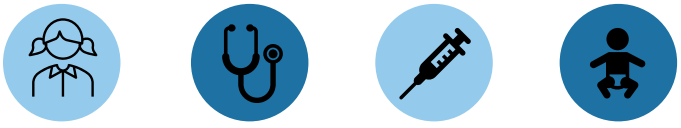
Best Practices for Improving Pediatric Immunization and Well-Child Visit Rates for North Carolina Medicaid Standard Plans

Quality Improvement

March 2024



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Getting Started

Improving preventive health care for children who are beneficiaries of North Carolina Medicaid is essential to improving health outcomes and preventing illness for this population. North Carolina Medicaid covers 2 in 5 children in all of North Carolina.[1] The purpose of this document is to provide the Standard Plans of Managed Care in North Carolina Medicaid a guide for best practices for improving quality of care regarding well-child visit and immunization rates.

Implementing best practices with regards to improving well-child visit and immunization rates is particularly important because of the importance of what these measures entail. Well-child visits and recommended vaccinations are essential in helping making sure infants, children, and adolescents stay healthy and preventing disease outbreaks.[2] These vaccine-preventable diseases can be extremely contagious, especially for babies and young children.[3] Well-child visits are important for tracking growth and developmental milestones, discussing any concerns about a child's health, and getting their schedule vaccinations to prevent illnesses like measles or whooping cough.[4]

Vaccinations are the best way to protect children from a number of vaccine-preventable diseases, including chickenpox, flu, hepatitis A & B, HPV, measles, meningococcal virus, RSV, and other serious illnesses.[5] Since immunizations often occur at well-child visits and both well-child visits and immunizations are cornerstones of preventive care for childhood health and interventions for one often also impact the other, immunization and well-child visit measures are both the focus of this document.

The following measures are the focus of this document:

NQF#	Abbreviation	Measure Name	Steward
0038	CIS	Childhood Immunization Status (Combo 10)	NCQA
1407	IMA	Immunizations for Adolescents (Combo 2)	NCQA
1392	W30	Well-Child Visits in the First 30 Months of Life	NCQA
1516	WCV	Child and Adolescent Well-Care Visits	NCQA

[1] Kaiser Family Foundation, "Medicaid in North Carolina," kff.org, June 2023, *Link*.
[2] CDC, "Catch Up on Well-Child Visits and Recommended Vaccinations," Centers for Disease Control and Prevention, March 21, 2023, *Link*.
[3] Ibid.
[4] Ibid.
[5] CDC, "Diseases & the Vaccines That Prevent Them," Centers for Disease Control and Prevention, January 3, 2020, *Link*.

Definitions of Measures

CIS: Childhood Immunization Status (Combo 10)

CIS is the percentage of children 2 years of age who had a combination of 10 vaccinations by their second birthday. The combination of vaccines are as follows:[6]

- 4 diphtheria, tetanus, and acellular pertussis (DTaP)
- 3 polio (IPV)
- 1 measles, mumps, and rubella (MMR)
- 3 haemophilus type B (HiB)
- 3 hepatitis B (HepB)
- 1 chicken pox (VZV)
- 4 pneumococcal conjugate (PCV)
- 1 hepatitis A (HepA)
- 2 or 3 rotavirus (RV)
- 2 influenza (flu)

Childhood vaccines are important because they protect children from serious or potentially life-threatening diseases during a time when they are most vulnerable to disease. Immunizations are essential for disease prevention and vaccine coverage needs to be improved and maintained in order to prevent a resurgence of vaccine-preventable diseases. [7]

IMA: Immunizations for Adolescents (Combo 2)

IMA assesses adolescents that are 13 years of age who have had the following vaccines by their 13th birthday:[8]

- Meningococcal
- 1 Tdap
- Complete human papillomavirus series

The diseases that the diseases prevent can cause breathing difficulties, heart problems, nerve damage, pneumonia, seizures, cancer, and even death. Vaccines are a safe and effective way to protect adolescents from these diseases.[9]

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[6] NCQA, "Childhood Immunization Status (CIS)," February 2, 2023, *Link*.
[7] Ibid.
[8] NCQA, "Immunizations for Adolescents (IMA)," January 23, 2023, *Link*.
[9] Ibid.

W30: Well-Child Visits in the First 30 Months of Life

W30 is a measure that assesses utilization of well-child visits in the first 30 months of life for a child. This measure has two sub-measures: 0-15 months of life and 15-30 months of life.[10]

The first sub-measure assesses whether children who turned 15 months old during the measurement year had at least 6 well-child visits with a Primary Care Physician (PCP) during their first 15 months of life. The second sub-measure assesses whether children who turned 30 months old during the measurement year had at least 2 well-child visits during the last months.[11]

W30 is an important preventive care measure because well-child visits help assess physical, emotional, and social development at an important stage in life for children and infants. Well-child visits are a critical opportunity for screening and counseling.[12]

WCV: Child and Adolescent Well-Care Visits

WCV assesses children between the ages of 3-21 years who received one or more well-care visit with a primary care practitioner or an OB/GYN practitioner during the measurement year.[13]

Well-child visits have multiple benefits, including prevention of illnesses, tracking growth and development, and being able to raise any concerns during the appointment.[14] Because of this, it is important that children and adolescents are able to have their routine well-child visits to benefit their overall health and help prevent them from getting sick.

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[10] NCQA, "Child and Adolescent Well-Care Visits (W30, WCV)," January 23, 2023, *Link*.
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] American Academy of Pediatrics, "AAP Schedule of Well-Child Care Visits," HealthyChildren.org, n.d., *Link*.

North Carolina Medicaid Enrollees

Factors Impacting this Population

When it comes to improving these measures concerning childhood immunizations and well-child visits, it is important to understand the North Carolina Medicaid population and characteristics that impact the health of this population.

Health disparities are *preventable* differences in disease, injury, violence, or opportunities to achieve optimal health and these differences are experienced by populations that have been disadvantaged by social or economic status, geographic location, and/or environment.[15] Many populations experience health disparities, including some racial and ethnic minority groups, people with disabilities, women, people who are LGBTQI+, people with limited English proficiency, and other groups.[16]

This is particularly relevant for the North Carolina Medicaid population as this population is vulnerable and is likely to experience preventable health disparities. Here are some characteristics of North Carolina Medicaid enrollees that are important to consider when implementing quality improvement projects for this population.

- Medicaid enrollees are low-income due to eligibility criteria.
- North Carolina Medicaid covers 2 in 5 children in all of North Carolina.[17]
- Over half of non-elderly Medicaid enrollees in North Carolina are people of color, and NC Medicaid covers on average 3 in 10 people with disabilities in North Carolina.[18]
- North Carolina is a largely rural state, as 78 of the state's 100 counties are considered rural and these 78 counties encapsulate about 40% of the state's population.[19] In the U.S., nearly a quarter of individuals under 65 who live in rural areas are covered by Medicaid.[20]

These characteristics are important to keep in mind when developing interventions using best practices because these factors contribute to how patients access and experience health care.

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[15] CDC, "What Is Health Equity?," cdc.gov, July 1, 2022, *Link*.
[16] Ibid.
[17] Kaiser Family Foundation, "Medicaid in North Carolina."
[18] Ibid.
[19] Jaymie Baxley, "Disparate Issues Shape Rural Health in North Carolina," North Carolina Health News, May 25, 2023, *Link*.
[20] MACPAC, "Medicaid and Rural Health," macpac.gov, April 2021, *Link*.

Identifying Aims and Drivers

What Needs to Improve?

Developing an Aim Statement

An aim statement is an essential first step in implementing a quality improvement step. In writing an aim statement, the goal is to establish "what is it that we are trying to accomplish?" An aim statement is the written documentation of what you want to achieve from an improvement project and setting a timeframe for when you want to achieve it.[21]

How to write a good aim statement: S.M.A.R.T. criteria

Knowing what components are needed in an aim statement is essential in making sure the aim statement will be clear and knowing if the objectives that were set have been achieved. The SMART criteria are helpful guidelines when putting together an aim statement.

The SMART acronym stands for:

- Specific
- Measurable
- Achievable
- Relevant
- Time-bound

A good aim statement should include all these elements.[22] Here are these criteria in more detail:

- **Specific:** The mission statement for your goal. When crafting your aim statement, is it specific enough to be clear? Who needs to be involved to achieve this goal? What exactly are you trying to accomplish? What is the reason for the goal? Be as detailed as possible while also being concise.
- **Measurable:** What metrics are you going to use to determine if you meet the goal? This makes a goal more tangible by providing a wat to measure progress and assess if the goal has been met. For example, if your goal is to improve a measure, by what percentage would you like to improve that measure?

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[21] Suzie Creighton, "How to Define the Aim Statement for Your Quality Improvement Project," *LifeQI*, July 12, 2021, https://blog.lifeqisystem.com/define-aim-statement-quality-improvement#:~:text=The%20IHI%20set%20out%20the%20following%20advice%20for,drift%205%20Be%20prepared%20to%20fully%20shift%20aim.

[22] Ibid.

- **Achievable:** What can you do to achieve this aim in the timeframe that you have established? Is this goal achievable? If there are skills or tools needed to achieve this goal that you do not have yet, what would you need to attain those skills or tools?
- **Relevant:** Is your aim relevant to your overall organization's goals?
- **Time-bound:** Your aim statement should include a timeframe of when you want to achieve this goal. For instance, if your goal is to improve a rate by 5%, in what timeframe do you hope to achieve this improvement?[23]

Creating an Aim Statement with SMART Goals
Step 1: *Write a goal that you have in mind. You will then use SMART goals to improve this goal to make it into an aim statement.*
Example: Improve the IMA rate for our beneficiaries.
Specific: *What do you want to accomplish? Who needs to be included?*
[Insert plan name here] will improve the IMA rate for our beneficiaries *by partnering with our providers to provide educational materials about immunizations and send reminders to parents of adolescents with overdue care alerts.*
Measurable: *How can you measure progress to evaluate if this goal has been met?*
[Plan name] will improve the IMA rate for our beneficiaries *by 5%* by partnering with our providers to provide educational materials about immunizations and send reminders to parents of adolescents with overdue care alerts.
Achievable: *Do you have the skills required to achieve this goal? If not, how can you obtain them? What is the motivation for the goal?*
This goal is achievable because the resources to complete this are available.
Relevant: *Why am I setting this goal now? Is it aligned with overall objectives?*
This goal is relevant because it is aligned with overall objectives to improve the health of Medicaid beneficiaries in North Carolina.
Time-bound: *What is the timeframe for this goal and is it realistic?*
[Plan name] will improve the IMA rate for our beneficiaries by 5% *in 12 months* by partnering with our providers to provide educational materials about immunizations and send reminders to parents of adolescents with overdue care alerts.

[24]

[23] Kate Eby, "The Essential Guide to Writing SMART Goals," *Smartsheet*, January 9, 2019, *Link*.
[24] Ibid.

Building a Driver Diagram

What is a Driver Diagram?

Once an aim statement is established, the next step in making a quality improvement project is making a driver diagram. For the purposes of this document, the driver diagram is the core of establishing what the best practices are to improve childhood immunization and well-child visit rates.

