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PRESENTATION

Operator

Good morning and welcome, ladies and gentlemen, to the Nursing and Diabetes Cure audio teleconference. At this time, I would like to inform you that this conference is being recorded and that all participants are in a listen only mode. At the request of the company, we will open the conference up for questions and answers after the presentation. I will now turn the conference over to Tisha Keller. Please go ahead, ma'am.

Tisha Keller

Good morning. Continuing with our series of audio teleconferences, the Florida Department of Health, (inaudible) prevention, the Diabetes Prevention and Control Program, welcome Dr. Allen Hutchinson and Dr. Barbara Yawn, who together will discuss the topic of nursing in diabetes care. Well, diabetes is a chronic disease. Episodes of diabetic emergency arise quite often. Generalists provide the majority of type 2 diabetes care but most of it is (inaudible) practitioners (inaudible) for acute problems.

In addition, nurses or those with nursing background, provide much of diabetes education and care in clinical and community settings. This nursing care makes an important contribution to the overall diabetes case management. The difference between specialty nurses and generalists in terms of diabetes training can be great. But much of the general diabetes education and care, falls to the generalist nurse. Not much is known about what the generalist community nurse perceives as their current and fixed role in the management and care of people with type 2 diabetes. Our first guest speaker, Dr. Barbara Yawn is the Director of Research at Olmstead Medical Center in Rochester and a clinical professor at the University of Minnesota. She received her medical degree from the University of Missouri and is board certified in family practice and medical

examination. In addition, Dr. Yawn has a Masters of Science in Family Practice and also an MS in Clinical research Design and Statistical Analysis. Dr. Yawn is a member of the US Preventive -- Services Task Force and has served on the Obesity, (inaudible) Committee and the WHO sponsored executive board of the Allergic Rhinitis Impact in Asthma, among others. She has years of experience in medical research, family practice and research consulting. Our second speaker, Dr. Allen Hutchinson, comes to us from the University of Sheffield in UK, where he serves as a Professor in Clinical Public Health and is the Director of the section of public health for the university. He was part of the busy general practice office in northern England before moving on to various appointments in public health policy and management. In 1993, he was appointed to the chair of public health at the University (inaudible) opposed to combine with being director of public health for a population of 600,000 people in east Yorkshire. He was appointed Professor of Clinical Public Health at the University of Sheffield in 1997 and Deputy Dean in 1999. Dr. Hutchinson is involved in many professional associations including the Royal College of General Practitioners and Diabetes, UK He holds many honorary responsibilities and awards such as Visiting Fellow, National Center for Epidemiology and Population Health, Australia National University. We are honored to have Dr. Yawn and Dr. Hutchinson with us today. I am now going to give you some important CE information related to today's call. The Big Bend Area Health Education Center approved this program for 1.5 contact hours. Nursing provider number FBN 2654 -- nurses who want to receive CE credit must sign in on the sign-in sheet provided and provide his or her license number. In order to get CE credit, nurses must also complete two forms provided by the DOH. First is the AHEC program registration and second is the Florida AHEC network impact survey. Each site administrator should send the sign-in sheet and the completed form to Tisha Keller, Florida DOH, 4052 Bald Cyprus Way, A 18, Tallahassee, Florida - 32399 by April 29th. You may also fax completed forms to 850 245 4391. CE credit will not be issued to participants who have not signed in, provided their license number and completed the required form. Join me in welcoming doctors, Yawn and Hutchinson

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Dr. Barbara Yawn - Director of Research - Olmstead Medical Center

Good morning and thank you. I am very excited about this opportunity this morning. I think this is a wonderful way to get to provide education without all of us having to travel, so I look forward to it. I am going to assume that everyone has their slides and we will be going through the slides in this presentation which I have entitled, Are we prepared for providing chronic diabetes care?

On the second slide, you can see that most primary care is longitudinal and that's how we identify ourselves as a group of people who take care of patients over a long period of time. But most of our care is actually episodic. Someone comes in for a cold or sore throat, a stub toe, even a broken arm or in diabetes they come in to get their blood sugar checked, to get educated about diabetes, or to (assess) an infection and often, we get so involved in that single visit, we forget the longitudinal nature of the care and the fact that, that education about their diet may go on over a period of months or even years and we don't have to tell them everything all at once.

On the next slide, you can see that our office systems are usually structured to provide acute care. We usually ask for a single sheet complaint, we don't ask them about all of the other conditions they have and most people with diabetes have multiple other conditions. We have a very short time frame, the receptionist probably has 30 seconds to talk to the patient, the nurse or nursing assistant who rooms the patient, may have two or three minutes to take them from the front lobby into the room, get their blood pressure, get everything ready and leave the room. The clinician who is seeing the patient, has on average about ten minutes. So we can't do a lot, it seems, in that short a time, unless we have the systems in place to do it.

It is very inconvenient in most of our practices, to add something on. So if the patient comes in or a client comes in and want something for their sore throat and at the last minute says, oh by the way,

could we get my hemoglobin A1C or could we do this or that or I have another problem, it is difficult and our practices are not structured to do that because we have another person waiting for us in another three or four minutes. We do have some things that can help us with chronic care. We have problem lists which hopefully we keep upto-date and they are useful to quickly glance down and notice, oh, this person has three or four other problems and we have medication lists, which hopefully are kept upto-date and can be important. But those are only two very small things that we have, that can move us from an episodic case to more longitudinal care. What I was interested in -- I am going to tell you a little bit now about a research study that I did and this was based in my interest as being a royal family Doc for 14 years before I started doing research, I worked in a town of 10,000 and was one of about five primary care physicians in that community.

I wanted to know do we structure visits for acute problems differently, than we structured diabetes care visits. My concern was that most diabetes care -- we are actually giving only acute care and perhaps not addressing it as we should, for a chronic care problem. The study uses information from a direct observation research project, that was funded and took place actually in Ohio and in Nebraska where a research nurse was in the room with each patient and every 15 seconds, recorded what was happening between the physician and the patient.

It's important to realize that this focussed only on the physician interaction which is only one part of the whole visits but that's the part that I have information on, so that's what I looked at. The next two slides talk about the direct observation categories and these are the things that could be recorded every 15 seconds during those visits, so you understand how the study was done. They could say that the physician and patient were engaged in history taking or health education or chatting or procedures or as you see on the next slide, nutritional advice, counseling, exercise advice, some of these as you can imagine, weren't always easy to distinguish from each other. When is it counseling and when is it compliance or when is it smoking behavior counseling?

