

## An Integrated Health Review: Improving Health Access for International Students | Text Transcript | CIRCLE

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This is a text transcript for the recorded webinar “An Integrated Health Review: Improving Health Access for International Students” presented by the Canada India Research Centre for Learning and Engagement (CIRCLE) at the University of Guelph. The event was recorded on December 1, 2021, and was moderated by Prof. Stuart McCook. The guest speakers were Dr. Shivajan Sivapalan and Dr. Yasir Khan.

Transcript:

### **Stuart McCook:**

I want to first off welcome everybody to this talk, I know I for one am certainly looking forward to hearing it. My name is Stuart McCook, I am the assistant vice president international here at the University of Guelph, I'm also a professor of history and I've been working here since 2003. I'll also just say a few brief words about CIRCLE.

CIRCLE was established in February of 2020 at the University of Guelph. It means the Canada India Research Centre for Learning and Engagement, which aims to be an interdisciplinary nucleus in Canada for cutting-edge research on India and the Indian diaspora to showcase, advocate, catalyze and foster an equitable, respectful, and sustained exchange of knowledge between Canadian and Indian scholars on complex, emerging and unexplored topics related to sustainability and social and economic well-being.

The website for anybody who's interested in learning more is [canadaindiaresearch.ca](http://canadaindiaresearch.ca). Before we move to today's proceedings, I'd like to draw your attention to two upcoming events. First, the last webinar for 2021 is on the 15th of December at 9:00 am and it's entitled, “Migration of Dalit women domestic workers from Andhra Pradesh to the Gulf countries” by Shailaja Menon and Yamanapalli Sreenivasulu.

The second event of the India 2047 series to commemorate 75 years of India's independence is entitled “Democracy in India in 2047,” on the fifth of January, and the speakers are Niraja Gopal Jayal, Yogendra Yadav and Navsharan Singh. Information and registration through the CIRCLE website and again the web address for that is [canadaindiaresearch.ca](http://canadaindiaresearch.ca).

Today's event speaks to something that is of deep personal and professional interest to me and probably many people on the call. It is titled, “An Integrated Health Review: Improving Health Access for International Students.” We are very fortunate today to have our two speakers with us.

We have Dr. Shivajan Sivapalan, who is the campus clinic physician for the Campus Health and Wellness Centre for Durham College and Ontario Tech University and also a director of clinical operations at the SAAAC autism center. The other speaker is Dr. Yasir Khan, who's a campus

clinic physician for Campus Health and Wellness Centre for Durham College and Ontario Tech and an adjunct lecturer at the University of Toronto and a master's student in the healthcare quality program at Queen's University.

So, for today's webinar we'll have the following form. Speakers, you will have about 30 minutes to talk, then about 30 to 35 minutes for questions and answers. As a matter of etiquette and logistics, everybody except for the speakers will be on mute with no video, questions and answers will be handled in the following way: if you have a question, but I'm open to the digital hands through the Zoom chat, through just waving at the camera or asking a question in the chat and I will moderate.

If you type your question in the chat screen I'll read it out. Please keep your questions and comments brief. The event is being recorded and will be made available to the CIRCLE website once transcription is complete, and without further ado I turn it over to our speakers for today, thank you.

### **Dr. Shivajan Sivapalan:**

Thanks Dr. McCook. Hello everyone and I just wanted to start off by thanking you all for joining us today, Dr. Khan and myself are really excited and passionate about this project that we started just about a year ago, and hopefully by the end of today's presentation, he'll have highlighted the need for more research and support for the international student population here in Canada. Before I think we jump right into it I thought I'd share a scenario that's really at the heart of this project and what inspired us to better support the international student population at Durham College in Ontario Tech University.

So just take a minute and just imagine being an international student that just recently moved to Canada, you've left your family and your friends to pursue your dreams of a better life here in Canada, you're enrolled in a full-time engineering program but to support this you've had to work a part-time job, work late nights and long hours. But, you're driven by that desire to complete your degree and make a better living for yourself and your family.

Because of your work hours in school, you haven't had a chance to connect with other students, and your main support is your fiancé that you speak to weekly over skype. However, six months after arriving, you start to notice that you just don't have the same energy or motivation you had when you first came, you've been feeling more drained and exhausted and it started to impact you academically.

You've started to miss classes and assignments, but you put it off as just adjusting or moving here to Canada. Your fiancé tells you go get checked out, go to the hospital, but you're worried that it may be very expensive or that if they do find something you may have to leave Canada and go back home. Your biggest fear is failing here in Canada and having to return home to your family.

Facing disappointment is not an option so you continue to struggle through your symptoms alone and isolated, but something in your gut tells you that there's something more to this. If there is, how much how will your family react, how much will it cost you and more importantly where you go to get help? It takes you months to build up courage to go get checked, but when you are ready you realize that you're just as lost as you were when you first came to Canada, you don't know how the system works and you don't know where or who to go to.

So how does this international student access the support he needs? The sad part of this is this is a fairly common scenario that Dr. Khan and myself have noticed over the past few years and it's stories like this that have really motivated us to improve how we support international students. So today Dr. Khan and myself will highlight our ongoing project. We're still recruiting participants but have also started to analyze some of our data we collected and we'll be presenting some of the prelim qualitative and quantitative results.

Just to go briefly over the agenda for today we'll review the rationale for the project, I'll also highlight some of the barriers that we noted that international students face when they try to access healthcare. We'll also briefly go over our purpose objectives and study design, but really at the heart of this presentation you'll be centered around some of the prelim results and ideas for the future and how the international student experience may be similar to that of the newcomer and immigrant families.

### Dr. Yasir Khan:

So much of the rationale for this study has come from our own experiences with this student population. I've been working at the campus health center for about six years and Dr. Shivajan has been there for about three years as the international student population has grown. Some of the common issues that we've seen have also grown in proportion with that.

