Yasmine Legendre:

Okay. Good afternoon, and welcome to the webinar on the Macy Conference, *Improving Environments* for Learning in the Health Professions. This webinar is being recorded. I'm Yasmine Legendre, Program Associate at Josiah Macy Jr. Foundation. For any questions, please use the chat function on your screen. We will answer as many questions as we can at the end of the prepared remarks. If you need technical assistance during the webinar, please contact ReadyTalk at 800-843-9166.

And now I would like to introduce our presenters, Dr. David Irby, conference chair from the University of California of San Francisco, Dr. George Thibault, our immediate past president of the Josiah Macy Jr. Foundation and Dr. Holly Humphrey, also president of the Josiah Macy Jr. Foundation, and also a conferee. George, I'll turn it over to you.

Dr. George Thibault:

So welcome to everybody on the webinar. We're very delighted there's such a high level of interest in this topic. I want to give you a little bit of a background and the reason why the Macy Foundation chose this topic as its conference subject in 2018.

First, to give you an idea of the Macy conference structure, we have a particular and rather unique structure to our conferences, and this conference followed that structure. We convened 44 thought leaders in the health professions education and health care delivery learners, patient advocates, and educational accreditors from across the country with a diverse background and different geography and institutional affiliations. Everybody reads prior to the conference two commission papers and three case studies that they come prepared to discuss in three days of deliberations in both plenary sessions and breakout sessions leading to consensus recommendations which are written in their first draft before we leave the conference. Those recommendations are then subsequently refined by a planning committee and the final product is reviewed by all of the conference.

To give you a sense of why we chose this topic, next slide please, Yasmine, there is an increasing interest now in the learning environment, which is being recognized as a powerful shaper of health professions education and health care delivery. Many national organizations have initiated actions to create optimal learning environments, but there still is much work to be done to define what is the learning environment and empirical research to guide such endeavors.

We thought it was timely to have a conference at this time in order to focus more attention on the work that needs to be done and to disseminate the best practices for improving learning environments. In fact, we feel very strongly that improving the learning environment will be an important and essential enabler for the other work that the Macy Foundation has supported over the last decade to better align health professions education with societal needs.

In the next slide, we show the commission papers and case studies that served as the background work for all of the conferees in preparation for the conference. *Interventions Designed to Improve the Learning Environment and Health Professions* is a scoping review that was led by Larry Gruppen of the University of Michigan with David Irby, Steve Durning, and Lauren Maggio also participating. *Toward Exemplary Learning Environments for the Health Professions* was a vision paper written by Sandrijn van Schaik of the University of California San Francisco, Susan Reeves, a nurse at Dartmouth and Linda Headrick, a physician at the University of Missouri. Three case studies came from the Aurora Healthcare System team led by Deborah Simpson from Our Lady of Lake Regional Medical Center, a team led by Laurinda Calongne and the University of Rochester Medical Center, and a team led by Sarah Peyre. Each

of these case reviews looked at different organizations at different times in their evolution focusing on improving the learning environment and they were on-the-ground examples of work in progress to move us along the spectrum of improving the learning environment.

In the next slide, we show the working definition of learning environment that was adopted by the conferees to guide us in our work. "The learning environment refers to the social interactions, organizational culture and structures in physical and virtual spaces that surround and shape the learners' experiences, perceptions and learning."

In the next slide, we see a conceptual framework that the authors of the review paper came up with based on their review of the literature, and I'm not going to go through all of this in detail, but we included the complete slide in the pack so people have it to refer back to. There are four interactive components of the learning environment, these authors concluded from reviewing the literature. The first is personal, that refers to the personal growth and goal direction of the individual learner. The second is a social aspect which refers to the community in which the learning environment exists. The third is an organizational aspect in which the organizational culture practices and policies have a profound effect on the learning environment. And the final is the physical and virtual spaces in which learning occurs. This was a very important guiding framework in the discussion and you'll see emerged in the recommendations as well.

The conferees also came up with a vision statement that was derived from the vision paper that is referred to in the commission papers. This is our hope and dream for the future that exemplary learning environments prepare, support, and inspire all involved in health professions education and health care to work towards optimal health of individuals, populations, and community.