So there is some judgment in these but if it was for a specific topic that the counseling addressed nutrition or smoking, we attempted to put it in those specific categories. So this just gives you an idea of what could have gone on, in the visit. The next slide shows you some of the results. For the acute care visits and these were things that were not diabetes related and were not related to any other chronic condition nor were they follow-up visits for pneumonia or something else where two or three visits would occur but these were for a new acute problem.

During those kinds of visits, there were more procedures done, procedures including blood cultures, blood drying, using an indirect ophthalmoscope or some other instrument that is not part of the normal physical exam, they were about 1.8 problems discussed per visit, so you can see, those of us that are in family medicine, don't just do one thing at a time. We always have more than one problem but this is overall -- were less than ten minutes in total and they were focussed almost entirely on the initial problem, even though another one may be discussed.

On the other hand, visits for diabetes were more likely to be in older people, since diabetes is more common in older people -- addressed ,ore problems. In fact, 2½ problems on average, you can imagine addressing 2½ problems in 11 to 11½ minutes. So the visits were a little bit longer than the acute care visits and on average, people made more visits for a diabetes, than they made for acute care, in each year.

The next slide, gives you the categories in total and I am going to give to you a second, just to look down through those. For example, history taking was about the same percentage of the visits. The numbers are the percent of time in the visit. For example, history taking was 57 percent of the time in the diabetes visit and 57½ percent of the time in the acute care visit. So you can see, history taking is the basis for most of what we do. As you look down, you will see that there are some differences and differences of 1½ to two seconds are usually considered as -- it is not seconds, I am sorry -- percents are usually considered significant. If you look down to nutritional advise for example, there is

considerable difference between a diabetes visit and an acute care visit. That makes sense. Most of the acute care problems, really don't need much in the way of diabetes advise. A sore throat visit or a head ache visit, you probably do not talk much about diet. You may if someone comes in for diarrhea or gastroenteritis but on average, you don't. Exercise advice fortunately, was also more common in the diabetes visit. Compliance assessment, whether or not people were able to follow-up with the procedures, the diet, the exercise, the use of insulin or other anti-glucose drugs or the diabetic medication. Health promotion was more common in the diabetes visit. Some of the things that are interesting is negotiation wasn't very common in either type of visit and we will come back to that in a little bit.

You can see, as we go on down on the next slide, physical examination, little more time in the acute care visits than in the diabetic visits and procedures, you can see, there is a significant difference. We already talked about that. Smoking behavior assessment wasn't quite as common as we might like. We didn't spend as much time, in either group and assessing the patient (inaudible) knowledge, there wasn't a great deal of time in either group for that.

If you go on to the next slide, this is a chronic care model and I think this helps us put in perspective, what the diabetes visits look like and what we hope they would look like. This is Ed Wagner's Chronic Care Model and it's a little bit (inaudible) but I want to just walk you through a little bit of it. The white circle over the health system or health care organization part -- this is the part that I think is important with the system. We need to have systems that make it easy for us to deliver chronic care. We need to have good clinical information systems that make it easy for us to deliver chronic care. We need to have good clinical information systems. So we can find out what the hemoglobin A1C is. We know immediately what medications were prescribed. We know the last time that we did a foot examination and eye examination on this patient. We need decision support tools, if the hemoglobin A1C is elevated significantly, what would be the most appropriate approach.

We need education, so that we can do this again and again but in a longitudinal nature. So you know exactly what was covered in the last educational visit and you know what your goals are for the next one. But more importantly, you know what the patient's goals are for education and whether we have met them. Those are the clients that help system -- information systems that we all need. We need community resources and policies. There is no question about that, whether it's school or workplace and when you put those together, we hope that we can help those -- to develop an informed and activated patient with a prepared proactive practice team and we think that's how we are going to get the best outcome.

Did our visit suggest that we have those? Our visit suggested that we were spending time doing some of those things and our visits did look more like a chronic disease where we use some of the decision support. But we really don't know if that we met most of those through the study. What do I think the implications are? I think the implications for our study are that primary care physician's diabetes visits are based on an appropriate foundation. They do give nutritional advice, they do look at compliance assessment. They do talk about test results like the hemoglobin A1C or urine protein, urine micro-albumin. They do give exercise advice and they do give health promotion.

On the next slide, you will see that I think there were some things that might have been missing or inadequate though. Negotiation was a very, very small part of all of the visits. I think it's difficult to think about patients centered care without thinking about negotiation. How can I possible center the care and what the patient wants, unless I negotiate with them, about what it is that their goals are and what their interests are?

The procedures I have a little bit of concern about, certainly it makes sense that there aren't a lot of procedures, but are we doing some of the things like testing for neuropathy? There are some very simple tests like the monofilament that you use, just a very fine filament like fishing line to check for sensation. Are we checking eyes? Are we looking at the fungus of people with diabetes to see if they have any of the

early changes. Smoking advice -- yes, they were getting a little bit, but not nearly enough. Smoking is a huge problem for cardiovascular disease and so is diabetes and the two together is more than just a double (whammy) it's probably -- at least a triple whammy. Alcohol and substance abuse was addressed very infrequently. And I think some of these areas, are areas that if we had included the interaction with nursing staff, we might have found that some of these things are happening there. I think nurses are an excellent resource for understanding the patient from the patient's perspective. I've always known that when I talk with patient and the nurse that I work with, talks with the patients, they are much more likely to tell the nurse things than they are me. Perhaps because they perceive I am busier, there are things they don't want to tell me. I don't know all the reasons, she may just be more friendly and open. But I think this is a traditional role that has been very, very important and we need it as we move more and more toward patient centered care.

