General Session VI: Will There Be Enough Doctors, Nurses and Hospitals for our Aging Population?

Panelists: Douglas W. Andrews
William A. Peck
Noreen Siba

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Tim Harris: This one is going to be a little different from the structure of the other sessions. We have three panelists who are going to discuss the topic, and the plan is for each panelist to lay some background, and then start again and go into more details and possibly some interactive discussion about what's going on in the various countries. We have experts from the United States, the United Kingdom and Canada on this topic. The topic is whether or not there will be enough medical professionals to provide our health care needs as the populations age and as, in the case of the United States, the health care systems change a bit.

This was a topic that we addressed three years ago. Actually I addressed it in a panel three years ago. We had at that time built some computer models and modeled what health care was going to look like in the future in the United States as the populations aged, and we saw there was clearly going to be a shortage of medical professionals in a number of areas. So that's a topic that we're going to address again with people who know a lot more about the topic than I do.

These experts include Doug Andrews, who we all know has presented at other sessions and who has asked many questions, sometimes censored questions. Doug is the senior lecturer at the School of Mathematics at the University of Southampton. He has a Ph.D.; he's an FSA and FCIA and FIA. Then next to Doug we have Dr. William Peck. Dr. Peck, in spite of what you might read if you look at some of the "Living To 100" symposium material, even though he technically has a title of senior professor of Engineering, he is actually a doctor and he is director of the Center for Health Policy at Washington University in St. Louis.

And then Noreen Siba is our U.K. representative. She is managing director of the International Longevity Centre (ILC) in the United Kingdom, which has a very close relationship with the Institute of Actuaries there. She was previously director of Alzheimer's UK. She currently has the responsibility for management and fundraising for the ILC in the United Kingdom.

So given that I'm going to open things up and let Doug get started.

Doug Andrews: Thank you very much for that introduction. I have been wearing a number of different hats at this conference, and for this presentation I'm wearing my hat of being a Canadian and being on the Canadian Institute of Actuaries' Health Committee. That was the role that brought me here.

Thank you for attending this session. It's a pleasure to speak to so many people.

The question of will there be enough: I know some economists would argue with the way the market works the answer, of course, is always yes. I'm going to try to give you an outline of some of the factors that affect answering this question in Canada.

In Canada we define medically necessary services with respect to physician's care and hospital care, and those medically necessary ones are provided by provincial health insurance so they're free at point of access and they're universally available. They don't cover all of the services that people might consider to be necessary; it is a defined set, but for that set they are provided free. The key thing about that is that private insurance is not permitted for these services that are covered by the provincial health plans. Another important fact is that physicians may not extra bill and extra bill has a couple of senses. One, it means that when a service is provided they can't charge you more for that, but it also means that if they were to charge to provide services that are covered by the provincial plans then they wouldn't be able to receive funds for any services that are provided by the provincial funds, so we have a system where most physicians work within the provincial health plans and the provincial health plans define what services are medically necessary.

There was a very important legal decision referred to as the Chaoulli decision (there should be two l's in that word on the slides; one of my former students pointed that out to me after I prepared these slides), and it concerns patients' rights. Very simply it could be summarized as saying if the government has said that it's going to provide a certain level of medical services, then citizens are entitled to have those services delivered in some reasonable period of time; and if governments don't deliver the services in a reasonable period of time, then the patients can go elsewhere and pay for the required services. And if they started to go elsewhere and pay for them, that would undermine this context of medically necessary services

paid for by the health plans. Governments don't want to see that, so they've been scurrying around to determine what are appropriate waiting lists and managing the waiting lists.

So, in that sense, because there is that decision, you could say, yes, there will be a sufficient supply because there are only certain waiting lists that can be held that are reasonably necessary and government will try to provide that, but whether the population will consider that reasonable is another question.

Here is some background on the people in Canada because I think that's important in order to understand the context. There are 1.95 physicians per 1,000 patients, and typically a number of about two physicians per 1,000 patients would be considered to be adequate so one might argue already that there's inadequate supply in Canada.

The number of regulated nurses (and there are several different categories of nurses) is about 10 per 1,000. I think that's verging on the area of adequacy, but I would say that both the group of physicians and also the group of nurses are an aging group, and so there is potential that these numbers may reduce.

