

Advancing Health Literacy: Meeting the Needs of Adult Learners
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Dr. Sandra Baxter: Good afternoon. I am Dr. Sandra L. Baxter, Director of the National Institute for Literacy. Thank you for joining us today for what promises to be an engaging and informative discussion of new approaches to advancing health literacy in collaboration. We have assembled a panel of scholars, researchers and practitioners whose work in the fields of health and literacy are helping to challenge how we view, understand and respond to the health literacy needs of adults with low literacy skills.

The Institute is pleased to host today's webcast, "Advancing Health Literacy: Meeting the Needs of Adult Learners" and we are coming to you live from Washington, D.C. The Institute is a federal agency and we are charged by Congress to provide national leadership on the issue of literacy across the life span. An important part of the Institute's mission is to serve as the national resource for adult literacy programs and as the clearing house for research in resources when reading, reading instruction and adult literacy.

The 2003 National Assessment of Adult Literacy, also known as the NAAL, provides us with important information about background factors associated with literacy and the skill levels of America's adults. The 2003 NAAL also included the first-ever national assessment of adult's ability to use their literacy skills and understanding health related materials and forms. The NAAL found that 13% or 30 million adults are at a below basic level in health literacy and 3% of adults or 7 million adults were at the bottom of the below basic health literacy level. These are the people who did very poorly on the NAAL core assessment according to Dr. Sheida White, Project Officer for the NAAL.

The NAAL incorporates the definition of literacy that was developed by the Institute of Medicine and the U.S. Department of Health and Human Services. That definition can be found in the objectives of "Healthy People 2010". It defines health literacy as "the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions."

Health literacy is important for all adults. It is not just important for those who cannot read. It also and can be an issue for the well educated, to know and understand information

needed to make everyday decisions -- health decisions. Making good decisions -- good health decisions depends on people having a high level of reading and comprehension skills. Just think about the last time you picked up a health magazine or a pamphlet while sitting in your doctor's office. Or think about a decision you had to make when buying an over-the-counter medicine. Or how you felt when you had to give advice to an aging parent on issues about end of life care. All of these activities required and are facilitated by the ability to read and understand written and printed information.

We want to kick off our discussion this afternoon with an exchange about the definition of health literacy and how we define it can shape and influence work in the area. We are pleased to be joined by three of the nation's leading experts on the subject of health literacy this afternoon.

Dr. Andrew Pleasant, an Assistant Professor in the Department of Human Ecology at Rutgers University is the co-author of "Advancing Health Literacy: A Framework for Understanding and Action". He has published extensively in the areas of health literacy, evaluating the use of health research in society aniline science and environmental communication. Welcome, Dr. Pleasant.

Dr. Andrew Pleasant: Thank you.

Dr. Sandra Baxter: Next, we have with us Dr. Ian M. Bennett, a physician and Assistant Professor at the University of Pennsylvania School of Medicine and Graduate School of Education. The National Center on Minority Health and Health Disparities, part of the National Institutes of Health, have named Dr. Bennett a health disparities scholar. His work has focused on linking adult basic literacy education programs to health literacy interventions for adults with low literacy. Ian, welcome and thank you for joining us today.

Dr. Ian Bennett: Good afternoon.

Dr. Sandra Baxter: I'm also pleased to welcome Dr. Susan R. Levy, a Professor Emeritus of public health and education at the University of Illinois at Chicago. Dr. Levy is currently a fellow in the Institute for Health Research and Policy at the university. She was previously director of the University of Illinois Chicago Center for Health Promotion and Disease Prevention Research. Her research and intervention work has focused on schools and risk reduction, HIV and abuse --

substance abuse. We at the Institute have had the pleasure of working with Dr. Levy as well on the development of a multi disciplinary health literacy project and curriculum that you will learn more about during this web cast. Susan, welcome this afternoon.

Dr. Susan Levy: Thank you very much.

Dr. Sandra Baxter: Well, we want to get our discussion under way as quickly as possible, but what I'd like to go back to is the definition of health literacy and have you weigh in on that definition I read to the public just earlier.

Dr. Andrew Pleasant: Well, I know people would like to roll their eyes when they hear -- we're going to talk about defining health literacy yet again, but in my opinion it's a really important task because the definition is going to establish the way that you're going to evaluate health literacy. And those outcomes, especially in this funding scheme, are going to turn out to be really important. The outcomes of evaluation are going to predict where funding is going to flow. So, if you start with a limited definition then you have inherently limited the field.

Dr. Ian Bennett: And the other point that I think is really important to mention is that there is really a wide range right now of what people feel is the definition of health literacy. So, it's pretty common for me to experience saying that I work in health literacy and have some one think that they understand what I mean by that. And it's often the case that we don't share that definition.

Dr. Susan Levy: And if people don't share the same definition, what occurs is they hear different messages and the misinterpretations can be very damaging.

Dr. Sandra Baxter: Well, I know that this is an important issue and I'm sure we're going to come back to it during the course of your presentations, but let's just get started now on the presentations. Dr. Pleasant, would you like to begin for us?

Dr. Andrew Pleasant: All right. I drew the short straw. Thanks for tuning in or browsing in as the case may be. They tell us we each get 15 minutes of fame, so I unapologetically am going to go quite quickly through a number of slides to try to cover some fairly good territory here.

I'll begin at what I think is actually the beginning of health literacy. I want to remind people actually that health literacy did not start as a field of study at least in the United States. The really first connections between literacy and health were made internationally. A lot of those articles came out of Africa and then there's a long history in India and other countries of addressing literacy related issues.

In this country it tended to start in two communities: one, the healthcare professionals who are mainly initially concerned with patient compliance issues and the adult basic education and the literacy professionals who found that health could be a real motivating factor when you included it in curriculum. Another important thing to remember is that neither of these communities settled on a single definition of health or literacy before other people came along and put them together into the phrase "health literacy".

Now, academically the field can be seen as really quite a success from some counts. This is a simple little graph that shows the growth and the peer reviewed articles by year and a number of databases, really beginning in the early '90s and then to 2007. It's in the last few years suffered -- experienced almost exponential growth. And from a policy perspective you can see that the NALS and the NAAL, the two National Assessments of Literacy, really seem to at least coincide with real growth spurts in the field; the beginning and then the later exponential growth. But again, I think we need to remember that around the world there have been people who have been addressing these issues for a very long time.

This is just on the same graph two examples of the National Literacy Movement in India that really started back when Gandhi was working to kind of take back the means of production and literacy was one of those very important goals that he set for that nation of India. So, in a way we're coming a long way to something that's been really active around the world for quite a while.

So, we can ask, why all this interest in the U.S. here and now? Well, it's not a coincidence in my mind that health literacy really began to emerge along with this changing burden of disease and that's from an acute disease to a chronic disease condition. That's where you get these physicians and I think most notably the Surgeon General Carmona who will tell great stories about here I am working in an ER for years and realizing that I'm treating the same preventable diseases and sometimes

with the same people over and over again. So, what's causing that? That certainly contributed to the growth of health literacy.

Also, the fact of the matter is that just medicine itself has changed and now a lot of the ways to advance health are based on knowledge or new technology that requires literacy skills. We also, in this country, but not only in this country have a situation of increasing inequity in health, which again points out why health literacy is important. Quick example. In basically my lifetime, if everyone in the United States had the same health as the whites in the highest income group then 14% of premature deaths in the white and 30% among other racial and ethnic groups would have been prevented.

