HANSARD

NOVA SCOTIA HOUSE OF ASSEMBLY

STANDING COMMITTEE

ON

HEALTH

Tuesday, July 9, 2019

LEGISLATIVE CHAMBER

Investments in Orthopaedics

Printed and Published by Nova Scotia Hansard Reporting Services

STANDING COMMITTEE ON HEALTH

Hon. Gordon Wilson (Chair)
Suzanne Lohnes-Croft (Vice-Chair)
Keith Irving
Ben Jessome
Rafah DiCostanzo
Karla MacFarlane
Barbara Adams
Susan Leblanc
Tammy Martin

[Hon. Margaret Miller replaced Hon. Gordon Wilson]
[Bill Horne replaced Keith Irving]
[Hugh MacKay replaced Ben Jessome]
[Tim Halman replaced Karla MacFarlane]

In Attendance:

Judy Kavanagh
Legislative Committee Clerk

Gordon Hebb
Chief Legislative Counsel

WITNESSES

Nova Scotia Health Authority

Dr. Michael Dunbar - Outcome Scientist for Orthopaedic Surgical Care,
NSHA Orthopaedic Working Group

Dr. Gail Tomblin Murphy - Vice President,
Research and Innovation

Dr. Marcy Saxe-Braithwaite - Senior Director,
Perioperative/Surgical Services

Dr. Michelle O'Neill - Orthopaedic Surgeon

House of Assembly
Nova Scotia

HALIFAX, TUESDAY, JULY 9, 2019

STANDING COMMITTEE ON HEALTH

1:00 P.M.

CHAIR
Hon. Gordon Wilson

VICE-CHAIR
Suzanne Lohnes-Croft

THE CHAIR: Order. I call this meeting of the Standing Committee on Health to order. My name is Suzanne Lohnes-Croft. I am the Vice-Chair of the committee but acting as Chair. Today, we will hear from witnesses from the Nova Scotia Health Authority regarding investments in orthopaedics.

I would like to remind you to have your phones off or on vibrate. In case of an emergency, please exit through the Granville Street entrance and proceed to the Grand Parade square.

I'll ask committee members to introduce themselves.

[The committee members introduced themselves.]

THE CHAIR: We also have our Legislative Counsel, Gordon Hebb, here with us, and our clerk, Judy Kavanagh.

I will call on Dr. Dunbar to introduce his accompanying colleagues and make opening statements.

DR. MICHAEL DUNBAR: Thank you for the opportunity. To my immediate right is Dr. Gail Tomblin Murphy, Vice President of Research and Innovation; Dr. Marcy Saxe-Braithwaite, also helping lead with our research; and Dr. Michelle O'Neill, one of my orthopaedic surgical colleagues - proud to call a colleague of mine - working in Cape Breton as an arthroplasty surgeon.

Good afternoon to the committee. I want to thank you for the opportunity to come before you and discuss investments in orthopaedics - and I do mean that. I appreciate the oversight, being from Nova Scotia - I've been here a long time. I appreciate that, I appreciate where we are in the province.

It's an important topic to me as a clinician, a researcher, and an academic. It's of profound significance to my patients who were out there waiting and who expressed to us as clinicians - many of you would know this as constituents as well - the pain that they feel and how it impacts on their lives. It makes me emotional sometimes just talking about it.

They share their frustrations and despair about how they can't move. As we reflect on this, and perhaps through some of the discussions we'll reflect on how important movement is to all of us as a population and as a society. Each of their stories really is a call to action to us as researchers, clinicians, and largely as a community. It's a call for us to improve access to quality of services so our patients can receive the care in the right manner for the more appropriate patient in the most appropriate time.

It's also a call for us to collaborate and innovate, to find new evidence-based and outcome-driven solutions, including non-surgical - and that's very important to the greatest extent possible. I think that speaks to the movement piece.

As an orthopaedic surgeon based in Halifax - and particularly at the Infirmary - my specific focuses are arthroplasty hip and knee, and I deliver primary care mostly for hip and knee and sometimes partial replacements. But my major role is that of a revision surgeon, looking after some of the problems - of which I have my own - and I'm compelled by what can happen with arthroplasty, as well, and this balance we have of delivering care and what it brings to our patients.

In Nova Scotia, we've historically had some of the longest waiting times for access to arthroplasty. That's a fact and it's been well-documented over a decade, and unfortunately, we also have some of the highest demands in terms of disease burden. We also unfortunately have some of the worst outcomes with respect to our revision rates, as I spoke to, those arthroplasties that fail.

The good news though in all this is that at some point in time you've got to go up and I think that's very much what has happened. We've hit the inflection point and we're moving towards the right direction.

In 2015, I was very pleased and honoured to take on the role as QEII Foundation Endowed Chair in Arthroplasty Outcomes, and I'm extremely grateful to the foundation for their support because their support has allowed initiatives to happen. It's not me, per se - it's the finances and the resources that have allowed me to empower a team around me and actions this. The power of this chair is the ability to make linkages, particularly across Atlantic Canada and also nationally, with some of the leadership chairs we hold.

We're looking very much to align our initiatives nationally and to move us from decades where we've been data poor to more of a data-rich environment. The chair helps us with that by providing these resources. We build relationships with government, business intelligence, finances, perioperative management, and most importantly perhaps, from my perspective, the Canadian Institute for Health Information, which we're linked to.

We're developing tools for patient self-assessment as well as surgeon self-assessment. We've worked with the Department of Health and Wellness to develop administrative data sets, and we're very grateful for the collaboration and support we've had. Doors have been opened and it has made a difference, and that's a bit of a new world.

We've since evolved the work completed to build data sets for orthopaedics to create similar rich - and hopefully we're moving to take those data sets to other fields within surgery and also across this province. We now have, I think, some of the richest data sets in the country because of these initiatives, and we're bringing on more.

You may be aware of NSQIP, which is the American College of Surgeons National Surgical Quality Improvement Program. This is an international prerogative that's being announced across a number of provinces, and we've now fully embraced it within Nova Scotia, which is going to add a more data-rich environment.

Hip and knee arthroplasties are registered in Canada via the CIHI, as I mentioned earlier, through the Canadian Joint Replacement Registry, which I'm proud to say I co-chair and have done so for about a decade now. Jurisdictions that register their implants around the world have better outcomes, so it's important we do that. I'm proud to say, through leadership within the Health Authority and help through the deputy minister's office, that we've now made ourselves a mandatory province where every arthroplasty is registered nationally and can be followed. This is extremely important to understand the investments we're making and what we're getting for the investments, and we're a leading province nationally to do that.

This data holds great value, including the information to support patient safety, case costing, and other reporting. Also, we're taking a major initiative through the national registry to look at infections as a way that we can reduce complications and burden to our patients. I'm happy to discuss that further in questioning.

Building on this bridging work, I was asked to sign on as scientific lead about a year ago. I've done that out of a sense of responsibility because I think so many amazing things are happening. The stars are lining up. It would be inappropriate to complain and say no; unless you step in, you can't complain.

The aim of this is to ensure that we're collecting meaningful data and that we're collecting consistent data across the province, but also we're going to align that data with the national initiatives that I've alluded to, which I think are extremely important, so that we're in step with national prerogatives and can compare our data. It's most important that we get standardized within the province, which is one of our major challenges, but it's also coming to fruition.

Dr. Saxe-Braithwaite will speak to the plan more fully on transforming what approach to take and how our care for hip and knee patients before and after surgery is improving and how we're collecting patient-specific data that continues to improve in a quality cycle. National work is going on with the Canadian Orthopaedic Association and the Canadian Institute for Health Information - or CIHI, as I alluded to before - to help us influence a lineup of where we are for standards and looking at outcomes across the country. This includes, importantly, things that you hear about like PROMs - patient-reported outcome measures - and their experiences. These are important tools.

Finally, I'll just be brief and say that we're a small province - and I was just saying this outside. We have tremendous challenges, and I'll say this off script and personally. The reason I'm here and the reason I'm in Nova Scotia and love to stay here is for all the reasons we know, but also because I think we have amazing opportunities. We have a single jurisdiction in which everybody is more or less - we have an old disease-burdened population, who are the greatest people in the world, who all sign up for studies. We have the ability to understand before any other jurisdiction in the country what it is that we spend our money on and what the outcomes are.

We also have that opportunity to develop these into patient-specific tools that will allow for shared support decision making, which we think is perhaps one of the most important initiatives we can do - to take information, the patient-specific information, and feed it back to the patient and their families so they can help us make the best decisions. We're offering them the most appropriate patients at the most appropriate times, and we're keeping the patients away from surgery into other disciplines that they should be in.

Finally, I think we can commercialize that, and we shouldn't be afraid to say it. We could be a leading centre within Canada to be the next Waterloo, where if you want to come and test your mobile health care technology and your leading edge, you come to Nova Scotia to do it.

With that, I would like to pass it over to Dr. Marcy Saxe-Braithwaite.

DR. MARCY SAXE-BRAITHWAITE: Thank you very much for being here. I want to thank Dr. Dunbar for being my co-lead and working really hard with us to improve orthopaedic care in this province. My background is nursing. I have been a nurse for over 37 years, and my doctorate is in business administration and leadership.

As Dr. Dunbar noted, it's no secret that Nova Scotia has had the worst wait times in the country for hip and knee replacements, and it has been challenging. We are working really hard in this province to reverse the trend and to do better care for our patients. It's not as much about what our peers say. It's about what our patients need in this province. Over the next few minutes - I hope I don't take too much time - I want to share with you some of our journey and what we have done to transform orthopaedic care in Nova Scotia.

For anyone who lives with hip or knee problems and has a parent who has had hip or knee problems, you know they're often in pain. Mobilizing is difficult. Getting around is hard. They use canes or walkers. They're very frustrated and often are kept from the activities of daily living. Many of them become depressed, have pain, and often gain weight. Then their overall quality of care is impacted.

Our role is really bigger and holistic. It's not just about providing the knee or the hip replacement. It's about the whole journey and looking at the patient from a holistic standpoint. When we decided that we wanted to work on orthopaedic care, we really wanted to look at what we needed to do to support the patients to be as healthy as they can be - meaning before surgery, during surgery, and after surgery. We wanted them to carry on and do the things that made them happy and things they wanted to do. We know that any patient who suffers from joint arthritis who has to have surgery needs to be supported.

We know that we needed to change the way care had been delivered, so in the summer of 2017, our provincial perioperative program - of which I'm one of the co-leads - submitted a multi-year faceted approach to government to look at improving wait times for Nova Scotians. The plan received great support. In October 2017, we were informed by the Department of Health and Wellness that they were going to fund us and support us, and there was an announcement here by Honourable Minister Delorey that told us we were receiving funding to move forward with hip and knee care.

For a number of years, we know there had been investments where there would be edicts that came: here's $1 million or here's $500,000, try to improve the care, but it wasn't sustainable funding. It's very difficult to hire people when the funding runs out in six months, because job security is really important to our health care providers.