These students, when they do present their clinic, often present with similar complaints, things like low energy, headaches, fatigue, and a lot of times requesting a general checkup. We've seen some common gaps in knowledge especially around topics like sexual health and mental health and how that can end up translating into things like unwanted pregnancy or undiagnosed mental health issues or even trouble seeking the help that they may need.

The biopsychosocial components of health have an important influence on the academic success of these students and ignoring or minimizing their health concerns can often lead to deterioration in their overall health as well, given that this population has grown so much. We think it's really become increasingly important to provide culturally appropriate care for these students. So as far as the international student population, it's really seen a tremendous growth in Canada over the past decade.

In 2008, international students accounted for only 6.4 percent of the post-secondary student population, consisting of just over 100,000 students. In 2018-2019 one decade later this, population had tripled to 318,000 students accounting for almost 16 percent of all post-

secondary students in Canada and it also contributed to 57% of all growth in post-secondary program enrollments over that time frame. Over this period domestic student enrollment grew by 10 percent compared to 210 percent for international students.

For international students, over half of all international students originate from either India or China and from a financial perspective between tuition fees living expenses, foreign students contribute about 22 billion dollars annually to Canada's economy which equates to the amount of what our forestry sector would account for as well.

### Dr. Shivajan Sivapalan:

Despite the increase in numbers which is almost double the enrollment as Dr Khan kind of highlighted, we weren't seeing the same increase in clinic visits by international students. What we were noticing is that international students would typically come in only when they felt there was a serious medical condition. An example that I remember specifically was when I first saw student come in with severe burns on his hands and forearms. His burns were close to a week old and infected and as I was dressing the burn I remember a student asked me how much will this visit cost doctor um can I pay later or will my parents find out?

When he found out that his insurance would cover his visit medications and dressing he was in complete shock and what was even more shocking for him was when I told him that his parents would not be told about the visit unless he specifically wanted to. The visit really highlights just a few of those barriers that these students face in accessing health support. So this slide really highlights some of the other barriers that international students face. One of the major barriers is that most of these students primarily focus on academics.

To them, getting a degree is at the forefront and their health is only secondary. There are also financial barriers, as most of them are paying double to triple the tuition fees that domestic students pay, and hence have to work part-time jobs to support their needs due to the long hours or late shifts. This can lead to them having little time to actually address their health concerns. Some fear coming to see the doctor because they're worried about getting a possible diagnosis that may impact their academic career.

This is typically linked to them being unaware of the benefits of early identification or preventative care. They may also fear that a potential diagnosis has a direct impact on their visa status. Some students have directly told us that prior to enrolling in our study, some of them attributed their symptoms to them just moving to a new country, being on a new diet, or just stress. And then you include cultural perceptions, which can play a significant barrier in access and health supports.

### On-Screen Content:

International students' barriers to accessing health care: Not prioritizing their own health, financial barriers, lack of time, fear of diagnosis and implications, language barriers, unaware of resources, lack of culturally appropriate resources, gaps in knowledge, geographical barriers.

## Dr. Shivajan Sivapalan:

For example, international students who are sexually active may hesitate to seek medical advice around contraception due to cultural stigmas or fear that their parents may somehow find out that they're on birth control. The lack of culturally appropriate resources that address these stigmas is also another barrier. Enter COVID in early 2020, the world was forever changed with the emergence of COVID-19 and the resulting pandemic.

International students were severely impacted since then most were stranded here in Canada away from their families and by themselves. Most were worried about how their families were doing with the news and media highlighting how numbers were surging in certain parts of the world. All these students could do was just worry. Much like the rest of the world they were not allowed to travel to be with their families. Also socially distanced and advised to stay at home.

This added stress of isolation from friends and family during a pandemic heightened anxiety and worsened any underlying mental health concerns that these students were having. COVID-19 caused a number of our clinics to shut down and switch to virtual during that period so international students who were fairly new to Canada and who were already struggling with access now found it even more difficult to seek help.

COVID-19 not only added another layer of complexity but really amplified the existing barriers that students were facing, in addition to us noting these potential barriers to students accessing the clinic, we also noted that amongst the students that did access the clinic, there were significant gaps in their health knowledge specifically around vaccines, preventable diseases, sexual health, mental health and campus resources.

These gaps have led to students having some misconceptions about existing medical issues which further exacerbates any anxiety or stress they may be feeling. Most of them would use quote unquote or google md to assess their problems and in some case this would result in students not accessing healthcare in a timely manner.

We really wanted to provide international students a robust point of access to both a clinical checkup and the most up-to-date culturally responsive health information, so based on some of our anecdotal experiences with this population and the common complaints that we're dealing with, we wanted to see how this integrated health review with a focused clinical exam and structured health teaching could impact the international student population at Durham College and Ontario Tech University.

As part of this we wanted to identify gaps in health knowledge which we felt were there and also find solutions to improve access to care and continuity of care for these students even potentially after graduation. So keeping that in mind we came up with a list of objectives for our study project. We wanted to increase access to a family doctor, to health services for international students in general at Ontario Tech and Durham College.

We did want to determine the prevalence of various medical issues within this population including things like anemia, thyroid disease, B12 and the mental health conditions which anecdotally we were seeing a lot of. We also wanted to identify knowledge specifically in regards to areas like mental health, sexual health, contraception and cervical cancer screening.

We wanted to try to develop some culturally responsive practices to address the health of these students and to also find better ways to connect with them and then we wanted to do long-term thinking about developing a plan for ongoing continuity of care for these students after they graduate. So to put some of this into context, the prevalence of undiagnosed anemia and low vitamin B12 and thyroid disease are high in India and China, and this is supported by literature.