Smoking advice is pretty straight forward to start with and something again, that I think can be reinforced with both the nursing personal and physicians and again this is going to move as much farther. The last slide just reinforces these, we need the team work. If we are going to move these chronic care visits forward, we've got to have the negotiation, the health education as Crews pointed out, is frequently done by nurses and I think that we have got to make sure that we work as a team, so that the physician knows what the point of the nursing education is, so that we can reinforce it and so you can understand what I may have said in the visit. We need to talk with each other. And it needs to be a much broader health education than simply dietary advice. Dietary advice is important, but most people with Diabetes get tired of hearing about just their diet, they need lots of the advise about how do you start a simple exercise program, how can you exercise even just sitting in your chair, how do you make sure that instead of making one trip to the kitchen for five things, then may be you make five trips to the kitchen, and how about getting rid of the clicker for the TV? Health promotion advice -- again I think this is very important, we know that having your health care provider mention smoking is one that the most effective ways to start. So I think we need that kind of teamwork. In summary, the diabetes visits that we found were tailored to the patient's condition. But I am still not sure they were tailored to the patient's needs because I am not sure we ask the patients well enough, what their needs were. How do we move from where we are, to easier chronic care or that is the right -- and for the simplest thing to do and the easiest way to provide care is with this longitudinal chronic care model in mind. With that, I'll turn it over to Dr. Hutchinson.

Dr. Allen Hutchinson - Professor in Clinical Public Health - University of Sheffield

Thank you and good morning all. Perhaps I should say from the United Kingdom, good afternoon because it's 3:30 in the afternoon here. This is an interesting and quite challenging thing to do. I have to say that this is the first time I've undertaken one of these presentations over the telephone and certainly at this distance. So I hope that the pace and the slight difference in my language is manageable. Before we discuss the study and our results, I thought it would be useful to set this UK research into some sort of context that this is a work in Florida that could engage with and as I tried to work out what the best comparative model might be, I decided that to explain the national health service, the best model that I could think of is a comparison with a very large health maintenance organization, one that covers 60 million people, run at a state or regional level where primary care and secondary care centers are linked together by referral pathways and often by professionals who know each other to some extent because they work in the locality. So it's a very stretched system.

It is actually quite like the new model of the veteran's administration were care is free, although in the UK actually, diabetes therapy is also free to everyone of all ages. So in theory and in some places in actuality, the setting of care for -- care of people with diabetes, actually is able to support this practice. Secondly, just as in an HMO, there is national best practice guidance available, in the form of a national diabetes care strategy. I suppose rather like the Florida

Department of Health strategy for diabetes education, we have a program that suggests how care should be organized, with an emphasis on type 2 diabetes being managed in primary care.

There are also now, national evidence based clinical practice guidelines. So there is a strong evidence base to underpin good practice, and that good practice is suggested as being the type 2 diabetes care, mainly being undertaken in primary care, with some reference to secondary care, under particular conditions. Certainly, I think it is important also to note that though the conditions for good practice available in the United Kingdom, there is still a great variation in the range of care provided to people with type two diabetes. Not all people with diabetes are provided with sort of chronic disease management programs that Dr. Yawn has referred to. So we haven't got it right here yet, either.

So why did we decide to undertake this research? Well, there is a growing evidence based in the United Kingdom and it is an international evidence base. Its available on the Cochran Collaboration websites. That shows that structured primary care for people with type 2 diabetes, provides a very similar mortality outcome to standardized hospital care for diabetes. So there is not a downside to providing diabetes care -- in primary care. Secondly, the evidence suggests that it is not episodic care which is the aspect of care, which provides reduced mortality, but it's programmed care. So the acute sort of care that Dr. Yawn was alluding to, is something which we need to try to avoid, in managing chronic diseases such as diabetes and in my view, particularly in diabetes. So, it's obviously worth doing, (audio break) and also in (inaudible) our country, and perhaps in other countries that generalists particularly, haven't recognized the seriousness or the true nature of type-2 diabetes that is, actually a very serious illness. It's a combination in my view, of toxic blood glucose levels and major and minor small vessel disease that presents often with a late consequence of people with already established pathology.

For example, many people present at their first indication of diabetes, already having established retinal disease, and often with established coronary -- heart disease, that's more difficult to identify straight-away. And yet it's a disease in which routine care and partnership of patients, can enable us to minimize the impact of the disease. So the question for us was, who are the nurses who are engaged with this process, the specialist nurses, ie,, the nurses who tend to work from hospital often with -- responsible for a group of patients who have been referred to the service from primary care, just as you might find in an HMO, with -- preferred providers or primary care ambulatory clinics, referring to a secondary service.

How do their views differ from the generalists, who are usually employed by the family practice, how do they view changes on the professional lives, that new health policies are making or demanding of them? And in particular, how does and how might cor-ordination work between these different players? So to place that ensuing discussion in context, I also want to pick up very briefly, the two types of care -- tough ways that you might see in the United Kingdom now, still the traditional and increasingly the shared-care managed process. So if I were to typify
what I might call the traditional approach to diabetes care. it would be -- dare I say it in an almost old-fashion model, in which someone in primary care, perhaps a nurse who is testing somebody's ear and because they've got some local symptom, for example, or, as part of a general screening check, might find that the patient has (inaudible), they might do an initial check on blood glucose or an HPA, once he finds it was abnormal, decides this patient might have diabetes -- might have type two diabetes and immediately seeks specialist opinion and assistance in managing the condition.

So that might involve a patient attending a specialist in a hospital or an out-patient service often on a regular basis. The primary take care team might then be involved in say, in providing prescriptions for medications and then in dealing with acute episodes. But perhaps at a rather limited skills level, since most of the skills are at the hospital and the doctors and nurses don’t get much of a chance to refine them. And for nurses particularly, this may mean that contact with people with type 2 diabetes is relatively limited and limited to quite basic tasks. Of course for us and for most western type health services, that

form of care is not constant with national care strategies and shouldn't still be happening but it does. Particularly in places where it's difficult to provide primary care such as in the cities.

So far as chronic disease management and shared care is concerned, again there are actually quite a range of models that one might see and I know in the US, (one sees) them too. So at one end there might be a lead hospital specialist, whose service coordinates care for people of type 2 diabetes -- perhaps dictates more or less what happens to whom , when and how but leaves the regular appointments to primary care and here the primary care team might undertake regular checks, perhaps according to a protocol. Often it is the community or practice nurse who carries out much of this work including much of the basic counseling and self care advice. The doctors perhaps, are more involved with changing prescriptions or managing some of the more complicated complications. The nurse may have some special training but more often than not, doesn't do so, if they are working in primary care. Members of the team perhaps might be advised by a therapeutic diabetes specialist nurse, with more particular expertise.