We have had teams of surgeons like Dr. Dunbar and Dr. O'Neill and nurses and program leaders who said we need to look at doing things differently. With everybody's efforts, we knew that we could do research across the country and find out what was happening. I spent a lot of time doing my due diligence, talking to my colleagues across the country to find out what was working. Everybody told me the same thing: government is great, they gave us millions of dollars. It was for one year, half a year, two years. Then the money ran out, so we let everybody go. Then they wondered why the wait times went up. So return on investment was missing.

We said we needed to do something different and we called it transformational care. We wanted to really look at what was happening, and one of the concepts that came to light was a wellness model. Why were we treating patients as if they were ill when they were having joint surgery? For years, people would come into the hospital and be treated and stay many days for a hip or a knee and be in their beds. We thought, this doesn't really make sense. So we started to look at wellness models, and there were some in the U.K. and a couple in the U.S. We said, we could do this, we could shift the way we deliver care, and that's what we did.

A group of us went down to Illinois last year to Kishwaukee Hospital in DeKalb, Illinois. All I can tell you is that it's a cornfield out in God's country. It is way out there. It took two and a half hours from Chicago to get out there by bus, but what we saw was an orthopaedic hospital that was focused on patients that were suffering with hip and knee pain. The patients came into the hospital - Dr. O'Neill was with us. It was a phenomenal experience.

After surgery, they were dressed in their T-shirts, their shorts, their runners, and they were up walking. We thought, wow, they're not even going to bed to rest. They're gung-ho. They had what they called a Hallway of Fame and people were competing with each other to walk down this hallway. Unless you saw it, you couldn't believe this could actually happen. This excited us. We came back and we said, this is what we have to do.

We also encourage our patients to have a coach with them - a family member or a good friend so that there's someone there to help support them so when they do become frustrated, they have that coaching. So our patients are up and about and it's very exciting for us to see.

As well, we knew when we wrote the business case, we needed to recruit more people. So we have been recruiting additional physiotherapists, occupational therapists, social workers, dieticians, medical device reprocessing technologists, and a gamut of people that we needed to support the work we're doing. Some parts of our plan have taken longer than we thought, but you never know - you could write the best-laid plan and things change.

We have standardized our care pathways for patients for hips and knees. We recruited four new orthopaedic surgeons, three new anesthesiologists, and to date we have hired 80 additional full-time equivalents.

We've also changed the way we think about the care we provide. We don't focus on the patient being ill. We always focus on them - their quality of life and their health issues. We're helping them to look better, feel better, and to have more mobility and ability to carry on with their activities of daily living.

We have an inter-professional orthopaedic assessment clinic that some of you may have heard of where patients are now seen by an RN and a physiotherapist and triaged before they see the surgeon - this helps more timely access. They're often seen within four to six weeks, and then they're told or asked if they wish to have surgery. We work them up, we talk with them, and some of our patients choose to be what we call optimized, where we'll help you get more physically fit, help you exercise, help you lose weight, and then you can make an informed decision if you wish to have surgery or not. Some patients have said they're not ready for surgery, that they wish to wait, to see if losing weight helps them with their hips or their knees.

We also help them to lose weight, to stop smoking, to make sure their homes are better accessible for them. Sometimes it's just a matter of having a raised toilet seat or grab bars in the shower. We look at their pain management and we also ask them if they would like to participate in group exercise, which we call prehabilitation.

For those who want to go through the prehab program, they're feeling more optimized and more mobile. For those who wish to have surgery, then they're referred off to the surgeon, but while they're waiting to see the surgeon and waiting for surgery, we are working with them to keep them more agile, more ability to move about, do their things, and help lose weight. We're seeing a lot better outcomes because patients are physically better set for surgery than when they didn't have this.

[1:15 p.m.]

The other thing that we're offering the patients is that if they know the wait-list is long for a specific surgeon, if they wish, they could see the next available surgeon, or they could go to another zone to have their surgery. We have had several patients say that they have lived with the pain long enough and they really will go where the shorter wait times are. We have done referrals for that. We can allude to more of that later. Our new model is really, truly helping the patients, and our focus has been on the patients.

In Fall 2018, when we started our new wellness model, we had five orthopaedic sites where we launched this: Aberdeen Hospital in New Glasgow; Cape Breton Regional in Cape Breton; Dartmouth General; the Halifax Infirmary site of the QEII; and Valley Regional Hospital in Kentville, in the Annapolis Valley.

Mobility and recovery go hand in hand, and we know that if patients are up and mobile, it is better for their outcomes long term. There's less risk of complications, especially any type of blood clot. We are truly trying to get patients up and about. As I mentioned earlier, we have our patients up and dressed in their own clothes. We have new recliner chairs; they're very nice. Patients always want to steal them and take them home, but we keep them there. That's really where they're doing their group activities. After surgery, you go back to your nursing unit, and then you're assessed. As soon as we can mobilize you, the patients are up into their recliner chairs. They go to group exercise class in their recliner chairs. They basically spend a lot of their time in a chair.

The group exercise classes have created a milieu where patients now have a bond with their other colleagues who are having surgery. One of the things that would be really nice is to have alumnae luncheons or dinners for the patients. What I hear from the ones I talk to: I made friends with Mary, and I go out with Mary now, and if it wasn't for Mary, I wouldn't be motivated. We're creating a different way for our patients to feel better about care.

This has been truly transformational work. We have started doing some same-day surgery. At Dartmouth General, we have done 11 knees that have gone home the same day, one hip, and several unicondylar procedures, which is partial knees. We have faced some challenges. It isn't always easy doing the work we're doing. As many of you may know, we often face challenges with trauma and no bed availability, which is related to the patients in our emergency departments and overcrowding, but we try really hard not to cancel our patients.

We feel at this point that we have made steady progress, and we are continuing to work collaboratively with the Department of Health and Wellness to advance care for Nova Scotians. With everybody's ongoing support, we feel that we have started a journey where we are transforming care, and improving the health of the patients in Nova Scotia.

As Dr. Dunbar said, we're ready to take the model and expand it to other areas of surgery. As well as in orthopaedics, we would like to do it for general surgery, ENT, our vascular patients, and keep expanding this model of wellness. Our model truly, we feel, is evidence-driven, patient-centred, and holds the keys to improving care and access for all patients in this province.

We're truly proud of the work we're doing. I thank you for your time.

THE CHAIR: Thank you for your opening remarks.

I would like to remind people, your microphones are placed in a special place so that Hansard can pick you up, and we have the fans on today. Can you please make sure that your microphones are in front of you? I notice some have been turned away, and I know that they can be irritating, but if you can place them so that we have better sound and

people can hear. The fans leave a bit of a buzz, and some people have expressed that they're having difficulty hearing.

We will start questioning for 20 minutes, with the PC Party. Ms. Adams.

BARBARA ADAMS: I want to welcome you all here. I want to echo Dr. Dunbar's comment about it being an emotional thing. I'm a home care physiotherapist who saw post-op knees and hips in the home for many years and ran a home care physiotherapy company. I know the challenges you're trying to improve, and I'm grateful for everything that you have all done and the coordination of the research with the clinical care and the expansion of the team.

With the limited time that I have, I have some specific questions in terms of some reports that have been written and then some more generalized questions. The first one is, in the documents that we were sent to read prior to this, there is one place where it says that the diagnosis that's most commonly resulting in hip surgery is degenerative arthritis: 81 per cent for hip and 99 per cent for the knees.

I'm wondering if someone can tell me what your relationship is with the Nova Scotia Arthritis Society in terms of how much of a role they have in what you're doing moving forward.

MICHAEL DUNBAR: The Arthritis Society, both locally and nationally, are important care drivers. They're coalitions, as you know, and they bring resources through grants and also some initiatives.

It's interesting - it's a crowded field, as you probably know. There are a lot of national organizations that are out there to assist with mobility and improve things. In fact, it becomes almost difficult to navigate the field and it becomes competitive products. For example, as you may be aware, Bone and Joint Canada now is rolling out Good Life with Osteoarthritis in Denmark, or GLA:D, which is basically an intense physiotherapy patient-specific program that can be translated in a group-wide space.

The fundamental issue is that we've been relatively deficient in terms of our engagement at this level, partly because it brings competition and another layer of complexity and discussions that I think we're frankly not ready for.

What's happening across the province is that natural research projects - for lack of a better word - or natural set of conditions are happening because of different jurisdictions having different preferences. So if I come in as a research director and say we have to make sense of this and that we're all going to do it the same way, it's just not going to happen.

Instead, what we can say is, if Cape Breton has been doing it this way, and if we want it in line with the Arthritis Society say, or a GLA:D program in the Valley and in Halifax we'll use the Kinduct ACOA-funded product, then we should allow the natural variability to occur, but we must collect the same metrics going in and the same metrics going out, including cost utilities so we can understand what the investment is and the return on investment. Many of these things are self-evident, but sometimes they're actually less cost-effective than you might think and you might be better off doing other things.

Just to expand on that, I think one of our great opportunities - I did my thesis work in Sweden. I lived in Scandinavia and it makes me choke that we're picking up the Denmark program. We're not Danish. (Laughter) Eighty-five per cent of them ride bikes to work and it's flat country and it's different. Why don't we have an Indigenous Canadian health care population exercise program or some learnings from our own population about how to handle through mindfulness and gentle movements, et cetera? I think that's a real promise for this province.

BARBARA ADAMS: I appreciate that. I'm also aware that we have a dementia strategy in this province and the government funds the Alzheimer Society $300,000 a year, but they don't provide any funding to the Arthritis Society. I think that's something that might be looked at in the future.

One of the things that I'm aware of, according to the research that we were given, is that the direct cost for surgery is around $7,500 to $8,000 on the brochure, but the indirect cost is listed at $12,000. I'm all in favour of the OAC team members - the physios and all the other team members. I'm wondering how that impacts the cost for the total surgery, from prehab to post-op care, when you add in those indirect costs. Once you have an OAC team in place, how much more do they cost one surgery, and do we know?

MICHAEL DUNBAR: This is precisely the question. We've invested the resources and frankly, I'll speak honestly, as a surgeon we want to be careful. What has happened in some jurisdictions when they applied lots of investment is that they went out and beat the bushes - for example, in the United Kingdom, this is well-documented - and they operated on inappropriate patients. They got patients too early that would have been better off. So first of all, we want to avoid that.

Second of all, if we don't have the capacity right now because of bricks and mortar to do more surgery and there's money on the table, sometimes we say, well, let's put this money into other envelopes and see what we can do with it. That's kind of what's happening.

At the same time, this is all self-intuitive and it's all the right thing to do because people should be more mobile, they should be more active, they should be more aware of their body health because it speaks to frailty - which is a big issue in our province - it speaks to cardiac health, it speaks to brain health, it speaks to everything. You can't get up and

move unless your joints are working. There's no sense fixing someone's heart and saying the engine can go now, but my wheels can't turn. This is where the burden is coming from.

Part of my pushback on this team is, we have to prove, to your question, that these investments are cost-effective. By necessity, we've put the things in place to make it happen, and we're catching up with the metrics to make sure that the investments are appropriate, but that's where we need your patience.

