

# Macro Trends in the Nursing World

[VIDEO TRANSCRIPT]

Hello everyone. Today we're gonna talk about macro trends in the nursing world. My name's Dr. Anne Dabrow Woods and I am the Chief Nurse of Wolters Kluwer health learning research and practice and I'm also adjunct faculty for Drexel University and I'm also a practicing nurse and nurse practitioner. I work every weekend as a critical care nurse practitioner for Penn Medicine Chester County Hospital. So the macro trends in nursing are really, really important to all of us, to me, because I'm a nurse just like you. So let's talk about them but before we get started let's talk about our objectives of this session. We're gonna identify what the trends are, what are the barriers, and how we can actually move the nursing profession forward in the upcoming years. For full disclosure, I am the chief nurse of Wolters Kluwer as I said and I've accepted no financial support for this presentation. So what are the macro trends in Nursing? Well to get started, you have to ask a question: what is the biggest challenge facing healthcare providers today? It's actually really simple. The biggest challenge facing health care providers and institutions today is providing evidence-based, cost-effective, quality care that will improve practice and improve patient outcomes. It's really all about how we provide the best care to get the best outcomes from our patients? So what have we learned? We have to look back in the past first because actually we've learned a lot from our past. We're one of those professions that looks back at the past and learns from our previous mistakes and our successes. So what have we learned? Well we've got to go back to Florence Nightingale, she's the mother of nursing. Florence Nightingale was asked by the United Kingdom to go over to the Crimean War in the 1860s to take a look at what was going on in that era. What they were finding is that the soldiers who were actually fighting the Crimean War were not dying of their wounds, they were actually dying of infection and other preventable illnesses. So she went over there, and she was the first person to use epidemiological principles to look at the situation and then

improve practice based on the research that she did. This is an example of what she found and her causes of mortality. And if you can see the different shaded areas, all the gray areas are preventable deaths that she found she could have fixed. What she did is she implemented simple things like giving patients adequate food and water, giving them adequate sanitation, opening up the windows and how about this, washing the bandages before you put them back on the patient. Within six months she cut the mortality rate in half. No one had ever been able to do that before and her work actually guides a lot of what we do in nursing in healthcare today. So it's really a great thing to look back on and learn from and it was a nurse who did that. So in the past nurses were seen more as handmaidens to physicians and we went around and we helped the physicians with different work, we did a lot of education with the patients. You can see they all have their caps on here in this photograph. We have moved forward, nursing is different today. So sometimes, you have a lot of time to spend with your patient and you're doing a lot of teaching and you're doing a lot of that art of what we call nursing of just being there in the presence of a patient. But some days, in a lot of my days when I practice are like this, chaotic. Time is of the essence, we have a lot of patients who need care and we have to deliver care quickly. And our care needs be based on evidence and our practice has to be impeccable so we can improve outcomes for these patients. But we do know that sometimes the 4-legged variety nurse is the best nurse there is. And a lot of us I'm sure, have smuggled in patients' animals so that the patient could see their animal because that's part of their family. And our philosophy had been go ahead and do it and ask for forgiveness later. Now we know that pet therapy is a well-accepted theory and practice in healthcare today and actually helps a lot of our patients. So absolutely the four-legged variety sometimes is the absolute best kind of nurse. Let's take a look at the nightingale pledge. We all say this when we become a nurse. And what I found very very interesting when you go back and you look at some of the words that are in the nightingale pledge, they're very applicable to nursing and healthcare today. If you look at the words "practice my profession faithfully" as a nurse that's what we are called to do. Not administer any harmful drug or practice and elevate the standards of our profession. That's part of what we do each and every