One of the factors that affect the number of nurses and doctors is the medical system and the licensing and that relies on government support for education. So if government turns on the taps and provides more funding for physicians and nurses, then there could be an increase in the numbers, but we have to remember that it's quite a longtime planning horizon so government has turned off the taps on medical school funding in the early '90s, and we're not experiencing the impact of the reduction in the number of physicians.

The large baby boom is starting to reach age 65. Currently there's only 13 percent over 65, so that's not an issue, but we will soon be approaching within the next 20 years 20 percent over 65 and that adds to the increased care burden. People are continuing to have a longer life expectancy, and so that's a further issue with respect to the people.

A critical issue in determining whether supply is sufficient is how it gets distributed across the population. In this respect, access to care varies considerably across Canada and is likely to continue to vary in the future. So the population is 33 million. We have a population of

aboriginal people of 1.2 million and certainly the indication is that the care levels received by aboriginals are quite a bit less than the care levels experienced by the population in general.

Furthermore, Canada has four large urban centers, and you'd find that access to care is quite good in the large urban centers. But according to the OECD (and I didn't know this until I did the research for this presentation), Canada among the OECD countries has the highest index of geographic concentration of the population in small regions. In other words, Canadians tend to live in small regions and that increases the difficulty in delivering health care on a uniform basis to all of the population. That's likely to continue because Canada has a very large geographic mass.

In terms of survey information, what do Canadians think about health care? The majority of Canadians would favor the ability to jump queues. In other words, Canadians would like to be able to pay in order to move to the front of the line and not have to wait in the waiting lists that are provided by the government system. They know that that will likely change the system significantly, so that's a concern for them.

And one group from Ontario that has been surveyed wants more staff so this addresses the issue of supply shortages. They want shorter waiting times so they're looking for better care, and they want the same quality of care in the community setting as they receive in hospitals.

Is that enough? I can come back to this later.

Dr. Peck: Thank you very much for the privilege of being here with you. I notice that I'm the only M.D. on the entire program so I'll try to reflect well on my profession. I'm in the company of some of the brightest people in the world. It is a real privilege.

In America, health care accounts for close to 18 percent of the economy and employs approximately 10 percent of the working people. There are good reasons to believe that in the future we will have a significant shortage of physicians, nurses and other health professionals.

Primary care is the foundation of health care delivery. Its practitioners provide first contact and comprehensive, continuous health care to patients with a wide variety of illnesses and orchestrate their management, including referrals to specialists and subspecialists and admissions to emergency rooms and hospitals. It's delivered by general internists, family

practitioners, pediatricians and less frequently by other specialists such as obstetrician-gynecologists for women. Physician assistants and advanced practice nurses play an increasingly significant role in primary care practice.

It has been suggested that we have a current shortage of about 20,000 primary care physicians and that the shortage will grow to over 50,000 within 10-15 years. Now the Benjamin Gompertz of St. Louis is Yogi Berra – who said – "Predictions are difficult, particularly about the future." Although there is a lot of agreement that we have major regional shortages, particularly in rural areas, there are also regions that may have an oversupply, at least as judged by overuse of health care services, based on the elegant work of the Dartmouth Health Policy researchers.

In the past, our ability to predict workforce needs has been highly flawed – we have predicted an excess and wound up with a shortage, and vice versa. We really feel we have it right, since evidence suggests an existing shortage, at least in many regions of the country. Massachusetts was the first state to enact universal health insurance. It has had a long-standing shortage which has persisted as more of its citizens have health insurance.

It's fair to say that fewer medical graduates are applying for primary care residencies and pursuing primary care careers; the number has dropped appreciably since the 1990's. Each year, a significant number of international medical graduates obtain U.S. residency training, some of whom will become primary care physicians. The problem is that the number of residencies funded by the federal government is capped – we can't expand our physician work force until the cap is removed or raised. In America, as in Canada, it is the federal government that pays for the residencies and their supporting hospital programs.

So why is it that fewer graduates seek to become primary care physicians? I'll go into some detail later in this conference – but in preview, it is money problems, office practice demands, shortfalls in the education environment and prestige, among other contributors.

Roughly 80 percent of health care costs in America are attributable to chronic illnesses, particularly among the older population. A quarter of elderly Americans have at least four separate chronic diseases. To take care of these patients, a calling for primary care physicians, challenges them because of time constraints and in some cases, financial issues.