Now to me, 14% and 30% is pretty astounding, but I did the numbers and actually -- that's 5 million people who died earlier than they would have and health literacy has to be one of the causes of that. So, it's certainly important from that perspective.

We have continuing issues with navigating the healthcare system and this is just one quick example. At an urban teaching hospital in New Jersey students and I did this project last year and they basically had to go find things in the hospital with a little literacy hurdle thrown on them. In 73% of the cases they couldn't find the destination without help. And then half of those it took at least two staff members to provide them the help so that they could find what it was that they were looking for in the hospital. These were simple things like the chapel or where my sister might be having a baby.

We also did a test that we called "looking lost." In that, we had one person walk around the same nursing station six times deliberately looking lost. In 75% of those times no one ever asked them if they needed help. The students reported that the nurses actually had to work hard to not see them because they were so blatantly lost.

Now, why is this important? Because these are the sort of things that cause interruptions in the medical staff. The Institute of Medicine has confirmed that interruptions are one of the causes for medical mistakes and you know that medical mistakes are not going to be able to be billed beginning, I think, next month. And so, there's a clear financial incentive to invest in some of these areas as well as the potential for better health outcomes.

Now, if that's not enough there are even more and more complex interfaces that health literacy requires us to interact with in our daily maneuvering of the world. For example, multiplication of information sources. The Internet is both good and bad. How do we navigate that territory? The complex bureaucracy of health insurance; the lifestyle and self management that chronic disease requires us to do; ongoing doctor/patient communication issues. All of these add up to why the U.S. pays more per person and gets less in health than any other industrialized nation in the world.

We also need to remember that this is an issue that's not going to go away soon. You look around this country. This is a recent study. Graduation rates for the principal school districts in the 50 largest U.S. cities - 51.8%. That means 49% -- 48% are not graduating. This is not an issue that's going to go away soon.

So, from that beginning where is health literacy today? Well, clearly it's come a long way in a really short time because just a couple decades ago there was no such thing as health literacy. People didn't address it. It existed, but we didn't have a name for it.

Here's a first of a few cautions that I want to throw out. We currently risk being co-opted into just providing plain language materials and that is not going to solve the solution. Why? Because a good document in a bad healthcare system is still going to be ineffective, if it's put into place at all. And if it is used, it could even be harmful. Imagine you give a really well-written publication to a patient who then says, "Oh, I have all these questions" but the physician doesn't want to take time to answer the question. So, in fact that document can become harmful in some instances. So, it takes more than just re-writing materials.

I think to reach that goal what we need to do is change the discourse and the practice about health literacy from just fundamental literacy, the reading, the writing, the speaking, the numeracy in health to an approach that sees it as a complex social determinate of health and we focus on empowering the people. That means that we're going to address the symptoms and the causes of health literacy, not just the symptoms.

Now, this doesn't mean don't rewrite materials. It just means don't think that's the total solution and it doesn't mean don't

focus on the people at the below basic level. It means do that and look at the larger issues surrounding health literacy in this country at the same time.

Now quickly, this is some of the differences in the literature from these two sorts of approaches. The fundamental literacy in health model has developed the simple screening tools that we all have heard about. It tends to have the focus on the individual, looks at rewriting as a primary practice to address health literacy, often focuses on clinical encounters, unfortunately tends to blame individuals as lacking in something, and because of the screening tools is the source of most the empirical data that we have to date.

On the other hand the social determinant and empowerment model tends to have a population in the public health focus, tends to look for system changes and identify social and political causes. It sees health literacy as a problem that everybody faces in varying degrees and also is the source of most of the theories and conceptual frameworks in the academic literature. I don't think this should be an either/or. I think it should be both. And the only issue I would have is people who say it should be one or the other. I think you need to recognize both are needed.

Here's one quick example of how the difference can materialize in actual practice. I'm sure most of you recognize this graph. It's from the National Assessment of Adult Literacy Reports. It reports on the percentage of adults in each health literacy level when they ran the survey in 2003. When I show this to audiences and I ask them where is the problem with health literacy, they always say it's the 14% at the below basic level. That's where the problem is. Why? Because it's to the left of the zero. It's the negative side. It's the drain on what's presented as an otherwise literate society.

And then I'll ask the people, "So, which level is sufficient?" And they will say based on this graph, "Well, it's clearly got to be the basic level because they're above the zero. Everybody else is okay. It's the below basic that's the problem."

You can take the exact same data and reframe it like this. First of all, everybody is in the same pie. We all have the problem. We just have it to varying degrees. This lets you then point out another outcome on the same data. You can say, "Look, almost nine out of 10 adults in this country are below the proficient level." And if you add in the percent that

couldn't actually be tested, it's more than nine out of 10%, but they tend to be left out of the equation when most of this data is usually reported. So, it's same data, very different story and a very different outcome.

I just should remind you what does proficient mean? One example; it means that someone could look at a graph and say, "Hmm, here's my income and here's my family size and I belong right here. Ah, that's how much health insurance I have to pay." People had to do that, I think, 67% of the time. Not all the time, just most of the time, do that correctly, as an example, just one, of proficient level. That's not a very high bar. Just being proficient doesn't necessarily mean that much right off the bat.

If you look at the literature before the NAAL, you'll find that 300 studies have demonstrated that most health materials are beyond the comprehension skills of most Americans. Now, if you frame health literacy this way all of a sudden the policy implications can be seen differently because we don't just deal with 12% of the population at the below basic level. It's a problem everybody faces and policy needs to then address that.

I'm not really alone in taking this angle on health literacy. This report just out from the Commission on Social Determinants of Health just a week and a half ago. In the context of arguing that social injustice is killing people on a grand scale around the world they argue that the scope of health literacy should be expanded. They say that health literacy is not just about the individual's ability, but also the ability of public and private actors and that improving health literacy is the way to reduce health inequity. I think we all agree on those goals.

So, how do we get there? It's going to take multi-sector partnerships and by multi-sector I mean literacy, education, health, public health, social services at large. No one of us generally has what it takes to launch a comprehensive health literacy initiative alone. And when we launch these initiatives we have to focus on actively engaging people versus treating them as passive learners. That's one of the biggest differences in practice that health literacy puts forth versus health education or a health communication initiative; active engagement.

How do you do that? First, know your audience; the one you have, the one you might have and the one that you want. And if you don't know that off the very start then you're starting in

the wrong place.

Golden Rule Number 2: Don't go it alone - involve your audience early and often. That means if you're going to be re-writing materials for someone involve the target audience in that rewriting process. There's no better expert in health literacy than the people who live it every day.

Why do we need to do this? Because health literacy is complex. It's not a simple problem. If it was a simple problem we wouldn't be sitting here anymore. It would have been solved already. This is a relatively new and old definition at the same time because I merged what the World Health Organization has just posed to what my colleagues Chris Zarcadoolas and David Greer and I have worked out for a number of years now.

There are four key elements to this definition: finding, understanding, evaluating and using information basically to improve your life in a variety of contexts. Why? Because if you can't find it you're not going to understand it. And if you can't understand it, you're not going to be able to figure out how it fits into your life. And if you can't do that, you're certainly never going to be able to use it. Now, some people want to say "communicate". We said "use". I don't think that's such a big difference. We can certainly work that out.

And when you take those skills into the world and use them you encounter a host of complex challenges. Just imagine when you're sitting talking with a physician, a very common health literacy scenario. First of all, is the language level appropriate, the fundamental literacy? Can you understand? Secondly, can you navigate that power relationship with the physician so you can ask questions? That's a power relationship. Third, you have to be -- can you understand the scientific jargon or does the physician have the skills to deconstruct the jargon for you? And finally, can you understand that you both might have a very different definition of health based on, in essence, your cultural perspective.