day when we're with our patients and practicing. Loyalty and then hold in confidence what the patient tells us. I have to say when they wrote the HIPAA guidelines in the United States I think they went back to the Nightingale pledge because it's been right there all along. And the other piece, "devote yourself to the welfare of those committed to your care" - that's what we're all about, making things better for our patients. So really Florence got it right back in the 1860s and we're still practicing based on what she crafted today up here in 2016 and beyond. So what's the second trend we're seeing in nursing? Well the second trend is growth. We are a growing profession. We are the largest number of health care professionals in the entire world. When you look at the numbers, and this is based on the World Health Organization numbers, back in 2008 there were 15.1 million nurses in the world and in 2011 we had grown to 19.3 million. Now look where we are today. We have grown to 21.6 million nurses around the world and we are continually growing. And what's interesting is we're growing in countries that some people wouldn't even think that we would have such growth in. For instance, we have tremendous growth occurring all over the Americas. Now those of us that live in North America, we would expect that. But the biggest growth area is actually in European countries and in western Pacific countries. It's because of their growth of the population you're seeing more and more people go into nursing. So we are, nurses are the powerhouse for health care today. We have some challenges though and these challenges are not only national for us here in the United States, they're global. And what's interesting is a lot of these challenges we all face. So let's take a look at some of them. Let's take a look at the World Health Organization. The World Health Organization and the United States Healthy People 2020 came out with some initiatives which are very very similar to each other. And what they say is care should be patient and people centered. That makes a lot of sense. It's not the physician driving the health care ship, it's not the nurse, it's the patient. The patient has the right and the duty to decide what they want and what they don't want in their health care. And those of us that are nurses, we have a, we're honored and privileged to be along for their journey. And our job is to help give them the information they need to make informed decisions. The other thing that both WHO and healthy people said is that research needs to

inform health care policy. That means we have to embed evidence into all our policies that come out from a federal, national, and local level. That is a worldwide initiative that is occurring. We also know that you need to have the right amount of staff to take care of patients. So there's a whole refocus on improving care by making sure you have the right people at the bedside to care for patients and the right numbers in the workforce to care for them. We also know that there are different countries throughout the world that have had better opportunities. They have more resources. And what the World Health Organization says is that we need to partner with the countries that don't have those resources so we can help them along. We also know we need to use technology to improve global health. That is the only thing that's going to improve global health because when you look at the world most people depend, no matter what country they're in, many people have smartphones. So we're going to be using technology to really improve global health. Now two things that healthy people 2020 says, number one they need to increase the quality and years of a healthy life and notice I say healthy life not quantity of life. It's more important to have quality of days, a quality life than have longevity. The other thing that health people says is that we need to eliminate healthcare disparities so that people, no matter what their economic status, have equal access to health care and that's something that needs to occur here in the United States as well as globally. Let's talk about the Future of Nursing report. What the Future of Nursing report says is that nurses need to be able to practice to the full extent of their education and training and their scope of practice. And that's something that's really lacking today in all states. So we need to push. As a nurse you need to be part of the lobbying movement to make sure your legislators allow you to practice based on what you've been educated to do. The other thing it says is we need to increase the number of bachelor-prepared nurses by 80% by 2020. We're making headway here but we've got a long way to go. It also says that we need to double the number of doctorally-prepared nurses by 2020. We need to have the PhD nurses as well as the doctor of nursing practice nurses and we need to double both of those by 2020. Because they are the ones that are going to really help us use evidence to inform our practice and that research evidence and make it actionable at the bedside for nurses. We

also know that when a nurse graduates, she's not prepared to go into practice and we need to put into place internship programs to adequately train nurses so they feel ready when they assume that role on their own. Let's take a look at the Affordable Care Act. The Affordable Care Act was written so that 35 million people who didn't have health care insurance at the time would be able to be eligible for health care insurance. As of today, 17.5 million people here in the United States have taken advantage of that. Think about that, 17.5 million people who had no access to health care at all, now can get prevention care. They can get care when they're sick. They can get care for their family. It really changes the whole paradigm of what we were seeing in health care before. We also know in the Affordable Care Act that that it states was going to be a huge physician shortage and we're certainly seeing this in our family practice or outpatient settings and even in our inpatient settings. And what the Future of Nursing report says is that advanced practice nurses, specifically nurse practitioners, can help fulfill this role because we bring to the table as an advanced practice nurse a lot of the skill set and education that's needed to take care of these patients. We also know that prevention and health maintenance need to be the key drivers of health care. We need to shift this country from a disease model focus to a wellness model. That means getting people healthy, having them eating the right kinds of food, exercising, really moving to a whole thought of wellness. Now let's talk about the Centers for Medicare and Medicaid, I know everybody's favorite topic. So Medicare and Medicaid have come out with some directives over the last few years that really put a damper on what we're trying to do in health care. And the reason they did it is because they were spending a huge amount of money for services that they thought were not necessary. And one of those things that they put into place was that Medicare now requires a two day stay. So for every patient that's admitted to the hospital, the physician, or the nurse practitioner, or PA who is admitting the patient has to document why that patient needs to be in the hospital for at least two days. If they don't really have to be there for two days, then they shouldn't probably be admitted at all. Here it's a cost-cutting measure. We also know never events and patient safety are a big issue. We know that the Centers for Medicare and Medicaid are not going to pay for any of the never events that occur. So if your hospital or your

