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## **Standing Committee on Health**

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**EVIDENCE**

**Tuesday, June 3, 2014**

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**Chair**

**Mr. Ben Lobb**



## Standing Committee on Health

Tuesday, June 3, 2014

•(0845)

[English]

**The Chair (Mr. Ben Lobb (Huron—Bruce, CPC)):** Good morning, ladies and gentlemen. Welcome back.

We're studying Bill C-442 in our final meeting on it. We're going to get right at it. We have two witnesses here today. We have the Institute of Infection and Immunity. There were a few problems with the connection but we are connected now. So we're going to go right ahead with Mr. Ouellette.

You have 10 minutes for your presentation. We'll just carry on. Can you hear us okay, sir?

**Dr. Marc Ouellette (Scientific Director, Institute of Infection and Immunity):** I can hear you very well. Can you hear me?

**The Chair:** We can hear you quite well, yes. So go ahead, sir, and hopefully the connection lasts the entire meeting—but at least for 10 minutes, while you do your presentation.

Okay?

**Dr. Marc Ouellette:** Okay, wonderful. Thank you very much.

I would like to thank the committee for inviting me to speak to you on how the Government of Canada is supporting Lyme-disease-related research across the country.

First of all, I would like to say how impressed I am by the deliberations you have had so far in the committee on this very important bill. As you know, the Canadian Institutes of Health Research, or CIHR, to use the acronym, is the Government of Canada health research funding agency with a mandate to support the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system.

Preparing for and responding to existing and emerging global threats to health has been identified as one of the five research priorities in CIHR's 2009-14 strategic plan. This includes the areas of microbial threats and the environment and health, which relates directly to our topic today.

Within CIHR, the Institute of Infection and Immunity for which I'm currently the scientific director supports research and helps build capacity in the areas of infectious disease and the body's immune system. In addition to supporting research, the Institute of Infection and Immunity plays an important role in infectious disease issues in Canada, including helping coordinate Canada's rapid research response to infectious disease outbreaks, especially those caused by new and emerging pathogens.

Since its inception in 2000, CIHR has invested close to \$7 million in Lyme disease research. This includes an investment of approximately \$600,000 in 2012-13 alone.

•(0850)

[Translation]

These investments have supported research examining the dissemination and replication of the bacteria *Borrelia burgdorferi*, which is known to be the causative agent of Lyme disease. CIHR's investments also allowed researchers to examine protective practices against ticks and tick-borne diseases.

For example, CIHR is currently supporting the work of Dr. George Chaconas, a Canada Research Chair at the University of Calgary, who is investigating how the genetic information in the bacteria that causes Lyme disease is passed on from generation to generation.

Part of Dr. Chaconas' research focuses on identifying the proteins expressed on the surface of the bacteria that interact with proteins of the human immune system as part of the disease-causing process. This research will help provide a better understanding of the complex processes of this very unusual disease-causing organism, and may well lead to the development of drugs to either block or treat infection associated with Lyme disease.

[English]

Over the past decade, Dr. Chaconas' research has been recognized internationally. His CIHR-funded research has resulted in the publication of over 30 peer-reviewed scientific articles and allowed him to collaborate with the best Lyme diseases researchers in the United States. In 2011 Dr. Chaconas received the Canadian Society of Microbiologists' Murray Award for Career Achievement for his microbiology research in the area of Lyme disease.

CIHR is also supporting the work of Dr. Tara Moriarty from the University of Toronto. Dr. Moriarty developed a new microscopic technique for studying the dissemination mechanism of *Borrelia burgdorferi* in real time. This technique facilitates the work she's currently conducting with engineers at the University of Toronto to design novel devices to screen inhibitors of Lyme bacteria in the bloodstream. This will help further our knowledge of the vascular dissemination of the bacteria, a key step to better understanding the progression of Lyme disease in humans. In 2011 Dr. Moriarty received the Bhagirath Singh Early Career Award in Infection and Immunity, which facilitated the expansion of her research program into new areas related to susceptibility to Lyme disease infection and dissemination.

As you can see, research conducted in Canada has significantly contributed to global knowledge surrounding the bacteria responsible for Lyme disease. Thanks to researchers' efforts, we have a better understanding of how this bacteria replicates, how it spreads in the bloodstream, how it evades destruction by the immune system, and how gene expression is regulated.

Advances in imaging technology now allow the visualization of the Lyme disease bacterium in the living host. Understanding how this organism survives, functions, and causes disease will help us develop innovative treatments for those who suffer from Lyme disease.

In conclusion, Mr. Chair, let me assure you that CIHR will continue building Lyme disease research capacity in the country, and promoting international research collaborations to address the impact of Lyme disease on the health of Canadians and the global population, and ultimately, find a cure to this disease.

Thank you very much for your attention. I'll be pleased to answer any of your questions after my colleague from the Public Health Agency of Canada has his turn at speaking.

Thank you.

**The Chair:** Thank you very much, and a great segue.

Next up, we have the Public Health Agency of Canada.

Go ahead, sir. You have 10 minutes, or thereabouts.

**Mr. Steven Sternthal (Acting Director General, Centre for Food-borne, Environmental and Zoonotic Infectious Diseases, Infectious Diseases Prevention and Control Branch, Public Health Agency of Canada):** Good morning.

Thank you, Mr. Chair and members of the committee, for the opportunity to contribute to your deliberations on Bill C-442.

[*Translation*]

I am pleased to be here today to address the work under way in the Public Health Agency of Canada to reduce Lyme disease across the country.

[*English*]

I'll begin by addressing the agency's role and how it applies to Lyme disease.

The agency aims to promote better overall health of Canadians by preventing and controlling infectious diseases. We undertake primary public health functions, such as health promotion, surveillance, and risk assessment. These inform evidence-based approaches to prevent and control the spread of infectious diseases.

As part of its public health leadership role, the agency coordinates the national surveillance on Lyme disease as one of the most rapidly emerging infectious diseases in North America. I know that was part of your deliberations late last week.

The spread of Lyme disease is driven, in part, by climate change, as the tick vector spreads northwards from endemic areas of the United States. Moving into Canada, it is impacting our most densely populated regions. Based on the lessons learned in the United States,

we anticipate the disease will affect over 10,000 Canadians per year by the 2020s.

To date, we have seen cases increase from 128, in 2009, when Lyme disease became a nationally notifiable disease, to an estimate of over 500, in 2013. That's a fourfold increase in just over five years.

However, this national snapshot only reflects a portion of all cases in Canada. This is because some people do not seek treatment for milder symptoms. Others do seek medical help, but may be misdiagnosed because their doctors are not always aware of the range of symptoms, or even that Lyme disease is in Canada. Agency risk models estimate the true number of infections to be at least three times higher than what has been reported today.

To support physicians in diagnosing Lyme disease, laboratory diagnostic testing is available across Canada in various public health laboratories. Like the United States, we use a two-tier test that must be requisitioned by a physician: the ELISA, to screen; and the western blot, to confirm Lyme disease.

The following are just a few facts about the testing in Canada.

Last year, almost 40,000 ELISA tests were administered by provincial and national laboratories. Of this total, approximately 3,000 tested positive or inconclusive, and were sent on to have essentially the second part of the screening and testing, the western blot, for confirmation of Lyme disease, by either our National Microbiology Laboratory in Winnipeg, or by public health laboratories in Ontario and British Columbia.

Following a thorough review of this surveillance information, available domestic and international research, stakeholder views, and existing public health messaging on this important topic, the agency has put in place an action plan to prevent and control Lyme disease in Canada. The action plan identifies three pillars for concrete action: engagement, education, and awareness; surveillance, prevention, and control; and research and diagnosis.

● (0855)

[*Translation*]

The first pillar includes a comprehensive public awareness plan that focuses on educating health care professionals and the public about Lyme disease.

[*English*]

Raising awareness among health professionals is one of our main goals: informing them that Lyme disease is here, educating them on symptoms, and encouraging them to properly diagnose and report cases.

This year, we have already reached an estimated 200,000 health professionals with awareness posters published in medical journals beginning in March. We have also presented to clinicians at a variety of venues across Canada in recent months.

We are also using every means available to get the message out to the general public. From social media, to Google AdWords, to partnering with organizations like The Weather Network, we are telling Canadians that Lyme disease is here, how to recognize it, and how to protect themselves from it. These public messages will continue throughout the summer period, which really is the Lyme disease season in Canada.