I'll just conclude by saying that the Health Reform Act, we in the business call it PPACA (Patient Protection Affordable Care Act March 23, 2010), is being debated now in the House of Representatives. We talk later about some of the positive things that PPACA is doing to promote primary care professions.

So I'll stop now and go next.

Noreen Siba: Well, good morning, everyone, and thanks to the Society of Actuaries for inviting me to speak in Orlando at your international conference. I thought it might just be helpful to outline the work of the International Longevity Centre-UK (we call it the ILC-UK), because it's an independent research-led think tank and we are dedicated to addressing the issues of longevity, aging and demographic change. We're based right in the heart of politics in Westminster in London, and we direct our work to the decision-making processes. It's an international organization. We're one of 12, and I don't know how many of you know, but it was founded by Professor Bob Butler in New York and he led this ILC alliance.

We have a very broad policy and research remit covering pensions, financial planning, health, social care and housing. In the United Kingdom we were founded by Baroness Greengross and this is where we have a direct route into policy implications of this issue which I want to focus on.

But I did just want to tell you something interesting. My mother will be 104 next month, and I was listening very carefully to those statistics yesterday that I have a 50 percent chance if I'm fit and healthy, that's a positive result. But I'd like you to know at her 100th birthday she said, "I feel 60 and I really don't know what all this fuss is about."

Now, I'd like to quickly go through some of the demographics for Europe and the United Kingdom because right across the EU there's such dramatic demographic change. It's the newer members of the Club of 27 that seem to have the greatest growth, and this also changes in the birth rate. Many of these countries, of course, have migrant communities which will complicate the picture, with both pressure on health and education, but maybe they will bring more skills and resources.

Then you can actually see within the circle the actual dramatic growth of population change in Europe. Again unrestricted economic migration may change this picture.

In the United Kingdom, and many of you may have seen this diagram before, we have an extraordinary demographic transition. By 2033, 23 percent of the population will be age over 65 and only 18 percent, 16 and younger.

The impact in the United Kingdom gives us these statistics: 20.3 million people are over 50, 11.2 million over the state pension age and 2.6 million over 80. And so we are going to have in 10 years' time a quarter more people aged over 80 and in 23 years' time three-quarters more.

There's also a zip code lottery we call in the United Kingdom depending where you live, and the local authority with the highest life expectancy is Kensington and Chelsea in the heart of London for 84.4 years for men and 89 for women. But if you happen to live up north in Northamptonshire, there are some of the lowest life expectancies and this is where there are disparities.

Even on our tube line, if you move, for instance going eight stops between Westminster and then Canning Town, it said that each stop you could lose one year of a shortened life span because of the wealth and educated people living in the west and the labor force in the east.

So there are 8.1 million older people; 2.5 million need some care and support and the inspection estimated that 850,000 have high levels of need. Of that 2.5 million, 1.5 million have some shortfall in their care. Now, a million might be able to rely on informal care, but 450,000 don't have formal or informal care.

Now, are there enough doctors? We have seen a gradual increase in C60s, with a sharp increase from 5,062 in '98 to '99, to 7,932 in '04 to '04; over 50 percent in six years. So the number of doctors per thousand population has been rising steadily even without the new doctors in training, but it does remain below the OACD average, while the number of GPs increased almost a fifth.

The U.K. NHS is widely believed to be understaffed with doctors compared to international health systems, but the association between doctor numbers and patient outcomes is

under-researched. In 2008 the geriatric medicine saw a decrease in consultant numbers of 18 from 1.129 to 1.11 as compared with an average increase across all specialties of 4.5.

Consultants in geriatric medicine are 67.8 of the workforce; they were 69 percent in 2007, for acute general medical services compared with the average of 38.4 for all specialties.

The problem is that a lot of locum doctors are appointed to cope with the shortfall, and the cost of hiring temporary doctors was 758 million in ‘09 to ‘10, an increase of 49 percent over ‘08 to ‘09. The annual spending on hospital locum doctors has increased by almost $200 million in the past year and doubled since 2007. For surgeons, the spend is almost $250 million. Thus, the rising costs come as the same time as the NHS struggles to make savings of $20 billion by 2014. Many hospital trusts are having to cut back to balance their budgets. There are never going to be enough doctors and nurses to cope with the demographics that I’ve outlined, and we have to find other answers.

