Improving Sepsis Care: A Data-Driven Approach

Speakers:
Niranjan "Tex" Kissoon, MBBS, FRCP(C), MCCM, FACPE
Professor, Department of Pediatrics, University of British Columbia,
Investigator, BCCH Research Institute
President, Global Sepsis Alliance
Institute for Global Health
BC Children's Hospital and BC Women's Hospital & Health Centre

Mark Ansermino, MBBCh
Professor
University of British Columbia
Executive Medical Director for Global Health
BC Children's Hospital

Samuel Akech, MD
Consultant Pediatrician & Epidemiologist
KEMRI-Wellcome Trust

This podcast is a production of OPENPediatrics, an open access online community of healthcare professionals sharing best practices from around the world. Visit openpediatrics.org for more.

Traci Wolbrink 00:18
Hello and welcome to the World Shared Practice Forum. I'm Dr. Traci Wolbrink, a pediatric intensivist at Boston Children's Hospital and co-director of OPENPediatrics. I'm delighted to be joined today by clinicians that are leading the Sepsis CoLab, a joint project started by the University of British Columbia and the World Federation of Pediatric Intensive and Critical Care Societies. Dr. Tex Kissoon is the chair of the Sepsis CoLab and professor in the Department of Pediatrics, University of British Columbia, an investigator at the BCCH Research Institute, president of the Global Sepsis Alliance, and is currently working at the BC Children's NBC Women's Hospital and Health Center.

Tex Kissoon 00:53
Thanks very much, Traci. I'm very pleased to be here.

Traci Wolbrink 00:56

Dr. Mark Ansermino is a professor at the University of British Columbia and is the Executive Medical Director for Global Health at BC Children's Hospital.

Mark Ansermino 01:04
Hi, Traci, great to be here.

Traci Wolbrink 01:06
And Dr. Samuel Akech is a consultant pediatrician and epidemiologist at KEMRI – Wellcome Trust.

Samuel Akech 01:13
Hi, Traci, I'm happy to be here to share my experience.

Traci Wolbrink 01:18
Wonderful. Well, thank you all. Maybe, just to start, I'm wondering maybe, Tex, I can turn to you. You were past president of WFPICCS and have been working on sepsis for a very long time. And I'm curious, why did you start the Sepsis CoLab? What was the inciting reason, and can you tell us a little bit about the inception?

Tex Kissoon 01:38
Thanks very much, Traci, as you rightly pointed out, I was president of the World Federation at the time, and was also concurrently working on the Surviving Sepsis Campaign of the Society of Critical Care Medicine. There are several things that struck me. One, the society had a very strong representation for adults, and in fact, the pediatric guidelines were embedded in the large adult guidelines in those days as an addendum. Secondly, I felt that we were being disadvantaged. As president of the World Federation, I had a panoramic view of what was happening across the globe, and realized that about 85% of sepsis cases and deaths occurred in low and middle income countries, which had very little voice in the global sets. At the same time, the World Federation WFPICCS wanted to have a flagship initiative, something that they can sell across the world as their contribution to global pediatric care. And I felt at a time that the issue of sepsis was large enough and important enough and encompass the entire globe that we needed an initiative. So it was then that I discuss with our center, the University of British Columbia, and our Center for International Health at the time, and the WFPICCS board to start this Sepsis CoLab. And they were very enthusiastic about it. So it was a joint partnership, which we started at the time, the intent being several fold. The intent being, obviously, sharing information, data, developing analytics, quality improvement across the world. And I wanted to achieve some of the similar sort of aims that the Surviving Sepsis Campaign in adults was doing. It was a name that went across the world and was on everybody's tongue, and hence we started a CoLab at that time, and it has grown in leaps and bounds.

Traci Wolbrink 03:48
And it's incredible to see how extensive it's grown and how much data you've accumulated. I might ask, Mark, you are the technical lead for this project, and a large data project, I imagine, comes with a lot of challenges and interesting hurdles that you probably had to jump through. I wondered if you can speak a little bit to how did you get started with the data side, what were some of the important considerations

that you had to kind of work your way through? And you know, what does the database currently look like in terms of accessibility, contribution of data, etc.

