

Confluence Podcast Transcript: Juthika Thaker

Sophia Newcomer: Juthika is a wonderful human being. One thing that makes Juthika unique is that, not only is she really interested in passionate about the content area that she's studying, but she's really shown great interest in learning about the different methodologies that we use to better understand these topics in public health. She's got a real knack for analytic thinking for, working with data, for designing and implementing analyses. And one of her dissertation projects involves doing in-depth interviews with public health nurses about their approaches and their challenges in offering HPV vaccination to adolescents. From those interviews, she's gotten really rich, important and informative information.

Ashby Kinch: You just heard the voice of Sophia Newcomer, professor of public, talking about her student, Juthika Thaker, one of the Bertha Morton graduate student scholarship winners for 2023. This episode is part of a series recognizing the achievements of some of our outstanding graduate students. The Bertha Morton Award, named for a great Montanan who dedicated her life to public service, was endowed to support graduate students by recognizing the distinctive contributions they make in research, creative activity, and public service.

Juthika is an advanced student in our PhD program in public health who has contributed a number of publications on childhood vaccination uptake, including specific studies of rural vaccination and the human papillomavirus. Her research record and her commitment to public service make her a fitting inheritor of the Bertha Morton legacy.

As a bonus for Confluence listeners who love the flow of poems we share, we've got a treat: Juthika a reading a river poem by Rabindranath Tagore, the great Bengali writer who was the first non-European writer and the first poet to win the Nobel Prize for Literature. We're proud to share her graduate story with listeners. Enjoy the float.

Juthika Thaker: The Golden Boat, by Rabindranath Tagore:

Clouds rumbling in the sky; teeming rain.

I sit on the river bank, sad and alone.

The sheaves lie gathered, harvest has ended,

The river is swollen and fierce in its flow.

As we cut the paddy it started to rain.

One small paddy-field, no one but me -
Flood-waters twisting and swirling everywhere.
Trees on the far bank; smear shadows like ink
On a village painted on deep morning grey.
On this side a paddy-field, no one but me.

Who is this, steering close to the shore
Singing? I feel that she is someone I know.
The sails are filled wide, she gazes ahead,
Waves break helplessly against the boat each side.
I watch and feel I have seen her face before.

Oh to what foreign land do you sail?
Come to the bank and moor your boat for a while.
Go where you want to, give where you care to,
But come to the bank a moment, show your smile -
Take away my golden paddy when you sail.

Take it, take as much as you can load.
Is there more? No, none, I have put it aboard.
My intense labor here by the river -
I have parted with it all, layer upon layer;
Now take me as well, be kind, take me aboard.

No room, no room, the boat is too small.
Loaded with my gold paddy, the boat is full.
Across the rain-sky clouds heave to and fro,
On the bare river-bank, I remain alone -
What had has gone: the golden boat took all.

Ashby Kinch: Thank you for joining us on Confluence, Juthika.

Juthika Thaker: Thank you for having me. Happy to be here.

Ashby Kinch: So it was great to see you at Grad Con. I got to see you present at the lunchtime panel that the Institute of Health and Humanity sponsored. It was a fascinating panel on the impacts of Covid, and you brought this distinct perspective, which is the impacts on a part of the world that's a billion people that doesn't get a lot of press in the United States. So tell us a little bit about that and what you've learned—during especially in your role as a graduate student in public health—about Covid and its impact on India.

Juthika Thaker: Yeah. So, Dr. Kimber McKay, she suggested my name, like she invited me to be on this panel and I seized the opportunity. Luckily for me last year when the second Covid hit wave, uh, of Covid wave hit, uh, India, I was there, so I could see the devastation firsthand. It was really bad at that time. And, and I've been following up with people and seeing interviews of people, and usually when we talk about Covid, we talk about more in the context of developed countries, as you mentioned. But it's also very important to see how vulnerable populations reciting in developing countries have been devastated by this pandemic. So I thought it would be really nice to talk about South Asia and Dr. Kimber McKay kind of did encouraged me to, you know, speak about South Asian countries and she said she would be speaking about East Africa. So I did a lot of research to present at the panel. I looked at what happened in India. I looked at what happened in Nepal and I could, I could see that, I mean, when you look at statistics, this pandemic has mostly affected people who live below poverty line. They have been pushed into extreme poverty because of pandemic. So if I have to give you an example, about 80% of garment factory workers in Bangladesh lost their jobs. So basically, and these other people who don't have any safety net, they don't have any health insurance, and they are the ones who suffer the most and similar stories... You can see similar stories coming out of countries like India. Right now, as we talk, there has been a lot of political turmoil in Sri Lanka and they don't have money to buy fuel. And this was because they lost a lot of their income, because tourism was affected because of Covid 19 pandemic. And in some countries like Sri Lanka, they heavily rely on tourism for, uh, you know, for their economy and to get this money to keep the country going.

