Leveraging Digital Health Tools to Advance Health Equity

NORTH CAROLINA

To address gaps in technology adoption that impact underserved communities, the National Center for Primary Care (NCPC) at Morehouse School of Medicine is examining the adoption and use of digital health tools by primary care clinicians in four southeastern states: Georgia, Kentucky, North Carolina, and Tennessee.

Digital health tools (DHT) include:
- telemedicine
- home/remote monitoring
- health information exchange
- prescription drug monitoring program (PDMP)
- mobile applications, and other technologies used in healthcare settings
- electronic health records
- wearable devices
- patient portal
- health information exchange
- electronic health records
- wearable devices
- patient portal

North Carolina Demographics

Total Population: 10.2 million+
- 3% Asian
- 21% Black
- 7% Other
- 69% White

Hispanic Ethnicity
- 10%

Live in Rural Area
- 21%

More than 300 clinicians in North Carolina have completed the survey, highlighting the challenges and opportunities they have experienced using digital health tools.

Social Determinants of Health in North Carolina

- 13% Living in Poverty
- 108 Medically Underserved Areas
- 11% Living without Health Insurance
- 215,000 Living within the Medicaid Coverage Gap
- 6% Households without a car
- 184 Primary Care Health Professional Shortage Areas

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This project was funded in partnership with the United Health Foundation, grant number 6479.
Survey Participants Demographics

The majority of the 311 clinicians from North Carolina who participated in the survey held MD or DO credentials, specialized in primary care, and practiced in urban areas. They reported being satisfied with existing DHT.

### Credentials
- **MD/DO**: 56%
- **NP/PA/CNM**: 22%
- **PhD**: 2%
- **Other**: 20%

### Specialties
- **Primary Care (FM, IM, GER, Peds)**: 72%
- **Obstetrics and Gynecology**: 6%
- **Neural and Behavioral Health**: 16%
- **Other**: 2%

### Technology Enthusiasm
- **Eager or Early Adopters**: 52%
- **Neutral**: 31%
- **Skeptical or Hesitant**: 17%

### Reported Levels of Satisfaction
- **Satisfied or Very Satisfied with their telemedicine experience**: 67%
- **Satisfied or Very Satisfied with their electronic health record experience**: 71%

### Medicaid Participation
- **Accept Medicaid**: Overall Study 89%, North Carolina 35%
- **Participate in Medicaid EHR**: Overall Study 94%, North Carolina 33%

### Practice Locations
- **Solo Practice**: 3.5%
- **Small Practice**: 12.2%
- **Large Practice**: 20.9%
- **Hospital/Hospital and Outpatient Primary Care**: 23.5%
- **Community Health Center**: 34.7%

### Practice Areas
- **89.6%** of all survey participants practice in urban areas
- **9%** practice in rural areas
- **92.6%** of survey participants in North Carolina practice in urban areas
- **6.8%** practice in rural areas

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Nearly 99% of all providers who participated in the survey use digital health tools. North Carolina providers reported similar usage rates.

More than 7 in 10 providers reported being connected to the Health Information Exchange (HIE), but less than half reported using it.

90% of all survey participants reported using DHT because of COVID-19

54% of respondents who used telehealth because of COVID-19 reported it was their first time

89.6% of survey participants in North Carolina reported using DHT because of COVID-19

63% of respondents who used telehealth because of COVID-19 reported it was their first time

Reasons for Using Digital Health Tools during COVID-19

- Treatment of COVID-19 positive patients: 73.3%
- Treatment of COVID-19 negative patients: 67.9%
- Training: 36.4%
- Other: 13.4%

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Factors that Support and Impede Digital Health Tool Adoption

…we have a really high Spanish-speaking population. And so that has been our biggest challenge with the patient portal or telehealth. But we’re kind of making it work for now.

- Focus Group Participant

Top Barriers to Adopting Digital Health Tools

- Time: 51%
- Cost: 50%
- Limited Workflow Integration: 44%

Top Factors Supporting Digital Health Tool Adoption

- Ease of Workflow Integration: 55%
- Meets Patient Need: 55%
- Improves Patient Health: 49%

When we’ve had connectivity issues with patients, our administration decided that we could not do telephone visits anymore because of reimbursement [something that they were being told]. So, somebody gave us a couple of iPads...we have taken those out to patients in their cars where the Wi-Fi still connects, or sometimes, they’ll come into the office, be shut up in a room with the iPad and we’ll have the visit that way. This is nice, because if you need to get something like vitals or for them to have labs or something that day, that’s been a nice byproduct.

- Focus Group Participant

Reimbursement as a Support for Digital Health Tool Adoption

- Federal or State Incentive Payments: 31.8%
- Reimbursement by Public Payers: 30.5%
- Reimbursement by Private Payers: 23.8%

We’re doing a lot of phone visits. We do have Doxy.me to do the video correspondence. But because of the location of where we live, bandwidth and Internet connectivity issues, there’s been some painful appointments both via video and on phone. But when it works, it works very well. Patients are very receptive to it. It eliminates a barrier to access services, especially a transportation barrier, which is very heavy in our community. So, I think patients are really loving that.

- Focus Group Participant

Reasons for DHT Use after COVID-19

- Assessment of behavioral and mental health, and therapy appointments
- Continued Access to care for patients in communities with transportation barriers
- Medication management and refills

Reasons for Adopting Digital Health Tools

Mandated

- Federal or State Law: 66.2%
- Practice Leadership: 52.9%
- Practice Decision: 50.3%

I haven’t done it [remote patient monitoring] really during the pandemic, except where we found the feature on MyChart, where we can invite patients to enter their blood pressure and that drops it in...it’s really nice because it can be integrated into their medical record. So, that’s pretty cool.

- Focus Group Participant