

Longer. Healthier. *Better*.

3. Health equity with Dr. Monica Bharel – technology, social determinants, and Boston’s longevity hub

June 2024

DAVID O’LEARY: Welcome to Longer. Healthier. Better. your source for insights about the latest innovations impacting longevity. This podcast from John Hancock will feature leading experts in science, technology, health care, and education and explore the significant impact longevity advancements will have on the life insurance industry and in customers' lives.

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Please enjoy this special episode of Longer. Healthier. Better., which was recorded in front of a live audience at the Boston Globe’s Annual Health Equity Day on June 12, 2024.

BREANNE DIORIO: Hi, everyone. I am so excited to be here today to introduce the very first ever live episode of John Hancock’s new podcast, Longer. Healthier. *Better*. This podcast features experts in science, technology, health care, discussing the latest innovations that are driving the future of longevity. I'm Breanne Diorio and I'm the head of brand and content marketing at John Hancock, and I have the honor of introducing two distinct individuals today.

Janet Wu is our podcast host. Many of you probably know Janet from her impressive career as a journalist. She is passionate and her expertise shines through in everything she does and I'm sure you'll see that today. We're lucky to have her on the team. Janet is joined by Dr. Monica Bharel, one of the country's most prominent public health figures.

Dr. Bharel has worked at the city and state level and now continues her work at Google Health. We're so honored that the Globe has invited us here today to record this very special episode as part of their health equity week. And without further ado, I'm going to pass it over to Janet to kick us off.

JANET WU: Thank you, Breanne. Indeed, we could not get a better health expert than the woman to my right. I am honored to be joined by Dr. Monica Bharel, clinical lead of public sector health at Google. And prior to that, she served as the Massachusetts Public Health Commissioner for six years and was also a special advisor to the City of Boston.

Dr. Bharel, you have held such a diversity of roles in public health. What do you see right now as the most pressing public health challenge?

MONICA BHAREL: Well, first, Janet, it's so good to be with you here today and to see you again, and wonderful to see all of you for such an important topic. When I think about public health and the current issues, I think about them from a global sense. One of the many lessons that COVID-19 taught us is that the health of our neighbors, whether they're halfway around the world or down the street from us, impacts all of us.

And when we think of the current global health issues, there are four that I prioritize. Number one is climate and health. So how will our changing climate impact our way to adapt to that and impact our way to protect ourselves? Number two is behavioral health issues. So, there is a mental health and addiction crisis, both in this country and around the world right now.

The third is communicable diseases. We'll be familiar with that from things like coronavirus and influenza, but it also includes things such as tuberculosis, and malaria. And the last one is noncommunicable diseases. And we think about the burden of disease from cardiovascular disease, cancer, and diabetes is one of the most pressing issues of our time.

And all four of these are really in the setting of how we think about these four issues and an equitable way to address them all.

JANET WU: You mentioned the pandemic, you served as a Massachusetts Public Health Commissioner during the pandemic, very dark days. What did we learn from that health crisis and what are we doing better because of it?

MONICA BHAREL: So, the pandemic taught us many lessons and we could probably talk about just that for the entire time we have together, I'll focus on two. The first one is around leading with equity. So when we think about responses to crises such as a global pandemic, oftentimes, public health, health care deploy a blanket of services for all of us.

And when those services are deployed, those of us who already have the most resources can access those the most easily. So, if we're truly addressing a crisis for everybody, we have to start with equity and lead with equity in our approach.

So, for example, at the Department of Public health, when we were talking about vaccine distribution during the COVID-19 pandemic, we were focused on one of the three things that we focused on is leading with equity and going to communities and finding ways to deploy vaccine in an equitable way. The second thing I'll talk about is a lesson we learned from the pandemic is around cross-sector collaboration.

During the pandemic, we came together in Massachusetts in ways I had never seen before. Oftentimes, the health care sector and the public health sector are working parallel. We're working in our parallel

ways, serving the same people, but not interacting. And we came together and worked together with a focus on the individual and the community to say, how do we serve the community and the individuals as we respond to this pandemic?

JANET WU: During the pandemic, you also became an advisor to the mayor of the City of Boston. Can you talk about the different approaches, say, from the state level to the city level and also to the community level, while we also look at public health from a global view?