Mark Ansermino 04:24
Thanks, Traci, so obviously sharing data is a sensitive issue, and mainly because of the ownership, the sovereignty of the data, who the data belongs to, but also obviously security and privacy of those patients who've contributed their data to that source. So we have to be cognizant of this as we designed what the CoLab would look like, and the first premise of the CoLab that any data contributed to the CoLab would remain the sovereignty of the person or the group that contributed the data. So we would not be able to own that data or to share that data without the permission of the individual group that had actually contributed the data, and that continues today. So that was the basic premise. So within the CoLab, we have a number of levels of access to data. So the first is publicly available data, which can be access to anyone, and a large amount of our assets. And we have over 250 different assets in the CoLab at the moment, is available to the general public. We also then have a few assets that are available to the members of the CoLab. So you can very easy to become a member. Just sign up and become a member, and then you can have access to some additional assets. And the third thing is obviously access to the more sensitive assets, which are patient data. So we have over 50 data sets now that are accessible to other collaborators and researchers. And there's a governance process that we put in place through WFPICCS to be able to provide access to this data. But that data is then only provided to that individual based on specific data sharing agreements with that group or individual.

Traci Wolbrink 06:18
Thank you, and I definitely want to come back to some of the data in a few minutes, because I think there's a ton to unpack. What is there? You know, why did you choose the data? You chose all of that. But I wanted to before we dive in, because I imagine we'll spend a fair bit of time there. I wanted to ask Sam, you know, you work in Kenya, and I'm curious from your perspective, we've heard, you know, Tex's vision and you know the need for this kind of data. I'm curious in the low resource setting, why was the Sepsis CoLab needed? How do you utilize that data in your practice?

Samuel Akech 06:49
Thank you. Traci, data is quite powerful, if we are to really monitor the outcomes for sepsis and also to really understand whether some of the guidelines that are proposed by various bodies health authorities actually lead to saving lives. But you find that within a low resource setting, such as in Kenya, usually data is cast, often it's lacking, and when it is there, sometimes health authorities and researchers have problems on where to store that data. So Sepsis CoLab comes in with a very good solution. It provides a solution where researchers can actually share their data and have it stored in a way that that data can then be used to understand what is happening more widely here data is combined with data from other sources, then you really have a powerful tool. So within the settings where we work, such as in Kenya, usually having repositories where data can be stored in a way that still protects the rights of those who provided the data, that's the participants, but also in a way that the data is used responsibly, taking into consideration those who collected that often a challenge, and Sepsis CoLab comes in to finish that gap where researchers and also data that's collected by health

authorities can be stored in a secure platform where rights of participants are protected, but also those who collected the data also have access which we responsibly use.

Traci Wolbrink 08:44
Great. And, you know, I've heard both from from you, as well as Tex, in terms of the importance of the data and Tex, maybe I could ask you, you know, obviously this is an important need to have data accessible, to be able to be mined and be able to be used. How is it that you were able to bring people together to share data. You know, it's so often people want to keep the data for themselves. And I'm curious, kind of what that journey was like, bringing people on board, building that confidence that they would still maintain ownership. How are you able to kind of build this collaborative when you got started?

Tex Kissoon 09:18
I think this first thing and discussions Mark and myself had we had to be transparent, we had to be fair, we had to be open, and it had to be accessible to individuals. And I agree with you that many individuals are very reticent to share, and Mark has given some of their reasons from their very real administrative issues. But I think there is this attitude also among many colleagues, that this is mine. I own it, and sharing it would somehow decrease my academic clout, or something like that. But we made it very transparent. We started having an international advisory board that had representation from all parts of the world, and Sam's on the board also. So you had individuals who were working in the areas and who trusted us to start with. That's the first thing. But secondly, there was still the barriers, and most of the data that was initially contributed to the CoLab was from our program, like Mark, Matt Weins and myself from East Africa. We contributed the data, and then our example of starting to share and opening it up and working with people, and then getting individuals like Sam, I think the best way you can show individuals that you're walking the talk is by doing it, and that's what we've done. And bear in mind, there are still barriers of the data sharing that Mark owes, and I think that that's where we're trying to break down more barriers so it can be even more linear access. In fact, one of the things we've done with our data is share it with the WHO, so that they are putting models looking at outcomes for influence and undefined. So I think that sort of shows also that there is open sharing there. I know the data was shared with the WHO. They have had other programs share the data, and what they're hoping is to keep it there for a while as a legacy sort of thing, and get more people to be using it. And I think hopefully we will be able to contribute more that way. But it is work ongoing, and maybe Mark can tell you more about it, because I know he's had most of the sort of discussion with the university lawyers and a lot of international groups about how you access data and how you share it.