The agency has also worked with provincial and territorial public health authorities, as part of the Pan-Canadian Public Health Network, to develop a coordinated, vector-borne disease communications strategy, and public awareness tools targeting Lyme disease.

We hope that by the end of this year's tick season Lyme disease will be a household term.

[*Translation*]

I would now like to address the second pillar, which focuses on innovative ways to conduct surveillance and encourage preventive behaviour.

[*English*]

Efforts made in Lyme disease surveillance are starting to show some results. This year the majority of provinces are providing detailed case information, which will help identify new areas where Lyme disease is endemic and assist provinces in tailoring their preventive strategies.

The information will also provide a clear picture of the signs and symptoms of Lyme disease, information that is key for clinicians to properly diagnose it.

[*Translation*]

The final pillar focuses on increasing lab capacity, testing new diagnostic methods and carrying out research to generate new insights into effective diagnosis and treatment.

[*English*]

Under this pillar the agency is increasing testing capacity and quality by using state-of-the-art laboratory equipment. We recognize the challenges with current testing, particularly around detecting early Lyme disease, as the human body takes some time to develop antibodies to the bacteria.

The agency is committed to improving diagnostic testing. New methods are being evaluated and any that outperform current methods, the two-step method, will of course be adopted.

In the meantime we continue to recommend doctors diagnose patients on the basis of a full, wholesome, clinical assessment.

We recognize that laboratory technologies have evolved and will continue to do so in the future. The agency's national microbiology laboratory, in collaboration with the Canadian Public Health Laboratory Network and other stakeholders, will be updating our laboratory diagnostic guidelines in the near future.

However in doing so the agency faces a challenge. We can update the guidelines to reflect the current available evidence, but new evidence is needed to inform new diagnostic and new treatment methods. Therefore the agency is committed to continuing to work with medical professionals, patient advocacy groups such as the Canadian Lyme Disease Foundation and the Canadian Institutes of Health Research, and my colleagues on the video conference today to identify and address research gaps.

In closing, I would like to restate that the goal of the agency is to mitigate the impact of Lyme disease on Canadians. Through our collective efforts, Canadians will become more aware of the disease, how to recognize its symptoms, and the benefits from early treatment.

● (0900)

[*Translation*]

Together, we can reduce the severity of Lyme disease in Canada.

[*English*]

Thank you for your attention.

**The Chair:** Thank you very much.

That concludes our presentations, and now we're going to the rounds of questions from committee members.

We'll start off with Ms. Davies for seven minutes. Go ahead, please.

**Ms. Libby Davies (Vancouver East, NDP):** Thank you very much, Chairperson, and thank you to both of our witnesses for being here today.

It's very heartening to hear about the research under way through the institute and that PHAC is very engaged with public awareness and getting the message out, because I think what we heard from the witnesses from the foundation last Thursday is that people are suffering from Lyme disease. One of their big concerns is that information is just not out there, so it's very good to hear you say that you hope that by the end of the summer there'll be a much greater awareness in Canada, because it is upon us.

I'd like to focus on a couple of questions. When we heard the witnesses last week, I would say that one of their key points and key frustrations was the lack of access to diagnostic testing. You've spoken about the two tests that are available in Canada, but we also heard stories of people who have gone to the United States to get another test—I forget the name of it—which is apparently not recognized or not available here. Actually, it might be available in one place in Canada.

I'm very interested in your comments at the end of your brief where you say that you're updating your laboratory diagnostic guidelines to reflect current evidence. I don't know if that's your diplomatic way of saying that the testing we have isn't cutting it, is not adequate, and that we're looking for new levels of diagnostic testing. I wonder if you could expand on that and tell us what feedback you've been getting from the Lyme Disease Foundation and whether or not we are looking at other diagnostic tools that will help people who think they've got Lyme disease and could get a test. That's one question.

I'd be interested to hear you talk about the action plan that you're developing and the three pillars. Knowing the bill, I wonder how you see the national strategy in the bill as different from your action plan.

**Mr. Steven Sternthal:** Thank you very much for the questions.

The Public Health Agency recognizes, as I said in my speech, that there are limitations to the current available testing in Canada. Certainly in the early stages of Lyme disease, the tests currently do not necessarily return a positive result.

I think what's very important in the lessons we've learned from other complex diseases such as HIV and others is that often a two-step test, where we initially screen a larger sample size and then continue with a secondary test to do a confirmatory diagnosis, has really been found to be the best way to try to get the best diagnosis and result.

So that's why the concept of the two-step is something that we—  
● (0905)

**Ms. Libby Davies:** Could I just jump in?

**Mr. Steven Sternthal:** —to date have felt to be very important.

**Ms. Libby Davies:** One of the concerns I remember now, that people express, is that the testing that's available only tests for certain strains, so there's a whole bunch that are just left out there undiagnosed. Would you concur that's also part of the problem?

**Mr. Steven Sternthal:** That's correct. So the current two-step testing focuses on one strain of the *Borrelia*, and is not as sensitive to picking up the many other bacteria that, of course, are carried by ticks. There's no question that there are multiple strains of *Borrelia* and multiple different bacteria that can be carried by a tick in wildlife. So we certainly concur that the association between this particular *Borrelia* strain with Lyme disease is quite well established, and the two-step testing has so far demonstrated the best way for us to minimize the false positives.

With regard to the tests available in the United States, they have been looked at very closely in the recent past. We'll continue to look at them, of course, because we do want, as I said, to bring the best methodologies forward in terms of the diagnostic testing.

There are really two issues that have been identified. One of them is around the interpretive criteria that the laboratory technical staff apply in interpreting the results. We feel that currently there's the potential for too many false positives in the way in which those criteria are implemented in the United States. So we're very much mindful of the limitations of the current testing. As a result, the agency, through our laboratory in Winnipeg, will in fact be investing in assessing those methodologies, the current ones in the U.S. and

other ones that come online in the near future elsewhere, even in Europe. We'd love to cross the globe to find those tests, as we would also, ourselves in-house, help develop testing in the future. So it's very much on our radar. That's why it's one of the three key pillars of the action plan.

If we don't have a good diagnosis, it's very hard to provide early care and treatment. That's why we end up focusing clinicians on really diagnosing the person, and whether or not the person has been in an area of the country where they could have been exposed to ticks. They will look at how they're presenting. Of course, they'll need to rule out other health conditions that may also have some similar symptoms.

So we do appreciate that more work is needed to provide guidance to physicians and laboratories in that area.

**Ms. Libby Davies:** Can you respond to your action plan versus the contemplated national strategy?

**Mr. Steven Sternthal:** Of course.

We very much view the action plan as working on the initial steps required, such as raising public awareness and shoring up our surveillance activities across the country so we can have the core set of data upon which you could build broader approaches, strategies, and frameworks in the country.

So we very much see ourselves working on the early stages and the building blocks upon which this could be built in the future. Absolutely.

**The Chair:** Thank you very much.

Ms. Adams, for seven minutes.

**Ms. Eve Adams (Mississauga—Brampton South, CPC):** Thanks very much for joining us here today.

Just following up on Ms. Davies' comments, the earlier witnesses were not as concerned about false positives and that we were overstating the incidence of Lyme disease. Rather, they were very concerned about all of these false negatives, where people had apparently taken the test and were told, categorically, that they didn't have Lyme disease. They travelled to the United States. They went through exhaustive tests there. They were told categorically there that, yes, they do have Lyme disease. They returned and their physicians continued to say to them that they didn't have Lyme disease. So that was the frustration and the challenge they raised.

Also, this is also what we've really been hearing from constituents over time. I'm certainly not a physician, and I don't mean to put an overabundant weight on these anecdotal representations. However, it's quite clear that these people are in pain. They are suffering. It's person after person coming forward saying he or she is not able to be diagnosed with Lyme disease.

I suppose part of our collaborative approach here, in working with all parties, is to really raise awareness about Lyme disease across the country, so that physicians are aware and are testing for this, and that they too take it into consideration. Some of our witnesses have indicated that no matter how they explained it, their physicians would say, no, you simply don't have Lyme disease.

So is there an approach for all these false negatives, or what is the best understanding at this point?

**Mr. Steven Sternthal:** It's a very difficult issue, of course. I'm not a clinician myself either. I think what we have identified in our action plan is the starting point for that discussion: raising awareness among health professionals and raising their understanding of where Lyme disease is in Canada. Of course, we understand that there are areas with well-established tick populations in the country. We also know that through impacts of climate change and temperature change in the country, the part of the country where ticks are living is growing each year.

