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Chair

Mr. Ben Lobb

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● (0845)

[*English*]

The Chair (Mr. Ben Lobb (Huron—Bruce, CPC)): Good morning, ladies and gentlemen. It's about that time, so we're going to get our committee started this morning.

We're kicking off a new study this morning, so we have some guests here from the department, for the first hour. Then in a second hour we have some other guests, one appearing here and the other by video conference.

So we'll get started. Here today we have Hilary Geller, Robert Ianiro, and Cindy Moriarty. I'll see how accurately I pronounced your names when it's time for you to speak.

Now with your presentations, do you collectively have 10 minutes to present this morning or is it 10 minutes each?

Ms. Hilary Geller (Assistant Deputy Minister, Healthy Environments and Consumer Safety Branch, Department of Health): No, it's just me.

The Chair: Okay, we'll let you get started, and then we have our set way that we do our questioning.

Ms. Geller, go ahead.

Ms. Hilary Geller: Thank you, Mr. Chair, for the opportunity to appear before the committee to discuss the health risks of marijuana use.

My name is Hilary Geller. I'm the assistant deputy minister of the healthy environments and consumer safety branch at Health Canada. My colleagues are responsible for various programming aspects that collectively support the government's ongoing efforts to protect Canadians from the health risks associated with illicit drug use.

Robert Ianiro is the director general of the controlled substances and tobacco directorate, and he can discuss questions regarding Health Canada's role in regulating controlled substances such as marijuana. Cindy Moriarty is the executive director of health programs and strategic initiatives, and she is involved in Canada's national anti-drug strategy programs.

In my remarks this morning, I will provide a brief overview of the principal drug control legislation in Canada, and following this, some surveillance data regarding the health impacts of marijuana use, including knowledge regarding public awareness of the associated risks of using marijuana.

I understand that you'll be having the opportunity to hear from research experts, as well as representatives from national and other health care organizations over the course of your study. I'd just like to say that at Health Canada we do not perform the kind of basic research that they do. However, we do rely very heavily on their work and the advice of their experts to help inform us when we make decisions around drug scheduling, youth outreach, and Canada's participation in various international drug policy fora.

As the committee begins to examine the harms associated with marijuana use, it may be helpful to have an overview of the legislative framework that governs controlled substances like marijuana. The Controlled Drugs and Substances Act, the CDSA, is Canada's federal drug control statute. It provides a legislative basis for the control of substances that can alter mental processes and that may cause harm to the health of an individual or to society when abused or diverted to the illicit market. Hundreds of substances are regulated under the CDSA. Those substances range from prescription opioids, like codeine and morphine, to street drugs, like crystal meth.

The CDSA fulfills Canada's international obligations under three United Nations drug conventions, all of which aim to ensure access to controlled substances and the chemicals that are used to make them for legitimate medical, industrial, or scientific purposes, while subjecting them to tight controls to reduce the opportunity for diversion from the legitimate supply chain. So the CDSA has a dual purpose: protecting public health and maintaining public safety.

The act also sets out the offences in the form of direct prohibitions on many activities involving controlled substances, such as production, possession, distribution, import, or export. In this regard, of course, legitimate activities are allowed, but they're only allowed when they're authorized through regulation or an exemption from the act. The act also sets out the penalties for offences.

As you may know, Canada is one of four countries that have some form of a medical marijuana regime. This regime exists under the new, as of last June, marijuana for medical purposes regulations. These regulations enable access to marijuana for medical purposes to individuals who have the support of a health care practitioner. However, dried marijuana is not an approved drug or medicine in Canada, and Health Canada does not endorse its use. Notwithstanding that the courts require Canada to provide reasonable access to a legal source of supply of marijuana for medical purposes, the recreational use of the drug remains illegal under the terms set out in schedule II of the CDSA.

Substances regulated under the CDSA are grouped into six schedules. In determining whether a substance should be added to one of the schedules to the act, and to which schedule, Health Canada considers six factors: international requirements and trends in control or scheduling; the chemical and pharmacological similarity to other substances that are already listed under the act; addiction liability and the potential for abuse of the drug; evidence of the extent of actual abuse in Canada and internationally; risk to personal and public health and safety; and legitimate use—therapeutic, scientific, industrial, or commercial.

The UN conventions, to which I just referred, form the basis of the global drug control regime as it exists today and the general prohibitions on activities involving marijuana. Canada is consistent with most other countries in having marijuana regulated as a controlled substance. In fact, marijuana has been regulated as a controlled drug in some form or other in Canada since 1923. Since 1996 it has been listed in schedule II of the CDSA, which includes the plant itself, its derivatives, preparations, and similar synthetic preparations.

● (0850)

Emerging information suggests that marijuana is stronger today than it was in the past. As a result, the potential for harm to physical and mental health may also be greater today. While the evidence detailing the increasing potency of marijuana is largely based on U. S. and European data, there are indications that the situation in Canada is similar.

Information obtained from Health Canada's drug analysis service provides some evidence that the levels of THC in marijuana steadily increased between 1988 and 2010. This evidence is consistent with data seen in other jurisdictions and suggests a significant increase in the THC levels in marijuana available today, in contrast to a few decades ago.

When considering the increased potency of marijuana, it is also worth noting the high rates of reported marijuana consumption among Canadians who seek to access drug treatment services. In the 2014 “National Treatment Indicators Report”, the Canadian Centre on Substance Abuse reports that cannabis is the second most commonly used illicit drug among individuals accessing publicly funded treatment services.

In addition to the impact on treatment services, hospital administrative data provides important information on the impact marijuana use is having on the health system. Data collected by the Canadian Institute for Health Information on marijuana-related hospitalizations show a steady year-over-year increase in the total number of cases where a diagnosis is related to marijuana. For example, in 2008-09, 11,800 admissions to hospitals across Canada were related to marijuana. The number nearly doubles when looking at the same data from 2012-13, when over 21,000 admissions were linked to marijuana use.

Knowing that marijuana is stronger today than it was in the past is important when you consider that marijuana is the most commonly used illegal drug in Canada. Data from Health Canada's 2012 Canadian alcohol and drug use monitoring survey shows that 10.2% of the general population reported using marijuana in the past year, and that men are nearly twice as likely to report using it as women.

Rates among youth are about two times higher compared with adults, with 20.3% reporting having used marijuana in the past year. Canadian youth are among the highest users of marijuana when compared to their peers in other developed countries. This is despite the fact that rates of use among youth in Canada have been declining over the past number of years.

It is clear that Canadians are using marijuana more than any other illicit drug. It is equally clear that Canadians, particularly young Canadians, are not aware of the health risks associated with marijuana use and that they view it as a relatively harmless substance.

For example, the 2009-10 health behaviour in school-aged children study, administered by the Public Health Agency of Canada, showed that among youth in grades 9 and 10, 25% reported using marijuana in the past 12 months; 10-12% reported using it three or more times in the past 30 days; and a substantial number of youth reported that they felt there were slight or no risks when they were asked about the potential health risks.

In addition, a public opinion survey conducted as a part of our national anti-drug strategy confirmed that while parents and youth are aware of the risks and harms associated with drugs like cocaine, crack, ecstasy, and crystal meth, very few identified marijuana as being harmful.

Notwithstanding the evidence that Canadians and youth in particular do not associate a high degree of risk with marijuana use, under the national anti-drug strategy the government has prior experience and success in educating youth and parents about the harms of illicit drug use.

In an evaluation of the national anti-drug strategy mass media campaign a couple of years ago on the harms of using hard street drugs, it was shown that there were positive results. For example, 25% of parents who saw the TV ads talked to their children about the harms of drugs. There was also an increase in the number of youth who said they understood, knew about the potential effects of illicit drug use on relationships with their family and their friends, and looked for further information. In addition, one in five kids who saw the ads took some action, most talking to or warning friends about the dangers of drugs.

The progress made under the national anti-drug strategy to inform youth and parents about the dangers of hard street drugs can inform new efforts to help Canadians understand the harms and risks associated with marijuana use, and to help clarify any confusion resulting from the public debates surrounding medical marijuana in Canada and legalization in the United States.

● (0855)

Health Canada's national anti-drug programs are already enabling stakeholders to better understand the effects of marijuana use, in particular on youth. For example, the Minister of Health recently announced funding of $11.5 million over five years to the Canadian Centre on Substance Abuse to reduce drug use among youth, including for research into the impact of marijuana on brain development and impaired driving.

In addition, in an effort to engage key stakeholders and experts in the field,Minister Ambrose met with leading researchers and health care professionals yesterday, on April 30, to discuss the scientific evidence on the health impacts of marijuana use by youth, as well as to identify strategies for raising the awareness of Canadians as to its risks.

In conclusion, while rates of marijuana use in Canada remain high, and there is evidence that Canadians are not as well-informed about the risks of marijuana use as they are about other illicit drugs, the national anti-drug strategy and its successes provide us with a strong foundation upon which to take action to address the harms associated with marijuana, particularly among youth, and more broadly to better inform Canadians and assist them in making healthy choices for themselves and their families.

Thank you.

The Chair: Thank you very much for your presentation.

We'll get started. The NDP will ask the first round of questions for seven minutes. Mr. Gravelle, I'm guessing that you'll be the person starting the first round?

Mr. Claude Gravelle (Nickel Belt, NDP): Yes, I will be.

● (0900)

The Chair: Okay. I'm not sure if Mr. Gravelle will be asking his questions in French or English, but you folks are likely well aware of the earpieces if you need to have translation.

Go ahead, sir.

Mr. Claude Gravelle: Thank you, Mr. Chair, and thank you to the witnesses for being here. This is a very interesting subject that we're about to discuss.

One of the things that I do as a member of Parliament is that I call my constituents when they send me a note. It just so happens that last night I had a note on my desk to call a lady by the name of Claire and a phone number, so I called her. It just so happens that Claire is 60 years old and she's a user of medical marijuana. She has gone from 17 pills to two pills since using medical marijuana.