Mark Ansermino 11:49
Yeah. Traci, I think there's certainly huge global pressure to make data open and I think, you know, most of our countries have sort of signed up to initiatives around open data, but practically, for healthcare data, this is still a huge challenge. And this has resulted that a large amount of data remains locked up that's not accessible. And I think that's a tragedy. It's a tragedy for patients, the tragedy for us as researchers. So this has always been a motivation to be able to do this. But I think it's important to realize that the CoLab is much more than just a data resource, because otherwise we would really just

serve you know, fairly small number of individuals who you know already expert in the field. But I think that we appreciate that these all those people who are interested in this field, want to get engaged, but need to find the first step. And remember, whenever you come to collect data, there's so much that you have to do in preparation. So for example, we need to standardize data sets so two people collect data, you want to make sure that they're collecting data in the same way. To make that happen, we worked collaboratively as a group to define the specific data elements that we need to collect, and we have lots of information on in the CoLab on what those data elements are. We've defined them. We have data dictionaries that have defined that. And we hope that researchers around the world will adopt this so that when they collect their data, it will be in a standardized way that we then can compare across different sites across the world. In the same way, we need to have experts help us as we develop these terms, as we develop the implementation strategies. So the CoLab has really become the focus of a group of individuals who have shared experience in many different settings around the world that can also share that experience, and we come up with the best ways to do that. We also have, you know, data collection tools. So some of these are just simple forms, others are electronic REDCap forms, or even software applications. Most of these are available for free for members of the CoLab. So this is another way that we are using to standardize the data collection. It's also, you know, a platform for us to obviously share the data that we've collected, but also to come up with new ideas of data projects that we want to use, an additional research resources, the training materials, that we've used for each of these projects. So as we go and do the data collection, we've created a whole lot of training materials that we allow other researchers now to use the same training materials. And some of these have even been translated and various other things for different individuals to use. And as we move into this world of AI, more and more these going to be the use of algorithms and what these algorithms look at. So it's not just stopping at the data, but it's looking at the next step of where the models and analytics come in, and how we can share that. So within the CoLab, we now have a few models that have been developed, and we obviously share those models. But more importantly, we have full kits that we've developed that people can use to know exactly how these algorithms need to be implemented within clinic environments. And we hope that others will contribute their efforts in doing this as well to the CoLab as a central resource that any researcher looking to do this, or any clinician looking to do this can come to the CoLab.

Tex Kissoon 15:19
Traci?

Traci Wolbrink 15:20
Yeah?

Tex Kissoon 15:20
I'd like to ask Sam to give some examples of how the data has translated to better care in Sub Saharan Africa where he works, because I think he has been at the sort of, I would say, the vanguard of using the data that from the CoLab to improve care.