At the other end of that range, among the primary care teams there are those where doctors and nurses actually become experts in type 2 diabetes care, who determine which patients should be managed solely in primary care as part of a chronic disease management program and who shall have -- and those who shall have shared care but still in the overall care plan of the family practice. So they -- family practice might suggest to a local hospital specialist, we have got a patient here who has something special, something rather more complex. Would you have a look at this and advise us what the best way to manage it is and then we will do the day to day management at a fairly high level and call you in as we think necessary. So there are a range of models that you might see in a chronic disease management program and for the primary care nurse, the generalist, they are likely to be involved here, not only in providing care but with managing care too. They may be managing for example, using the information systems that Dr. Yawn referred to -- managing the call and recall system in the diabetes register and in the United Kingdom, that's actually what -- the new model in which the primary care teams actually have financial advantage in looking after patients in this way.

So that's the overview of the -- NH in the context of the research that we under took. We were concerned to try to understand how different types of nurses in -- was involved in diabetes care and how they felt about these emerging roles. I am actually not going to say very much about the research methods since everyone has had an opportunity to read the papers, and briefly we used a two round Delphi study which is a means of seeking views from experts and experts in this case, means people who understand the role and the job. So that anyone listening to this conversation today, would regard themselves as an expert, as far as the Delphi study on nurse's views in diabetes care is concerned.

So we sought to ask the views about generalist and diabetes specialist nurses. How about the future as they saw it for care of people in the community with type 2 diabetes and how this might impact on their different roles. How those roles might change also in the phase of changing health policy and health strategy. So in the first step of the research, we developed eight themes, as a result of reviews of the literature, talking to representatives of community nurses and diabetes specialist nurses and we identified issues that arose -- which are -- seem to be of importance to most of the people that we had conversations with, they are not surprising.

There was safe nursing and effective nursing, both of them were important issues in terms of diabetes care, not surprisingly. Then there were two areas which each of the specialists groups, the generalists and the specialists identified. That was their very special views on how they worked, the specialist nurses working out of hospitals, across a -- almost a sub-region and the generalist nurses working in their individual practices. Then two particular areas, evidence based factors that facilitated care and evidence based factors which mitigated against good quality care, for example there weren't enough resources or too many cases that needed to be seen in a particular clinic. Then there were two other particular areas, continuing professional development

and how that impacted on the way that nurses worked in diabetes care and the continuing changes in the health service in which they work. That's not particularly distinct for the United Kingdom, is it because I know that there have been lots of different changes in the United States as well. So when we ask the nurses who are working in both these settings, their views on the common concerns and experience of these eight areas. The results in the first stage of the study show that, despite rather different working circumstances, there were many similar views and concerns. That I thought, was good news. So following the second round of the study, we found that we could group these scenes -- these areas of interest into three areas.

First, those relating to nursing care and naturally the main area, there were nurses who would wish to express opinions. Second, the contrast between the views and roles of the two types of nurses, generalists and the specialists. So, the contrasts were also important to us. And third, the place in the clinical team that the nurses occupy and their responsibilities and (inaudible) within those teams. And, I want to come back to that issue about team work that Dr. Yawn's already identified, because I have some special concerns and interests in that area. So, what about the views and the opinions of nurses on factors that might affect their professional practice? Out of those 165 items that we eventually asked about, 85 percent of responses showed agreement among more than 80 percent of respondents. That's a very considerable agreement.

Under the heading of practice and clinical activity, there was general agreement, that safe and effective nursing practice was enhanced by such aspects of professional life as evidence based practice, peer review, team work, good working practices and good clinical supervision for those who needed it. That's not surprising. But, it's good to hear that there was a common consent over that. Continuity of care and continuity advice was also seen as important, particularly in diabetes care. Dr. Yawn has already identified that, that routinisation of people having long term structured advice from both doctors and nurses is a key part of chronic disease management and particularly in diabetes care. So, for instance, that a disease management process might include a long term program of education, shared jointly with the views of the doctor in the practice and the doctors and the nurses from the hospital. But there was less unanimity on the subject of responsibility of care and whose responsibility is it to ensure that there is long term program of care in place for people with diabetes. Is that the nurse's responsibility, is it the doctor's responsibility, is it the responsibility of the primary care provider or the secondary care provider? There was some agreement that, in the UK, moving towards an increased professional -- greater professional responsibility for nurses in the management of chronic diseases and particularly for diabetes, was a good thing.

For example, there is a move in the United Kingdom towards more independent prescribing and towards more nurse led clinics for people with a range of acute and chronic diseases and in my view certainly in the United Kingdom, independent prescribing, might become a very important matter for nurses in future years. Communication skills are also seen as an important part of effective and safe nursing practice and the training for communications skills. There was a worry expressed by some of the nurses, that the lack of these skills is a real inhibiting factor to improving care and we have also heard from Dr. Yawn that it was a little concerning that negotiating skills didn't seem to be to the fore in the management of diabetes in the US.

One of the important factors that arose under the consideration of the importance of diabetes specific knowledge was the recognition that generalist nurses had to be aware of their limitations as well as their expertise, whereas the specialist nurses spend all of their time in diabetes care, of course the generalists tend to spend only a portion of the time in diabetes care. The rest of it may be in asthma care or the management of the stubbed toe or whatever else presents in the -- to the primary care provider. So, there was a difference between the generalist and the specialist. This -- inevitably so at times when two groups of nurses -- one with a generalist's view and one with a specialist's view, see themselves in each other as offering different services and skills. And in this case, generalists were particularly seen as being special in three areas. They often are involved in case finding in one way or another whether there is a

primary care, a prevention program in place or whether its occasional case finding. They were involved in the day to day of diabetes education and particularly in diabetes follow-up management.