I'll say a couple of other things, if I may. Costing has been very difficult because of communication, understanding what things cost in this big health care with no real understanding because we're not down to the dollar like the Americans. Things are just all free. Everything's free, but we don't itemize well. That's part of what has now happened through some of the barcode scanning we're doing, working with National Health, so we know the exact cost of every implant going in, and we're starting to understand the whole episode of care cost.

The next thing comes, for example, because another very important piece of this is, if we're investing in this, and we're reducing the length of stay, if patients return to hospital more often in the emergency room because we've discharged them too quickly, was that cost-effective? I think that we're fine, but we had better make sure we have the evidence to prove that case. If we do have people bouncing back, who were they? Could we have predicted them? Could we have approached them better in the decision making through this feedback loop?

BARBARA ADAMS: I want to go back. I'm not sure if you're familiar with the Auditor General Report that was written in April 2018, which was a follow-up of the 2014-15 recommendations. The 2018 April report said that nine of the recommendations for your area were not done. I'm wondering if anybody knows if those nine have been completed yet.

MARCY SAXE-BRAITHWAITE: The majority have been done. We haven't had another ask, but we have looked at how we allocate our OR time and created OR algorithms to utilize our resources efficiently. One of the things that I wanted to add when Dr. Dunbar was talking about our costs was looking at our case costing model so that we can know what every implant costs us for every orthopaedic patient and all the indirect costs, as you had asked for. We are working through the majority of the AG Report.

Is there a specific one?

BARBARA ADAMS: There were nine of them. The one that jumped out at me that I was curious about was "The Department of Health and Wellness, Annapolis Valley Health, Capital Health, and the IWK Health Centre should set specific, short-term surgery wait time performance targets and regularly report against those targets publicly." That wasn't complete before. Is that complete now?

MARCY SAXE-BRAITHWAITE: The wait times have never really - what you get on the PAR-NS, which is the provincial registry wait times site, is data, but it's not always as current data as we need. We have been working with our communications and our analytic teams to make sure it's true wait time data which is really reflective of the last six months. The times that you see on the wait time lists here are often CIHI data or the provincial registry that are back data. It's retro, and it's not truly reflective. If I looked at the system today, the wait times there are much longer than our actual wait times. Our communication team is working to update it so that it is current. As well, we're going to have more information about what we're doing in orthopaedics publicly displayed because we haven't been good at sharing with the community at large the work we are doing.

BARBARA ADAMS: I wonder if afterwards you would be able to send me just a short summary of the ones that have been completed and the ones that haven't yet, if that's okay. I'll provide you with my contact information.

The next report that I want to go to is the Nova Scotia Health Authority Accreditation Report that was done in 2017. It's the only one that has been done since all of the hospitals in the province amalgamated. On Page 7, it gives an overview by standards of the various departments and topics. Under the ambulatory care services, in which you fall, the met high priority criteria was 60 per cent, and the unmet criteria was 40 per cent. For most of the other areas, like say cancer care, it was 6.9 per cent unmet, and medication management, 4.1 per cent. Even emergency department unmet criteria was half, it was 21 per cent. I'm wondering if you are able to tell me what percentage of the unmet high priority criteria have now been met since this report was released. If you can't, that's okay.

[1:30 p.m.]

THE CHAIR: There's no response.

BARBARA ADAMS: That's okay. Thank you. Just going on the wait times that we were provided for each surgeon, people love having that available online, but I can't imagine you're as fond of it. I'm just looking at two of the pages and I'm looking at Dr. Dunbar's wait times for hip replacement and it says here, 408 days for a consult and then 396 days for surgery wait times. Dr. O'Neill, surgery wait times for hip is 180 days and surgery wait time is 328 days.

I get asked all the time because it's the number-one and -two issue, how long do we have to wait to get in to see a surgeon; how long is it for the surgery? Aside from long-term care wait times, this is the number-one and -two question, unless you don't have a family doctor. People always ask when they look at this, why are your wait times different?

MICHAEL DUNBAR: It's a great question. I think it speaks to this being a relatively small province that we have different practice profiles. My practice is almost exclusively complex joint replacements from other surgeons and also from rheumatologists - the young adults with rheumatoid arthritis - and revisions. So I screen every one of my

consults and when I see what I call a routine hip or knee replacement, they're sent a letter to be told they'll be waiting more than two years to be seen in consult, there are much shorter wait-lists and you may choose to go there.

My strong feeling on that is that if the patient chooses to stay on a wait-list when they've been told, because of perceived reputation, then they can't complain about waiting, so subsequently, they should come off the rosters, they shouldn't be included in waiting.

Right now, a lot of people are making their way to the first available surgeon. We've hired a fantastic crew of new surgeons who are doing a great job of screening patients quickly, seeing them and so what we call T1 - the time from referral from a family physician to see a surgeon has gone to weeks if you go to the first available surgeon, but it will remain long for some of us because of the nature of our practice.

I make the analogy to patients: if you're a firefighter, you can't stop on the way to put a fire out to renovate a shed. That's a different job I'm doing, so that's why we see this. Again, if you were in Toronto, this would get washed out across seven hospitals, but because we're in Nova Scotia, everything in this capacity that needs to sort of be redone in a more complicated sense comes to Halifax.

I'll just elaborate. This is part of the reason that we have the tertiary care nature of what we do in Halifax discriminates against the citizens of Halifax because their spots in the queue are bumped by things that are coming in. This is why it's very important to have new capacity over in Dartmouth, which is going to offload because they'll be primarily arthroplasty and also allow the patients to see these different wait-lists.

I'll make the final analogy because I think patients find this helpful. It would be like going to the grocery store and you can't see the lines. We all want to sneak and try to get to the best one and you find out and you have this huge queue and you didn't know. You'd be really upset and that's the issue. I think that's why that information on the website is going to be important: so that patients can find their way to the best service or the best time.

DR. MICHELLE O'NEILL: I think I'll echo a little bit of what Dr. Dunbar has said. In a tertiary care centre, obviously there is a different patient population coming in that are tying up beds, so they definitely have a bigger problem with bed availability than we would have in a community hospital.

My practice pattern is different. Probably 80 per cent of my practice is primary hip and knee arthroplasty; where 20 per cent is revision. That's probably the complete opposite of his practice pattern.

I also think we've had a very supportive environment in Cape Breton, honestly, from an orthopaedic point of view, where we have actually had increased OR availability, increased access to try to reduce our wait times. I've had a dramatic reduction in my wait times actually in Cape Breton. I've been there for 10 years, so over the last five years in particular, we've actually made significant gains in Cape Breton with regard to the wait times for people looking for hip and knee arthroplasty.

BARBARA ADAMS: One question I have is, how many of these patients that we see for hip and knee surgeries here come from a different province?

MICHAEL DUNBAR: I would think from a primary perspective, very few. We actually have really interesting statistics across the province where people stay. The majority of people in Cape Breton are from Cape Breton and stay there. In Halifax, a minority that we operate on are from Halifax, for example, and that speaks to the nature. There isn't a lot of trans-border, so we don't get primaries from Prince Edward Island, Newfoundland, or New Brunswick, to your point. We do get the tertiary care referrals. The young patients, the rheumatoid patients, or more complex things will sometimes come, particularly from Prince Edward Island and to a lesser extent New Brunswick and, rarely, Newfoundland.

BARBARA ADAMS: I did have a tour of the Dartmouth General where you're going to be operating; it's amazing.

I know we have a long backlog of patients waiting for surgeries, but I also know that over the next 20 years the number of seniors is going to double. The investments that are being made right now, are they there solely to catch us up for the last five years of buildup of wait times, or is it going to be sufficient for what's coming in 20 years' time?

MICHAEL DUNBAR: I'm kind of like, put me in, coach, this is one I'd like to answer. (Laughter) I think this is what it's all about. This is why we need the patience of the committee and why I said I'm pleased to be here for oversight.

I think one of the important things we're putting in place is long-term care, and as I spoke to earlier, the mobility issue. I just had a fascinating meeting this morning with some very important stakeholders within the health care system about how we want to look at frailty and aging and making healthier citizens long term. The best time to plant a tree is 20 years ago; the second-best time is today. We need to go back to that good old-fashioned ParticipACTION that we all grew up with and get our kids moving. We all know that your early health, your musculoskeletal health, pays dividends for sarcomere deterioration, how you're going to end up, and how your health is going to be when you're older.

I think those things are starting to come into place, these mobility assessment clinics. Right now we have orthopaedic assessment clinics, but we hope to look earlier on in the process at mobility assessment. That could also be pre-screening for frailty, dementia, and other things, because that's a big issue in our province, as you know.

If we can make those investments early, to your point, the most important cost-effective investment we can make is to reduce those numbers. There's no jurisdiction in the Western world that's going to be able to afford the tsunami that's coming if we do the anticipated number of joint replacements and if we do the revision burden that will come with those joint replacements. Particularly if we continue to make this a lifestyle issue and dial it down into younger and younger patients who have greater and greater expectations about what metal and plastic can deliver, because they're watching commercials coming out of the United States that say when you get a new knee replacement, you're going to run on the beach with a puppy and a new partner. It doesn't happen that way.

This is why we have to be a little bit careful. We're heading with understanding with the patient population to keep them away from surgery. It's too easy to say, I want to come in and get surgery. Right now, we should be saying you need to do more exercise. You need to do more mindfulness. You need to be more mind-body. That's going to pay dividends for all of health care.

BARBARA ADAMS: As a chronic pain physiotherapist, I know the prehabilitation that should come long before they reach your doorsteps. There hasn't been an expansion of chronic pain clinics across the province. I'm wondering if you think that would help with what you were saying about keeping people more active and less of them needing surgery.

MICHAEL DUNBAR: In general yes, but I balk because it goes to that wellness model Dr. Saxe-Braithwaite was speaking about, that we want these patients to feel well. Just by the label "chronic pain" model, this would be more about mobility, about healthy living with your sore joint, about how you get around it.

We have looked at lots of research about perseveration, catastrophizing, and rumination. There are personality traits that make these things worse. I see Dutch farmers who lived through the Nazi occupation. You can't believe they walk, and they say, my knee is fine, leave me alone. The Nazis didn't get them, and this arthritis isn't going to get them. I see people half their age who have much less symptoms who are having a much more difficult time coping. That's not a decision that's made on an X-ray.

THE CHAIR: Order. Time has elapsed for the PC caucus. We'll move it over to the NDP caucus. Ms. Martin.

TAMMY MARTIN: Thank you for being here and talking about such an important issue that, as you said, the constituents and your patients are facing every day. I appreciate the work that you're doing to make improvements, and the financial contribution and commitment from the government. However, I am feeling really guilty now, thinking I'm not doing enough for my joint health, so Sue and I are going to the gym. (Laughter)

Having said that, I understand 3,933 orthopaedic surgeries were completed in the province in 2017-18 - the Minister of Health and Wellness announced that in the Spring. Can you tell us how many of those were hip and knee surgeries and how many of those were emergency procedures?