Samuel Akech 15:40

Thank you Tex for that question. And so just to go a little back, just to demonstrate some of again, how this initiative is very important. So apart from the tools and dictionaries that Mark mentioned that are very important when we want to collect comparable data, this currently quite there's a big drive to ensure that by funders, to ensure that any research that is funded, the data gets shared, so that the public gets maximum health benefits from the data that is collected in any research project. So a lot of research funders are insisting on sharing the data so that it's available for secondary use, to really optimize the use of that data. And Sepsis CoLab comes in. It provides an avenue for researchers to share their data. This is not something that is available widely, and having an initiative such as CoLab really fills a gap that is currently needed within these settings where I work. Thinking about a good example is a research project that we did together with Mark and others, where we are looking at how we could actually simplifying identification of severely ill children using mobile device connected to a pulse oximeter. So that big identification of children were severely ill, we call it triage. So this is called a smart triage project. So what we did is to we conducted this study, but then after conducting the study, we needed somewhere to post the data and be able to share this for further analysis, to look at the data in other ways. And we shared this data with the Sepsis CoLab, where the data is then available for secondary use, and people can apply to actually utilize the data, if you are members of the Sepsis CoLab, and then with proper governance that is within the Sepsis CoLab, then that data can be shared. Then through that, we're able to comply with the funder requirement, because the funders require that we share the data, but also optimize the use of this data for public health benefit.

Traci Wolbrink 18:13
Thank you, and that is helpful to hear the direct example of how you were able to utilize the data, implement a strategy to improve the care and then continue to monitor that data. And, you know, I know that quality improvement, and continuous quality improvement is a big part of the Sepsis CoLab. And I'm curious how you know if there's resources for people that want to do projects similar to Sam, that might need, you know, help in sort of thinking about how to set up a quality improvement project, how to, you know, monitor that, deliver that. Do you have any sort of off the shelf solutions that have been proven, you know, by individuals like Sam and, you know, writing up his experience and others in the Sepsis CoLab that people can sort of look at and say, Hey, I'm having the same issue in my hospital. I would love to see how people have addressed that and sort of implement strategies. And if so, how does that exactly work?

Mark Ansermino 19:07
Tex, you should probably just describe your facility survey program which is a big part.

Tex Kissoon 19:13
Yeah. So one of these use, as you know Traci and resource poor areas of the world, is the fact that readiness to take care of patients with sepsis, it varies widely. And in fact, you may be well aware of the study that showed the adult Surviving Sepsis Campaign guideline could only be enacted in total in 3% of African ICUs. So what we felt this, that we needed to find a way to look at facilities early on so we can decide, what are the barriers, what are the bottlenecks, etc, and inform them so as they go around this quality improvement journey, it is really personal stuff, supplies, etc. So we developed an environmental survey, an environmental scan survey, based on a lot of the WHO essential medicines,

essential list, etc, and what the survey had in several parts. It had one looking at the facility itself, nursing staff, medical staff, whether they had an emergency pharmacy, etc, drugs, etc. So that was one thing that they filled out themselves. And then the second survey was an observation, but within the facility to see what was being done. In other words, we can say we have all the guidelines, etc, etc, but we wanted to see that based on all that you've said, are you taking care of the common diseases in your area within the guidelines was for WHO over your protocol. And we looked at several diseases, diarrhea and diseases, pneumonia and malaria, some areas dengue, common diseases. The third part of the survey was looking at patient satisfaction, because one of the issues in these areas is the big power distance index, and when families feel disenfranchised, they're no longer going to return, or at least return late for health care. The other thing is, we did a satisfaction survey of the workers within the facility, nurses, clinicians of all sorts. And again, it's for the very same reason that they had to be satisfied what they're doing. We then also had a survey looking at technology readiness. So in other words, do they have Bluetooth in the facility and whatever? Because like in Sam's facility, with technology readiness of Bluetooth and many of the other places, we can now use very innovative ways, RFID tags to follow a patient from triage to full care to pharmacy to radiology, etc, to the ward. So we now get an objective measures of when medications were given and time to triage, time to antibiotics, which are very simple measures, but the readiness for technology is very important also, and Mark has been running the forefront of that, because I'm a Luddite, so I've learned going along the way as to what happens in these facility. Then now we've gotten a little more advanced in it, because it's been an iterative process as we went along. And then we looked at, as you know, Matt Wiens work has been on post discharge mortality. So then we added a scan on readiness for discharge, based on the physical sort of signs, symptoms, etc, with disease process, and also readiness for home care, etc. So all this was put together, and we are now looking at the entire a holistic way of providing care. So that's that's what we're doing with it, readiness care, it has been adopted and translated in Spanish used in Latin America, used in all the facilities that we have, and then to improve the care, we may look at the so called outcome measures that we are following, and then within a matter of six months, we will redo the scan to see what they've done, and then redo it again going forward, So it's continuous quality improvement, even within the environmental scan or the facility.

