PHIT Newsletter

UMASS PUBLIC HEALTH

Public Health - A National Priority

The University of Massachusetts Lowell's Department of Public Health offers the **only program in New England providing undergraduate, graduate, and professional students with specialized training in Public Health Informatics and Technology (PHIT)** using technology and digital tools to advance public health equity and improve population health. As part of the **PHIT Program, selected graduate and undergraduate students had the opportunity to attend and engage at the American Public Health Association (APHA) 2025 Annual Conference** which acted as a national platform, gaining insight and exposure to the breadth of career pathways, research initiatives, and innovations shaping healthcare and public health across the United States.

"Health is a human right, and we are making it a national priority." - This was the main slogan for APHA 2025 Annual Conference held at DC, Washington. After a turbulent year for public health, thousands of professionals and students gathered at APHA 2025 to reaffirm their commitment to protecting the nation's health.

The annual meeting, themed **"Making the Public's Health a National Priority,"** served as both a call to action and a space for reflection—highlighting the resilience of the public health workforce amid shifting policy landscapes, resource constraints, and emerging health threats. Across sessions, conversations centered on **translating evidence into policy, advancing health equity, strengthening public health infrastructure, and leveraging data and technology to drive smarter, more equitable decision-making.** From workforce sustainability to digital health innovation, APHA 2025 reinforced the critical role of cross-sector collaboration in shaping a healthier future.
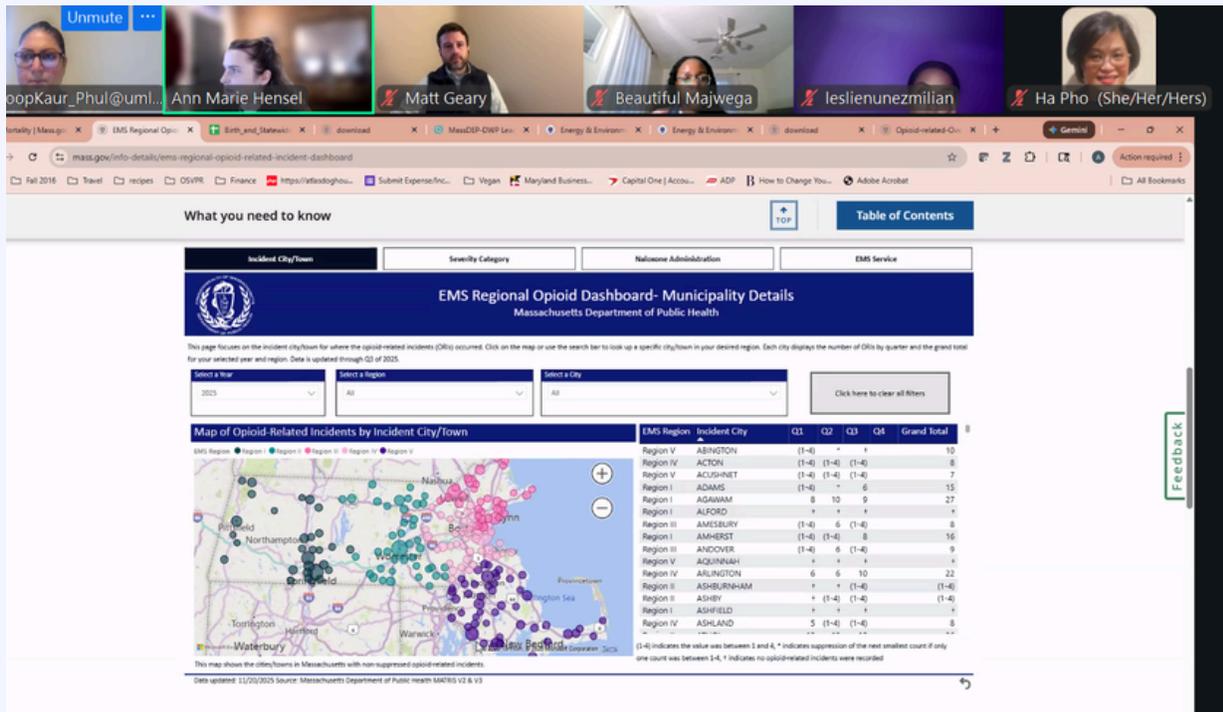
For many attendees, **the conference was more than a professional gathering—it was a reaffirmation of purpose.** At a time when public health faces unprecedented scrutiny and complexity, APHA 2025 reminded us that collective expertise, shared values, and sustained advocacy remain essential to making public health a true national priority.