MONICA BHAREL: Absolutely. So, the work that I do with the City of Boston happened to fall during the Omicron surge, which you'll all remember was the winter of 21, 22. And during that time, the City of Boston was working to address the crisis of unsheltered homelessness, especially of those individuals who were also suffering from behavioral health issues, as well as complex medical needs.

And as we approached this issue, we said, how do we approach this at the local level so that we're truly understanding the needs of the individuals we're serving? So, at the local level, it's so important to think about codeveloping solutions with those we are trying to assist.

So, we started by going tent to tent, talking to individuals, understanding what they needed, collecting that data. And then it helped us to understand, we actually need to build new services. And the reasons that the individuals were in the tents is because of dysfunctions in our own existing systems that we needed to address.

JANET WU: The need for equity and public health is really illustrated in a report that a lot of us have heard about. It was released last year from the Boston Public Health Commission showing a shocking difference in life expectancy among people living just miles apart in Boston, people in the Back Bay living 23 years longer than those in parts of Roxbury. So, a life span of over 91 years of age in the Back Bay, to parts of Roxbury under 70 years. How is your work trying to reduce that disparity?

MONICA BHAREL: So, if you take Janet, that fact that you just raised, if we pause and think about that for a second, this is happening in Boston, Massachusetts, and it's unacceptable. So, we're all here because that fact is unacceptable. And many of us are in the fields where our work is actually supposed to be addressing that. So how do we think about that and how do we think about that differently?

And part of it is what I was just talking about is getting out of our own lanes only within our sector and cross-collaborating to better understand what the individual needs. And really one approach to that is when you go upstream, understanding the data and all these different sectors that we have and bringing them together to create a more holistic picture of the individuals and communities we are serving so that we can make policies and programs that actually make sense and help improve those outcomes.

Because we all live within our communities, we live in our environment, we're impacted by our social and economic drivers, and we cannot continue to provide health care without taking that into account for all of us.

JANET WU: Speaking of serving, earlier in your career, you served as chief medical officer of Boston Health Care for the Homeless, and that is a population that is likely the most underserved in any community, Boston and beyond. How can we improve health care access and outcomes for the underserved? And what role does policy play in that goal?

MONICA BHAREL: Over a decade I was at Boston Health Care for the Homeless Program, and my patients taught me so much about how I approach policy making.

And one of the most important lessons for me as we listen to patients and try and understand is to get out of our own understanding and our own frames and the myths that we have created for ourselves and really try and understand if a patient is not taking their blood pressure medicine, what's the reason beyond being frustrated or asking them again or connecting them to a health educator who will tell them, why blood pressure is important, is there another reason?

One patient from Boston Health Care for the Homeless, her lesson is always in my mind is a woman who was previously a surgical technician. She had fallen into homelessness, and she had congestive heart failure, so her heart was holding onto too much fluid and she was supposed to take a water pill Lasix in order to take care of that. And she didn't take it and she kept coming back to the hospital, she had multiple expensive hospital admissions.

And you might say, well, she should know better. This is irritating and frustrating. Why is she not taking her medicine? And actually, if you talk to her and try and think, what are the upstream reasons? What are the reasons for this?

She didn't take her water pill because she was sleeping outside and during the day and night, it is very hard for a woman to find a place to go to the bathroom and the pill makes you do that. So it's really trying to understand the root cause of why people can't obtain health and then addressing those issues in a collaborative way across our sectors.

JANET WU: We've been hearing a lot about data and big data, can you talk to us about the importance of leveraging data to shape the future of health care even as we are trying to achieve personalization of treatment, say like this case that you just mentioned, but data, and what we see in the big picture is so important to that end?

MONICA BHAREL: I have a framework that I use Janet that is around 3D's and that is a framework to achieve equity and that is around data, determinants, and disparities. So just to elaborate on that for a minute. In order to truly understand how an individual is interacting between different sectors and between different aspects of their life and their own attempts to attain health, we collect a lot of data and it's in multiple different areas.

So how do we take that data and really use it to understand the determinants of health at an individual and population level and then find those data disparities? Where are the deviations from the mean and

really hone in our resources on understanding that and addressing that so that we can equitably distribute resources, plan programs, and policies.