Mark Ansermino 23:44
Yeah. And just to iterate Traci, all of these scans are available in electronic format on REDCap that we're very happy to either host them for people within the CoLab or to help people host them locally.

Traci Wolbrink 23:59
Thank you so much. Mark, that's super helpful. And to kind of dive in a little bit to what was described by Tex and Sam's example. You know, I'm curious, Mark, you mentioned this earlier about the data itself, and trying to figure out, you know, how best to collect data, collect data in the same way. And, you know, I'm just thinking about like as people are deploying different quality improvement strategies, interventions. I'm curious, you know, just like to think about management of that data just seems like so mind blowing to me. To like, think about, how do you tag that and sort of identify that? I'm curious, you know, for those of us that don't think about this all the time, I wonder if you can kind of tell us a little bit about one how you got together. You mentioned there was a team to figure out that data, and then,

how do you identify and mark it as Tex was saying, to know where a patient is in their journey and what kind of interventions may have been happening as you're looking at the data.

Mark Ansermino 24:54
Yeah, thanks, Traci. So you know, I think when everyone's dealing with data, these a number of different elements, and just to say, I think, in today's world of AI and things like that, this is really small data. It's not really, you know, huge. You know, we don't require power stations to power our servers and things like that. These are really, we can run these on very low spec devices, or what we call the edge, very much, on anybody's phone or tablet. So the goal of this really is, as we mentioned, having these algorithms. And the question is, how do you take an algorithm? We can't memorize those, and the mathematic calculations are too difficult. So we really like to take a mobile device of some sort to embed the algorithm into some smart application that we can then use to use the data that we've collected in a very useful way. We take the information that data and we apply it to the next patient that comes along, and we really based on that patient's risk based on what is in the data. And this is what we call risk differentiated care. So instead of treating everybody the same, we have this idea that we can use the risk from the data to manage that care, so we put that within the algorithm. The clinician really has, you know, no need to of any technology needs a simple algorithm that's within a data that's designed to be within their workflow so it doesn't disrupt their workflow. They don't have to pull out their phone separately. They're already putting the information within that environment, and that can even be within the electronic health system or whatever they've got available to them on the ground, and then it provides them the information around the risk of that patient. But also, most importantly, they need to know, what do they do based on that risk? And I think that that's what Sam can tell you a little bit about now what we actually did with smart triage, how we use this algorithm to really change what we were doing in triage.

Traci Wolbrink 26:48
No, that's great. I was going to ask Sam, you know, what the vision is for then, using this data, how can others, like take this data and do some amazing projects, and what are those kind of projects that can be done? So sounds like you have a great one to start with, and I'd love to hear you know, your advice for others, what other things can people be doing with this data?

Samuel Akech 27:07
So just to share my experience with the smart triage. So in this project, we utilized a pulse oximeter which measures the oxygen, linked to a mobile phone, and then using that to triage children and display the data according to risk categories on a clinician dashboard. So we know that usually, when patients come to the outpatient departments and they are very sick, the recommendation is that a triage should be done to identify those who quickly need care, so that they can be those who are very sick, so that they can be quickly attended to. But we know this doesn't happen. So with a smart triage, what happens is that you just take a few measurements in the patient, so the health worker quickly assesses the patient, not taking so many irrelevant variables, but using algorithms, we're able to derive some key variables that the health worker needs to collect rather than doing all the assessments. And then, once they collect these variables that are put in a mobile device, which can be a tablet or a phone, which is then linked to a pulse oximeter, then within the smart triage, we are then able to identify the risk

