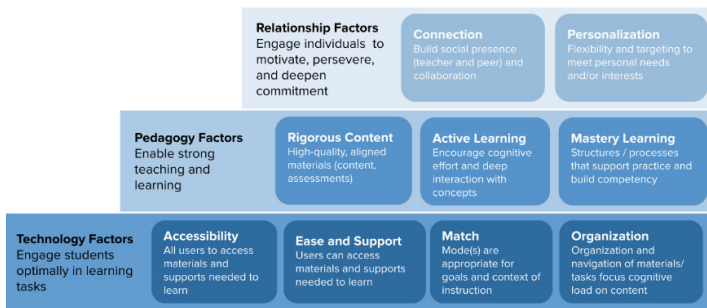
Assess opportunities to provide internet-enabled devices to all K-12 students across the state.

The North Carolina Department of Public Instruction should evaluate existing one-to-one (1:1) computing initiatives to (1) assess their effectiveness and impact on student learning and (2) consider whether the 1:1 model should be pursued statewide based on the results of this evaluation.

DESIRED RESULT

Strategy 7.3a would enable the North Carolina Department of Public Instruction (NCDPI) to determine if pursuing a 1:1 model for all North Carolina PSU students would create a more equitable and effective approach to remote instruction during public health emergencies.

Figure 2: Effective Remote Instruction³⁸



Source: The Learning Accelerator. What are the design factors that drive quality in K-12 remote learning? <https://practices.learningaccelerator.org/problem-of-practice/what-are-the-design-factors-that-drive-quality-in-k-12-remote-learning> Accessed July 8, 2022.

When students lack internet connectivity and/or are unable to access a device, schools often provide remote instruction using paper packets, which are less effective than interactive, online remote instruction.³¹ In a statewide survey, the majority of North Carolina's teachers indicated that less than half of their students were engaged in remote learning in the spring of 2020, and fewer than 75% of their students were engaged in fall 2020.³⁹ Student engagement in remote learning often depends on families or guardians serving as "proxy educators," leading to heightened levels of stress as parents and guardians balance their children's educational needs with employment and household responsibilities, a task made especially difficult for those families without

^b Session Law 2021-180 (SB105) <https://www.ncleg.gov/enactedlegislation/sessionlaws/html/2021-2022/sl2021-180.html>



WHY DOES THE TASK FORCE RECOMMEND THIS STRATEGY?

Access to an internet-capable laptop or tablet for every student within a household varies across the state. Avery and Onslow counties have had 1:1 device initiatives since 2011 and 2015, respectively.^{41,42} Durham Public Schools used CARES Act funding in 2020 to guarantee every student from kindergarten to 12th grade has access to a laptop.⁴³ These initiatives have comprehensive approaches to digital learning, including extensive policies around appropriate use and training for students, staff, and families.⁴¹⁻⁴³ **Strategy 7.3a** builds on these approaches by asking NCDPI to survey districts with existing 1:1 initiatives and share best practices, while also determining if the state should pursue funding to provide for one device per PSU student.

ADDITIONAL CONTEXT

Although there is conflicting research on whether 1:1 initiatives impact student achievement, research indicates that 1:1 initiatives promote student-centered, individualized teaching instruction.⁴⁴ In public health emergencies, when students may be unable to be physically present with their teachers, 1:1 initiatives can ensure all students have access to an internet-capable device to participate in live instruction, not only students whose families can afford the device. Student access to a laptop or tablet enables teachers to communicate with their students, ensure students' learning needs are met, and deliver higher-quality instruction.^{31,45}

During the COVID-19 pandemic, Hoke County Schools and other districts partnered with local businesses and community-based organizations to reduce barriers to remote instruction associated with internet connectivity by providing Wi-Fi hotspots. Implementation of a statewide 1:1 device initiative would also amplify ongoing efforts by NCDIT and its private and public sector partnerships to expand broadband infrastructure across the state under **Recommendation 7.1**, limiting the need for students to visit a Wi-Fi hotspot outside of their home during public health emergencies and other times of need.

DESIRED RESULT

Partnerships between faith-based organizations, community-based organizations, and the Digital Teaching and Learning Division in NCDPI would increase the availability of training for families and would help identify and share best practices for disseminating technological content to diverse populations of families and direct connectivity services to PSUs.

WHY DOES THE TASK FORCE RECOMMEND THIS STRATEGY?

The task force noted communities' concerns that many families were unable to help their children with remote instruction because they had not received guidance on how to utilize the software their children had to navigate for their coursework. Findings from North Carolina-focused research^{30,40} reflect those concerns and the need for families to have consistent communication around requirements and expectations of remote learning.³⁰ In 2020, faith-based community organizations and churches played an important role in disseminating information to families in Bladen County and others.³⁰ Faith-based and community organizations have existing relationships with families in their communities that would help them promote the training, ensure the training is culturally responsive, and provide a physical location for training. MCNC, a technology nonprofit based in North Carolina, has an existing relationship with NCDPI and with community-based organizations⁴⁶ that could serve as an important foundation for applying learning from trainings to inform delivery of connectivity services to the PSUs. Training families would not only help families better support their children's learning in public health emergencies, it would also enable them to be more involved in their children's education, improve collaborations between families and school officials, and better protect their children's internet safety and privacy.⁴⁷

STRATEGY 7.3b

Improve digital literacy to support remote learning.

The Digital Teaching and Learning Division within the North Carolina Department of Public Instruction should partner with public and charter schools, also known as Public School Units (PSU), faith-based organizations, and other community-based organizations to provide digital literacy training and technical assistance to parents and guardians. These organizations should share learnings from these trainings with MCNC (a technology nonprofit based in North Carolina) to inform MCNC's ongoing provision of direct technologies (connectivity, cybersecurity, and consulting) to PSUs.

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