A driver diagram is a visual tool that is meant to assist in planning and structuring an improvement project. Other than the aim statement, a driver diagram consists of three main components: primary drivers, secondary drivers, and change ideas/interventions.[25]

> Primary drivers: High-level factors that need to be influenced in order to achieve the goal of the aim statement. These are areas of improvement that need to be addressed in order to achieve the desired outcome of the aim statement.[26]
> Secondary drivers: Specific factors or interventions that are necessary to achieve the primary drivers. These are targeted areas where you will plan specific changes or interventions. Each secondary driver contributes to at least on primary driver. These should be process changes that have evidence-based reason to think they will have an impact on the outcome and they should be necessary and sufficient to achieve the aim.[27]
> Change ideas/interventions: These are the ideas or interventions that will be implemented to address the secondary drivers. Essentially, what are you going to do and how are you going to do it? What changes can we make that will result in an improvement?[28]

When building a driver diagram once an aim statement is established, these components are established through a combination of brainstorming and evidence-based practices. When it comes to wanting to improve immunization and well-child visit rates, the question is: what are factors that will facilitate change for these measures towards our aim of improvement? Once ideas for primary and secondary drivers are established, research and evidence-based literature can confirm whether these drivers and change ideas are likely to impact change for improving these rates.

The steps to build a driver diagram are done in this order: 1) craft an aim statement, 2) establish primary drivers, 3) establish secondary drivers, and 4) come up with change ideas and interventions. While a driver diagram is essentially built from the top-down with

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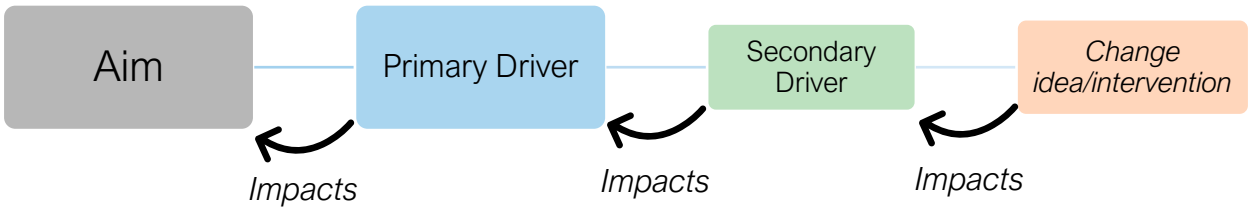
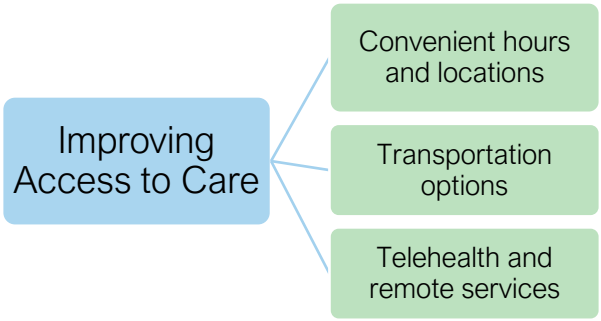
[25] Clinical Excellence Commission, "Driver Diagrams," www.cec.health.nsw.gov.au, n.d., *Link*.
[26] Ibid.
[27] Ibid.
[28] Ibid.

moving from the broadest factor to more specific actions, the impact of the components is in the reverse. Interventions impact change for the secondary driver, which will impact the primary driver, which will result in change towards the desired outcome of the aim statement. Essentially, with each step of building a driver diagram, you will get more specific into what will be done for your quality improvement project with each step.



The flow of change goes from the intervention towards the aims.[29] In aiming to improve childhood immunization and well-child visit rates, ask: what are the main factors that impact these rates? One high level factor is improving access to care.

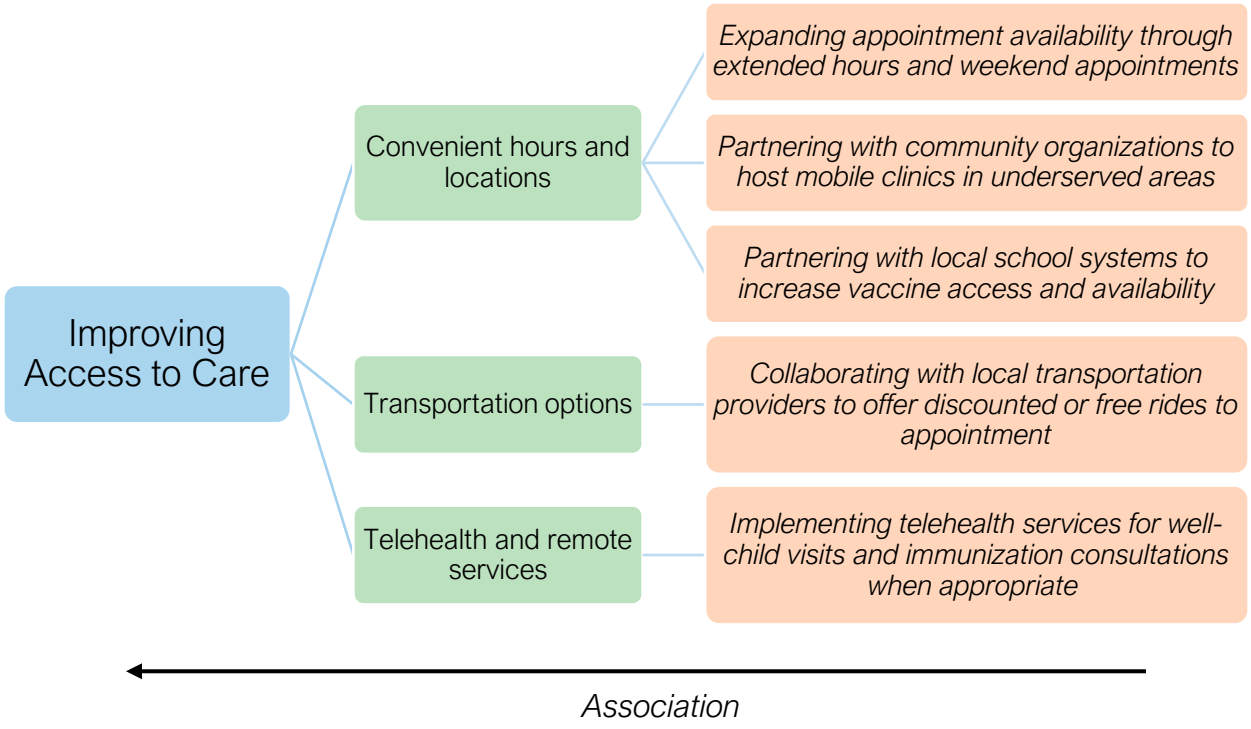
Improving access to care would improve immunization and well-child visit rates. Now that one primary driver is established, what are factors that would impact improving access to care? From this, we can establish what the secondary factors would be for improving access to care.



Based on these secondary drivers, now change ideas/interventions can be established. We know that improving access to care is a big high-level factor that will impact childhood immunization and well-child visit rates. We know that availability of appointments and having transportation options are some of the things that can impact access to care. The

[29] CMS, "Defining and Using Aims and Drivers for Improvement," cms.gov, January 24, 2013, *Link*.

change ideas/interventions are then established as the concrete actions that can be taken for these secondary drivers.



With the change ideas established, there is a much clearer vision of what can be done to impact this primary driver and subsequently achieve the desired outcome of the aim statement.

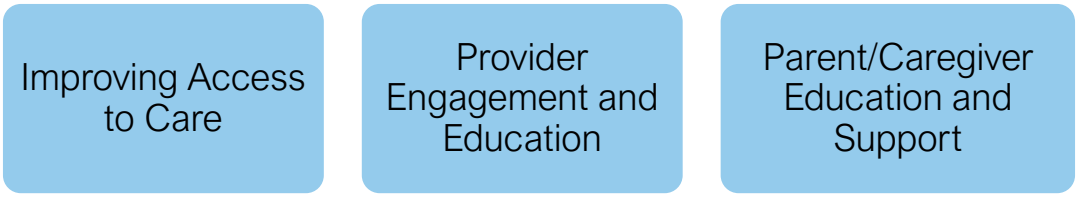
A full driver diagram for improving childhood immunization and well-child visit rates is included in the next section. Following the driver diagram will be the best practices portion of this document, with a section for each primary driver and its subsequent second drivers and change ideas/interventions. These change ideas are what constitute the best practices for improving childhood immunization and well-child visit rates.

Further resources on driver diagrams:

- Driver diagram template from Institute for Healthcare Improvement
- Building driver diagrams and a more complex template from Clinical Excellence Commission
- CMS – Aims and Drivers

Driver Diagram for Improving Childhood Immunization and Well-Child Visit Rates

Primary Drivers



For the purposes of this document, the primary drivers that have been identified to drive what the best practices are to improve childhood immunization and well-child visit rates are:

1. Improving access to care
2. Provider engagement and education
3. Parent/caregiver education and support
4. Data monitoring and feedback*

**Note: the section on data monitoring and feedback is not included in this version of the document and will be included in a later, updated version.*

Improving Access to Care

Medicaid beneficiaries are low-income and nearly a quarter of people under 65 in the U.S. who live in rural areas are covered by Medicaid.[30] These characteristics can contribute to challenges in accessing primary care such as inability to take time off work to attend appointments, lacking access to reliable transportation, long distances to access care, and provider shortages.[31] Access to primary care is associated with positive health outcomes and well-child visits and immunizations are a crucial aspect of primary and preventive care for infants, children, adolescents and people that have a usual source of health care are more likely to receive preventive services like flu shots.[32] Improving access to care is essential for improving the population health and reducing health disparities for Medicaid beneficiaries of North Carolina and addressing these barriers may help reduce the risk of poor health outcomes for this population.[33] Based on this, improving access to care has been included as a primary driver for improving childhood immunization and well-child visit rates for the North Carolina Medicaid population.

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[30] MACPAC, "Medicaid and Rural Health."
[31] Healthy People 2030, "Access to Primary Care - Healthy People 2030 | Health.Gov," health.gov, n.d., *Link*.
[32] Ibid.
[33] Ibid.

Provider Engagement and Education

Providers are essential to improving preventive health care for children. In addition to providing the actual services, well-child visits, and other facets of children's health care, providers must also navigate the administrative tasks of their practices and the constant changes that occur in the healthcare system.[34] Provider engagement and education is about providing providers with the necessary resources, training, and information that they need to do their jobs.

Parent/Caregiver Education and Support

Families play a pivotal role in children's health and welfare and interventions involving parents/caregivers can be very effective in improving preventive care for children.[35] Parents and caregivers are responsible for arranging appointments for their children to receive their well-child visits and immunizations. They must keep track of what appointments need to be made, at what age they need to be made, how often they need appointments, what vaccinations are needed, arrange transportation for appointments, and any other logistics involved with these appointments. This can be challenging for parents and caregivers, especially if they have more than one child, are a single parent, are working, have their own health challenges, have limited income, etc. For families with limited resources, getting their child(ren) the health care that they need can be a challenge. It can be difficult to get accurate information about what well-child visits are needed or what immunizations are needed and when. Additionally, there can be challenges in navigating misinformation about their child's health care, especially surrounding vaccinations. Because of this, education and support for parents and caregivers is a critical component of improving childhood immunization and well-child visit rates.