Nurses. The number of full-time-equivalent practice nurses has risen, and recent research has found that practices that employ the most registered nurses per number of patients provide the best quality of care, and data from 7,456 practices contrasted nurse numbers against performance in the quality and outcomes framework.

Practices have employed more full-time-equivalent nurses per number of patients, performed better targets and call it obstructive pulmonary disease, pulmonary heart disease, diabetes and hypertension. The real patient benefit may be associated with using more nurses and perhaps there could be a scope to further shift the skill mix in primary care from doctors to qualified nurses. I know this can be controversial.

So I’d just like to finish with some questions. How relevant are the changes in providing quality and quantity numbers to obtaining improvements? Do actual clinical numbers matter? Because as the populations age, will their increasing health needs have to be met by increasing numbers of health care providers?

In an aging society, has prevention health care become an economic necessity? Is it cost-effective for older people, and can the economic benefit be assessed? This is very relevant for

developing countries, and I think what we're talking about here needs to have an application to developing countries.

We also need to look at the relationship between ill health and work. How can preventative health care contribute to employment and well-being for the over-50s? And how will best practice and efficiencies that emerge from developed countries be cascaded down to developing countries?

Finally, there really are two major challenges. We know that demographic change is increasing the demand for care and people's expectations of care are changing. Our existing system cannot possibly cope with these pressures. The challenges lead to increased costs, making the system financially unsustainable, and people will just not get the support they need or expect unless they pay more directly.

Currently those assessed as having substantial critical care needs get support. Those on low, moderate needs have to rely on family or friends, pay it for themselves or do without. There's a false economy of care.

And in the United Kingdom we are desperate for a new settlement. We need a bargain of what the person pays and gets and what the state can do, and we have a commission in Parliament at the moment to look at all the possibilities and come out with something this summer, but I will continue later. Thank you.

Tim Harris: And now we're going to go back through the same order of speakers, and speakers are welcome to compare and contrast countries and to ask questions of the other speakers as they continue their presentations.

Doug Andrews: I'm going to carry on and list some of the actions that would increase supply, although having heard Dr. Peck speak, one of the important factors I should mention is that doctors who are trained in Canada often do move to the United States. Given the numbers that he's quoted for shortages in primary care physicians, that is another factor that could certainly impact Canada as doctors move. I don't have any way of predicting what's going to happen in that area, but that certainly is a factor.

I had outlined for you that we currently are experiencing what I would say are inadequate numbers of physicians per capita. There is a demand for more care and there are pressures toward increasing demands for care, and so now I want to look at the supply side. How could we increase supply in order to meet those demands?

In Canada there are very strong silos that exist between the professions. A good example, I think, comes from my experience in the United Kingdom. Fortunately, when I live in the United Kingdom I live in one of the zip codes, as you put it, where I'm able to get very good care. But even though I have a GP, a physician that's assigned to me, and I have gone several times, I've never actually seen the physician and I've never actually been treated by the physician. There is a registered nurse that's been able to deal with all of the things that I needed dealing with. In Canada that wouldn't be the case. Registered nurses would not be allowed to be seeing me taking my information, giving prescriptions, providing inoculations, etc. A physician would have to be doing that and so if we are able to ease some of the silos to have more things provided by nurses, less requiring physicians, we could, I think, provide more treatment where it's most necessary.

Another area which I think is very important for Canada, because we have very significant immigration to our country, is licensing qualified immigrants in certain roles at less expense. Canada has two major languages—English and French—and I from time to time have to speak in French so I'm continuing to get French lessons. Many of the French teachers that I have are licensed physicians in their countries, but they're having to teach French in Canada because we won't allow them to practice in Canada unless they've gone through a routine of working with a physician for a period of a time and writing a series of exams, all on an unpaid basis. They can't afford to support themselves in doing that.

I'm not saying that qualified immigrants may be able to perform all services immediately, but I would think that there would be some medical services that they could provide and that would help relieve the supply issue.

I also think we need to look at changing delivery methods such as having a private alternative for medically necessary services. That may not increase the supply overall, but it

may help address some of the more urgent issues.

In terms of making the system more efficient, though, Canadians typically go to emergency in order to get care, and it's a very inefficient way of the system delivering care. If we were to have more 24-hour services available through group practices that could examine people, take temperatures, prescribe drugs and so on, it would help relieve some of the misuse of our services and make the system more efficient. I think we also need to reduce the dependence on fee-for-service medicine. Noreen has mentioned the use of preventative care, and I think as you change away from the fee-for-service system, you may get more emphasis on delivering preventative care, which would be better for the system overall in the long term.