Throughout the conference, certain crosscutting themes emerged and these themes were the basis of forming the recommendations that we will get to in a moment. The first theme was that everyone in health professions learning environments shares the same goal of better health for all. This is the unifying goal that brings together both education and health care delivery. The goal is the same, better health for all and all the participants share that goal.

The second is that rigorous research on learning environments is needed to better understand all the components and to better understand the impact of interventions.

The third crosscutting theme was that in exemplary learning environments, all participants from the board level through the executives, through practitioners, through educators, through staff and students, as well as patients, families, and communities are both teachers and learners. This is an interactive process that involves all of the participants from the top level of the organization to those who are there both to learn and to be cared for.

And finally, and very importantly, that exemplary learning environments support the well-being and full potential of all participants and are fully committed to diversity, equity, and inclusivity. These important themes recurred throughout the discussion and were a very important basis of the recommendations that follow.

The recommendations were in four topical areas and they're listed not in order of importance, but in a way to understand the structure that we thought of in terms of impacting the learning environment. And we believe that work in all of these areas is necessary, to just attend to one of these areas and not the other will not lead to the desirable result.

And the four areas of recommendations are first, that academic health care organization governance must be involved. This is a very important issue that we've introduced that has sometimes been

neglected in the past. That organizational support must be addressed. That the virtual and physical spaces for learning must be addressed. Faculty and staff development must be attended to. There must be additional research and scholarship to move this area forward, and policies at the local and national level must be aligned with the goals of the optimal learning environment. So with that as background, I'm now going to turn it over to David Irby, who did such a magnificent job of chairing the conference and overseeing the writing of the recommendations. And David is going to take you through at a very high level the recommendations in these six areas. David.

Dr. David Irby:

Thank you, George. I want to say what a pleasure it has been to work with such distinguished colleagues on this important area and to welcome all of you here for this presentation. I would echo George's statement about the breadth of these recommendations because they really range from governance level down to individual practitioner and they reflect not only the six general recommendations, but 21 specific action steps to implement them. So it's really an impressive work which we hope will be helpful in moving this important area forward.

So, recommendation one is to engage academic and health care organization governance. And the key here is to think of the important role of governance in setting policy and oversight for not only academic and health professions education programs, but also to ensure a positive learning and work environment for which they are responsible.

So this one has two action recommendations. The first, moving the slides forward, is that the governance boards clearly need to understand the importance of the learning environment and develop the skills needed to ensure that there are high-performing environments available. And where there's overlap between academic and health care, that those need to be aligned. Further, the governing boards should assess the quality of those environments annually, set expectations and recommend actions by the executive team to ensure that the learning environment is positive and supportive.

Recommendation number two has to do with how that gets implemented and that is the role of executive leadership. So we recommend that executive leaders provide a culture in which resources, policy and processes support optimal learning environments across the continuum of health professions education. There are four action steps associated with this. The first one is that executive leaders should create and sustain a just inclusive and civil culture that fosters respectful relationships because this is the core, this is the basis upon which the learning environment works. And that they should adopt and sustain a culture which encourages inquiry, namely asking questions and learning, equity, quality and safety, especially in the clinical learning environments. This we believe will help to reduce burnout. The third action recommendation is to support training and development of all those who are involved and to coordinate resources that create a balance between service and academic responsibilities for both faculty and learners. That is, education requires adequate time, space, and resources for high-quality teaching and supervision within the learning environment.

Recommendation number three has to do with creating physical and virtual spaces for learning. This is focused in both of those recommendations on the physical reality associated with the learning environments to ensure that they are appropriate, flexible and safe spaces for learning. And by learning environments we mean classrooms, laboratories, simulation centers, all types of clinical facilities, community sites, as well as the virtual learning environment. This has four steps recommendations associated with it.

The first has to do with ensuring that the learning environment spaces purposefully address the key elements of safety, engagement, connectedness, support, access, and climate. And I would point the listeners to a lovely table that actually addresses each of those components and the recommendations associated with them.

Second is that the learning environment should seek to optimize the co-construction of learning, namely the relational dimension of learning together, and that to do that it must foster mutual respect and inclusion, that is the sort of irreducible foundation of a welcoming and hospitable learning environment.