patient has a never event, you're not going to get that reimbursement. So what we're seeing is a lot of education of the staff to prevent never events and really improve patient safety. The other thing the Center for Medicare Medicaid says is that care needs to be based on evidence and that evidence needs to be put in place at point of care for clinical decision support. This makes a lot of sense. We need to do the right things right. And the other thing they did is they made reimbursement tied to outcome so the better your outcomes of your patient, the more reimbursement you as a healthcare professional or you as your institution are going to receive. And let's not forget ICD-10 that happened in October of 2015 is really changing how we bill and we're all trying to work through that and certainly going to take some time. Let's talk about the Joint Commission. So the Joint Commission is very smart. The Joint Commission partnered with the Center for Medicare and Medicaid to develop these quality indicators or core measures. And the reason they partner together is because for a hospital to receive Medicare dollars they have to have Joint Commission accreditation. So the Joint Commission and the Center for Medicare and Medicaid said we need to make sure patients are getting the best care. So let's put these quality indicators in place. So each year the hospitals have to report on how well they're doing for caring for their patients. So it was actually a really good thing that they did, a little stressful on the staff but in the end of it, it really makes sense for the patients because you're driving better patient care and better outcomes. Magnet - I'm sure many of you work for magnet institutions. I'm lucky enough to work at a magnet institution. The whole idea of magnet is to really put nursing at the top in the organization because we are the ones at the bedside 24 hours a day, seven days a week. And in a magnet organization it really looks at nursing, shared governance, and autonomy for nurses and excellence and practice. This is so important in us being able to deliver the best care for our patient and it means that in these institutions we need to have the right resources in place so that we can take the best care of those patients. We know that having a higher level of education, for instance bachelor degrees, more certifications in an organization, you're going to get better care because those nurses are better educated and the research has supported that. We know that health care is changing. There's a complete shift in our health care

system here in the United States. We've moved from a fee-for-service where physicians and health care institutions would get reimbursed based on the number of patients they saw or for whatever diagnosis. And now we've totally shifted over to value-based purchasing or value-based reimbursement where the only way you get reimbursed is showing that you have delivered the outcomes that you said you were going to deliver. It's actually a much better way to deliver care for our patients. For Wolters Kluwer, we really believe in getting to know our customers. We believe in getting to know you the nurse. So throughout our research we discovered there's actually two types of nurses. One is the career nurse. So the career nurse is a nurse that really feels nursing is his or her profession, it's their identity. If you ask them who you are the first thing they're gonna say is I'm a nurse and they love what they do. And this accounts for about 30% of our nurses out there in the workforce today. And this is true not just for the United States but the whole world. But then there's this other type of nurse. And these are the job nurses. And this is the nurse who practices and has the job because they need a job, they like what they do but it doesn't identify who they are. And they're really in it to provide for the things they like to do in their life. They don't identify as much with the whole idea of "I'm the nurse". These are the nurses we need to go and reach. These nurses are so important because they make up about 70% of those of us in the nursing workforce. These are the nurses that we need to reignite their passion about why they came to this profession in the first place and each and every one of us has a responsibility to try to help them reignite their passion. We know that nurses need resources. We know that when we look at health care institutions, some things have really changed. How we deliver care and what type of resources we provide to our nursing staff. Those things that I just mentioned, the Affordable Care Act, accountable care organizations, never events, magnet. But it's also affected how we educate nurses not only at the basic level of getting your RN or your BSN but as you go further and your lifelong learning. We know that there's a huge upsurge in the RN to BSN programs and the DNP programs are the two fastest-growing facets of the nursing education. We know that nursing curriculum needs to have evidence-based practice information embedded within the whole curriculum not just one course but embedded throughout the