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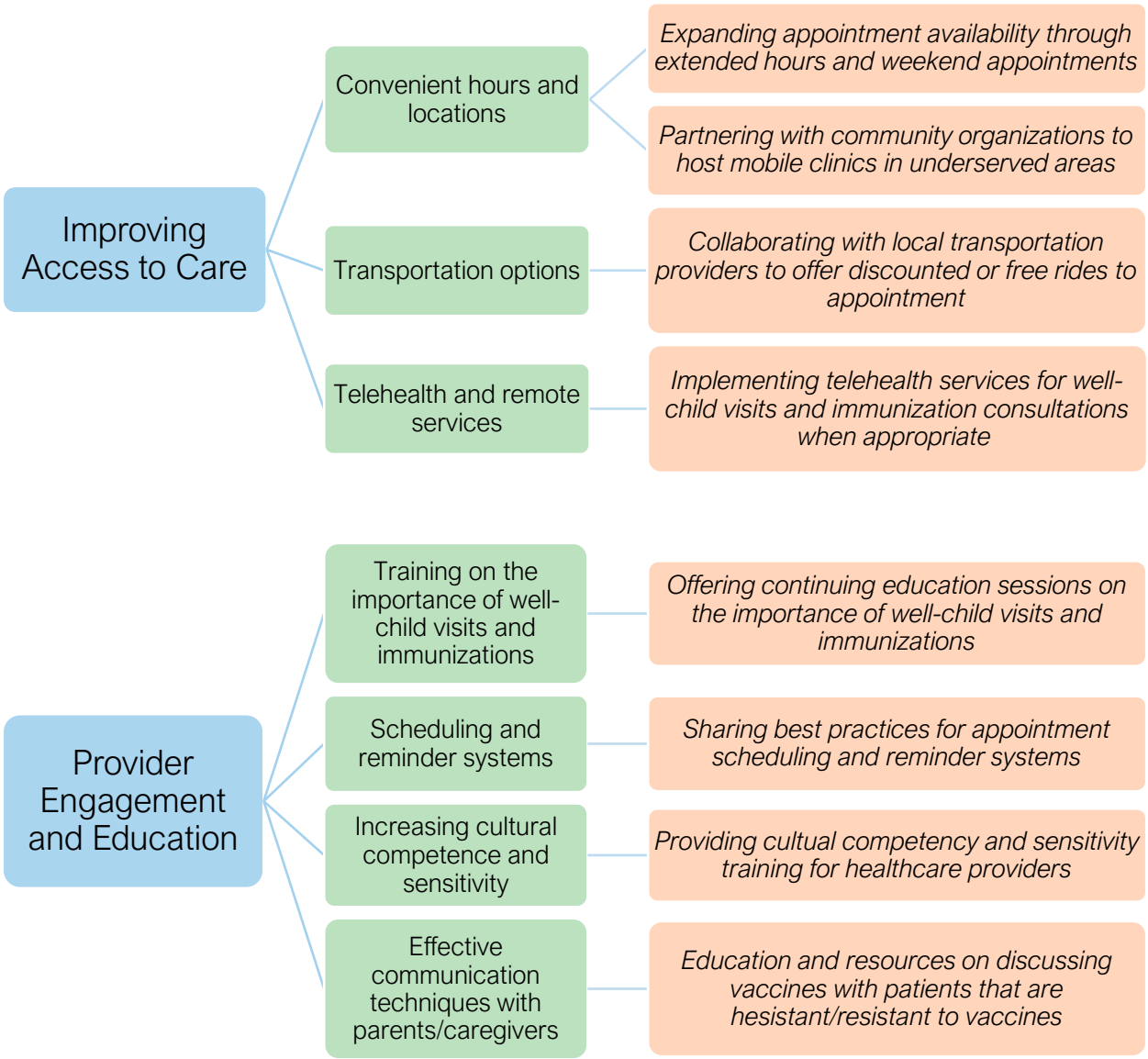
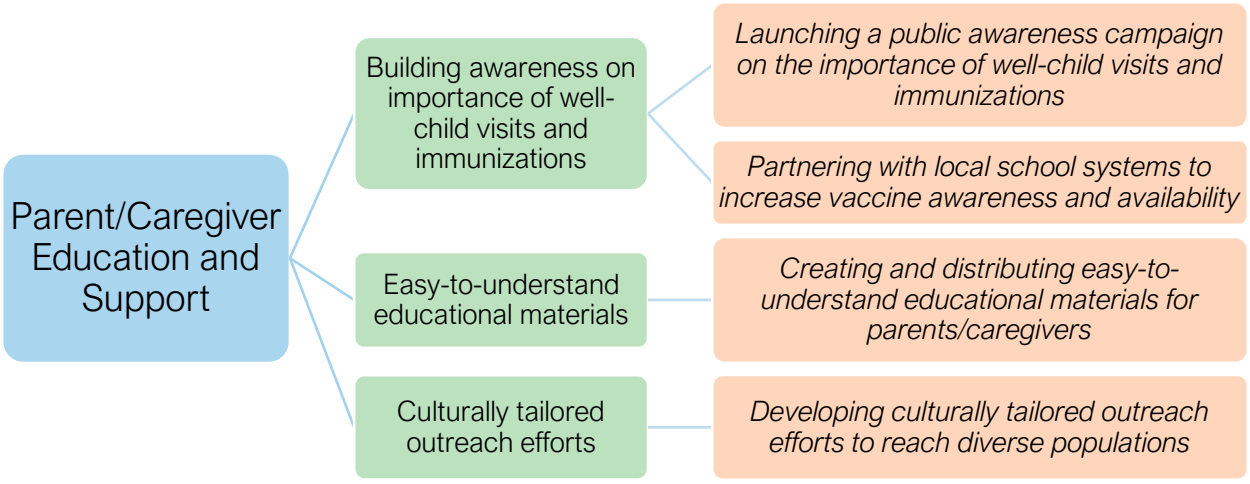
[34] Association of Clinical Documentation Integrity Specialists, "Provider Engagement and the 'Why,'" acdis.org, 2019, *Link*.

[35] Jill J. Fussell MD, "The Pediatrician's Role in Family Support and Family Support Programs," *Pediatrics* 128, no. 6 (December 1, 2011): e1680–84, *Link*.; Justin D. Smith et al., "Parenting Interventions in Pediatric Primary Care: A Systematic Review," *Pediatrics* 146, no. 1 (June 24, 2020): e20193548, *Link*.

Secondary Drivers and Recommended Interventions

The following diagrams show the secondary drivers and interventions for the primary drivers.

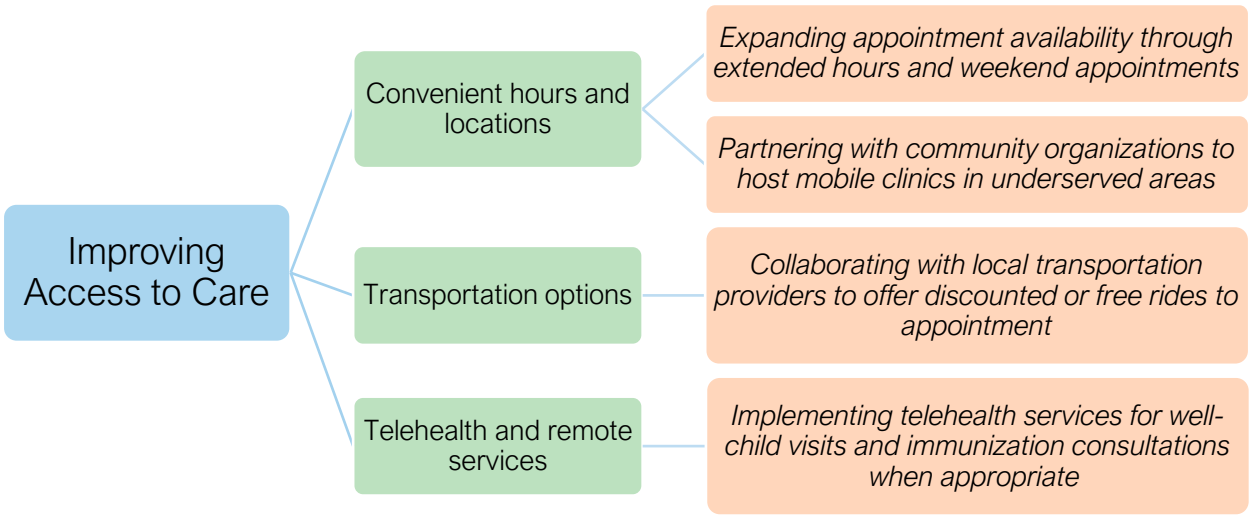




The following sections contain the “best practices” portion of this document through following the driver diagrams for each primary driver. Each primary driver has a section of best practices and information as to why these interventions are likely to be effective. A list summarizing all best practices is included in the conclusion.

Best Practices

Improving Access to Care



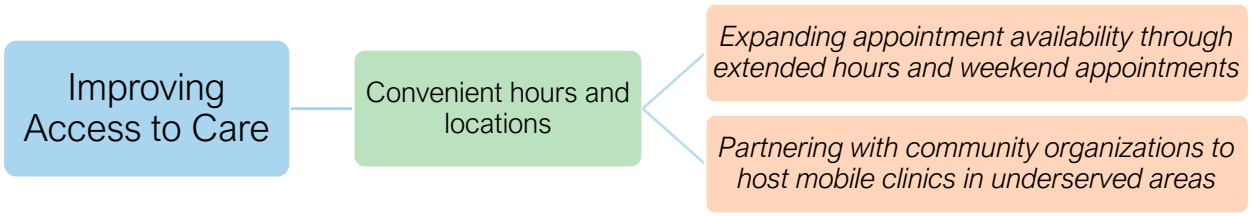
Based on the challenges that the North Carolina Medicaid population faces in accessing care, the secondary drivers that have been identified for improving access to care are:

- Convenient hours and locations
- Transportation options
- Telehealth and remote services

These drivers can improve access to care for Medicaid enrollees because they address several of the challenges that this population faces. By providing more convenient hours and locations that provide preventive services for their children, families will have more options to receive the care they need for their children. This can additionally help transportation barriers by reducing the need for extra travel. Additionally, improving access to telehealth services can help with transportation barriers and travel distances, especially for rural residents. Telehealth services can also help address access issues pertaining to residents living in areas with provider shortages, though there are more challenges around the issue of provider shortages that this document does not address.

The following suggested interventions are evidence-based practices that have been shown to be effective in improving access to care for preventive services such as well-child visits and immunizations.

Convenient Hours and Locations



The recommended interventions for improving convenient hours and locations are:

- Expanding appointment availability through extended hours and weekend appointments
- Partnering with community organizations to host mobile clinics in underserved areas
- Partnering with local school systems to increase vaccine awareness and availability

Extended Hours and Weekend Availability

One barrier to accessing care for many parents and caregivers is limited provider office hours. Many providers do not offer services outside of normal business hours, which can be a barrier for many parents who are unable to take off work to take their children to appointments.[36]

Having extended hours and weekend availability helps reduce the amount of difficulty many parents face when trying to bring their children in for well-child visits or immunizations by offering more times that potentially work for their schedule without causing them to miss work. Since Medicaid beneficiaries are low-income, taking time off work can be a considerable challenge for them, as working low-income people often do not get paid sick leave and may not be able to afford losing income to take time off to take themselves or their children to the doctor.[37] Having scheduling options outside of normal work hours and on weekends can help parents be able to take their children to their well-child visits.

Additionally, people who are low-income often have difficulty getting time off approved or they have uncertain work schedules, which can make scheduling their appointments in advance challenging. Having flexible availability or walk-in hours can also help with appointment availability, which can improve access to care.