Dr. Peck: One more baseball story; Leo Durocher, a famous baseball manager, proclaimed that he did not want to achieve immortality by being elected into the Baseball Hall of Fame; he wanted to achieve it by not dying.

So, let's examine the primary care shortage issue in greater detail. First, money; American medical graduates are heavily in debt by the time they graduate – well over $100,000; and one-fifth of them owe $200,000 or more. Once in practice, primary care physicians make less than most other specialists, and by a large margin. Life time earnings in primary practice are about $2 million, whereas many specialists make $4 million and more. Not surprisingly, indebtedness coupled with bottom end earnings is a factor in specialty selection.

A second factor is the office practice environment. Primary practice physicians, particularly the many who work solo or in small to middle sized groups, will spend almost a quarter of their time in non-patient contact activities which can be stressful and for which they are not reimbursed. For example, they may have to deal with as many as 15 or 20 separate insurance companies, each with its own billing, collection, appeals and in some cases, quality reporting requirements. If an insurance company denies payment, the physician may have to appeal the decision. Time spent on the telephone, speaking with patients, physicians to whom patients will be referred and other issues may not be reimbursed either. Most practicing physicians in America do not use electronic medical records, though this is changing slowly. So physicians must wade through paper records to keep up with their patients' needs. Given that they care for many elderly patients with complex chronic illnesses that may be difficult to

manage, time constraints can be frustrating. For many in primary care, controlling their lifestyles is difficult, and this is a negative for many medical graduates. And small wonder that more and more physicians are retiring early or have decided to work shorter hours, if they can afford it.

Now there is possible relief in PPACA for some of these problems. For example, beneficial loan programs are offered for graduates who will practice primary care in rural areas – 65 million people live in rural regions that are underserved by primary care. Medicare will pay a bonus of 10% to primary care physicians. A similar plan will be provided for general surgeons who practice in underserved areas.

Caring for Medicaid patients in most states is a problem, because Medicaid reimburses physicians at a rate that is below costs – it is the lowest paying insurance program in America. PPACA requires Medicaid to increase its physician payments to the Medicare level in 2013 and 2014. PPACA eliminates patient co-pays for preventive visits by Medicare beneficiaries. PPACA also provides grant funds to promote primary care education and training.

One more issue relates to money and the practice environment. Private and government insurers pay physicians on the basis of fee-for-service. The amount per visit depends on what's done, but in general, the more patients seen, the more the income. Primary care physicians, who want to sustain a reasonable income, just have to see a lot of patients, given reimbursement rates and the office time spent in non-contact activities.

One cure, of course, is to pay primary care physicians more and that depends basically on the insurers. Another possibility is to change the payment structure from fee-for-service to what we call capitation or modified capitation. You pay a certain amount per life that you're responsible for regardless of what you do or the frequency of visits. Fee-for-service is said to stimulate overuse. Capitation, which we experienced in the mid-1990s, is said to stimulate underuse, and one idea is to pay for performance – the British call it paying for results. PPACA authorizes studies and pilot programs to pay physicians for the quality of performance. I happened to be on the Institute of Medicine committee to examine the restructuring of Medicare. We included a chapter on pay-for-performance, its approaches, its complications and so forth.

Medical schools are responding. They're increasing their class sizes and we're opening up new medical schools; 15 new medical schools have been or will soon be opened. We have approximately nine new colleges of osteopathy. So the numerical supply of physicians will increase. The question is, will the availability of primary care physicians rise significantly? Let me conclude by saying that the nation's dedicated primary care physicians are providing outstanding services – let us hope the supply will increase to satisfy the demand.

Noreen Siba: Right, to continue. Although the well known National Health Service is well sought after, well advertised, I must make clear it's not completely free, one has to pay for dentistry, one's eyes, prescription charges unless you are under 18 or over 65. But social care has never been free, and it's old people's care that is a social issue. So publicly funded care is provided by the local authority and not health care providers. Like cancer is seen as a disease so care is provided free, but dementia, such a big problem, is seen as a social ill, so its care is self-funded. This is very important to understand.