The physician might say, "Health? Oh, that's just the absence of disease." And you might take something like the Ottawa Charter's position that health is a resource for living. Those are very different outcomes and approaches to exactly what health is and they're based in culture.

So, when you do this and you create these collaborations and you say we're going to address this complex issue, what are you

going to encounter? You're going to be just like an adult learner because whether you're from the literacy side or the health side you're going to encounter vocabulary that you've never heard before. What's the NAAL? What's the TABE? I have no idea. What are these acronyms? I've never heard them. It's jargon on each side, so you have to learn a new language.

Questions are going to emerge about whether you have the capacity to deliver the goods. Both sides of this equation, health and literacy, are generally overstretched in the work that they're currently performing. So, how is that going to happen?

And thirdly, to someone who hasn't let's say moved beyond the notion that health literacy is just reading or writing information about health this might very much look like herding cats because they're not taking a complex understanding to what it is that you're actually trying to do in the initiative.

How do you get it started? There's a number of strategies that you can use and these have been done. I've talked with people who have formed collaborations and coalitions across the country and these tend to be the approaches that people have taken with varying successes. So, I'll just throw them all out there.

First of all, you have to learn a new language. You have to be an adult learner yourself. Speak up in public. Go to a meeting. Let's say you go to a hospital meeting and you stand up and say, "What are you doing about health literacy?" What's the answer going to be? It might be nothing. It might be everything, but that could start the dialogue right there.

Ask questions. You can send your staff to meet with staff, either direction. You can send board members to meet with board members, either direction. Build a coalition in your community. Get media attention because of that and then make the connections. Find a funder, find a solution instead of talking about a problem and you can bring in an outside expert or a national organization and put a spotlight on the issue in your town. Those are ways to get it started.

When you do, you're going to find that there are some real opportunities in place. No one disagrees with the goals of better health, equity and health system performance. Both sides - everyone agrees with that right off the bat. You just have to talk to each other and identify that those are the opportunities that exist. You will find that you have uniquely complementary

resources, but you're going to have to prove that to yourself first because many of you are going to doubt that. You're going to say, "What can I do for a hospital?" And the hospital is going to say, "What can we do for an Adult Basic Education Center?" Because they've never asked the questions of themselves. Start it and you will find the answers.

The healthcare system is increasingly being told to do this. Every indication is that the Joint Commission is going to put health literacy into the accreditation scheme and we have public policy that's pending. Who knows whether it will pass or not, but the Health Literacy Act is out there. Things are coming down the pike. So, people are being told to do this: If you involve your adult learners they generally want to do it. How exciting. You can even, if you make the arrangement right, pay them for their time to help you re-write materials. That's a win/win/win for everybody.

Finally, two things. The long-term path seems to be greater than the short-term costs. We need more data, but everything indicates that if you invest money up front in health literacy now you will reap the benefits in the future. And finally it's simply just the right thing to do.

Here's a few cautions. When you start these coalitions don't overpromise because you don't have to. The gains are there to be made. If you address health literacy in your community, you will reap positive benefits. So, don't shoot the moon. Just say we're going to try to address this problem and we're going to do it incrementally one step at a time.

Evaluate everything you do first, last and always so that you can actually help us build data, present it to the rest of the community and we can learn from what you did and what you didn't do. The most frustrating thing to do in health literacy is to hear someone did a project, but you didn't know it and you had to replicate the wheel and do it all over again. So, help everybody else in the community out. Let us know what you're doing and that will advance health literacy, which is what we're trying to do together.

And one thing when you do this, don't forget, because we tend to use -- I do it too. Hospitals and literacy programs as our primary examples for some reason or a clinical study. There are lots of potential partners in your community. There are Departments of Public Health. There are area health education centers, the federally qualified health centers. Don't forget

environmental health. Donald Nutbeam's earlier article on health literacy clearly postulated that one of the outcomes of improved health literacy in a community was improved environment.

Don't forget the K-12 school system. They are still potentially strong partners in any health literacy initiative that you do at the community level. And for those of you who are near a land grant university there's an entire nationwide system called Extension and that brings expertise from the university to the community. They're in place and they would love to help on these things.

And finally, remember George Bernard Shaw really had it right years ago before we even started talking about health literacy. The biggest problem with communication is the illusion that has occurred in the first place. And with that, I'm happy to turn it over to Ian.

Dr. Ian Bennett: Thank you, Andrew. That was, as always, an engaging and interesting presentation. The two of us have had an ongoing discussion about literacy and looking forward to doing more here.

Today, I'm going to be presenting some information on women's health and literacy. Within the context of this particular presentation, I'm trying to accomplish two major things. One, to bring women's health into -- and actually it's primarily reproductive health that I spend my time working on, but it's really part of the whole life course component of literacy and health.

And also to talk about linking in a more concrete way -- I'll use an example of a project that we're just wrapping up where we work together between the healthcare -- the Public Health Maternal Child Healthcare Delivery System and the ABE Adult Education System. So, I'm going to start out real quickly just showing a few kind of conceptual slides talking about what it is when we think about literacy and health. I like to remind myself that it's not so simple. It's just thinking about the healthcare setting and none of us here would have any problem with that confusion.

But just to kind of remind myself in looking at this figure really think about -- I like to think about the interaction of health and literacy through the life course starting out with the disparities that we see in education and health outcomes

before school starts in the preschool time where there are already differences; preparedness for education and then where literacy primarily is developed, at least a formal later stage of literacy happening in a formal education system and the interaction between literacy and education; how far you get and education is really related to how strong your literacy is early.

And then finally, you move into the domains of adult life; things like employment, civic domains, legal, family economics, but then there's healthcare right in the middle, which is where I like to think of health literacy as being primarily focused in around that context, but let's not forget that so many other areas are influential on health in not just healthcare and healthcare delivery but all of the other components in someone's life that are affected by literacy and also affect health. And finally, how that relates to health across the life course.

I like to think about health and literacy kind of in this sort of way as an individual patient. I'm a physician, so I tend to think about patients. An individual patient with their skills and characteristics and there's the healthcare utilization; actually getting your vaccine taken, getting to the doctor for pediatric care or prenatal care. And there are all these obstacles that we've set up in between. Things like construction, scheduling, and readability and things of that sort. The skills -- the health literacy skills are the skills that help you accomplish or get over those hurdles. That's one way to think about it at least.

This is another way to think about the life course of a woman. Starting down over on the left where the parent's literacy is so important and really influential on how many visits you get to. And what this little cartoon in the middle is is a representation of the vertical axis of how many interactions you have with the healthcare setting. And then across horizontally is the time in years of your whole life. So, you can see no big surprise, but I like to kind of visualize this.

There are many different kinds of encounters with the healthcare system that someone will have to go through their life. And then at the bottom there conceptually thinking of the accumulative risk of low literacy on your health. Starting out small, you don't have -- there isn't much that's affected you yet, but then gets much larger as you get later in your life.

I just want to remind people that have probably seen this

thinking about the relationship between literacy and self reported health status. This is data from the NAAL looking just at women between the age of 16 and 24 who are otherwise very healthy. That's a population that should be quite healthy. I think chronic diseases haven't, for most people, accumulated.