The prevalence of anemia among non-pregnant women in India is 51.5 percent compared to 14 for the same population in Canada. Studies on Indian rural and urban adolescent populations have shown that B12 deficiency ranges from 32 to 47 percent and prevalence in Canada is 4.6 in comparison, and furthermore the prevalence of hypothyroidism in India is quite high compared to areas in the UK and the US as well.

Symptoms of things like anemia B12 and hypothyroidism a lot of times will include things like fatigue weakness headaches and sometimes they're subtle enough that students may just brush them off as part of adjusting to a new country. The problem with that is that it can eventually compound over time lead to worsening symptoms maybe increase visits to emergency room affect their academic performance and in general just makes it more difficult for these students to succeed.

In terms of sexual health and pap screening, this is another area that we really kind of wanted to focus in on a sub-national youth survey in India, which showed that only 49 of youth that were surveyed had any positive knowledge of non-terminal contraception methods and only 28 of young women had any comprehensive awareness of HIV.

The pap smear acceptance and screening rate in India is quite low at 8.3 percent and according to WHO data, the standardized rate of cervical cancer is approximately five cases per hundred thousand women in Canada compared to 100 cases per hundred thousand women in India.

I mean based on some of what we've laid out in these preceding slides in terms of the existing evidence as well as our own anecdotal experiences and caring for these patients, we realized that there was really these common areas where the gaps existed in education health knowledge. That included things like you know cervical cancer screening, the benefits of pap smears, sexual health including birth control use of other forms of contraception.

We would a lot of times we try to initiate that discussion initially with female patients about contraception, usually they didn't want to discuss it and weren't comfortable discussing it but then some of these students would see weeks or months later coming in to discuss the

termination of an unwanted pregnancy and we realized that there had to be better way for us to connect and discuss this topic with students.

Similarly with mental health, we were seeing a lot of you know mental health manifesting with physical complaints as well and then immunizations was another gap that we noticed and a lot of times that may have been just because they didn't have good immunization records from their home country, or hadn't been checked for them before. So what we decided to do is develop this project that really addresses all of those aspects.

### Dr. Yasir Khan:

In this longitudinal pilot study, 200 international students were followed for approximately two weeks, so initially international students at Ontario Tech and Durham College campuses were booked to have a routine physical with one of the principal investigators myself or Dr. Khan, followed by a medical education session. With the female registered nurse, the study consisted of a series of two structured visits separated by two weeks, which we have now termed the international wellness check or IWC for short.

At the first visit the student filled out an initial questionnaire which collects basic demographic data such as gender, age, country of origin, languages spoken and basic medical information, such as past medical history, allergies, medication sexual health and gynecological history. The students also filled out an initial self-evaluation survey that targets background information such as if they've ever had a routine physical in the past and how many times have they visited a health care facility in the last year.

The survey also had self-evaluation questions for the students regarding the level of knowledge regarding mental health, sexual health, COVID-19 and school resources. Interestingly, when we were actually developing our questionnaire we had to modify them to address cultural nuances. For example, we had a question, "are you sexually active" that we initially felt was fairly straightforward, until a few of our international students informed us of some of the confusion around that question.

Many students found it confusing as they were not sure if that question was asking if they were sexually active with someone else versus with themselves. Also, students did not check yes if they were sexually active with another person in the past but were not currently sexually active within the last year. This was clarified whenever we examined the patients and we just asked them directly.

Following the actual questionnaire and the physical examination, students have the option of having some blood work done that screens for immunization status specifically for measles, mumps, rubella, varicella, hepatitis a and b. Prior to this study Dr. Khan and I also noted that international students did come to the clinic for assessments. Their most common presenting complaint was actually fatigue, so as a result we decided to screen for common causes of fatigue such as anemia, hypothyroidism and vitamin B12 deficiency.

This was something that anecdotally we had noted was more common in our international student population. Following that blood work, the student would have a one-on-one one with one of our female registered nurses during that first session on immunizations, COVID-19 and sexual health. It's really important to note that student could opt out of discussion of any or all of those topics or terminate the discussion at any point if they felt uncomfortable.

In addition, the student was also provided with a take-home package with various educational resources that they can review during their leisure time. The material in that package would cover healthy lifestyles, diet, hygiene, sexual health, and mental health resources that are also available on campus. Now a common question we typically get asked when we were developing this project was why specifically a female nurse.

### **Dr. Shivajan Sivapalan:**

Well, what me and Dr. Khan had noticed in the clinic was that some of our international female students felt more comfortable discussing topics such as contraception, sexual health, and mental health concerns with the female physician or nurse, hence we decided to incorporate that just to address that specific need.

Two weeks following that initial visit, the student would come in to review their blood work results with the ordering physician. The student would then have a second visit with the registered nurse on the same day to have medical education on pap smears forms of contraception and mental health resources.

This was typically followed by administration of agreed-upon immunizations as well as other medical interventions and for female students specifically the option of pap smears being performed by one of the trained female nurses was also given. Again, this option was given to address the existing cultural barriers around having a pap smear performed by a male physician.

So we're going to get right into some of our preliminary findings and results so far. First off, with our demographic data, we've had the point where we kind of paused for preparing our preliminary data. We've had 101 participants, 70 of those were Durham College students, 31 were Ontario Tech students, average age was just under 25, gender breakdown was 46 male to 55 female and the nationality was 60 from India, and the next closest was about 8 Philippine and 7 percent Iranian students. So consistent with that the most common languages were Hindi, Punjabi, Urdu, and Gujarati.

Some of the interesting things we found in terms of the demographic screening was the students alcohol consumption. It was about 57 in this population compared to Canadian populations the number is closer to 80 percent. And then the other really interesting one was the smoking, so we had about a 31% smoking on a regular basis in this age group, but 92% smoke one to five cigarettes daily.