In your opinion, what is more harmful to her body, smoking medical marijuana to relieve her pain, or the fact that she was taking 17 pills at one time? So if you go from 17 pills to two pills and medical marijuana, what harm can that do?

Ms. Hilary Geller: Thank you for your question.

In terms of the specific harms to an individual and pills versus smoking marijuana, I'm afraid I'm not a physician and I don't feel qualified to answer that specific question. I guess what I will say is that there is a regime to make dried marijuana for medical purposes available to Canadians, with the support of their health care provider, if they and their health care provider feel that is what is best for them.

Mr. Claude Gravelle: I have another constituent I've been working with for the last couple of years. He's in a long-term care facility. He has MS and he's dying. He's also a user of medical marijuana. What harm can it do?

Mr. David Wilks (Kootenay—Columbia, CPC): I have a point of order.

The Chair: Yes, point of order....

Mr. David Wilks: Thank you, Mr. Chair.

I respect what the opposition member is saying, but we have a medical marijuana regime in place and it's recognized by the courts with regard to medical marijuana. Those who choose to get a prescription from a medical doctor can do so. The medical doctor can make that decision as to whether that person is eligible to ingest medical marijuana. However, Health Canada officials here today are not medical experts and cannot answer those types of questions.

The Chair: Thank you, Mr. Wilks.

This isn't cutting into your time, Mr. Gravelle.

Mr. Claude Gravelle: That's fine.

The Chair: I was going to make a point after Mr. Gravelle was done his questions just for the benefit of the entire committee, and I probably should have mentioned it before. Just as we've had with other studies in this committee, for the analyst's purposes there is a very clear motion that was passed, and the report will reflect what is in that motion. Obviously, if we go on about medical marijuana and asking questions about medical marijuana, that won't likely be in the study. So for the benefit of our analyst and being able to poll and glean answers and questions that are relevant to the motion, I can't tell you what to ask, the only thing I can say is that if you ask the questions along a certain line, there's almost a 100% chance it won't end up in the main study.

But, be that as it may, thank you for your point, Mr. Wilks. It really isn't a point of order, but it is a good point of information.

Mr. Gravelle, we're about two minutes and fifty seconds in, so you have about four minutes to go, sir. Go ahead.

Mr. Claude Gravelle: Thank you, Mr. Chair, but the study we are undertaking today is health risks and harms, and that's what I was asking about—harms. For this patient who is using medical marijuana because he's dying, basically, what kind of harm would that do to him?

Ms. Hilary Geller: Thank you for the question.

I think I just have to, I'm afraid, make a similar response to the first, which is that I'm not a physician. Those decisions are made between a patient and his or her physician, and the physician is in the best position to assess other alternative treatments and whether, in fact, marijuana for medical use is in the best interests of that patient.

● (0905)

Mr. Claude Gravelle: Thank you.

In this report or this information I have here from the Canadian Centre on Substance Abuse, one of the things here says that long-term cannabis use does not appear to produce significant, lasting cognitive impairments, problems with memory retention, or other cognitive problems in adults.

Can you comment on that?

Ms. Hilary Geller: I understand that you'll be hearing from the CCSA or representatives of it shortly. They no doubt will be able to give you a more detailed response to your question. I think what you'll be hearing from the experts is that there is an emerging field of evidence about the specific and particular harms of marijuana to youth related to the developing brain, and that those effects can have a lasting impact for many years, and potentially for the rest of their lives.

I can tell you that is what you'll be hearing from the scientific experts. I think in terms of effects on people who are older, I understand it's like many of these things, a complicated interaction between the age that you begin the use, the amount that you use, the strength of the product, and certain genetic predispositions, etc.

Mr. Claude Gravelle: Thank you.

The Chair: You have one minute and a half.

Mr. Claude Gravelle: Thank you.

On page 12 of your comments, you mention research into the impact of marijuana on brain development and impaired driving. Can you tell me at what age a brain stops developing, where marijuana would have an effect on it?

Ms. Hilary Geller: I would respectfully suggest that this would be a question that the scientific experts would best be able to answer. What I can tell you is that the research shows that the earlier you start marijuana use, the riskier it is. Certainly at the round table yesterday with the minister, where there were many experts, they were talking in the range of early to mid-twenties. But again, I am just repeating to you what people who are much better qualified and with more expertise would tell you.

Mr. Claude Gravelle: I consider all of the witnesses who come in front of any committee to be experts. That's why I'm asking these questions.

Thank you, Mr. Chair.

The Chair: Mr. Young, you're up for seven minutes.

Mr. Terence Young (Oakville, CPC): Thank you, Chair.

Thank you for being here today.

In movies and on television, marijuana is often a source of humour, and everybody gets the joke when somebody's—they do it with alcohol too—stoned or drunk, whatever. It's all done in great humour, etc., but what we don't hear about and what they don't put in movies, because it's not funny, are the long-term harms, or the short-term harms, that are caused by the use of marijuana.

Prescription drugs have to be proven safe before they can be sold, before they can be licensed and get a number to sell them in Canada, and that's for a very good reason. That's because they're inherently dangerous. They're powerful. They affect the body and they can cause harm. In fact, all prescription drugs can cause adverse effects, but marijuana has never been proven safe at a clinical standard, at least not that I've heard of, and if you've heard differently I'd like to hear that.

It's the only drug that I know of that is in fact allowed to be sold legally, prescribed by judges, because it's judges who have said, "You have to let people have it." For the people who are using it, I don't know of any clinical evidence that it benefits them. There's lots of incidental evidence, but of course, the primary effect of marijuana is euphoria. People feel better. It makes you feel euphoric, so it's hard to do a clinical trial or provide clinical evidence that it's providing a medical benefit.

So what we're trying to do here is find what evidence there is of risks and harms, because it's hard for the users themselves to judge it, because they have good reason to take it. They're in pain or they're terminally ill and it makes them feel better. It's the only drug I know that's allowed to be used without evidence that it's safe. Shouldn't any drug that Canadians take be proven clinically safe before they're allowed to buy it and use it?

● (0910)

Ms. Hilary Geller: Thank you for the question.

It is true that when it comes to dried marijuana, the regime that exists is as a result of various court decisions over the years, and it is true that dried marijuana has not gone through the clinical trials, etc., and the rigorous process that is required for any other prescription medication in this country.

I will just mention that there are two drugs that contain extracts or derivatives of cannabis that have been through that process and are approved under the Food and Drugs Act. They're called Sativex and Cesamet. So there are cannabis-containing products that are available, that have gone through the usual process.

When it comes to dried marijuana, Health Canada has prepared, with the assistance of an expert advisory committee, a review of the evidence that does exist—the various studies and some limited clinical trials—in an attempt to offer to health care practitioners what information does exist, but it is very limited.

Mr. Terence Young: Thank you.

You made a comment that there's evidence that marijuana is getting stronger, and I know because there was lots of marijuana in my high school, Bloor Collegiate, when I grew up in Toronto. It was everywhere. In fact there was a lot of LSD around, too. That's when I originally became aware and concerned about the health effects, because I saw my own friends fall by the wayside and drop out of school. Some of them never really came back. Some of them never really recovered, but that's also incidental.

I know that the police told me.... In 1997, I presented a private member's bill as a member of provincial parliament to try to keep drugs out of the schools. They said it's 20 times stronger, the marijuana, than the marijuana my generation had experimented with in high school.

We heard this morning that 20.3% of our youth use this powerful drug at least once a year, and that in grades 9 and 10, where their judgment is really the most immature, or perhaps you could say the poorest, 25% had smoked it in the last year, and 10% to 12% three times in the last 30 days, which would be, I guess, termed as frequent users. So it gets particularly dangerous when they interview these youth and they don't think there are any serious risks. They're not recognizing any risks, including the risk of driving, and we know a significant percentage of young people smoke marijuana and drive automobiles or other kinds of vehicles.

Can you comment on the general health risks to these young people from marijuana?

Ms. Hilary Geller: Thank you very much.

In general, the health risks to young people have to do with their developing brains. It's a combination of the fact that it can—through a complex interaction, which the scientists will be able to explain to you much more specifically—have long-term lasting structural effects on their brains, which could then have long-term lasting effects in terms of their executive functioning, etc., as they go through their lives.

What is also, as you alluded to, extremely concerning is their lack of knowledge and information about those risks. It's always a mistake to speak anecdotally, but I have a 15-year-old who will say quite openly, “Everybody knows smoking tobacco's stupid, but what's the problem with pot?” I think she is just simply reflective of her generation. I have seen some information and literature that suggests that the myths among youth are prevalent. It's not just about it being harmless. Some of them actually think it's healthy, perhaps a cure for cancer.

They simply just do not understand the facts, through no fault of their own. I think the particular harms for youth are a relatively new and emerging science. I think the consensus—as with anything in science—needs time to develop, needs repeated trials. But I was struck at the round table that the minister had yesterday, where the scientists said the debate is over.

Mr. Terence Young: Thank you.

Now the one that concerns me the most, because it's potentially the most serious, is the risk of psychosis. I'm looking at a document produced by the Canadian Centre on Substance Abuse, and it refers to the risk of psychosis. I'll just read briefly. “People who use cannabis—especially frequent users—are at increased risk for psychosis and psychotic symptoms.”

Now, people who are suffering from psychosis are detached from reality, can become violent, and can be harmful to themselves or others. Would you please comment on this?

● (0915)

Ms. Hilary Geller: That is true. I have heard the scientists say that. I understand that it's—as many of these things are—a complex interaction between genetic predisposition, age of onset, frequency of use—

Mr. Terence Young: Is genetic predisposition proven, by the way?

Ms. Hilary Geller: The scientists, I think, will tell you that it's true. Yes, there has to be some genetic predisposition.

The Chair: Thank you very much.

Next up, for seven minutes, we have Ms. Fry. Thank you.