MARCY SAXE-BRAITHWAITE: All of those were hips and knees - that number you have, 3,900, were the hip and knee arthroplasty cases. That's what we report on to the Department of Health and Wellness on a monthly basis, and then we do a year-end report. You wanted to know how many were emergencies?

THE CHAIR: Yes.

MARCY SAXE-BRAITHWAITE: Those would all have been elective cases in the number we report on. We have a target that we try to establish and to meet, so that's what we reported on. I wouldn't actually have the exact number if they came in after midnight or were an emergency. I would have to get back to you on that number, but most of them have been elective surgeries that we're reporting on because they're scheduled to be done as hip and knee arthroplasties.

TAMMY MARTIN: Same question, different year - in 2016-17, 2015-16, if you have the numbers of ortho-surgeries for hip and knee. I guess the answer would be the same - you wouldn't know of any emergency procedures that came in. These were all elective surgeries?

MARCY SAXE-BRAITHWAITE: That's what I would hazard to guess. That's what we're reporting on in there, but we could have our statistician run the numbers to find out how many of them were actually emergency surgeries. I don't know if Dr. O'Neill would have any knowledge of that.

MICHELLE O'NEILL: I think the majority would be elective surgeries. The only possible wrinkle to that is, there are patients that come in with hip fractures that end up having a joint replacement. I don't know off the top of my head whether any of those people, when they're coded, if that would get separated out. There could be a percentage of patients within that pool that would be people who have had total hip replacements, but for a fracture situation.

TAMMY MARTIN: Are you able to give us a timeline so we can understand how the investments are rolling out, so we know when new surgeons have started their practice? As you've alluded to, there have been investments over a period of time.

MARCY SAXE-BRAITHWAITE: For the four orthopaedic surgeons, one started April 2018 in the Valley; two were hired in September this past year for Halifax and Dartmouth; and one started November 2018 in Aberdeen. Two anaesthesiologists started as of September 2018 for the HI, and one for Aberdeen started late September.

TAMMY MARTIN: So no new surgeons in Cape Breton?

MICHELLE O'NEILL: Initially, an orthopaedic resource plan was made and that would probably be almost 10 years ago now. It was revised, I think, about five years ago. A discussion amongst the orthopaedic surgeons in the province - a meeting was held, and we looked at where we needed to put new orthopaedic surgeons at that time. We felt in Cape Breton that we were actually able to meet the needs of Cape Bretoners and we didn't feel at that point that we actually had room or needed at that time another orthopaedic surgeon. That's part of the reason that Cape Breton has not had another orthopaedic surgeon.

TAMMY MARTIN: How do the hospitals with an influx of ortho-surgeries deal with the other surgeries? Are other surgeries getting bumped or put off in order to accommodate? As we know, there are no new hospitals, and as somebody spoke about, no new operating rooms, so how are you accommodating all of these new ortho-surgeries and maintaining the other surgeries?

MICHAEL DUNBAR: I think that's an insightful question. I'm not the operational person. I'll pass that over, but I think you're hitting at a very important topic. The first way that has been addressed is to look at length of stay so that the same beds, for example, that would have been occupied longer, by getting length of stay down, you can do more patients with the same resources. That has been really helpful, and we have to figure out what the limits of that are, but it has been enacted, and length of stay has decreased in the province appropriately.

[1:45 p.m.]

On the flip side of that, as you're alluding to, we're squeezing a balloon. There's a fixed resource right now. This is where the evidence-based approach comes about - what are the most effective procedures to be doing at the time? When you get down to a debate - and I think it came up in an earlier question - about cancer surgery versus cardiac surgery versus an elective procedure, the elective procedure tends to lose out, which is why these lists have historically been driven back the way they are.

I think it's a very complex understanding in terms of where this all fits. I'll pass it over to Dr. Saxe-Braithwaite for the operational part.

MARCY SAXE-BRAITHWAITE: We do over 70,000 surgeries in the province. We have 17 surgical sites. We're continually looking at how we use our resources. Part of my role is looking at accountability of how resources are used across the province, where we do surgery, and what surgeries happen, so we've done some health services planning to look at surgical care. As well, we have orthopaedics only at five of the 17 sites, and in those five sites, we've looked at changing the way we deliver the care.

In the Halifax Infirmary site, we have now added two more ORs so that they're doing arthroplasty in four ORs every day of the week versus other surgeries and then trying to reallocate some of the surgical services to other hospitals: what services can we move to the Hants Community Hospital; what can we move to other hospitals that aren't at full capacity? It's a bit of a juggling act at times, looking at the care, and always ensuring the quality of care is there for the patients. Dr. O'Neill can allude to Cape Breton - they have added a room. In New Glasgow, they have added an OR and they have refocused their surgical care to focus on arthroplasties.

It ends up being a balancing act, and we have to ensure that all the patients that need surgery are provided surgery and safe and quality care at all times.

TAMMY MARTIN: I appreciate that. I wasn't thinking of this question until your answer, and I would love it if you could help me understand how, as you alluded to, we're squeezing a balloon, we need more space. Specifically talking about Cape Breton, when we closed two ORs in New Waterford that I know did orthopaedic surgeries for a number of years, where do those patients go? Where are we getting the OR space that we're going to lose by, as you said, using community hospitals? Maybe I'm missing it, but I'm just trying to get it straight in my head.

MICHELLE O'NEILL: I'll try to answer to the best of my ability. Obviously, I'm not involved in the actual planning of the restructuring. Currently, the New Waterford hospital OR is still running. There is still orthopaedics being done there. Day surgery cases are still ongoing at this point. My understanding is that through the expansion at the Cape Breton Regional, most likely, that orthopaedics is going to completely come to the regional. I can't speak to that 100 per cent. I think as part of the renovation, the Glace Bay hospital OR is supposed to be renovated as well. When the two ORs in North Sydney and New Waterford are closed, those rooms will actually be made up for in the other centres. Again, obviously, I'm not privy to some of the planning of that.

MARCY SAXE-BRAITHWAITE: I can tell you, as recently as of this week, those cases will be accommodated at the Cape Breton Regional. I was on a redevelopment call this week. We will not lose any capacity with those two sites losing their ORs. Everything will be shifting over to the Regional, and the Regional will expand their OR capacity to accommodate. Glace Bay will do more ambulatory care procedures, and then everything from Northside/New Waterford will be accommodated. We were very concerned that we might lose capacity; we were reassured we will not.

TAMMY MARTIN: That is the answer I was hoping to hear, so that's awesome news. As people have talked about before about going to the least wait-list, unfortunately in Cape Breton, it's a little different - not everybody can travel, right? The fact that we're not losing any capacity is really good news.

Is there anything in the budget that shows the increase in the capacity of hospitals that are providing these surgeries, other than hiring anaesthesiologists and working with the pre-op program? Are there any other increases that you have received to help with this?

MARCY SAXE-BRAITHWAITE: The resource has been allocated, and we had a really massive plan of how we use every person hired and everything we need, so we've invested in some capital equipment. We've invested in more access to diagnostic imaging so that patients can have their MRI and their X-rays done sooner. We have invested in the housekeeping department, because as Dr. Dunbar had said, shorter length of stay means we're turning over the beds faster. We didn't realize to turn them over faster, you need housekeeping to turn them over faster.

We've invested in the clinical people - the dieticians and social workers, the nurses - and also investment into the anaesthesiologists and the surgeons. There are investments in IMIT. We tried to standardize our e-referral system, so we have to work with our IMIT team to do that. We've hired more booking clerks and registration clerks, because as patients come in faster, they want to be seen faster. We hired a senior communication adviser who has helped us put together a lot of the communication. So there is a lot of investment in many different areas.

Just to add to that, we are held accountable by the Department of Health and Wellness; we report to them monthly. I can almost go there every month and say - they will question us on every dollar spent and we are accountable for the dollars and the taxpayers' money to make sure that we are delivering the care they asked us to deliver.

TAMMY MARTIN: I'm certainly glad to hear that there has been an increase in jobs, for sure. That's a bonus.

Recently, at the Valley Regional Hospital, we've heard that some surgeries have been put off because of lack of beds. I've said, and will continue to say, that long-term and ALC patients are occupying these beds when they should be empty. Would you agree that this is causing a problem and/or a backlog with some surgeries?

MARCY SAXE-BRAITHWAITE: I would agree. We have been working with our colleagues in the continuing care and home care program really closely. They are actually now having some of their teamwork with us in the OAC, so what we're trying to do in the orthopaedic assessment clinics is make sure that if a patient is on the list for surgery and there could be a cancellation - if Dr. O'Neill says, I have a cancellation tomorrow, I can take you tomorrow instead of six months from now - that you're ready to go.

Then we're trying what we call it as a tool kit. So home care or a VON have already seen the patient, assessed them and their home is ready to go. All we do is make a phone call and say, Dr. O'Neill had a cancellation, Marcy is going Tuesday instead of six months from now - get going. We need to make sure the patient and the home are ready and that home care or VON can follow them, so we're looking at that.

We're also working with them to see how patients that are in, what you're calling, the surgical beds could be in medical beds instead of in the surgical beds. We face that every day where somebody has cancelled - like Dr. Dunbar said, it breaks our hearts. I get the phone calls and the person is very upset because they've been cancelled, and it's really difficult whenever we have a cancellation. So what we're looking at with home care and continuing care is, are there ways to activate more beds in the community? Are there other ways? Are there ways to help with primary care to educate people that they also don't have to come into the emergency department and could use other venues and then not need to be admitted to beds?

Working with our patient flow team and our continuing care team, it's continually trying to look at having the patients in the right environment and the right care, because an acute care bed is very expensive, and if you're going to long-term care and you're in an acute care bed, that means someone else isn't having surgery. That's what we try to balance every day.

TAMMY MARTIN: Thank you for that. The Cape Breton Regional Hospital, as we've talked about, has been very successful with hip and knee replacements and managed to ensure that they're meeting the national benchmark of six months. Dr. O'Neill, can you talk a little bit about what makes Cape Breton so successful? As we talked about before, is it the use of the available ORs in community hospitals?

MICHELLE O'NEILL: I think it's a combination of a number of factors. As I think everyone is aware, even pre-dating this last business plan two years ago, over the last 10 years, a significant amount of investments have been made towards orthopaedics in this province. That money has been used - even part of the one Health Authority - by different regional areas in different ways.

We've actually had a model of our orthopaedic assessment clinic running for almost eight years now. It was initially completely a prehab and then transitioned to the more complete model we have now.

We've been lucky in a way in that I think we were ahead of the game a little bit in this process. We had a fairly well-established process predating this recent business plan. That in combination with the support locally from the Cape Breton Regional Hospital and the previous health authority to realize it's a priority, I think, has been very important in that they have opened up additional OR times, slowdowns in the summer have been minimized. There have been things that they have put in place over the last number of years that have made it much easier for us to reduce our lengths of stay as well as our actual wait times both to be seen and for surgical intervention.

Having been involved with this process for a number of years, I think we are finally seeing a little bit of light in that I do expect as the rest of the province's catch up to us, my hope is that we start to see these changes across the province as well. I think we have the foundation now of a very successful program in place.

