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**Mobile Health Clinics:
A Model Towards Sustainable Community
Health and Well-Being**

Testimony Provided to the

**Pennsylvania Senate
Democratic Policy Committee**

Hearing on Health Equity: Enhancing Mobile & Community Clinics in PA

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Thank you Senators Muth and Haywood for the invitation to participate in the Pennsylvania Democratic Policy Committee's hearing, "Health Equity: Enhancing Mobile & Community Clinics in PA." My name is Michael McShane and I am an internal medicine physician and assistant professor of medicine for Penn State Health and the Penn State College of Medicine. I am also the medical director of the LION Mobile Clinic. It is an honor to provide this testimony on the effects of mobile clinics on community health and well-being for the commonwealth of Pennsylvania to the Pennsylvania Democratic Policy Committee and those present at this hearing.

As medical director of the LION Mobile Clinic, I oversee our student-led free clinic that aims to improve the health and well-being of under-resourced communities in central Pennsylvania. We provide access to free preventive services while also thinking more broadly about the social factors impacting health, such as financial stability, the built home environment, and access to food that play a critical role in both the individual and community well-being. We partner with multiple colleges within Penn State University including the colleges of Medicine, Agriculture Sciences, Health and Human Development, the Nese College of Nursing, and the Smeal College of Business; the Department of Health Policy and Administration; and Penn State Extension. Local community leaders, elected officials, the Pennsylvania Department of Health, and the Pennsylvania Office of Rural Health also serve as trusted partners. Another key collaborator is the YMCA Travelin' Table, a mobile feeding bus that serves children experiencing reduced access to nutritious meals and other important resources needed for healthy physical and mental growth. The concurrent presence of the LION Mobile Clinic and the YMCA Travelin' Table at community events tackles the dual challenges of health and food insecurity by providing on-site, one-stop services for those seeking essential supports.

Today, I would like to share three stories of residents who have encountered over the course of the past few months. Each of them provides a snapshot into the complex challenges seen on a regular basis in our surrounding communities, and the hope that mobile clinics provide. The names and ages have been changed to protect the confidentiality of these patients. I hope that their stories extend the conversation on how to ensure the health and well-being of all residents of the state.

I will close with reflection on the potential impact this model may have on health care and community growth in general.

Avoiding Unnecessary Cost:

Mark knew he was in trouble after he left our last mobile clinic event. He felt dizzy, somewhat lightheaded. It had been a week since he had been off of his blood pressure medications. This was not by choice. He works for a local food pantry, helping to provide access to those who have less than he. He does have health insurance, but the time it takes to get an appointment with his primary care physician is weeks, if not months. He was due to get his next refill of his blood pressure medication but calls to the pharmacy and his provider go without solutions. Mark is a generous person—he knows others need help more than he and he doesn't want to be a bother to the health care professionals he knows are overworked, particularly in light of the pandemic. So he waited. But this time, it was too late—his blood pressure reached an emergent level of 180/110 and he needed to go to the hospital. After a harrowing trip to the emergency room, about a 45 minute drive away, he was admitted to the hospital for two days, restarted on his blood pressure medication, and sent home.

Even with adequate health insurance, access remains limited in many communities across the state, especially for rural communities in Pennsylvania. According to the U.S. Health

Resources and Services Administration, in 2019, there was one primary care physician for every 523 citizens in contrast to 216 for urban counties¹.

We see first-hand on the LION Mobile Clinic how reduced access to primary care results in unintended utilization of emergency care despite adequate health insurance. This phenomenon and its impact on rural populations has been well documented². With the current U.S. health care system encompassing nearly 18% of national GDP spending, the lack of access and resultant delay of care exacerbates the costliness of our health care system to even further unsustainable levels. Alternative models to health care delivery like mobile clinics can bridge this gap, particularly for under-resourced populations. Mobile clinics have consistently shown to increase access to health care services³. Often, these services increase access to those who have health insurance, with an estimated 9% of patients privately insured and 31% with public health insurance such as Medicare and Medicaid.⁴ In addition to providing access to health care resources in resource-limited locations, mobile clinics have reduced unnecessary health care utilization and costs and reduced avoidable emergency department visits, with an estimated total savings of over \$1.1 billion per year⁵.

It is in this way that mobile clinics open up another entry point to prevent preventable complications for those like Mark who are doing their best to maintain their treatment plans.