Hon. Hedy Fry (Vancouver Centre, Lib.): Thank you very much. I wanted to say that we've talked about the scope of the study, and I think that the last questioner sort of moved into the scope of medical marijuana. Obviously, if you're going to speak of marijuana in general, you have to speak of all its usages: medical, non-medial, recreational, etc. I'm hoping that is what is intended in the scope of this study, because we're not saying “medical marijuana”, and we're not saying “with the exception of”. It just said “marijuana”.

I want to ask a couple of questions. For me—and I will put this on the record—it's extremely strange to study the harms and risks of a drug without looking at its benefits. I would have thought that this would have been a better study if we were also looking at benefits, because there have to be some benefits or else Health Canada would not have okayed the two clinical derivatives. There had to be some benefits from it for patients.

So we're not even discussing benefits but I'm hoping that somewhere along the way anybody with any scientific acumen would know that you have to discuss risks and you have to discuss benefits. You cannot speak of one without the other.

I would like to ask you, therefore, a question about the clinical derivatives that you've referred to that Health Canada has okayed, and has a notice of compliance out there, as drugs. There must have been some benefits. I wonder if you could tell me what those benefits were that allowed you to okay the drug. That's the first question.

The second question is this. If we're going to talk about the harms of any kind of substance that is taken broadly.... We have cigarettes and I have yet to see—as a physician—or read or hear that there is any benefit at all of smoking cigarettes, yet cigarettes are legal and they're regulated. Secondly, I think we know that there are some very vague benefits with red wine, but we do know that alcohol is a potent and very dangerous drug. So we made it legal and we regulated it, so that young people can't have access to it.

I want to put marijuana into that context as well. When you have 20% of kids who have been using marijuana at a very young age, that tells me that this drug needs to be regulated in some way, shape, or form, or it will continue to be an underground drug for recreational use. So for me, if we're going to talk about marijuana, and we're going to talk only about its harms, I would think that we need to acknowledge that there are no benefits—or mild benefits in terms of cardiovascular, which has yet to be proven—with red wine, and none at all with cigarettes, yet these two drugs are legal and they are regulated because we believe that they do enough harm, and sufficient harm, that we don't want young people to be using them. I want to put marijuana in that context as well.

I'd like to hear, first, the clinical merits of the derivatives that you talked about, which are drugs. The second question is this. Why is it that we will not consider treating marijuana like we do two useless and dangerous drugs, and therefore, make sure that it's legal and regulated so that we don't have an underground economy going on where young people can get it any time they want?

Those are my two questions.

Ms. Hilary Geller: Thank you.

I'll just start with the second first, if I might. It's just simply to say that marijuana is regulated in Canada. It's regulated under the Controlled Drugs and Substances Act. It meets the scheduling criteria to be made illegal, with the exception of the medical marijuana program, which is enabled under a special set of regulations.

I'm going to ask my colleague Robert Ianiro to talk about the Sativex examples.

Mr. Robert Ianiro (Director General, Controlled Substances and Tobacco Directorate, Healthy Environments and Consumer Safety Branch, Department of Health): Thank you for the question.

Thank you, Hilary.

In regard to the two approved products that Ms. Geller referred to as Sativex and Cesamet, I'll just situate things. As I'm sure everyone knows there's a very rigorous process in place for the approval of drug products in Canada under the Food and Drugs Act around safety, efficacy, and quality. Specifically, the two that were mentioned were Sativex and Cesamet.

Sativex is a cannabis-based medicine and it really is indicated quite specifically. It contains both THC and cannabidiol, and it really is indicated for specific treatment, an adjunctive treatment for symptomatic relief of neuropathic pain for adults who suffer from multiple sclerosis. So that is what it is specifically indicated for.

In the case of Cesamet, it is a synthetic cannabinoid, therefore it is manufactured synthetically and it's administered orally. It has antiemetic properties, which have been found to be of value in the management of some patients who are dealing with nausea and vomiting, who are undergoing cancer chemotherapy. Those are two examples of the only two drug approvals that our colleagues in the health products and food branch have approved and given notices of compliance and issued drug identification numbers to. But again, when we speak about the benefits, clearly the indications of those two drugs are quite specific to certain conditions.

● (0920)

Hon. Hedy Fry: How much time do I have?

The Chair: You have just under two minutes.

Hon. Hedy Fry: As are the indications for any medication at all.... They all have benefits and they all have risks, and they are all specifically indicated when you give them to a patient. All I'm saying, therefore, is that there are some benefits, especially in neuropathic pain, as you so eloquently pointed out, and in terms of nausea and vomiting as a side effect of treatment for cancer. So there are positives to it.

I think the issue here, therefore, are the benefits and the harms. Now, there's a study, one study that shows that there may be harms to the developing brain. There are not that many studies that show there are harms to the developing brain. We know that if we weigh that up against what cigarettes do to young people and what alcohol does to young people, I think we might very well look at how we talk about apples and apples, and not single out one particular drug for vilification. I'm just saying there are at least pluses for cannabis in different forms. There doesn't seem to be any that I know of for cigarettes, and there are pretty bad risks with alcohol.

I just wanted to ask you about the concept of regulating. Cannabis is illegal. If you get found with cannabis in large amounts, more than for personal use, you get fined. It's a criminal activity to use it. I'm talking about the fact that it's not a criminal activity to use cigarettes. It's not a criminal activity to use alcohol, which we know have severe risks. So what would be your suggestion? How would you look at the idea of therefore looking at regulating cannabis in the same way in which you regulate alcohol and tobacco, both of which are extremely addictive, as we well know?

Mr. David Wilks: I have a point of order.

The Chair: You have a point of order, Mr. Wilks.

Mr. David Wilks: Relevance.

Hon. Hedy Fry: It's totally relevant.

The Chair: Well, we're right at the end of this so if you have a brief response, Ms. Geller, go ahead, and then it will be Mr. Lunney's turn. Thank you.

Ms. Hilary Geller: I would just simply say that we look at marijuana the same way as we look at other substances that can have harms. We have scheduling criteria that we examine the substance against, which include things like evidence of abuse, addiction liability, risks to personal and public health and safety, as well as issues around legitimate use; and marijuana meets those criteria to be scheduled.

The Chair: Thank you very much.

Mr. Lunney, you have seven minutes, please.

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

Well, it's a fascinating subject. I'm sure we're going to enjoy learning more about this interesting subject.

On the subject that Dr. Fry brought up, I would like to comment on that before I go to my questions. I think if we were looking at smoking—you talk about smoking and alcohol, and why shouldn't we regulate marijuana the same way for recreational use—I think that implies that we can't learn from past mistakes. I suspect if we were having the discussion today, knowing what we know about smoking, the tobacco industry would never have been established the way it has. I just make that as a comment. It would be an interesting discussion.

Coming to the subject at hand here, I note that in your presentation you talked about cannabis being the second most commonly used illicit drug among individuals accessing publicly funded treatment services, and that admissions to hospitals in 2008-09 were over 11,000—11,800 admissions—and going up, by 2012-13, to 21,000 admissions linked to marijuana use. Can you comment or elaborate on the nature of those admissions? Are they for psychological states, for confusion or mental problems? What is the nature of those admissions?

● (0925)

Ms. Hilary Geller: This is relatively new information on the admissions that we received from CIHI. As I understand it, marijuana is a factor that has been brought to the attention of the physician when they're admitted to the hospital. So it's not necessarily the reason that they're admitted, but it is a factor that is affecting what is happening with the patient and is a cause for what is going on. The trend for marijuana—same protocol, same methodology—being either the factor or a contributing factor has increased over the years.

Mr. James Lunney: It would be helpful to actually take a good look at that and find out whether it's because of accident or injury because of an impaired state.

Ms. Hilary Geller: Yes, we can provide that.

Mr. James Lunney: Anyway, that is an interesting statistic.

I'll follow up on impairment, and young people with a developing brain, according to the remarks from experts...and I guess we'll learn more from the experts. But I understand there was a round table recently and perhaps you have some comment on the effects of impairment, and young people and the developing brain. Certainly, the person who is impaired is the last one to recognize it, which is one of the challenges. They think they're fine, cool, but their performance is down.

The effect of impairment on judgment, on driving, for example, is a big concern to me. I've seen people actually on 4/20 walking down the street right here in Ottawa as impaired as anybody who is inebriated on alcohol. So just on the impairment, can you comment on what we know about marijuana in terms of impairment?

Ms. Hilary Geller: There were indeed some interesting statistics that the experts provided yesterday at the ministerial round table on impairment. If the committee doesn't get enough information from the experts, we'll be happy to follow up and provide it. But there were some alarming statistics about recent studies that show the number of automobile fatalities where, in fact, the individual was not alcohol impaired but marijuana impaired, not just among youth but high levels among youth—and again growing rates.

There's also a move, as the committee may know, to be better able to give law enforcement the tools to allow them to be better able to determine impairment.

A big issue, from our point of view, and I alluded to it in terms of our education with youth, is how do we make youth aware of that? From a Health Canada point of view, that is where we are focusing our efforts, to educate youth about that, and again to denormalize it. It's sort of like tobacco, where kids understand that smoking cigarettes is a pretty stupid thing to do. They also understand that driving under the influence of alcohol is a pretty stupid thing to do, but not so much, the case studies show, with marijuana.

Mr. Robert Ianiro: If I may just add on the same topic of drug-affected driving, a recent report issued by the International Narcotics Control Board, in 2013, cites that cannabis is the most prevalent illicit drug detected in drivers in Canada, the United States, and Europe. The same report also cites that habitual cannabis use actually links to a 9.5-fold increase in driving accidents.

Even international reports are also obviously citing the cognitive impairments and the significant increase in the risk of death due to vehicle accidents with cannabis use.

Mr. James Lunney: So this would carry over for workers operating heavy equipment on the job site . There are a lot of occupations where you're working...farmers even. There are lots of members of Parliament missing fingers and so on from working with heavy equipment on farms. So if you're impaired anywhere around heavy equipment, you're at much greater risk of having an industrial accident, I would think.