TAMMY MARTIN: Here we are, Cape Breton leading the way again. When hip and knee surgeries are mounting - because they're only done at five sites across the province - what does that look like? What do the backlogs look like for patients who are waiting? What kind of time frame are we talking about?

MICHAEL DUNBAR: If I may, it would go partly to the earlier question about where you're waiting and where you choose to go. There's a point we should also get out that there has been research done in Canada by Gillian Hawker, a really outstanding rheumatoid researcher who has looked at access to care and what happens when you're in a resource that has under-servicing.

One of the paradoxes that happens when you put more resources into an area that has been under-serviced is that more people show up for the surgery. If you're 78 years old, and you know you have to wait three years to be seen and another three years for surgery, you say, I don't want my surgery, I'm not even going to bother. But if you're told you can see someone in six weeks and maybe have the surgery in six months, you might show up and say, I want to go for the lifestyles change. Paradoxically, we have an upswing now of patients showing up saying that the resources are going down. This was anticipated - we barked that out a little bit. Maybe it's not formalized, but it's not unanticipated, in a sense. We need people to understand that it's a sign of success.

We spoke to this earlier a little bit on the research about waits. What really made me frustrated earlier on participating in the Taming of the Queue national conferences was that we're making a bureaucracy out of wait-lists. We shouldn't have wait-lists. We shouldn't be measuring wait-lists. Canada is one of the only jurisdictions in the world that has wait-lists for arthroplasty. We should perhaps ponder and reflect on that, because that's a fact - we're one of the few jurisdictions that has wait-lists for this procedure. That's why it has been made one of the top five national priorities.

The other thing we should remember is that hip replacements, followed closely by knee replacements, are the most cost-effective procedures we deliver almost in all of health care in terms of money spent for quality improvement delivered. It's a single intervention, you're out of the hospital in three days, and basically, you're done - you're back to almost normal if we get you at the right time and the right patient. You stop taking meds, you stop taking pain meds, you stop taking NSAIDs. Your kidneys get better and you start moving again. You get less depressed.

There shouldn't be wait-lists, and that's why it gets a little frustrating, but we got to it earlier and it came up with your other important question about the elderly patients and the long-term care. As our political leaders, you're faced with this and this is where we need - this is a societal debate. Where are we going? Where is this province in particular going with the decreasing tax base and an elderly population that are coming, that are more demented, they're not moving, et cetera. That's why we've got to get at people early and we've got to make some changes.

If I may, our greatest challenge is our greatest opportunity. I think this is where we can turn it around and lead because we have no choice but to make some major moves. There is no room in the hospitals. We're not going to make a bunch of new hospitals, it's not going to happen, so we'd better look at what we're going to do. We need to ask society: do you want your elderly loved one to be in a large hospital in a dehumanizing bed or do we want to repatriate them to their communities and put them in dementia villages and other things so we can die well in this province? We want to live well and we also want to die well. We need to be responsible and think about this.

It speaks to not just orthopaedics and that's why I spoke humbly, hopefully, at the beginning that this is hopefully the tranche for a lot of disciplines. This is the pathway that other great work has already been done, but just by beating through a little earlier with our priority, we can enable the same pathway for a lot of other disciplines because, as I said, cardiac health, neuro health - all this health is related to the same thing. It's about mobility. It's about healthy living. It's about being healthy with your joints when you're young. It's about education. It's about what we do in our schools.

[2:00 p.m.]

We go to the Netherlands often for research. It's an amazing country. The first thing you do when you walk into a hospital, by the way, is you see an art gallery because they get into aesthetics. They're a very tall population - one of the tallest, as you know - but their incidence of fracture is lower. Do you know why? They teach their kids how to fall in school. It was the first thing I heard when I went over there.

In Grade 4, they teach them how to tumble and dissipate energy and how you roll off a bike and how you tuck your head and how you protect your hip when you fall. It's a minor investment but pays huge dividends for hip fractures down the road, and those are the patients who get stuck in hospital and unfortunately die with nobody around - terrible outcomes. At the same time, if you say we want to invest in this, you have to pay for that.

THE CHAIR: Order. The time has elapsed. We'll turn it over to the Liberal caucus. I would like at this time to acknowledge Dr. Saxe-Braithwaite and Dr. Murphy. My notes did not include both doctorates. I will correct that from now on when addressing you. Ms. Miller.

HON. MARGARET MILLER: I was enjoying Dr. Dunbar so much. If you would like to continue with that, please take your time. We're certainly all ears.

MICHAEL DUNBAR: I've forgotten where I was. This is the passion I have, as I said. I'm not a come-from-away and that's important. My family has been in Nova Scotia since 1600-something - kicked out of Scotland for stealing sheep, no doubt. Regardless, I can say that I'm invested here. I want to see changes and I know the challenges we face, but I also know - and we need to believe this. We often say we need to bring someone down from Toronto to tell us how to do this. We don't.

We have incredible clinicians, Allied Health, researchers, universities - everything is here. We have an incredible patient population that are willing to participate. We just have to get organized. Part of the barriers we've had have been communication. The reason I want to come here and am passionate is with health - meaning government, the university, and the hospitals - it's a triumvirate. We often get two of the three together and we rarely get the three together. I think what I'm very proud about is what this team building has done. It's important with new hires, the deputy minister's role, our new VP Health with Dalhousie University, Dr. Gail Tomblin Murphy. These are important nods that the stars are lining up for health care research in this province.

I want people to bite that enthusiasm and get over the fact that we can't do it - because we have to do it. I think we can take some lemons and make some lemonade - I really do. I think we can take the learnings from this, turn around and make better decisions, support tools and apps, better mobility assessment tools. That's part of the ACOA funding that I'm happy to speak to that we're very proud and fortunate to get. I think we're leading in that. We're leading internationally. We can follow patients with smartphones like nobody else can. We just have to get out of our own way and believe that we can be successful to empower this, and then turn that same investment from our great patients and return that investment back into the province from the same patients that gave us the information to make that happen.

MARCY SAXE-BRAITHWAITE: I just wanted to add - when Dr. Dunbar was talking - the one thing we've done that we're also really pleased with is engaging our patients. We run many patient focus groups. We have patients sitting on our committees. We have patient involvement. We spend a lot of time understanding what works and what their experiences and their expectations are - because this work wouldn't be as fruitful as it has become without the patients being engaged. What we may think we know as health care providers often is not what the patients' expectations are or their experiences.

We've had a lot of patient involvement. We have guidebooks that we've produced where the patients told us what works and what doesn't, what is important to them, what we should include and what we shouldn't include. I just wanted to stress, since he was talking about how we're really pleased to have government, health, and academia together, we're also glad that our patients in the province are so willing to be volunteers and to take part and share with us and shed light on what is important to them in their journeys.

DR. GAIL TOMBLIN MURPHY: Thank you for this opportunity. I think as I sit here, this is just a perfect example of what Dr. Dunbar has just referred to, and that is around the communication, research, and innovation in this province. It's only going to succeed as a result of partnerships, including our patients and our families. I think this program and seeing how it has trended in the way that it has since the investment, is because of this commitment, the use of evidence - evidence that is informing practice on a daily basis. It's building capacity in our practitioners about using evidence in ways that they are seeing a huge difference.

I know that we've been incredibly proud - and Dr. Dunbar is not always one to talk about his own successes, but he and others in the program are leading researchers in this country and we are bringing investments to Nova Scotia that are coming from our tri-council, our funding agencies, which is very difficult to do in this country right now. We remind ourselves we're less than one million people and we're doing really well as it relates to that.

Also through development funding like ACOA and through our private industry partners that are incredibly committed to the very philosophy that Dr. Dunbar has talked about - that is around the wellness model and it's incredibly important to what we're doing. So I just wanted to add about the advancements in research and innovation and how this is making a huge difference in terms of the care that is being received by Nova Scotians.

MARGARET MILLER: It was really great to hear all that - the positive news that oftentimes we don't hear - that things are going well. Actually, very recently I had orthopaedic surgery on a broken arm, and I can tell you, it was an eye-opener in the hospital. The lady that was in the bed next to me just had a hip replaced, the same morning I had my arm fixed. The next morning at 10:00 a.m. she was discharged. I was just in awe because I wasn't moving yet. She was just amazing. She was out of there and out the door. We saw people walking up and down the halls. They had done 17 surgeries the morning that I had had my surgery, and by the time I left, most of those people were all gone, and it was all about knees and hips. So it's very positive and it's really nice.

What I'm hearing from people is that they find that their surgeries are working well. In particular, can you tell me a little bit about the pre-surgery education? I've heard from patients who have told me that that has really worked well for them - that they were more prepared when they went into their surgery and recovered better afterwards. Can you tell me a little bit about that?

MICHELLE O'NEILL: As part of prehab - there's obviously post-rehabilitation and then there's pre. So as part of our OAC clinics, most of the patients now go through a prehab program, which is a combination of education and also physiotherapy classes. They're obviously completely geared to people who have arthritis in their hips and knees and so they're trying to get them stronger. There's a lot of evidence the better your strength is - as Dr. Dunbar alluded to - the better your health is going into these surgeries, you're more successful afterwards.

That's one of the big areas of focus over the last two years with setting up these programs: trying to provide that standardized care across the province, no matter what centre you go to. They run a variation of this program, which I think has made a big difference.

We're also branching out a little bit into some of the technology in that we run pilot programs now in certain areas where there are app-based programs that patients can access where they can get some of this information on an iPad - both the exercises and the education portion of it. That distance may be a challenge for people to come to our actual physical classes, so this is another way we're trying to provide similar care to everyone, no matter where they are in the province. There are definitely some exciting things moving forward, and I think Dr. Dunbar might be able to speak more to some of the app side.

MICHAEL DUNBAR: Yes, I'm pleased to. It doesn't take much imagination to think that you might choose to use one of these powerful things that's on your wrist or your body to do something more with it. It's very clear that the electronic medical record of the future will be on your belt, not locked up on a shelf in our offices, in a filing cabinet.

The race is on, as you know, with big companies across the world, including Google and Apple and others, trying to figure out what these biometrics mean, but it's not difficult to take some of these technologies and apply them by just using your imagination and necessity.

We did a very small study a while ago in Halifax and I looked at patients who came to see us in follow-up - I had operated on them - and we don't really have a good way to say when you come back, so they come back every year and get an X-ray. So we time-stamp them and we ask them how long it took to come, where they came from, and whether they took time off work. We found out that the average patient travelled 180 kilometres to come see me, they spent three and a half hours in the hospital, and they saw me for six minutes. When you asked them if they thought they needed to be there, the majority of them said no, and the majority of surgeons said they didn't think they needed to be there.

Why couldn't we just use a cellphone and your centre of mass to say every year after surgery, you're going to get a text and say go for a walk and we'll look at your centre of mass. If it has changed, I need to see you; if it hasn't, I don't need to see you. That's huge. You can do very quick cost utility on that and you can find out by doing that, we can keep people home. We can decentralize and we can reduce costs. We can even figure out the carbon footprint reduction and see how many cars we can take off the road by doing this.

