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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. Welcome.

We're in our final meeting of our study on the health risks of marijuana.

We have two different panels this morning: three members of the RCMP and then later we have some experts in the field. We have from 8:45 to 9:25. so I think we should get right into it.

You have 10 minutes to present and then we'll follow up with our rounds of questions and answers.

Insp Jamie Taplin (Officer in Charge, Policy and Compliance, National Criminal Operations, Contract and Aboriginal Policing, Royal Canadian Mounted Police): Thank you for the opportunity to talk about the work the RCMP is doing to combat drug-impaired driving and the impact that cannabis has on law enforcement.

I am Inspector Jamie Taplin, and I work in the operational policy unit of the contract policing business line. Two areas that are within my responsibility are the drug recognition expert program and the RCMP impaired driving strategy.

Joining me today is Mr. Darcy Smith. Mr. Smith is an alcohol and drug specialist from the RCMP forensic labs. He is also an instructor for the drug recognition expert program. He's currently leading a research study to determine if there are roadside screening devices that will work with the most common drugs that impair driving to see if these devices will be suitable for use in Canada.

From RCMP federal services is Sergeant Dustin Rusk. He's a federal policing public engagement officer. I'll be referring to that as the FPPE. The aim of his program is to be proactive with an emphasis on prevention within the pre-criminal scope of the criminal spectrum. FPPE seeks to identify options and sustainable solutions and highlight gaps where existing public community or private resources and policies are not aligned, or are not sufficient to provide support.

Today, I'm going to start by talking a little about impaired driving more broadly. I'm going to focus on drug-impaired driving, and then I'll talk a little about what federal policing is doing, and the impact that cannabis has on law enforcement overall. We'll talk about some of the initiatives the RCMP is working on to combat drug-impaired driving, and overall drug enforcement and prevention.

Although the RCMP has always enforced Canadian impaired driving laws, the Commissioner of the RCMP recently requested the development of a national strategy to combat impaired driving and to help change public attitudes about impaired driving. Impaired driving devastates families and communities, resulting in high cost to victims, offenders, communities, and governments. Our strategy will focus on enforcement activities, but also on public awareness, with the aim to address issues with drug-impaired driving, which is a growing concern around the world and certainly in Canada.

One of the most important factors in deterring impaired driving and changing the attitudes of those people who choose to drive while impaired is to have them understand the potentially devastating consequences that their actions may have on themselves and others, and also to let them know that there is some risk in being caught. Building on the great work already under way in the provinces through engaging our partners in the non-profit sector, other law enforcement agencies, and other government organizations invested in road safety, the RCMP hopes to encourage people to choose not to drive while impaired. We hope to encourage citizens to report impaired drivers. We would like to increase the likelihood that impaired drivers will be apprehended before they can cause further harm in Canadian communities.

Let us look at statistics, and I'll speak about Canadian statistics, not just the RCMP's. They're from the Canadian Centre for Justice Statistics. In 2012, there were 84,483 criminal impaired driving incidents that were by way of charge. While the large majority is alcohol-impaired driving, about 2% are reported to be by drug impairment. Interestingly, we're learning that the most recent roadside surveys and academic studies that are being done and published are suggesting that drug-impaired driving is quite a bit higher than the 2% that our statistics show.

For example, I refer to a 2011 report, “Drug Use by Fatally Injured Drivers in Canada (2000-2008)”. The report is from the Canadian Centre on Substance Abuse. They reviewed the accidents of over 17,000 drivers who were fatally injured. That study indicates that drugs that can cause driver impairment were found in approximately one-third of all fatally injured drivers. This is important to us, because that 33%, roughly, is almost at the same level that alcohol was found in fatally injured drivers.

One of the other things that was important is when drugs were found, the most common were central nervous system depressants and also cannabis.

● (0850)

The age group the study identifies most at risk was young men age 16 to 24, and the drug of choice for them was cannabis.

In another study referring to a 2008 roadside survey with British Columbia drivers, over 10% of the drivers tested positive for drugs, with cocaine and cannabis being the most common drugs detected. In this survey, 10% were found to be using drugs; 8% of drivers had been drinking; about 15% tested positive for both alcohol and drugs.