¹ Rural Quick Facts, Healthcare. Center for Rural Pennsylvania, Harrisburg, PA. <https://www.rural.pa.gov/data/rural-quick-facts.cfm>. Access August 29, 2022.

² Douthit, Nathan, et al. "Exposing some important barriers to health care access in the rural USA." *Public health* 129.6 (2015): 611-620.

³ Hill, Caterina F., et al. "Mobile health clinics in the era of reform." *The American journal of managed care* 20.3 (2014): 261-264.

⁴ Impact Report. Mobile Health Map, Boston, MA. 2022. <https://www.mobilehealthmap.org/impact-report>. Accessed August 29, 2022.

⁵ Stephanie, W. Y., et al. "The scope and impact of mobile health clinics in the United States: a literature review." *International journal for equity in health* 16.1 (2017): 1-12.

Obtaining access for those that need it most:

“I’m living paycheck-to-paycheck. I don’t know how I’m going to make it through the next month.” Susan is 64. She’s felt like she’s been behind her whole life. She currently works as a personal care assistant, although the prospects of long-term employment are slim—she worries that work will end soon as her clients are in poor health and near the end of their days. She has enough money just to keep up with rent but must use the food pantry to get enough food for herself. Health care is unaffordable and geographically unattainable. She barely can afford the gas to get to her clients let alone the free clinic which would be a 90-minute drive round trip. Her blood pressure is over 180/110, high enough to cause major adverse cardiac events such as stroke or heart attack., which she knows. She feels as if she is just waiting for “the big one.”

Even in Centre County, with one of the lowest rates of uninsured individuals, there are approximately 10,000 people without health insurance (6.6%)⁶. Of those, a small percentage access health care through Centre Volunteers in Medicine, the only free clinic or Federally Qualified Health Center in the county. However, many citizens like Susan sit on the outside looking in—unable to access much-needed treatment despite knowing the need.

Mobile clinics, in particular those using a free clinic model, serve as an entry point into the health care system to those who are geographically and financially isolated. They have been shown to increase access, particularly for minority groups⁷. In a mobile clinic associated with Veterans Affairs, the clinic provided a geographically convenient access point to veterans who

⁶ Small Area Health Insurance Estimates (SAHIE) Program, United State Census Bureau. <https://www.census.gov/programs-surveys/sahie.html>. Accessed August 29, 2022.

⁷ Stephanie, W. Y., et al. "The scope and impact of mobile health clinics in the United States: a literature review." *International journal for equity in health* 16.1 (2017): 1-12.

would have otherwise not engaged with the health system⁸. Financial and geographic barriers⁹ are two key factors that limit many from accessing health care. These, and other social factors impacting health, such as housing insecurity or poverty, disproportionately affect those that are uninsured and under-insured. Without addressing these factors, health insurance remains unattainable, and health and well-being is impacted. As such, mobile clinics are designed to specifically target and alleviate these barriers. Many mobile clinics serve as both a screening and intervention mechanism for social factors impacting health, connecting patients with resources within the broader community to address any identified factors¹⁰. Given that mobile clinics primarily serve populations that are uninsured or under-insured, they sit in a prime location within communities to serve as a connection between community-based resources and health care settings.

Mobile clinics open up the opportunity for patient's like Susan to access an otherwise unattainable health care system, obtaining the treatment that is needed to prevent the impending 'big one.'

Improving Health Outcomes:

Roger entered, looking despondent. He's 80 years old and is encountering challenges he never expected. Worried about his legacy, he sees his property, livelihood, and health slipping away. He lives alone in a house that is at risk of being condemned. He's been battling with the township as he doesn't know what he'll do without a roof over his head. His pride and joy, his

⁸ Rodriguez, Keri L., et al. "African American veterans' experiences with mobile geriatric care." *Journal of Health Care for the Poor and Underserved* 18.1 (2007): 44-53.

⁹ Syed, Samina T., Ben S. Gerber, and Lisa K. Sharp. "Traveling towards disease: transportation barriers to health care access." *Journal of community health* 38.5 (2013): 976-993.