> *"We have confidence that public health is a valued service that people absolutely need if they're going to be healthy. Just as we have for more than 150 years, APHA will continue to lead the way toward a healthier future."*
> *– APHA Executive Director Georges Benjamin, MD*

PHIT Internship Simulation Expands Experiential Learning in Public Health Informatics

BY HA PHO, ANOOP KAUR PHUL

This winter, the **PHIT Internship Simulation offered Community College students a structured, experiential learning opportunity focused on public health informatics and technology.** Delivered across seven virtual sessions from January 5–14, 2026, the program introduced students to core PHIT competencies, including environmental health data analysis, health communication strategies, and data-driven decision-making.

Through interactive, hands-on activities, students applied informatics methodologies to real-world public health challenges. These activities included **process mapping, designing targeted health communication campaigns, and conducting data assessments to inform policy and programmatic interventions**. The curriculum emphasized practical application, enabling students to connect academic concepts with workforce-relevant skills.

Students also benefited from mentorship and instruction provided by **professionals from the CDC Foundation, the Toxics Use Reduction Institute (TURI), and Leafpoint Inc which is Boston-based mobile health engagement company**. These industry partners shared insights into essential public health practices such as surveillance, risk assessment, and digital health communication, offering participants valuable exposure to real-world public health and informatics careers.

Team-based projects reinforced analytical reasoning, collaborative problem-solving, and evidence-based decision-making, core competencies in public health informatics and technology. The program achieved a 100% completion rate, and participant feedback highlighted its effectiveness in strengthening career readiness and applied technical skills.

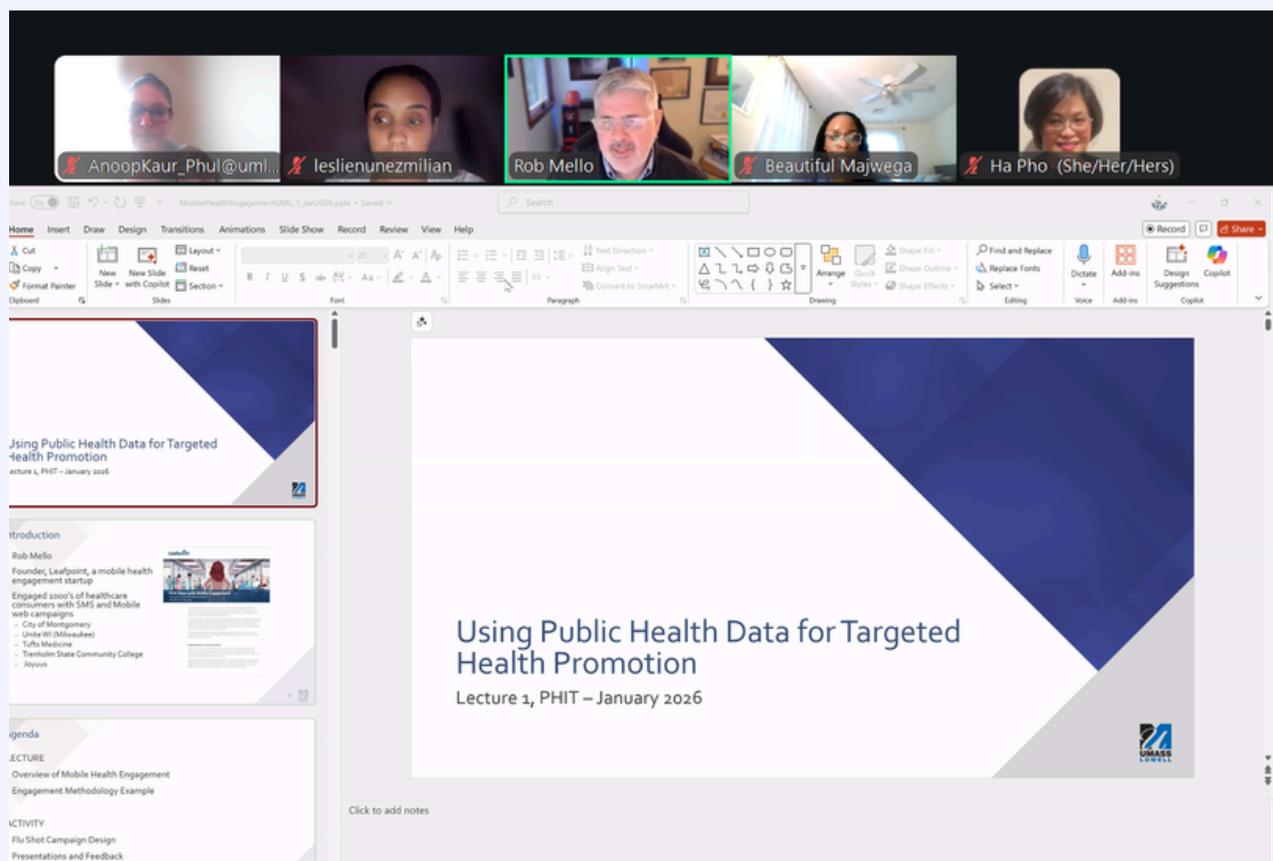# PHIT Alumni Webinar: Navigating Careers in Public Health Informatics