There are other surveys out there that indicate, for example, that 17% of Canadian drivers report having driven within two hours of using a potentially impairing drug.

What's important here is most people know that a person's ability to drive a motor vehicle is affected by alcohol use, but we have a study by the CCMTA, the Canadian Council of Motor Transport Administrators, with what I call rather alarming news. According to their study, 26% do not believe a driver can be charged while impaired by cannabis.

The RCMP is concerned about cannabis use, especially by young Canadians when it comes to driving. I have teenagers myself. I listen to their conservations. I talk to my son and his friends. It seems everybody knows that alcohol-impaired driving is bad. Don't drink and drive. The message has been out there for a long time. But the issue with drug-impaired driving is not as well understood. Anecdotally, I hear that teenagers don't feel you can be stoned and get an impaired driving charge.

I'm going to give you a couple more statistics about a survey that was done with Ontario students, grades 7 to 12, in 2011. They reported that cannabis was the most common illicit drug used by high school students; 22% reported using it over the last year. The same report notes that cannabis use increases with every grade level, starting at 7 and going to 12. They note that 12% of drivers in grades 10 to 12, with a G class licence, report driving after cannabis use. Based on the size of the survey, that 12% represents some 38,000 drivers.

On a positive note, that same survey mentions our efforts to educate youth are having some impact because the number of licensed students who drive after using cannabis or who get in the vehicle as a passenger with a driver who has been using cannabis or alcohol has gone down.

Part of what we're doing with the impaired driving strategy in the RCMP is we're trying to create better internal and external messaging, working closely with RCMP divisions, partner agencies, and special interest groups to discourage impaired driving through public education and awareness. We're trying to engage youth in discussions on drug- and alcohol-impaired driving. We're coordinating national enforcement days against impaired driving, supporting the identification and purchase of new equipment to support alcohol- and drug-impaired driving investigations, and to make sure our training standards for using this equipment are up to date, along with the training for our standardized field sobriety testing, and also the drug recognition expert training.

I mentioned very briefly about Mr. Smith's role with our oral-fluid testing devices. The RCMP is working on a project with the Canadian Society of Forensic Science's drugs and driving committee. Also, there's funding from the Ontario Ministry of Transportation. We're trying to determine if there are roadside point-of-contact oral-fluid testing devices that can test for the most common drugs that contribute to impaired driving in Canada. This, of course, would include cannabis. We want to determine if these devices can be used in Canada. The device would be similar to an approved screening device for alcohol, and would aid in the apprehension of drug-impaired drivers.

On the federal policing side, it's well known that cultivation, distribution, and exportation of marijuana is a significant source of revenue for Canadian organized criminal groups, and it provides a financial base for other organized crime activities as well as individual criminals.

The RCMP, in cooperation with its partners, continues to be an active participant in the prevention and enforcement pillars of the national anti-drug strategy, NADS, which was launched by the Government of Canada in 2007.

● (0855)

NADS has a clear focus on illicit drugs, with a particular emphasis on youth. Its goal is to contribute to safer and healthier communities through coordinated efforts to prevent use, treat dependency, and reduce production and distribution of illicit drugs, including marijuana. It encompasses three action plans: prevention, treatment, and enforcement.

The RCMP is also doing outreach and community engagement in relation to illegal marijuana use. The FPPE is involved in a range of initiatives aimed at raising awareness of illicit drugs and their negative consequences. For example, during the 2012 fiscal year, the RCMP gave over 3,000 awareness presentations for such programs as D.A.R.E., drug abuse resistance education; the aboriginal shield program; racing against drugs; kids and drugs; and drug-endangered children. These initiatives are youth-centric and encompass the surrounding community.

Periodic updates are undertaken to ensure accurate drug information and to ensure that the program content is geographically and culturally specific and appropriate. Each initiative includes extensive information on the harms and risks related to substance abuse, use, and movement. Marijuana, of course, is included in that.

In relation to marijuana enforcement, the RCMP at both the local and federal levels continues to be concerned with the presence of marijuana grow operations in Canada. The RCMP established a marijuana grow initiative in September 2011 in order to better tackle marijuana grow operations. This initiative is based on three components—awareness, deterrence, and enforcement—and involves collaboration among government agencies, community groups, businesses, and community members. This past year saw many successful federal enforcement activities in relation to marijuana grow operations and organized criminal groups.