But look how dramatic the association is even at this early age. It's really quite astounding. We see already the strong disparities by race/ethnicity is just the one that I picked to show here, but it's true for a number of other socioeconomic variables; that there is this pattern of association between literacy and health status is maintained across all race/ethnicities, but there's this big literacy disparity as well. So, health disparities and literacy disparities are integrally interlinked.

Now, getting to my next big point. Linking health and public health interventions, maternal child health interventions, with adult basic education. That is, for me, a very important area for development. What would be the benefits for the Adult Basic Literacy Education folks as compared to the public health folks? Well, ABLE, the practitioners are highly skilled adult educators that know how to work with folks who are from very vulnerable populations and they help them develop the skills that we're really fundamentally talking about and building the skills needed to fulfill their roles as parents, workers, citizens, patients, et cetera.

From the public health point of view they are certainly used to working with vulnerable populations, but often have difficulty actually delivering services. Is there some way that these two folks -- two groups can work together? I think that there are important ways that they actually can.

The particular project I like to use as that concrete example is Take Charge of Your health. It's a participatory health literacy curriculum developed over about six years in collaboration between myself and other investigators at the School of Medicine and Graduate School of Education at the University of Pennsylvania and the Center for Literacy in Philadelphia, a direct service provider of adult basic education services.

Working with women with low literacy measured a variety of ways. There are all kinds of acronyms we can use for that. The goal was to integrate adult literacy instruction with relevant health information and health navigation skills. Providing skills that

are transferable and would be able to help adults, women in particular in this case, navigate specifically the maternal and pediatric care systems. And using those particular obstacles as targets for working and getting -- helping women develop skills to make it through that system, which is complex.

And then it was a participatory curriculum that increased with the goal of increasing the relevance and interest among adult education students in the adult literacy information being delivered. So, the idea was a win/win for both sides. Getting information about health to patients -- that's what the public health site is. And from the adult education side getting information that's contextualized and important to those participants at the time that they're actually going through the program.

So, the Philadelphia Preterm Prevention Project, a large multifaceted intervention, public health intervention, for women who had just had a preterm infant born before 35 weeks of gestation. Women were followed for 18 months through the intervention. It included an adult -- the Take Charge of Your Health intervention among others, but I'm focusing just today on TCYH. It's the acronym that we use.

There were many important lessons, I think, that came from this collaboration. First of all, there was a natural link between the adult education world and the public health world. The actual practitioners themselves were speaking many of the same -- talking about many of the same things. We're used to working with the same kinds of folks helping them through the struggles that they're facing. But there were some important things that we learned that didn't work so well.

First of all, the classroom model. We actually incorporated a classroom model using what we learned from adult basic education. It's the predominant way of delivering adult education curriculum and we used that. We invited women who had just had a preterm infant -- after six months so things could settle down a little -- to these classroom programs and found that we had some struggles. And I'll talk a little bit more about those details. We had to switch to an individualized home visiting model which is much more traditional within the maternal child care system.

So, let's talk a little bit about the classroom model here. We had a full FTE adult educator that was able to provide both ABE and ESOL program curriculum. We provided food. We provided

transportation help. We had computers and Internet access. We had child care as well available. And we really felt that we were going to be able to entice, invite and this would be something that people would be very interested in coming to.

The goal, of course, was to be participant-oriented, so participants would come and brainstorm and work out what would be the focus at that particular class and then the literacy and health information would be integrated by the educator in an ongoing way. And that would be an organic process.

Unfortunately, what we found was that there was very low participation. Overall there were only two participants out of the several hundred who were eligible for the program who actually participated in and completed the 20 hours of instruction. We actually gave that a full year to try to make work. We're trying all sorts of things to try and make it work and we really found that it just wasn't going to -- we weren't going to get very far with this model.

So, there was though among the participants although not everyone completed -- only a couple completed -- other people were participating and there was particular interest in the Web focused instruction around navigating health information on the Web. But again, by a very small proportion.

So, the obstacles. What obstacles could there be to incorporating this kind of model? We think that, of course, like usual there are competing priorities with any young parents and they have complex lives. It's a vulnerable population. Transportation and child care we tried to take care of, but scheduling and inflexibility was an issue. We were telling people that they needed to come to a specific time and specific place. There were only two classes per week. That's actually a pretty big hurdle for a lot of folks.

In addition -- so, we switched to another model which was the individualized home visiting model based on, as I mentioned before, a home visiting model used very frequently in the maternal child health system. So, taking a page from this well-established approach. Emphasis was on healthcare navigation or health literacy as we modeled it and learners directed the topics. We would have visits. The adult educator who ran this program would go home -- to the women's home or any other place to participate in going to doctors' visits.

Actually, the overall visits started out with an initial

assessment and planning program where we figured out what exactly would be the focus of that particular what we called "cycle" of the program then the implementation might take several encounters. Then you can go on to the review of how things actually went after the goal was achieved. Then we would repeat those cycles a minimum of four times overall, about 20 hours. We were modeling that we wanted to at least get 20 hours worth of direct face-to-face interaction.

That was incredibly well accepted by participants. Not everyone could come. People were working. Even with our flexibility that we were only able to get about 71% of those who accepted the intervention; about 50% of those who were eligible for the intervention, but I consider that quite an accomplishment considering these were women who were not seeking adult education services. These were women who were in the healthcare system. We were inviting them to come to something that they weren't ready to -- necessarily had decided already that they wanted to do. I think that is really -- well, let's talk a little bit about the important themes that came out.

Most of the focus was around medical care, family management and economics, and education. So, the outcomes I would venture to say that really would be important for this particular program would be how many primary-care visits were accomplished that would not otherwise have been accomplished? How many specialty care visits were negotiated that would otherwise have taken much longer and not have accomplished?

Family management economics. Things like insurance, employment, housing, child services. All of these are directly related to the health of the family and were a big focus of these particular encounters.

And then finally, education. A significant number, about a third of the participants, got linked up to adult education programs. They were not initially planning to do this. And yet the ESOL participants in particular -- we had 100% participation with adult education programs. So, all of these things I think are important for thinking about how do we imagine health literacy intervention that can go after the vast majority of adults who can benefit from adult literacy programs but are not currently participating in adult education, formal adult education.

So, we had high participation. We linked disparate health navigation needs and education needs. And so I would say it is

absolutely possible to link adult education and public health together, but new models are needed. We can't imagine that we're just going to plop our adult education format into a health setting and vice versa. The traditional health education model or the social worker model of solving the problem and then leaving is not going to work. We need a fusion of these two things, I think, to work best at least in this care setting. And future work is needed to evaluate the benefits of such a public health and literacy collaboration.

Dr. Sandra Baxter: Thank you. Thank you very much, Ian. Susan?

Dr. Susan Levy: Thank you. My presentation is about a program that was developed as a result of funding from the National Institute for Literacy, National Institute of Child Health and Human Development and the U.S. Department of Education. It's a process that we went through for the last six years. And one of the outcomes that we're very proud of is the curriculum that I'm going to talk about today and give you some background on and hopefully some interesting issues that have come up in the very on-the-ground implementation of this in adult education programs.

As you saw, it pretty much was a study and it was developed for the National Institutes of Health and National Institute for Family -- or for Literacy and the important thing there is it was a randomized and control study, which meant there was an experimental design. We targeted all the adult education populations in Illinois that were very varied in where they were located. Some were located in community college venues. Others were located in church basements. Others were located in varieties of institutions across the state. As a result of that, we saw a tremendous amount of people with different needs across the state in many different kinds of settings, which I'll talk about later.

