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Members of the Senate Majority Policy Committee
Hearing on Rural Healthcare Access and Technological Innovation
March 19, 2025
Testimony of Satya Venneti, Chief Technical Officer and Co-founder, Telling AI

Honorable Chair and Members of the Committee,

Thank you for the opportunity to speak before you today. My name is Satya Venneti, Chief Technical Officer and co-founder of Telling AI, a Pittsburgh-based digital health startup. Our mission is to revolutionize respiratory care through AI-powered voice and breath analysis, transforming smartphones into powerful and personalized respiratory screening and monitoring tools.

Our lungs, the largest organ in our body, are continually under attack. Over 500 million people globally suffer from chronic respiratory conditions like COPD, asthma, and now respiratory long COVID. Pandemics, wildfires, pollution, and climate change threaten billions more. Blood pressure and temperature are established vital signs—our technology introduces lung function as the fifth vital sign.

As a Carnegie Mellon University researcher, I specialized in machine emotional intelligence, teaching AI to interpret human behavior through video and audio. I led teams translating innovative research into real-world applications, including human-machine collaboration projects for the Department of Defense. But the inspiration for Telling AI was deeply personal. In 2018, during weekly calls, I noticed my mother's voice becoming hoarse and breathy. After urging her to seek medical help, she was diagnosed with early-stage asthma exacerbation. That experience sparked a profound realization: what if AI could detect respiratory decline early just by listening, as humans do? This question became the foundation for our company.

Addressing Rural Healthcare Disparities in Pennsylvania

Respiratory illnesses disproportionately impact rural Pennsylvanians, where many counties lack direct access to pulmonologists or diagnostic tools, forcing patients to travel significant distances.



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Nationally, only 34.5% of rural residents have a pulmonologist within 10 miles of home, compared to 97.5% in urban areas.¹

In Pennsylvania, this shortage is worsened by higher respiratory disease prevalence linked to occupational lung diseases, smoking, coal mining, agriculture, and pollution.² COPD alone significantly burdens rural communities, with mortality rates 58% higher in rural than urban areas.³

Telling AI addresses this critical gap by bringing lung function monitoring directly into homes, without expensive equipment or clinic visits. Our clinically validated technology turns any smartphone into a respiratory assessment tool, enabling rural and underserved patients to monitor lung health via simple voice and breath samples. Early detection of worsening conditions significantly reduces hospitalizations, emergency visits, and healthcare costs.⁴

SBIR/STTR Funding Fuels Innovation

Telling AI exists today thanks to the Small Business Innovation Research (SBIR) program, critical in turning innovative healthcare ideas into commercial solutions—particularly benefiting rural communities.

Our Phase 1 SBIR grant (\$225,000) enabled initial product refinement, customer discovery, and mentorship. A Phase 2 grant (~\$1 million) funded critical clinical validation studies in collaboration with Allegheny Health Network and the University of Pittsburgh Medical Center, moving our solution closer to widespread deployment.

This funding has also enabled hiring and retaining top talent in Pennsylvania, contributing directly to our state's innovation economy through high-quality, technology-focused jobs.

¹ PMC (2013). *Lack of Pulmonary Specialists in Rural America*.

² CDC (2023). *Occupational Respiratory Diseases Among Coal Miners and Agricultural Workers*.

³ National Rural Health Association (2022). *Disparities in Rural Health Outcomes*.

⁴ **Journal of Telemedicine and Telecare (2023)**. *AI-Enabled Respiratory Monitoring and Rural Healthcare Access*.



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Challenges & Opportunities Ahead

While Pennsylvania's research ecosystem is strong, early-stage health startups face significant hurdles securing commercialization funding. Transitioning from grants to market adoption and regulatory approval requires sustained investment.

Additionally, streamlined reimbursement for remote patient monitoring and telehealth technologies is crucial. Many Medicare and Medicaid patients in rural Pennsylvania could benefit greatly, but reimbursement policies must evolve to encourage provider adoption and long-term use.⁵

A Call to Action

We stand at a pivotal moment—policy decisions today can dramatically improve rural healthcare access tomorrow. Expanding grant funding, commercialization support, and reimbursement for digital health solutions positions Pennsylvania as a national leader in healthcare innovation, improving outcomes for vulnerable communities.

Telling AI demonstrates that Pennsylvania-born innovation can tackle real-world healthcare challenges. With your support, we can ensure every Pennsylvanian—no matter where they live—has access to life-saving respiratory care.

Thank you for your commitment to advancing healthcare. I look forward to your questions.

Sincerely,

Satya Venneti
Chief Technical Officer and Cofounder, Telling AI

⁵ Centers for Medicare & Medicaid Services (2024). *Expanding Reimbursement for Remote Patient Monitoring and Digital Health*.



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