I think perhaps debunking the myth regarding whether or not the ticks are here and the idea that if there are no ticks you can't get Lyme disease have certainly been among the primary focuses of our action plan. I think once you address that question—which will be an ongoing area of interest, not only for us but also for our partners in provinces as well as for organizations such as CanLyme—the dialogue with health professionals regarding how best to guide situations in which patients are presenting with these complex challenges and symptoms for which there could be multiple diagnoses will have to continue. We would like to see as thorough as possible an examination to allow that to be ruled out.

I appreciate the challenge, certainly, of going to another part of North America and receiving a positive test, when you may have a negative test in Canada. We appreciate the challenges. I spoke a moment ago about the nature of the tests currently available in some of the private laboratories in the U.S. But I think it's something that we need to work on over a period of time. It doesn't provide short-term relief, which is very difficult, and that's why we're also trying to engage with the Canadian Medical Association, the Canadian Nurses Association, and the College of Family Physicians of Canada to really talk about how best to equip the front-line health care professionals, recognizing that all of the evidence, all of the diagnostic testing, is not complete and that we're not in a position to have those perfect tools in the hands of our practitioners. In the meantime we are really trying to work on interim solutions with them.

● (0910)

**Ms. Eve Adams:** Thank you.

Are there other stakeholders? I know from my time as a regional councillor and from working with the public health authorities, for instance, on West Nile virus, that it really came down to the region, where we would actively go out and monitor and test for West Nile

and where we would actually put the insecticides into the sewers. We also undertook quite a bit of public-awareness advertising at our own expense. Could you perhaps speak a little bit to the stakeholders you're hoping to engage as part of this national framework, and how we might actually implement the action plan?

**Mr. Steven Sternthal:** Thank you.

I mentioned a few of the professional associations already. As an illustrative example, in the last six months, we worked with, among others, federal, provincial, and territorial officials involved in the surveillance of Lyme disease. They are involved in public communications and in raising awareness, and they are trying to develop ways in which we could leverage each other's opportunities and each other's messages. One of the things we now have in place is a joint FPT communications approach, whereby in different regions across the country there will be similar messages used to raise awareness of Lyme disease, and there will be sharing, across jurisdictions, of lessons learned and tools.

**Ms. Eve Adams:** Thank you so much.

I have one final question for you. Could you comment on what sharing best practices means in terms of the federal health system versus developing national standards of care? Would one or the other more naturally fit with the federal role in health care?

**Mr. Steven Sternthal:** Certainly at the Public Health Agency we recognize that the delivery of care is the responsibility of the provinces and territories, of course, under our constitution. With regard to the development of best practices, the agency has, through the development of guidelines over a number of years, identified, articulated, and shared best practices and tools to help practitioners in the field adopt those practices. Encouraging that assessment of the evidence and sharing those practices across the land are very much parts of our role within the federal framework and federal action.

**Ms. Eve Adams:** Thank you.

Can you provide some details on the surveillance process currently used by the agency to track the spread of Lyme disease?

**Mr. Steven Sternthal:** Since 2009, as I indicated, Lyme disease has been a nationally notifiable disease. That means that clinicians, when they do receive and make a diagnosis, report through their public health officials, through the provincial and territorial health authorities, and straight up to Ottawa, so we can compile the numbers and the statistics. As well, we have now added special surveys and additional surveillance tools so the majority of jurisdictions can actually go and get more case information so we can find out more about how patients are presenting in doctors' offices, what they look like, and what the profile is in Canada. Then we can essentially tailor our guidance and our practices to better understand how in fact this is playing out in Canada.

● (0915)

**The Chair:** Thanks very much.

The next round is seven minutes each.

Ms. Bennett, go ahead, please.

**Hon. Carolyn Bennett (St. Paul's, Lib.):** Thanks very much.

Thank you both for coming.

From what you have laid out and what you're already doing at CIHR and PHAC, I think it would be important for me to allow Elizabeth May to try to have some questions as to the intent of her bill versus what we've heard about what's already going on.

I only want to say that as a physician who missed a case of Lyme disease, probably 20 years ago, thankfully the patient had a brother-in-law who is a public health doctor who said, "Carolyn should check you for Lyme disease". I was reminded by one of my colleagues at my medical school reunion this weekend that, "What I now realize when I miss something is not that I wasn't taught it and forgot it, but that it didn't exist when we were trained". I think what I'm hearing about both the research and the public information is really important, the fact that when patients are empowered to think about it themselves, only then can we get into the education of our front-line workers. You can't diagnose it if he hasn't thought of it, so I think what we've heard both from CIHR and the Public Health Agency is really important.

Elizabeth, go for it.

**Ms. Elizabeth May (Saanich—Gulf Islands, GP):** Thank you, Carolyn. I appreciate it very much.

I am also very encouraged by what we've just heard from both witnesses on the degree of research and the attention being paid by both the Public Health Agency of Canada and Institute of Infection and Immunology.

I'll be very brief, Mr. Chair, and maybe, Carolyn, you'll still have some time left if you have a question.

To you, Mr. Sternthal, when was the action plan that's referred to in your evidence put in place? I gather that we're still at a preliminary stage, and I'm simply wondering when we started.

**Mr. Steven Sternthal:** It was started essentially in the last fiscal year, in the fiscal framework, but it's about a year ago now.

**Ms. Elizabeth May:** Okay.

I'm very encouraged by your conclusion that doctors should use a clinical approach for diagnosis. We've certainly heard this from a lot of people in the Lyme disease community and from other doctors that I've spoken with. They really believe that the lab tests are so problematic, and because it's so essential that if it is Lyme disease, it get treated early; hence, the clinical approach is the best.

How are you communicating this at the moment to the medical community, that they should approach this from a clinical diagnosis as opposed to waiting for lab tests?

**Mr. Steven Sternthal:** The Public Health Agency went through, for example, a significant review of the information that we currently have on our public website. In reviewing it last night, we have over 14 pages, if you print them, of information for health care professionals, which really drives that point quite clearly. In addition to that, the agency has purchased advertisements within key medical journals, including journals focusing on family physicians, across the country to raise awareness and to encourage early diagnosis or early treatment of Lyme disease. We're also working, of course, with the College of Family Physicians and McMaster University on developing a training module for physicians, as well as getting it

embedded in the continuing medical education approach that physicians already have in place.

**Ms. Elizabeth May:** I have one last question to you before I turn to Dr. Ouellette.

Having looked at Bill C-442, I don't think any bill is perfect at first reading. Are there things in it that you'd like to see improved that are not currently before us in government-recommended amendments?

**Mr. Steven Sternthal:** No. As I indicated, we view this building on our action plan, moving forward, and taking it to the next level of work.

**Ms. Elizabeth May:** Thank you.

Then I have a technical scientific question for Dr. Ouellette.

Thank you again for being here with us virtually.

• (0920)

**Dr. Marc Ouellette:** My pleasure.

**Ms. Elizabeth May:** On page 4 of your evidence, you talk about the work of Dr. George Chaconas. I'm fascinated that he's investigating how genetic information in the bacteria which causes Lyme disease is passed on from generation to generation.

Can you clarify? Are we talking about generation to generation of humans or of the ticks?

**Dr. Marc Ouellette:** Of the bacteria within the ticks or within the human body. They had a very special way of dividing their genome from one bacteria to another. This is what he's studying, to try to find new targets that are not part of our human body but are part of the bacteria, and to target them.

**Ms. Elizabeth May:** In other words, the focus of his research is to discover ways to limit the impact of the bacteria on the human body?

**Dr. Marc Ouellette:** Exactly. By understanding better how the bacteria divide, you can counteract this activity and reduce and kill the bacteria.

**Ms. Elizabeth May:** Dr. Ouellette, in your experience, as you present it here, Lyme disease is a complex and difficult illness. It's a hard question to ask, but compared to where we are in dealing with cancer, on a scale of one to ten, where are we on Lyme disease? If where we are with cancer is a ten, where are we with Lyme disease?

**Dr. Marc Ouellette:** Cancer is a big question because there are some cancers we're pretty advanced in treating and others where we're quite behind. It's not an easy question. Lyme disease per se, if you detect it early, responds very well to antibiotics. The problem is that often the symptoms are not clear; the diagnosis is not clear. The bacteria can live for a long time and then there are serious conditions. Even in those serious conditions, most of the time they respond to antibiotics, but again, there's a subset that will not.

I think your parallel with cancer is interesting because some cancers are relatively easily treatable and others are quite resistant to treatment. I would scale them in a similar fashion, although I have to say that cancer currently is affecting many more Canadians than Lyme disease. You have to put things into perspective also.