The ultimate goal was actually doing what everyone here is in favor of, which is developing general adult literacy skills as well as improve health related knowledge, self efficacy and potentially health promoting behaviors. We can add onto that through the curriculum navigation skills and such.

We started our project knowing that the world of health literacy in public health and the world of health literacy in adult education weren't hearing the same kinds of things or issues in the same definitions. So, we looked. Literacy in the National

Literacy Act is defined very broadly to "read, write, speak and compute and solve problems at levels of proficiency necessary to function". Function is a word that we can also discuss. As Andrew pointed out, there's different levels of functioning proficiently.

The health literacy in the simplest definition I could find that I was satisfied with to just talk about briefly is "the ability to read, understand and act" -- acting is very important -- "on healthcare information."

Our project was an attempt to integrate all these points of view and that's where the project was born. We've established there's a complete correlation between low literacy and poor health. That's been very well documented for many years. I will not go through each of the slides because I know you have them and can get back to it on the Web site.

But when you look at the idea that 42% of individuals in one study could not understand the instruction "to take on an empty stomach" and when you kind of visualize what "take on an empty stomach" might mean to someone who is not understanding you, you can see the problems that physicians have.

Healthcare costs are always important for people who are trying to get funding and for trying to justify the need for this. I think the AMA Foundation in 2006 -- I think this figure came from and in 2007 it even went up, but in that year \$73 billion per year. It's starting to sound like real money.

Our curriculum was put at 42 hours. It was meant to supplant the literacy curriculum across the state in the experimental sites and they were, as I said, randomized. The reason we chose 42 hours wasn't because it was a magic number, but five, six years ago it was the amount of hours was 35 that people could take and then retake the tape to see if they moved up a level at the minimum. So, we said, "Well, what's reasonable and practical to go and to talk to people to allow us to come in?" And we said, "Well, let's put together a 42 hour curriculum at all the levels giving teachers materials that they could choose to manipulate as they needed for their classes."

We did in our experimental curriculum talk about explicit instruction. We had lessons and lesson plans that people should get through. For the benefit of those who are researchers it was theoretically driven by some of the social and behavioral science theories. And we were hypothesizing that health content

will make the adult education students be more attentive, be more engaged with the curriculum leading to better literacy outcomes as well as health outcomes.

We did a major study with individuals across the country to develop the curriculum and we prioritized issues because we knew that 42 hours could not cover the entire health content field. So, these are some of the priority areas that were in and that are in the curriculum that we're talking about. How to do some of these things and even an easy idea that we think if we're literate adults knowing the difference between an ophthalmologist and an optometrist. You definitely don't want to go glasses to an obstetrician. So, all of these kinds of things were discussed as part of the curriculum.

And we did this curriculum because of the experiment across all adult education and literacy levels and we design the curriculum around concepts of adult education. Some of the literacy skills addressed: There were many, many more, but this gives you an idea.

A curriculum example. This was very must in the basic level in both. By the way, we had an ESOL version of the curriculum as well as an ABE version of the curriculum for the different levels.

Body parts people had to identify. You can't talk about the body until people are able to talk about the body parts. So, very much it worked into the science curriculum, too, if you were doing this in grade schools.

Vocabulary practice. Some of the creative things that our curriculum developers had to assist with and we did have professional curriculum developers. Some of you in the adult education field may know [Lori Berkowitz] and [Lori Martin] from the center in Illinois as part of our team.

Here we have some forms that people had to use to fill out and constant practice. These forms also included the idea of teaching verbs and nouns and different kinds of issues as we went along as part of reading. We used actual patient information forms. Medication histories, levels that people would discuss. We had role plays. And this is very important, too. We talk about reading and literacy and understanding and writing materials that are simpler to comprehend and understand, but when we're talking about health literacy situations determine very often if a person is literate in that particular

situation. If you've never been sick before with a certain symptom, it is very difficult to be literate in that particular situation at that time. So, we give people some ideas about how to talk to a doctor or how to be a patient and they switched roles. This is one of the role plays here that you can see.

Other curriculum examples which I personally did not think of but in terms of expiration dates. We think it's a very simple idea, but dates are written in so many different ways in the United States and if you come from Europe or another country yet in more ways. So, the idea of numeracy plays out in very important issues when we're dealing with health.

This is one of my personal favorites. It is a medicine. It could be any medicine and dosages and labels; reading a label and answering questions. Through the curriculum we have little test quizzes for the individuals as well as giving them information. They were able to take a look, make up stories. They can do this by themselves or with partners.

And the other thing we wanted to do in terms of the healthcare system was have people determine what is emergency care, what needs do you have? What determines an emergency? What determines where you go in an emergency? Just the difference between a clinic and an emergency room or a doctor's office or a hospital. Many people do not have that knowledge. So, this is both reading, writing and very practical.

And then as we went through this, two of the most common topics that are important are nutrition and physical activity. We're inundated with that so we decided to add that to part of the curriculum and also the use of common medicines, over the counter drugs and dosages. These are part of that.

Our participants were over 2,000 people and 1,946 adults completed the whole survey as well as the hours met, up to 42 hours. These are participants with pretests and you can see the number of sites was quite extensive; over 42 classes, 120 and number of adults almost 2,000.

The experimental control groups had almost exactly the number of participants. And here you can see -- and this is something that we found out -- the loading of the participants was very different and it looked different for ABE and secondary education as well as the English as a second or other language learners. The loading of the second language learners is very much more at the basic and intermediate and the loading of the

ABE/ASE is more in the intermediate through advanced.

We also noticed as we went through this and everybody in the country probably knows it, but it's worth saying again. Our populations have changed in the last 10 years. There's a huge, huge influx not only of Hispanic immigrants, but as you'll see later on we had 240 other language speakers who were not Hispanic. So, the immigration waves and English as a second language is a huge part of adult education, not just the people who have come in through our own school systems.

The primary home language of our population in total you can see. And here we have something that is to me one of the most important slides because it truly, truly backs up everything everyone has been seeing. The lower the literacy level, the lower the health knowledge. This is just knowledge. It's not efficacy. It's not behavioral intention. This is straight basic health knowledge across our entire population is completely correlated by low to high. And if you can see also on this slide the ESOL group starts much lower and even their highest does not come close to the higher levels there.

The other caution here is we can't get too excited over the ASE number either because the highest number that you could have gotten in the knowledge score was 24. So, even at the highest level there's a lot of room for improvement.

Our study after all the years -- I'll just give some of the basic findings. The average post test health knowledge score was significantly higher than the average pretest health knowledge score. This went across every way you could segment out the data that researchers usually do on the experimental group. The adults increase their health knowledge when participating in classrooms using the health literacy curricula. They also increased their health intentions and efficacy.

The most important thing for adult education was how did they do on the test of literacy? And that, too, increased pretest to post test. So, everything seems to work well. Everybody made gains in literacy in the experiment on control groups over the 42 hours. In our study, though, control teachers receive training in literacy strategies and embedding strategies also. So, it wasn't all or nothing.

Data show direct and progressive association between literacy level and health knowledge intentions in efficacy. We started to differentiate the needs of users of health information by low

literate adults. I think the data that are important is control students showed greater health related deficits at post tests than experimental students at the same literacy levels. The ESOL males were the highest risk. They remain the highest risk. Our belief is that the lower literacy levels need more than 42 instructional hours to progress to the next literacy level. That's the bad news or it's the reality.