In the sense that case finding is part of a primary care based function, actually you could see the generalist, the specialist in that field because nobody else does it quite as well as they do. They are either working with the primary care physician or sometimes even working as an independent practitioner, identifying possible cases and doing initial work-ups. The provision of everyday dietary advice for example and reinforcement was seen as a very important role for the generalist nurses. For the specialist on the other hand, they presented the results in such a way as one could see how complex their role actually could be. Although they were of course undertaking educational processes, really they had to understand what was a rather difficult evidence space. If you look at the evidence space for education and diabetes -- so there are quite lot of research papers about diabetes education. Most of them don't have much of an educational theoretic background. And the nurses who are specialists in the field, actually have to interpret what evidence there is. In a very complex and I think challenging way, the specialists also get involved in quite complex cases. The specialists that we were talking to, for example, weren't just looking after people with type 2 diabetes but were involved in the management, for example of young people with type 2 diabetes, even children with type 2 diabetes or they were involved in the management of complex cases, for example with people with diabetes, ulcers on their feet or with complex psychological problems, often in partnership with psychologists. Finally the specialists saw themselves as being more likely to be the people who would take a lead in independent prescribing and therefore in a position of needing very high quality, continuing professional development programs.

So what were the big issues that we found that were emerging from these policy shifts and from the nurse's views? To beat the challenges of changing the ways in which people with type 2 diabetes are managed -- we thought these issues fell into three main headings. First roles and therefore, responsibilities. Secondly, the interfaces with other professionals, with other types of professionals and with other institutions and then the challenges of changing organizational structures and how patients fitted into those.

We did see in some senses that some of the community based nurses might have too little responsibilities. That is where those practices don't have structured care, for example. And sometimes, they seem to have too much responsibility where nurses for example, were left to manage the primary care service almost without the doctors being involved. So the specialist nurses, the challenge seems to be about concerns with the possibility that quality of care might be less good in the community especially, as primary care was taking more of a responsibility for type 2 diabetes management.

But it might also be a concern of the specialist nurses because they might be seeing their role changing outside of their control. So what does this tell us about the overall role of nursing in the management of type 2 diabetes? Well, foremost I think it tells us that the role of a generalist is more professionally challenging than that of the specialist. While the specialist has the opportunity to be deeply engaged with the subject, the generalists by their nature must have a wider and in some senses, a shallower horizon. As a generalist, it is more difficult to keep up to date with new ideas on the subject. Yet those nurses, both types of nurses are specialists in their own fields and it is the process of managed care across that interface between primary and secondary care particularly, that offers the greatest professional rewards to nurses and high quality rewards to patients. I think however, the greatest challenge is about team work. We heard from Doctor Yawn that team work is important -- about to engage in who has what role and what responsibility. But I think the team role work goes more deeply than that, if one looks at the evidence from the management sciences, team work is actually defined as a group of people which have similar goals and that those goals are shared and discussed. It's not clear to me that diabetes teams always do that. Whether it's in primary care or in secondary care, I think if we're going to try to improve care for patients through managed care, the first issue is to tackle teamwork. Many teams, it seems to me, are not actually teams

but groups of people who work together. And its only by bringing those groups of people together, it may include for example, the receptionist teams as well as the nursing and family medicine teams. It might also bring the specialist nurses and the specialists from hospital sector together in a team which actually agrees the goals of care with and for the patient. If we've got common goals, then we are more likely to be able to develop specialist structured chronic management programs for people with diabetes. So where do we go from here?

It does seem to me that identifying the roles and responsibilities of the nurses who are providing diabetes care is a critical issue. Mostly disciplinary training seems to me the next big challenge for improving multi-disciplinary care. One of the challenges that we spotted was that sometimes specialist nurses might have very useful skills to impart to generalized nurses, but didn't happen very often. So how come we continue to draw these important groups of professionals closer together for the benefit of patients. These are challenges I think are only just being asked and I'd be interested to hear from the audience, how their views are on these new processes might vary. Thank you for your attention. Tisha, I think is now over to you.

Tisha Keller

Operator, we will now open it for question and answers, thank you.

Operator

Thank you. The question and answer session will begin at this time. If you are using a speaker phone, please pick up the handset before pressing any numbers. Should you have a question, please press "* 1" on your push-button telephone. If you like to withdraw your question, please press "* 2". Your questions will be taken in the order that it is received. Pleases standby for your first question. Our first question comes from Margie Baker with Diabetic Type I Organization, please state your question.

Margie Baker - Diabetes Type I Organization

I'd like to know, since you are from the UK, your accent reveals you to be from England, is that correct?

Dr. Allen Hutchinson

That's true.

Margie Baker

All right. May I ask you, is these insulin still recommended in England since that is where most of the world gets it. I'm not from England, from Wales.

Dr. Allen Hutchinson

And I'm sorry, say that again?

Margie Baker

Is these insulin still recommended for diabetic care for the ones that need insulin?

Margie Baker

No, we're moving away from it.

Margie Baker

Do you -- are we talking at all about Type I?

Dr. Allen Hutchinson

No, I don't regard insulin as being the separator between the types of diabetes. It's quite common in the United Kingdom for people with type II diabetes to need insulin at some time in their diabetes career, if you might put it like that.

Margie Baker

Okay.

Dr. Allen Hutchinson

So, quite a proportion of people we find now require insulin. The different types of insulins, clearly are dependent on the response of the patient and -- but we don't tend to use the (b4) porcine insulins as much as we used to.

Margie Baker

But you do still use it on occasion, there aren't as many people that really need it desperately -- as the -- just plain insulin. There is a kind of a different need there and I wondered if anybody realized that or if it were addressed.

Dr. Allen Hutchinson

It tends to be a specialist issue. And so, yes it does, it is addressed. But you know, on a case by case basis.

Tisha Keller

I wonder if everyone understands the -- what maybe behind your question. Can you tell us why you asked that question, please?

Margie Baker

Well, there are a good number of people that most of the doctors in the United States do not realize that beef insulin would control the diabetic and instead of the doctors, I get this from many, many, many of the people that contact my office. They -- blamed their control problems and complication from diabetes are blamed on their own care. And for myself, I take beef insulin from (Wales). And I nearly died when I had to go on the synthetic insulin. My body will not accept it for some reason that I don't know. But there are many peers that I am in contact with, that also -- beef insulin is not, no longer made. We will have a very slow agonizing death.

Dr. Allen Hutchinson

Well, I do appreciate your concern. One of the problems of course, that we have in the United Kingdom is that there are very special health issues related to beef these days.

Margie Baker

Yeah, but that isn't the real issue because no mad cow disease has ever been found to be in beef insulin. And as a matter of fact, the beef pancreas or the cow's pancreas will not transfer that disease.