curriculum. And it's been a real struggle for nursing faculty to figure out how to do that. Because remember up until five-ten years ago they never had to do that. And the faculty whose average age is 50 and up, they weren't ever taught evidence-based practice when they went to school. So they have to learn what evidence-based practice really is and then they have to learn how do you teach nurses about what it's all about. And for those nurses that are out in practice we need to teach them what evidence-based practice is so they can put it into their practice flow. We know that lifelong learning is so important. So all of you watching this video are probably all nurses. It didn't stop when you graduated. You know you're going to have to do your continuing education. You're going to continually learn every single day and the day you stop learning is the day you need to walk away from our profession. So what's the third trend in nursing? Lifelong learning. Lifelong learning is the new norm of what we're going to see in nursing going forward. We know that more nurses are going forward with their bachelor's degree. If you look at all nurses, the majority of nurses who have a bachelor's degree, you're talking about 40% over in total. What we're seeing is a huge upsurge in nurses who have their associate degree and then going on for their bachelor's degree. The research that's been done by Linda Aiken and some others clearly shows that nurses who have their bachelor's degree have a different take on situations. They're able to critically think a little differently and they actually will have better outcomes than some other nurses. Now I'm not saying the other nurses don't provide good care. What I'm saying is education does make a difference. So each and every one of you are tasked with looking at should you be going back to school to get your bachelor's degree if you haven't done so already. We do know that continuing professional development is so important. In the United States, we talk about continuing education, the rest the world talks about it as continuing professional development. And it consists of three things. Continuing professional development courses or continuing education courses, competencies those are all the things that we have to do on a yearly basis to show we are competent to practice with the patient population we serve. And then mandatories. All of you that work in a healthcare institution know you have to do mandatories each year, things like electrical safety, patient safety, what do you do in a cardiac arrest



situation - those are competencies. Those three things together make up lifelong learning but it also includes something else. Education - it means going on for your further degree and going on for your masters or your doctoral degree. It also means that staff educators that are in healthcare institutions today need to teach nurses how to improve their practice right there in the hospital. Now what's interesting is that when we were taught how to educate people, we were taught to basically sit them in a classroom and we lecture to them. That's not reality anymore today. And what we've seen is a whole flip of the classroom so that the students are the nurses who are working in a healthcare institution read, they learn, and then they come together and they discuss how to actually apply the principles that they've learned. That's called the flipped classroom and that is what we're going to be using from now on in our basic education for nursing as well as in our health care institutions. It's a tall order because it's a completely different way of looking at things. The fourth trend, the workforce is changing. We know that, all of you know that just by going into work every day. We know that there's men in our profession. What's sad is that the number of men in the nursing profession has only grown from about 7% several years ago to about 10% now. That's not good enough. We need to encourage men to go into our profession because there's definitely a place for them. We know that age - we have quite a diversity of age in nursing. The two largest groups of nursing today are those of us over the age of 50 and those of us under the age of 35. The group under the age of 35 is the fastest growing group of nurses within the whole community of nursing. What's interesting is that there's a gap between 35 and 45 that there's not enough nurses. So first of all, why do we have all these nurses who are under the age of 35? Well Johnson and Johnson about 10-15 years ago did a huge push for the United States to help us get more nurses into the profession. They actually went out to high schools and it really made a difference and we saw an increase of nurses, of students coming into the nursing profession. On the other end, from the 50 and up group, what we found is that when the stock market crashed in the United States in 2008, what happened is a lot of nurses who were either retired or staying home with their children or their other family members to raise them, had to come back into the workforce because their spouse or significant other no longer