Ashby Kinch: And especially infusion of cash into a country where the people need cash, in particular. They need direct payment.

Juthika Thaker: Yeah. It's called remittances. So as pandemic hit, people lost their jobs and then the flow of money into the country by expats, living in other countries, and, you know, earning money there. So that also had a very great impact on Nepal's economy because a lot of their economy also depends on remittances that they get from other foreign countries.

Ashby Kinch: Well, one of the reasons I wanted to have you on, on the podcast was exactly that: that you bring this really unique and important perspective to this campus, in particular. But you're also a winner of the Berta Morton. Yes. Congratulations for that.

Juthika Thaker: Thank you.

Ashby Kinch: What did that mean to you—winning that award?

Juthika Thaker: It was great. I mean, I feel very honored to be a recipient of, of this scholarship. But more than that, you know, when we do research, our advisors always motivate us and tell us that, you know, this is an important work that you're doing. But sometimes external validation, acknowledgement is also very important to keep us, uh, you know, going and doing this wonderful research that all of the recipients are doing. Yeah. So it, it means a lot. And I was asked to apply. Dr. Sophia Newcomer, my advisor, asked me to apply for this scholarship and I started reading about, uh, Ms. Bertha Morton, and I read that she worked all her life and then donated income to, you know, help academically-driven students, like myself. And which, in itself, is so inspiring to thousands of students that study at the university. And I feel like the values that Ms. Morton followed in her life, I feel like my career choices and the principles that I follow in my life, are quite aligned to each other.

Ever since, I was growing up, my father has always encouraged us to study more, to gain knowledge. He wanted us to see the world, so he was very keen on sending me. to some other country, you know, just to understand the culture. And he was like: “You know, even if you just feel too homesick, don't worry about it. Just come back home. I just want you to go experience different people and, you know, make new friends. And the world is very different from what it is here in India. And, uh, I want you to go out and explore.”

Ashby Kinch: So let's continue in that vein. How'd you end up in Montana? So you've been exploring the world. Your father pushed you out the door. And you've, you have had some experiences, but how'd you end up here?

Juthika Thaker: Yes. Uh, so before I tell you about my UM story there is, I just want to let audiences know that there is, there is a beautiful phrase in, in a book called *The Namesake* by Jhumpa Lahiri where they say, you know: “pack a pillow and blanket and see the world. You will never regret.” So I tend to, my life in lines toward what was said.

So for my UM story, I was working as a--so I finished my master's in health administration at the University of Missouri in Columbia. And at that time I had a group of friends, all of them were doing their PhDs, and it was always fascinating to hear their research stories. I was just fresh out of college and I started working as a research coordinator at the same university with a team of, of researchers working towards finding a solution for sleep apnea in children.

So, again, surrounded by researchers and. It was a really fascinating experience that kind of motivated me to go ahead and pursue a PhD.

So I had been contemplating doing a PhD but wasn't sure if I was ready to commit to four to five years of studies. But then working as a research coordinator, that kind of ignited a fire in me to, you know, go ahead and do a PhD. And I was looking, I was researching colleges and during that time, my husband got a job in Helena as a quality specialist.

So he moved to Helena and then he asked me to check out University of Montana, and he said: "You are interested in public health. There is a school of public health here. Why don't you, you know, read about it, see if the research aligns with your career goals, et cetera.?"

So I did go through the website. I liked what the professors here were doing, and then I reached out to Dr. Curtis Noonan, who was the administrator at that time of the PhD program, and he was very motivating, very encouraging. I told him: "I have a few questions. I want to talk to you."

And he said: "Why don't you come over for a seminar? Just see, you know, what kind of projects our students are leading. Talk to them and then you come to me and then we will talk more about what questions you have."

So that kind of really made me interested in exploring more. So I went to him, I spoke to him and I told him, these are my research goals and this is what I want to do. And that's kind of where I found my match. I thought this program is great and I will tell you, I, I haven't regretted my decision even for a minute here.