And care is assessed through local authority assessment with very tight criteria and it is budget led, so there's mixed care funding. As Doug mentioned, in Scotland there is a completely paid-for care service, but in the United Kingdom this would cost the government 106 billion each, the equivalent of funding a whole second NHS. So we have to look at home care and support, and that's under-resourced and also specialist housing faces cuts. So care homes are under cost and quality pressures.

What is the success of the NHS approaches? Are the days of the tax-funded free at the point of view health care over? Without new funding sources, rationing and waiting lists are going to continue. How long will it be before individuals, encouraged by family, find information on their Internet and despite local cost-based restrictions, demand access to new drugs that they hear about and treatments that are available? And is the incorporation of extra funding via insurance and co-payment, which is being considered in the United Kingdom, inevitable?

Defining care, health or social, this is the commission I referred to before. We're waiting to find out how the work and the outcomes of this new commission on funding of care and

support, i.e., the social care side will be made compatible with the outcomes of the government funding review. What will be funded and who will pay? They're all questions that are waiting to be answered.

The impact of National Health Service reform, especially GP commissioning outcomes and the joint working with local authorities on health and social care boundary, will be core, especially managing the dementia numbers which are huge.

Service delivery must explicitly support training. Services must be designed and configured to deliver the high-quality patient care and training, and reconfiguration of these emergency services and hospital provision are two of the ways in which health care can be changed to support training and safe services.

We obviously have failings in the emergency care. I've listed several, but there are worries about patient safety, personal hygiene, infection control, premature discharge and the reasons that have been mentioned already. There's often too much focus on finance and the need for achieving targets; therefore a lot of administrative headaches and bureaucracy, low staffing levels, too big a workload, low staff morale, perhaps not such good leadership and then inability to learn from patients' complaints.

We too are looking at whether better training and organization are the answer. There was some research investigation into the deaths of patients over 80 that took place in U.K. hospitals within 30 days of emergency or elective surgery over a three-month period in 2008. And these are key findings that over a third of patients surveyed did receive good care. Most are admitted to a general ward, but in two-thirds of the cases patients were actually seen by very junior doctors without any review from a specialist in geriatrics and delays occurred. Seventy-one hospitals out of 283 appeared to have no well-resourced acute pain service.

There needs to be much greater vigilance when elderly patients attend emergency departments, especially as many patients were actually malnourished before they arrived in hospital, and there are very poor nutrition/hydration problems and associated illnesses.

This is the idea that many have to invert the triangle of care as a future idea. Whereas now resources are focused on acute health and social services at the tip of the triangle with insufficient investment in prevention and community services at the bottom of the triangle, could not the triangle be inverted and have more partners investing in well-being? With a smaller group of people in crisis so you keep a specialist for people in crisis and have a larger group of help in the community.

Back to looking at the preventative approach to older people services. A lot of work is going into this, and you'll be very familiar with these areas we've already talked over these days on promoting healthy lifestyles, and vaccination is important. There needs to be a lot of work in screening and prevention, especially relating to the obesity and possible connection with diabetes problems. Also falls-prevention, as this is often the beginning of an older person's time where they need extra help. Housing adaptations, telecare, rehabilitation, personalization and choice are all very important factors.

So what are the remaining issues? Don't we need to go beyond the high-end acute care and crisis into preventative health care with personalization, individual responsibility, independence and dignity being key elements? We need perhaps more low-end hands-on care in the community, which is quicker and cheaper and definitely helps with the long-term illness and condition of people with dementia.

And this is referring back to my own situation with my mother who lives next door to me. She is mainly looked after by my sister, the primary care giver, but we have eight care givers a day to attend to her, two nurses a week. We have a respite care scheme once a week to give my sister a break and many other services to the home. Now, this is all based on the personalized budget that my mother receives, and as a family we've decided how to spend that money to best keep her at home where she's well and happy. With all this extra help that comes to the home, I can tell you that it works. And I know that I have somebody who doesn't have dementia and has had different physical problems, but there might be many others for this service to actually work.

So we're very definitely looking at globalism versus localism and what the trends could be of best practice. But, of course, it's all down to cost, increased consumer expectations. As our

baby boomers actually perhaps come through and demand more, they have better information and experience, and the whole issue seems to come down to what is the responsibility of government versus the self-determination of families to keep their loved ones at home and provide what care they can in the community. We do think that co-payments and the involvement of insurance companies with the government are a real way forward, and there are some interesting proposals on the table being looked at so I'm sure there's going to be a role for many of you in this future. Thank you.