category for that child. So what then happens is that the children are then categorized according to their level of severity. So for those who are very sick, they appear first on a clinician dashboard that is displayed to the clinician who is with the room, waiting to see the patients. So rather than seeing patients according to the way they came, they are able to see them according to the level of severity. So you basically were able to come up with a queuing system which queues patients according to the level of severity. But this even goes beyond that. This smart triage was also linked to a tracking device for which we can identify the times to certain critical interventions. We know when patients come in like receiving antibiotics for those who have sepsis is very important, and tracking the time to receiving the first dose of antibiotics is very important, because that has been shown to be result in saving lives. So using a tracking technology linked to this smart triage, we were able to identify the times to antibiotic administration, and then giving that feedback to the healthcare workers who are based at the outpatient department, they look at this and then come up with targets. So for example, if they find that the median time to receiving antibiotics is, let's say, two hours, then they come up with a target to say, we should aim to that every child who comes and they display signs consistent with sepsis should receive an antibiotics within, let's say, one hour. So then the team discuss together and say, what do we need to ensure that these children actually receive that antibiotic within that time. So we were able to present this data, giving feedback to the healthcare workers, and they were able to come up with targets for time to antibiotic administration. And we saw that using that feedback the time to administration of antibiotics did come down using the feedback that is given to healthcare workers. And then the other things based on the feedback that they were getting. For example, they did realize that a lot of their children, for example, were showing signs of malnutrition, and then they came up with targets to see how then should we ensure that all our children get completely assessed, to get nutritional assessment? So then the team sits looking at the data that's coming real time, and then they are able to come up with strategies to be able to then ensure children get complete assessment for nutritional status. And the others we are also able to then see where the delays are taking place using this matrix system linked to the tracking device, we can see is the delays taking place within the where they are waiting to at the triage area? Is it where they are waiting to see the doctor? Is it when, where they are waiting at the laboratory, if they are sent or test, or is it at the pharmacy? Then sending this feedback to the hospital management team, they were able to identify where they are delays. And one of the examples, for example, that they had to come up with is when they realized that the delays were taking place at the payment point. They are able to look at what times those delays are happening, are they on certain days or certain times of the day, and then they are able to look at the staffing at those particular points which are probably causing delay, because we know for every point there is delay within the where children are waiting for care, there is potential to increase the risk of bad outcomes.

Traci Wolbrink 33:00
Well, thank you so much for sharing that great example. What I loved hearing about it is how the data allows healthcare workers and administrative staff to have the conversation about the strategies for improvement, and I'm curious to hear a little bit about how those conversations can be optimized. It sounds like you've been doing a lot of work and have a fair bit of experience in identifying some of these challenges and then opportunities for improving patient care. What has worked well to have these conversations with clinicians and administrative staff and what can others learn from that if they're

starting to use data, joining the Sepsis CoLab to take the data and then actually implement it in the hospital.

Samuel Akech 33:42
If I can go first. I think one of the key lessons we learned is the importance of having quality champions for any of these initiatives to work, especially within health facilities. It's good to have those quality champions within any facility, those who really take charge and are enthusiastic and want to drive this forward and are interested in the quality improvement and letting them take a lead. And then adopting the team approach and coming up with ways, for example, for giving feedback in a way that's non-judgmental to the teams that are delivering care are very important if we want the feedback that comes from this initiative to be acted upon. So having that no blame culture is very important, and then really having this data to inform decision making. I think one of the challenges that such initiatives can have is when the feedback is not given to those who are in charge of making key decisions within the facilities. So having that team, the quality improvement team, led by people who are enthusiastic, and then really spreading the culture widely within the facility, but also showing the data to the decision makers at the hospitals. How it's important to really collect data that informs quality improvement is very important. For example, if they're given data, for example, how the time to administration of antibiotics has reduced within the hospitals, and then probably even having interviews like with patients to show how their satisfaction, whether they are they're happy with that initiative, I think that helped the decision makers within the hospitals, where the administration to see how then quality improvement initiatives become important for how their facilities perceived within the environment, but then also how it's useful in terms of really saving lives.

Mark Ansermino 36:07
So Traci, one of the most surprising findings in this research study that we did with Sam was really how to change clinician behavior. So this was not, this is not even a system effect, but just providing the clinician with a full set of basic vital signs and anthropometric data, nutritional status, that was totally complete, really changed their behavior, and this information was easily collected in less than five minutes. Is that we saw a reduction in admission rates. We saw a reduction in the amount of treatments and even in mortality, which we need to confirm, but a very significant reduction in mortality. So here we see a real interesting benefit of providing even the clinician with the data that they need to make the clinical decisions that they need to make.