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[36] Healthy People 2030, "Access to Primary Care - Healthy People 2030 | Health.Gov."
[37] Corinne Lewis, Melinda K. Abrams, and Shanoor Seervai, "Listening to Low-Income Patients: Obstacles to the Care We Need, When We Need It," *Commonwealth Fund*, December 1, 2017, Link.

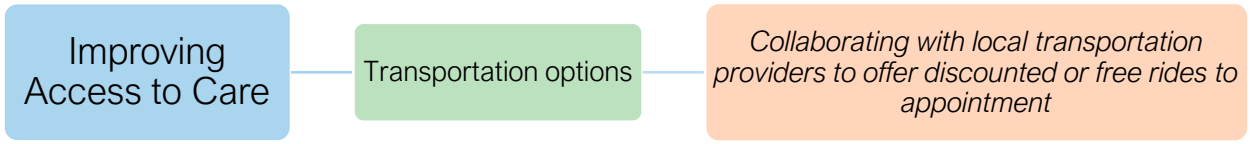
Partnering with Community Organizations and Mobile Clinics

Partnering with community organizations to provide mobile clinics in underserved areas is another impactful way to improve access to care. While limited hours and appointment availability is a challenge for many beneficiaries, the location of where services can be received is a concurrent barrier. There can be multiple reasons that this is a barrier, including transportation challenges and not being able to take enough time off work to travel to an appointment.

One way to address this barrier is to provide more convenient locations to receive services. The two main strategies we are recommending to help address this are to partner with community organizations to host mobile clinics and to partner with schools.

Mobile health clinics can help serve underserved communities in improving access to healthcare by addressing barriers such as time, geography, and trust, and have shown to improve health outcomes and reductions in costs.[38] Mobile clinics have been shown to help patients avoid expensive emergency department visits, with estimates showing that each mobile clinic results in an average of 600 fewer emergency department visits each year.[39] Mobile clinics can also help improve access to care in underserved area, especially rural areas or urban areas targeting a specific population.[40]

Transportation Options



Collaborating with Local Transportation Providers

Challenges with travel distance, access to transportation, and provider shortage areas can impact people's ability to access needed primary care for them and their children.[41] Lack of transportation and difficulty taking time off from work along with financial stress can make well-child visits logistically very challenging for caregivers.[42] It can be difficult for families to navigate transportation because of competing schedules within the family, sharing a car

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[38] Nelson C. Malone et al., "Mobile Health Clinics in the United States," *International Journal for Equity in Health* 19, no. 1 (March 20, 2020), Link.
[39] Tulane University, "How Do Mobile Health Clinics Improve Access to Health Care?," publichealth.tulane.edu, June 16, 2021, Link.
[40] Ibid.
[41] Healthy People 2030, "Access to Primary Care - Healthy People 2030 | Health.Gov."
[42] Elizabeth R. Wolf et al., "Caregiver and Clinician Perspectives on Missed Well-Child Visits," *Annals of Family Medicine* 18, no. 1 (January 2020): 30–34, Link.

between caregivers, cab fares costing too much, buses not being available or being inconvenient, or having to pay for parking.[43] Additionally, patients living in rural areas are likely to live in areas with low provider to patient ratios, and therefore must travel long distances for a lot of their health care needs.[44] Because of these challenges, assistance with transportation can be a helpful intervention.

Collaborating with transportation providers can be beneficial to improving access to health care services. Patients with readily available transportation are more likely to engage in preventive healthcare, leading to better outcomes.[45] Denver Health, a large safety net hospital in Denver, CO, partnered with Lyft to provide transportation for patients in need of transportation services. The service was offered to patients who were recently discharged and to patients needing transportation to and from outpatient clinical appointments.[46] This collaboration reduced the number of complaints the patient advocate office received about inadequate transportation to zero.[47] Based on this collaboration and other services that various healthcare systems have implemented to improve transportation services, here are some possible interventions that could be done through a collaboration with transportation providers:

- Offer free bus tickets or cab vouchers.
- Provide assistance with navigating bus routes and schedules.
- Partner with a ride-sharing service to provide transportation to primary care appointments or provide vouchers for ride-sharing services.[48]

There are other transportation services that some systems have implemented, such as bike-sharing programs or volunteer driver programs.[49] However, these would not be as beneficial for improving attendance of children's appointments since they cannot attend their appointments alone, so transportation interventions for this aim need to be appropriate for a caregiver traveling with their child(ren).

Additionally, there are things that need to be done in tandem with offering these services to improve access to transportation.

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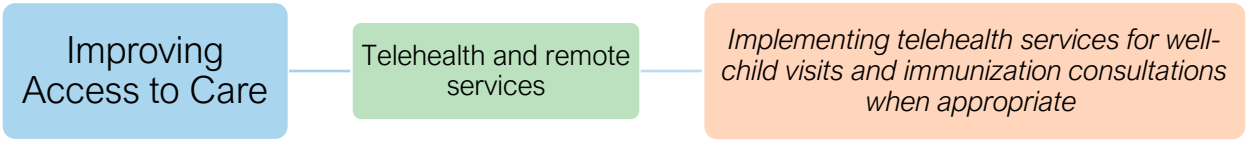
[43] Wolf et al., "Caregiver and Clinician Perspectives on Missed Well-Child Visits."
[44] Sara Heath, "Top Challenges Impacting Patient Access to Healthcare," Patient Engagement HIT, February 22, 2022, *Link*.
[45] "Collaboration between Healthcare Providers and NEMT Services," Stellar Transportation, October 13, 2023, *Link*.
[46] American Hospital Association, "Case Study: Denver Health Medical Center Collaborates with Lyft to Improve Transportation for Patients," aha.org, March 1, 2018, *Link*.
[47] Ibid.
[48] American Hospital Association, "Social Determinants of Health Series: Transportation and the Role of Hospitals," aha.org, n.d., *Link*.
[49] Ibid.

- Monitor why appointments are missed when they are missed to identify when transportation and other logistical barriers are the cause of a missed appointment.[50]
- When collaborating with a transportation provider, understand how their system works to ensure service is efficient and that patients are connected with their ride home.[51]
- Help ensure that providers have the necessary infrastructure to coordinate patients and their ride, such as having adequate staff to delegate certain staff members to coordinate the service for patients.[52]

Telehealth and Remote Services



Implementing Telehealth Services

Implementing telehealth and remote services when appropriate for well-child visits and immunization consultations can be an effective intervention strategy for many of the reasons that have already been identified. Many parents and caregivers struggle to get time off work, have barriers to reliable transportation, have competing schedules with multiple children, or have long distances to travel to access health care. While not all services are appropriate for telehealth services (such as receiving an immunization, which requires the patient to be in-person), having some preventive care services available remotely can reduce some of the strain on parents and caregivers in accessing care for their children.

The use of telehealth services increased dramatically due to the onset of the Covid-19 pandemic in 2020 and as a result, telehealth is more widely available than it was prior to the pandemic. Telehealth improves access to care by eliminating physical distance as a barrier to accessing care and can help address areas affected by provider shortages.[53] There are

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[50] National Academies Press (US), "Cross-Sector Collaboration to Provide Transportation Services in Rural/Small Urban/Suburban Settings," ncbi.nlm.nih.gov, November 28, 2016, Link.
[51] American Hospital Association, "Case Study: Denver Health Medical Center Collaborates with Lyft to Improve Transportation for Patients."
[52] Ibid.
[53] Mavis N. Schorn et al., "Changes in Telehealth Experienced by Advanced Practice RNs during COVID-19," *CIN: Computers, Informatics, Nursing* 41, no. 7 (November 9, 2022): 507–13, Link.

still some challenges with telehealth, namely that there is a limitation of what services can be provided and a lack of adequate internet access in some areas, mostly rural areas.[54]

Telehealth services may be appropriate for some well-child visits, but not for others. For visits that require patients to be in-person, such as receiving immunizations, telehealth will not work for these visits. However, for well-child visits where telehealth could substitute for an in-person visit, this could be a helpful way to help parents for whom distance, transportation, or scheduling is a barrier.

Work with providers to determine which practices could benefit from implementing telehealth services for some well-child visits or who could use support. Additionally, based on the recommended well-child visit schedule, help your providers determine which visits are appropriate for telehealth and which ones require an in-person visit. Lastly, help your providers communicate an understanding of how to use telehealth services to parents and caregivers for their children, such as making sure they have the visit in a private area and that the parent or caregiver is still present for the visit.[55]

Summary of Best Practices for Improving Access to Care

For providing convenient hours and locations:

1. Have appointment availability outside of normal working hours and on weekends
2. Have flexible scheduling or walk-in hours
3. Provide mobile clinics in underserved areas
4. Partner with schools to host community immunization events

For providing transportation options:

1. Collaborate with transportation providers to offer ride assistance through ride-sharing
2. Offer free bus passes/cab vouchers
3. Help providers in determining how they can support patients in coordinating transportation services

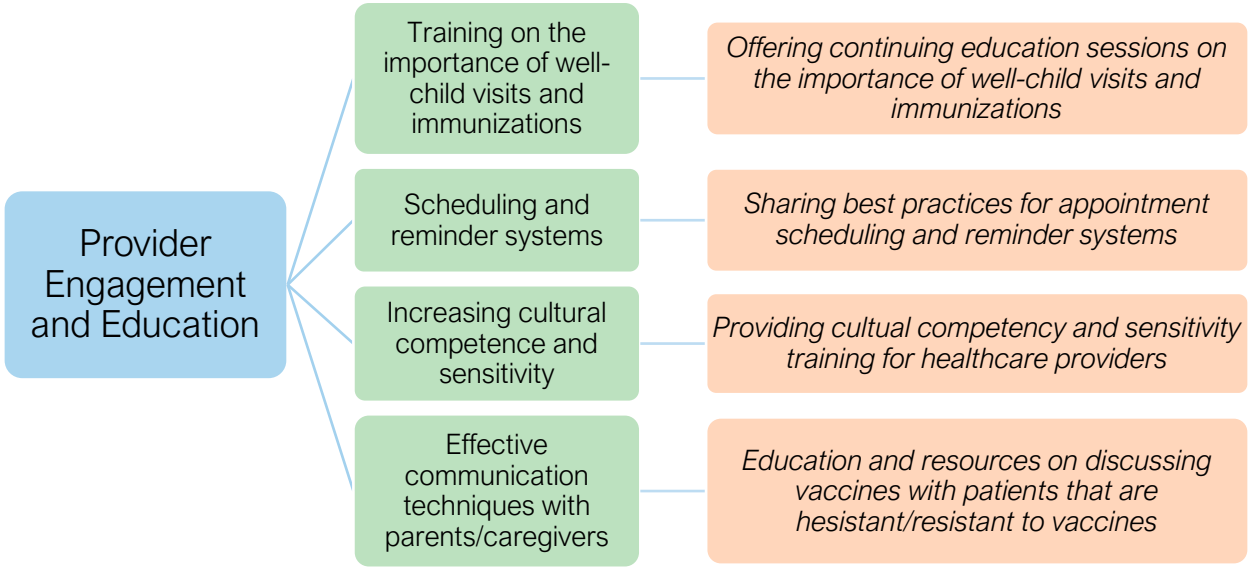
For telehealth services:

1. Help providers determine when a telehealth visit is appropriate for well-child visits

[54] Schorn et al., "Changes in Telehealth Experienced by Advanced Practice RNs during COVID-19."
[55] S. David McSwain MD, MPH, FAAP, "Telehealth Services Start with Your Pediatrician," HealthyChildren.org, May 2, 2022, *Link*.