BY ROB MELLO

Rob Mello is the **Founder and CEO of Leafpoint,** a Boston-based mobile health engagement company that leverages two-way text messaging and **web-enabled mobile applications to connect health plans with consumers, improving health outcomes and member satisfaction.**

Before founding Leafpoint, Rob held leadership roles in technology sales and strategy at companies including NTT DATA, Orange Business Services, and IBM, where he focused on sales engineering and transformational change. He brings this expertise to Leafpoint's mission: **enhancing patient engagement for health plans, Medicaid MCOs, and community health departments through innovative mobile technology.**

> *"Public Health Information Technology (PHIT) is the discipline of using data and digital tools to improve the health of populations, not just individual patients."*

Rising PHIT Scholar Undergraduate Student
Muy Ngy Lov

Muy Ngy Lov is a **transfer student from Middlesex Community College and her time at the University of Massachusetts Lowell in the Public Health Informatics and Technology (PHIT) program has been truly transformative.** The program has allowed her to combine technical skills, interdisciplinary learning, and hands-on experiences to prepare for a career in public health. **Through PHIT, she has developed a deeper understanding of how data, technology, and collaboration play a critical role in improving population health outcomes and addressing complex public health challenges.**

Courses such as IPE Research Methods and Public Health Emergency Preparedness provided her with a strong foundation in research, interprofessional collaboration, and applied public health practice. In IPE Research Methods, she learned how to design and conduct research, analyze data, and apply findings to real-world public health issues. Public Health Emergency Preparedness emphasized the importance of coordinated planning, communication, and response strategies to protect communities during public health crises. **Together, these courses highlighted the essential role of collaboration among healthcare professionals, public health staff, and community organizations in ensuring population health and safety.**

Through team-based projects and collaborative assignments, she has strengthened her analytical thinking, communication, and problem-solving abilities while reinforcing the connection between theory and practice. As a result, she has gained a clearer understanding of how research, technology, and policy intersect to support effective public health interventions. She is excited to continue building skills, knowledge, and confidence needed to address real-world public health challenges.

> *"The PHIT program's applied and interdisciplinary approach has helped me develop professional skills that extend beyond the classroom."*

Beyond technical knowledge, the program strengthened her teamwork, problem-solving, and decision-making skills, particularly in high-stakes scenarios that exposed her to new learning opportunities. She is **enrolled in Spring 2026 – PUBH 3031: Big Data Applications in Substance Use Disorder (SUD)**, where she will explore the use of large healthcare datasets to examine health outcomes and care delivery across diverse populations. Big data presents unique opportunities in SUD research, especially when traditional study methods face challenges such as participant enrollment and retention. **Through this research, she hopes to gain practical experience in data analysis, critically evaluating datasets, and understanding both the strengths and limitations of big data to inform evidence-based interventions and public health policy.** Overall, the PHIT program at UMass Lowell has prepared her to contribute meaningfully to public health initiatives. The combination of coursework, collaboration, and upcoming research opportunities has reinforced my commitment to using data and technology to improve health outcomes and promote safety and equity within communities.