While health knowledge and health related efficacy can be significantly improved relatively quickly even within the 42 hour time. So, I think we can do something about health literacy in a very -- more efficient way than we really think. I think also policy implications, the curricula needs to differentiate between our English as a Second Language students and regular ABE/ASE students. And there needs to be a greater focus on males in general. We find this in the healthcare system and in public health as well, but maybe we can combine our resources and put it through in literacy as well as health. I would like to thank you for the time.

Dr. Sandra Baxter: Thank you. Well, you've put such interesting issues on the table. There were a number of things I would like to take up, but actually we have a number of questions from our viewers. So, why don't we go to the questions right away?

First, we have Julie from World Education who would like to know: Given that the NAAL shows that those with lower literacy levels use the Internet less for finding health information, how can web based interventions and other technology be best used to address health literacy?

Dr. Andrew Pleasant: Well, I'll go. Hi, Julie. Everybody knows Julie, so it's okay to be personal. That's something about the NAAL that astounds me; 80%, I believe, was the number of people at the below basic level said they'd never use the Internet for health. I have to say I take that as the one thing I take with a real grain of salt. I don't know why people said that because in my experience when we did work in adult education classes with people with low literacy they were incredibly excited about the Internet. They might not have been on it before, but once they had the chance they jumped at it.

And now with the availability in public libraries and in some ABE classrooms more and more the Internet is reaching into more people's lives in this country in particular. I think that 80% is going to change rapidly if it was necessarily true in the

first place. I just don't necessarily understand that data point, but I don't think that we should make future policy based on that given the increasing reach of the Internet.

Dr. Ian Bennett: I would just add to that. If you look at the NAAL data the Internet is one of the range of sources of information that's much more limited among adults with lower literacy. So, it's not just -- its seems to be a general pattern rather than, for example, going to someone to talk about something they'd be less likely, those same folks, to talk to another person to get information. So, it's a general [whittling] down.

I also wonder if there might be a difference, an age specific difference based on the interest. The largest group of folks are older, but it may be -- your experience, for example, is with younger folks who are perhaps more willing. And we certainly found that when you get someone into a class and there's a computer in front of them they're very interested in navigating the Internet and it brings up, of course, all kinds of issues. I think it's more -- Julie, I think it's more about getting people into a setting where they can use the Internet than anything else.

Dr. Susan Levy: I would add to the point that the idea of the tipping point and the digital divide. I think you have to look at the NAAL data as a few years old because of when it was collected and things have changed so fast so quickly. And you cannot exclude the use of cell phones now and all these smart phones and things. It's just a changed world.

Dr. Sandra Baxter: It really is. That's an excellent point. A question here from P.M. about health disparities. What role does culture and language play in building health literacy skills of African Americans and other racial and ethnic minorities?

Dr. Ian Bennett: Well, I think Andrew mentioned earlier how really critical it is to be very mindful of the particular context that you're working; whatever the public health and adult literacy setting you're going to be moving in to. We see over and over examples of large projects that do not pay attention to that and I think suffer as a result of it.

But culture and other socioeconomic issues are critical and I would just step right in right in line with Andrew's point and Susan I'm sure you agree with this too, that you've got to have

the folks that you want to work with part of the process to make sure that we're not just inventing programs in our offices that we decided that we're going to push out there, but rather have people -- folks who are really from the community and can identify things that are either going to work well or not well. That would be my main response to that question.

Dr. Andrew Pleasant: I would just add language is one of the most important ways that we learn culture. So, to separate them is almost an untruism because they're so intimately bound up with each other and the only way -- I think we're going to reiterate this point multiple times to make sure that the language that you're using matches the cultural world of the people you're trying to reach is to ask them and bring them in and have them check it because from the very beginning of our lives language and culture come together. We're taught that in school. We learn the rules of culture in school through language. If we choose to not pay attention to those rules we get expelled and the problem compounds itself from that point forward in life.

Dr. Ian Bennett: One example just to add one thing that comes to mind is the ABE -- there was a very nice program. There are examples of very nice programs in which learners, adult learners are actually integrally related -- involved with the development of curriculum. I think that's a great way to avoid making inappropriate curriculum.

Dr. Sandra Baxter: Good. Carolyn from CDC has sent us a question. She'd like to know, Andrew, you mentioned that health literacy may be put into an accreditation scheme by the Joint Commission. Carolyn would like to know what that looks like.

Dr. Andrew Pleasant: So would we all.

Dr. Sandra Baxter: What tangible practices aside from plain language and cultural competency are or should be included in health literacy improvement? What specific policy changes do you think need to occur to improve health literacy?

Dr. Andrew Pleasant: There's a question for you.

Dr. Sandra Baxter: It's one we could take all day with.

Dr. Andrew Pleasant: I don't think any of us are on the Joint Commission's Health Literacy Task Force. I'm not sure, though, so we can't really speak for what their plans are. They did put

out the white paper on health literacy and I believe there's currently a call for participation in developing those accreditation standards. I nominate myself just to throw it out there. I want to see what they come up with.

It's the same -- they're going to face the dilemma that I just described. Are they going to keep it to a very narrow and simple idea of the health literacy is just about reading and writing or are we going to open it up and say a hospital is a living, breathing institution and health literacy permeates through it so that you have to figure -- what we did with my students we interacted with staff. We interacted with the building itself and we found health literacy barriers. Now, that would be the first step, but far from the last step. There's a lot more that can be done within the hospital setting from a health literacy perspective and I would hope the Joint Commission sort of takes an aggressive position on this.

Dr. Susan Levy: It's a very, very difficult issue just, for example, with confidentiality being a greater -- of greater import today and of greater structure in hospitals and patient relationships. What kinds of interactions do you measure that are appropriate in the terminology of what is patient confidentiality? These are very, very interesting times we live in, but I think the biggest policy issue that needs to be addressed and this has to do with the insurance industry, Medicare, you name it, is that health education or health literacy needs to be part of things that physicians, nurses, nurse practitioners or the offices where people are dealing get paid for.

As far as I know the only educational interaction that is absolutely paid for by insurance at this point in time - that I'm sure of anyway - is diabetes. I'm not sure, Ian, maybe you can comment on others, but I know that if you were in a physician's office you wouldn't be paid for the time you spent educating your participant in their own healthcare. So, that's probably the biggest policy thing and the biggest policy block is in fact the confidentiality issues. So, I'm sure the Joint Commission is probably toying with this as we speak.

Dr. Ian Bennett: As a suggestion, since the question was asked, being on the committee in our hospital at the University of Pennsylvania my recommendation would be to require a process and some kind of self auditing process in which the nurses, for example, at a particular unit are reviewing what is the signage in a particular area. What are the materials that are being

handed out? A process that makes all of the members of the staff and the physicians as well at every level really aware of the issues. And it becomes more of an ongoing part of CQI or Continuous Quality Improvement source of activities.

Dr. Andrew Pleasant: I think the important question is who does the monitoring? I think, again, as we said who better to help decide what's right and wrong about the hospital than the people who the hospital is supposed to be serving. As I often say about myself I might be an expert in the study of health literacy, but the real experts in health literacy are the people that struggle through these issues in their lives every day. We need that voice in this process in some fashion.

Dr. Sandra Baxter: We've had a number of questions from viewers about research. This one seems to be coming through a bit. What kind of research is most lacking? How can we fund research that addresses multi sectors, i.e. literacy and the health fields and that will have an impact on different sectors?