had a job. So they've had to come back into the workforce and they've stayed so that's why we have so many more nurses 50 and up. What's scary is that those nurses are gonna retire in the next 10 to 15 years. We don't have the group from the current 35 to 45 years who can step into their shoes. So that's going to be a real concern. We do know that the number of advanced practice nurses has really really grown. We know that nurse practitioners have grown from 2001 to 2011 by 69 to 70 percent. The other group that has made great growth trends is the CRNAs the certified registered nurse anesthetists. And they have grown from about a 111 percent in a short amount of time which is great. Our clinical nurse specialists, we've seen a steady state for them. There's about 55 thousand of those practicing today. The nurse-midwives have stayed pretty constant around 14 to 16,000. But what's very interesting when we look at the latest information on advanced practice nurses, the greatest growth that we've seen is in the nurse practitioners, as I said before, we are now over 205,00 strong and the certified registered nurse anesthetists have now grown and they are up to about 44 or 45,000 which is a tremendous growth trajectory for them. We know because the nurse practitioners are leading advanced practice growth, we know where they practice and the majority then will practice in family or adult care. But that's shifting with the new advanced practice consensus model. So what you're going to be seeing over the next upcoming years is that you're going to see a lot of adult primary care or family, but then you're going to see some other areas. So you're going to see a real growth in our pediatrics and our acute care - both pediatric and adult geriatric nurse practitioners who are helping to fulfill some of the holes that are in the current health care professional system. We know nurses are shifting where they work. Now everybody knows that nurses predominantly work in the hospital. That's 62.2 percent nurses work in the hospital but what's really really interesting is we're seeing a shift in some other areas that they work. There's a huge growth in outpatient care settings, so surgery, centers, clinics you're seeing a lot of nurses going to those areas because those patients really need their nursing care. And we're seeing a decrease in the physician offices because physicians' offices are now hiring medical assistants. What a great opportunity for nurses to educate the physicians on the importance of having a nurse within the office to do all that

patient education. We know that in 2008 there was about 2.6 million nurses in the actual workforce.

Today there are over 2.8 million actually practicing. That's a huge number here in the United States and these numbers are similar to the rest of the world although there are little different percentages but that's a huge number of nurses actually out in practice. We know that those nurses who are in practice, stay in practice longer. Remember I said those nurses who are 50 older, a lot of them had to come back to the profession. Well a survey that was recently done looked at who is still in practice and what they found is that a huge number of nurses are still working at 62 years of age and even at 69 years of age. These nurses are still at the bedside taking care of patients. Now we all know that creates a lot of issues because when you're 69 years old you can't move a patient around like you did when you were 35 years old. So it really behooves health care institutions to put safety measures in place so their RN and LPN workforce does not become injured. We also have done a lot of research around nurses and society memberships because there are a big number of nurses who are members of societies. Although we need, we would like to see more we know that nurses tend to join societies as a nurse gets older in age, sees more value in that society relationship. But what's interesting, we know based on our research is that physicians are more apt to join a society than a nurse. Physicians on average are members of 3.4 societies where nurse on average is a member of 1.9 percent. So that's a difference. We do know that nurses see value in society membership and the biggest society membership drivers for them the biggest value add, is they want societies to offer them continuing education so they can stay up to speed on the latest things that are going on not only within their specialty but in healthcare in general. And they also want to partner with the society to really retain their skills and to learn more things. So it's really all about education that nurses want to be a member of societies. So those of you who are involved in the society leadership you need to keep that in mind. The fifth trend nurses are using evidence to inform their practice. So let's go back and talk a little bit about what evidence-based practice is. Evidence-based practice is taking the best research evidence, the best available evidence that's coming from a randomized control trials or systematic reviews or meta-analyses and combining that with the clinical