That concludes my opening remarks. Sergeant Rusk, Mr. Smith, and I would be happy to answer your questions.

The Chair: Thank you very much for the presentation.

Our first round goes to Ms. Davies.

Ms. Libby Davies (Vancouver East, NDP): Actually, we'll go to Mr. Rafferty. He's sharing his time with me.

The Chair: Very good. Thank you.

Go ahead, sir, and welcome.

Mr. John Rafferty (Thunder Bay—Rainy River, NDP): Thank you, Chair.

Thank you to all three witnesses for being here.

It's a pleasure to be at the health committee. I haven't had the opportunity to sit on this committee in this Parliament.

I have two questions, and then Libby will ask the next questions.

You talked about the technology. I'm just curious. When you think about the hardware and the software, and you think about officer training, is there any idea of what that cost would be, certainly in the jurisdictions that you're present in?

● (0900)

Insp Jamie Taplin: Unfortunately, I can't answer that. Obviously there is a cost, but I don't have those numbers with me today. Sorry.

Mr. John Rafferty: That leads to my second question, which is about aboriginal policing, and in particular first nations policing. We've heard in other committees, public safety in particular, but other committees as well, that aboriginal policing in Canada is woefully underfunded, particularly first nations policing. My experience in northern Ontario with the Nishnawbe-Aski Nation police service is really a sad tale of underfunding. I'm assuming that most of your first nations policing is in B.C. and Alberta, in that area, so maybe you could find a comparison there.

Given the economic situation for first nations policing across Canada, how will these initiatives fit in with that?

Insp Jamie Taplin: There are initiatives that are specific to aboriginal youth, such as the aboriginal shield program. Dustin, I'm sure, would be happy to tell you more about that program.

I would say that in aboriginal communities, as in all of our other communities, resources are placed where they need to be to get our work accomplished, and certainly that's one of them. I don't have numbers or anything like that with me today, but as part of the many programs we offer.... Certainly there are many, and I would suggest that most of them could also be implemented in aboriginal communities.

Mr. John Rafferty: Certainly feel free to get back to us with any additional information.

Insp Jamie Taplin: Is there anything specific you'd like to mention?

Sgt Dustin Rusk (Public Engagement Officer, Federal Policing Public Engagement Program , Royal Canadian Mounted Police): Yes, the aboriginal shield program. The wonderful thing about that program is that it's community specific and appropriate to deal with whatever the issues are in that community. The community takes ownership and is a driving partner towards dealing with whatever the issues are with regard to drugs, substance abuse, and violence within that community, and mobilize together. The police help support the community to find out what the solutions are to their challenges.

Mr. John Rafferty: Thank you.

Libby.

Ms. Libby Davies: Thank you very much to the witnesses for coming today.

I'd like to pick up on a couple of things you said, but I have a general question first.

As enforcers of the law, and I guess you do your own analysis of what's going on in terms of laws and enforcement, at what point does the RCMP come to the conclusion that prohibition when it comes to marijuana has really failed?

I'm thinking that because we've seen recently that the Canadian chiefs of police.... Previously they advocated for decriminalization. I think that was the association of police, but the police chiefs have advocated more for a ticketing kind of system.

I'm curious as to what the tipping point is in the law as we know it today. It has basically been an abject failure, whether it's economically or from a law enforcement point of view. It has really not acted as a deterrent in terms of drug use. It's much better to focus on education, prevention, treatment, and harm reduction.

I wonder if you could comment on that, that at this point even the police seem to be saying that we're better to look at a ticketing regime.

Insp Jamie Taplin: I'll defer to my colleague in federal policing here to answer that question.

Sgt Dustin Rusk: First of all, I work in federal policing public engagement. One of the main focuses that we have is to look at prevention, especially compared to the medical industry. Prevention is worth so much more than doing any sort of reaction.

However, when dealing with anything that's in an act—and we have the Controlled Drugs and Substances Act—that falls under our mandate to enforce, we have to stick by that, whatever it is. Therefore, we do enforce the laws appropriately with regard to illicit substances, whatever they might be under all the different schedules.