**Ms. Elizabeth May:** Of course. Thank you.

Carolyn, if there's any time left for you, I'd appreciate the chair—

**The Chair:** Go ahead.

**Ms. Elizabeth May:** Okay.

The other question I want to ask....

Am I out of time?

**The Chair:** We're right up on seven minutes.

**Ms. Elizabeth May:** Okay, perfect. Thank you, Mr. Chair.

**The Chair:** Thank you.

Mr. Wilks, go ahead.

**Mr. David Wilks (Kootenay—Columbia, CPC):** Thank you, Chair, and I thank the witnesses for being here today.

Dr. Ouellette, I have two questions for you and then two questions for Mr. Sternthal.

In your statement, you said that CIHR's investments also allow researchers to examine protective practices against ticks and tick-borne diseases. Could you elaborate on what those protective practices are?

The second question is on your statement that “We have a better understanding of how this bacteria replicates, how it spreads in the bloodstream, how it evades destruction by the immune system, and how gene expression in the bacteria is regulated.”

Could you please elaborate on that as well?

**Dr. Marc Ouellette:** Very good.

On prevention measures, we know that it's in the environment. There are ticks. There are animals that are the carriers of the bacteria. Ticks have a blood meal on an infected animal, become infected with the bacteria and then can transmit it. Prevention can be at the level of the animals. I think there was this example of West Nile virus, where you can use insecticides to try to kill part of the reservoir of the bacteria, which are the ticks.

But it's also prevention measures and, again, it deals with awareness. People are more aware of the possibility of being bitten by a tick. So, if you wear long sleeves, if you spray yourself with insecticide; these are ways of preventing contraction of Lyme disease. There are multiple ways that you can intervene to try to prevent the transmission of the disease. That would be my answer to your first question.

The answer to your second question, and this is a paradigm of all infectious disease, is that you have to understand the infectious organism, in this case *Borrelia*—how it enters the human body, how it counteracts the immune system—in order to be able to tackle it. The work that Dr. Chaconas or Dr. Moriarty is doing is to try to better understand this host-pathogen interaction. The host is the

human and the pathogen is *Borrelia*. By having a better understanding of those interactions, it provides a way to try to counteract the effect of that bacteria.

●(0925)

**Mr. David Wilks:** Thank you very much.

Mr. Sternthal, in your opening remarks, you identified a two-tiered test for Lyme disease. One was the ELISA to screen and then the Western blot to confirm the Lyme disease.

Could you explain these two processes a little better so that we understand them, and where they have worked and where they haven't worked?

**Mr. Steven Sternthal:** Thank you for the question.

Essentially, as we've said, the two-step testing is not as effective in the early stages of infection, as antibodies are not necessarily developed early on in infections. It becomes more effective as the infection progresses, weeks and then months into the illness, which is why we talked earlier about not wanting to rely on them for the clinicians' diagnosis during that early, acute phase.

In terms of how the tests work, I'm not a laboratory scientist, but these are well-established laboratory techniques for identifying this. If the member would like, I have a colleague from the National Microbiology Laboratory here with me in the room. We can certainly ask him to provide one minute response on the technical aspects of the two tests.

This is Dr. Robbin Lindsay. He's a research scientist from Winnipeg.

**Mr. David Wilks:** Please.

**Dr. Robbin Lindsay (Research Scientist, National Microbiology Laboratory, Public Health Agency of Canada):** From a technical standpoint these assays are performed in a standardized fashion, as Steven mentioned. The ELISA is formatted to be used as a screening tool so it can be done as a high throughput test—with multiple tests performed at the same time—and it is really designed to be as sensitive as possible. With that screening assay we want to pull in as many of the positives, or hopefully the full range of positive-infected individuals, as possible. When you use a broad approach like that, often you end up pulling in people who have other infections that could be falsely positive. So you cast a very wide net with the ELISA hoping to get as many of the infected individuals in there, but realizing that you may have pulled in some of these people who are not.

That's why we use the second tier test. To remove those falsely positives we've used the western blot, which is supposed to be more specific. It's supposed to be able to detect primarily the individuals who are infected. We often see that when we do the ELISA; say we get a hundred screened positives. But when we do the western blot a percentage of those will come out because they were falsely positive as a result of infection with other disease processes or just reactive antibodies that were non-specific to *Borrelia*. So, it's a well-established criterion whereby we use a sensitive test at the front end and then re-evaluate those with a western blot. Again, a combination of the two assays provides better depiction of true positives and true negatives than any of the tests run individually.

**Mr. David Wilks:** Thank you for that, Dr. Lindsay.

Dr. Ouellette, can you highlight any of the particularly promising researchers in the area of Lyme disease who are currently being supported by CIHR?

**Dr. Marc Ouellette:** The two main investigators that I've mentioned are Dr. George Chaconas and Dr. Tara Moriarty. They've both won prizes for their work on Lyme disease. Dr. Chaconas is collaborating with a number of Canadian investigators, including Dr. Paul Kubes, also in Calgary, who's a very well-known immunologist and part of the governing council of CIHR. So there are a number of investigators. CIHR functions as an open program, so people apply and if they have ideas they are being judged by their peers and then they can move forward. We are certainly open to having more and more researchers who want to investigate different aspects of Lyme disease.

• (0930)

**Mr. David Wilks:** Thank you very much.

**The Chair:** Thank you.

Mr. Morin is up next.

[Translation]

**Mr. Dany Morin (Chicoutimi—Le Fjord, NDP):** Thank you, Mr. Chair.

Mr. Ouellette, my questions will be for you.

In your opening remarks, you said that, since its creation in 2000, CIHR had invested close to \$7 million in Lyme disease research. How does that investment stack up against that of the United States? I assume the Americans do their own share of Lyme disease research. Canada's research resources are always more limited than those of the U.S. Be that as it may, what can we do to enhance the level of international knowledge?

The research is quite targeted. Could you describe for us the North America-wide effort to better understand Lyme disease and the partnerships or agreements you have with American researchers?

**Dr. Marc Ouellette:** Very well. Thank you for the question.

Obviously, when comparing ourselves with the U.S., right off the bat, we have to multiply any investments by a factor of 10. Consequently, where we have spent \$7 million, they have spent at least \$70 million. In addition, the U.S. spends twice as much on research per capita than Canada does. Basically, then, after multiplying the amount by 10 and then 2, we are talking about 20 times what we invest in Canada.

We are discussing Lyme disease, but you should know that Lyme is the name of a small town in Connecticut. The disease has been rampant in the U.S. for much longer. A body of research has been built over time. And because of temperature changes, the carrier, meaning the tick, migrated north. So now the disease is endemic in Canada. Right now, the U.S. contributes more per capita to Lyme disease research than Canada does.

As far as international efforts go, there are many, and that applies to a number of areas including vaccines, HIV, Hepatitis C and antibiotic resistance. But, apart from the interaction between the

researchers themselves, the level of collaboration between CIHR and the U.S. government is rather low, in terms of Lyme disease efforts.

**Mr. Dany Morin:** Thank you.

You said that, in Canada, the main focus of our research was dissemination and replication of the bacteria.

What aspects of Lyme disease does the U.S. focus its research on more?

The idea here is to work in a complementary fashion to avoid the duplication of efforts.

**Dr. Marc Ouellette:** I would say it's important to have a certain degree of duplication because, very often, the strains are not exactly the same. They are just as likely to have unique characteristics in the U.S. as they are in Canada. Even within Canada, ticks out west aren't exactly the same ticks that we have out east. Hence the importance of validating the approach.

Much of the research focus has been on vaccines, but prevention is another important area of research, which I mentioned. And in that connection, the idea is to reduce the number of bites, the number of ticks and even the number of animals that are carriers of the disease. That means prevention mechanisms. And the same is happening on the American side. The research being done covers a rather broad spectrum. As I said, the U.S. has been dealing with Lyme disease longer than we have, and that explains why they have been able to make progress a bit faster than we have. Nevertheless, I can tell you that the calibre of research being done in Canada is world-class.

**Mr. Dany Morin:** Very good.

I have one last question for you, Mr. Ouellette.

I'm not sure whether you had a look at the preamble to the bill, but one of the paragraphs reads as follows:

... whereas the current guidelines in Canada are based on those in the United States and are so restrictive as to severely limit the diagnosis of acute Lyme disease and deny the existence of continuing infection, thus abandoning sick people with a treatable illness;

Normally, the two countries have guidelines that are in sync with one another.