On the issue of genetic predisposition, I'd just like to comment on that. Genes are modified by the things we're exposed to, so you're getting a genetic response from cells all the time to external threats. I would think anybody who has been using a substance or been exposed to a substance is going to fairly quickly begin to develop a genetic response to that modification. So just saying that the genes are perhaps different from somebody who hasn't been exposed to this would probably be a valid observation, but it doesn't mean they started with genes that were that way. They've been modified by external experiences. That would be an observation, I would say.

Also, I want to ask you this, then, on the same line. On maternal smoking of marijuana and expressions with the fetus, and with the young child who has a mother who's been smoking marijuana, I've seen some evidence raised that this is a particular concern. I'm just wondering if that's something that's on your radar. Can you comment on that?

● (0930)

The Chair: A brief response...we're just coming up to seven minutes. Thank you.

Ms. Hilary Geller: We are providing funding to the Canadian Centre on Substance Abuse on that issue, but I do have a Health Canada...Dr. Abramovici, who could speak a little bit more to that, if time allows.

The Chair: Okay, perhaps you could do it really briefly, sir.

Mr. Hanan Abramovici (Senior Scientific Information Officer, Office of Research and Surveillance, Department of Health): Your question was with regard to maternal cannabis use and if there are effects on the fetus. There have been a few limited studies, longitudinal studies, that have looked at that, and they found some subtle long-term effects on children born to mothers who had used cannabis during pregnancy. What those long-term effects were, the actual impact in everyday life, I'm not sure they were clearly demonstrated, but in terms of laboratory measures of cognition and other neurocognitive faculties, they found subtle impairments in certain aspects of memory among children who were born to mothers who had used cannabis during pregnancy.

The Chair: Mr. Lunney, we are over time.

Mr. James Lunney: Okay, thank you.

The Chair: Just for the purpose of the committee, if there's interest, maybe the analyst and so forth could follow up with those studies for you.

Ms. Ashton, welcome. You have five minutes, or around there.

Ms. Niki Ashton (Churchill, NDP): Thank you very much. I'm very pleased to be here. I guess I benefit from the vantage point of not being on this committee regularly and getting to see what's going on here.

I was really excited to be asked to be on the health committee at today's meeting. When you ask my constituents, one of the major concerns that they have is around health: health care, wellness. I represent an area where there are immense health challenges, and that's a real priority. Then I saw the title of this study, and I have to say that my first thought was, what century do we live in? If we're going to have a discussion, and a scientific discussion on marijuana, the title, first of all, seems pretty skewed. I am a social scientist myself. When you take on a study, you look at the good, the bad, the risks, the benefits, and it's pretty alarming that here in a parliamentary committee where we're expecting Canadians to tune in and take an interest in what we're doing, we're looking at a study that is, right off the bat, skewed.

We heard a presentation, and with all respect to the officials—you're certainly working with the guidance of the motion that's been presented at this committee—I don't feel like we got a full understanding. In fact, the presentation that we heard today makes me wonder why we have a medical marijuana program the way that marijuana is spoken of.

Actually, in my riding, for many years, growing medical marijuana was a source of economic development. Flin Flon did have a medical marijuana operation, which has now moved on to another part of the country, and people were okay with it because they knew that this was something that people needed. They knew that this was something that created jobs, that it was done safely, that the RCMP regulated it, and that this was something that was important to the wellness of many people who were in a very difficult spot.

Then, years later, I have a chance to hear what we're looking at today, and I'm concerned about the way in which we're approaching critical studies, and about the disconnect between where the mindset of Canadians is at, and the understanding that medical marijuana, or marijuana can have positive uses. That is something that is certainly not reflected both in the motion of this study or the presentation we heard today.

Mr. James Lunney: I have a point of order.

The Chair: On a point of order....

Mr. James Lunney: Mr. Chair, the member is a guest at the committee today. The committee has taken a decision on a course of study with reasons that were debated amongst the committee.

● (0935)

Ms. Niki Ashton: I'm fully aware of that. Thank you, Mr. Lunney.

Mr. James Lunney: Frankly, I think that badgering the witnesses about the scope of the study is probably not appropriate.

Mr. Claude Gravelle: On a point of order, Mr. Chair....

The Chair: For the record, Mr. Lunney's point of order wasn't a point of order, but you have a point of order on—

Mr. Claude Gravelle: It's about Ms. Ashton's time.

Basically she can ask what she wants, talk about what she wants. It's her seven minutes.

The Chair: Fair enough. I'm assuming that she was doing some preamble there.

Again, this isn't going against your time.

I was assuming that she was going to do some preamble and then ask a question, which I think is pretty fair.

Ms. Niki Ashton: Sure.

I mean, I've watched government members take up their entire time doing preamble, and I'm perfectly familiar with the rules.

Thank you very much, Mr. Lunney, for the warm welcome to this committee.

What I did want to raise is whether you could share with us what studies, what research, could give us accurate background on the need and the benefits of marijuana, including medical marijuana?

Mr. Terence Young: On a point of order, Ms. Ashton has obviously not seen the scope of the study or taken it seriously. It's looking at the health risks related to marijuana.

It's off topic. We're not here to discuss—

The Chair: We just had a point of order from Mr. Young.

Ms. Sitsabaiesan, you have a point of order now?

Ms. Rathika Sitsabaiesan (Scarborough—Rouge River, NDP): It's on that same point.

The Chair: On Mr. Young's point of order...?

Well, his point of order wasn't a point of order, but do you have a point of order?

Mr. Terence Young: Why was it not a point of order?

The order of this meeting is to conduct a study on a certain subject, which is outlined in the motion.

Ms. Niki Ashton: We are conducting a study, so let's just move on.

The Chair: Fair enough.

Mr. Young had his point of order.

Now you have something you wanted to say on this too?

Go ahead.

Ms. Rathika Sitsabaiesan: Thank you, Mr. Chair.

I'm looking at the actual scope of this study, and it reads that the committee "undertake a study of no more than...on the scientific evidence related to the health risks and harms associated with the use of marijuana".

That's it. It doesn't say on the use of marijuana for recreational purposes, use of marijuana on youth, use of marijuana for medical purposes. It doesn't say that. The use of marijuana for any purpose is what this study is about, Mr. Chair.

I'm reading the scope that I was provided by members of this committee. I know that I'm a visiting member of this committee today as well, and I understand what I read in ink in front of me. If the members opposite would like to skew what the scope of this study is for their own purposes, their own benefits, for what they'd like to have on the record, my understanding, Mr. Chair, it's that it's your job to make sure we're following the actual scope that is written. It's not what members extrapolate from the scope on to what their scope might be.

Thank you, Mr. Chair.

The Chair: Fair enough.

Again, I just hope that everyone recognizes that this is first hour of the first meeting, and there's a lot of education for everyone to have here.

The only thing I will say, as the chair—and it's not my role to educate anyone on anything—is that the methods and formats in which cannabis is ingested, the levels of THC and ICB that are in marijuana, for both medical and recreational marijuana, are different. Although they're still in the same family, there are completely different levels of THC, and they are ingested in completely different ways.

Now, I'm not here to provide testimony, and this obviously isn't going to be in the report. All I'm saying is that we have a minute and a half to go on Ms. Ashton's time.

I appreciate your comments, and they're well taken. Thank you for that.

Ms. Fry, you have a point of order.

Hon. Hedy Fry: Yes.

My colleague read the scope of this thing, and I think what is happening here, and I want to protest it, is that every time someone asks a question or poses any question at all to the witnesses...given that it's about marijuana, there's nothing about levels of THC; there's absolutely nothing about it. Marijuana, generically speaking, is actually a class that encompasses medical use as well as recreational use. We should be free to ask questions on any of that.

I also let everyone know earlier on that I thought we couldn't discuss harms and risks without discussing benefits, if anything. I think that if every time someone asks a question, there is someone shouting a point of order and not allowing them to ask the question, I think this is a waste of everyone's time.

It is not the fulsome way—and I've been here for 20 years—that any parliamentary committee that I have ever worked under.... The narrowing of the scope, according to what the chair and the members of the government believe we should be doing here, is a useless thing. It's a farce.

I would like to make sure that we can deal with this as written and not continue to have this kind of manipulation of the issue.

Thank you, Mr. Chair.

● (0940)

The Chair: Fair enough, Ms. Fry, and that's why I've allowed some latitude in the questioning, in recognizing that everybody wants to learn as much as they can from this study and to find out what they can. I appreciate your point of order and—

Mr. Young, do you have something else?

Mr. Terence Young: My point was....

By the way, Ms. Fry, no one interrupted you when you questioned. You said that everyone was interrupting. No one interrupted you.

I raised the point of order because the study is on the health risks and the harms of marijuana. We have five meetings to do it, and I'm sorry Ms. Ashton and Ms. Fry were not at the meeting where we had the discussion that set the parameters of the meeting. That's health risks and harm, and Ms. Ashton's question was on the benefits. That's a whole other subject. That's a subject that could take us into 10, 15, 20, or 30 meetings. We don't have time to do that. The media is full of all kinds of articles about the benefits of marijuana. The purpose of this study was to study the risks—

Hon. Hedy Fry: Mr. Chair, on a point of order—

Mr. Terence Young: —and harms.

Hon. Hedy Fry: —he's discussing the in camera in a public forum. It is not allowed to discuss what went on in camera in a public forum. I'm sorry. It's just not done.

Mr. Terence Young: It's in the motion.

The Chair: Okay—

Hon. Hedy Fry: But for what happened, who was here and who wasn't here, these are not allowed to be discussed in a public forum when we're talking about an in camera meeting. If you want to start discussing in camera, I can suggest that I did put forward an amendment to this. We all know here that five against four will never get any amendment passed if it doesn't want to be passed. But I have never as a physician ever heard of discussing the harms and risks of something without discussing the benefits.

Sorry.

The Chair: Okay, fair enough. If we go back to a couple of meetings ago, I thought we had a committee that was functioning pretty well. I'd ask all members, regardless of their points of view on this study, to try to remember the spirit in which this health committee works.