Ashby Kinch: Well, that's what we like to hear.

Juthika Thaker: Yes. Professors at UM—overall in the University of Montana, but my experiences are more with the professors at the School of Public Health—they have been very encouraging. Not just academically, but also, you know, they are interested to know more about our career goals. And, uh, my advisor, in particular, she's always like, you know: "What can I advise you more on? Okay, what do you want to do in the future? So if you want to become a, you know, become an academic, if you want to get into academics, do you want to become a TA or do you need more opportunities? What are these opportunities, et cetera."

Ashby Kinch: And you have taken her up on that. You've done a couple of teaching opportunities here at the university. Your CV is full of professional development and it's very impressive. You've been a co-author on a few publications. And they seem to cluster around vaccine uptake. And particularly the human papillomavirus, right? Which is a very tricky one. Can you talk a little bit about what got you into interested in that research angle?

Juthika Thaker: Sure. Yeah. So human papillomavirus is the most common sexually transmitted disease in the United States. There are about 13 million new infections emerging every year. And HPV is also known to cause a variety of cancers like oropharyngeal cancers, anal, genital cancers, et cetera.

And we have a vaccine here. And, and let me tell you this, there are only two vaccines in the world right now that can prevent cancer. That, in itself, is very fascinating. Hepatitis B is one, and HPV vaccine is the other. So we know that, and there have been multiple studies that have shown that HPV vaccine is safe, it is effective in preventing cancers, but still, we haven't reached vaccination rates that we would like. So in Montana, we have consistently lagged behind. Our HPV vaccination--it's a series, which is given in two or three doses. So our series completion rates has been, you know, at 58.4%, which is much lower than we would expect.

So there is a recommendation that we at least need 80% coverage and we are way behind that. So that is something that, that really motivated me to, to do some research in this area, particularly in Montana. And uh, there is a reason for that. If you look at research, which has been done in the past, we see that rural communities are facing a disproportionate burden of HPV-associated cancers because of low vaccination rates. And also because there is higher incidence of, uh, HPV associated cancers in this population. And Montana being a largely rural state, you, if you look at the rates, you can see a consistent urban-rural disparity. So rural areas have higher vaccination rates when compared to, sorry, urban areas have higher vaccination rates when compared to rural areas.

So this is something that, um, I wanted to work towards. I wanted to work towards improving vaccination rates in rural areas. And the main area, the main focus of my research is how to engage nurses in doing so, and the reason for that is because, mostly in these rural areas, adolescences tend to use, uh, public health departments to get their vaccinations. And in these public health departments, nurses are the ones who typically interact with patients and parents.

Ashby Kinch: So they're sort of the ones you need to sell the vaccine to the patient, right? To convince them this is a good idea, this is in your best interest.

Juthika Thaker: Yes. And the research that has been done so far in understanding how provider communication is influential in whether parents decide to vaccinate or not vaccinate their children. So these studies of vaccine confidence have largely focused on pediatricians and family medicine physicians. There is less done on nurses and medical assistants. But they do play a crucial role in adolescent immunization services. So I thought this would be a good area to focus. And I finished a survey of nurses all over. It was a statewide survey. We had surveys sent out to all types of clinics in, in Montana. So this was my first study. I'm looking forward to publishing the results.

But for my second study, we decided to focus our interest on public health nurses. So we are going to recruit nurses and we are gonna talk to them about what are the clinic processes that they use. Like, if there are any needs, what are the barriers to facilitators of promoting HPV vaccination to age-eligible adolescents. If there is anything that we can help them with. Are there any knowledge gaps? If they need any, any more resources from the state health department.

So, far, whatever projects we have done are in collaboration with the Montana State Health Department, which is a good thing because we share our results with them, which also guide them to, you know, which also guide and inform further initiatives to engage this professional group in promoting HPV vaccination.

Ashby Kinch: Right. And so this would be a field where the abstract study is not the important part. The important part is the applied bit. How does it get into the field, impact the way providers provide a service, and then therefore positively impact public health?

Juthika Thaker: Yes, yes, definitely.

Ashby Kinch: Fantastic. And so we see that you're projected to complete your dissertation next year. And then what's next? Where, where, what are you gonna do when you're done with your doctorate?

Juthika Thaker: Sure. Yeah. So I want to continue researching in this area. But at the same time, I want to take the expertise and skills that I've learned in my PhD program and apply them to strengthen public health infrastructure in India.