Best Practices

Provider Engagement and Education



Based on the challenges that the North Carolina Medicaid population faces in accessing care, the secondary drivers that have been identified for improving provider engagement and education are:

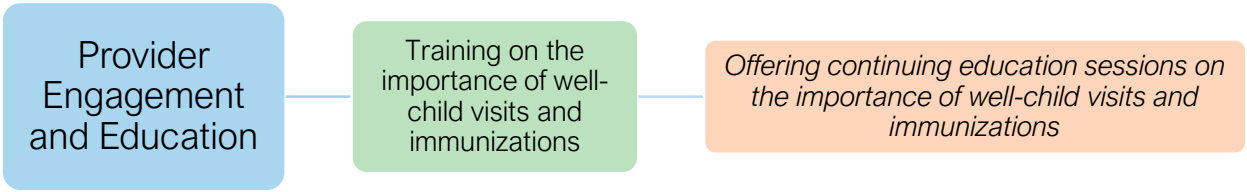
- Training on the importance of well-child visits and immunizations
- Scheduling and reminder systems
- Increasing cultural competence and sensitivity
- Effective communication techniques with parents/caregivers

Since providers are the ones providing well-child visits and immunizations to our population in question, it is essential to have interventions aimed at supporting providers and providing them with the proper tools and training to provide this care.

In addition to providing health care services, providers also must do certain administrative tasks pertaining to providing pediatric preventive care, which can be difficult without the proper supports to do so.[56]

[56] Association of Clinical Documentation Integrity Specialists, "Provider Engagement and the 'Why.'"

Training on Importance of Well-Child Visits and Immunizations



Offering Continuing Education

Continuing education is important for providers to be able to regularly keep up with the knowledge and skills as the healthcare industry is continuously evolving and changing.[57] While well-child visits and immunizations may seem like a basic part of care, offering continuing education to providers around this topic is essential in helping them know how best to deliver this care. Continuing education for well-child visits can help providers be up to date with scheduling and reminder systems, the schedule of well-child visits, helping explain the importance of vaccinations to patients, explaining misinformation around vaccines and being able to talk to vaccine hesitant patients.

Continuing education is also essential for providers to be up to date with current and accurate information.[58] Being able to provide vaccine education during vaccine opportunities is a chance to increase vaccine uptake. [59] There needs to be education around immunizations and well-child visits both towards patients/families *and* the provider workforce supplying this care.[60]

While offering continuing education around well-child visits and immunizations can help rates by helping inform and support providers, it also meets a need of providers. Providers, whether they are nurses or physicians, have varying continuing education hours for their credentials. For opportunities for continuing education, places such as Institute for Healthcare Improvement or NC AHEC have various continuing education opportunities available.

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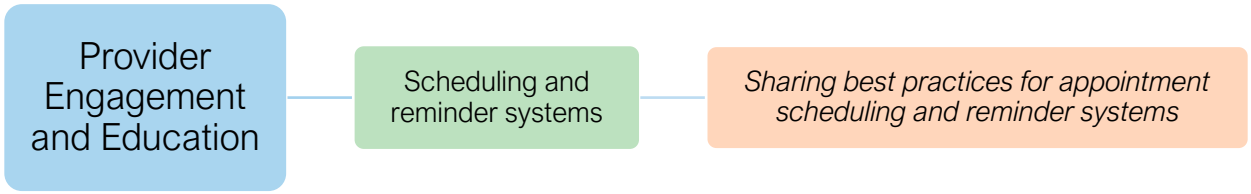
[57] Health Management, "The Importance of Continuous Education in Healthcare," *Health Management* 17, no. 2 (2017), *Link*.
[58] Immunize Colorado, "The Importance of Health Education for Immunization from the Perspective of an AmeriCorps VISTA and Certified Health Education Specialist," immunizecolorado.org, September 20, 2022, *Link*.
[59] Ibid.
[60] Ibid.

Scheduling and Reminder Systems



Appointment Scheduling and Reminder Systems

When it comes to scheduling and reminder systems, providers need to know what works best for their patients and have the necessary resources in order to implement those practices. We recommend giving providers guidelines on how best to schedule patients and what types of reminders work best for Medicaid patients.

Since it can be difficult for parents to take time off to take their children to appointments, one thing that can aid this is to utilize every visit to its fullest potential. Each visit can be an opportunity for a well-child visit *and* an immunization, if applicable.[61] Additionally, use this visit to reduce the burden of responsibility from the caretaker by offering to schedule their next visit during check out.[62]

Provide appointment reminders either by text or through mobile app. Medicaid patients generally need time to arrange for transportation, so a reminder that is given 48-72 hours in advance can help them arrange appropriate transportation for their visit.[63]

Send reminder letters or call the parents/caregivers of children with overdue care alerts for well-child visits and/or immunizations, even when those patients have not yet been to the office. These patients likely chose this office or were assigned to it.[64]

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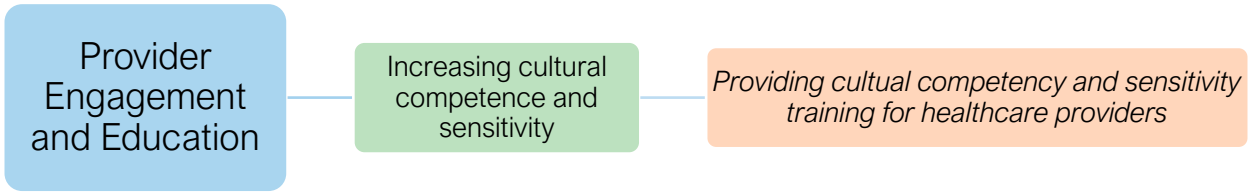
[61] Ohio Chapter, American Academy of Pediatrics, "Well Visits for Preventive Health Care," ohioaap.org, n.d., *Link*.
[62] Ibid
[63] Ibid.
[64] Ibid.

Cultural Competency and Sensitivity Training



To help providers provide the best care for the NC Medicaid population, it is important for providers to have the proper training to be culturally competent and socially aware of their patients' context. Because of this, providing cultural competence and sensitivity training is important for improving the quality of childhood preventive care.

Cultural competence training consists of skills and knowledge about cultural norms and about understanding and respecting cultural differences, which can help providers' awareness of how these cultures interact with each other.[65] Trainings on cultural competence can teach providers fact about patient cultures and intercultural communication skills and exploration of potential barriers to care for patients from culturally and linguistically diverse backgrounds.[66]

Cultural sensitivity encompasses the knowledge, skills, and attitudes that enable people to work well with and respond effectively to people in cross-cultural settings.[67] Culture consists different aspects of people's identity, and it shapes everyone's pattern of thoughts, communications, actions, customs, beliefs, and values.[68] Elements of people's culture includes but are not limited to:

- Age
- Country of origin
- Cognitive ability or limitations
- Education
- Environment and surroundings
- Family and household compositions
- Gender identity
- Linguistic characteristics
- Perceptions of family and community
- Perceptions of health and well-being
- Racial and ethnic groups

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[65] County Health Rankings & Roadmaps, "Cultural Competence Training for Health Care Professionals," January 27, 2020, *Link*.
[66] County Health Rankings & Roadmaps, "Cultural Competence Training for Health Care Professionals."
[67] American Academy of Family Physicians (AAFP), "Cultural Sensitivity: The Importance of Cultural Sensitivity in Providing Effective Care for Diverse Populations (Position Paper)," AAFP, n.d., *Link*.
[68] Ibid.

- Religion and spirituality
- Sex
- Sexual orientation
- Socioeconomic status
- Residence (i.e., urban or rural)[69]

Even if these things do not come up explicitly, all of these elements impact how people receive healthcare. How have people in their family of origin typically sought out medical care? At what point did they seek medical care and what prompted them to do so? What well-being practices are prevalent in their culture? What language is their family's preferred language? What if their children speak more than one language, but the parents do not? How do their finances impact their ability to seek out healthcare? How do they understand the healthcare they receive?

Cultural competence in care is necessary because race, socioeconomics, health literacy, and many of these other factors can influence:

- Patients' perceptions of symptoms and health conditions
- When and how patients seek care
- Patients' expectations of care
- How patients regard procedures, treatments, and willingness to follow recommendations or treatment plans
- Who patients believe should participate in making healthcare decisions[70]

All of these factors are present when patients seek healthcare and these factors impact parents or caregivers bringing their child(ren) to receive well-child visits and/or immunizations.

For instance, if a family of origin only went to the doctor when they were sick or in an emergency situation, it may be difficult for a parent to understand bringing their children in for preventive care, because their child is not sick.

Cultural competency has many positive effects, and has been shown to:

- Reduce racial and ethnic disparities in health care
- Improve connections between patients and their providers
- Improve patient safety and reduces miscommunications between providers and patients
- Improve outcomes through health equity
- Increase patient satisfaction[71]

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[69] County Health Rankings & Roadmaps, "Cultural Competence Training for Health Care Professionals."
[70] Tulane University, "How to Improve Cultural Competence in Health Care," publichealth.tulane.edu, March 1, 2021, *Link*.
[71] UnitedHealthcare, "Cultural Competency," UHCprovider.com, n.d., *Link*.

Cultural differences between healthcare providers and patients can affect communication and understanding.[72] Because of this, having cultural competence training can help mitigate barriers and reduce miscommunications.

One aspect of cultural competence is also having language accessibility.[73] Language barriers can make it difficult for patients to accurately describe their symptoms and can create confusion when providers explain treatments and diagnoses.[74] This can often come up when children are involved because providers may often rely on children to serve as interpreters, which puts children and adolescents in a stressful position.[75] Therefore, another crucial aspect of having cultural competency is having an interpretation service, translator, or being able to refer families to providers who speak their preferred language.

Cultural competence has been shown to increase patient safety, reduce disparities, reduce inefficiencies, decrease costs, and improve patient outcomes.[76] Patients are safer and have better outcomes when there is improved communication.[77] Examples of negative health consequences due to lack of cultural competence can include missing opportunities for screening because of lack of familiarity with conditions among certain minority groups, not understanding different responses to medication, lack of knowledge about traditional remedies which can lead to harmful drug interacts, and diagnostic errors due to miscommunication.[78]

SHARE Approach

The Agency for Healthcare Research and Quality (AHRQ) uses the SHARE approach for providers to use with their patients. The SHARE approach is a five-step process for share decision-making with a patients that involves exploring the benefits, harms, and risks of each option and what matters most to the patient. The SHARE approach is:

1. Seek you patient's participation.
2. Help your patient explore and compare treatment options.
3. Assess your patient's values and preferences.
4. Reach a decision with your patient.
5. Evaluate your patient's decision.[79]

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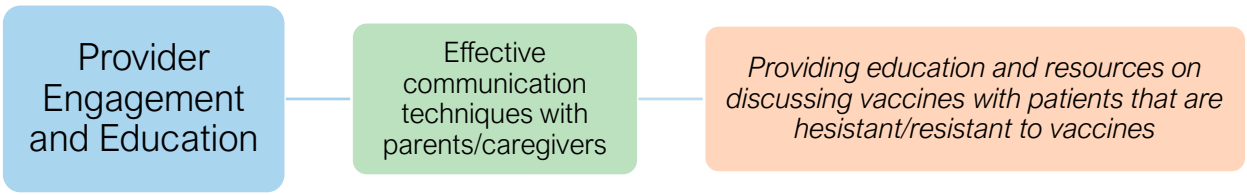
[72] Tulane University, "How to Improve Cultural Competence in Health Care."
[73] Ibid.
[74] Ibid.
[75] Ibid.
[76] Ibid.
[77] Ibid.
[78] Cindy Brach MPP and Irene Frase PhD, "Reducing Disparities through Culturally Competent Health Care: An Analysis of the Business Case," *Quality Management in Health Care* 10, no. 4 (November 3, 2016), Link.
[79] AHRQ, "The SHARE Approach," Agency for Healthcare Research and Quality, n.d., Link.