Ms. Ashton, believe it or not, you still have a minute and a half left. If you could continue, that would be great. Thank you.

Ms. Niki Ashton: Sure. I think that was a pretty clear display of how uncomfortable the government feels, sadly, when we actually ask scientific and related questions, despite the fact that the public actually values the work of scientists, researchers, and medical professionals.

Maybe on a related topic, I'm wondering if you could answer why we do have the medical marijuana program.

Ms. Hilary Geller: The medical marijuana program is a result of various court decisions over the years, the first one over a decade ago. The program evolved in response to subsequent court decisions and has been overhauled and replaced with the new regime, which came into effect last June under a new set of marijuana for medical purposes regulations.

Ms. Niki Ashton: So has Health Canada...? I think we're all familiar with the court decision, but does Health Canada agree with...? I mean, obviously you have to live up to the court decision, but is there no research you work with that shows medical marijuana helps people?

Ms. Hilary Geller: What we've done to support health care practitioners who play a role in the system.... Without an authorization from a health care practitioner, an individual is not able to access marijuana for medical purposes. We've had an expert advisory committee, first in 2003, then in 2010, and updated in 2013, that has gone through all the evidence that's available and has come up with a document that's several inches thick and is similar to a product monograph, as much as possible, to help guide physicians and bring together all in one place an overview of the benefits, the harms, the risks, and the dosing, to the extent that the information is available to them.

Ms. Niki Ashton: Thank you.

The Chair: You're up on the clock here, so I'll give the time to Mr. Wilks.

I should point out that when I made my interjection, I misspoke. I think I called it “ICB”, but it's CBD. I want to correct that for the record.

Mr. Wilks, you have until 9:45, sir.

Mr. David Wilks: Under the Controlled Drugs and Substances Act and all of the drugs that are listed under the CDSA, is there any other drug aside from marijuana that can be legally prescribed by a doctor without a prescription?

● (0945)

Ms. Hilary Geller: I don't think so. No, there isn't.

Mr. David Wilks: Pardon me?

Ms. Hilary Geller: No, there is not.

Mr. David Wilks: Thank you.

Those are all the questions I have.

The Chair: Thank you.

According to my BlackBerry, it is a quarter to, so we'll suspend for a couple of minutes and have our other witnesses get tuned up and ready to go.

I thank these witnesses who took the time to be here this morning.

● (0945)

(Pause)

● (0945)

The Chair: We're back and starting the meeting up again. We have two guests here for the second hour, Harold Kalant—forgive me if my pronunciation is incorrect—and Meldon Kahan.

I think Dr. Kahan testified during our last study as well. We'll get him to go first because he's on video conference, and we want to make sure, while the technology's working, that we get his input and then we'll turn it over to Mr. Kalant.

Dr. Kahan, you have 10 minutes or less. Carry on.

● (0950)

Dr. Meldon Kahan (Medical Director, Women's College Hospital, As an Individual): Thank you, Mr. Chairman and members of the committee.

I am currently medical director of the substance use service at Women's College Hospital in Toronto, and an associate professor in the department of family medicine. I would like to acknowledge my colleagues Sheryl Spithoff, Anita Srivastava, Suzanne Turner, and Sharon Cirone. Their work on cannabis has formed the basis for this talk.

I will begin by thanking the committee for undertaking this study because cannabis use in Canada is an extremely important public health issue. A recent UNICEF study found that Canadian teens aged 11 to 15 are the highest users of cannabis in the western world. An estimated 28% have used cannabis at least once in the past year. The 2011 Canadian alcohol and drug use monitoring survey study on youth aged 15 to 24 reported that 22% of adolescent males and 10% of females are daily or weekly users.

I'll now briefly summarize the major health effects of cannabis.

Cognitive effects—daily smokers experience impairment in attention, psychomotor function, and recall. Chronic cannabis use is associated with persistent neuropsychological deficits, even after a period of abstinence. Since the long-term studies are observational, causality cannot be established.

Cannabis use disorder—a review by Professor Kalant estimated that 7% to 10% of regular smokers meet criteria for cannabis dependence. Cannabis use disorder can have a devastating impact on an individual's work and school performance, social relationships, mood, and quality of life.

Psychosis is another major problem with cannabis. Observational studies have demonstrated an association between cannabis use in adolescence and persistent psychosis. Large cohort studies have demonstrated that cannabis use often precedes the development of psychosis, suggesting that it is an independent risk factor. The risk increases with the dose of cannabis smoked.

Anxiety—although a causal relationship has not been confirmed, there is a strong relationship between cannabis use and anxiety and mood disorders as well as suicidal ideation. Acute cannabis use can trigger anxiety and panic attacks.

Cancer—while previous studies have had conflicting results, a recent long-term 40-year cohort study of 50,000 males found that regular cannabis smoking was associated with a twofold risk of lung cancer, after controlling for cigarette smoking and other risk factors.

Cardiovascular disease—cannabis smoking causes acute physiological effects including elevations in blood pressure and heart rate and blood vessel constriction. There have been case reports of young people suffering heart attacks and strokes shortly after smoking cannabis.

Respiratory disease—although it is difficult to control for the confounding effects of tobacco smoke, evidence suggests that heavy cannabis smoking may be an independent risk factor for chronic obstructive lung disease.

I will now discuss groups at high risk for cannabis-related problems.

Youth who smoke cannabis appear to be at greater risk than older adults for cannabis-related harms. Cohort studies have found that cannabis use in adolescence is associated with criminal activity, suicidal ideation, use of other drugs, and poor school and work performance. Cannabis use disorder may be considerably more common among young smokers than older adults. In a prospective study, 30% of youth aged 14 to 24 reported at least one symptom of cannabis use disorder. Adolescent smokers also appear to be at increased risk for persistent and long-term cognitive impairment, possibly because cannabis may induce persistent structural changes in the developing brain.

As for cannabis and driving, cannabis use prior to driving is a risk factor for motor vehicle accidents. Experimental studies have shown that cannabis impairs critical driving skills such as reaction time. Combining alcohol with cannabis increases the risk of motor vehicle accidents to a greater extent than if either drug is used alone.

Finally, regarding pregnancy, preliminary evidence links cannabis use during pregnancy to subtle neurodevelopmental abnormalities in infants, and cannabis can be classified as a teratogen. Cannabis enters the breast milk, and breastfeeding is contraindicated in cannabis smokers.

So why do so many Canadians smoke marijuana, given the harms?

Canadians appear to view cannabis as a harmless herb, and this may be why our per capita use is so high. In a survey of adults in three countries, Canadians were more likely to view cannabis as harmless, and were more likely to have tried cannabis, than were adults in Sweden or Finland.

● (0955)

Public perception of risk correlates with the level of use. An American survey found that the percentage of senior high school students who believe that regular marijuana smoking is harmful dropped from over 70%, in 1993, to 40%, in 2013, while the percentage of high school seniors who smoked daily rose from 2.4% to 6.5% during that time period.

What should be done?

I believe that the first step is to prevent the unintended harms caused by the new medical marijuana regulations that allow physicians to prescribe dried cannabis. This will enhance the public's perception that marijuana is not only harmless but therapeutic. After all, if Health Canada allows marijuana to be prescribed by physicians, it must be a safe and effective medicine.

The evidence suggests otherwise. Smoked cannabis has negligible therapeutic benefits. Pharmaceutical cannabinoids are far safer and at least as effective, and prescribing marijuana will increase diversion and cannabis-related harms.

I will discuss each of these points in turn.

The evidence in support of smoked cannabis is very weak. To date, five control trials have examined smoked cannabis in the treatment of chronic pain. The trials found that it was superior to a placebo for neuropathic pain, but the trials were small and only lasted between one to 15 days. Most people who smoke cannabis for medical reasons do not have severe neuropathic pain, but have conditions commonly seen in primary care, such as fibromyalgia or low back pain. Numerous safe and effective treatments are available for these conditions. Furthermore, pharmaceutical cannabinoids are far safer and have greater evidence of benefit than smoked cannabis.

Two cannabinoids are available in Canada: nabilone or Cesamet; and Sativex, an oral spray that contains a mixture of THC and cannabidiol. These and other oral cannabinoids have far greater evidence of efficacy. The studies have been much longer, and comparisons have included not just placebos but other analgesics. There is preliminary evidence that oral cannabinoids cause better pain relief than smoked cannabis. Furthermore, oral cannabinoids have fewer euphoric and cognitive effects than smoked cannabis, cause less impairment in driving skills, and are associated with low rates of misuse.

Widespread cannabis prescribing by physicians will increase the social and psychiatric harms of cannabis.

Relative to other pain patients in primary care, a higher proportion of medical marijuana users are younger males with mental health problems or substance use disorders. Prescribing cannabis to these high-risk patients may adversely affect their work and school performance, worsen their anxiety and substance use disorders, and increase their risk of motor vehicle accidents.

Furthermore, it may contribute to the illicit drug trade. In a study of adolescents attending an addiction treatment program in the U.S., 47% reported using marijuana supplied to them by a registered medical marijuana patient.

How do we reduce the impact of the new regulations? The most urgent step is for a credible national medical organization, such as the College of Family Physicians of Canada, to develop evidence-based guidelines for prescribing smoked cannabis. Guidelines will give physicians solid grounds on which to make prescribing decisions. Physicians are facing a deluge of requests to prescribe cannabis, and guidelines will give them the support they need to refuse to prescribe cannabis when medically unnecessary or unsafe.

A related step is to limit the dose and THC concentration of medical cannabis. Distributors are selling cannabis strains with THC concentrations of up to 30% or higher, and Health Canada allows physicians to prescribe up to five grams a day. This dose and this concentration are both dangerous and excessive. The amount needed to control chronic pain is probably no more than 400 milligrams of 9% THC cannabis, or one puff four times a day.