The third and fourth recommendations deal with designing space that is flexible and adaptable and focuses on improving the health and well-being of all, and that it include all relevant stakeholders in the design implementation, and evaluation of those spaces so that they can serve all the diverse needs needed in whatever space is there.

The fourth recommendation has to do with providing faculty and staff development, that both leaders of health professions education and health care organizations should ensure continuous learning and development opportunities for their faculty and staff in order to improve the learning environment. And that throughout the conference we talked about the important consideration of seeing everyone in that environment as both teacher and learner. This has three action recommendations.

The first has to do with the structures and processes that provide faculty and staff development to ensure that they create a just, inclusive and civil culture and that resources are adequate for supporting the formal teaching roles and responsibilities of the educators that are engaged. The third has to do with monitoring key aspects of the learning environment in order to provide faculty with feedback as well as to derive future faculty development offerings.

The fifth recommendation deals with promoting research and scholarship in order to better understand the key elements of the learning environment and the impact of the interventions to improve it. This has four action steps, and the first is what I suggested, which is we need to focus on research to understand and improve it using the four quadrant model of the learning environment that George reviewed. There's also a very nice table in the set of recommendations that speaks to each of the elements considered under those four quadrants. Regardless of where the research is focused, it needs to be rigorous in its research methodologies and use appropriate methods to address the questions that they are focused on.

Third and fourth recommendations have to do with disaggregating data in order to find out if subgroups within the learning environment are experiencing it differentially such as underrepresented in medicine or first generation to college, or the difference between nurses and residents. We need that sort of data in order to ensure that everyone in that environment is experiencing it as positive and welcoming. And the fourth has to do with advocating for increased funding for these important studies that are definitely needed.

The sixth and final general recommendation has to do with setting policy and advocating for funding. And so this has four active steps. The first was to perhaps establish some sort of collaborative to advance the nation's learning environments. And this comes out of our experience with interprofessional education and the national collaborative that has been established around that, which has exponentially increased the amount of work both in research and improvement in that area. So a similar venture is proposed here.

Second, is to collaborate around the shared purpose of improved health outcomes in order to align education actions and resources. I think getting on board with the focus on improving health is helpful here and I think will help us to move this agenda forward across organizational boundaries.

The third recommendation is focused on accreditors and they often work in silos and so the encouragement here is to have them collaborate more aggressively together in efforts to minimize conflict and to maximize alignment. I think we can point to the work of the coordinating committee between ACCME and ACGME as an example of where this collaborative effort is beginning to pay off.

The final is addressed to federal agencies concerned with health, that they should create and fund programs to accelerate excellence in our nation's learning environments. This is a broad set of actionable recommendations designed to improve the learning environment, and I believe it provides a powerful platform for action at all levels. And now I'll turn it over to Holly Humphrey to take us home on the conclusion.

Dr. Holly Humphrey:

Thank you, David. As you already heard, I was a participant in this conference, which I found very energizing and clearly stimulated thinking that went beyond both the big-picture visionary ideas as well as the day-to-day issues that people confront in their local environments. And so in order to achieve the goals, we think that aligning the education with the health care delivery systems to improve the health of the public, we need to be much more intentional in our focus on the environments where learning and patient care are taking place simultaneously.

And so the recommendations that David Irby just reviewed with us really I believe serve as an urgent call to action for health professions educators and health care organizations to transform their environments in which current and future generations of caregivers, educators, and learners will work together with the ultimate goal of improving health for everyone.

And I think it goes without saying that this is a long-term project. This is something that those of us engaged in health professions education must be willing to stick with for the long term because there's not a quick fix, but as is pointed out from this conference, an urgent need to transform these environments. And I think we are ready to hear your questions and very eager to engage with you in a conversation about the work of the conference and specifically the recommendations.

Yasmine Legendre:

And you can use the ReadyTalk function and chat function to answer your questions. Okay. Our first question is, what are some of the proposed next steps and how best do we move these recommendations forward?