AHRQ has a fact sheet and offers webinars on the SHARE approach for providers. This approach is one potential resource that can be shared with providers for improving cultural competence.

Shared decision-making as a tool of cultural competence has shown to benefit both health care professionals and patients by improving the quality of care, increasing patient satisfaction, and improving patient adherence to treatment recommendations.[80]

Effective Communication Techniques with Parents/Caregivers



During patient encounters, providers will encounter patients with a wide variety of understanding and beliefs about childhood preventive care, but especially vaccinations. People have varying levels of health literacy and educational backgrounds. This can make it challenging to discern what information is accurate and what is not. Because of this, it is important for providers to have resources and training to effectively communicate with parents/caregivers about these topics. Being able to understand patient's concerns, knowing misinformation they may have heard, and being able to respond to concerns with empathy can help parents/caregivers understand the importance of vaccinations for their child(ren).

Discussing Vaccine Hesitancy with Patients

Vaccine hesitancy among parents/caregivers has been an ongoing issue for many years. There are several different reasons that people have concerns about vaccinations. Vaccine reluctance has been exacerbated in part by social media and the spread of misinformation about vaccinations.[81] With the prevalence of social media, there is great potential for misinformation to spread and for patients to make uninformed decisions about vaccinations for their children.[82] Additionally, though the Covid-19 vaccine is not included in the CIS or

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[80] AHRQ, "The SHARE Approach: A Model for Shared Decisionmaking - Fact Sheet," Agency for Healthcare Research and Quality, n.d., *Link*.
[81] Heidi J. Larson, Emmanuela Gakidou, and Christopher J L Murray, "The Vaccine-Hesitant Moment," *The New England Journal of Medicine* 387, no. 1 (July 7, 2022): 58–65, *Link*.
[82] Larson, Gakidou, and Murray, "The Vaccine-Hesitant Moment."

IMA measures, lack in vaccine confidence in childhood immunizations increased significantly during the Covid-19 pandemic.[83]

Reasons for Vaccine Hesitancy

Attitudes about vaccines can vary depending on the particular vaccine and can vary by group, such as race/ethnicity, political affiliation, and religion.[84] Black Americans, while being disproportionately affected by Covid-19 during the pandemic, also showed substantial vaccine hesitancy to the Covid-19 vaccine.[85] This was largely because of generalized mistrust of the health system and not feeling that the Covid-19 vaccine was developed with Black people's needs in mind.[86] This is important for providers to consider in their conversations with Black patients. It is also important to remember that these concerns do not come from nowhere; In 2020 7 out of 10 Black Americans reported having been treated unfairly by the health care system.[87] For example, studies have also found Black patients in the U.S. are consistently undertreated for pain compared to white patients.[88] A long history of racism within healthcare in which Black people were the victims of painful experiments have also contributed to medical mistrust among Black patients. It is necessary for providers to understand this when discussing vaccines with Black patients and that the reasons for concerns are likely different than white patients.

For more information on this topic, here are some resources that can be shared with providers:

- Understanding and Ameliorating Medical Mistrust Among Black Americans
- Structural Racism in Historical and Modern US Health Care Policy

Political affiliation has also shown to be a significant factor in decision-making about vaccinations among patients, with large shifts in norms about vaccinations among Republican-affiliated communities and news media contributing to this.[89] Religion has also showed to be a contributor to attitudes and decision-making about vaccinations and has shown a decline in following medical recommendations.[90] White Evangelical Christians have

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[83] UNICEF, "New Data Indicates Declining Confidence in Childhood Vaccines of up to 44 Percentage Points in Some Countries during the COVID-19 Pandemic," unicef.org, April 20, 2023, *Link*.; Victoria Zhang, Peiyao Zhu, and Abram L. Wagner, "Spillover of Vaccine Hesitancy into Adult COVID-19 and Influenza: The Role of Race, Religion, and Political Affiliation in the United States," *International Journal of Environmental Research and Public Health* 20, no. 4 (February 2023): 3376, *Link*.

[84] Zhang, Zhu, and Wagner, "Spillover of Vaccine Hesitancy into Adult COVID-19 and Influenza: The Role of Race, Religion, and Political Affiliation in the United States."

[85] Ibid.

[86] Ibid.

[87] Martha Hostetter and Sarah Klein, "Understanding and Ameliorating Medical Mistrust among Black Americans," *Commonwealth Fund*, January 14, 2021, *Link*.

[88] Ibid.

[89] Zhang, Zhu, and Wagner, "Spillover of Vaccine Hesitancy into Adult COVID-19 and Influenza: The Role of Race, Religion, and Political Affiliation in the United States."

[90] Ibid.

had high rates of vaccine reluctance even prior to the pandemic and the politicization of vaccines that occurred.[91] Although adults and children with religious exemptions for vaccines are a small part of the population, infections can still spread quickly through unvaccinated communities and unvaccinated children are at higher risk for acquiring vaccine preventable infections.[92]

Internet, Social Media, and Health Literacy

Social media has played a significant role in vaccine hesitancy. Social media and the internet allow people with shared beliefs to communicate across geographic areas and allow messages to become more widespread.[93] Understandably, many people search online for health information, and the information that people find impacts their decision-making.[94] People have varying degrees of health literacy and understanding, with about 36% of U.S. adults having low health literacy.[95] A disproportionate amounts of adults with low health literacy are lower-income people that are eligible for Medicaid, so this is especially relevant for this population.[96] Parents and caregivers who are hesitant about vaccinations often have their children's best interests in mind, but may not have the health knowledge to know what that is. Doctors are not always right, so parents and caregivers might look online to see what they should do and might not be equipped to discern what is true and what is not. It is easy for non-credible sources to look like credible sources and not everyone has the health literacy or the media literacy skills to discern the difference.[97]

These reasons, compounded with other issues such as difficulty getting appointments or difficulty with transportation impact whether parents and caregivers will seek out vaccinations for their child(ren).

Myths and Misconceptions

Knowing what common myths and misconceptions about vaccinations are out there is important for providers to be aware of when talking with their patients about vaccinations. Many of these misconceptions come from misinformation, but also a general misunderstanding about how vaccinations work. It is important for providers to be able to explain how vaccines work to people with varying levels of health knowledge and understanding.

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[91] Cecelia Thomas JD, "The Challenge of Vaccine Hesitancy Didn't Start with COVID-19, and It Won't End There - TFAH," Trust for America's Health, April 8, 2022, *Link*.
[92] College of Physicians of Philadelphia, "Cultural Perspectives on Vaccination," History of Vaccines, n.d., *Link*.
[93] Larson, Gakidou, and Murray, "The Vaccine-Hesitant Moment."
[94] Thomas, "The Challenge of Vaccine Hesitancy Didn't Start with COVID-19, and It Won't End There - TFAH."
[95] Center for Health Care Strategies, "Health Literacy Fact Sheets - Center for Health Care Strategies," May 22, 2023, *Link*.
[96] Ibid.
[97] Talha Burki, "Vaccine Misinformation and Social Media," *The Lancet*, October 2019, *Link*.

Here are some of the common myths and misconceptions about vaccinations and the truth about these misconceptions:

Common Myths and Misconceptions about Vaccines

Myth #1: *Vaccines can cause the disease of the vaccine.*[98]

A vaccine causing complete disease is highly unlikely and is a misunderstanding of how most vaccines work.[99] Most vaccines are inactivated vaccines, which means that it is impossible to contract the disease from receiving the vaccine.[100] A few vaccines do contain live organisms, which can lead to a mild case of the disease, such as developing a mild rash as a side effect of receiving the chicken pox vaccine.[101] An exception of this was with the live oral polio vaccine; however the oral polio vaccine is no longer administered in the U.S.[102]

Myth #2: *Vaccines contain harmful ingredients.*[103]

Any substance can be harmful in significantly high doses, but vaccines contain ingredients at a dose that is lower than the dose people are naturally exposed to in our environment.[104]

Myth #3: *Vaccines cause autism.*[105]

Vaccines are very safe and most reactions to vaccines are temporary and minor, such as a low fever or a sore arm.[106] Vaccine-preventable disease are more likely to cause harm than the actual vaccinations are.[107] The myth that vaccines cause autism comes from a study in 1998 that tried to show that the measles-mumps-rubella (MMR) vaccine caused autism in the children in the study. This article was later retracted by the same journal that published it due to the significant flaws in the science of the study.[108] Though the causes of autism are not known in all people, people who are autistic are born autistic.[109] Autism is highly heritable having a family history of autism makes it more likely for children to have autism as well.[110] Vaccines cannot and do not cause autism. Signs of autism can

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[98] American Academy of Allergy, Asthma, & Immunology, "Vaccines: The Myths and the Facts | AAAAI," www.aaaai.org, 2021, Link.; World Health Organization, "Vaccines and Immunization: Myths and Misconceptions," who.int, October 19, 2020, Link.; College of Physicians of Philadelphia, "Cultural Perspectives on Vaccination."; CDC, "Misconceptions about Seasonal Flu and Flu Vaccines," cdc.gov, 2023, Link.

[99] American Academy of Allergy, Asthma, & Immunology, "Vaccines: The Myths and the Facts | AAAAI."

[100] Ibid.

[101] Ibid.

[102] Ibid.

[103] Ibid.

[104] Ibid.

[105] Ibid.

[106] Ibid.

[107] Ibid.

[108] American Academy of Allergy, Asthma, & Immunology, "Vaccines: The Myths and the Facts | AAAAI."

[109] Autistic Self Advocacy Network, "About Autism - Autistic Self Advocacy Network," n.d., Link; NHS, "What Is Autism?," nhs.uk, June 21, 2023, Link.

[110] CDC, "Autism Spectrum Disorder, Family Health History, and Genetics," cdc.gov, n.d., Link.

sometimes be noticed at 18 months or younger, but a reliable diagnosis is more common around 2 or 3 years of age.[111] Though these signs may be noticed around the same age as a child is receiving vaccinations, this does not mean the vaccines caused autism in a child.