Tex Kissoon 36:56
Yeah, Traci, I think following up on that, and we have not seen any marked increase in antibiotic use. In fact, antibiotic use, they were more discriminatory in use of antibiotics and admissions, etc, without seemingly adverse outcomes. I think one thing I'd like to mention is that we have done with CoLab. We've also linked with, as Sam was talking, policy makers, link with the ministers of health of governments in the area. And I know, at least in Uganda, much of what we have done, smart discharges and triage and those things are being adopted there. And obviously we're still working with WHO. I think I'll be remiss. I'd like Mark to address the issue of the data challenge that is now presently ongoing, because this is an opportunity to educate more across the world, to bring young people on board and to really expose them to what is the possibilities in the future.

Mark Ansermino 38:01
Thanks, Tex. So you know, I think that as we move into a new world where all of healthcare is going to be about data and what we need to do with data, not only in high resource settings, but also in low resource settings. We realize that it's really essential for us to develop the skills of a wide range of individuals across the healthcare sector. So we've launched within the CoLab, launched a data challenge that we just launched in the last few days with WFPICCS. And the idea of the data challenge is really to pull together teams of individuals. So this is right across the spectrum, including the technology experts, but also the clinical experts. And this is really designed for anybody who's interested in learning what we actually do around data modeling. And they can join one of these teams. It's very easy to sign up, and they will be provided data that they can work on to develop an algorithm for an outcome that we put in the data. And there will be some team building around this. There will be some exchange of ideas. And obviously you'll be looking for the champion outcome for predicting in hospital mortality based on the data that we've provided with within the CoLab. So thank you for the opportunity to to promote this opportunity. And there's lots of information on the WFPICCS website or on the CoLab website that you can use on how to sign up for this.

Traci Wolbrink 39:26
That's excellent. And Mark maybe if I can ask one more question, sort of related to that, what about people that are interested in joining? What do they have to have at the ready? Do they have to come with a specific question or knowing the answer of what that QI initiative is? How does it work when you are interested in joining the CoLab?

Mark Ansermino 39:44
So there is a membership form on our website, a very simple membership form. Once you've signed up on the membership form, you will then be on our email list, and you'll hear about everything that's going on in the in the CoLab, and you will officially become a member of the CoLab.

Traci Wolbrink 39:58
And then beyond that, there's a lot of support I imagine, for figuring out all the resources that you mentioned?

Mark Ansermino 40:03
So if you want to have access to the obviously, as a member, you get access to, as I said, to most of the resources. But if you want to get access to the data, there is a fairly simple data request form that you can complete. We will then take that data request to the CoLab steering committee to just make a decision around that, and we'll work with you to make sure and decide what we need, whether there's any data sharing agreements or other things that we need to put in place for you to have access to that data.

Traci Wolbrink 40:32
Amazing. And you said, All of this is free?

Mark Ansermino 40:34
Yeah, as far as I know, nobody's paying for any of these services. And just to say that, you know, a big shout out to Dataverse, which is the platform that we use for this, which is obviously an open source platform that we've been able to leverage, and the version Borealis that we use is supported by the Canadian government, so that's why we can provide it.

Traci Wolbrink 40:53
That's incredible. Well, it was such an honor to speak with all of you and to hear about the great work that's being done and the opportunities for people to to join, participate, help work through strategies to do continuous quality improvement at our own hospitals, and really kind of move that needle forward. So I commend you all for your work in setting this up and continuing to offer this, in thinking about really creative ideas about how to use this data and implement it, and then offering it for free to our community. It's absolutely incredible.

Tex Kissoon 41:22
Thanks. Traci.

Mark Ansermino 41:23
Thanks. Traci.

Samuel Akech 41:24
Thank you.

This has been a production of OPENPediatrics. You can find the resources and journal articles referenced in this podcast in the description. We have more podcasts like this one available everywhere you get your podcasts. Visit openpediatrics.org for more information.