Dr. David Irby:

This is Dave Irby. I'll take that up first. I would say that under each of the six general recommendations, the report contains very specific action steps and explanations for each of those. It also contained several large tables that I think will be helpful in directing people towards it. The other thing that I think will help move this forward dramatically is having a common definition and a conceptual framework. So the four quadrant model that we proposed out of the scoping review I think helps us to see where future work needs to be done and also to coalesce the research as we move that forward to understand what works and what doesn't work. I should also mention that the team that did the vision paper and

the team that did the scoping review have each consolidated those and submitted them to *Academic Medicine* as perspective pieces. So that conceptual framework will not only be available in the monograph and the conference proceedings, but it will also be, I hope, published in *Academic Medicine* as well.

Dr. George Thibault:

So I'd add to what David said about the monograph, the <u>monograph</u> will be coming out in a couple of months with more detailed proceedings of the conference, but also the papers themselves, including the case studies. And I'd call the people's attention the case studies, these were initiatives taken on by organizations on their own because they saw the need to improve their learning environment. And I stress very strongly that there's a lot that can be done at the local level once people recognize the need for it and can mobilize the support locally. But we also look forward to opportunities to the work at a consortium level to think about how best practices will be shared and how organizations will get together to work together through national organizations and through accrediting organizations to put best practices into practice. So I think there's both a local part to this and a collective part to it, and we need both simultaneously.

Yasmine Legendre:

Great. Thank you. Okay, our next question, and I think this one's good for George, are there any suggestions on how to promote interprofessional experiences?

Dr. George Thibault:

Well, as I think probably most of the people that are participating in this know that's been a major theme of the Macy Foundation for the last decade, and we're proud that the National Center in Minnesota has been created to help both disseminate best practices and serve as a source of data about the results of both interprofessional education and collaborative practice. So I would refer people to the National Center website, which is rich in material. I understand very well from lots of visits that I do that all of these issues are local. They're local issues of leadership, local issues of culture, and it isn't possible to take exactly the experience of one place and put it to another, but it starts with having a goal of creating more interprofessional educational opportunities aimed towards improving collaborative practice. And I think every site needs to figure out what's the best place to either start that work or take that work to the next level. And the National Center is a wonderful source of information to help move that forward.

Yasmine Legendre:

Okay. Thank you, George. Okay, how would an institution assess its current learning environment? David, do you want to take that?

Dr. David Irby:

There are several reviews of instruments available to assess it that are all rooted primarily in the learner's experience with it, which is an important component. I'll have to see if I can pull up the reference to that, but there is a wonderful review out there that helps with that. I think what the four quadrant construct helps us with is to see that learners' perception is only one component of that, and that we need other measures to look at respectful communication, the social interactions, how

welcoming is the environment, but we also need to look at the impact of organizational culture and structure. And I'm not certain there's a good inventory that can be used to look at that.

There is some research within the social materiality framework that has come out of online learning, which can assist with that. And there are a few studies out there looking at the physical learning environments as well. That's pretty new and strongly underrepresented in the literature. So while there are many instruments out there that are used for assessing learner performance, the other quadrants are pretty much vacant. So this is an area of work and our review, which will be available in the monograph, has all of the references to the instruments that could be helpful to you.

Yasmine Legendre:

Great. Thank you, David. Okay, this question is for Holly. Will the Macy Foundation be establishing any new initiatives to advance the recommendations of the conference?

Dr. Holly Humphrey:

Thank you for asking that question, it's an excellent question. And while I do not yet have a specific answer to the question, I certainly invite thoughts from those of you on the phone and from colleagues across the country. And it's certainly my personal intention that the Macy Foundation will build on the investment already made in this area and as I already referenced in my earlier comments, to really tackle the recommendations that came out of this year's conference requires a long-term view and simultaneously a long-term commitment. So I am expecting that future conferences and future funding initiatives will in fact build on various pieces of this learning environment work. I consider this establishing the foundation for work that will follow, but at this moment, I don't have more specifics to add to that, but I hope that you will help us develop those more specific projects.

Yasmine Legendre:

Thank you. Okay. This work may be already in various stages across institutions, what is the best way to take a first step for institutions which have addressed those issues minimally or not at all?

