

# Guide to Utilizing Mobile Mammography Units

North Carolina Breast & Cervical Cancer Control Program





#### **Table of Contents**

Background2
Program Planning & Implementation 2
Recruitment4
Best Practices4
MMU Providers in NC 5
FAQs6
Table 1: MMUs Available by County 6
Table 2: MMU Contact Information 8
Figure 1: MMU Coverage Map9
Resources 9





## Background

Screening mammograms remain one of the most effective tools for detecting breast cancer in its early stages, yet many women from medically underserved communities do not have access to this life saving tool. The priority population for North Carolina Breast and Cervical Control Program (NC BCCCP) services is individuals who are defined as disp oportionately burdened including those living in rural areas, culturally isolated women, incarcerated or institutionalized women, medically underserved women, women from minorities define by race, religion, ethnicity or culture (including African Americans, Alaska Natives, American Indian, Asian Americans, Pacific Islanders and Hispanics lesbian, gay, bisexual, or transgender individuals), women with low literacy, and women who are differently-abled. Mobile mammography may be able to bridge this gap by providing screening mammograms to women in their own neighborhoods, thus eliminating cost and transportation barriers.

Mobile mammography can be especially helpful in serving women in rural areas where transportation may be a problem as well as schools and businesses where women are limited to time away from their employment. By taking screening services to them, you are helping to ensure that women are receiving this vital part of their overall breast health. Pre-registration allows the screening to take place in 15-30 minutes which could account for one of their required break periods.

NC BCCCP has identified eight mobile mammog aphy units (MMUs) throughout the state that service all 100 counties. Establishing partnerships with these MMUs to provide screening mammograms in non-clinical settings, during non-traditional hours may help reach program targets previously selected. As partnerships develop, MMU service areas may expand allowing NC BCCCP to provide this service to more women across the state.

# Program Planning & Implementation

Appropriate planning and early scheduling are essential to establishing a partnership with mobile mammography providers. The following steps will help you establish a partnership with a mobile mammography unit (MMU) in your area.

Determine which MMU provides services in your area. A table
of current MMUs and the counties they serve is included on page
six. Determine if the MMU in your area requires appointments,
walk-ins, or both. Invision Diagnostics is not listed as covering all
100 counties, but they have stated that they would be willing to

cover all 100 counties if they are given enough notice. During your fir t contact with the MMU provider, confirm the they are willing to accept NC BCCCP reimbursement for mammograms and will not bill patients for the balance. Some MMUs already work with NC BCCCP providers (e.g., Cone Health, UNC Rex). Consider using a MMU familiar with NC BCCCP firet, since they are already familiar with our fees and procedures.

- 2. Decide where to host the MMU. When deciding where to host the MMU, it is important to consider reducing patient barriers as well as the parking requirements of the MMU. The location where the MMU will be parked needs to be paved and relatively level. The size of the area needed for parking varies depending on the MMU so be sure to confirm when scheduling. here will also need to be access to public restrooms as the MMUs do not have them. Consider public housing communities, migrant, and seasonal farmworker (MSFW) camps, jobsites that offer no insurance benefits, omen's shelters, prisons, and other locations where women with barriers to receiving mammograms might be served.
- 3. Contact the MMU to schedule a date with them. Keep in mind that most MMUs schedule 3-12 months in advance when planning your fir t mobile screening event. Review their application/intake form so that you are prepared to assist patients if needed. Ask the MMU provider if you can schedule patients or if patients need to contact the scheduling coordinator for that MMU. Most allow you to schedule and then send them a list of patients, but it varies by provider.
- 4. Begin scheduling patients. Ensure that you are collecting all required paperwork for the MMU provider. Many times, this intake paperwork can be completed while the patient is in the office, or over the phone. Patients should list the NC BCCCP provider as their primary care provider so there is no delay in receiving results and therefore no delay in potential follow-up images. The intake form varies, but missing information may cause the MMU provider to cancel patient



appointments. It is important to note that some MMUs have a minimum number of appointments required to be filled. If the minimum is not met they will reschedule to a later date. If they do require a set number of appointments, you will need to increase your patient reminders to ensure that patients show up for their scheduled appointments (e.g., patient appointment letters, patient phone calls, text reminders, etc.). Ask the MMU provider how many patients should be scheduled considering no show rates or if you should overbook a few patients in case there are several no shows. Multiple low show rate screenings may result in the MMU provider canceling future screenings.