### Dr. Yasir Khan:

This will be relevant in terms of targeting a smoking cessation program, because these are not heavy smokers and I think this would be an important time to try to have an intervention early on when they're smoking such a small amount. In terms of further demographic data, there was a large proportion of vegetarian students, 28 out of 101. Only 26 students indicated that they exercise on a regular basis which was a pretty low number active.

46 reported being sexually active, while only 10 were reporting that they were using any form of contraception. 18 reported using recreational drugs either currently or in the past, and only 6 eligible students have had a pap smear. These stats gave us insight on the areas where we needed to target our health education including things like nutrition health benefits of physical activity, birth control options, as well as counseling around unwanted pregnancies and the benefits of pap smears and screening for cervical cancer.

We did really want to focus our education on birth control because initially we had such a low percentage of sexually active females using any form of birth control in our experiences we would often have those preliminary discussions which weren't very fruitful and then we'd end up seeing those students later with concerns about unwanted pregnancy or therapeutic abortion, so you know interestingly in our post intervention we found that we had 27 students who were sexually active but who were not using a form of birth control and decided to initiate some form of birth control.

95-100% of students felt either satisfied or very satisfied with the International Wellness Check, the handouts and content, and felt welcomed by the female nurse who is providing the teaching and the option for the pap smears for them. So in terms of some of our survey data, we asked students their current level of stress or anxiety regarding the COVID-19 pandemic in a pre-survey and post-survey.

Students rely heavily on social media as their primary source of information, and I think this provides some useful insight for us in terms of how we want to best prepare messaging to help these students through targeting social media campaigns, whether it's providing general information about COVID-19, or helping increase access to testing or vaccines for this population.

So this question was asking how would you rate your current level of stress or anxiety when thinking about being in your country, because that's a very real concern for a lot of our students and with this slide you can see improvements after our intervention in students ratings of their level of stress and anxiety. In this context in particular, the little to no stress ratings both improved by over 10 percent.

Some of this effect could certainly be due to time and getting more comfortable in Canada, but we do also believe that our health teachings and education packages we put together for these

students played a role in mitigating the stress which is really confirmed with informal feedback we received from students as well.

In terms of, "how would you reach your current level of stress or anxiety when dealing with your own health," similarly after the intervention students did express less stress and anxiety when it came to managing their own health as a response from students indicating no stress more than doubled from the pre to post survey. Some of the most significant results from our surveys were the improvements that students expressed in rating their self-knowledge on mental health and sexual health after our intervention.

Students rating their knowledge as good or very good went from approximately 75 percent before intervention, which is still a pretty high number, to 94 percent after the teaching. But the biggest benefits we feel were really in the mental and sexual health knowledge. With mental health, initially only 44 percent of students rate their knowledge as good are very good which went up to 74 post-intervention and similarly with the sexual health knowledge only 46 percent of students rated it as good or very good initially, which went up to 83 after our structured teaching.

Students also answered "how would you rate your ability to find and access school resources for yourself," another important one for students in kind of instilling the confidence and finding the right resources for themselves, whether it's mental health resources, counseling or addressing health concerns that they have, or accessing support services for themselves for accommodations in school. So in our initial pre-survey 15 percent of students rated their ability to find and access school resources as poor, while only 11 rated it as very good.

Then after the intervention the students who had raised their ability to find their school resources increased, as poor dropped down to only two percent from 15, whereas the students who rated it as very good jumped from 11 to 37. Another key one here, and this is really a very positive finding from our survey, is that results prior to our teaching when asked if you had to get help for mental health issue would you know what to do, only 37 percent of students in the pre-survey responded yes with 63 students responding maybe or no.

### **Dr. Shivajan Sivapalan:**

At the end of the study, that number went up to 85 percent who felt confident in finding the help they would need, and only six percent said that they would not know what to do. Now we're going to kind of switch gears and really look at some of the quantitative data.

Now if COVID-19 has taught us anything, it's the importance of vaccinations. Some preventable diseases which lead to disability or death and can be avoided by just getting immunizations. In recent years, we've begun to see outbreaks particularly of measles and mumps as levels of immunizations start to drop in.

Our data analysis found that about 39.6 percent of students that we've analyzed were found to not be immune to measles or mumps, although most of those students did have immunization

records indicating that they received two doses, their blood work results showed that they did not have sufficient antibody levels or no antibodies at all.

Now when you look at tetanus, it's also an uncommon illness in Canada, but it's spread generally through contact with dirt in an open cut and it's interesting because most of our international students work part-time in restaurants and frequently come in for cuts and lacerations. Without up-to-date boosters for tetanus, they're unnecessarily putting themselves at risk and it's staggering to note that 87 percent of our international students were not up to date in their tetanus immunizations.

Chickenpox is a disease that can make you sick and uncomfortable for several days and will require some students to stay at home, but it can cause more serious symptoms for adults, and we found that 30 percent of international students were not immune.

Varicella influenza is a disease that is spread by contact with someone else who has the illness and is most common in Canada from late October to late February. It can be prevented or made less severe by getting a vaccination against it and what we were able to find is 27 students decided to get the flu vaccine after our health teaching. Also, another important aspect was 33 students decided to get vaccinated against the human papilloma virus, which can lead to cervical cancer, after our health teaching.

So, in the future, another vaccine preventable disease we would like to collect data on for the international student population is meningitis, although it is another relatively rare disease. It is spread through contact, this disease is quite serious and it affects the lining of the brain and can cause serious blood infections that could lead to death. This disease can lead to outbreaks, and it actually has been seen in university campuses in the past, especially in residences with people living in close quarters which is a fairly common living situation for international students.

Now when we were starting to look at the diagnostic data that was where we our eyes started really to open. It really reflected some of the numbers we had found in our research. The number of students with low vitamin B12 reflected numbers similar to the incident in rural India. This can similarly be seen with the number of students with undiagnosed thyroid disease, all of these conditions can lead to the student feeling fatigued and exhausted.