I also believe that the provincial medical colleges should regulate the medical cannabinoid clinics that are being established in Toronto, Vancouver, and probably other cities. Although it is too early to say, I am concerned that the physicians in these clinics will prescribe cannabis to large numbers of patients, as has happened in the U.S. The colleges should ensure that cannabinoid clinics conduct comprehensive patient assessments, have explicit and evidence-based prescribing policies, and do not have any financial conflicts of interest, such as charging patient fees or investment in cannabis companies.

● (1000)

Beyond medical marijuana, public health organizations need to conduct public health campaigns to counter the prevailing myth that cannabis is harmless and therapeutic. Physicians, nurse practitioners, and other primary care providers have an essential role in any public health initiative. Evidence indicates that adolescents are open to advice from their physician on substance use. Primary care providers should regularly ask all patients about cannabis use and should educate them on the risks.

Patients with cannabis-related problems should be offered advice and counselling and referral to addiction services if they are unable to quit or reduce their use. There is strong evidence that primary health care providers' interventions for alcohol, tobacco, and opioid problems are effective. It seems likely that the same will hold true for cannabis problems, although research on this is in its early stages.

Primary health care is the only realistic way to reach the large numbers of patients who smoke cannabis and the large numbers who are at risk for cannabis-related harms.

Thank you.

The Chair: Thank you very much.

Next up is Mr. Kalant.

Go ahead, sir, for 10 minutes.

Prof. Harold Kalant (University of Toronto, As an Individual): I thank the chair and members of the Standing Committee on Health for their invitation to present a few facts and interpretations on the topic of marijuana and health. My remarks will give special reference to young users.

Marijuana is not the most dangerous of drugs. There are no proven deaths attributable to overdose, and millions of people have used it in small doses and on infrequent occasions with no obvious adverse effects. However, this has given rise to a widespread but erroneous belief that marijuana is safe or harmless.

There is no such thing as a harmless drug. Everything with pharmacological action has the ability to produce harm, depending on the amount used, how often, for how long, by whom, and under what circumstances. Not surprisingly, the harmful effects of marijuana are most often found in heavier users and those with greater vulnerability.

Among those who begin to use marijuana as adults, the most common adverse effects include chronic inflammatory changes in the respiratory system, poor memory, poor work performance in activities requiring mental and physical skills, driving accidents, and addiction. The physical and mental effects usually recover on cessation of use.

However, adolescents and young adult users of marijuana greatly outnumber mature adult users. Young beginners, those who begin use as early as 12 or 13 years, are much more vulnerable to harmful effects and are, therefore, at greater risk. In those with a family history indicative of a genetic risk for schizophrenia, cannabis can precipitate overt clinical psychosis, and in those who have been treated, it increases the risk of relapse and of a difficult clinical course, with poorer results of treatment.

Less dramatic but of much wider application is the fact that the developing brain is more susceptible to the deleterious effects of cannabis. It has an inhibitory effect on the development of connections between parts of the brain involved in higher mental functions. This has been demonstrated in animal studies by histological examination of brain tissue, and in humans by brain imaging studies, showing thinning of relevant areas of the brain cortex in affected users and differences in regional blood flow and electrical activity of such areas. These alterations give rise to problems in such functions as memory, learning, reasoning, and problem solving, which are collectively referred to as “executive functions”.

Our laboratory was the first to show that animals treated before puberty, before reproductive age, with marijuana extract for a month, and then left without treatment for three months to allow complete elimination of the drug, showed long-lasting, apparently permanent impairments to learning. In the laboratory rat, I would point out, three months without the drug is equivalent to about nine years in humans, as a fraction of life expectancy. So these animals were indeed, long-term, free of the drug itself but still showed residual mental effects. Other groups have subsequently confirmed and extended these findings.

Two of the most striking demonstrations of long-lasting effects in humans have come from the Ottawa Prenatal Prospective Study and the Dunedin, New Zealand, birth cohort study.

The OPPS, the Ottawa study, followed groups of offspring of mothers who smoked cannabis during pregnancy in comparison with those of mothers who smoked tobacco or did not smoke at all. Those born of mothers who smoked cannabis showed only minor physical effects at birth that recovered fully during the first post-natal year, but when they reached school age, they showed mental effects that persisted throughout their growth and development and into their adult years. These were minor changes but sufficient to affect the educational attainments of the children.

The Dunedin study followed 1,037 individuals born in Dunedin during 1972-73, with repeated interviews and examinations at intervals of two or three years throughout childhood, before any of the children had started using cannabis, and again at intervals, after they had begun—that is, those who had begun—up to the age of 38 years, most recently.

● (1005)

Those who never acquired a habit of using cannabis showed a small increase in intelligence quotient at 38 years, compared to 13 years, but those who began to use it regularly showed losses in intellectual function that were greater the greater the amount of their use and the earlier the age at which they started.

These losses affected at least five different areas of mental functioning, and were shown not to be due to residual cannabis in the body, not to fewer years of schooling and not to pre-existing mental problems before cannabis use began. As well, they were largely clustered among those who had started use at the youngest ages. Those who began at later ages and ceased using cannabis recovered fully, but in those who started when youngest, cessation of use was not followed by full recovery. These mental effects resulted in more school dropout, poorer social adjustment, and a greater risk of depression later.

Adolescents using cannabis have also been involved in a growing number of motor vehicle accidents as drivers. Culpability analyses point to the cannabis-using drivers as the ones responsible for the accidents, and of course this is obviously the case in single-vehicle accidents. This appears to be due in part to their belief that cannabis does not impair their driving ability, and in part to their knowledge that there's no analytical test for cannabis comparable to roadside breath tests for alcohol, so they feel they are less likely to be detected.

Finally, the risk of addiction is greater in young users of cannabis than in older ones. One study found that whereas the risk of addiction in regular users in general is about 10%, among adolescent regular users it is about 16%.

In conclusion, the use of cannabis for pleasure comes at a cost, and society must ponder whether the pleasure is worth the cost. Sound policy should be based on thorough, comprehensive, and well-researched cost-benefit analyses. The use of criminal sanctions against individuals possessing small amounts for personal use in my view does not benefit society, but society as a whole must give careful thought to changes in policy that could increase the number and severity of health problems caused by use by its more vulnerable members, which, as I have pointed out, means its younger users.

I would like to add, in response to the questions that a number of people asked earlier in this session, that the cost-benefit analysis of medical use is a quite different matter from the cost-benefit use of non-medical use. In medical use you balance the improvement in health and the importance of that improvement in health relative to the harms that may be caused by the dosage used for health purposes, which, as Dr. Kahan has pointed out, should typically be considerably less than the doses employed by regular users for non-medical purposes.

In contrast, for non-medical use, the benefits are not improvements in health and social function but temporary benefits in how one feels. If one is euphoric, one likes it and wants to do more. That's fine, but then the question is whether that pleasure is worth the costs of the damage caused by the heavier doses that non-medical users tend to employ.

Thank you.

● (1010)

The Chair: Thank you very much.

We'll begin our seven-minute round with Ms. Sitsabaiesan.

Ms. Rathika Sitsabaiesan: Thank you, Mr. Chair.

Thank you to both of our witnesses who are here with us today.

First, to Mr. Kalant, I know that you've been here before, but I'm new to this committee and I'm unaware of your background. It just says here that you are from the University of Toronto.

Is your research based specifically on cannabis and health effects? Is that what your research is based on?

Prof. Harold Kalant: I should explain that I'm a professor of pharmacology in the faculty of medicine at the University of Toronto. I was director of biological and behavioural research at the Addiction Research Foundation of Ontario, which is now part of the Centre for Addiction and Mental Health. My research since 1959 has been largely on alcohol and cannabis.

Ms. Rathika Sitsabaiesan: Okay, thank you.

It's great that you have this alcohol background as well. I know this study is about the health risks and harms of marijuana, but you mentioned, and I think, Mr. Kalant, you also mentioned, that driving after using marijuana decreased reaction time. Then you also said that its joint use with alcohol was where you saw increased numbers of motor vehicle accidents. Speaking of alcohol and marijuana usage, I assume that's recreational usage. But we don't know; it could possibly be somebody who is using marijuana for medical purposes and then mixing it with alcohol.

As we know, when people use pharmaceutical medications, it clearly says “do not consume alcohol while taking this medication”, yet people do, which increases the adverse effects of both the toxicity of the medication they might be taking with the pharmaceutical drug and the impairment caused by the alcohol in their system.

I know that alcohol is bad for you. We know there have been some longitudinal studies on the cardiovascular benefits of red wine usage and limited, controlled portions throughout your day. My question is, why are we allowing for this substance to be used or abused? It could be both. We know that alcoholism is a disease sometimes—not a disease; it’s considered a disorder I think now. I don't remember the actual term.

Professor Kalant, you had mentioned that when you're doing research, it's important to do a thorough cost-benefit analysis. You had mentioned that with the medical marijuana use, the costs as well as the benefits are being assessed and weighed when a doctor or a medical professional prescribes it as a treatment option. We're not looking at the benefits today in this study. We're only looking at the costs. I know it's difficult to do a thorough analysis here.

Could you speak about how is it that we can actually be doing a proper, thorough study when we're not?

Prof. Harold Kalant: It's surely not for me to comment on the task of the committee. I take no part in that.

Ms. Rathika Sitsabaiesan: Sure, maybe that was not fair on my part, then.

Because you have the experience and you said that since 1950-something—

● (1015)

Prof. Harold Kalant: It was since 1959.

Ms. Rathika Sitsabaiesan: —you've been doing research on alcohol and substance abuse.

Nevertheless, can you speak about alcohol for me, please, and about impairments in driving? Can you provide to the clerk of the committee comparative statistics on alcohol alone, and the usage of alcohol and impaired driving causing motor vehicle accidents—possibly even other adverse health effects of alcohol use and abuse—and compare that with cannabis use if you have those statistics? Or if you have any studies? If you have it today, please give it to us now. If you don't, could you give it to the clerk later?