Do you have a theory as to why Canada adopted guidelines that were so different from the U.S.'s in this case?

• (0935)

**Dr. Marc Ouellette:** I really can't answer that. Guidelines aren't within my area of expertise. The people from the Public Health Agency of Canada may be in a better position to answer that.

[English]

**The Chair:** Thank you very much.

Next up is Mr. Lunney for five minutes.

**Mr. James Lunney (Nanaimo—Alberni, CPC):** Thank you very much.

Thanks, Dr. Ouellette.

Is it Dr. Sternthal or Mr. Sternthal?

**Mr. Steven Sternthal:** It's "Mister".

**Mr. James Lunney:** Thank you, Mr. Sternthal.

As well, it's great to have Dr. Lindsay here with us.

I want to follow up on the state of knowledge. We heard from the people who were here the other day from the Lyme Disease Foundation that multiple strains of *Borrelia* seem to be involved.

There was a comment earlier that burgdorferi was the causative agent, but they felt there was a range of other strains of *Borrelia* that seemed to be causing symptoms as well, and maybe that's why our diagnostic tests were not so accurate.

Can you comment on the state of knowledge regarding which strains or multiple strains might be involved in the infection?

**Mr. Robbin Lindsay:** That's a very good question.

We have been doing research looking at the different strains of *Borrelia burgdorferi*, or genotypes, as they're called. There are minor differences in either the DNA of the organism or the amino acid. We know that there's a range of these different genotypes. We know from work done in the U.S. that there are differences in the rate of whether the strains will disseminate or not and maybe just cause a localized infection, depending on those genotypes.

The easiest source to find those isolates, to look at these genotypes, is to look at the ticks. When we do active surveillance for ticks or we go out in the field and collect ticks, either actively ourselves or through our passive system, we have these ticks that we can look at, the different strains, and we realize when we're looking at an analysis of those genotypes that we have many of the same genotypes that are present in the U.S. It's not surprising, because we feel that these ticks that we see in Canada come through the U.S. and establish populations here. I guess they are transplanted American ticks, in a way. So it's not surprising.

But we are finding that looking at those genotypes in populations that actually do establish, we are seeing some unique differences. We do realize that yes, we have differences in genotypes that come here, and those genotypes may present a disease in a different way, and we're starting to get a better understanding of that. But what we lack at the present time is an understanding of which strains are infecting individuals. So we can look at the ticks, but we don't know how the strains that are present in the ticks are going to present. We need to do further research looking at the actual strains that are infecting individuals to get a better handle on here's what comes into Canada on an annual basis, here's what is infecting individuals, and here's the clinical presentation to put that whole piece together. Also, we need to look at how our diagnostic tests perform when these individuals are infected with a particular genotype. That's one of the missing elements that we need to do further research on.

**Mr. James Lunney:** With animal studies, they were talking about a deer tick here, but they say that in fact the white-footed mouse and rodents can be a vector reservoir as well.

Is there benefit in studying the micro-organism at the vector level in animals to get a better handle on how this thing is hiding itself in the immune system and how it spreads to so many tissues before it's diagnosed, in many cases, when it's hard to eradicate?

**Mr. Robbin Lindsay:** Absolutely. It's useful to try to understand the breadth of that.

The way that the bacteria might respond in the tick is going to be different than in a mammal and perhaps in a bird. We have developed the research proposals to look at that in more detail. Understanding that whole breadth of the sort of core science Dr. Ouellette talked about, gaining the basic understanding of how the bacteria operates and how it evades those systems, will be useful, and we are looking potential studies to do that.

**Mr. James Lunney:** On treatment options, I'm not sure whether I should go to Dr. Ouellette or Dr. Lindsay. In terms of treatment options, apparently it responds well to treatment early—it's a spirochaete, after all. What are the treatment options for early as opposed to late treatment? Also, what are the complications from long-term use of antibiotics?

Dr. Ouellette, could you comment on that?

• (0940)

**Dr. Marc Ouellette:** Yes, certainly. I can briefly discuss this.

I'm not a clinician myself, but I prepared for this as a witness, and I read quite a bit on the treatments. Basically, you're right. It responds very well when you take it early with doxycyclines or amoxicillin, which are very standard antibiotics that are being used by our kids when they have otitis, for instance. Actually, the bacteria will respond very well. So far, there have not been examples of bacteria that were resistant to those antibiotics. For more-difficult-to-treat cases—so when you don't take it early—again it's the same type of antibiotics but usually for a longer period.

I have to say that when I was reading the literature, it was not that clear that very-long-term antibiotic use is as effective as people are thinking. So there will be a need, again, for more clinical research on the length of antibiotic treatment. The term is up to nine months of antibiotics. I think there needs to be more research in that direction to see whether this is indeed as effective as we think because you're right, long-term antibiotics can have other consequences on your gastrointestinal tract bacteria, which are very important for a number of other things. We have to be cautious of not having very-long-term antibiotics.

**The Chair:** Thank you very much.

Thank you, Mr. Lunney.

We have a few minutes left. If the NDP has a few questions, we could do that. We'll have to be mindful of the time, so maybe take about two or three minutes.

**Ms. Libby Davies:** Actually, we were going to turn it over to Ms. May, but she's not here. Her stuff is still here, so she must have just stepped out.

In her absence, I think Mr. Morin did have one more question just to clarify something.

**The Chair:** One more question? Okay.

[Translation]

**Mr. Dany Morin:** Mr. Sternthal, I am going to ask you the same question I asked Mr. Ouellette, as I think it falls more within your scope of responsibility.

Why are Canada's current guidelines, which are based on the U.S.'s, more restrictive than theirs? I am referring to one of the paragraphs in the preamble of the bill.

**Mr. Steven Sternthal:** Canada's guidelines are the same as those in the U.S. They are the guidelines established by the Infectious Diseases Society of America in 2008 or 2009. The Canadian guidelines were adopted by the Canadian association of clinicians.

**Mr. Dany Morin:** In your view, are the guidelines restrictive?

**Mr. Steven Sternthal:** This year, the guidelines were based on the information available on Lyme disease.

[English]

**Ms. Libby Davies:** If there are a couple of minutes left, perhaps Ms. May could continue.

**The Chair:** Okay.

**Ms. Libby Davies:** In fact, she might even want to pick up that last point about whether or not the guidelines are restrictive vis-à-vis the United States.

**Ms. Elizabeth May:** I'm sorry that I was out for a moment. I was conferring about some of the amendments.

The issue, of course, between guidelines, national standard of care, and best practices is that all of these terms have significant linkage around jurisdictional questions. For patients in the Lyme disease community, the term best practices has been used in ways that have made them feel they've been denied treatment. National standard of care is a term that a lot of the Lyme disease community prefers.

In terms of guidelines from the federal agency versus national standard of care versus best practices, what's the best way forward, in your view, to make sure that we actually advance the diagnosis and treatment of patients without being hung up on the jurisdictional semantics?

I mean, it's important to respect the jurisdictions. It's also important to make sure that the patients receive the best possible care and the best diagnosis.

• (0945)

**Mr. Steven Sternthal:** Thank you for the question.

I think the standards of care are set by professional associations in the country, which very much are creatures of provincial jurisdictions. We recognize that this is just the way in which the system currently functions. However, on many diseases, on many health issues, the federal government has weighed in on the available evidence to support practice and has encouraged the adoption and sharing of practices across the country as they've been developed locally in the country. They are based on the latest scientific evidence as well, through CIHR and other research funding agencies.

From our perspective, the work that we would do—I appreciate that the label is really important and carries meaning—would really be to look at the evidence and to provide advice to clinicians with the best information and tools that could help them. We often use the terminology of guidance, guidelines, and best practices to get across essentially the evidence information base that we'd like clinicians to

have at the tips of their fingers and their tongues to be able to use as part of their work.

**The Chair:** Thank you very much.

That concludes our question and answer portion of the meeting.

I'll suspend the meeting for just a moment to allow our legislative clerk and our other member of the analyst team to come up. When everybody is set and ready to go, we will go through the bill clause by clause.

Thank you to our guests for taking the time to participate today.

So we'll suspend for a moment, grab a coffee, and everybody can get set.

• \_\_\_\_\_ (Pause) \_\_\_\_\_

•

• (0950)

**The Chair:** We're back at it here. We have our legislative clerk here as well, to help out. If anybody has any questions relevant to the bill, or amendments, we'll certainly be available to provide input and feedback. We'll take our time to make sure that we do this correctly and in order.