● (0905)

Ms. Libby Davies: Do you think it's important that we take a health approach? For example, I've always been quite interested in the fact that in school through the D.A.R.E. program, it's police officers who do the education and prevention. When we do sex education in the schools, we don't send in cops to do that. Why do we do it with drugs, when it's really a matter about health and awareness, what happens to our bodies, and so on, and how we make choices? It's really only because it's an illegal substance.

I question how effective that approach is. Would you agree that a health-based approach, particularly to young people based on prevention, education, and awareness is something that's very important? Maybe there's a role for police, but it's a health-related issue, and that's something that's really important to reinforce with young people.

Sgt Dustin Rusk: Looking at what this whole committee is about, and I can't speak for Health Canada, but there's definitely the involvement of a whole-of approach, where all should be involved in this, especially when we're looking at our youth.

After all, it goes back to one adage, that to have a healthy community, you also need to have a safe community where people, especially our young people, can explore their options and be well informed as to what they need to do to make their choices in life.

Ms. Libby Davies: Do I have a little more time?

The Chair: Twenty seconds.

Ms. Libby Davies: Thank you.

The Chair: Thank you very much.

Next up is Mr. Young. You have seven minutes, sir.

Mr. Terence Young (Oakville, CPC): Officer Taplin, I want to ask you about some statements you made that actually even shocked me, and we've been listening about this for weeks.

Please tell me if I have this correct. You said that the Canadian Centre on Substance Abuse studied 17,000 driver deaths. Is that correct?

Insp Jamie Taplin: Yes.

Mr. Terence Young: One-third of all drivers who died behind the wheel of their car had drugs in their blood, and that the most common one was marijuana. Is that correct?

Insp Jamie Taplin: Specifically, and I'm going to refer to my notes here, central nervous system depressants and cannabis were the most common. Marijuana was the most common with the age group 16 to 24.

Mr. Terence Young: Thank you.

With drunk drivers you have a reliable test, a breathalyzer test, that allows you to get convictions, a very high rate of conviction, because it's proven to be accurate.

There's no such test currently for marijuana. Is that right? Doesn't that account for your statement that driving while impaired on marijuana is probably much higher than the 2% reported? Isn't that the reason, because there's no reliable test and there's no way to prove it?

Insp Jamie Taplin: It's certainly part of it. Drug-impaired driving is a complicated investigation and it certainly involves more steps and different tools than the alcohol-impaired driving investigations. When I mentioned the 2% that they said were impaired, I'm speaking generally of drug-impaired driving, not just cannabis.

Mr. Terence Young: Even at the roadside, if a police officer stops a car, they're trained to sniff for the smell of alcohol on someone's breath. They can see if their eyes are red and maybe their speech is slurred. It's not so easy with marijuana. Isn't that correct?

Insp Jamie Taplin: That's correct. One of the programs we offer is the drug recognition expert program. Mr. Smith is an instructor with that program. If it's okay with you, sir, I'll just ask him to give a brief....

Mr. Darcy Smith (General Manager, National Forensic Services, Royal Canadian Mounted Police): The drug recognition expert program is designed because of the fact that we do not have roadside testing devices or the black boxes that everyone is looking for when we deal with other drugs. When an evaluator goes through the evaluation process with a subject under the influence of a drug such as cannabis, the accuracy is quite good.

Mr. Terence Young: That's once they've been arrested and brought into the station.

Mr. Darcy Smith: They've generally been arrested at that point because there's the suspicion that there are drugs in the body. An evaluation is then demanded, and then they're brought in to have the evaluation done.

Mr. Terence Young: That would have to be at a pretty high level, because at the roadside, if somebody's just had half a joint or one joint, it's pretty hard to tell if they've been smoking marijuana. Isn't that correct?

Mr. Darcy Smith: That depends on what brought them to the attention of the officer in the first place.

Mr. Terence Young: We've had the myth debunked that our regulatory system for alcohol is a wonderful success and if we just decriminalize marijuana, tax it and regulate it, everything will be fine. A recent CAMH study said that 54.9% of students in Ontario between grades 7 and 12 drink alcohol illegally on occasion. We know that binge drinking is a particular problem. So we know that regulation is a failure.