- 5. Day of the screening. Each MMU provider will have different requirements for the day of the screening. Ensure that you block off the appropriate number of parking spaces for their MMU before they arrive and that you are available by phone. Remember that the MMUs need to be scheduled in locations that are relatively level, paved, and with access to a public restroom. Patients will need to be able to walk onto the MMU unassisted, but ideally the parking area will be handicapped accessible.
- 6. After the screening. Determine your appointment show rate and then follow-up with women who did not attend their screening. These women will need to be rescheduled. Follow-up with patients as you would if they received screening mammograms at a fi ed site. Please note that women who need additional images or testing cannot return to the MMU for that service. Diagnostic procedures will need to be scheduled at a fi ed site.

#### Recruitment

NC BCCCP providers can recruit for the MMU screenings using the same strategies they use to recruit for their programs. These strategies can include health education, evidence-based interventions (EBIs), community engagement, community & clinical partnerships, and marketing/promotion. In addition to providing these MMU screenings in places where people live, work, and play; it is important to ask community stakeholders where the screenings should take place to be best utilized by the populations and communities you are trying to reach.

Many mobile mammography screening programs are slow to start because people are hesitant to trust the mobile units over a fixed site. One way to combat this is to utilize newspapers and other small media, social media, and word-of-mouth from patients who have used the mobile unit. In addition to media and word-of-mouth, breast cancer survivors and lay health advisors from the community are invaluable for encouraging individuals to get screened when the MMU is available.

When a MMU screening event is scheduled, flyers with the screening date and information can be shared with local faith-based communities, grocery stores, salons/beauty parlors, library, and post office announcement boards, and on local town and chamber of commerce websites. If your service area has a cancer support group or participates in Relay for Life, information about the MMU screening events can be shared with their members, stakeholders, and volunteers.

#### **Best Practices**

- During your first contact with the MMU provider, confirm that they accept NC BCCCP reimbursement and will not balance bill the patients.
- When a scheduled event is complete, schedule the next MMU event 366 days from the current date.
   Since most MMUs schedule months in advance, this will allow you to secure a spot for the patients' next annual mammogram.
  - Example: If you have a MMU screening event at Smith Farms on June 15, 2022, schedule another screening event there for June 16, 2023. It will be easier to keep up with the screening schedule for the following year and women will know the MMU will return for their next mammogram.
- When possible, market/promote your first MMU screening several months in advance, so you have time to fill all required patient appointments and send patient reminders. If your screening is scheduled for September, start notifying and scheduling patients in June or July.

- This will not be as important once you have established MMU screenings in your community but may be necessary to combat distrust in the early stages.
- If you have multiple patients who cite transportation as a barrier to receiving a screening, survey them to find out where in their community you could schedule the MMU to allow easier access.
- If the MMU provider you are using allows it, consider keeping a waiting list of patients who have completed the intake paperwork and are able to show up for a same day screening appointment on the date of your next MMU event. If you have no-show appointments, cancelations, or rescheduled appointments, you can call the patients on this waiting list and have them fill one of those appointments. This will allow you to maintain a full screening schedule even if patients cancel the morning of the screening. If there are no cancelations, be sure to schedule the waiting list patients on the next MMU screening event so they receive their annual mammogram and are not left waiting for another patient to cancel.

- A faith-based organization within a walkable community
  would be a good option to schedule as your first MMU
  screening location. Faith leaders, community leaders,
  and women who are breast cancer survivors can help
  market the screening to those within the community.
- If you are attempting to partner with a business or employer that does not offer health benefits to their employees, remind them that allowing a MMU on location will improve the overall wellness of their employees at no cost to them, will allow more productivity because the on-site screenings take 30
- minutes or less (versus employees taking several hours to drive to a fixed site), and can increase the chances of employees getting a screening mammogram which can help detect breast cancer at an earlier, treatable stage.
- Consider establishing a no-show policy for the MMU screenings. If a woman has two no shows, it may be best to schedule her at a fixed site so that she does not continue to take MMU appointment spots from other women and cause a lower appointment show rate that may affect your partnership with the MMU provider.