Prof. Harold Kalant: I would be happy to give the clerk follow-up information. I can say that, in general, certainly alcohol is much more widely used than cannabis, and not surprisingly, it also causes serious health problems, more than cannabis, because of its wider use.

The question of why it's allowed is a different matter altogether.

Ms. Rathika Sitsabaiesan: Absolutely.

Prof. Harold Kalant: History, tradition, social beliefs and practices play a major role in what society does or does not tolerate.

Ms. Rathika Sitsabaiesan: Absolutely.

Prof. Harold Kalant: Alcohol has been used since before the beginning of human history. Attempts to stop its use have been carried out from time to time in various countries, and in some countries it is not used for religious reasons. However, attempts to prevent its use for non-medical reasons in our society have failed.

Almost every society has some psychoactive drug that is tolerated, that is incorporated into its traditions, its practices. Alcohol has been in our society for a long, long time. If we were starting from scratch, it's conceivable that we might have picked cannabis instead of alcohol, but we're not starting from scratch. When we talk about cannabis, we have to think about whether we are or are not adding cannabis to alcohol. That is a consideration that means that, necessarily, we are treating the two drugs somewhat differently.

Certainly you are right that alcohol also causes problems and is tolerated. Cannabis causes problems, and currently is not tolerated. It's illegal. When a drug is legal, the use tends to increase greatly because of easier availability. The price is usually cheaper when it is from legitimate sources than from illegitimate sources.

Those factors tend to increase use when it is legal. That is another consideration that has to be taken into account when doing cost-benefit balance. It's not just what the balance is now, but what the balance will be if we change practices in a way that influences the extent of use.

The Chair: Thank you, Ms. Sitsabaiesan. Seven minutes comes pretty fast these days.

Next up is Mr. Lizon, for seven minutes.

Go ahead, sir.

Mr. Wladyslaw Lizon (Mississauga East—Cooksville, CPC): Thank you very much.

Thank you, witnesses, for coming to the committee this morning.

I think the first question I have is probably for both doctors.

I've met with groups that advocate using medical marijuana, or marijuana, and some of them claim that smoking marijuana helps some groups of people much better than taking it orally, in the form of tablets.

Can you elaborate on this?

Prof. Harold Kalant: Dr. Kahan did touch on it, Mr. Chairman.

I will rely on you to direct questions to Dr. Kahan or to me, as you see fit.

The Chair: I normally instruct members of Parliament to ask directly where they'd like their questions to be answered.

Mr. Wladyslaw Lizon: Dr. Kahan.

Dr. Meldon Kahan: Sure. I can address that.

This is not really true and it's not been validated in studies. The studies that have been done on smoked cannabis were very small, and they compared smoked cannabis to placebo.

In the only trial we could find that compared smoked cannabis to an oral cannabinoid, called dronabinol, the dronabinol was actually superior. It caused longer pain relief than the smoked cannabis. That was the only study that we could find. There are reasons for that. The metabolism of oral cannabinoids make it last longer than smoked cannabis.

In any event, I don't believe this is at all an established fact, that smoked cannabis is more effective than oral cannabis. I think many patients and individuals who smoke cannabis confuse its psychoactive effects—its pleasant psychoactive effects of euphoria and relief of anxiety—with pain relief.

The fact is that if you are prescribing a medication for pain relief, what you absolutely do not want is to make the patient cognitively impaired and experiencing the mood-altering effects of a drug every day, all day, for years on end. Smoked cannabis is so far from any other prescription medication in terms of proof of effectiveness or safety that Health Canada would never even come close to approving it as a medication, if it weren't for this essentially political process of the new medical marijuana regulations.

Furthermore, there is no medication in the world that is delivered by a smoked delivery system, where you actually burn a plant product. That's a very primitive way of delivering a medication. It gives an uncontrolled, very high rise in THC levels and a sharp decline, and it contains numerous harmful products that are carcinogenic and cause heart disease and stroke and other problems.

I know that people say that it's so much better and it contains magic ingredients that haven't yet been identified. I think that there is a strong possibility that patients and other individuals who say that are confusing its psychoactive effects with its actual therapeutic benefit.

● (1020)

Prof. Harold Kalant: I would just like to add a very brief comment to what Dr. Kahan has said. The difference between smoking and oral use of cannabis or pure cannabinoids is that when you inhale the cannabis containing the THC it is absorbed into the blood and reaches the brain more rapidly than when it's taken by mouth. So it delivers an effect more rapidly, and if you were using the drug to relieve nausea and vomiting, for example after drug treatment for cancer or for other chronic diseases, the relief may be produced more rapidly. The blood level and the brain levels rise very rapidly when you smoke, but fall very rapidly as the drug is redistributed throughout the body. When it's taken by mouth the absorption is slower but more even and longer sustained and therefore the effect is not as intense but it is longer lasting.

As Dr. Kahan has said, for the relief of pain for example, it is a greater advantage than a sudden rapid onset, whereas for relief of vomiting, something can be said in favour of administering it by the more rapid route, but again its duration is less.

Mr. Wladyslaw Lizon: The second question I have is about people who use marijuana to treat certain medical conditions. Are other treatments available to treat those conditions or do they have to use marijuana?

Prof. Harold Kalant: You raise a very good point. All the current uses that have been tested—not all have been approved—for which some evidence exists of a beneficial effect of cannabis, it is not the most effective, the most potent, or the most reliable drug. However, some patients don't respond even to the best drugs, and for those patients cannabis can be a useful fallback.

A number of studies show if you combine cannabis with the other drugs, the more effective ones, you can get a better effect with less risk of side effects by using a smaller dose of each in combination, than a full dose of either one alone. That has been shown for relief of pain by the administration of an opiate drug together with cannabis in lower doses. It has been shown, in one study at least, with epilepsy where the conventional anti-epileptic drugs were combined with cannabidiol, CBD, to give a better control of the seizures than had been obtained with the conventional drugs alone. The possibility of combined use needs to be further investigated.

● (1025)

The Chair: Okay, your time is up, Mr. Lizon.

Ms. Fry, you're up.

Hon. Hedy Fry: Thank you very much, Mr. Chair.

I want to thank you both for at least giving some of the benefits as well as the risks, which is how I always look at it when you evaluate any kind of drug at all. As you said quite eloquently, Dr. Kalant, obviously nothing that is of benefit is without risk. We all know that if you take enough Aspirins, you're going to bleed to death with a stomach ulcer if you've taken a bottle of them. I think we know that.

I wanted to talk somewhat about a report from the CMAJ that called for the decriminalization of marijuana, because they said—and I'm quoting from them—that they think the problem that people talked about in terms of lung cancer, and I agree.... I think there are large amounts of tar and benzopyrenes in cannabis, but as the medical association and the medical journal said, you don't smoke a pack of marijuana cigarettes a day, as you tend to do with tobacco, so some of that effect in terms of lung cancer may be mitigated because of the small amounts that people may smoke. I wanted to ask you about that.

There's a second thing I wanted to ask you about. Obviously, I think we have known all along that the long-term effects of cognitive problems coming from the smoking of marijuana over long periods amongst young people, under about 40, are high and that we in fact... the incidents of young people, of parents, who are smoking. But I think one needs to counterbalance that with the dangers of alcohol in a pregnant mother, which creates not only physical but severe mental and cognitive problems.

I think while we agree that marijuana has harms—I don't think anyone is suggesting that it doesn't—here's what I think I would like to hear from you. Do you think that if one decriminalizes, as the *Canadian Medical Association Journal* suggested, what you would do is at least rid us of some of the social and legal harms? It is my understanding that 600,000 Canadians have criminal records for the possession of cannabis, and that leads to some harm. It leads to social and legal harm when you have young people trying to get in the army and some people trying to get into university fined. I know that in the United States it's three strikes and you're out. You can never get into university if you've been caught with cannabis three times.

I want you to talk a little bit.... I know that you talk about the psychoactive effects, etc., and the neurological effects. I wondered if you have anything to comment on in regard to this as we look at it in comparison with tobacco and alcohol.

Prof. Harold Kalant: Well, certainly I agree with the view that giving criminal records—especially to young people whose lives are all ahead of them—for possession of small amounts for personal use is not a benefit to society. On the other hand, legalization is not the same thing as decriminalization. Decriminalization means that the use is still disapproved but that the measures applied to prevent excessive use, or to prevent its use at all by particularly vulnerable individuals, are by means other than criminal sanctions and criminal records.

Legalization, on the other hand, means the removal of all restraints and that—

Hon. Hedy Fry: What if you regulate it the way you do alcohol and tobacco?

Prof. Harold Kalant: Well, I would use alcohol as an example of how unsatisfactory regulation has been under a legal status. Young people use alcohol much more than one would like to see, yet it is a legal drug. It's simply the case that older people above the legal age for purchasing share it with the younger people. That is even easier to do with cannabis, because it's rather hard to hide a bottle of liquor when you leave the LCBO. It would not be difficult at all to hide a small package of cannabis in your pocket.

The point, therefore, is that the two, both alcohol and cannabis, produce problems. We have used different measures to control them for traditional and historical cultural reasons. The question is, do we wish to repeat the same mistakes with cannabis that we have made with alcohol in not training young people to realize that there are safe limits to what use permits? So far, our record with alcohol does not make us very optimistic about how to achieve that with cannabis.

I think that's why I say it is necessary to be very cautious about changes in policy that may increase the use and make it more difficult still to control, within healthy levels, the extent of use.

● (1030)

Hon. Hedy Fry: Thank you.

Do you have any comments on that, Dr. Kahan?

Dr. Meldon Kahan: I would support what Dr. Kalant says. There is evidence from other countries that decriminalization actually does not increase use but actually helps to divert patients who have a problem to addiction treatment. In Portugal, for example, they decriminalized cannabis and it's had very good results.

On the other hand, legalization, as Dr. Kalant says, has been associated with dramatic increases in use and dramatic increases in harm. The two are completely different. I would support, and I think everyone I know would support, the decriminalization of small amounts of cannabis possession, but legalization and making it available in retail stores is a totally different matter.