I served on the Alcohol and Gaming Commission for three years. I did over 100 hearings. At that time, there was $500 million of illegal alcohol sold in booze cans, after hours clubs, etc. In Ontario, although Ontario has one of the best regulatory regimes apparently in North America, there was still $500 million in bootleg booze. I haven't been able to get any current figures.

Would you please comment, Officer Taplin, on the naive assumption that the regulation of alcohol prevents it from getting into the hands of our youth and what that would mean for marijuana getting into the hands of our youth if we just legalized marijuana and regulated it?

● (0910)

Insp Jamie Taplin: I don't have a specific comment on that.

Mr. Terence Young: Mr. Smith, do you have a comment on that?

Mr. Darcy Smith: Our job is to enforce the legislation in place.

Mr. Terence Young: Okay. Officer Rusk, how do minors get alcohol? Where do they get it?

Sgt Dustin Rusk: That's a very broad question. As mentioned, if it's a minor, then it's going to be by illegal means. I know in every province either 18 or 19 is the age to be able to purchase, let alone consume.

Mr. Terence Young: I can tell you where they get it. We were all teenagers. They get it from older friends or siblings. They steal it from their parents' house. If marijuana were legalized and older siblings and older friends could buy it, that's where they would get marijuana. Is that not safe to say?

Sgt Dustin Rusk: That could definitely be some of those avenues, yes.

Mr. Terence Young: You're an investigator. Where would you look? Doesn't that make sense?

Sgt Dustin Rusk: I'm not arguing with you.

Mr. Terence Young: Okay, thank you.

Mr. Wilks would like to take a bit of my time, Chair, please.

Mr. David Wilks (Kootenay—Columbia, CPC): Thank you very much.

Thanks, gentlemen, for being here today.

Mr. Smith, has there been a determination through the forensic labs with regard to THC in the body and a level that will be required for impairment? Right now, if forming an opinion, a police officer must ask for a blood sample. That's the only way to do it for marijuana.

Mr. Darcy Smith: The challenge with cannabis or with THC in trying to determine an impairment level is the unique pharmacokinetics that cannabis shows in a person's body. It takes time for marijuana to be eliminated from the body. Even after they are no longer being impaired by the marijuana, they will still have measurable marijuana in their blood, or blood THC level in their system.

Mr. David Wilks: What you're saying is that cannabis, marijuana, or THC remains in the system, filtrated through fat tissue, for substantially more time than alcohol does.

Mr. Darcy Smith: That is correct.

Mr. David Wilks: Could you be impaired with cannabis much longer than you could be with alcohol?

Mr. Darcy Smith: The studies that have been done when we're looking at actual driving studies, or we're looking at laboratory studies of the impairment effects of cannabis demonstrate that the impairment of driving skills lasts approximately two to four hours after the ingestion of cannabis. At the very beginning of the testing procedure, you may have a THC level of 25 to 50 nanograms per millilitre of blood. That level falls quickly. In approximately 90% of the population, within 160 minutes, the level will be below 2.5 nanograms per millilitre. People who are heavy consumers of cannabis may have residual blood alcohol levels, after not having smoked for several days, of two or three nanograms per millilitre in their blood.

Trying to pick a level, and saying that is the impairment level, is an educated exercise in trying to come up with that level. Some states, such as Colorado and Washington, have picked five nanograms per millilitre.

Mr. David Wilks: Thank you.

The Chair: Thank you very much.

Next up, for seven minutes, is Ms. Fry.

Hon. Hedy Fry (Vancouver Centre, Lib.): Thank you very much, Mr. Chair.

Thank you very much for being here today.

I want to follow up on the issue of traffic accidents related to cannabis. I have a couple of questions.

Of the people who have been found impaired because they had been using cannabis, how many used cannabis alone and how many used alcohol as well? In other words, how is it decided which one was the one that caused the problem, or whether the cannabis use creates a bigger hit and more impairment than others?