#### MMU Providers in North Carolina

The following is general information about the mobile mammography providers in North Carolina. To view the MMU provider(s) that are available in your county, please see <u>Table 1</u>. If you are interested in contacting a MMU provider to get a MMU screening event scheduled, see <u>Table 2</u> for contact information.

- CaroMont Health provides 3D mammograms at three fixed sites in Gastonia and Belmont. Their mobile unit only services Gaston County and Shelby.
- Catawba Valley Medical Center is a contractual service provider that works with corporate, agency, and medical partners. All female mobile unit staff provide both 2D and 3D mammograms.
- 3. Charlotte Radiology employees an all-female team to provide 3D mammograms in 30 minutes or less. Mobile is available for corporate and community events. They offer discounted exam costs when an organization can fund a full screening event.
- 4. Cone Health/DRI Health Group provides both 2D and 3D mammograms on their wheelchair-accessible mobile mammography unit. They allow walk-ins as well as work with a scheduling coordinator.

- 5. Invision Diagnostics utilizes an online scheduling platform for their 3D mammogram screenings. They require at least 15 appointments to schedule, but then will accept walk-ins. They have stated that they are willing to travel to counties they do not cover if they are given advance notice.
- Novant Health provides 3D mammograms on all units except the one that services Brunswick and New Hanover. That unit still provides 2D mammograms. They need a minimum of 15-20 patients to schedule a screening.
- 7. UNC Health Blue Ridge has recently obtained a mobile mammography unit to provide 3D mammograms but does not currently provide screenings outside their provider network as they are still integrating with UNC. Once fully integrated in the UNC Health System, they hope to branch out to community screening events.
- 8. **UNC Rex Healthcare** provides 3D mammograms for pre-scheduled appointments. They do not allow walkins and the minimum number of women required to schedule the screening varies by how far your location is from their home base (Raleigh).

### **FAQs**

- I need help with program planning or technical assistance with setting up the first MMU screening, who do I contact? Erin Brown, NC BCCCP Program Coordinator, or your NC BCCCP Nurse Consultant can help you set up an initial MMU screening.
- 2. What can I do if none of the MMUs service my county? Some of the MMU providers will travel outside of their service area if requested for a minimum number of appointment spots. Contact the MMU provider closest to your county and ask if they are willing to travel to your county.
- 3. Are the MMUs handicap accessible? No, patients need to be able to walk onto the bus unassisted. Patients who cannot walk on the bus will need to receive their screening mammogram from a fixed site. Exception: Cone Health/DRI has a wheelchair-accessible MMU.
- 4. A patient needs additional views, can she come back to the MMU the next time it's here? No, patients

- who require additional views and/or additional testing cannot return to the MMU. MMUs only perform screening mammograms. Navigate patients who need additional diagnostic work-up to a fixed site close to their home or workplace for follow-up.
- 5. I am having a hard time scheduling the minimum number of patients for the MMU we have partnered with, what can I do? The first step is to look where your MMU screening event is held. Is it a walkable community? Is it located in an area where women would not be able to access a screening mammogram otherwise? If the MMU is parked in your clinic parking lot, patients may opt to go to a fixed site for their screening. The next step is to examine where and how you are recruiting patients for the screening event. Work with your health educator and/or communications staff to utilize community partners, faith-based leaders, breast cancer survivors and others to help recruit for the screening event.

## Table 1: MMUs Available by County

COUNTY	PROVIDER			
Alamance	Cone Health/DRI Health Group, Charlotte Radiology, Invision Diagnostics, UNC Rex			
Alexander	Catawba Valley, Charlotte Radiology, Invision Diagnostics			
Alleghany	Charlotte Radiology			
Anson	Charlotte Radiology			
Ashe	Charlotte Radiology			
Avery	Charlotte Radiology, Invision Diagnostics			
Beaufort	None			
Bertie	None			
Bladen	Invision Diagnostics, UNC Rex			
Brunswick	Invision Diagnostics, Novant Health			