I guess everybody has a copy of the bill and the amendments that were brought forward. Fortunately, our clerk is always prepared. He has the amendments, so we'll circulate those if you didn't bring them.

For your information, in the beginning there is the preamble and then there's the short title. We'll postpone those until the end, and we'll get right into clause 2.

(On clause 2—*Definitions*)

**Ms. Eve Adams:** Mr. Chair, I'd like to propose an amendment to clause 2, dealing with definitions:

“federal framework” means a framework

to address the challenges of the recognition and timely diagnosis and treatment of Lyme Disease.

**The Chair:** Okay.

**Ms. Eve Adams:** The rationale for that, obviously, is that a federal framework is more appropriate, given that the mechanisms and platforms for collaboration already exist to address Lyme disease. This is consistent with the approach used for the federal framework for suicide prevention.

Further, the term “strategy” could be interpreted by provinces and territories as too prescriptive, given that treatment of Lyme disease is a provincial and territorial responsibility.

**The Chair:** I think what might work out best, and I appreciate that amendment.... I think you have another one before that?

**Ms. Eve Adams:** On clause 1. You called clause 2, sir.

**The Chair:** Okay.

Clause 1 is the short title.

**Ms. Eve Adams:** Yes.

**Ms. Libby Davies:** Could we operate from the list of amendments? You know, we have G-1, G-2 and so on. Is Ms. Adams speaking to G-1 or is it a new amendment that we don't have? That's what I think is confusing.

**The Chair:** To your point, that's good.

**Ms. Libby Davies:** Ms. Adams, through the Chair, are you speaking to your G-1 amendment, or are you speaking about a new amendment? Your G-1 is adding, after line 4, changing it to "agency".

**The Chair:** I think that's what...

**Ms. Libby Davies:** You're not going beyond what G-1 is, right?

**Ms. Eve Adams:** No. I'll revert now to G-1.

Sorry, I was at the immigration committee yesterday; we worked off the other documentation, so I'll revert now to health committees.

**Ms. Libby Davies:** I do have one question about G-1. Anyway, if that's where we are. I wanted to clarify that.

**The Chair:** Okay. But before Ms. Adams presents that one, if everybody looks at the bottom of that G-1 amendment, paragraph (c) repositioning....

**Ms. Libby Davies:** That's my question.

**The Chair:** That's just drafting. When they go back through and do it all, paragraph (c) will be taken out. It's just a note that's in there, so everybody has that in advance.

Ms. Adams, go ahead.

**Ms. Eve Adams:** Thank you.

In G-1, I move that Bill C-442, in Clause 2, be amended by (a) adding after line 4 on page 3, the following:

"Agency" means the Public Health Agency of Canada

and (b) replacing line 6 on page 3 with the following: "federal framework" means a framework to

And (c):(c) repositioning the definition "federal framework" in alphabetical order.

**The Chair:** Okay.

Is there any comment or debate on that amendment?

Mr. Morin.

**Mr. Dany Morin:** I simply want to be clear.

Are we talking about the amendments for the whole G-1? I do notice a difference in French and in English regarding the "federal framework" sentence. It is more explicit in French, so I'm wondering if it was a printing error or if it was intentional. The definition in French of "federal framework" is quite clear, but in English it seems like it's missing a sentence.

• (0955)

**Ms. Eve Adams:** If I might, Mr. Chair...?

**The Chair:** What I'll do is have our legislative clerk give you his explanation. I think it will make perfect sense. Then we can carry forward.

**Mr. Justin Vaive (Procedural Clerk):** Sometimes there can be differences between the English text and the French text. As for the way amendments are drafted, they're drafted separately in English to

address the English portion of the bill, and then in French to address the French portion of the bill.

[*Translation*]

And that means that, sometimes, there are slight variations here and there. In this case, the reason was to bring it in line with the French version of the bill.

When you read an amendment, you sometimes notice slight differences between the English and French versions. That's common, but it doesn't change the substance.

**Mr. Dany Morin:** Thank you.

[*English*]

**Ms. Eve Adams:** If I might also interject, if you read in context the additional words and apply them back to the actual legislation, it would read the same in English: "federal framework" means a framework to address the challenges of the recognition and timely diagnosis and treatment of Lyme disease. As I read the French, it's exactly that.

**The Chair:** As I read the French, I see that now too.

**Voices:** Oh, oh!

**The Chair:** All right. On amendment G-1, there is no further debate.

(Amendment agreed to)

**The Chair:** Now we'll have a vote on clause 2 as amended.

(Clause 2 as amended agreed to)

**The Chair:** Okay. Next up?

(On clause 3—*Conference*)

**Ms. Eve Adams:** Would you like to know about amendment G-2, sir?

It is that the bill be amended by replacing the heading before clause 3 on page 3 with the following: "FEDERAL FRAMEWORK ON LYME DISEASE". This is just the positioning.

**The Chair:** Are there any thoughts on that amendment?

**Mr. Dany Morin:** Are you talking about G-3?

**The Chair:** We're talking about G-2.

(Amendment agreed to)

**The Chair:** Now we are on to G-3.

**Ms. Eve Adams:** Mr. Chair, we move that Bill C-442 in clause 3 be amended by (a) replacing lines 12 to 14 on page 3 with the following:

3. The Minister must, no later than 12 months after the day on which this Act comes into force, convene a conference or otherwise engage with the provincial and territorial ministers and

And (b) replacing line 18 on page 3 with the following:

federal framework that includes

And (c) replacing line 21 on page 3 with the following:the Agency to

And (d) replacing lines 26 to 29 on page 3 with the following:  
management of Lyme disease, and the sharing of best practices throughout Canada;

And (e) replacing, in the French version, lines 6 and 7 on page 4 with the following:

[*Translation*]

nationale et d'en améliorer la prévention, l'identification, le traitement et la gestion.

[*English*]

**The Chair:** On the amendment, Ms. Davies.

**Ms. Libby Davies:** There are a number of things here.

The first one, which is lines 12 to 14, is a fairly substantive change, because the original bill speaks about convening a conference, but in this amendment it says “or otherwise engage with the provincial and territorial ministers”. I think the problem here is that it sets up the possibility that there wouldn't be a conference and that there would be individual consultations. I believe that Ms. May has an alternate wording that includes both.

Because the main point here is that we don't want the stakeholders to be left out. If you remember, the witnesses were pretty adamant that whatever happened, they have to be at the table. I think that by having the words “or otherwise engage”, it leaves it such that there could be separate provincial-territorial consultations and there wouldn't necessarily be a conference.

That's one problem. I'm hoping that Ms. May might have some wording that she has worked on to kind of bridge the gap.

The other one that I think is a problem is the last one on G-3, where it says “management of Lyme disease, and the sharing of best practices throughout Canada”.

Now, it's good that the government amendment has taken out the words “current” in regard to “practices”, because, again, the witnesses sure didn't like that. But the government amendment does leave out the words “national standard of care”, and I'd like to move a subamendment that we insert these into the wording, so that it will also include “the management of Lyme disease, and the sharing of best practices throughout Canada, including a recommended national standard of care”. It's basically what it says in the bill before us.

● (1000)

**The Chair:** What we need to do here—and we'll just take our time so we do this right—is that we should probably deal with the first part you commented on, about the conference, and then deal with your second point after we have dealt with your first one.

On that, you're offering that up as a friendly amendment, or a suggestion, or if we can find a difference in the wording as it is amended.

I have Ms. Bennett on the list. Ms. Bennett, your comment is on this first point, the one on the conference. Okay?

**Hon. Carolyn Bennett:** Yes. I think that “otherwise engage” completely undermines the point of the clause. It means that the minister could call up all the other health ministers with a phone call, individually, and that's not the point.

I think the point is to have a conference because what we're trying to establish is the need for public awareness and public input and to involve the stakeholder groups. A conference helps with that, in terms of media and in this ongoing goal to have all Canadians understand how important this is. That just won't be achieved by the Minister of Health phoning up their counterparts across the country.

**The Chair:** Okay. Very good.

I think our legislative clerk is going to take a quick look. Are there any other comments from this side at this time?

**Ms. Eve Adams:** To address Dr. Bennett's concern, our shared goal here is obviously not only to engage stakeholders but also to provide enough flexibility in this legislation so the minister can convene this.

We've been very clear. We want to engage the provincial and territorial ministers but also all stakeholders. We want to advance the body of knowledge when it comes to this issue, but we're looking to incorporate some flexibility here. That's all. I think we have a shared vision.