I'm looking at a 2005 review, from France, of auto accident fatalities. It showed that the drivers who tested positive for any amount of alcohol had a four times greater risk of having a fatal accident than drivers who tested positive for THC in their blood.

You've also said that the impairment that occurs with alcohol is very different from the impairment that occurs with cannabis, and that when the levels peak is important. I don't think most people realize that up to 8 to 16 hours after they've gone on a drinking binge, or have been drinking a fair amount, they actually show effects of impairment, in terms of their cognitive skills and their own reflexes, etc., because alcohol lasts that long in the brain.

Is there any information in Canada with regard to the use of cannabis alone related to motor vehicle accidents?

● (0915)

Insp Jamie Taplin: I don't know. I don't have any, specifically. I've done some research, but I have the same access to what you have.

We're trying to review as much as we can. Generally, our initiative is more focused on drug-impaired driving as a whole, as opposed to specifically for an individual drug. I certainly agree that many of the studies out there show that if they're using cannabis, they're likely to use alcohol and cannabis together.

I don't know, Darcy, if you want to comment on the DRE program, as far as recognizing the symptoms when individuals are using both substances is concerned.

Mr. Darcy Smith: Polydrug use is one of the biggest challenges for most of our drivers on the road. It's very rare in samples that come through my laboratory section in toxicology that we see an individual drug. There are generally two or three different drugs involved in the samples that come through.

Most of the studies looking into fatalities show polydrug use. The roadside survey studies indicate a lot of polydrug use as well. One of the benefits of the DRE program is that officers are trained to look for polydrug use. They're taught how the different combinations of drugs will present, and what they should be looking for. Alcohol is separated out within the DRE, the drug recognition evaluation, by doing a breath test first to determine whether or not alcohol is playing a major role. If the person is blowing over 100, shall we say, then we probably would move over and do an alcohol impaired with the individual.

It's very common to find individuals who are providing alcohol levels of 30, 40, or 50 milligrams per cent who also have additional impairing drugs on board. Alcohol and cannabis particularly are a poor combination for driving skills, in that sub-impairing levels of either drug...that is, if you have a certain level of the drug and it wouldn't be impairing by itself, you combine them and you show much more impairment than you would expect to see.

Hon. Hedy Fry: Again, looking at the 2012 study of chronic cannabis smokers and the physiological changes, what it concluded was that no significant differences were observed in critical tracking or divided attention task performance in the cohort of heavy chronic cannabis users. They found there was very minimal impairment in terms of psychomotor tasks in the chronic users. But of course, any amount of alcohol will impair—a glass of wine will impair—if you're going to drive.

With regard to multi-drug use, among the most common drugs used are antihistamines or cough medicines. We know those can impair one quite significantly. Should we therefore test people for antihistamines and cough syrup when we're checking for their impaired motor skills when they're driving?

The bottom line is that lots of drugs that people are taking for bona fide reasons, medications, etc., can impair, yet people get in their car and drive using antihistamines or cough medicines.

Insp Jamie Taplin: Yes, and that's unfortunate, but it is true.

For the officer on the road, public safety is really what we're concerned about. It really doesn't matter to the law enforcement officer if it's illegal drugs or prescription drugs; if the person is impaired, there will be an investigation. Certainly, with our impaired driving strategy, one of the areas we want to focus a bit more on as far as public awareness and education is concerned is on the prescription drug side.

● (0920)

Hon. Hedy Fry: Do you find there has been a decrease in alcohol-related driving accidents as a result of the number of ads and the public education by MADD and a whole lot of groups? I have noticed with young people after graduation, the idea of not drinking and driving and having a designated driver is there. Obviously, that kind of education has had an impact. It has taken a while, but it has had an impact.

If you made something legal, the way alcohol and cigarettes are, with no discernable benefits I might add, could you not do the same thing with cannabis, which may have medical property benefits? Could you not, with education, look at the same kind of outcome as has happened with the issue of drinking and driving that seems to have really had a strong impact?

Insp Jamie Taplin: Well, I do like the idea of more public education to keep our roads safer. Our commissioner says that everyone has the right to get home safely, and I certainly agree with that. With respect to legalization, I really can't comment on that.