expertise you bring when you are at the bedside with the patient and then combining that with what does the patient want. Because the bottom line is if the patient doesn't want the care you're recommending it's not going to make a difference anyway. Remember the patient is the driver of their health care not the physician, not the nurse. So evidence-based practice is taking the best research with clinical expertise, the patient preference and those things together are called evidence-based practice. Now some people say that's cookbook nursing, that's cookbook medicine. And what we say to them is, when you go to bake a cake from scratch you follow a recipe, right? Because if you don't follow a recipe, what happens to your cake at the end? You have a poor outcome. Same thing with health care. We need to use the evidence that we know works in health care, combining that with our clinical expertise to get the best outcome. So thank goodness we have some evidence that can help us. We know that nurses and physicians and allied health cannot just pull the information they use in practice just from their specialty. Let me give you an example. Your patient has a hip replacement and you need to find out what's the best way to ambulate them. You're not gonna look in the nursing literature because it's not there. It's not in the medical literature but it's in the physical therapy literature. So when we look at getting access to evidence-based resources, the staff, all the nurses, have access to everything so they can make the best informed decision in which to guide their practice. So we have to have access to everything. There is a myth about evidence-based practice. Some healthcare institutions think that they provide their hospitals with a lot of great content and when you go and you talk to them they say oh yeah we've got all the latest stuff. We've got you know all the greatest point of care tools, all the greatest resources. That doesn't mean you're an evidence-based practice organization. What makes you an evidence-based practice organization is if you do a few things. You need to teach the staff, this is the physicians, the nurses, everyone, allied health. They've got to take care of their patients and if a clinical question comes up, they need to develop a clinical question and then they need to do a search and they need to search in the point-of-care literature, at point of care for clinical decision support. If they can't find the information they need there, then they need to pull it from a bigger aggregator source. I once you pull all that information then what you need to do is appraise

the evidence because not everything that is written is good evidence. So you need to appraise it to see if it's something that you would want to put into practice for your patient. Is it applicable for your patient population? And then you have to implement it into practice. And this is difficult because you really got to engage the staff to make a change in what they do because remember, change is hard and nurses and other health care professionals don't have a lot of time. So we need to engage them so they're part of the solution. And then once you implement that change in practice then here's the most important part, you have to evaluate whether what you've done has made a difference and that's the piece people forget. But that's the piece where we have to look at all the outcomes data that we're gathering to see if what we did had a positive outcome or if we did had a negative outcome. Doing this model, this evidence-based practice model, is what transforms a healthcare institution into an evidence-based practice organization. This is true evidence-based practice. Just having the content does not make you an evidence-based Practice organization. Using an evidence-based practice model and using evidence to inform practice does. Now we do know that there is a lot of information out there around some really good key indicators that we all use every day. There's a lot of information around fall prevention and medication areas and everybody's looking at septic shock right now and catheter associated urinary tract and central line infections. There's a lot of evidence around those areas of practice and we need to use that evidence to improve our outcomes because remember all those things will add length of stay to your patient encounter and that just increases your costs and plus the patient has a lot of complications. What's interesting when I travel around the world talking to people about evidence-based practice is that we're all pretty much looking at the same thing. So it doesn't matter from here in New York, Philadelphia, Los Angeles, talking to a group of nurses about what outcome indicators are looking at, or if I'm in China, Australia, if I'm in Africa. We're all looking at the same things: how do you prevent hospital-related infections? How do you prevent medication errors? How do you keep patients from falling? How do you keep those readmission rates low? All these core measures - those are the things we're all looking at. So we need to be able to get into the evidence not only here in the United States but globally and use that

information to help drive patient outcomes on a global basis. So why do we use evidence-based practice?

It's really quite easy, it's an easy answer. The research shows us that if you use evidence in practice at least a higher quality care and better outcomes and here's a really important piece. It decreases costs.

In our cost-conscious world today, doing the right things right but having cost-effectiveness is so very very important. But here's something else to consider. We know that hospitals that use evidence in practice

actually keep the talent where it belongs because the staff is happy that they have the resources they need to provide the best patient care. Keeps the talent where it needs to be within your institution. And

the other thing is the public has gotten really savvy to where which hospitals are giving good care and which aren't. So it will help you be able to pull more patients into your facility and it meets the

expectations of an informed customer base. Trend six: nurses are using technology to improve global

health. Let's talk about this and why it's so important. Well one of the main reasons is because we have to

overcome disparities so that it shouldn't matter if I'm in South Africa, if I'm in Kenya, if I'm in the United States, I'm in China, I'm in Australia, I should be getting good quality care. And that's one of the key

drivers we need to look at. And how do you do it? Well the one common denominator is we all have some technology. So we need to use it to overcome disparities. So when I go around the world talking to

different countries about evidence-based practice now you go to the developing countries and what

they're really interested in is having a good food source, having clean water, having electricity, having

good sanitation because if you don't have these things you end up with dysentery. You end up with a lot

of other disease states. So these are the things that people are really concerned about in those