¹⁰ Hill, Caterina, et al. "Knowledgeable Neighbors: a mobile clinic model for disease prevention and screening in underserved communities." *American Journal of Public Health* 102.3 (2012): 406-410.

son, died from an opioid overdose and Roger has never fully recovered. Health is secondary to him—he self-medicates with a supplement he purchased from a television advertisement that he hopes will reverse the impact of life on his mind and body. He is depressed, though knowing this and the possibilities of treatment are not within his mental model.

A key benefit to mobile clinic is their ability to increase access to preventive and other health services to improve health outcomes. Multiple studies have demonstrated the positive impact of mobile clinics on preventive care screening^{11,12} and increasing compliance with screening recommendations¹³. In addition, improvement in chronic medical conditions and health outcomes have been demonstrated for both adults and children. For example, a mobile clinic targeting improvement in asthma management for children demonstrated a 66% reduction in emergency room visits. More importantly, it kept children in school, reducing the percentage of children missing more than five days of school per year as a result of their asthma¹⁴. Similar benefits have been seen for adults with hypertension¹⁵ and hyperlipidemia¹⁶, with reductions in primary measures such as blood pressure reduction and reduction in LDL (or ‘bad’ cholesterol)

¹¹ Edgerley, Laura P., et al. "Use of a community mobile health van to increase early access to prenatal care." *Maternal and Child Health Journal* 11.3 (2007): 235-239.

¹² Ellen, Jonathan M., et al. "Comparison of clients of a mobile health van and a traditional STD clinic." *Journal of acquired immune deficiency syndromes (1999)* 32.4 (2003): 388-393.

¹³ Morano, Jamie P., et al. "Strategies for hepatitis C testing and linkage to care for vulnerable populations: point-of-care and standard HCV testing in a mobile medical clinic." *Journal of community health* 39.5 (2014): 922-934.

¹⁴ Morphew, Tricia, et al. "Mobile health care operations and return on investment in predominantly underserved children with asthma: the breathmobile program." *Population health management* 16.4 (2013): 261-269.

¹⁵ Song, Zirui, et al. "Mobile clinic in Massachusetts associated with cost savings from lowering blood pressure and emergency department use." *Health affairs* 32.1 (2013): 36-44.

¹⁶ Brown-Connolly, Nancy E., Jeannie B. Concha, and Jennifer English. "Mobile health is worth it! Economic benefit and impact on health of a population-based mobile screening program in New Mexico." *Telemedicine and e-Health* 20.1 (2014): 18-23.

as well as secondary measures related to and reduction in downstream complications related to this disease.

Mobile clinics have the potential to serve as connectors to the larger health care system, including specialty services for those that require additional specialized care. This has been somewhat limited due to limited integration with health care systems¹⁷. However, with the rapid uptake of telehealth platforms by health systems¹⁸ and innovative models of extending specialty care to communities such as Project ECHO¹⁹, mobile clinics have the potential to provide community situated specialty hubs to reach under-resourced populations when referral is needed. This is an area that will require further investigation.

Mobile clinics and their focus on screening for disease, allow patients like Roger break out of a self-fulfilling prophecy of despair by identifying states that would otherwise go undetected and untreated.

Sustainable solutions for the future:

The health care system and academic health centers sit within our communities as beacons of health and research. With prestige and resources, they are in optimum position to catalyze change within their surrounding communities. Mobile health clinics can literally and figuratively be the vehicle to build bridges with surrounding communities to create lasting bonds towards community health and well-being. Mobile health clinics help us think differently about

¹⁷ Council, Homeless. "Mobile Health Care for Homeless People." (2007).

¹⁸ Der-Martirosian, Claudia, et al. "Examining telehealth use among primary care patients, providers, and clinics during the COVID-19 pandemic." *BMC Primary Care* 23.1 (2022): 1-10.

¹⁹ Arora, Sanjeev, et al. "Expanding access to hepatitis C virus treatment—Extension for Community Healthcare Outcomes (ECHO) project: disruptive innovation in specialty care." *Hepatology* 52.3 (2010): 1124-1133.

health care delivery by being embedded into the most under-resourced communities and assist clinicians in learning, serving, and leading along with the community towards health and well-being. In this type of model, we reconnect about what makes us human, what brings us together, and what helps us live a healthier life. Mark, Susan, and Roger are three examples of what many of us in the mobile clinics community see on a regular basis. Their stories highlight how mobile health clinics bring much needed resources and focus to those who need it most and who deserve that care.