**Hon. Carolyn Bennett:** Then take the amendment out.

**Ms. Eve Adams:** I think we do need the mechanisms and the opportunity to engage stakeholders as the minister sees fit. There are going to be ample opportunities in the next year where she might be able to put this forward, and that's why we're proposing this amendment.

**Hon. Carolyn Bennett:** I think that “otherwise engage” gives too much weasel room. It isn't at all what was intended, so I won't be able to support that amendment.

**Ms. Libby Davies:** Can we maybe hold for a minute because there is a suggested wording that might bridge the government amendment and I think what's wanted. We have a wording there, so if we could just...

**The Chair:** I think we're going to suspend for one minute and confer with our legislative clerk.

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\_\_\_\_\_ (Pause) \_\_\_\_\_

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● (1005)

**The Chair:** We're back in session, live, here.

The first two amendments were pretty smooth sailing here, but we're just going to do some stick-handling here on the third one.

We have the amendment to the amendment that Ms. Davies would be prepared to present here. Ms. Davies, would you like to read it as best as possible? Go ahead.

**Ms. Libby Davies:** I will. Looking at the government amendment G-3, it says: 3. The Minister must, no later than 12 months after the day on which this Act comes into force, convene a conference or

**My amendment after that would read:** for the development of a comprehensive federal framework with stakeholders, including representatives of the medical community and patient groups and engaging with the provincial and territorial ministers; the federal framework that includes

If I could just speak to the amendment, basically it would allow the minister some leeway to engage separately with the provincial and territorial representatives, but it's still keeping the idea that there has to be engagement with the patient groups with a conference. I'm hoping that this amendment bridges where the government amendment is and where Ms. May wants to go with the bill.

• (1010)

**The Chair:** Okay, thank you for that.

Is there any comment on the amendment to the amendment?

We'll just give that back to our legislative clerk.

On Ms. Davies' subamendment we'll do a vote.

(Subamendment negated [See *Minutes of Proceedings*])

**The Chair:** All right, next up, Ms. Davies, you had a separate point earlier in this discussion on amendment G-3, which had to deal with the portion at the bottom about the management of Lyme disease. Would you like to—

**Ms. Libby Davies:** Yes, I'd like to move an amendment to paragraph 3(d) of amendment G-3, so that after the words: management of Lyme disease,

the following words would be inserted: including a recommended national standard of care,

Then it would continue on to the rest of the government amendment, which says: and the sharing of best practices throughout Canada;

Basically my amendment is to add the words, “a recommended national standard of care”.

**The Chair:** Okay.

Mr. Lunney.

**Mr. James Lunney:** Just briefly, the challenge with that is the whole diagnosis and treatment is developing. So it's premature to expect that we're going to be able to come up with national standards of care at this stage. It's an evolving diagnostic and treatment milieu. In spite of the allergic reaction, if I can use that language, of the foundation to the use of the term “best practices”, that is probably the most relevant way to address it at this time. Best practices apply to what we know today and a framework for getting the knowledge we need to establish. Standards of care are provincially mandated. I think you're going to give terrible indigestion to the provinces and territories, and create an obstacle to moving ahead on the file.

**The Chair:** Ms. Bennett, and then Ms. Davies.

**Hon. Carolyn Bennett:** I think what we're asking for are clinical guidelines that would be widely disseminated, as developed by professionals. Whether you're in the College of Family Physicians or whether you're a hypertension specialist, it's perfectly reasonable to ask the profession to develop the clinical guidelines and have them continually evergreened and updated.

I'm not sure what standard of care really means unless it's capable of being continually updated, as in these things where the science will be always emerging. I don't know what Libby feels, but we would love to have clinical guidelines for the country because the more that patients understand what they're to expect, the better questions they ask of their professionals, and the easier it is on the

provinces and territories. It's a job that all of the health quality councils are working on, the six that exist, but it is a matter of disseminating expectations and min-specs.

• (1015)

**The Chair:** Ms. Davies.

**Ms. Libby Davies:** I appreciate Mr. Lunney's points, but I think if you read subclause 3(b) in total, it does begin by saying, “the establishment of guidelines regarding the prevention, identification, treatment and management of Lyme disease”. So I think it flows to then go on to say, “including a recommended”. It's not saying that this would be done unilaterally by someone. You read it in the context that this is being established and you read it in the context of the earlier clause 3, before paragraph (a), which we just debated, which is about the conference bringing everybody together, having the consultations with provinces and territories. So it's really laying out a process as opposed to saying there is a national standard of care and we're adopting it. No, it's saying we're recommending that should be developed.

I do think there's a nuance there and if we leave it out we're unfortunately dismissing a pretty major point that was made by the Lyme Disease Foundation. They were pretty strong about this idea that we should include the need for the development of a national standard of care, as well as best practices. So I would still leave my subamendment.

**The Chair:** Thank you.

Ms. Adams.

**Ms. Eve Adams:** Thanks, Mr. Chair.

I think there might be some redundancy. I think Dr. Bennett might be correct here. It does read in it's entirety “the establishment of guidelines regarding the prevention”. So this would all come out of the conference and the engagement of stakeholders, provincial and territorial ministers. So we would be establishing those guidelines.

We then go on to say, the “sharing of best practices”, and if we recall Jim Wilson's testimony from the Canadian Lyme Disease Foundation, we were really clear with him about this. What he found deeply disturbing or had great concern about current best practice. So we're not saying current best practices, but simply the term “best practices”, and the sharing of best practices would all come from that conference. This is an evolving issue.

So we would not be able to support your amendment.

**The Chair:** Okay.

**Ms. Libby Davies:** Could we have a recorded vote, please?

**The Chair:** Yes.

This is the subamendment to G-3.

(Subamendment negated: nays 5; yeas 4)

**The Chair:** Now, on to the amendment G-3, as presented by Ms. Adams. All those in favour of amendment G-3?

**Ms. Eve Adams:** Before that, I'd just like to move one amendment. We've been conferring. I'd like to move a subamendment to G-3, and that is to delete the words “or otherwise engage”.

**The Chair:** And here I thought all of this would take about five minutes. So here we go.

Mr. Wilks, I understand you may have something here.

• (1020)

**Mr. David Wilks:** I may. Would you like to guess what it is?

**The Chair:** Yes, let's go.

**Mr. David Wilks:** I move the subamendment that we remove the words "or otherwise engage" from clause 3.

**The Chair:** Is there any debate?

**Ms. Libby Davies:** Isn't it a problem that we've already approved it?

**The Chair:** No, because it was just to your subamendment.

**Ms. Libby Davies:** Yes, all right.

**The Chair:** All right. Is there any discussion on Mr. Wilks' subamendment?

Mr. Young.

**Mr. Terence Young (Oakville, CPC):** No discussion, Chair. I just want to be very clear what our next vote is. That's all.

**The Chair:** Okay, this would strictly be on Mr. Wilks' subamendment to G-3 where it says "convene a conference or"—

**Ms. Eve Adams:** It's "or otherwise engage", simply deleting the words "or otherwise engage".

**The Chair:** Yes, I'm getting to that. Yes, and take out "or otherwise engage". Okay? Are there any other thoughts on that?

All right. All those in favour of Mr. Wilks' subamendment?

(Subamendment agreed to)

**The Chair:** All right. Believe it or not, we're now ready to vote on G-3, the amendment, as amended. All those in favour? Opposed?

(Amendment agreed to [See *Minutes of Proceedings*])

(Clause 3 as amended agreed to)

(On clause 4—*Preparation and publication of report*)

**The Chair:** How's our speed? Is everything okay so far?

Next up, are there any more amendments?

**Ms. Eve Adams:** On clause 4, please.

**The Chair:** Yes, go ahead, Ms. Adams.

**Ms. Eve Adams:** The amendment is that Bill C-442, in clause 4, be amended by replacing lines 5 to 8 on page 4 with the following:

sets out the federal framework and publish the report on the Public Health Agency of Canada's website within one year of the federal framework being adopted.

**The Chair:** That's a little different from the text we have.

**Ms. Eve Adams:** Your says "Agency"—and it's the Public Health Agency of Canada, just to be specific which agency it is.

**The Chair:** Are there any thoughts or comments on G-4?

(Amendment agreed to)

(Clause 4 as amended agreed to)

**The Chair:** Thank you.

(On clause 5—*Report to Parliament*)

**Ms. Eve Adams:** Again, Mr. Chair, on G-5, it's slightly different from what is in front of you. It would replace the words, "on the departmental website", with the following:

on the Public Health Agency of Canada's website.