Another important one that we also found was that 13 of our female students were found to have polycystic ovarian syndrome, but it was really interesting to note how students reacted once they found out their results. Almost all of them were relieved that there was a cause for their symptoms and that it was treatable. In some of the more serious conditions, such as the pre-diabetes or fatty liver disease, students felt motivated that through diet exercise and lifestyle modifications they could better manage their symptoms.

However, what was really shocking for Dr. Khan and myself to find out was the mental health struggles that these students were facing. The number of students that were suffering from clinical depression or anxiety was more than we were both anticipating. What was even more

interesting was with the structure of our visits and allowing for more touch points with healthcare professionals for the students. They felt more comfortable and started to really open up about their struggles.

With our health teachings addressing those cultural stigmas around mental health, they were able to not only feel welcomed but felt that they were not alone. After these visits with us most of them were able to connect with our wellness coaches, mental health nurses and counselors for further support. I remember one student telling me how he felt like he was struggling with depression for many years but felt ashamed to bring up bring this up to his parents in his home country. After speaking to our nurses, he felt motivated to finally address some of these mental health concerns.

Now with this slide we really wanted to highlight that 22 students out of the 101 in the study were found to have some serious medical conditions. Keep in mind that the average age was about 24 years of age. Two of these students were diagnosed with type 2 diabetes, six were diagnosed with high blood pressure, one student was actually found to have a prolactinoma which is a benign tumor of the pituitary gland that can actually sometimes cause or lead to vision loss.

One student was diagnosed with primary hypogonadism, which is when your body does not produce enough sex hormones. We also had two male students that were found to have a testicular lump which was later found to be benign and it was interesting because these students found it because in our package there was something that was about testicular cancer awareness and then they started to do self-checks, and then they brought it up to us at that second visit.

One student was also found to have an enlarged heart and is now being followed by a cardiologist. Something that was very interesting to note was how these students specifically reacted when they found out about their diagnosis. Most of them mentioned how they knew something was wrong but just did not feel comfortable getting it assessed back in their home country. Most felt relieved to find a cause to their symptoms and have them treated and all of them had wished that they had addressed their concerns earlier.

Now as Dr. Khan and myself started looking at the data we started to really notice a trend or a pattern. It came to light when we found four students who were hypoglycemic, which means that their blood sugar level on the day of their examination was less than four and just to keep in mind these blood tests were not fasting blood tests so they could have eaten drank whatever they wanted prior to the blood test. When we asked those students if they were skipping meals, all of them reported not just skipping multiple meals during the day but also struggling to afford meals.

We start to consider some of the other data in the context of this. For example, over 35 percent of international students in the study so far have showed low vitamin B12 compared to only four percent of Ontario, and over 20 percent also show low iron. What could be the

possible reasons for this, especially since these are diet and nutrition related? Could it be a lack of time, financial barriers, limited family support, or maybe trouble sourcing culturally appropriate foods?

And the concern is that this can lead to a decreased ability to sustain focus and concentration, persistent fatigue, leading to missed classes and exams and other health concerns for international students. Now research done by meal exchange and university campuses has shown that international students are significantly more vulnerable than domestic students to be food insecure. Consider that in addition to the low vitamin B12 and iron, there are other possible diagnoses that a healthy diet and nutrition can help.

For example, students with diabetes or are pre-diabetic could have barriers facing them, like foods that are affordable that they can grab on the go which may not necessarily be the healthiest choice. So I really think some of this diagnostic data underscores the imperative to minimize the occurrence of food insecurity for international students.

### **Dr. Yasir Khan:**

So just to come back to the mental health piece that we touched on, this is one of the major findings for us so far. I can't say it's a huge surprise, but it was still interesting to see how high the numbers were. We know that leaving friends and family behind, travelling to a new country with different cultural norms it's going to be a stressful experience for anyone.

Students have to also deal with added pressure trying to succeed academically, and a lot of times they deal with racial microaggressions including things like feeling excluded on campus, maybe being teased for their accent or language proficiency.

Sometimes these new students will also have culture shock where they feel disoriented, powerless and lonely. It's worth noting that international students pay substantially higher tuition fees than domestic students, which can also create financial burdens for students and their families. A lot of Indian international students are self-financed through private loans, and financial challenges are a common theme that we've seen in this population.

Many students come here and they're not really prepared for the additional living expenses that are required on top of their tuition fees, and all these factors can place a great deal of stress on international students, which can lead to students failing to prioritize their health. So of the 101 students we've had, so far 35 percent with an anxiety diagnosis and 15 with a depression diagnosis.

Those are pretty significant numbers. I've included a couple quotes here from a recent article by the Globe and Mail, which really took a deep dive into the recruitment of Indian students to Canadian colleges and universities. A couple of these quotes really stuck with me. "A local funeral home in Brampton called what it's seen lately a crisis: It handles four to five international student deaths each month—almost all of them suspected suicides or overdoses."

And then another one from a dad whose son was one of these students who died and his quote says, "people said all sorts of things about why he died. Some said he may have started doing drugs, some said he may have joined a gang, but I know my son, it must have been serious, I suspect it had something to do with money. He was clearly struggling financially ... and kept asking us to send him money. I sent what I could. But if he had only talked to us, we would have figured a way out of this. I keep wondering how alone my child would have been. I keep thinking of all the things he must have suffered alone. I wish he had people with him to tell him he was going to be all right."

It's quotes like this that really kind of drive home some of the experiences that these students have gone through. And sometimes they feel like they lack access to the resources that they really need. In terms of looking at ideas for the future from what we've built on so far, coming out of this the work we've done we have developed some ideas.

One of our primary ideas is that we want to work on a virtual platform or portal where students can receive this health education on a number of topics that we've identified where current gaps exist, including mental health, sexual health, vaccines.