We did that eight years ago. Again, it's off script, but this is where I need help, and this is why we need to get together. I'm still using carbon paper when I see patients. (Laughter) I'm not joking. I'm using carbon paper, and what I can write with my fountain pen and then it gets to the triplicate is what my admin gets, and that's how I manage the most complex patients in the province. There are barriers to me turning on my cellphone and enabling these apps because you pay for it when the Auditor General says there was X number of data privacy breaches. Then that's all seen as the same and it handcuffs us, saying you're not going to have any access to Wi-Fi or data. Therefore, we stop.

The app that we've developed is being used in other jurisdictions around the world, but I'm having a hard time getting it used in our jurisdiction because of some of our interpretations about data privacy. I understand that. We die on the hill of data privacy, we take it extremely seriously; at the same time, we can't allow that to be the barrier. So the societal discussion would be, does an individual patient's privacy trump the society's level to understand what their investments need because this is a public system?

For example, my outcomes as a surgeon, I believe, ultimately should be public because I work in a public system and the public should know. It takes a long time to get there, but it's the same thing - where does society want to go with this? This becomes a societal debate that is for you to discuss in this Chamber about where we end up.

This happened in Sweden. That's why I went to Sweden to do my Ph.D. work - because they've had quality registries since 1975. They were the first country to register patients and they now have 82 quality registries. If you want to see whether giving you a knee replacement causes lymphoma or leukemia, it's easy - you correlate the leukemia database to the knee replacement database. In literally 36 minutes, you know the answer. There's no country in the world that can do it.

Somebody complained a couple of years ago and they had a societal debate and they said we are not shutting down these national treasures because we have the best outcomes in the world for health care investments because of these databases. We're sort of at the flip end of that - the United States being the extreme example. I think that's the debate we need to have.

MARGARET MILLER: Great conversation. We could probably talk all day, but I have colleagues and I'd like to pass this on to Ms. DiCostanzo.

THE CHAIR: Ms. DiCostanzo.

RAFAH DICOSTANZO: It is really fascinating listening to Dr. Dunbar. I've known Dr. Dunbar for a while actually. I visited him with my mother-in-law about 15 or 17 years ago about her knee. I remember him bending her knee and saying, you have that much mobility, you really don't need the operation, it is not necessary. It has been 18 years. She's 88. She's still doing exercise. He educated her on that 15 to 17 years ago. I'm very grateful, and he has been right. She's kept her weight very well and things have gone very well.

I'm also wondering, when we talk about your list for people just to see you, how many are like my mother-in-law, who just needed that referral? What is the percentage of the people on your waiting list that literally end up needing an operation?

MICHAEL DUNBAR: I appreciate the question because it gets at a lot of really important issues. Patients are really upset when they wait three years and you tell them they don't need surgery. They go, wow! (Laughter) It's ridiculous that they have to wait to do that. This is where mobility assessment and early assessment by Allied Health come in. We should be able to get a tranche of patients right off the list, because they don't need to be there.

What we need to agree on is what are those criteria, how do you objectively decide that? Right now, it's a two-dimensional X-ray and an assessment of pain. That's why the apps become powerful because they can objectify these metrics.

I think one of the more important things that we've already put in place is the investment through Allied Health to put in these screening clinics to identify patients who don't need care, who don't need surgery, who would benefit from health programs - exercise programs, strengthening programs, and mindfulness programs, et cetera.

What we haven't worked out is what's the best one for the province. That's the natural experiment that's happening, that I alluded to - will it be GLA:D, will it be what's happening in Cape Breton, will it be different across different jurisdictions? As I said, as long as we have the same metrics, we're going to have a one-two punch here. We're going to let it evolve, we're going to figure it out, and we're going to lead and say when it's the best outcome. It is the more important thing.

To specifically answer your question, it is also dependent on who the surgeon is because there are some arthroplasty surgeons that also run general practices so they would see back pain and things like that. In a practice like that, your surgical yield would be as low as 10 per cent to 20 per cent. Someone like Michelle or myself who do more exclusive arthroplasty and screen our consults, my surgical yield is up around 80 per cent - the people I would see, I would book. I'm screening on the front end to redirect them or get them into Allied Health or things like that.

[2:15 p.m.]

I really support these models and I think they're important. I think they're going to keep people like your mom off the surgical roster. I think that's an extremely important thing.

RAFAH DICOSTANZO: I also had another question in regard to the health teams. There's a community health team and it's something that's really important for me because I worked in the hospitals for 20 years and saw the difference of the newcomers. Within a couple of years, they put on so much weight and end up with a lot of health issues. How can we educate those people right at arrival? It's really important to me because it was very discouraging to see how many of them within a year or two ended up needing some help, so that's an issue that we need to talk about.

I know that in the city, in metro, we have the community health teams. I've been a very great advocate of their work because they will get to the patients before they even need you. That's where we need to go. I guess this is an experiment that is happening here. Do you promote them? How much of that has been happening lately? They have many programs talking about diets and exercise. They get them together at the Canada Games Centre. They have many different things. Maybe that's an initiation of what we really need, but they're not well known. Do the doctors tell people about them as much as I do?

MICHAEL DUNBAR: I will be uncharacteristically brief. Through this process, I've become more aware of them and I'm absolutely promoting them and have already seen fantastic benefits. Like you, I'm a big supporter. I think we need more, not less.

GAIL TOMBLIN MURPHY: What a brilliant question. Thank you so much. The focus around wellness is important. It's important to all of us, so I think the philosophy that drives what we do is, what are the health needs of people and how can we keep them healthy and how do we care for them when they're not and how do we get them healthy again? So the whole focus around delivering care to people based on what their needs are and having that right team together and composed and the composition of that team to best meet the needs is incredibly important.

The examples that you've given, it's working in communities to promote health through education - education that can come from nutritionists, dieticians, and community members who understand some of the stresses, for instance. The team approach is incredibly important. We have some studies and leading researchers in our communities who are actually looking at - in addition to what Dr. Dunbar and Dr. Saxe-Braithwaite have said, when we bring physical mobility and wellness to people at times - for instance, cancer survivors and others - it makes a huge difference and impact. It's something that we need to be thinking about as we talk about allocation of resources in Nova Scotia in the communities that vary within our province and elsewhere - so brilliant question.

MARCY SAXE-BRAITHWAITE: The other thing, too, is we work really closely with our primary care colleagues, so when we started developing the program, we worked with one of their researchers, Dr. Tara Sampalli. We've gone to focus groups with them, we've brought them to focus groups. We share our work.

Tara also sits on our quality council and is very aware of everything. She takes it back to the primary care team and the primary care team is aware. When we launched our new referral forum, we had to go out and educate the physicians and the community health teams on what the new process was. There was a bit of push-back because it was different, it was a new forum, and it was another way to do business. Now it seems to be much more collaborative.

We spend a lot of time making sure that our community partners are engaged in the processes and we seek their feedback. We always reach out to say, if it's not working, tell us, or if you're having patients complain about a process, let us know. What we've learned from our primary care colleagues is they love the wellness model that we've done and they're mimicking what we have said. They said when we introduced the concept that they never really thought of calling it a wellness model, because in health care, we've always seen people as sick and there is that mentality that you're ill, that's why you seek service versus you need support, and how we can help you receive the support you need to have a better quality of life. Quality of life is subjective.

Another thing we do is, we're working really closely with another one of our surgeon colleagues. He has approached Dr. Dunbar and ourselves. He does a lot of . . .

THE CHAIR: Order. Time has elapsed for the Liberal caucus. We'll move over to the PC caucus for 10 minutes. Mr. Halman.

TIM HALMAN: Good afternoon. Dr. Dunbar, I want to thank you for your remarks with respect to overcoming the barriers that are preventing us from achieving better health care outcomes. I know every MLA in this Chamber is united with that desire to have better health care outcomes.

To your point with respect to preventive health care, I can remember as a young political science student reading the Kirby report in the 1970s, which brought to light the importance of preventive health care. As a father of four, I see the importance of that. I just want you to know how much we appreciate your remarks.

The NSHA's hip and knee action plan update, as I understand, was released a year ago. It promised enhanced and expanded orthopaedic assessment clinics intended as a first point of contact for those in need of a knee or hip replacement. Could you please outline whether or not the public can track improvements to expansions of the orthopaedic assessment clinics?

MICHAEL DUNBAR: It's a detailed, multi-layered thing. The short answer is, it's difficult to track. The ways we would track that simply would be what we call T1 and T2. That would be the first tranche, meaning simply, how long do you wait for your first consult and how long do you wait for your surgery? I alluded to the issues with the paradox of patients showing up and this net effect it has on your numbers and the delay it will have.

We have seen length of stay decrease. We have seen T1 go down, and we're starting to see T2 go down. We have objective metrics to say that, despite all this, we're starting to make some gains. If you were to track out the earlier interesting questions about population growth with aging, would they be in keeping with that? No. So we have more room to go, both in keeping people off the rosters and, if we need to, to provide more resources.

I did allude to this earlier, that we have had unfortunately high revision rates in this province, partly because of the denominator and also because of some variability in products we used and things. I'm happy to report that as of the last Canadian Joint Replacement report, we're now in the middle of the pack. We've made a significant improvement in terms of our revision rate within the province. Can that be attributed directly to these new investments? Not directly, but the new investments, in my opinion, will continue to significantly improve that because they're going to bring on more data.

The reason registries drive better outcomes is because when you start recording what you use and produce it publicly, and the public looks around and sees what the results of implants are and the other surgeons, and they say, when you use this here, you don't get as good an outcome, it starts to drive conversations. Variability goes down, and you sort of gravitate towards the best available construct for your environment, your population, so you get standardization. That will continue to improve because I think that has been part of the revision rate.

I'll be very specific here because, personally, I get this all the time, and I actually get it from politicians: my constituent wants a metal-on-metal hip replacement, why can't they have it here? We did a bunch of them in the province - I'm on the public record saying we shouldn't have. I have done some. Many of them did extremely well, but there's a handful who have very significant problems that we're still dealing with, including cardiac issues, neurological issues, and other things from metal ions. If you don't monitor that, you can be anywhere in the province and put it in without anybody knowing. The question is, should that or should that not occur?

We have professional autonomy, and you don't have to get into that discussion if you just put it out publicly and say, here's what you're doing, and here's what everybody else is doing - your results are different, so maybe you should gravitate. That's not just specific to Nova Scotia - that's an around-the-world issue. This is how it works in surgery, because it's still a bit of an art. That's why we will continue to improve, because we're getting more and more data, which will turn the art into a science.

TIM HALMAN: How confident is the Health Authority that it will be able to recruit all of the additional surgical staff required to meet the six-month benchmark?

MARCY SAXE-BRAITHWAITE: We're very confident that we will be able to recruit the staff. We've been very successful in the recruitment. Where there have been challenges, we've looked at creative ways. Sometimes you would have a dietician that's a 0.6 and you can ask them if they'd like to be full time and add 0.4 to their roles.