Dr. Allen Hutchinson

Yeah, sure.

Margie Baker

And I think if this insulin were used on the chronic people that -- I'm talking about a small percent of the diabetics. There are so many, many, many type 2's and I realize that each one of them have desperate problems. But, the one that I'm addressing is the five percent or the type 1's of which, many of them are able to tolerate the synthetic insulin. But the type I's are pathetic because they don't even know they can get it any more because the doctors don't tell them, they might try it.

Tisha Keller

Thank you for your question Ma'am. We have a question here, Dr. Hutchinson. Is there -- are there any plans to educate physicians about these issues or are any outreach effort to bring up these issues on the nursing care and the differences with the physicians?

Dr. Allen Hutchinson

Not structured ones, but in some places in the country there are really quite closely managed in the sense of being professionally managed programs where people do work together very closely. There are also, at a national professional level, the organization which is called Diabetes UK which is like the American Diabetes Association, is increasingly interested in bringing together physicians, nurses, psychologists, people from a range of professions who provide care to people with Type II diabetes. So there is a movement but I wouldn't say that it was uniform or necessarily part of national health policy, yet.

Tisha Keller

Dr. Yawn, were there any -- are any movements in the United States that you know of?

Dr. Barbara Yawn

There is certainly. As Dr. Hutchinson pointed out the American Diabetes Association that are trying to work on this. And there is -- are some schools that are trying to educate, health profession schools, that are doing education with multiple professions working together. But one of our big problems in the United States I believe, is the nursing shortage and the fact that in many ambulatory care settings we have perhaps one RM to work with several clinicians and the rest of the people are probably nursing assistants who may find it very, very challenging since they've unlikely, they've had much education about how to do diabetes education. So I think we have a new problem in the last few years that I'd be very interested to figure out how we're going to follow that, as we have moved away from nursing personnel in ambulatory clinic. I'm hoping somebody out there has figured out how to solve it, that is going to tell us.

Tisha Keller

Are there any more questions, operator?

Operator

Yes there is. We have a question from Kathy Moore, Leesburg Regional Medical.

Kathy Moore - Leesburg Regional Medical Center

My question is, has there been any approach to the American Association of Diabetes Educators to look at especially here in the State of Florida, I am a member of -- Orlando Organization to look at ways that we can perhaps put together training programs for at least, the office personnel who may be not nurses but have a lot of contact with patients as to some of the things that they need to you know, recognize and impart. I just think we need to get something going that you know, with this futuristic plan to impart, from the specialist to the generalist,

follow what they need, to be able to help patients. Is there any plans to do that, or are there any plans, I should say?

Dr. Barbara Yawn

I can't answer for Florida. I'm going to let Tisha answer in a second. But, I think that's very, very important. I think its important that we sort of get rid of some of the barriers about what everybody can't do instead, try to figure out what they can do and how this education can be shared recognizing that receptionists may say one or two things that are very important. Simply asking the patient to bring their medications along, they may not realize how important that is actually in the continuity of care. But that could make a huge difference or simply asking the patients have you gotten your hemoglobin A1c, all kinds of things that people can do that are reasonably simple. But add greatly to the team concept and to patients getting what they need. So Tisha, are there any plans in Florida that you of?

Tisha Keller

I do not know specifically about any plans and I'm not sure what the AADE is working on. But that is certainly something that, as the Florida Department of Health, we would put that in one of our goals for that sort of office way to education. And that's something we will look into.

Dr. Barbara Yawn

Sounds like a great idea to me.

Kathy Moore

May be we can pilot something that's -- you know, in one area. I'd be happy to work with that here in the Orlando area and to get it started. And to have it you know, become perhaps you know, if it works well, something of a model. Because its definitely a need and I know people go to physicians offices. And well sometimes they don't even get it when they should. They have something going on with their foot and they're supposed to see the doctor. And the first barrier is that person answers the telephone saying well we have an appointment three weeks from now. And you know, by the time they get there they have a big problems. So, just those little things that we can may be begin to the you know, to bring down some walls for people to get good care.

Dr. Allen Hutchinson

Can I make another suggestion to that. I think actually, that should be part of the multi-disciplinary team training. I think that needs to bring the physicians and the nurses and the other health professionals and the receptionist team in together. The better done at a team training you know, at a center or perhaps, two or three center level, then for example, taking receptionists away to educate them separately. It needs to be at a multidisciplinary level. You are quite right that one of the -- the key elements of the receptionists' ability to manage diabetes care well, is to understand about the need for immediate access under some conditions. It might be some elderly person who is easily put off, but actually has an emerging diabetes ulcer which needs to dealt with in, my view as an emergency. So that notion of being able to train people up together would be a really wonderful approach. And it would be far ahead of what we are doing in the UK.

Dr. Barbara Yawn

This is Barbara again. And I've been working on this with asthma care and had worked on it previously with pre-term birth prevention. And in both cases it is often amazing to the rest of the staff what role the receptionist is already playing.

Dr. Allen Hutchinson

Yes.

Dr. Barbara Yawn

And so, I like the idea of everybody sitting down together and once you get them talking and you bring one or two cookies as we all you bring something, it is very, very nice to see people across disciplines make suggestions that someone else would have not thought of on their own. So, I think this is exciting and I think it could make the job of being a receptionist or a nursing assistant a lot more exciting and fun and maybe even slow down some of the turnover we have big problems with. And as a physician, I know it would make my job a lot more interesting if I knew everybody sort of had the same basic information and we were all working toward the same goals.

Tisha Keller

Thanks for your comments.

Operator

The next question comes from Linda Ryan with Health Care District of PA. Please state your question.

Linda Ryan - Health Care District of Palm Beach County

Thank you. My name is on hedges, I am (inaudible) Linda set up the conference, can you hear me?

Tisha Keller

Yes.

Dr. Allen Hutchinson

Yes.