Another important one that we've talked about that we'd like to develop more is employment rights and I think it was mentioned in the chat that a lot of times these students may be able to work a set number of hours, but they work hours that are way beyond that under the table, often being underpaid and taken advantage of.

So we envision this kind of idea of this online portal, something that can become accessible to students across all institutions and will consist of interactive modules which they can work through at their own pace and comfort, and then still have access to health professionals to answer further questions or concerns that they may have.

Another major goal of ours is to develop a guideline of care for these students, something that can be utilized by any community family physician or nurse practitioner providing care for these students, and maybe also providing support to community clinics and things like direct billing to student insurance so that students have access to more options instead of having to pay up front which is really what happens in a lot of cases. Then finally one of our major goals is to try to develop a transitional clinic which continues to provide continuity of care for these students after they graduate.

Many international students come to Canada thinking it's going to be a pathway to permanent residency, but in reality, only about 30 percent of students will get permanent residency. For those who go through the process there's often a period of time where the university insurance has expired once they've graduated but they're also not immediately covered or eligible by OHIP or another insurance, which creates a major barrier to accessing care.

In some cases, it might mean increased reliance on the emergency department in which case they're likely still going to be sent a bill, but we really feel that a transitional care clinic would be

a really important piece in caring for this student population. Although the study is currently being run right now at the clinic that supports Durham College and Ontario Tech students, we really see the scalability of this program to other universities and colleges.

### **Dr. Shivajan Sivapalan:**

What we've also learned from this project so far is that there are many areas to focus on when it comes to international student well-being. For example, it would be useful to determine the cost savings by having an access point to primary care for international students right in the campus setting. This saves them from going to the emerge or walk in clinics multiple times for issues that could have been addressed earlier, and ideally reduce health visits overall.

It may also be useful to determine the direct impact on their academic performance by addressing these medical issues earlier. Another item to address would be possibly determining the incidence of latent tb within the international student population, which we suspect to be high. We also see some similarities in the shared experiences between international students and newcomer immigrant families.

The information collected through this study may provide invaluable foundational knowledge to help newcomer and immigrant families better navigate Ontario's complex healthcare system with cultural sensitivity really at the forefront of our project. The knowledge gained and the health teaching practices developed can really help inform care practices to better support newcomer immigrant families in the community as a whole.

What we're really trying to say is the study is just the tip of the iceberg, and there are a number of potential research questions that can help us better understand and support international students. Hopefully that was useful, and Dr. Khan and myself would just like to give a special thank you to the University of Guelph and Dr. Sharada Srinivasan and CIRCLE for hosting this event and for inviting us to speak. We'll leave it up to everyone for questions now.

### **Stuart McCook:**

Thank you very much I can say on my behalf that this has been tremendously interesting and I've been taking notes furiously as you speak and we'll be having some conversations with people on campus in the weeks and months to come so thank you for that, and now I will invite questions.

I can start off. Your sample size is relatively small, but do you notice different patterns within different communities?

### **Dr. Yasir Khan:**

We didn't necessarily have a focus on particular communities, but as we got into the project we realized that the vast majority of our participants were Indian students, and so that focus has kind of evolved over time and you know especially with some of the medical findings. We found that B12 deficiency and the iron deficiency anemia it's been quite high in that population so

that's I think probably one of the most common patterns we've seen is specifically with some of those medical diagnoses.

I think mental health has kind of been a theme throughout that's been applicable to all the international students that we've seen and it's reflective of a lot of the challenges that they face in coming to a new country and having to adapt and adjust and not always being adequately prepared or having uh you know awareness of the resources that are there for them.

### Dr. Shivajan Sivapalan:

Especially when we were looking even at just the immunization aspect it really varies from country to country because there are some standard immunization guidelines but it seems like countries vary like for example tetanus boosters may be given at an earlier age or a later age or there is no tetanus boosters in certain countries so that can play a role.

### Stuart McCook:

Margaret Walton-Roberts asks, "based on your research do you support the finding that have been emerging from journals" and so she cites recent stories from the Walrus and the Globe and Mail which I believe you know these reports suggest very serious problems being faced by Indian international students?"

### Dr. Yasir Khan:

Yeah, I agree 100 percent that there's very serious problems there and the Walrus article was a fantastic article as well with a lot of good insight. This is a huge financial industry it seems because these students pay such a high tuition and not to say that there isn't really good opportunities for these students, but I think in order to help them succeed we need to make sure the resources are there to help them.

I mean it's one thing if they're paying these like high tuition rates and they're being given access to these learning opportunities but hand in hand there has to be the development of the appropriate resources to go with that, and I don't think it's fair to these students and doing them huge disservice if we're bringing them over here but we're not putting the tools in place that they need to succeed whether it's the counseling supports like getting an appreciation for the adjustments they're going to have to make coming from places like India to Canada.

It's important to be understanding from the get-go that there's going to be lots of expenses outside of tuition and I think that's something that catches a lot of students off guard too, so I definitely think that there is a lot of problems and issues with maybe how these students are being recruited and what they're being potentially sold on or the vision that they're being given versus what they get when they come here.

Again, not to say that there aren't great opportunities for these students, I just think that the supports that should be in place haven't quite caught up to the level of students needs right now.

### **Stuart McCook:**

Just as one quick follow-up to that too I think one of the takeaways is that they are often not aware of the supports that are available to them, and as institutions we need to do a better job of making them aware of what is available. Even things like the campus health center, you know a lot of students don't know that there's a clinic sometimes on campus that they can go and see. We found a lot of our population find out from their friends who come in and take part in the study learn about the resources that are available and then we've seen more and more students come in by word of mouth.

I think engaging those students early on, doing this kind of structured teaching and letting them know what kind of supports and resources are available is really going to help them as a community because then they'll talk to their other peers and students who are in the same boat and make each other aware of those resources that are available and I think what we really started to notice was students from India there's different like states in India looking to connect with others who spoke the same language, but there was no connection point.