A lot of the people are invested in the program and the outcomes, and also, where we've talked about patient engagement, we do a lot of provider experience surveys as well, so we want to make sure our providers like the new model and that they feel the model meets their needs and they're confident in what they're seeing. We have high confidence

from our providers, and they would highly recommend this new model to their colleagues across the country.

Will we be at the six-month benchmark everywhere? Probably not as fast as we would like, honestly, but we we're working towards it and that's what we can strive for. Cape Breton will be at the six-month benchmark and have the majority of people in place. We've introduced a few new roles there - a nurse practitioner and an RN first assistant. That is helping with surgical care. Dr. O'Neill can allude to the difference some of the enabling roles work for different zones.

Each zone has a bit of a different approach. Even though we standardized care, there are different needs in each zone, and that's what we've tried to strive to meet. It's that personal touch, zonally or locally versus always provincially. So the standard is set provincially, and how you implement can be local.

TIM HALMAN: I certainly appreciate all the moving parts that go into achieving these outcomes and these targets that have been established. With respect to timelines though for these new positions, what are some of the timelines you've assigned to having position A filled in this zone and so forth? Do you have timelines per zone or provincial timelines? Could you elaborate on that?

MARCY SAXE-BRAITHWAITE: We've hired 80 per cent of all the positions. There are still some positions to fill. As soon as the opportunity presents itself, we look at recruiting, we talk to a lot of students, we market by talking to colleagues at professional associations and that.

I think, because we've made a good dent in the numbers of recruitment, 80 per cent of over 100 FTEs we were trying to hire have been recruited, there are some areas where the program hasn't been fully implemented in all aspects, and that's where we have some vacancies. We have the funding, and it's better to have the funding and the vacancy versus having no funding with the vacancy there. At least we have the funding, so we're trying to strive to fill the extra 20 per cent of our roles. I would anticipate by the end of the fiscal year, which would be by March 31, 2020, we should have the rest of the positions all in place and hopefully the whole model implemented across the five sites.

The one thing we did not say is that two orthopaedic assessment clinics are going to be up and running in September. One will be in Dartmouth and the other one is in New Glasgow, so that's where a lot more of the staff will be recruited. That's so it's closer to home so that patients from Dartmouth don't have to travel anymore to Cobequid or to the HI and have to face parking challenges. It will be closer. It's actually in the same building that the orthopaedic surgeons are in Dartmouth, so it will make it even nicer for them.

As well, in Aberdeen, they don't have enough space in the hospital, so we've leased space across the road from the hospital to run the orthopaedic assessment clinics there. They can have all the true exercise equipment they need, room for class, and room to accommodate the patients who have disabilities and need walkers or wheelchairs. If they're all up and running, which is the best-laid plans, that would hopefully be the Fall, and then you'd go out and recruit the staff once the space is ready.

TIM HALMAN: Could you outline or explain how Scotia Surgery fits into the Health Authority's plan? I ask this because they seem successful and they seem to have a pretty high patient satisfaction.

MARCY SAXE-BRAITHWAITE: We do provide surgical care at Scotia Surgery. They are one of our partners and we use Scotia Surgery for procedures where the patients are not really sick or very acute. Each of the facilities have a different level of acute patient and what we call ASA1, 2, 3 levels. So when you're looking at what patients can go where, we have to make sure we can provide safe care.

We have explored with Scotia Surgery whether or not they could look at if we could do more day knee patients - is there an opportunity to look at that? What we need to do is make sure we have contingency plans in place should something untoward happen. Would they have to go to Dartmouth General Hospital? Could Dartmouth General accommodate? We're just in the beginning stages . . .

THE CHAIR: Order. Time has elapsed for the PC caucus. We'll move over to the NDP for 10 minutes. Ms. Leblanc.

[2:30 p.m.]

SUSAN LEBLANC: I don't really want to spend too much time on Scotia Surgery, but I just want to clarify. You're saying that the Province of Nova Scotia is paying a private company to do the care on Nova Scotians' knee or hip replacements. Is that correct? You're not saying that. (Interruption) Okay, great. I don't want to ask any more about that.

I want to thank you all for this great discussion. I really appreciate it. I really feel like Dr. Dunbar and everyone is really speaking my language when you're talking about preventive care and wellness care. In fact, if I was the minister, I would say it was the department of wellness and health, because I think wellness has to come first.

As an MLA for a community that has a very diverse population but a significant population of people who are living with income inadequacy - living in poverty - in terms of your research so far and the patient profile that you're seeing, can you speak to the effects of poverty on the people who need work on their knees and hips but also on their outcomes after surgery?

MICHAEL DUNBAR: There's a lot of work done on this in the United States, where there's greater disparities within populations for health. As you might expect, there is a relationship between socio-economic status and outcome, both in terms of your access and how you do post-operatively. It also speaks to resources that are around to support you.

You need to rephrase your question. I'm sorry, I just totally drew a blank, please.

SUSAN LEBLANC: I just wanted to know what you're seeing here in Nova Scotia. There's lots of research in the States, but what are you seeing anecdotally or research evidence-based?

MICHAEL DUNBAR: Research that we've done within Canada has not been able to illustrate that disparity to such a great degree. Although there's obviously differences, there is still a safety net that has a rudimentary effect that's not apparent in some jurisdictions.

We have done population health looking at different populations within the province and also within the country in the StatsCan database, and we do find that different ethnicities and patients who identify have different access to care in different provinces. It's not as you might predict. It's complex, and it's different for different procedures. There is an issue with respect to our populations and how they access services.

Ultimately, we need to get into a situation where we understand as a society that these are cost-beneficial to put in place, preventive care. They also need to be cost effective; they need to be facile; they need to be simple; and they need to be available to people. That's part of the challenge. That's why I say the ParticipACTION thing that we all grew up with was not a misleader. It was an important campaign that still resonates. It's simple things like that, through education and others, that can be cheaply done that can help. It's not to say that this is not an important problem with respect to disparity of income.

SUSAN LEBLANC: I just wanted to ask about the assessment clinic opening in Dartmouth. Can you clarify where that will be? Can you talk a little bit and just remind us about the new ORs that are scheduled to open in the renovation of the Dartmouth General and how that will affect the surgeries that are going on? How many are coming from Halifax? Are they actually going to clear any of the wait-lists, those new ORs in that capacity?

MARCY SAXE-BRAITHWAITE: The OAC will be at Queen's Square or Queen's Landing. That's where the orthopaedic surgeons' offices are, so we were able to lease space there. They've been involved in the design.

On the OR capacity, we are hoping that we will be able to move some of the cases that are happening at the QEII at the HI site to the Dartmouth site to free up some capacity to do more of the other non-orthopaedic surgeries there. The new ORs at the Dartmouth General are amazing. They're really nice, big and large, and they will really accommodate.

We're also hoping - that's where we've been doing some same-day surgery, so we'll continue with the momentum to try to find the patients that can be same-day surgeries and go home the same day with positive outcomes.

SUSAN LEBLANC: I want to change the channel a little bit and ask a question about orthopaedic surgery for shoulders. I don't know if anyone can maybe talk a little bit about this, but I've heard from various people, including my own constituents - people of a working age, middle-age truck drivers and delivery people and that kind of thing, labourers basically, who are injuring their shoulders at work and then are off work for quite a while - end up being in long waits for surgeries and rehabilitation and basically ending up out of work, on income assistance, and having a really difficult time re-entering the workforce. I was wondering if anyone here can speak to that issue and what's being done to address those wait times.

MICHAEL DUNBAR: I was alluding to this earlier about squeezing the balloon. There is fatigue within the system from other groups of surgeons and health care providers about arthroplasty getting all the attention and there's fatigue within orthopaedics about arthroplasty.

We're reminded, appropriately so, from our colleagues that arthroplasty is the minority of what we do. There's back surgery. There's upper extremity surgery. There's foot and ankle. There's sports medicine. There's pediatrics, scoliosis, deformity - all that stuff is out there.

The reason that arthroplasty has become prominent is because the constituents had a large voice. As we alluded to earlier, it was a cost-effective procedure and it became part of the national five priorities, so that's why we hear about it. But it goes to your very important point that there are a lot of other deformities and pathologies that are also going on that need to be addressed.

Part of the lead we've had in arthroplasty and where I push back to my colleagues is that we work nationally. We collect the data and we understand the cost utility. We've been able to make an evidence-based case to say, why. Because the volumes are somewhat lower, they're a little bit behind in the other disciplines to make this strong evidence-based case about - here's the cost utility when you leave a patient for too long and you don't fix this tear, you actually spend a lot more in the system than if you had it done.

Don't forget - again, as I alluded to - as shocking as this may be to you, this is not a problem in most jurisdictions in the world. If you want surgery in the United States - you hurt your shoulder - you're going to get it in three days. If you want it in four days, you want it in two days - when do you want it? So the big jurisdictions don't study this because if you go and say, we have a wait-list, they'll say we'll just do more surgery - what are you talking about, because it's a different model.

Right now, we have issues with this. I see this all the time because my patients don't float in with their knee or their hip. They're walking on walkers and they're burning their shoulders out. They get pathology in their shoulders, their feet are often bad, and it's complex.

This is where I speak a little bit about - basically, you're all aware of this and we just don't say it - there is no western democracy that can afford modern health care. The United States rations it by insuring two-thirds. We do it by making people wait. Most other jurisdictions have a public-private partnership. That's a fact. So we all just have different ways of approaching it. We take a very specific approach in Canada because of our national identity through the public health care system, and that's fine, but it's a different approach from the rest of the world.

GAIL TOMBLIN MURPHY: Just to add to Dr. Dunbar. In research and innovation, it's really important. We have three Cs. We collaborate, we try to change the culture, and we try to build capacity.

Recently, I had the opportunity to meet with Dr. Ivan Wong who is really on the world stage in terms of doing surgery, as you've talked about in terms of the focus around shoulders. In fact, when you look at some of the work that he does, reducing length of stays, pain, muscle - and this is what I've learned from him.

I think that we've got people who have been - he has been with us for seven years. I think he learned from some of the best of them in California and also influenced by others in Pittsburgh. His model would be very similar to what Dr. Dunbar has talked about - focus on wellness, get the mobility and through athletes and physical kind of mobility and things like that. But oftentimes in our midst - in all of our midst - we don't communicate these research and innovation stories in the way that we need to, so this is a big focus and something that we need to talk much more about. I just wanted to add that.

SUSAN LEBLANC: In a perfect world, given that our system is public - and we want to keep it that way, in my opinion - what needs to be done to eliminate wait-lists in Canada - in Nova Scotia in particular?

MICHAEL DUNBAR: It would be a multi-pronged approach, both short term and long term. Short term would be addressing the population that we have, but most importantly identifying the most appropriate patients and making sure we don't operate on patients who won't do well.

We're getting there with these metrics - phone apps and other things. Operate on the most appropriate patients at the right time so that you don't have to redo surgeries, and then do the best possible surgery you can to prevent people from coming back with infections . . .

THE CHAIR: Order. Time has elapsed. We'll move over to the Liberal caucus. Mr. MacKay.