Linda Ryan

Okay, good morning -- good afternoon. I just want to -- a different prospective on the conversation. I administer a school health program here in South Florida in Palm Beach county. And we deal with pediatric and middle and adolescent children. And one of our focus is, we have a nurse in every school, here in Palm Beach county. So we have a large amounts of nurses, we have two nurses in the high volume, high (inaudible) schools and we deal with diabetic education on a day to day basis. In fact, we work with the primary care physician and the endocrinologist in terms of you know, teaching these children from a very early age how to deal with diabetes. And indeed it is, as you say, a doctor -- is a generalist and a specialist and I feel that we have bridged that gap between the generalist and the specialist because all of school nurses have had to have quite a bit of education on the care of diabetes. And you know, deal with the students on a day to day basis and we extremely fragile diabetics that come into our pre-kindergarten program at age three. And you know, they frequently have a very low blood sugars in the 20's and the nurses have you know, learned to deal with it and learned to you know, balance -- help the family, working with the families to balance the blood sugar. So we kind of feel that nursing is extremely beneficial here in South Florida, in our schools. I know most of the programs are not like ours in the state of Florida. But, we've certainly had a great deal of experience in dealing with educating children which is really where it should began, and of course, because hopefully, everybody grows up to be an adult. In terms of dealing with the children we've also taught the parents and quite often, with Type I diabetes. We have a parent that is a diabetic II. But we've found that this interchange of information between the -- not only the nurse but

the classroom teacher, the parents and other people that are peripheral to this has been extremely beneficial and it serves a really good purpose in terms of controlling diabetes. Not withstanding the fact that we have more and more children that are severely overweight, very obese in fact. And you know, we are getting an increasing number of students within our school program that probably you know, at the age of four and five, with Type II diabetes which is you know, what we are looking towards as a future, if we don't manage this disease much better and control peoples' weight and exercise and diet and so on.

Dr. Allen Hutchinson

Well, it's certainly a big concern, isn't it, to see all those young people. But I am presuming that the methods that you're using for training your professionals are equally appropriate maybe -- the detail may not be. But the methods maybe equally appropriate for training people to manage adults with type II diabetes as well.

Linda Ryan

Absolutely. Yeah, we use (inaudible) Association for all of -- a lot of raw materials. We have a tremendous amount of support from our local hospitals. We have the certified diabetic educators -- educate our nurses pre-school. We have competency sessions for the nurses and they go through a couple of days of skill stations and competencies every year just to say make sure that not only the existing nurses or the nurses that are new coming into the program have the benefit of this education. And then we provide sessions throughout the year on other topics besides diabetes. So certainly, it's something that all our nurses are trained to deal with on a day to day basis.

Dr. Barbara Yawn

I think that it would be very exciting if your nurses also, could go out to some of the primary care sites, periodically.

Linda Ryan

Yeah, uh-huh.

Dr. Barbara Yawn

And talk with the physicians and nursing staff and receptionists that are out there, and work on what the roles are back and forth. Because I am sure the communication and all those things take some time. The other thing that I will ask you to do if you haven't already is, please spend a lot of time finding out the outcomes and writing it up because most of us around the country don't have school nurses in every school. We are lucky if we have one school nurse for every four or five schools. So --

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Linda Ryan

Yeah, absolutely. We would love to liaise more getting back to the first part of your commentary with the private practices we are a very large county and surprisingly our nurses, it's very difficult for them to leave schools. We have schools that range between 600 and 4000 students. So, it's very difficult for the nurses to get out of schools because there are so much volume and accuracy in the health room. You know, we have children with medical complexities and lots of other acute and chronic diseases. You know, diabetes, asthma, seizure disorders and everything that you can think of within the general population that the nurses manage within the schools. But it's a great point and you're absolutely right. You know, we are trying to meet with local physicians on attention deficit disorder, I feel that diabetes will be certainly beneficial if we could have some methodology by which we could actually go to practices and I don't think we could indeed you know, visit all the practices. But what we do rely on

is the hospitals where the diabetic educators actually do that -- provide that kind of service. They educate the physicians at the hospital or when they need continuing medical education. And they do -- you know, to some degree, do that. But I agree with you, I will say that our -- the receptionist at our doctors offices particularly, the endocrinologist offices are extremely competent and work very well with our school nursing staff. But our endocrinologists are over-burdened, we have only a handful of them in our county. Two, maybe three and children a long distance to see an endocrinologist to get specialist care.

Dr. Barbara Yawn

Yes, and I think what you have to offer is not just that -- how do you take care of diabetes or any one illness. I think it's more how do you look at a child with a chronic disease and figure out what's going on in their life and what's going on with their chronic disease. So that -- I think some of that education would be extremely helpful.

Linda Ryan

Absolutely. Yeah, of course we deal with the whole child but it's more difficult to focus on the psycho-social and the emotional, the nurses deal with that. But you know, I think with modern technology and we have a lot of children and we even have pre-kindergarten children with diabetic (inaudible). So it you know, takes away the daily you know, shot or twice daily shots and it's working that well in some of our younger children, particularly the parents are very motivated. They understand how the pump mechanism works and the parents and the nurse work together. And some of our nurses are extremely involved in terms of taking care of these children and are involved in the community, with the diabetic association.

Dr. Barbara Yawn

Very good.

Linda Ryan

And Dr. Hutchinson, I am from Bolton.

Dr. Allen Hutchinson

I'll try to work it out and decided it must be -- yes.

Linda Ryan

Well thank you so much.

Operator

We have another question from Julie Barrett with Ohio Department of Health. Your line is live.

Julie Barrett - Ohio Department of Health

I am a nurse that works in public health and in clinical practice. And I guess, I wanted to go back a little bit to your question, Dr. Hutchinson about how to blend that -- I think the best way in getting the clinical world to mean, say the public health world especially in the United States where there is a shortage is to educate both on what is actually going on. I guess from the public health standpoint the prevalence and incidents of diabetes is so great that I don't -- I think I know that the clinical world feel it. They don't -- I don't think they understand the depth and trying to (project) that gap to get some type of continuity of care to buy into a total care of model has to be met. Perhaps the physicians, they need to be educated on and so for the nurses as well. This is my view point.

Dr. Allen Hutchinson

Well, I've to say I agree with that. I think it's actually very difficult if you're working in an institution to quite understand what's going out, what's going on in the community roundabout, isn't it?

Julie Barrett

Yeah.

Dr. Allen Hutchinson

But you see the people having to see who you know that perhaps there are increasing numbers coming to see you. But unless there's some connection between those who know just how -- what just -- what the prevalence is of the problem, whatever problem that is roundabout. And you don't really know what sort of service you need to try and develop.