As we talk, in India, more than 74,000 women, even today, die of cervical cancer. Now, if you compare that to America, uh, United States, or if you compare that to Australia. Australia is set to be the first country to eliminate cervical cancer completely because of a national immunization program.

I just feel like you can see the disparity here and I, I don't like that if there is something preventable, nobody should be dying because of that. And I think it's, it's also comes down to the point of health promotion. And health literacy in India is much lower. People are not aware of HPV vaccine and I want to kind of work in that area and probably, you know, try and lobby the government to have a policy wherein you are offering HPV vaccines at lower rates because we don't have like universal health coverage in India. We don't have that thing just like we don't have it in the United States. But then if we want the vaccine to reach people, the most vulnerable sections of the society, we need to do something about the cost. It cannot be as costly as it is right now.

And I have friends...so I studied dentistry back home. I am a registered dentist in India. And when I talk to my friends, we were never taught about HPV vaccine in our college. And even now when I talk to my group of friends, they don't know what HPV vaccine is and what it does. So that's where kind of, you know, health literacy, comes into picture.

Ashby Kinch: So making changes in the health education and health, uh, the trainer side of it as well as the cultural side and the cost.

Juthika Thaker: Yeah. I mean, things are improving. I said I was in India last year and my brother shared my nephew's vaccination schedule and HPV vaccine was on it.

Ashby Kinch: Okay, well that's a start.

Juthika Thaker: Yeah. So, so we are getting there. It's just that it needs a little bit of push and some initiative from the government to, you know, offer these at, at health centers across the country. Because we have other vaccines. So we have other vaccines like polio vaccine, or um, BCG vaccine, which is given for tuberculosis in India.

So these vaccines are available at health centers where HPV vaccine is not available. So it's still not within the reach of certain sections of the society. Like, you know, not everybody goes to a pediatrician with the fancy office in India. Yeah.

Ashby Kinch: Yeah and I'm guessing, as in the United States, there's cultural factors that interfere with people's, uh, belief systems to stop them from getting it. Before we came on air, we were talking about, uh, the linguistic diversity of India, and it's, you know, incredibly big country to begin with, both geographically and numerically, but also many different languages. So you, at some level, you also have to address the cultural differences across the country.

Juthika Thaker: Yes. So I mean, just like when the HPV vaccine was introduced in the market, it, it gained a notorious vaccine that prevents sexually transmitted diseases. So a lot of parents, when you offer, uh, this vaccine to, uh, the parent of a child who's 11 years old...here's a social stigma

Ashby Kinch: There's a social stigma. Because they don't wanna associate it with sex yet because they're so young.

Juthika Thaker: Yes. Yeah, definitely. So now there has been a wave to shift the focus from calling it a vaccine that prevents STDs versus calling, calling it a vaccine that prevents cancer.

Ashby Kinch: Cervical cancer. Right.

Juthika Thaker: Yes. So, so basically, I think that's something that if being propagated in India, just like in the United States, I think would, would, uh, encourage a lot of people to get the vaccine for their children.

Ashby Kinch: Yeah. Yeah. That's excellent. And that's a such a great example of default shifting, uh, in public health decision-making, in general. You want to, you want to constrain or construct the choice so that it pushes people in the, in the, the more Productive direction, right? And doesn't trigger other questions, you know?

Juthika Thaker: Right. Yes. There's been a lot of research, uh, when it comes to provider communication as to how to present HPV vaccine. So, you know, they also, they call it same day, same way as in like, just like you recommend other adolescent vaccinations, recommend the HPV vaccine, or, you know, use a presumptive approach versus conversational approach.

So basically with providers, rather than saying, you know: "Your child needs HPV vaccine. Do you have any questions?" Something like...we would just tell them your child is due for...

Ashby Kinch: “When would you like to take the vaccine” rather than do you want to take the vaccine?” Yeah. When would you like to take the, uh, the vaccine rather

Juthika Thaker: Rather than saying: “Do you want to take it? “We just tell them: “This is important. It is necessary to prevent cancer. So your child needs it and I'm going to give it.”

Ashby Kinch: Excellent. Well, so that, that was a bonus for Confluence listeners: a new understanding of the HPV vaccine, as well. But thank you so much. Congratulations, again, for the Bertha Morton and thank you so much for joining us on Confluence.

Juthika Thaker: Sure. Thank you for having me.