Myth #4: *It is better to have for children to have diseases to become immune than to become immune through vaccines.*[112]

Vaccine-preventable diseases can have many serious complications that can be avoided through vaccination.[113] Vaccines stimulate the immune systems to produce an immune response that is similar to the immune response from natural infection, but without putting the immunized person at risk of the disease's potential complications.[114] A measles infection causes encephalitis (inflammation of the brain) in one out of every 1,000 infected individuals; however the MMR vaccine results in encephalitis or a severe allergic reaction once every *million* vaccinated individuals.[115] The risks of natural infection far outweigh the risks of immunization.[116]

Myth #7: *Having too many vaccinations increases the risk of harmful side effects and will overload a child's immune system.*[117]

This is the belief that a child's immune system will become "overloaded" if the child receives multiple vaccines at one time.[118] Studies have repeatedly shown that vaccines are no more likely to cause adverse effects when multiple are given at one time than when they are given separately.[119] "Spreading out" vaccines actually puts children at more risk of contracting preventable diseases.[120]

For more information on vaccine myths, here are some resources:

American Academy of Allergy, Asthma, & Immunology
World Health Organization
History of Vaccines
CDC Misconceptions about Flu Vaccines

Knowing the different reasons patients have for being hesitant and knowing the different misconceptions that are out there is one part of helping providers navigate vaccine hesitancy. The other component is giving providers the resources and skills to navigate the conversation.

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[111] CDC, "Autism Spectrum Disorder, Family Health History, and Genetics."
[112] American Academy of Allergy, Asthma, & Immunology, "Vaccines: The Myths and the Facts | AAAAI."
[113] Ibid.
[114] Ibid.
[115] College of Physicians of Philadelphia, "Cultural Perspectives on Vaccination."
[116] Ibid.
[117] Ibid.
[118] Ibid.
[119] Ibid.
[120] Ibid.

Motivational Interviewing

One strategy that providers can utilize in discussing vaccinations with parents and caregivers about vaccinations for their child(ren) is motivational interviewing. Motivational interviewing is an evidence-based and culturally sensitive way of speaking with patients about vaccinations.[121] Motivational interviewing is helpful for managing mixed emotions and helping a provider and patient make a decision together that is consistent with the patient's values and needs.[122]

There are four steps in applying motivational interviewing during a visit:

Step #1: Embrace an attitude of empathy and collaboration

- Show empathy and be compassionate
- Be genuinely curious about the reasons a patient feels the way they do
- Be sensitive to culture and circumstances
- Do not argue or debate[123]

Step #2: Ask permission to discuss vaccines

- Ask if it is okay with them to discuss vaccinations
- If a patient says no, respect that
    - Note that you can talk about why they said no without trying to change their mind
    - You can also try to talk about it another time[124]

Step #3: Motivational interviewing

- Ask a scaled question. "On a scale of 1 to 10, how likely are you to get this vaccine for your child?"[125] This can help you gauge where the patient is at. For someone who answers "never," you probably will not change their mind. However, if someone answers between 4-7, there is probably a better chance since they are more open to it, but likely just have some concerns that need to be addressed before making the commitment.
- Ask follow-up questions.
    - Why not a lower number?
    - What would help you move to a higher number?[126]

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[121] CDC, "Talking with Patients about COVID-19 Vaccination," cdc.gov, n.d., *Link*.
[122] Ibid.
[123] Ibid.
[124] Ibid.
[125] CDC, "Talking with Patients about COVID-19 Vaccination."
[126] Ibid.

Step #4: Respond to questions about vaccines, health, or mental health

- If a patient asks questions about safety, risks, or their health, respond within the boundaries of your competence and scope of practice.[127]
- Give them answers in a way that is easy for them to understand.

Motivational interviewing is one strategy that can be shared with providers that they can use in their practice to discuss vaccines with parents and caregivers who are hesitant to get their child(ren) vaccinated.

Additionally, here are some readily available resources that can be shared with providers about discussing vaccinations with patients:

Provider Resources for Vaccine Conversations with Parents
Understanding Vaccines and Vaccine Safety
Talking to Parents about Vaccines

[127] Ibid.

Summary of Best Practices for Provider Engagement/Education

For training on importance of well-child visits and immunizations:

1. Offer continuing education courses for providers about preventive care for children

For scheduling and reminder systems:

1. Utilize every appointment to its fullest potential when applicable
2. Offer to schedule the next visit during check-out
3. Provide appointment reminders through text or through a mobile app
4. Send reminders 48-72 hours in advance to give patients adequate time to arrange for transportation
5. Send reminder letters to parents/caregivers with overdue care alerts, even if they have not been seen in that office yet

For increasing cultural competence and sensitivity:

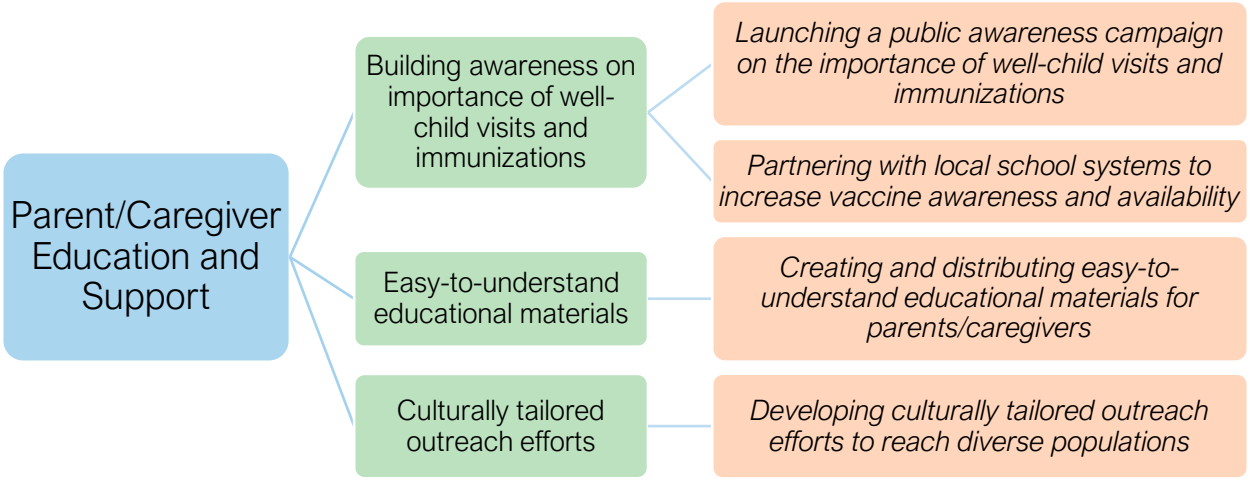
1. Have interpretation services or refer patients to providers who speak their preferred language
2. Do not have children act as interpreters for their parents, especially at their own health care visits
3. Use the SHARE Approach
4. Offer webinars or resources on cultural competency to providers

For effective communication techniques with parents/caregivers:

1. Be knowledgeable about different reasons for vaccine hesitancy among different communities
2. Be aware of how social media and the internet have impacted vaccine hesitancy
3. Be able to communicate information for people with varying levels of health literacy
4. Know different myths and misconceptions about vaccines and how to address these concerns
5. Use motivational interviewing to approach conversations around vaccinations
6. Approach the topic with empathy

Best Practices

Parent/Caregiver Education and Support

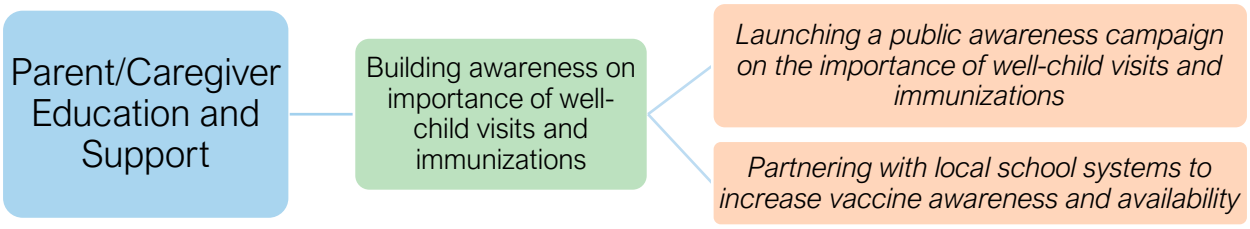


Based on the challenges that the North Carolina Medicaid population faces in accessing care, the secondary drivers that have been identified for improving parent/caregiver education and support

- Building awareness on the importance of well-child visits and immunizations
- Easy-to-understand educational materials
- Culturally tailored outreach efforts

The role of the parent/caregivers in childhood preventive care cannot be understated. They are responsible for the well-being of their child(ren) and scheduling any necessary appointments. Providing parents/caregivers with support, resources, and easy-to-understand materials on well-child visits and immunizations can help parents/caregivers get their children to appointments and help them understand the importance of their children receiving this care.

Building Awareness on Importance of Well-Child Visits and Immunizations



Awareness Campaigns on the Importance of Well-Child Visits and Immunizations

Parents may not be aware of how important well-child visits and immunizations are for the health and well-being of their children. They may know it's important, but not see it as a top priority or might delay visits for various reasons. Because of varying levels of health knowledge among parents, one strategy plans can utilize is awareness campaigns on the importance of well-child visits and immunizations. Sending out materials and contacting parents/caregivers directly to inform them on the importance of preventive care for their child(ren) is an effective tool to use in helping improve well-child visit and immunization rates for children.

There are several reasons that can be communicated to parents/caregivers why regular visits with your child's doctor are important, including:

1. **Preventive care** can help keep your child healthy by preventing them from getting sick through care such as receiving vaccinations.[128] Preventive care can also catch any issues early on and get them necessary care and support earlier rather than later.[129]
2. **Growth and development** can be monitored through well-child visits and any concerns can be addressed at the time of the visit.[130]
3. **Trust** can be established with the doctor and can help children feel more comfortable in medical settings.[131]

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[128] Outreach Community Health Centers, "The Importance of Kids' Doctor Visits — Outreach Community Health Centers," August 4, 2023, *Link*.
[129] Ibid.
[130] Ibid.
[131] Ibid.

The American Academy of Pediatrics (AAP) has several educational resources available to share with parents/caregivers on the importance of child health including videos, graphics, social media posts, and other communication tools.[132] These were developed as part of the #CallYourPediatrician campaign, which sought to teach parents the importance of getting regular care for their children. Here are some of the resources they have available:

#CallYourPediatrician Toolkit
Early Childhood Campaign Toolkit
Adolescent Health Care Campaign Toolkit
Choosing Wisely – Helping Parents Make Healthcare Decisions
Covid-19 Vaccine Toolkit
Flu Toolkit
Human Papillomavirus (HPV)
Immunizations Toolkit

Partnering with Schools

Another avenue to improve access to care is to partner with schools to help with preventive care and particularly, immunizations. Partnerships can take place at the school or district level and there may be a need for state agencies to help navigating issues concerning data sharing or contracting with managed care organizations.[133] Schools have a useful vantage point in helping improve immunization rates specifically as they have vaccination requirements for attending school and have communication capabilities with families.