COUNTY	PROVIDER			
Buncombe	Charlotte Radiology, Invision Diagnostics			
Burke	Catawba Valley, Charlotte Radiology, Invision Diagnostics, UNC Health Blue Ridge			
Cabarrus	Charlotte Radiology, Invision Diagnostics, Novant Health			
Caldwell	Catawba Valley, Charlotte Radiology, Invision Diagnostics, UNC Health Blue Ridge			
Camden	None			
Carteret	Invision Diagnostics			
Caswell	Novant Health, UNC Rex			
Catawba	Catawba Valley, Charlotte Radiology, Invision Diagnostics, UNC Health Blue Ridge			

COUNTY	PROVIDER				
Chatham	Charlotte Radiology, Invision Diagnostics, UNC Rex				
Cherokee	None				
Chowan	None				
Clay	None				
Cleveland	Charlotte Radiology, Invision Diagnostics, Novant Health				
Columbus	None				
Craven	Invision Diagnostics				
Cumberland	Charlotte Radiology, Invision Diagnostics, UNC Rex				
Currituck	None				
Dare	None				
Davidson	Charlotte Radiology, Invision Diagnostics, Novant Health				
Davie	Charlotte Radiology, Invision Diagnostics, Novant Health				
Duplin	Invision Diagnostics, UNC Rex				
Durham	Charlotte Radiology, Invision Diagnostics, UNC Rex				
Edgecombe	Invision Diagnostics, UNC Rex				
Forsyth	Charlotte Radiology, Invision Diagnostics, Novant Health				
Franklin	Invision Diagnostics, UNC Rex				
Gaston	CaroMont Health, Charlotte Radiology, Invision Diagnostics, Novant Health				
Gates	None				
Graham	None				
Granville	UNC Rex				
Greene	Invision Diagnostics, UNC Rex				
Guilford	Charlotte Radiology, Cone Health/DRI Health Group, Invision Diagnostics, Novant Health, UNC Rex				
Halifax	UNC Rex				
Harnett	Charlotte Radiology, Invision Diagnostics, UNC Rex				
Haywood	Invision Diagnostics				
Henderson	Charlotte Radiology, Invision Diagnostics				

COUNTY	PROVIDER				
COUNTY	PROVIDER				
Hertford	None				
Hoke	Charlotte Radiology				
Hyde	Invision Diagnostics				
Iredell	Catawba Valley, Charlotte Radiology, Invision Diagnostics, Novant Health				
Jackson	Invision Diagnostics				
Johnston	Invision Diagnostics, UNC Rex				
Jones	Invision Diagnostics				
Lee	Charlotte Radiology, Invision Diagnostics, UNC Rex				
Lenoir	Invision Diagnostics				
Lincoln	Charlotte Radiology, Invision Diagnostics, Novant Health				
Macon	Invision Diagnostics				
Madison	Charlotte Radiology				
Martin	Invision Diagnostics, UNC Rex				
McDowell	Charlotte Radiology, Invision Diagnostics, UNC Health Blue Ridge				
Mecklenburg	Charlotte Radiology, Invision Diagnostics				
Mitchell	Charlotte Radiology, Invision Diagnostics				
Montgomery	Charlotte Radiology				
Moore	Charlotte Radiology, UNC Rex				
Nash	Invision Diagnostics, UNC Rex				
New Hanover	Novant Health				
Northampton	None				
Onslow	Invision Diagnostics				
Orange	Charlotte Radiology, Invision Diagnostics, UNC Rex				
Pamlico	None				
Pasquotank	None				
Pender	Invision Diagnostics, UNC Rex				
Perquimans	None				
Person	Invision Diagnostics, UNC Rex				
Pitt	Invision Diagnostics, UNC Rex				
Polk	Charlotte Radiology, Invision Diagnostics				