Hon. Hedy Fry: No, I'm not asking you to. I'm simply saying that what we have is an example of two legal drugs that have no discernable health benefit, but a lot of risks attached to them in terms of personal health and driving. Good education has made a difference with respect to alcohol use, especially among young people, because they've now grown up in this kind of world. I mean, when I was a young person, we thought we would live forever and we did all kinds of stupid things. But today, we now know that there is good education, so there may be an argument that good education works.

How am I doing for time?

The Chair: Unfortunately, you're out of time. Thank you very much.

Mr. Wilks will take us home. You have about five minutes.

Mr. David Wilks: I want to thank the witnesses for being here today.

As a retired member of the force, I know that from time to time it can be awkward to answer these questions through policy and the requirement to do so. There is one thing I did want to ask you, Sergeant Rusk. Does the D.A.R.E. program still exist in schools? Have they ever measured the effectiveness of the D.A.R.E. program as it starts at the elementary school level?

Sgt Dustin Rusk: D.A.R.E. still does exist. It is one of many different proactive programs that we do utilize within the RCMP. There has actually been a recent evaluation out of Penn State, around the “keepin’ it REAL” curriculum to provide evidence toward it working more effectively and having it impact positively within schools.

Mr. David Wilks: Would you agree that whether it be the RCMP and/or other police forces across Canada that do make a concerted effort on attempting to educate the youth starting at a relatively young age—D.A.R.E. probably starts at grades 5 or 6, in that general vicinity...? Would you agree with that statement?

Sgt Dustin Rusk: D.A.R.E. is one brick that is built up in the foundation of resiliency for kids to make informed decisions. As we've all talked about here, education is such a key factor for anyone to seek out. Looking at other agencies, other partners, be they community based, be they provincial, territorial or federal, they all have a stake in our young people and in making sure they have access to the best education to inform the decisions they can make.

Mr. David Wilks: Thanks.

Back when I was younger, as Ms. Fry mentioned, I was fortunate enough to do the DET course in 1986 here in wonderful downtown Rockcliffe. I'm sure things have changed.

I'm curious to hear from Mr. Smith and/or Inspector Taplin. The common sale of drugs within schools is normally by the joint, $5 a joint. Historically that hasn't changed.

The concerning part to me is this. I think there's some misinformation as we've evolved in the drug age that those who purchase marijuana at or around schools now are taking a significant chance that the drug is laced with another drug, whether that be meth, ecstasy, or a lot of things that can be crushed into the joint.

Are there any indications that the levels of THC along with other drugs being mixed with the marijuana are becoming more prevalent, less prevalent, or the same as they were from years gone by?

● (0925)

Insp Jamie Taplin: Certainly, as you mentioned, sales of joints in schools, in my experience as a police officer on the streets of British Columbia, it was exactly that at the school level.

As far as what's happening in the drug program, Dustin probably would be the best person to respond to your question. I'll ask Darcy to think about some of the toxicology results that go through the lab and if there's anything he can add to that.

Dustin.

Sgt Dustin Rusk: One of the key points to hit upon is that buying any substance in an illicit manner is a huge risk because you're not getting it from a regulated source like a pharmacist, or whatever. Wherever that product may come from, wherever it may be cultivated or made, there is a huge risk factor with what else could be going into it.

Again, speaking to regulatory factors such as the CDSA and others dealing with such substances, anyone takes a risk when getting something from off the street.

Mr. Darcy Smith: From our perspective, if it comes through one of our laboratories, it has to be attached with criminal activity. The sale of joints within the high schools would be more possession for purpose of trafficking. Then Health Canada's labs do the analysis for those.

Unless it was attached to a student driving and then our becoming involved in an impaired driving investigation, we wouldn't really see that analysis, so I wouldn't really have much to add there.

The Chair: Thank you very much.

That concludes our first panel this morning.

We're going to suspend for a couple of minutes and allow our guests to leave. Then we're going to cue in through the video conference, and carry on.

Just to answer Mr. Young's question about who sells it to the kids in high school, from my experience in Clinton, it's usually the guy that failed grade 9 four times who did it.

Anyhow we'll suspend, and then we'll be right back.

Thank you.

● (Pause)

● (0930)

The Chair: Welcome back, ladies and gentlemen.