JANET WU: Do you feel that even as you talk about the big picture in the communities, do you feel that medicine will continue to get more personalized and that will make us healthier in the long run?

MONICA BHAREL: I think there's a lot of promise to using data in responsible ways to help, one, for me as an individual, consumer in the health care system to be able to better understand and have treatments that are personalized, not only based on my genetics, but also on the other determinants of my health.

Second, at a population level, we can practice precision public health, which is using those 3D's to say, how do we understand the populations we're serving? How do we understand how their determinants of health impact them and how those data disparities need to be addressed?

JANET WU: That's a new term for a lot of us, this "precision public health". Can you give some examples of how this can make communities healthier? What does that mean exactly?

MONICA BHAREL: Absolutely. So, precision public health is about using the data and the information that we have to drive change with measurable outcomes. So, for example, when I was at the Department of Public health, we used this 3D precision public health motto to address the rising opiate overdose deaths. We actually built a public health data warehouse that is still used today that did just what I was talking about before.

It took data from many different aspects of state government. So, from public health, from criminal justice, from medical claims data, from mental health data, and brought it together to better understand at a population level, who is most at risk for opiate overdoses? Who is most at risk for dying? How do we have programs specifically targeted to those of us who are most at risk so that we can then measure our outcomes to achieve improvements in those health outcomes?

JANET WU: These solutions sound like they involve a lot of innovation. Two years ago you joined Google, and most people don't think of Google as a health company. But tell us about that intersection of health and technology to help people live longer and better lives.

MONICA BHAREL: My motivation was coming back to these 3D's and thinking about data. And during the pandemic, we saw that between the health care system and our public health system, we didn't have all the tools we needed. And we need to, to address these complex public health issues of the day. We need to be able to access technology that already exists and find ways to apply it to public health.

So at Google, there's a group of individuals, it's a global company. There's a group of about 100 health care professionals who work under Karen DeSalvo, and we work to take the innovations that are created in Google and products and services and then bridge that so that they can be used in the public sector and in a health setting in a responsible way that forwards health for all.

JANET WU: Every day we seem to be hearing about AI. Tell us about the promise of how AI could impact and improve public health.

MONICA BHAREL: The work that I'm involved with at Google and working with the Google Health team, I see it in two buckets. One is really to allow public sector to have better infrastructure for data. And that might sound technical in the background, but that is how we built our public health data warehouse is by thinking about infrastructure across individuals and across different buckets of data and bringing it together to get these 3D insights.

The other area is in AI and generative AI. As this technology advances, how will we in health use it to address equity? Myself and several colleagues just wrote a piece in Health Affairs on Generative AI in public health, and we talk about three ways for public health to safely and responsibly begin to look at ways to use these tools to promote health and equity.

JANET WU: We have seen that when it comes to good health, it can't just be placed on the health care providers. It needs a whole system working together. How can we foster better collaboration between those health care providers, the policy makers, the business community for more integrated and effective approach to public health?

MONICA BHAREL: I think that we did it during the pandemic. We came together across private sector, public sector, health care because we had a goal that we were reaching for together. So, after today and hearing from all these speakers that we've had here, wouldn't it be excellent if we said, now we're going to do the same thing for health equity and we're going to come together and focus on that goal together and take the best from each one of these sectors and apply it to that.

JANET WU: Can you talk a little bit more about your work at Google, because again, I think it surprised a lot of people that you have 100 public health professionals working together. Can you talk about some of the promise of innovation and this technology that will start to impact us individually?

MONICA BHAREL: I think that there is promise and perils. And so those of us who understand health deeply and who understand health care and public health and how to think at a population level, we really need to be engaged and involved to think about how to use these tools in a way that is responsible so that, for example, in the generative AI model that I was speaking about, we talk about three areas in which public health can start to use these tools already, and that includes in communications so that we can start to get information to individuals in communities at the right time, at the right place, in the language that they'd like to be addressed in, and at the grade level that they're comfortable with.

So to begin to use that, to begin to understand how for public sector workers, we can improve their operations so that there's always a human in the loop. But they're engaging with these technologies to make it easier for them to do their work. And finally, to think about novel insights. How can we bring big

data together in ways that we haven't been able before that might show us something and help us with a path forward to address health equity?