HUGH MACKAY: This has been one of the more fascinating and informative committee meetings I have been to in some time, and I thank you very much for the detail that you're bringing and the considered thought you've obviously put into this before appearing with us today.

I'll address my initial question to Dr. Dunbar, if I could. Since taking office, this government invested upwards of $40 million into orthopaedic services, an additional $17.4 - all of which sounds great, and I hope is great, but it has to be measured by outcomes. I'm wondering if you can comment as to the outcomes that are derived from the investments that this government has been making.

MICHAEL DUNBAR: I alluded to it a little bit earlier, that by necessity we put things in place and now we've quickly caught up to put the metrics in place to answer precisely your question. I would say that the reassuring metric is the fact that the revision rate has been reducing in Nova Scotia. We've gone from the worst of the pack to the middle of the pack, and I hope to continue. This is despite having the most co-morbid population in the country - the highest incidence of diabetes, obesity, et cetera, just because of genetics and who we are.

I think there are some positive gains, but I made my initial comment, and I meant that - I reflected, why am I coming down here today, just to be honest? You're doing an important role for oversight, and I think that's an important question. Okay, I'll do the scientific role, but if we're going to have a scientific director and we're going to do science, we're going to answer that question. We're going to apply cost utility on the way in. We're going to apply standardized outcome metrics, and we're going to answer it. Was the investment what we thought it was? I'm quite confident it will be, but we will answer that. If it's not, we'll reassess.

We're also going to look at the regional variation. As I said, it's okay to be a province and say, we do this here because that's the way it is. At the end, if we come up with data that said that didn't work there, you can't say, well, we like it here in Halifax, and that's why we did it because I know we have to pick up what Cape Breton did because it was better - or vice versa. Who cares? We have to open our minds to that, and it will only happen with the data.

MARCY SAXE-BRAITHWAITE: Just to add to what Dr. Dunbar said, we are actually tracking many outcomes. Just to share with you, we are tracking our volumes. We're looking at our length of stay. It's trending in the right direction because it has decreased. We look at our readmissions; they have decreased. We look at our infection rates; they have decreased. Our complication rates, which are like urinary tract infections or blood clots, have decreased as well. Then as we alluded to earlier, with patient-reported outcomes and patient experience and patient expectations and provider - we're tracking all

of those. We are early in the tracking, of course, but they're trending in the right way, which is improving for us the story we can tell. We watch those.

I have a database that I can look at. My husband watches the stock market go up and down. I watch my trends go up and down. He gets excited about the stocks, and I go, oh no, my readmissions are not where I want them, or something. We can look at that per site. That helps us understand what's happening because there may be a system issue in one site that's causing a problem. We work really closely with our teams, and we're really looking at the outcomes.

Again, this is our accountability back to government. Yes, you trusted and invested in us, but I want to be able to say this positive story of this is where we're trending, and we are proud of the work we're doing. It is early stages. We are in our infancy, but to have metrics that we didn't have before is phenomenal for us. Evidence talks, data talks. If we want to shift any behaviours in the whole system, you need data to speak to our surgeons and colleagues. It doesn't help to say that you're not doing a great job. They say, how so - I have the sickest patients. Now we have data.

HUGH MACKAY: I think that's an interesting segue, talking about data, and we think of the major revolutions that have occurred in our modern society - the agricultural revolution, the industrial revolution, the technology information, and now we're in the data revolution, it would seem. I'm glad to hear that we are keeping abreast of that.

[2:45 p.m.]

I guess my question would be to Dr. Murphy, and perhaps the others, as to where are we going with that? We just heard that we're collecting statistics, but where are we going with data?

GAIL TOMBLIN MURPHY: Thank you for that very important question. In the province, we have full partnerships and what we call an integrated health research and innovation strategy. This includes our Department of Health and Wellness, our Department of Labour and Advanced Education, our academic networks, as well as the Nova Scotia Health Authority and the IWK. Together, we understand the very important piece that you're talking about, and that's data. That's information. That's investing in big data and artificial intelligence in ways that we know will make a difference to the ongoing real-time type of tracking where we can link databases like, what is the cost, what impact is there - poverty and levels of education, for instance - on health outcomes and other things? So it's incredibly important.

If I tell a story, I think it would be very impactful, because it was for me. I recently went to meet with Dr. Dunbar and his colleagues - ours from Dalhousie University, as well as researchers. We were talking about a very big opportunity for us in this province to get some funding down the road - about a year from now - and I looked across the hall and sitting in the hall in the very crowded area where Dr. Dunbar is at this point, was our leading

expert, Dr. Matwin, who is in the Faculty of Computer Science who is a specialist. We have a lot of funding, for instance, around big data. With him were analysts who worked very closely with Dr. Dunbar, Lynn Lethbridge and others, as well as students - Ph.D. students, post-fellowship students.

So together, it's not just investing the money into the databases, but it's thinking about building that capacity, learning from that, training, and at the end of the day, we share the same outcome of interest, and that is to actually enhance the health outcomes of Nova Scotians. We can arrive at that vision by looking, as you say, at the evidence and tracking that, but also using different kinds of data - the data that ACOA, for instance, has invested in, to Dr. Dunbar's work is a really good example.

Data isn't just getting things, as you say, as statistics, but it's also collecting data real time through app online kind of monitoring and those types of things. It needs to be on our radar. It's probably one of the most important priorities that we have, and we're really thrilled to be partnering in research and innovation in the Nova Scotia Health Authority with our full partners in this province.

MICHAEL DUNBAR: I'd like to pick up on it, and thanks for the shout-out. Another hat I have is research director for the Department of Surgery, and this is where I want to take the entire department - to move us to a big data play because it's ubiquitous across the board. It's cliché, but it's cliché for a reason. It's where everything is going, as you're aware, and we shouldn't bury our heads on this.

It speaks to data linkages, and it speaks to barriers that we've had historically between health and the university. We actually sometimes get charged to get the data. We've put it in place - for reasons that you can understand because it costs people to do this - but we put in place barriers of $20,000, $30,000 to analyze data when if you give us the data for free, we can save you millions of dollars on the back end. So we have the wrong cost models in place because you don't quite appreciate it. That's changing. I understand why it has been that way, but that has been some of the frustrations.

Gail mentioned briefly that the real power is going to be the patient's specific collection of data. That's where the Googles and the Apples are all getting together to take your iPhone data and your watch data and say that on Thursday when you don't exercise, when you eat like this and you sleep like that, you get a migraine every Thursday at two o'clock, you know that. That's all coming.

I had a great lecture with the industrial engineering students recently and we brought this up about the Facebook issue - politicians. It's going to be in the future that it's going to be a wash because everybody's Facebook is going to kill them, they're not going to be able to be politicians, the next generation, right? (Laughter) Well, it's true.

So I asked them how they feel about this because it speaks to what we also said about society and how we're going to get society to engage in this. Right now, there are clubs where if you show your activity, you can get a reduction in the United States on your insurance. Could it be in the future that if you don't show exercise, we're going to increase your insurance premiums, or we're not going to cover you?

This is where it gets very slippery, and patients get very uptight. I had a really great student ask me a stunning question relating back to the Holocaust and collecting data . . .

THE CHAIR: Order - I'm sorry to have to call order because I really wanted to hear more. Perhaps we'll have to ask you - you may add some to your closing remarks because I'm going to ask for brief closing remarks.

Dr. Dunbar, you can either continue on your topic or give us closing remarks.

MICHAEL DUNBAR: I'll briefly conclude by saying that the future is to look at patient-specific variables that they will collect and bring to us. They're going to say, here's who I am, please help me as an individual, not as an average. Right now, the fundamental issue that we have in health care is that we're treating people to an average and we're ignoring the variability amongst us. We now have the tools, the machines, and the processing to do different things.

That's where we lead as a province; that's where we lead nationally and internationally, by becoming one of the first jurisdictions to say that by taking our challenges and organizing our data, we can now develop decision-support apps, evidence-based tools to pick the best patient for the best operation based on patient-specific variables and get away from this average, because we're not an average province. We have a tremendous opportunity in front of us.

The final thing I'll say is that we can't do it alone. I'll say this on a personal note, and I joke about this, but it's half true: health and the hospitals get together and slag the surgeons. We all get together. It's two out of three, and we're never together as a triumvirate. Let's get together as a triumvirate and share this tremendous opportunity by building the trust that we are. That's why I'm really proud of my team that are here, because they're the ones building the trust - and by collectively saying that and doing the sharing and getting over these past barriers, we will lead nationally. I really believe that. Thank you.

THE CHAIR: Thank you very much. I thank you all for being here. It has been a very wonderful experience and warm experience. I wish you well and continued success in your field.

You may be excused. We have a bit of committee business, but I'm sure there will be media waiting for you outside the Chamber.

MARGARET MILLER: Madam Chair, could we please recess for a couple of minutes?

THE CHAIR: We may have to put an extension on the meeting. Are we in agreement to go over a little bit?

It is agreed. We will take a short recess.

[2:52 p.m. The committee recessed.]

[2:58 p.m. The committee reconvened.]

THE CHAIR: Order. We will continue with our committee business. Ms. Adams.

BARBARA ADAMS: At the last meeting, we made a motion to discuss an issue that had come up between Ms. MacFarlane and Ms. Miller. I would like to make a motion to postpone that conversation to the next committee meeting.

THE CHAIR: Or the next meeting that Ms. MacFarlane is present.

BARBARA ADAMS: The next meeting that Ms. MacFarlane is able to attend.

THE CHAIR: There is a motion on the floor. Would all those in favour of the motion please say Aye. Contrary minded, Nay.

The motion is carried. We will defer that to a later meeting.

I would ask that you leave the copy on your desk for the clerk so that we can use it at the meeting in which we will discuss it.

Ms. Martin.

TAMMY MARTIN: I would just like to go back and discuss this letter from Mark LeCouter.

THE CHAIR: That was our next topic. That was our next piece of business. You all have a copy of the letter. Ms. Martin.

TAMMY MARTIN: During that committee meeting, I asked for somebody, the clerk included - somebody mentioned the list of people on the drawing board, so to speak. When I asked for this, I asked for the people who were on it before this redevelopment committee. The list that we have received, these people have just been added.

[3:00 p.m.]

I guess what we're looking for is the list of people from 2013 to 2018, up until the announcement. There was an ad hoc group of advisers prior to the establishment of this patient/family committee. I know for certain these patient/family advisory committee members were just interviewed and added after I asked. There's a pre-pre-committee that I'm looking for.

THE CHAIR: Okay, the clerk will do that. Are there any other questions about the response? We will look forward to that information coming forward, and we'll discuss it at another meeting.

Our next meeting is Tuesday, August 13th, from 1:00 p.m. to 3:00 p.m. Our witness will be Dr. David Anderson, Dean of the Faculty of Medicine at Dalhousie University. The topic will be Dalhousie Medical School and its Role in Health Care Sustainability.

With no further business, I adjourn this meeting. Thank you all for coming.

[The committee adjourned at 3:01 p.m.]