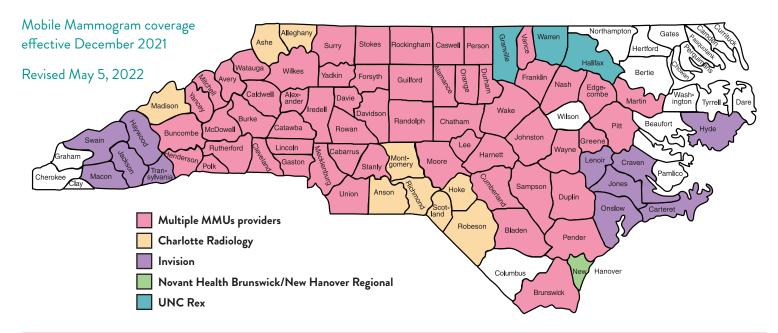
COUNTY	PROVIDER			
Randolph	Charlotte Radiology, Cone Health/DRI Health Group, Invision Diagnostics, Novant Health, UNC Rex			
Richmond	Charlotte Radiology			
Robeson	Charlotte Radiology			
Rockingham	Charlotte Radiology, Cone Health/DRI Health Group, Novant Health, UNC Rex			
Rowan	Charlotte Radiology, Invision Diagnostics, Novant Health			
Rutherford	Charlotte Radiology, Invision Diagnostics			
Sampson	Invision Diagnostics, UNC Rex			
Scotland	Charlotte Radiology			
Stanly	Charlotte Radiology, Novant Health			
Stokes	Charlotte Radiology, Novant Health			
Surry	Charlotte Radiology, Invision Diagnostics, Novant Health			
Swain	Invision Diagnostics			

COUNTY	PROVIDER			
Transylvania	Invision Diagnostics			
Tyrrell	None			
Union	Charlotte Radiology, Novant Health			
Vance	Invision Diagnostics, UNC Rex			
Wake	Charlotte Radiology, Invision Diagnostics, UNC Rex			
Warren	None			
Washington	None			
Watauga	Charlotte Radiology, Invision Diagnostics, Novant Health			
Wayne	Invision Diagnostics, UNC Rex			
Wilkes	Catawba Valley, Charlotte Radiology, Invision Diagnostics, Novant Health			
Wilson	Invision Diagnostics, UNC Rex			
Yadkin	Charlotte Radiology, Invision Diagnostics			
Yancey	Charlotte Radiology, Invision Diagnostics, Novant Health			

## **Table 2: MMU Contact Information**

MMU	CONTACT	PHONE	EMAIL	TYPE	WALK-ONS?
CaroMont Health	Amber Carpenter, Emily Digh	704.671.7768	amber.carpenter@caromonthealth.org, emily.digh@caromonthealth.org	3D	Unknown
Catawba Valley Medical Center	Meghan Harmon	828.485.2300 et 6201	mharmon@catawbavalleymc.org	2D/3D	Unknown
Charlotte Radiology	Courtney Peacock	704.919.3901	courtney.peacock@ charlotteradiology.com	3D	Unknown
Cone Health/ DRI Health Group	Christine Brannock	336.832.0838	Christine.brannock@conehealth.com	2D/3D	Yes
Invision Diagnostics	Monroe Naimark	828.777.2014	monroe@invisiondiagnostics.com	3D	Yes
Novant Health	Elizabeth Currie (Charlotte), Kim Cannon (Winston Salem)	704.384.3774, 336.397.6033	eccurrie@novanthealth.org, kscannon@novanthealth.org	2D/3D	No
UNC Health Blue Ridge	Angela Murphy	828.580.5282	angela.d.murphy@blueridgehealth.org	3D	N/A
UNC Rex Healthcare	Jade Watta	919.784.4210	Jade.Watta@unchealth.unc.edu	3D	No

# Figure 1: MMU Coverage Map



#### Resources

Carkaci S, Geiser WR, Adrada BE, Marquez C, Whitman GJ. How to establish a cost-effective mobile mammography program. AJR Am J Roentgenol. 2013 Nov;201(5):W691-7. doi: 10.2214/AJR.12.9825. PMID: 24147498.

Centers for Disease Control and Prevention. 2021. Breast Cancer Statistics. Available at: <a href="https://www.cdc.gov/cancer/breast/statistics/">www.cdc.gov/cancer/breast/statistics/</a> [Accessed 19 April 2022].

Chen YR, Chang-Halpenny C, Kumarasamy NA, Venegas A, Braddock Iii CH. Perspectives of Mobile Versus Fixed Mammography in Santa Clara County, California: A Focus Group Study. Cureus. 2016;8(2):e494. Published 2016 Feb 12. doi:10.7759/cureus.494

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Vang S, Margolies LR, Jandorf L. Mobile Mammography Participation Among Medically Underserved Women: A Systematic Review. Prev Chronic Dis. 2018 Nov 15;15:E140. doi: 10.5888/pcd15.180291. PMID: 30447104; PMCID: PMC6266518.

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