Dr. George Thibault:

Well, I will take a first crack at that and I just say pick some place and start. Sometimes a problem can seem so big it can kind of paralyze you, but if you are thinking about what's going on in your institution, identify a problem you want to solve and get an interprofessional team involved in doing it. And you don't need to start by taking on the whole institution, whether that's one unit, whether that's one particular focus group of learners, but start with a problem that there's an agreement it needs to be solved. Coming back to the earlier question, this cannot be solved except by an interprofessional approach. The learning environment is not owned either by any one profession or any one participant in the process. So it needs to be addressed in a truly interprofessional way. And also you need to have in mind that the patients and families and communities that we serve are essential to improving it as well. They both bring insights as well as ideas for solutions.

Dr. David Irby:

Yep, I would totally concur that not only do we see different strategies adopted in our three case studies from microenvironments one clinic to whole institution approaches trying to align education and health

care to a total transformation of a community hospital into an academic health science center. They were totally different. We also heard stories of people at the conference who had worked within their single department clerkship, within a single clinic, within the school, curriculum committees that might get engaged, clerkship directors coming together on the health care side, the same being true. So start somewhere and develop coalitions to begin to advocate on behalf of the importance of this topic.

Yasmine Legendre:

Thanks, David. Just a quick backtrack. Someone has asked for the citation of the review you mentioned. If we could make that available to webinar attendees. David, is that from the review paper, the one that you just read a little earlier?

Dr. David Irby:

Yes, actually, that's what I'm trying to look up as well. So when I grab it, I will mention it. I'm trying to remember which one specifically.

Yasmine Legendre:

Great. Okay. And while you're doing that, in terms of the virtual environment, where do you see the discussion of the actual virtual environment? For example, telehealth with the hidden parallel virtual learning environment of social media, texting, et cetera, heading?

Dr. David Irby:

I'll let George handle that one while I look for literature.

Dr. George Thibault:

So this is expanding in somewhat unknown terrain, and it was actually sort of a revelation for us as we began our initial formulation to be at least explicit about the fact that there is a virtual learning environment. It probably is the most rapidly growing and expanding part of our learning environments and I think there is a lot we still have to learn about how we optimize that and what makes for good virtual learning environments and not so good, and how virtual learning environments and physical learning environments intersect. I think it's one of the both interesting and challenging areas for educational work going forward. So we had it in there to be sure we didn't neglect it, but don't pretend that we have the final answers on it, only that it is something that must be paid attention to.

Dr. David Irby:

Yeah, I'd concur. The reference I would point people to is, the lead author is Schonrock, S-C-H-O-N-R-O-C-K-Adema, or Adema, A-D-E-M-A, and it's called *Key Elements in Assessing the Educational Environment, Where's the Theory?* And it's in Advances in Health Science Education 2012. That's volume 17, 727 following. There are also two AMEE reviews on this by Genn, G-E-N-N, both are printed in 2001 in the Medical Teacher Volume 23. It's a two part, so those two will get you started.

Yasmine Legendre:

Thank you, David. And we will circulate that around to all attendees after the webinar has concluded. Okay, next question. Are there plans to create an accessible clearing house of best practices? I'll have Holly start.

Dr. Holly Humphrey:

Yes. So as you well know, that is one of the recommendations from this report. And so the Macy Foundation is certainly interested in catalyzing such an initiative, but the foundation will not be able to do this on its own but we're certainly eager to look for partners and hear your ideas about how we might get that done. We think it's a good idea, obviously as it made it through the revision process to end up as one of the recommendations and so we are eager to see that implemented. So again, if you have ideas for partners or thoughts and ideas about how to establish that nationally, we are interested in supporting such an initiative.

Yasmine Legendre:

Okay, next question, the organizational structure of many academic health centers leads to leaders developing career paths in either clinical administration or educational administration. To what extent would career paths that bridge the two enable the development of healthy clinical learning environments? George, do you want to take that one?