They would sometimes run into them at the campus clinic or when they're leaving the clinic, but otherwise there's no point for them to actually connect and build a support system. Dr. Khan highlighted that giving them those resources ahead of time as they're ready to come here to Canada is useful rather than them coming here feeling completely alone for a couple of months before they start to kind of build that support.

Lindsey Thomson says, "this is very important research ,I learned a lot from your presentation. I'm a staff member focusing on experiential learning opportunities related to collaborative research and knowing more about the context in which international students face is very helpful. It sounds like linking students with resources and knowledge is very important - are there other things that staff like myself should consider in supporting the well-being of international students?

### **Dr. Yasir Khan:**

I think your comment is spot on Lindsay, like linking students with those resources and knowledge is the key. So as a staff I think the ways you can help these students especially if you feel that they're struggling is knowing what the resources are on your campus to help them, things like the food bank are a big one and that's something that a lot of times we don't even consider, but some of the food and security issues these students have makes knowing where they can access food important.

Knowing what the mental health resources are on campus and what the process is for getting access to those resources, and even being able to provide students that have those medical concerns that there should be a campus health clinic that they can attend.

But knowing what the resources are I think is really good in your case because you can direct students then to the supports that they need, and having people in the faculty and teaching

community who can help be advocates for students and connect them with those resources will be huge because that's one of the biggest thing is like Stewart mentioned, is students not being aware of the resources that are available, so I think recognizing sometimes when you have maybe a student or learner who's struggling and being able to connect them with those resources would be really be a tremendous kind of help to them.

And I think the other aspect with these resources is ensuring that they're culturally appropriate and when they are being presented to students, some of the stigmas some of the barriers that these students face and why they may not want to access these resources and by addressing them it may make the uptake of those resources and that knowledge a bit easier.

The other aspect is connecting with community agencies around the campuses that work with students from these newcomer immigrant families from these countries. They may have some insight in some of the struggles that these students may face and linking with them, for example, for us with us building out our virtual portal we've connected with who works with Indian and Punjabi students around mental health.

### Stuart McCook:

Elisa Cooper asks, "what could be changed in how international students are recruited that could prevent these challenges from arising in the first place?"

### Dr. Yasir Khan:

That's a fantastic question and I think that's a very loaded political question as well. The articles in the Globe and Mail and Walrus, they've shed a lot of light on this issue and it's difficult because, you know when you read through these articles you kind of see how it's presented on one side like in India how these students are being recruited and the vision they're being sold on and what they're being told which doesn't necessarily line up with what the reality is when they get here.

I think as Margaret mentioned in her comment too, a lot of times there's that implicit offer of this is the good way to get permanent residency, and the stats don't necessarily support that. If we're saying that 30, I think it's 32 percent of international students will end up getting permanent residency, so on that side too it is unfortunately very much a business.

These recruitment agencies in other countries will charge a lot of money to quote on quote, "secure them a spot" in these institutions, so there is already inherently a bias there when you're working on a financial model of regain, you have a bottom line, and you're trying to get as many recruits as you can because that's your income versus actually being honest with them.

The likelihood is of having success in actually getting permanent residency and what your job prospects would be dependent on which program you go into.

A lot of the struggles get glossed over and what's sold to these students is, "you're going to have a better life in Canada, you'll get permanent residency, you'll have access to all of these

opportunities”, and for some students that will absolutely be the case, but that’s not going to be the case for everybody, and they need to know some of the realities of the situation.

This is not to discourage people, because I think it’s great for these students to come and have opportunities, but they also need to be given a balanced view on what everything is going to entail for them.

### Stuart McCook:

Yeah there's a lot to think about here. You commented on the 32 percent of students who obtain permanent residency, and I realize that this is perhaps beyond the scope of your study, but do you know off the top of your head how many of them apply?

### Dr. Yasir Khan:

That's a good question, I don't. So, I think 33 percent was the total of all international students who actually end up getting permanent residency, so it would be good to know the number of applicants as well, yeah.

### Stuart McCook:

Well just also the percentage who seek it. I have a dim memory of reading I think the same Statistics Canada report and I was surprised at the relatively small percentage it is. I think I've captured all of the questions in the comments so far, but if I haven't' please just flag me and share.

### Luqmaan Moola:

Hi, I've got a quick question. Hi, so my name is Luqmaan, I'm a fourth-year medical student working with Dr. Khan and I had a chance this week to discuss with him a bit about this project and I think it's excellent work that's being done, and the results so far show a pretty striking deficiency in these students that needs to be addressed in the future.

What I think about when seeing this is the next steps forward, how can we adapt this to impact students, not only at the institutes that you guys are working at, but across Canada, or how can we create something to make an impact in a broader sense. And I'm wondering whether you guys are trying to create a specific model, I know that Dr. Khan already goes over and we have like a first visit and a follow-up visit and have said stuff that's being done.

Maybe making this into a structured model and then validating it based off your results and then saying that this is now a pilot program that we can expand to other universities, and you can propose and say this is our model, this is how the set of stuff that we want to do has worked in our populations and try to pilot it across different universities in Canada.

Because the population at Ontario Tech might be different than a population in Newfoundland or the University of Toronto, so maybe creating a set pilot steps where they have initial visit and they have a whole bunch of different steps and health training, and at the end they have some

sort of follow-up and saying that this is a program that works, then trying to expand it. I'm not sure what your thoughts on something like that is, to see as a means of going forward and making an impact across Canada.

### Dr. Yasir Khan:

Yeah thanks Luqmaan, I mean I think that's kind of been one of our goals. When we started this project, we saw a vision very early on about how this can be expanded and it can really be grown to so many other institutions and places, and like you said, there's going to be a lot of variants in different places international student population, different provinces might not be the same but it is something we'd love to do.