And it maybe that if your -- as the last speaker said that when you -- only one, two or three endocrinologists who got specialist in children's' expertise. And then it maybe that as a specialist, you are doing the wrong things.

Julie Barrett

Uh-huh.

Dr. Allen Hutchinson

I mean it might be that the only way to handle the flood of diabetes is actually to get out there and work with the primary care providers and have most of the care provided in primary care because you couldn't possibly have enough specialists to deal with the problem, otherwise.

Julie Barrett

That's true. But I think it also stems down to a systems change. There was another call that talked about diabetic education and I know they -- difficult to come by especially in Ohio. And also to being reimbursed for that type of expertise and specialty. But maybe blending some of those skills so that lay persons may be able to tell other lay persons that you know, maybe able to tell clinicians -- the community -- truly what they see once they come to the -- whether it be family practice or the hospital or wherever it is that they go to seek treatment. And I think there's like still a large gap in terms of communication as well. So I am not, I certainly don't have answers, just working on both ends is very difficult.

Dr. Allen Hutchinson

Yes, but I think that the phrase, to hang on to, as system change isn't it?

Julie Barrett

Yeah.

Dr. Allen Hutchinson

Because I don't really think that, many people who are clinically trained -- really yet thinking systems and it's only --

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Julie Barrett

(Inaudible).

Dr. Allen Hutchinson

It's only by systems that you are actually going to manage an epidemic.

Julie Barrett

Yeah and I think another point you made about the potential for people educating each other is -- has been used certainly by groups like the American Diabetic Association and support groups and having yes -- a diabetic educator available for follow-up and support. But a lot of time people talking to other people with similar problems, do very well and we don't want to -- that's the only kind of education but it is something we have not used well. Group visits are something else we have not -- having six or seven patients with diabetes come into the office all at once, and then you get an hour and a half instead of the little 10 minute visits with each one of them or 12 minute visits with each one of them. So there are several ways that it can be done and there are people that know how to get reimbursement for those and so I think that instead of saying we can, we need to figure out how do we use the very broken -- we have to the best advantage right now.

Julie Barrett

I agree, thank you.

Operator

The next question comes again from Margie Becker, your line is live.

Margie Becker

I will try to make this pretty fast, I am writing my question and it's quite lengthy -- I will again try to make it brief -- concerning Dr. Hutchinson's comment that he just stated, he says the systems obviously need to change and I didn't catch the exact words that followed that. But I must say I wholeheartedly agree and it's very hard to change a human being's or a profession's system and what I would like to ask also, has the death rate gone up, as dramatically in the United Kingdom as it has in the United States which by my meager logic seem to point to a definite need in the system change for caring for diabetes? I think I've condensed my number of questions.

Dr. Allen Hutchinson

Thank you for the condensation. The mortality rate -- the 100,000 standardized cases hasn't gone up -- the mortality rates are falling slowly. But the issue for us is the increasing numbers of people who are being identified with type 2 diabetes, I say it in that way because it may be that some of the apparent increase is because we've become better at identifying cases. But there are no -- there is no doubt that we're seeing more and more cases. I mean some communities, we have a mixed ethnic community in the United Kingdom just as the United States has. I think some of our South Asian communities for example we've got enormous rates of diabetes somewhere -- approaching 25 to 30 percent amongst people over the age of 50. So unless we put systems in place to manage that and that includes professional systems as well as management systems we are not going to cope with it and it's one of the reasons why we've developed a national health policy to try to recognize that we are not going to be able to do to -- to have enough professionals to manage -- this clinical challenge in an ad-hoc sort of fashion. It's got to be managed and it means breaking down professional barriers and re-looking at the professional roles and responsibilities and that multi tasking, multi training including the whole range of people we have heard about so far including -- patients -- people with diabetes teaching people with diabetes and -- receptionists, that whole breaking down of the old model and re-modelling it to something more effective but also evidence based. We need to push ahead with that.

Dr. Barbara Yawn

And I think (inaudible), you know there is no question the system has to change, there probably aren't very many of us on the phone who believe that we are going to make that change in the next two to three years -- may be not in the next five to ten, but we can change things in our own practice and if those small changes that are going to make a lot of difference potentially for the patients that we see in the people in our community so, I urge people not to say, well, it's got to be a big system change and I can't do anything about it, to hold back from that and say, okay I will work toward that, in any way I can but what can I do to change the system where I work maybe not radically, but in small steps.

Dr. Allen Hutchinson

Barbara, I agree with that, I wasn't suggesting necessarily that it needs to be the big bang change.

Dr. Barbara Yawn

Right, I know.

Dr. Allen Hutchinson

Yeah, the trouble with those is sometimes they go bang in the wrong direction anyway. I think absolutely like --as you do that -- those changes -- most often need to be made at the home front. For me that's where the barriers take care oftener, aren't they? The inter-professional barriers -- the failure to get a decent referral pathway working whatever it is, that they are very often local issues.

Dr. Barbara Yawn

I agree.

Operator

If there are no further questions, I will turn the conference back to Tisha Keller. I am sorry Ms. Keller, Margie Baker queued up again.

Mardi Becker

I would like to ask Linda a question which I kind of think she -- she can't answer but I need to ask it anyway. She mentioned that there are many diabetic children in the school that she represents, in Palm Beach or that she is -- she knows about in Palm Beach and she said many of the diabetics come in with their blood glucose ranging frequently in the 20s which of course, I think might be a partial -- well -- what word would I used there -- a partial indicator of why there are so many (inaudible) deficit disorders, especially among the diabetic children, because you don't think when (audio break) blood glucose goes too low and I wondered if the connection had been made there.

Tisha Keller

Mardi, thank you for your call. Unfortunately, we have to end the call and so I have got to close. We can possibly share participant list if you all would like to further this discussion, you can give an e-mail to that effect, but I want to thank everyone for participating in today's call. We appreciate Dr. Yawn and Hutchinson's giving their time and expertise. Their insight will be useful for improving diabetic care nation-wide. Nurses who would like to have CE, your credit for this program, you can mail or fax all complete forms and (inaudible) to me by April 29th. The fax number is 850 245 4391. Thanks to everyone and have a good day. Back to the operator.

Operator

Ladies and gentlemen, this concludes our conference for today. Thank you all for participating and have a nice day. All parties may now disconnect.

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