Dr. George Thibault:

Sure. And we're seeing some of those career pathways are beginning to develop. A couple of our <u>Macy Faculty Scholars</u> in fact are on a pathway that I would say looks like a merger or overlap of those worlds. We think in the long run, and this is not just from this conference, but from previous conferences we've had, we need to bring those worlds closer together organizationally, and we need more bridging people. So I think that's been one of our intents in our Macy Faculty Scholar program is to create some of those bridging people and also to make organizations more open to the fact that we need, at the table if you were, you need people that understand at a granular level, both the educational process and the care delivery process. And I hope we're going to see more of those career pathways emerge.

Dr. David Irby

I agree.

Yasmine Legendre:

Thank you. Okay, George, this might be another one that you'd like to start with. The demands of intense clinical practice and its associated burnout were identified in the report as contributing factors to the quality of the learning environment. While professional organizations are making this a priority on their agendas, I'm not sure clinical systems have done so. Was there any additional discussion on how hospital and clinical leaders can tackle this effectively?

Dr. George Thibault:

Well, it's a big subject and certainly we discussed it, I can't claim that we solved it and we're going to need the participation of many other national organizations. And many may know that the National

Academy of Medicine has started an initiative to look at this and is about to launch one of its major studies on this. So again, this is going to take collaboration and partnerships across many organizations.

There's no question there is overlap between the burnout subject and this learning environment subject. As I thought of it as overlapping Venn diagrams, that is one of the products of an ideal learning environment is the lesson burnout. It's not the only thing that happens in an ideal learning environment. And one of the contributors to burnout is a non-ideal learning environment, though it's not the only factor and cause. So they're overlapping in important ways and need to be recognized and it's going to take the participation of many groups representing many different interests, I think, to get the attention that's needed on this very crucial issue. And that's beginning to happen and I'm encouraged that it's getting more attention now, but attention is the first step towards results, we're not at the results stage yet.

Yasmine Legendre:

Thank you. Okay, what are the implications of the constant findings for community-based rather than academic center-based transition to practice learning environments across the health professions?

Dr. David Irby:

I'm not sure about the transitions to practice. Go ahead, George.

Dr. George Thibault:

So one of the things that we talked about often at the conference, and we had to keep reminding ourselves that a huge amount of the learning that goes on across our country does not occur in academic medical centers. And while academic medical centers are important drivers by setting example and by also producing many future faculty, fixing the learning environment is an issue that transcends the academic medical centers. And we try to be mindful of that in writing recommendations that are broadly applicable to all environments in which both practice and learning occur, which is a huge number of different settings.

And so we think that the recommendations are applicable in environments that are not part of academic medical centers where important learning is going on and where much of the preparation for transition to independent practice does occur. And it'd be interesting, and we would love to hear feedback from those of you who are in those important environments outside the academic medical center as to whether there are additional nuances or specific recommendations that might be more applicable to your environments as opposed to the academic environments. But we were very mindful of that in both discussion and in writing that we were writing these for a much broader group of settings than just the academic medical center, as important as they are.

Dr. David Irby:

Yep. Well put.

Yasmine Legendre:

Great. Thank you. George, this might be another one for you. Do you have specific recommendations for universities who may not have an academic health science center and therefore medical school? For us,

interdisciplinary learning experiences are especially challenging in terms of incorporating medical learners.

Dr. George Thibault:

Well, again, all interprofessional experiences I think can be valuable, appropriately structured, and they can include a different array of health professions that it doesn't always have to include medicine or even necessarily nursing, though nursing is more uniformly present. So that's one thing I'd say.

Second is forming partnerships is important, and we've had experiences across institutional lines so that there are places that have medical schools and don't have nursing schools, and they need to form partnerships in their places that have health professional schools that don't have medical schools.

And then third is the important point to make that everybody who's in practice is both a learner and a practitioner, so that the opportunities for interprofessional learning are not restricted to the traditional learner paradigm. And one can think creatively about all the clinical settings in which education and training occur, where almost all professions will be represented in how meaningful interprofessional education and collaborative practice can be executed and modeled even if you don't have a school that's specific for each profession.

Dr. David Irby:

In addition to that, we spent a fair amount of time talking about getting beyond the classic health professions and ensuring that we include PhD learners as well as postdocs because their environment in the laboratories in particular are every bit as important and include an either welcoming or hostile learning environment there as well. So there were a number of participants at the conference who wanted to make sure that we didn't forget that learning environments include laboratories and university classrooms as well as clinical environments.