Part of it is that myself and Dr. Shivajan are primary clinicians, we're not primarily researchers, so the whole academic field is kind of new to us and we've struggled a little bit with getting support and backing behind our project. We think it's a fantastic project, everyone we've talked to seems to think it's a great project, but we have struggled a little bit I think in getting some of the support and response that we thought we would get to the project.

Now that we have more data to support it think that it's a different conversation for us, or I'd like to think anyways, but ideally I very much feel like we'd like to expand this to other institutions and to really expand the scope of this work because there's a lot to be done here and I think there's this huge population that's growing so much that we need to support, and it's not being done adequately. I think more institutions should want to get on board to do this work as well.

### Dr. Shivajan Sivapalan:

I think just to add to what Dr. Khan said, that's really the goal for us other than just the guidelines and like that model aspect is also the virtual portal, and use that to kind of scale that health education, where students can access that from their phone, and it doesn't matter which institute they're part of.

They could access up-to-date and and culturally responsive health teachings on the various topics that we noticed, and there's probably topics that we still haven't addressed that with more data and more research we could start to highlight. Like employment rights was something that just kind of came to us later on in the project.

There's also consent, that would be something that we really want to focus on, so all these aspects that we are now starting to unbox as we build this project out is something that I think is easily scalable and with the virtual portal I think that makes it even easier to get it into other provinces for example.

### Stuart McCook:

Thank you. Sharada, do you have a question?

### **Dr. Sharada Srinivasan:**

I mean I don't know if this is a question we can answer, but I just wanted to put it out there. I think one of the challenges and sort of issues that international students face is who's going to fix the issues or who's going to provide the resources, like in April and May when the Delta wave was ravaging through India, we got together some of our international students from India to talk and share our concerns.

Almost all of the problems that the students were sharing were not immediately about how the delta was affecting their family or themselves, but it was more about the financial situation, the insurance situation and the border situation. But the university is not the one to handle the border issue, but then, who handles the border issue?

So very often I think international students fall through the cracks because we don't know who's supposed to be dealing with their problems. So if you have any insights related to this I think it'd be great.

So the question is now, when we have findings and when we know that the number of international students are increasing, is it the provincial government that is supposed to do something? Is it the particular city or municipalities that are supposed to offer support? Who is to offer support and resources to international students, because that is what it all comes down to, right?

### **Dr. Yasir Khan:**

Yeah, that is such a great question and gets to the source of a lot of what we're doing. Like you said, these students fall through the cracks. It becomes a game of politics sometimes, well it should be federal government responsibility oh no it should be the institutions responsibility, it should be you know provincial level. I think the bottom line is there needs to be a partnership on this. It's not going to be fixed at one level, it's got to be partnership between government and I think institutions as well.

I think there's more that can be done at all levels but the end result right now is when it's easy to kind of say oh well this party should be doing its part, should be taking care of the students who suffer, but they're the ones who fall through the cracks like you said, instead of all levels coming together and working in partnership on this, which I feel like there should be some more impetus to do at this point because it's such a large and growing population.

It's great some of the articles we've seen recently like from the Globe article and the Walrus article because I think they're starting to shine a light on this issue, as this population grows so rapidly. And I think that's the crux of this is that at different levels there has to be people coming together to work on this so that students aren't falling through the cracks.

### **Dr. Yasir Khan:**

And I think this kind of links to Margaret's question about getting funding for a grant or a partnership and that's something that like Dr. Khan and myself would love to kind of do because we really see that potential, because everyone's noticed there's applications all over and there's more to kind of really sort out and figure out in terms of details.

So I think what research really helps do is create that awareness that some of these bigger like provincial municipalities as well as federal governments can start to look and be like okay, there is definitely a need for some funding to be put aside for this to better support these students. I think we need to create that awareness as well.

### **Stuart McCook:**

I think we're getting close to the end of our time so I just wanted to close with a quick observation of my own too. The act of observing something changes it, and you know you spoke about the goal of the web portal but it seems like the visits themselves and the study itself led to positive health outcomes, and this seems to be strong evidence for just the value of almost saying to all inbound international students as maybe part of your campus orientation that sometimes you point in your first semester. We should proactively be looking for a wellness check for them.

### **Dr. Shivajan Sivapalan:**

What was really interesting was that before COVID happened, Dr. Khan and myself just wanted to do a trial to see if there was an interest, and this is when students were just coming in actively to the clinic, they just walked through for classes and stuff like that in our first month of just telling people with a simple flyer of "hey come in you want a full checkup, come on in".

Then people started telling their friends and we were booking fairly frequently, to the point where we had to space things apart. And then COVID obviously hit and that really slowed us down because without that access point where they were coming in and seeing the clinic and seeing these flyers on campus on the walls and on the bulletin boards, they were less likely to engage.

We struggled initially during COVID to kind of get them in the whole virtual setting and doing in-person research, so I definitely agree that the in-person aspect and having international students aware of it right at orientation would be such a huge benefit.

### **Stuart McCook:**

Fantastic. Well thank you very much, I see it's 12:13 now, I think you have left everybody in your audience intrigued and engaged. I think we're all gonna be going off to think about a lot of this stuff, I certainly know I am. It's sad to see the problems but wonderful to see that many of them in terms of narrow health outcomes have fairly simple solutions once they're diagnosed. And then on the larger scale, there's more structural problems that Shivajan alluded to, which

are a longer-term project for people like me and people involved in international student recruitment. Certainly, a lot to think about.

So, thank you very much for this presentation and the time. There's a couple of corrections to my initial announcement, there will be no webinar on the 15th, this is the last CIRCLE webinar for the semester, so we hope to see you on the fifth of January for the webinar on democracy in India 2047. So, thanks to our guests and thanks to everybody who showed up, I wish you all a good December. Thank you.

[End of transcript]