So the change there is naming the Public Health Agency of Canada's website.

• (1025)

**The Chair:** What do we want to do here on this amendment then?

**Ms. Eve Adams:** We're actually going to go with the one on G-5. Our legislative clerk made the error. It's defined at the outset that the agency is the Public Health Agency of Canada.

**Ms. Libby Davies:** It's really redundant.

**The Chair:** Are there any thoughts on that amendment?

All those in favour of the amendment to G-5?

(Amendment agreed to)

**The Chair:** Shall clause 5 carry as amended? All those in favour?

(Clause 5 as amended agreed to)

(On clause 6—*Provincial and territorial funding*)

**The Chair:** There are no amendments to clause 6.

All those in favour of clause 6?

**Ms. Libby Davies:** Can we have a recorded vote?

**The Chair:** Yes.

(Clause 6 negated: nays 5; yeas 4)

**The Chair:** Moving right along.

(On clause 7—*Review*)

**Ms. Eve Adams:** Mr. Chair, on G-6, please.

I move that Bill C-442, in clause 7, be amended by (a) replacing line 23 on page 4 with the following::

7. The agency must

And (b) replacing line 25 on page 4 with the following:

the federal framework no later than 5 years

And (c) replacing line 27 on page 4 with the following:

section 4 is published on the Agency's

This amendment is consequential to the amendments to clause 1, which replace "national strategy" with "federal framework" and makes explicit reference to the Public Health Agency of Canada as the government department responsible to conduct the 5-year review.

**The Chair:** Are there any thoughts or comments on the amendment?

Seeing none, we'll call the vote.

(Amendment agreed to)

(Clause 7 as amended agreed to)

(On clause 8—*Regulations*)

**The Chair:** There are no amendments for clause 8. Are there any comments on clause 8?

Ms. Adams.

**Ms. Eve Adams:** Mr. Chair, regulations are linked to the proposal to allocate funding to provinces and territories that have enacted legislation to implement the strategy and have met criteria prescribed by regulations. Given that the funding provisions cannot be supported and the bill is not operational, there is no need to create regulations.

For that reasons, we cannot support this clause.

•(1030)

**The Chair:** Okay.

Ms. Davies.

**Ms. Libby Davies:** Just in speaking to that, it's unfortunate that clause 6, and now clause 8, are being taken out because, basically, you've got a federal framework but there are no resources or additional funding to carry it out. I would think that regulations are very important. It's a necessary component of carrying something out: to have regulations.

We don't want to end up with a bill that's got a lot of window dressing, and then, when it gets to the guts of it, there's nothing there to actually carry it out.

I think that's what we're seeing from the government, so I certainly would not support taking out clause 8, as we did in clause 6.

**The Chair:** Okay.

Ms. Adams.

**Ms. Eve Adams:** If I might just address the reason that we were not able to support clause 6, the Department of Finance required that the clause be deleted, as it appears to refer to the Canada health transfer, which supports the five principles of the Canada Health Act, which does not permit the use of additional criteria, such as a new Lyme disease strategy.

The Canada health transfer was just renewed in 2012 and will next be reviewed in 2024. That's why, unfortunately, we could not support clause 6, and cannot support clause 8.

**The Chair:** Okay.

Are there any more discussion on clause 8?

All those in favour—

**Ms. Libby Davies:** I call for a recorded vote.

**The Chair:** We're going to have a recorded vote on clause 8.

(Clause 8 negated: nays 5; yeas 4)

**The Chair:** Clause 8 is defeated and will be struck from the bill.

Now if you want to, we're going to go back to the preamble. If you're looking at the bill, it's the second page, where you see the preamble.

Go ahead, Ms. Adams.

**Ms. Eve Adams:** The statement in the preamble for “the establishment of a national standard of care for the treatment of Lyme disease” is problematic from a legal perspective, in that the provinces and territories have exclusive jurisdiction over the provision of health care services, including standards of care for health providers. It's proposed that the text should be amended to remove reference to a national standard of care and to replace it with the establishment of guidelines, an area within federal jurisdiction.

I propose that Bill C-442 in the preamble be amended by replacing lines 28 and 29, on page 1, with the following:

establishment of guidelines regarding the prevention, identification, treatment and management of Lyme disease, a coordinated

**The Chair:** Okay, so does everybody knows where we're at and understands where that amendment is coming from?

**Some hon. members:** Agreed.

**The Chair:** Okay.

Ms. Davies.

**Ms. Libby Davies:** I'd move a subamendment, as I did before, to reinsert the words “national standard”.

•(1035)

**The Chair:** If I understand Ms. Davies correctly, the subamendment would amend Ms. Adams' amendment as follows:

establishment of guidelines and a national standard of care regarding the prevention, identification, treatment and management of Lyme disease, a coordinated

So it's inserting a few words in there.

Is there any discussion on that subamendment presented by Ms. Davies?

**Ms. Eve Adams:** Mr. Chair, you'll have to correct me if I'm wrong, but it's actually contrary in nature to my main motion. That's already what's in there currently. I'm amending it to remove it.

So this would be a amendment to put it back in again?

**Ms. Libby Davies:** It's what we did on the earlier one.

Just to clarify, is the subamendment being ruled out of order?

**The Chair:** Ms. Davies, we're working at this at a good pace. We all want to be comfortable with where we're at.

After conferring with the legislative clerk, I think your subamendment, which is trying to insert a key point that was taken out with Ms. Adams' amendment—

**Ms. Libby Davies:** So it's out of order. You can just say whether or not it's out of order.

**The Chair:** It's more or less out of order, yes.

**Ms. Libby Davies:** “More or less”. Okay.

**Some hon. members:** Oh, oh!

**The Chair:** To be polite. Okay?

**Ms. Libby Davies:** Okay, I get what you're saying. It's out of order, and we can just vote on the main amendment.

**The Chair:** Fair enough, I appreciate that.

So to Ms. Adams' original amendment, which was G-7.

• (1040)

**Ms. Libby Davies:** Could we have a recorded vote?

**The Chair:** Certainly, yes.

(Amendment agreed to: yeas 6; nays 3)

**The Chair:** Shall the preamble carry as amended?

**Some hon. members:** Agreed.

**The Chair:** Now, next up—

**Ms. Eve Adams:** Chair, with amendment G-8, I move that Bill C-442, in Clause 1, be amended by replacing lines 1 and 2 on page 3 with the following:

1. This Act may be cited as the Federal Framework on Lyme Disease Act.

**The Chair:** This is to deal with our short title. Are there any comments on this amendment?

(Amendment agreed to)

**The Chair:** Shall clause 1 as amended carry?

(Clause 1 as amended agreed to)

**The Chair:** Yes, go ahead.

**Ms. Eve Adams:** Mr. Chair, in amendment G-9, I move that Bill C-442 be amended by replacing the long title on page 1 with the following:

An Act respecting a Federal Framework on Lyme Disease

**The Chair:** Are there any thoughts or comments on amendment G-9?

(Amendment agreed to)

**The Chair:** Shall the title carry as amended carry?

**Some hon. members:** Agreed.

**The Chair:** Now we've basically gone through the bill, front to back, and then again, so now we have three more points here that I have to ask. Now we're on the entire bill.

Shall the bill carry as amended?

**Some hon. members:** Agreed.

**The Chair:** Now for the report. Shall I report the bill as amended to the House?

**Some hon. members:** Agreed.

**The Chair:** Shall the committee order a reprint of the bill?

**Some hon. members:** Agreed.

**The Chair:** That covers what we needed to do, and we're five minutes ahead of our plan, so we'll consider Bill C-442 dealt with and we'll report it back in due course.

Ms. May has a short comment, and then we're going to go in camera.

Go ahead.

**Ms. Elizabeth May:** My short comment is only to express deep gratitude to all around this table. There are some clauses that I would have loved to stay the same, but on balance this is a great step forward. I'm deeply grateful to the parliamentary secretary, the Minister, the official opposition, the chair, and all of you for dealing with it expeditiously so that we might have a chance to get it through the House before we break for summer. For that, I can't say anything but the deepest possible thank you. I restrained myself from a hallelujah chorus earlier in the proceedings this morning.

**The Chair:** Thank you. I appreciate your restraint.

I would also like to thank all our members for the good debate and dialogue and for carrying on in a very respectful manner.

Now we're going to get into the committee business portion of our meeting. We're going to suspend for a moment to ask those who shouldn't be here to leave and then we'll get into committee business.

*[Proceedings continue in camera]*







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