Dr. Ian Bennett: I think each of us probably has a slightly different idea about which is most lacking. I certainly -- the reason that I presented my work in my interest in maternal child is that's an area that is a huge use of health services for anyone under the age of 50. For women, that is by far -- maternal child health is the large user of services. If you include pediatric care then that really takes up a big chunk of health service dollars. I would encourage more investigators to be involved with literacy and health in that particular area.

Dr. Sandra Baxter: Okay.

Dr. Susan Levy: I have a public health perspective that health literacy is a part of health promotion and disease prevention across the board and through the life course. My fear is that health literacy gets completely co-opted by patient care and the healthcare system when most people spend more of their health life taking care of themselves and their families without the healthcare system and trying to maintain good health and disease prevention and activity. So, there's a tension there within funding streams to make the case for health literacy based on the deficit model.

This is what it's going to cost you if in hospitalization, which is absolutely true. But on the other hand the deficit model also works for health promotion and disease prevention in the well care model.

Dr. Andrew Pleasant: I think I will not disagree, but extend the answer. We spend in health literacy perhaps an inordinate amount of time identifying what it is that people can't do and we've spent very little time understanding what it is that they actually can do with the health literacy skills that they have. We've been focused on the below basic level, for example, and there's really nothing to counter the argument that the health effects that those people are experiencing at the below basic level might not be about health literacy. That might be the base line healthcare that you get in the U.S. So, we really do need to look at the flip side of the coin. Exactly how does health literacy work when it works?

Dr. Sandra Baxter: Ariel from Emory University says that she finds Dr. Levy's study interesting in assessing knowledge and intention change. Do you know of any studies that have been done to assess behavioral change?

Dr. Susan Levy: One of the reasons we chose efficacy and intention as some of the behavioral models that we looked at in our work was many of the health promotion and disease prevention issues that we would talk about. For instance, when was the last time you did go to a physician for a physical or something like that as an example in any of these areas? Maybe a once a year, once every other year, once every 10 years if we were talking about colonoscopies for some. So, we would never be able to measure some of those behaviors in a 42 hour one semester essentially study. So, I think that's the same problem that others have in measuring some of the long-term goals. So, in answer to your question, yes and no, but those are the reasons why you don't find too many yeses.

Dr. Ian Bennett: There is work specifically in the context of adherence to medical recommendations. So, while there's also an association between non-adherence and lower literacy there's also -- there are also randomized controlled trials around diabetes in particular and congestive heart failure that have shown an improvement. In fact, very interesting work. One author among others showing that for an intervention that addresses some of the obstacles that we imagine are faced by adults of low literacy with congestive heart failure, it actually seems to work better for folks with lower literacy than those with higher literacy.

So, it appears that one interpretation is that lower literacy actually creates a relatively fixable barrier for adults who

have low literacy, whereas those who are not adhering well but have higher literacy have other issues going on that weren't addressed. That's taking the data a little bit further than maybe Mike would like me to do. There are some interesting things about behavior change within adherence.

Dr. Sandra Baxter: That is interesting. Ian, you mentioned earlier the Commission's Health Literacy Act. One viewer, Laura, would like to know if you'd give the reference, the full reference to that or if you could repeat that reference again for her.

Dr. Ian Bennett: I don't think it was me.

Dr. Andrew Pleasant: I think I did. The Health Literacy Act -- it was initially labeled the Health Literacy Act of 2007 sponsored across the aisle, but I don't believe there's been any progress given the current sort of where we're at in the political cycle in this country. As a matter of fact I'm fairly sure that it was introduced to the committee that both Clinton and Obama are on. So, it was clearly not going to go anywhere for a while. I think now we just have to get past the next election and hopefully there will be renewed interest in pushing that forward.

Dr. Sandra Baxter: You know, we started off our discussion talking about the differences in definitions for health literacy. Here's another definition kind of question for you. [Audrey] would like to know -- let's get us all on the same page when you say "adult". When you say adult literacy, what do you mean? And also, are all of us lifelong learners?

Dr. Ian Bennett: Well, for habits and for convention we talk about -- we say someone has basically from an epidemiologic point of view we start thinking about 18 year olds as being the kind of cut off. But for the now, for example, we start at 16 and it's a national assessment of adult literacy. So, there are a lot of things we could say about that.

There are different kinds of large assessments of cognitive development, for example, that have plateaus that sort of start around 16. It's developing up until then and it's sort of the same score straight across until 65 or so, around there, when it starts to decline, unfortunately. So, I think that unfortunately what I think of when I think of adult literacy is even if it's someone who's still in school or still developing their literacy I do think we're all adult learners and that's

why I think there's so much promise for the link between adult education and adult literacy -- adult education and public health and other health interventions.

I think one of the things that's really great as compared to educational attainment which is a fixed variable basically. When someone is 19 it's how far you've got by that point. Right? And that's pretty much it. Whereas literacy is a skill that really can be developed. The data we've seen here -- maybe health literacy can be developed a little bit faster, more efficiently. There's just lots of promise and we shouldn't be cutting people off based on the artificial age.

Dr. Susan Levy: I did have an artificial age cut off. We had, as everyone knows, had to go to our institutional review board so we defined health literacy in our study as 18 and above. It went from 18, just a few people at 18, to a few people around their low 70's; I think 72 was our oldest person. Most of the load of adults were somewhere between 25 and 35.

Dr. Sandra Baxter: Okay. Actually, that's a wonderful segue into the next question. A majority of our trainings and research focuses on that of the individual -- focuses on the individual's role. What are your thoughts on how to best improve health literacy from a public health perspective, particularly focusing on defining standards of practice and/or specific educational competencies? So, thinking about it from a systems approach.

Dr. Andrew Pleasant: Well, there are competencies for public health education that begin to address health literacy, but much like medical school curriculum they haven't fully embraced the idea yet. There's an accreditation scheme with a CHES, a Certified Health Education Specialist, which should address health literacy, but I believe there's only one question that you could say actually pertains to health literacy. So, from an institutional and accreditation perspective there's a lot to be done.

In my trainings that I've personally given to public health departments I find that I tend to be the first person who's spoken to them about health literacy. It's not vested in that sort of academic background yet to the level that it needs to be, but that's as true for clinical and medical schools as well. So, they both have a long way to go.

But it's not just departments of public health that deal with

public health. There's a lot of things we can in K-do an education, college, advanced degrees studies, other technical training programs to kind of alert people to the forces that are in society that affect their public health.

One, for example, now the U.S. is one of two countries that still allows direct to consumer advertising. That is a huge impact on the population's notion of public health. People have been given no skills to sort of weave through that. And I will not get on a soapbox about that.

Dr. Susan Levy: The Society for Public Health Education, which administers the CHES accreditation actually for many years, has been in what I would call the broader view of health literacy. One question on the CHES exam does not really reflect the very, very active role that Sophie has played in this for many, many years. This is the place where the public health ears -- you hear one definition and it kind of negates what isn't being done, but there is a huge amount that has been done. Sophie has done a lot of work with the disparities education and making the behavioral sciences more and more a part of health promotion. So, it's there, but it isn't in the same language that we want to kind of coalesce it in.

Dr. Andrew Pleasant: It's a "yeah, but...."

Dr. Susan Levy: No, it's not a "but"; it's there. We're talking about your language and our language which is a problem we can't solve in one panel.

Dr. Andrew Pleasant: If you could highlight it in the accreditation scheme it would be helpful.

Dr. Sandra Baxter: Dr. Levy, Greg from the Florida Literacy Coalition would like to know if you feel there is something unique to the topic of health literacy that allowed for the literacy skills development in your experimental group. Do you feel that similar results would apply in other areas of theme-based instruction?