Rising PHIT Scholar Undergraduate Student

Shirley Rosales

Shirley Rosales is born and raised in Methuen, Massachusetts, and currently in her senior year at UMass Lowell. **She is majoring in Business Administration with a concentration in Marketing and minoring in PHIT.** Adding PHIT as a minor has allowed her to further pursue her passion for healthcare, as it has opened up many new opportunities.

The PHIT program has given her valuable context for the work she does at the hospital as data entry specialist. In this role, she documents patient information and support testing processes, which has allowed her to view individual patient data not only on a micro level, but also as part of a larger population health framework within the community. **Through this experience, she has developed a stronger understanding of public health concepts and data management, particularly how data can be used to track trends and support community health initiatives.**

She also had the opportunity to attend the **American Public Health Association (APHA) Annual Meeting in Washington, DC in 2025.** This experience allowed her to step outside the classroom and explore the many career paths available in public health—opportunities and options she was not fully aware of prior to joining PHIT program.

> *"Choosing to add PHIT as a minor was truly one of the best decisions I have made in my academic journey."*

Moving forward, these experiences have shaped her career goals. She plans to pursue a career in healthcare administration or health informatics, wherein she can help support patients and improve health outcomes. **The PHIT program has not only strengthened her technical knowledge but has also helped her understand how business strategy and public health outcomes intersect.** She is incredibly grateful for the support received from her professors, staff, and fellow classmates.

> *"The sessions and poster presentations on health management and equity broadened my perspective in powerful ways. They helped me see how business strategy and public health work together to create sustainable, community-centered solutions."*

Emerging PHIT Leader - Graduate Student

Norman Shin

From Engineering to Patient Care to Public Health: A Journey Shaped by Community Impact

Before entering public health, **Norman Shin built an uncommon but powerful foundation for his MPH journey. He began with a degree in engineering that trained him to approach problems through systems thinking and technical precision.** Later, he earned an MBA to develop skills in leadership, strategy, and data-driven decision-making. But despite these accomplishments, **Norman felt drawn toward human-centered work that led him into a third career pivot—nursing.** He pursued clinical training in direct patient care, gaining firsthand experience with the challenges patients face every day and the systemic barriers affecting their health. These experiences drew him to public health.

Finding Purpose Through PHIT

When Norman joined the Public Health Information Technology (PHIT) program at UMass Lowell as a minor alongside his MPH in Epidemiology, everything began to align. The coursework helped him understand how clinical systems, health data, and public health infrastructure intersect. **"PHIT made sense of my whole background," Norman explains. "Engineering taught me systems. The MBA taught me organizations. Nursing taught me about patient care. PHIT helped me see how all that fits together in public health."**

Through PHIT, he discovered a passion for the ways data systems shape public health outcomes—especially in the areas of health equity, community health, and data-driven interventions. His focus has evolved toward computational approaches in cancer research. He sees opportunities to apply privacy-preserving methods and synthetic data to advance patient outcomes while protecting sensitive information.

"The PHIT program helped me connect all the pieces of my past—technical, clinical, and analytical—into a future centered on public health and community well-being."

APHA: A Defining Moment

One of Norman's most meaningful experiences was attending the American Public Health Association (APHA) conference. It was there that his academic training, clinical experience, and public health learning truly came together.