In June 2023, the Public Health Foundation published a toolkit for ways schools can support routine vaccination among school-aged children. This toolkit includes several strategies of ways schools can help improve immunization rates for children and adolescents. One strategy in partnering with schools is partnering with schools to disseminate information and reminders about vaccinations to parents. Communication from schools can include:

- Include a list of required vaccinations in back-to-school communications
- Send parents resources on where they can get the required vaccinations, including free services
- Send reminders to families whose children are behind on required vaccinations[134]

Outside of communication, partnering with schools can also include working with the schools to offer offsite community vaccination days or offer school-located vaccination

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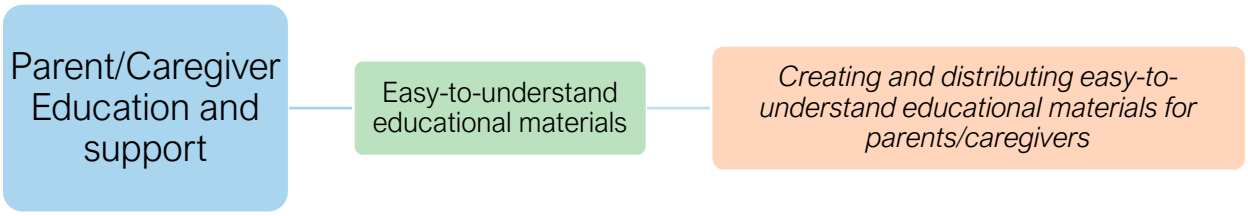
[132] American Academy of Pediatrics, "Campaigns & Toolkits," aap.org, n.d., *Link*.
[133] Healthy Schools Campaign, "Opportunity: Building Partnerships to Expand Access to School Health Services," *Link*.
[134] Public Health Foundation, "Ways Schools Can Support Routine Vaccination Catch-Up Among School-Aged Children: A Toolkit for Educational Professionals," phf.org, July 2023, *Link*.

clinics.[135] Since schools are already in communication with families and schools are already within a family's routine of places they frequent, partnering with schools offers a variety of ways to improve access to care for Medicaid beneficiaries.

Easy-to-Understand Educational Materials



Creating and Distributing Easy-to-Understand Materials

Many parents/caregivers are not trained healthcare professionals, so any materials distributed to parents/caregivers need to be easily understandable by parents with varying levels of health literacy. With about 36% of the U.S. adult population having limited health literacy skills, it is likely that many of the parents/caregivers receiving materials are not entirely understanding them.

AHRQ has guidelines on easy-to-understand materials. According to these guidelines, when giving educational materials to parents/caregivers about well-child visits and immunizations, it is important to **assess, select, and/or create** easy-to-understand materials.[136]

- Assess the materials your organization is already distributing and revise as needed.
- Select already existing materials that are easy-to-understand and revise as needed.
- Create easy-to-understand materials for your population.[137]

To **assess** already existing materials, some recommendations are:

- Check reading level through a readability formula
    - The average adult reads at an 8th or 9th grade level, with 20% of adults reading at a 5th grade level or below. Because of this, it is recommended that materials be written at a 5th or 6th grade level.[138]

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[135] Public Health Foundation, "Ways Schools Can Support Routine Vaccination Catch-Up Among School-Aged Children: A Toolkit for Educational Professionals."
[136] AHRQ, "Health Literacy Universal Precautions Toolkit," Agency for Healthcare Research and Quality, n.d., *Link*.
[137] Ibid.
[138] Ibid.

    - Several websites will conduct a readability assessment through readability formulas which focus on length of words and sentences and provide an estimate of how difficult a text is to read. These can typically be found by searching "readability formula" through a search engine.[139]
    - If a document contains private or sensitive information and you or your organization does not want to have an external website review it, your organization can assess readability through asking yourself some questions, such as:
        - Would this word/sentence be understandable by a middle schooler or high schooler?
        - If I was unfamiliar with how doctor's appointments worked, would I understand what this document is telling me?
- Conduct an Understandability Assessment
    - Other than readability, other factors that can affect understanding are things like word choice, organization of information, or formatting.[140]
    - According to AHRQ, Here are some available tools for understandability assessments of materials:[141]
        - AHRQ's Patient Education Materials Assessment Tool (PEMAT): for audiovisual education materials
        - CDC Clear Communication Index: assesses the clarity and ease of written materials
        - Suitability Assessment of Materials (SAM): evaluates health information materials, including how culturally appropriate the materials are
- Ask patients to evaluate your forms and other written materials.[142]

When **selecting or creating** materials, some helpful tips from AHRQ include:

- Identifying poor quality materials and select better materials
- Consider alternatives to written materials
- Provide materials in the languages that your patients speak
- Streamline forms so that patients are not having to give duplicative information more than once
- Create new materials that fills gaps in information and revise materials that need improvement[143]

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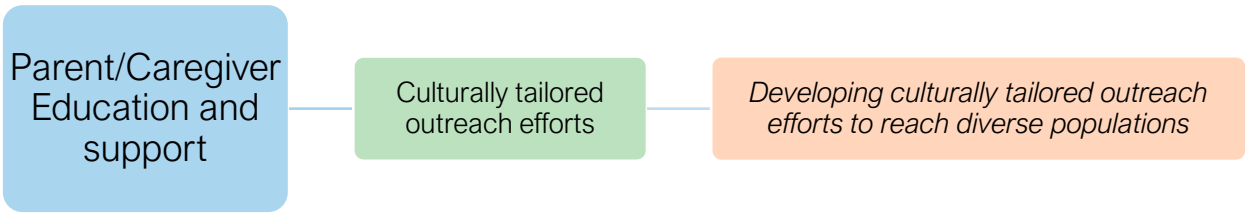
[139] AHRQ, "Health Literacy Universal Precautions Toolkit."
[140] Ibid.
[141] Ibid.
[142] Ibid.
[143] Ibid.

Here are some educational materials available that could be given to parents that are easy-to-understand:

Immunization schedule, birth to 6 years old
Immunization schedule, 7-18 years old
Vaccination materials in Spanish
Diseases and the vaccines that prevent them
Finding credible vaccine information

Culturally Tailored Outreach Efforts



Developing Culturally Tailored Outreach Efforts

The importance of cultural competence has previously been covered in discussing cultural competence training for providers. However, when it comes to outreach, there are different approaches to cultural competence than for providers who are speaking with patients one-on-one. For culturally tailored outreach efforts,

- Aid with language accessibility.[144]
    - Having patients be able to see providers who either speak their preferred language or providers who have interpretation services
    - Helping providers with obtaining necessary infrastructure to offer interpretation services
    - If a beneficiary has a case manager, the case manager should speak the beneficiary's preferred language or should have access to translation services
- Offer resources in multiple languages, especially Spanish.
    - Reminders or educational materials will be of little to no use to parents if they are unable to read the materials. Offer materials to beneficiaries in their preferred language or help them access resources in their own language if unable to provide your own materials in their preferred language.

[144] Tulane University, "How to Improve Cultural Competence in Health Care."

    - While many Spanish-speaking patients may speak English, the material may be better understood by parents/caregivers if the materials are in Spanish.[145] The CDC has vaccination materials in Spanish that are readily available to be shared with parents and caregivers.
    - The U.S. Food & Drug Administration (FDA)'s Office of Office of Minority Health and Health Equity (OMHHE) also has number of resources on several different health topics in multiple languages.
- Provide cultural competence resources for your own organization's staff.
    - Having a culturally competent public health workforce is essential to helping close health equity gaps that are experienced by many underserved populations.[146] Many health disparities have been perpetuated in part due to health education campaigns, materials, and resources not being culturally or linguistically tailored for under-represented populations.[147]
    - Here are some resources on cultural competence and possible trainings available:
        - How to Improve Cultural Competence in Health Care, Tulane University
        - Cultural Competence Toolkit, NC State University

[145] CDC, "Vaccination Materials in Spanish," cdc.gov, n.d., *Link*.
[146] Jovonni Spinner et al., "Enhancing FDA's Reach to Minorities and Under-Represented Groups through Training: Developing Culturally Competent Health Education Materials," *Journal of Primary Care & Community Health* 12 (January 1, 2021): 215013272110036, *Link*.
[147] Ibid.

Summary of Best Practices for Parent/Caregiver Education and Support

For building awareness campaigns:

1. Send parents/caregivers educational materials on the importance of childhood preventive care
2. Utilize already existing resources when available, such as the toolkits from American Academy of Pediatrics
3. Partner with school systems to send out communications to parents/caregivers on well-child visits and required vaccinations

For easy-to-understand educational materials:

1. Utilize AHRQ's guidelines on easy-to-understand materials to **assess, select, and/or create** materials
    a. To assess: check readability, conduct understandability assessment, or ask patients to evaluate your forms/materials
    b. To select/create: consider alternatives to written materials, provide materials in the patients' preferred language, streamline forms, create new materials to fill in gaps in information, and revise materials that need improvement[148]

For culturally tailored outreach efforts…

1. Connect patients with providers who speak their preferred language or providers who offer interpretation services
2. Provide educational materials in the parent's/caregivers' preferred language
3. Train your organization's staff on cultural competency

[148] AHRQ, "Health Literacy Universal Precautions Toolkit."

Conclusion and Summary

There are numerous approaches to improving child health for North Carolina Medicaid beneficiaries. The hope for this document is that it has provided resources for your managed care teams in your work building interventions and improving the quality of care that our state provides. Below is a summary of all of the best practices included in this document.

Improve access to care

1. Provide convenient hours and locations
    a. Have appointment availability outside of normal working hours and on weekends
    b. Have flexible scheduling or walk-in hours
    c. Provide mobile clinics in underserved areas
    d. Partner with schools to host community immunization events
2. Provide transportation options
    a. Collaborate with transportation providers to offer ride assistance through ride-sharing
    b. Offer free bus passes/cab vouchers
    c. Help providers in determining how they can support patients in coordinating transportation services
3. Telehealth services
    a. Help providers determine when a telehealth visit is appropriate for well-child visits

Provider Engagement/Education

1. Training on importance of well-child visits and immunizations
    a. Offer continuing education courses for providers about preventive care for children
2. Scheduling and reminder systems
    a. Utilize every appointment to its fullest potential when applicable
    b. Offer to schedule the next visit during check-out
    c. Provide appointment reminders through text of through a mobile app
    d. Send reminders 48-72 hours in advance to give patients adequate time to arrange for transportation
    e. Send reminder letters to parents/caregivers with overdue care alerts, even if they have not been seen in that office yet
3. Cultural competence and sensitivity
    a. Have interpretation services or refer patients to providers who speak their preferred language
    b. Do not have children act as interpreters for their parents, especially at their own health care visits

c. Use the SHARE approach
d. Offer webinars or resources on cultural competency to providers

4. Communication techniques
    a. Be knowledgeable about different reasons for vaccine hesitancy among different communities
    b. Be aware of how social media and the internet have impacted vaccine hesitancy
    c. Be able to communicate information for people with varying levels of health literacy
    d. Know different myths and misconceptions about vaccines and how to address these concerns
    e. Use motivational interviewing to approach conversations around vaccinations
    f. Approach the topic with empathy

Parent/Caregiver Education and Support

1. Building awareness campaigns
    a. Send parents/caregivers educational materials on the importance of childhood preventive care
    b. Utilize already existing resources when available, such as the toolkits from American Academy of Pediatrics
    c. Partner with school systems to send out communications to parents/caregivers on well-child visits and required vaccinations
2. Easy-to-understand educational materials
    a. Utilize AHRQ's guidelines on easy-to-understand materials to **assess, select, and/or create** materials
        i. To assess: check readability, conduct understandability assessment, or ask patients to evaluate your forms/materials
        ii. To select/create: consider alternatives to written materials, provide materials in the patients' preferred language, streamline forms, create new materials to fill in gaps in information, and revise materials that need improvement[149]
3. Culturally tailored outreach efforts
    a. Connect patients with providers who speak their preferred language or providers who offer interpretation services
    b. Provide educational materials in the parent's/caregivers' preferred language
    c. Train your organization's staff on cultural competency

[149] AHRQ, "Health Literacy Universal Precautions Toolkit."

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