JANET WU: I'm wondering if you wouldn't mind addressing another subject that speaks to health challenges, and I think this could also be answered with technology. We've been hearing a lot recently about the shortage of health care workers across the board, not just the shortage of doctors, but nurses, and technicians, and such. And I imagine that people in your position that look at the big picture and look forward also we have to rely on technology to help address those shortfalls.

MONICA BHAREL: Absolutely. I mean, the workforce crisis in health care and in public health actually becomes a health equity issue because we see that it is certain places are more impacted by others, by health care shortages, by public health shortages, by outreach workers. Those are the first things that unfortunately, sometimes we see agone is that ability to really do our work and make that connectivity and community.

And AI can provide tools that allow an individual to do searching of medical notes or searching of large amounts of data to summarize those in a way that can decrease their level of work that is not, say, directly connected with an individual in the community or that is not focused on the goal and using their best professional assets to assist individuals.

JANET WU: And do you think in the end it is technology that helps approaches like this that we will continue to see whole populations able to live longer and healthier?

MONICA BHAREL: I think our ultimate goal is to have healthy long lives, and technology is a tool. It's one aspect, but all of the things that was spoken about today, all of the collaboration that occurs in a place like Boston, like Massachusetts, that is really what drives innovation. And technology can be an enabler of that, but it's really the people who are driving this change.

JANET WU: You brought it up, the people, the technology that we see here in Boston, the ideas we are known as a biotech hub, can you speak more about how you see us as that longevity hub and that leader in public health?

MONICA BHAREL: When we think about longevity and we think about this place, this very special place that we're in, we have the finest research in biomedical advancements. We have the finest health care systems. But you know what, that's not enough. In order to truly bring health to all of us, we need something much more than that. And it is the surrounding ecosystem in which we live.

So, we were talking earlier about homeless individuals. There are places like Saint Francis House, Pine Street in Boston Health Care for the Homeless that come together, and others to think critically about how do we help someone who is a person experiencing homelessness? We have philanthropy that really rises to the occasion of saying, how do we think about longevity and how do we think about that in a way that

we can do something different and helpful, like Atrius Health Foundation, thinking about how to improve life expectancy?

We have government officials who are really engaged in this work across multiple sectors. Think about the Boston Public Health Commission, which is focused on noncommunicable disease improvements based on life expectancy and improving that life expectancy. And then a real jewel in the crown of Massachusetts is the Health Equity Compact.

It is unique in the country of bringing together over 80 leaders, leaders in health who have committed themselves to saying, we are not going to alleviate. We're not going to put a drop in the bucket related to health equity. We are going to work to eradicate health inequities in Massachusetts. And if we can do it anywhere, we can do it here. So, I'm truly optimistic about the opportunity.

JANET WU: A lot of these initiatives and groups are found nowhere else, they were really dreamed up here. And I imagine other cities, other states, other locations will actually be looking to those institutions to learn lessons on how to do things better.

MONICA BHAREL: Absolutely. We talked earlier about the initiative we did in the City of Boston, and we've had cities across the country asking us, how did you do that? What were the steps you took? How did you lead with data and equity? I know the Health Equity Compact gets questions all the time from other states saying, how did you do that and how can we do that here?

JANET WU: I imagine you're getting a lot of phone calls for that advice about how to do things the way we do things here. We have run out of time. Thank you so much for this conversation. I would like to bring up Breanne Diorio again from John Hancock, the sponsor of this conversation to give some closing remarks.

BREANNE DIORIO: Thank you Janet. I love that last topic around Boston as a longevity hub. At John Hancock, we're passionate about helping our customers live longer, healthier, better lives. And we're so lucky to be headquartered in a city that has the resources to drive not only health care forward, but also equitable health care.

I want to thank Janet and Dr. Bharel for being on our first ever live podcast today. It was such a great experience and such a thought-provoking conversation. So, thank you. Please be sure to check out the podcast anywhere you download your podcasts. Not only today's live recording, but all other editions as well. Thank you again for being here and for having us.

DAVID O'LEARY: The claim that people in the Back Bay live 23 years longer than those in parts of Roxbury refers to findings of a Boston Public Health Commission report. Life insurance products are issued by John Hancock Life Insurance Company USA, Boston, Mass, 02116. Not licensed in New York. And John Hancock Life Insurance company of New York, Valhalla, New

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