Tim Harris: Well, we're going to open things up for questions now for the panelists.

Rob Brown: Hi, my name is Rob Brown and I'm unemployed. I wanted to try to turn this on its head. I wanted to submit to you that, in fact, we're not running health care systems; we're running death care systems. If I read the literature correctly, the average patient will expend over 50 percent of their health care costs within six months of their dying. So what would be your response if we had a community discussion and came to an agreement on things like do-not-resuscitate orders and living wills and stuck to it? What would your answers then be?

Doug Andrews: I think I have to admit that I have a conflict of interest here, since Rob was my supervisor for my Ph.D. and at the last "Living To 100" symposium I presented a paper with respect to "Living To 100 in Canada with Dignity" where I suggested the idea that Rob has asked a question about. I think that we certainly do need to look at giving people who are of sound mind the option of determining how they will have their life ended and at what state and if they don't want to live in great pain or they don't want to live with dementia or so on to be able to have their life ended. I think that they should be able to live with dignity and have that supported by physicians and not have their spouses prosecuted because they assisted death and so on, so I think that is one of the things that we should consider. It was on one of my slides, but, of course, Tim has censored my slides as they do here so it hasn't come up.

Dr. Peck: I think it's a great question and widely discussed in America. I'm a little suspect about the data, how much is spent during the final year. I really don't know what the percentage of health care costs are expended; it's a lot and we have to deal with it.

There is a political reality in America. When PPACA was being debated before it became law, there was a provision for end-of-life counseling and a famous resident of Alaska proclaimed that these were death panels and it was removed from the final bill. More recently, CMS issued a proposed regulation that would have permitted advance care planning as part of an annual wellness visit under Medicare. It is unfortunate in my view as a physician that this proposal was dropped from the final rule. Hospice care, Medicare funded, will be the subject of a concurrent care demonstration project to find out whether it works in the best interests of the patients.

Another issue has to do with decisions about care for highly expensive treatments for incurable disorders that carry with them a short life expectancy. For example, biologics and other drugs are available for treating advanced cancers – and these agents may cost many thousands of dollars and fail to extend life by very much. Many are fraught with debilitating and in some cases, fatal side effects. Should insurers such as Medicare approve and pay for these treatments and if so, under what circumstances? Should we decide as England has decided to use quality adjusted life years as the rationale for funding these kinds of treatments? And these are questions that we haven't really addressed in America yet.

I'll stop here. There's a lot more that could be said.

Noreen Siba: If I could just add, obviously this is such a controversial issue and one has to be sensitive, but we're very fortunate as an independent think tank that we can raise these issues and discuss across our colleagues in different professions possible outcomes. Certainly there's a great deal of openness to look at the living will and people wanting to move across to Europe and to have help with a life being ended. In fact, Baroness Greengross has already made her plan, I think, to move when she can. So it is a real reality. Many people, when you ask them if they want to live to 100, answer only if they are fit and well. They don't really want to suffer like they see so many relatives. But we're free to discuss these issues and one has to be very sensitive about personal views. The other organization that is key in the United Kingdom is Age UK, but, of course, it's made up of members who are the elderly people themselves and certainly

great arguments between different points of view, but I think it's healthy that these issues are being discussed much more openly. Certainly somebody like our leader would try to get these questions raised in Parliament and have much more open facing of the possibilities.

I also would like to mention there's a new piece of research being done by the ILC Japan with us in the United Kingdom and France on elements of palliative care and how much advice and guidance and help could be given at this stage by specialists, professional counselors and people, so I think there's a real awareness that more resources and help need to go into that.

Catherine Macrae: I just want to share my knowledge of what's going on in Canada. I'm a little bit concerned that Doug is maybe sitting in the United States and he doesn't get to read the Canadian newspaper every day, but it was probably at least six months ago or maybe a year ago I read in the newspapers that Alberta and McMaster University and so forth had actually doubled the number of medical doctors graduating and that three-year time period has already passed and we have many more doctors coming out. University of Toronto has a four-year medical program for general practitioners, which they've been encouraged to reduce to three years, so U of T could graduate students 25% faster. York University actually requested the right to establish a medical school. They hadn't been given that approval at that point in time that the article was written.

A few months ago there was an article in the newspaper indicating that many Canadian doctors have started coming back from the United States. They're no longer immigrating and going to the United States and it may be that residency rule or whatever it is, but Canadians are liking to practice in Canada.