Dr. Susan Levy: I don't know. I don't know. I think that health is always a very engaging topic because everybody always has health issues or someone in their family does. So, it makes for people to be interested. One of the things that I would encourage though that we found out. Due to research, we try to implement our curriculum all in a row and get it through in one semester. That's the only way we could measure.

But in reality we were told by the adult education teachers that integrating it would be far better for the adult learners with civics and math and other issues like that because it would keep their interest even more. So, I don't know the answer to the question whether you do it. But I do know that keeping track of what you're teaching and having a road map for any curriculum is just good educational practice. So, I think that would strengthen what you would get, but I couldn't say for sure.

Dr. Sandra Baxter: Another question that's interesting that's coming up is: What has been the role or is there a role for the faith community in advancing health literacy and improving health literacy?

Dr. Ian Bennett: Yeah, well, of course. We want all interested parties and the faith community, of course, has long standing interest in the health of the members of the community. There are areas where sometimes there are difficulties with crossing certain kinds of boundaries around health, but there's so much out there that everyone can agree should be addressed that there are partners on both sides of the health world and the faith world that can be found. And I just encourage people to seek them out for particular projects. It need not be a topic that's sensitive to a particular community. There's lots out there to be bitten off.

Dr. Sandra Baxter: You know, a number of our viewers want to hear more about your opinions about collaboration and how collaboration between the health field and the literacy field can be advanced. In particular, we're getting questions around the issue of how can literacy programs sell the value of health literacy to the health field and encourage that collaboration?

Dr. Ian Bennett: Well, at this particular moment I think we're kind of early on in developing this. I think that as there is actually literature that comes out on some of the studies that we've been talking about it will be easier, at least from the health world, I'm going to want to see -- I'm putting myself in another person's shoes -- I'm going to want to see how is this going to work? How is it also not going to take away from what I'm already trying to accomplish?

So, I would encourage adult literacy folks to approach public health organizations or public health -- the local Department of Public Health and ask is there someone working on health literacy? We'd like to participate. The same way with

particular hospitals or community hospitals. They're going to be directed to someone and I would encourage them to use the reports that are already out there; the National Assessment of Adult Literacy and another very helpful thing the JCHO white paper. It's not an actual requirement yet, but you can argue you're getting in on the ground floor.

What can they do that's actually going to work for the two organizations as usual? How do you collaborate in a way that will not -- it's always value-added and not taking away. Can you bring resources together? We have bodies of people we would like to interact with, the patients that you have. We can do a class. We can have an instructor come and do a class and likewise for the physician's medical side, public health side, they are trying to get to learners and perhaps they could do something at the adult education sites. Then they can grow and go both ways. That's the way I would say from my experience those edges where they most naturally come together is the way to start.

Dr. Sandra Baxter: Good ideas.

Dr. Andrew Pleasant: The few themes that seem to resonate with people as they begin this discussion. If let's say you're from the literacy community approaching the health community and those three that really stand out and we have data to support this would be reduced costs, improved health outcomes and lower liability, which is something we haven't talked about at all. So, those three can open the door to begin that discussion. There is enough data in the reports that Ian mentioned and elsewhere that say, okay, we have a really good idea that this is going to be the outcome. Let's see what we can do that fits us.

Another area that is often not discussed, there's I believe, a very perfect marriage between health literacy workforce development and hospitals in communities especially those that might be serving a lower income neighborhood. Often the work force comes from that neighborhood and you can partner around those issues to do a work force development project around health and help people move up in their employment opportunities within the hospital itself. So, there's really a variety of ways that these organizations can work together and most of them have honestly not been that well explored yet.

Dr. Susan Levy: I would just like to say that the easiest way to think about any of this is a very targeted approach because

health literacy is very much specific oriented. It might be a life course event, child bearing. It might be end of life. It might be different educational opportunities that people see as very important during certain stages of their life. These offer inroads to getting your foot in the door with an organization. If you can come to them and you can light on a joint topic, not the whole of health literacy, because that's too much to take.

Dr. Andrew Pleasant: Or a joint audience. You might say, "We both serve this population. What have we missed that we're not doing together that we can magnify our results and then health literacy becomes the glue that holds the two together?"

Dr. Ian Bennett: One other suggestion; I'm sorry. I think there are a couple things that came to mind. There are actually programs out there; one I'll pitch - the Baby Basics Program, which there are others, too. But a really wonderful program that's really set up for prenatal care. There are many prenatal care units that would love to -- just don't know about it and they would love to incorporate the material. There's a whole component of that that includes opportunities for adult literacy education. Then you have the adult education site going to a place and saying we have this material. We'd love to partner with you. Boy, I think that would likely flourish.

Dr. Andrew Pleasant: I think I can just hear the "what to expect foundation". That's great.

Dr. Sandra Baxter: We've talked about the faith community. We've talked about Adult Ed programs, health institutions. Here's a question about libraries that we haven't addressed yet. Sabrina Kurtz-Rossi from the Medical Library Association says, "Public librarians and hospital-based medical librarians are increasingly involved in health literacy work. Many public libraries offer adult education and commonly help patrons find the health information they need. Medical librarians are increasingly working with patients to help them learn the skills to search the Internet for accurate health information."

My question is for all three presenters and this is it. How do you see a librarian being of help? What role might they play in supporting the health literacy education programs you're involved with?

Dr. Andrew Pleasant: How long do we have?

Dr. Sandra Baxter: We have about five more minutes.

Dr. Andrew Pleasant: Just quickly. Sabrina, there's a ton -- there's a lot of ways that this can be done and I think everybody knows it. Here's just one example that I currently found quite fascinating that's starting to emerge in the place I'm working and that's this idea of book clubs targeted at different sectors of the population. The linchpin of the relationship was in fact the librarian because that's where the books have to be housed and that's where the knowledge of sort of how the book club can work. The possible books that are out there. All of that knowledge and more is there, but then you still need the healthcare system to come in and say, "Okay, you've read a book about" -- I'll pick a topic -- "diabetes, but we need an expert to say here's diabetes in the context of this book." And then what happens when it works is in the [Frarian] tradition people read the book and then they read their life. They read the word and they read the world and they made the connection between the two. The librarian was critical in that relationship.

Dr. Sandra Baxter: Any other thoughts?

Dr. Ian Bennett: I would just encourage librarians across the country to think about how they might be able to host some kind of -- or facilitate some kind of interaction. It's a community resource that really can include various kinds of bridging of the health worlds and the reading education worlds.

Dr. Susan Levy: I think -- I had an experience up in Wisconsin. NIFL sent me to speak at one of the meetings in Madison. One of the people who was very active in the meeting was in fact a librarian. I believe Verizon is the funder for a lot of the literacy things. She had run quite a few adult and health literacy segments at her library and was encouraging a lot of people to get involved at that level. So, I don't know how national it is or how Verizon actually interacts, but obviously Andrew is totally correct.

Dr. Sandra Baxter: Well, Susan, Ian, Andrew, thank you so very much for an exciting conversation; very informative discussion. To our viewers, I want to thank you for tuning in today. We've received many more questions than we have an opportunity to answer right now, but we will take these questions and we will develop the responses to them from our panelists and we'll post them on the institute's website along with the presentations at www.NIFL.gov.

Again, I want to say thank you to my wonderful panelists for your informative and thoughtful discussion that you've generated with our viewers today. And I want to thank you, the viewing audience, for joining us today.

This is Sandra Baxter for the National Institute for Literacy. Thank you for joining us.