At APHA, he attended a session on Opioid Related Overdose presented by his own UMass Lowell professors—co-authors and Professors Leland Ackerson and Wenjun Li—alongside co-authors Thomas Stopka and Jack Cordes from Tufts University. "It felt like the pinnacle of my education," **Norman reflects. "My entire master's program prepared me to understand that presentation—from causal pies to geospatial Bayesian analysis, to big data. To sit in a national conference room and hear my own professors present their research was thrilling and inspiring. It was the moment I knew I had chosen the right path."**

Emerging PHIT Leader - Graduate Student
Bhumika Patel

Bhumika Patel, originally from India, is a Master of Public Health (MPH) student specializing in Healthcare Management at the University of Massachusetts Lowell. **She brings a distinctive perspective to the PHIT program, combining her background as a licensed dentist with a passion for systemic change in healthcare delivery. Her journey from clinical practice in underserved communities in India to pursuing advanced public health education reflects her commitment to building equitable health systems where quality care is a right, not a privilege.**

As part of her academic journey in the PHIT program, Bhumika has embraced the intersection of healthcare management, informatics, and population health. The program's emphasis on data-driven decision-making and health information technology has transformed how she envisions the future of integrated care delivery. **Through PHIT coursework, she has gained proficiency in data visualization tools such as Tableau and database management applications including SQL, equipping her with the technical capabilities to translate complex health data into actionable insights.** These skills, combined with frameworks that bridge clinical expertise with strategic healthcare management, are preparing her to design systems that are not only efficient but deeply human-centered.

One of the most profound moments of her academic journey was the opportunity provided by the PHIT team to attend the American Public Health Association (APHA) 2025 Annual Meeting in Washington, D.C. This experience was nothing short of transformative. Walking through sessions where oral health was finally being recognized as integral to overall health, not an afterthought, felt personally and professionally validating. Hearing conversations about teledentistry, health equity, data-driven interventions, and innovative care models reinforced why she transitioned from chairside practice to public health leadership.

"PHIT program has been instrumental in shaping my path forward by giving me the technical skills to understand health data systems, the strategic mindset to approach healthcare management with equity at the center, and the confidence to bridge two worlds, clinical dentistry and public health leadership."

The APHA conference connected the dots between her past and her future. **As someone who witnessed firsthand the barriers to oral healthcare access in underserved communities, seeing public health leaders leverage technology and informatics to expand care felt like witnessing the change she had always hoped to be part of.** The Champion Conversations challenged her to think boldly; the Coffee Talks offered wisdom and connection; and every interaction reminded her that she belongs to a community working toward a shared mission, making health a national priority. **The program's support in attending APHA demonstrated an investment not just in her education, but in her voice and vision as a future public health professional.** That experience ignited a fire within her, affirming her purpose and clarifying her calling: to help build healthcare systems where prevention is prioritized, access is equitable, and communities thrive.

PEER Advice

By Bhumika Patel, Graduate Student

By Norman Shin, Graduate Student

Advice for Fellow Students

"The PHIT program is more than coursework, it's a launchpad for transformation. My advice to fellow students is this: **bring your whole self to this journey**. Your unique background, whether clinical, community-based, or unconventional, is not just valuable, it's essential. **Public health needs diverse perspectives, and your story matters.**"

"Attend every conference, workshop, and networking event you can. These experiences don't just build your resume; **they shape your worldview and connect you with people who will challenge, inspire, and support you.** When the PHIT team offers you an opportunity, say yes. Even if it feels intimidating, even if you doubt yourself. Growth lives on the other side of comfort."

"Embrace the technical skills this program offers; data literacy, informatics, and health IT are the future of public health. But don't lose sight of the human element. **The most powerful systems are those designed with empathy, informed by data, and driven by a commitment to equity.**"

Advice for Future PHIT Students

Norman encourages students to **embrace interdisciplinary learning and trust that their backgrounds, traditional or not, are strengths.**

"*Public health needs people who understand data and understand communities.*"

- Bring your full background with you—engineering, business, social sciences; **it all connects.**
- Let **curiosity guide you** through the technical aspects of PHIT.
- **Tie everything back to real issues**, whether through research, your practicum, or APHA.
- Attend APHA if you can—it may be the moment everything comes together.
- Follow the **work that inspires you**; that's where you'll make the greatest impact.

"Finally, trust your journey. If you come from a clinical background or any other field, don't see it as a detour, see it as your foundation. The PHIT program will help you translate your passion into impact. Stay curious, stay connected, and remember: Public Health is as much about People as it is about Data. You have the Power to shape both."

PHIT Events

Thank you for reading!

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