There is the problem with the immigrant doctors in that Canada does have a high standard of what a practitioner is, so the variability of the education of the immigrant doctors coming from various countries is a difficult issue to deal with.

It was just this spring that Canada had the first graduation of specialty nurses that can fulfill the majority of the roles, not everything, but many of the things a general practitioner can do.

As far as dealing with reducing the number of people using the hospital emergency rooms and dealing with long-term care needs, we have community access centers that people use. I experienced it just this spring with my mother at 95. One of our problems is exactly what Doug alluded to in that we have the largest concentration of small-populated areas, and that causes failure in our community care access centers. As an example, when one of the two partner spouses needs nursing care and they use the community care access program, often they're placed in a nursing home that can be over 50 kilometers or miles away from the other spouse, making it almost impossible for the family members to provide personal support in the system by coming and visiting, bringing services, looking after and seeing the person. So our large geography is causing us trouble in providing "community" care access support because those centers cover too wide of a geography, not allowing easy attendance to the elderly.

Doug Andrews: Thank you very much for adding all of that information. That's very helpful. The one aspect which I would focus on as needing more attention in Canada was the issue that the specialty nurses are now trained, but getting them to be able to do all that they're capable of doing; in other words, getting the physicians to release responsibility is an issue that needs to be addressed, but thank you for your comments.

Bob Howard: The session had the title, "Will There Be Enough Doctors, Nurses and Hospitals for our Aging Population?" It doesn't set a timeframe, but doctors and actuaries and demographers kind of have a sense of that. The year is 2031, 20 years hence. Is the answer yes, is the answer no, or would you say close? So could I limit you to one of those three choices, because I don't think you've heard the answer to the question. You've just said there are possible solutions and maybe it will work and maybe it won't. What do you think?

Dr. Peck: Do I have to give a single-word answer or can I make a few comments? Basically, I'm not sure. And the reason is because nobody can accurately predict what the practice of medicine is going to be like in 10-20 years. Nobody. If people tell you they can, I'm telling you they can't. The practice of medicine is going to change significantly. Medical science will advance significantly. Health care IT and informatics will be ubiquitous and far more

sophisticated than today. There are going to be many more professionals involved who are not M.D.s, for example. There's going to be a great effort to encourage informal care as you so aptly described, but we don't know what kind of a difference that's going to make. I'm hopeful … I'm hopeful, but I don't know and I'm not an actuary.

Doug Andrews: And I think what else may vary is the size of the waiting list as well so when we say are there enough health care providers, there may be, but you have just a long queue of people waiting for health care. However, we heard just now that Canada seems to have things under control and maybe the United States needs to catch up a bit.

Noreen Siba: I have to say no, quite definitely, because of so many imperfections in the ability for people to get the real help that they need. I mean there are so many cuts and so many disappointed families on long waiting lists, so it's still minimal the help that we're giving now. I can't see with all the increased numbers of people that will need help and in terms of with new medication people are living longer, so it's almost out of control and I can't believe by that time there will be enough at all. There just have to be some pragmatic solutions to a difficult problem.

Dr. Peck: I think this has been an amazingly well-integrated panel discussion even though it wasn't rehearsed. We've covered many of the same issues, but one that we've all talked about is cost, and yet the cost of each system is very different. The United States is well over 17 percent of GDP, Canada is somewhere in the area of 10 percent of GDP, and the United Kingdom is less than 8 percent.

Noreen Siba: We've reached 18.

Dr. Peck: You've reached 18 and are heading for 19 and 20, I'm sure. So how much do these countries want to spend? There never will be enough, but I think that all of them, being developed countries, will end up close.

Dr. Peck: Could I just make one more point?

Tim Harris: One more comment and then we're out of time.

Dr. Peck: Another thing that happens is that newly-discovered diseases emerge from time-to-time. We talk about Diabetes, heart disease and cancer, for example, that have been recognized for centuries. But AIDS wasn't recognized until the early 1980's, and has grown to epidemic proportions. Fortunately, effective treatments have been developed. We can't cure it, so it has become in effect a chronic illness and an expensive one. No one would deny that this ability to treat AIDS is a wonderful advance, regardless of expense. Let us hope that medical research will continue to be well-supported, so that we may deal with existing as well as new disease challenges in the future.