developing countries. Here in the US, it's a little different. We're talking about medication safety. We're

talking about how do you deliver the best care in a complicated health care system? We're talking about

how do you make your hospital provide the best care that's cost effective? So different areas to look at

but really all try and do the same thing and that's improve your patient outcomes and improve quality of

life. What does it take? Well it takes innovation. We have to be innovative to be able to meet the needs

of patients throughout the world and needs are going to be slightly different. But we need to use

innovation and think out of the box to help meet those patient's needs. We do know that information highway and mobile communication is really changing the game. As I've said before, there's been multiple research studies that have shown that even in developing countries people have smartphones. We need to be putting healthcare apps on those phones and we need to have responsive design with our current websites so that people can read the information on their phone and be able then to provide that practice to the patient. Okay and we need to make sure that patients have access to this information as well. The smart phone is what we're going to be able to do to use that. What's interesting now is that on a smart phone, you can actually track where the Ebola outbreaks are, where the flu outbreaks are, where the MERS outbreak are. It can all be done from a phone so you have real-time data to look at. That really changes the game and how we treat some of these diseases that are occurring and how do we stop them and prevent it. We do know from our research that most healthcare professionals and now I will say this research was mostly done by healthcare professionals here in the United States. What we looked at physicians, nurses, physician assistants, and physical therapists, and occupational therapists and what we found is most health care professionals own three devices not just one. They own actually three - they almost all have a smartphone. Over half of them have tablets, most of them have a laptop or some other desktop and under half have an E-reader. So most people have three different devices that they're using every day. And what's even more interesting, the more devices you have the more times you're online, and that's same around the world. We do know that tablet ownership has become a little bit more mixed. We know that iPad and the iPad Min really kind of own the market here in the United States but if you go Outside the US borders, it's the Android market that really owns it. So people are using the tablets. Smartphone brands again are like the iPad tab or like the tablets are also evening out. So most people have right now have an iPhone. But what we're seeing is the Android phone is really picking up and certainly outside the US you're seeing a lot more Android phones. So what is the future hold? Well the future for healthcare holds robots. Now I'm not saying you're going to see C-3PO and R2D2 in your health care institution but you are going to see some robots and actually they're already there. So today's

reality shows the da Vinci system which is in many many OR's across the world. So people are using a robot to help with the surgery to get into places within a human body that they could never get to before. That's revolutionary. We do know that health care systems have robots that actually roam around the halls and a lot of hospitals who don't have certain specialists on call all the time can actually have a robot come see the patient and evaluate the patient right there along with the nurse. For instance, some hospitals don't have a neurologist on 24 hours a day but they'll have a robot come and if a patient has or we're worried about a patient having a stroke, the nurse will bring the robot to the bedside and the neurologist can do a neuro assessment right along with the nurse right at the bedside and then decide what needs to happen for the patient. That's really revolutionary. It means bringing specialty care to the patient no matter what time of day or night. Now we all know Sheldon Cooper had a robot in his house. I'm not saying that we're going to see that but certainly these robots are here and they're here to stay and we're gonna see them more and more frequently. It really is the sky's the limit on where we're gonna see technology go and it's going to be technology that's really going to help us drive the improvement of healthcare on a global basis. And we need to be innovative when we develop new products and new ways to care for patients and we need to integrate technology into that. And in conclusion this past year in the Miss America pageant, Miss Colorado who was a nurse, had to do her talent presentation and she came out in her scrubs, and her stethoscope and she proceeded to talk about a patient experience that really helped to define for her what nursing was all about and how much of an impact she has made on the patient. That nurse took a lot of heat from several people, several organizations, about what she did and they called it not a talent. Now for the first time, nursing in the U.S. as a group and the nursing worldwide as a group stood together and it didn't matter what society a nurse was a member of, didn't matter what country they were in, they stood together and they said nursing is a talent. Because when you are sick I'm the one there 24 hours a day taking care of you. When all your family goes home or you're alone I'm the one who's there holding your hand. And when it's time for you to die, I'm the one that makes sure you die without having a lot of pain. And I'm there for you to make sure you die with dignity.



So never let it be said nursing is not a talent. And I just want to end this presentation by saying baby you've got talent and I am honored to be part of this profession.