Yasmine Legendre:

Thank you. David and George. David, this might be a good one for you. From your vantage point, where do you see the likely next funding source for research and innovation in this area? Like the Accelerating Medical Education Initiative with the AMA or the Pursuing Excellence Initiative of ACGME? How do we influence state and federal funders? Are there local government efforts as examples? Is this an untapped value-added area as we think about communities and community health?

Dr. David Irby:

Yes and yes. All of those I think are going to be required to advocate for both basic research as well as for innovations to assess the impact of improvements in the learning environment. The conference participants did discuss the possibility of advocating at the local level with foundations to the state level for health funding resources to university innovations funding, and then at the federal level for trying to advocate for funds in this arena. It's challenging because there's no single NIH area that is focused on this, nor on education per se. So I think funding will be a challenge going forward to try to advance this. I would also say that a lot of good evaluation and research happens at the local level and can be done as well. So I think advocacy is the key. And so everyone who's engaged with their professional organizations and accrediting organizations should become advocates for understanding this important area better.

Yasmine Legendre:

Great. Thank you. Research has been mentioned, are there any multi-site initiatives planned?

Dr. Holly Humphrey:

While I'm not aware of a specific plan for multi-site research studies, I do think that the ACGME's Pursuing Excellence Initiative now being expanded to more institutions is trying really to disseminate best practices in a way that could lend themselves to research opportunities. I also think the kind of data that the ACGME had accumulated through the CLEAR program as they have looked at the clinical learning environments and institutions across the country has certainly provided them with a lot of data. And the hope is to try to use that in a way that we can as a country learn from.

So I think we have taken the first steps as a country through some of those organizations to disseminate best practices and I think the next step is to do exactly what you are suggesting, which is to develop the scholarly base to better inform us as we move forward.

Yasmine Legendre:

Thank you. This will be our final question, which is more accurate of the recommendations, improving the well-being of health professionals in the learning environment or improving the learning environment for the well-being of health professionals or both?

Dr. David Irby:

Chicken or the egg? Both are important. This does remind me of the heated discussions about the definition because initially we had written the definition to start with learner's experiences, perceptions, and learning because of the focus on learners and therefore interest in burnout, that's influenced by the social interactions culture and space. But we shifted it because that assumes that the starting point is internal to the individual, and learning environment really deals with that which surrounds the learning. And therefore we shifted that to focus on the social interactions culture and space that influences those. So I would say it's very much interactive and that was what we were trying to convey in our four quadrants, that these don't stand alone, they each influence each other. So it's important to look at all of those.

Dr. George Thibault:

And as I said earlier, I see it as overlapping Venn diagrams and that well-being is one of the outcomes of an optimal learning environment, but not the only one. In other words, learners who are not suffering burnout will still benefit from an optimal learning environment. So it's not just the prevention of burnout, it is the goal of an optimal learning environment. And similarly, an optimal learning environment will address some of the issues of burnout, but probably not all of them. So I think it is both in an interactive way.

Yasmine Legendre:

Thank you. Any final words from Holly, David, or George?

Dr. George Thibault:

My thanks to David and to all the conferees who produced this document that we are very proud of and we think it's one of the most important that we've been privileged to produce in recent years. So it was a tremendous group effort and it wouldn't have happened without both leadership and participation of all that we had involved.

Dr. David Irby:

And I would just echo George that this was a total joy and a huge learning experience for me, and it was just a treat to work with all of the people engaged in this. I would say we need all of you to help us advance this cause, this is really important to the future of health professions education, and we look forward to doing that collaboratively.

Yasmine Legendre:

Great. Thank you. Okay, this concludes the webinar on the Macy Conference, *Improving Environments* for Learning in the Health Professions. The video slides and the draft conference papers will be available on our website in the next week. You can find the conference recommendations on our website at macyfoundation.org and also sign up for periodic email alerts from us. For any questions that we were unable to take during the webinar, feel free to contact us at info@macyfoundation.org and we will follow up with you. Thank you for participating and have a good day.