Hon. Hedy Fry: Thank you, Mr. Chair.

The Chair: All right.

Mr. Wilks, you have seven minutes, sir.

Mr. David Wilks: Thank you very much, Mr. Chair.

I'm quite interested in this study, having had a former career as a police officer and three years of drug work. I'm quite intrigued by this.

First, to Dr. Kahan and/or Dr. Kalant, can you tell us what the increase has been since the eighties—I'll arbitrarily use the eighties, but we can go to the seventies, if you so choose—of tetrahydrocannabinol in the patients that you see?

Dr. Meldon Kahan: My understanding is that the increase has been quite dramatic since the eighties, not only in the number of people using, especially young people, but also in the potency of the THC, and therefore, the psychiatric and social harms of THC. It may have levelled off in the last few years, I'm not really sure, but it has become very widespread, especially among youth.

Prof. Harold Kalant: The cannabis that was available for illicit purchase at the time of the Le Dain commission was in the order of 0.5% to 1% THC. That was the material that was supplied to us from seized material by the RCMP when we began our studies.

The current average for seizure material is between 10% and 15%. There have been isolated cases of concentrations much higher than that. Certainly I would agree that the concentration has increased at least tenfold, possibly twentyfold.

Mr. David Wilks: Thank you very much. The best I ever seized was 38%. There is some good stuff out there.

Voices: Oh, oh!

Mr. David Wilks: The fact of the matter is that because it's unregulated, you do not know what you're getting from time to time.

That would be my next question for both of you gentlemen. With regard to the absorption into tissues of tetrahydrocannabinol, can you tell this committee the absorption rates of THC into the system? How long can it take for that to relieve itself from the body?

● (1035)

Prof. Harold Kalant: If you're talking about smoking, the onset of action is almost immediate. The concentration in blood rises rapidly for about the first 10 to 15 minutes. Then it levels off while the concentration in the tissues continues to increase, because the solubility of THC in fatty materials means that it tends to leave the blood and accumulate in the tissues.

Similarly, or rather mirror-image, when it is leaving the body, it leaves the blood fairly rapidly by metabolism and then excretion, but it leaves the tissues slowly. Therefore, it continues to be leached out of the tissues into the blood, carried to the liver where it's metabolized, and then excreted by the kidneys rather slowly over a period of what can be up to three days or more.

Mr. David Wilks: Dr. Kahan, have you anything to add?

Dr. Meldon Kahan: This is very relevant with respect to recommendations about driving. The current lower-risk cannabis-smoking guidelines that have been put out by Fischer and the *Canadian Journal of Public Health* suggest that people who use cannabis not drive for at least three to four hours after use. Probably it should be longer than that for oral use—up to six hours—and some have suggested that if the patient experiences euphoria from the cannabis, which suggests a very high drug level, that they not drive for at least eight hours.

Mr. David Wilks: I believe it was one of you two gentlemen who commented that no one has overdosed from marijuana, which is true, but no one has overdosed from a cigarette either. No one has ever overdosed from tar and nicotine that I am aware of, not one person. A lot of people have died from it, but never overdosed from it.

Dr. Meldon Kahan: Actually cannabis use is associated with an increased risk of death from suicide and from motor vehicle accidents, so it's not quite true that it has no associated mortality with it.

Prof. Harold Kalant: I want to make clear that what I said was that no deaths have been proven from overdose alone.

Mr. David Wilks: That's right, and that's what I was saying.

I wonder if either of you could continue on with regard to the explanation on youth and how cannabis affects the brain and short-term memory and cognitive issues as well.

Dr. Kahan.

Dr. Meldon Kahan: I think Dr. Kalant is far more of an expert on that, specifically on its effects on youth.

Mr. David Wilks: Thank you.

Dr. Kalant.

Prof. Harold Kalant: Thank you.

That did constitute a large part of the preliminary remarks that I read, and I would simply repeat that, acutely, there is temporary impairment of function, as there is with many drugs affecting the central nervous system. Alcohol, tranquilizers, and opiates all affect a variety of cognitive functions temporarily and reversibly.

However, what I'm concerned about is the effect on the developing brain, because the endocannabinoid system—that is the system that exists naturally in the nervous system and throughout the body, in which substances similar in actions to the plant cannabinoids are the actual transmitter substances that modify nerve function—during the in utero development of the fetus has been shown to increase the generation of nerve cells in their mobility to their final site but to impair their ability to establish connections with each other to set up the nerve circuits that are required for laying down memories, for learning skills, and for carrying out higher functions. That is the part that is at particular risk throughout the period of maturation of the brain, which continues at different rates up till the end of adolescence.

That's why I have stressed that people who begin use at a very early age—and there are, unfortunately, many who do—are exposing themselves to risks that are permanent in the sense that if they continue to use and inhibit the maturation process until the age when that would end anyway, then they can't recover what they have postponed. That's why concern about youth is particularly relevant when we are talking about cannabis.

● (1040)

The Chair: Okay. Thank you very much.

Mr. Gravelle, you have five minutes.

Mr. Claude Gravelle: Thank you, Mr. Chair.

Professor Kalant, one of the statements you made is that some prescribed drugs are more dangerous than cannabis is.

I don't know if you were in the room when I asked my first question about the lady who went from 17 drugs to two drugs. Can you tell us what percentage of drugs are more dangerous to the human body than cannabis is?

Prof. Harold Kalant: Unfortunately, that question isn't possible to answer without qualification, because when you say “dangerous”, are you talking about acute danger? Are you talking about fatality? Are you talking about serious impairment of function in the immediate period of action of the drug, or are you talking about long-term health problems? The answer is different for different drugs, according to which type of danger you are talking about.

Mr. Claude Gravelle: Let's talk about the long term.

Prof. Harold Kalant: In the long term, I would say that alcohol and cannabis are probably quite similar.

Mr. Claude Gravelle: I was talking about prescribed drugs.

Prof. Harold Kalant: Oh, prescribed drugs.... Well, obviously opiates are dangerous both acutely and in the long term, acutely because it is possible to cause death by an overdose by suppressing respiration, and chronically, because addiction is well known with opioids and has important effects not only upon health but upon social function and social integration. However, cannabis also is capable of causing addiction and therefore can cause similar problems, though if you ask me if there is a difference in severity, I would say that probably the edge is greater for opioids.

If you're talking about tranquilizers or benzodiazepines and anti-anxiety drugs or hypnotic sedatives, again, deaths from overdose are possible. The effects on function—on coordination, judgment, the ability to drive a car safely and so on—are similar among benzodiazepines, alcohol, barbiturates, and cannabinoids. I think it's not a very profitable exercise to try to grade them in degree of risk. They all have risks, but in general for medical use the dosages are controlled in an effort to achieve the greatest benefit with the least risk, and the instructions that a doctor gives to a patient generally say, do not use more than so many times a day, do not use for more than two weeks, and so on.

With cannabis, there are no instructions given. For medical use, there are or should be, but we don't have enough experience yet to know how effective that advice is to patients. But for non-medical use, there are no instructions. Therefore, I would have to say that the risk overall in the long term is probably greater, because there are no effective controls for non-medical use.

Mr. Claude Gravelle: Thank you.

We've heard today that cannabis causes impairment when driving, for example. Do you think that taking 17 prescribed drugs in a day would cause impairment also?

Prof. Harold Kalant: Well, it depends on what drugs you're talking about, of course. If you're talking about cardiovascular drugs, renal drugs, or gastrointestinal drugs, I'm not sure you can demonstrate that they would have much effect on function. But if you're talking about nervous system drugs, yes, and one of the risks is certainly, in contemporary medicine, the risk of overdose; that is, of combined use of large numbers of drugs without adequate thought as to what the combined effects may be.

Mr. Claude Gravelle: Thank you.

Dr. Kahan, I think in your testimony you suggested or said that cannabis causes mood changes. Would you be prepared to say that prescription drugs also cause mood changes?

● (1045)

Dr. Meldon Kahan: Yes, of course they can. I think, though, the question is, what the therapeutic benefit of prescribing cannabis is versus its risks. If cannabis is prescribed, the risks of opiates and benzodiazepines are not going to go down. It's not an either-or thing. Opiates and benzodiazepines have terrible problems, but there is far greater evidence of effectiveness, so I don't think that smoked marijuana is a legitimate medicine except in extremely specialized circumstances, such as patients with severe neuropathic pain.

The Chair: Okay. Thank you, Mr. Gravelle.

Mr. Claude Gravelle: Thank you, Chair.

The Chair: We have one minute allocated to Mr. Young, and then that will be it.

Mr. Terence Young: Then we're done. Thank you, Chair.

Thank you, Dr. Kahan. I want to thank you so much for helping to dispel this myth that the regulatory system of alcohol is a wonderful success and that if we just decriminalize marijuana, tax it, and regulate it, everything will be fine. I looked at a recent CAMH study that says 54.9% of students in Ontario between grades 7 and 12 drink alcohol illegally on occasion, so we know that regulation is a failure.

When I served on the Alcohol and Gaming Commission of Ontario, I did 300 hearings for liquor licences. At that time in Ontario, back in 2003, $500-million worth of illegal alcohol was sold in Ontario in booze cans and after-hours clubs, so the idea that if we decriminalize or legalize marijuana, that's going to solve the problem and everybody's going to stop buying illegal marijuana is preposterous. I want to thank you very much for putting that on the record.

The Chair: Okay. Thank you.

Briefly, please, and then we have to wrap up.

Prof. Harold Kalant: I'll be very brief.

I would agree completely. Also, I would point out that the hope that legalizing would eliminate the black market would be true only if it were sold legally at a lower price than the black market. If you do that, the use is likely to increase greatly. As long as the price is high to control use, then the black market will not be eliminated.

The Chair: Thank you very much.

I thank our guests for taking the time to be here.

Certainly, to our members, the second hour was much smoother than the first hour, so thank you.

The meeting is adjourned.