We are with our second panel for this morning's meeting.

We have three witnesses, two by video conference and one here in person. What we'll try to do is hear from the individuals who are appearing by video conference first while we have our technology working. Then we can go to our other guest who's with us in person. Then we'll go through our rounds of questions.

We're pretty well on time. We do have a little bit of business we need to get to at 10:30 so that leaves about an hour for this panel. There's plenty of time to get through it.

We're going to start off first with Mr. Asbridge from Dalhousie University.

Go ahead, sir.

Mr. Mark Asbridge (Associate Professor, Dalhousie University, As an Individual): First of all, thank you for inviting me to speak to the committee.

I'm an epidemiologist. My research in this area typically focuses on addictions and injury prevention. I have a particular focus on road safety and traffic safety.

I'm going to speak to the issue of drug-impaired driving, in particular the role of cannabis. I also have some other interests as well. Some of my research is focused on issues around youth, trends in youth consumption, young adult consumption, this notion of normalization of cannabis and some of the issues about how we define problematic or harmful use. I will speak on these if time permits, and please cut me off, because I can ramble on.

It's important when we're talking about these issues in terms of the health risks related to cannabis to contextualize how cannabis is used or the nature of the use. It's important to think about cannabis in some of the same ways we think about alcohol. Not much of the harm associated with cannabis is linked to what we would call uncontrolled or irresponsible consumption, and where the potential for harm is maximized relative to more controlled use where harm is minimal or non-existent. I want to speak to these issues when I cover these topics.

In terms of cannabis and driving, there are three or four key points that I want to get across around the issue. We know from the experimental research that cannabis, when it's consumed in sufficient quantities, impairs the cognitive and psychomotor skills that are necessary for the safe driving of a motor vehicle. This has come out of an extensive experimental set of studies. Many of the aspects of driving are impaired, including things like vehicle tracking, reaction time, attention, and so on and so forth. This is important because we know from both hospital data and from survey data that rates of driving under the influence of cannabis have been rising in the last 20 years.

Depending on the survey, self-reported rates of driving under the influence of cannabis range from one in ten to four in ten youth, depending on the jurisdiction, who use cannabis and drive within one to two hours. That's an important threshold, the one to two hours, because you're going to see the impacts of THC on impairments on driving performance is going to be within that narrow threshold of time.

We also know from administrative hospital data that between 10% to 20% of drivers in crashes—these are individuals in crashes who are presented to hospital with an injury—test positive for THC. We also know that about 6% of drivers randomly stopped in the recent B.C. roadside survey tested positive for THC. Data from Transport Canada noted that a high proportion of fatally injured drivers also tested positive for THC. In many of these cases, it's polydrug use as well, but THC is present.

Finally, a lot of the surveys, particularly among youth and young adults, that have come out of Australia, the U.S., and Canada, indicate that self-reported rates of driving under the influence of cannabis actually have surpassed rates of drinking and driving. They are higher. This is an area potentially of concern.

The important thing is, from a road safety perspective, how does the consumption of cannabis prior to driving affect the likelihood of being in a crash or an accident? We know that recent or acute use, again, within an hour or two before driving increases the risk of a crash about twofold. That's generally been supported in a number of med analyses, which are systematic reviews which are high level summaries of the evidence that's out there. That has been confirmed when you measure cannabis in blood.

The key aspect is to objectively measure recent use. The finding is less clear when it's measured in urine, when you do an analysis of the presence of THC. That's largely a result of some of the inconsistencies in measuring the exact timing of consumption relative to the driving event.

The association of cannabis with crash rates also is typically stronger when you look at more severe crashes involving injury or death. The evidence is not so clear when you look at less severe crashes or non-injury crashes.

● (0935)

There also appears to be a dose-response relationship so that the crash risk is increased at higher levels of THC that are measured in blood, and that there are strong synergistic effects with alcohol even at thresholds below those at which each drug would independently impair someone.

This is a really important issue, but there are still some discrepancies in the findings. A lot of that has to do with our inability to have the most perfect studies, for lack of a better word, to study the issue.

It's really a challenge to study this issue, because in order to appropriately assess whether cannabis increases the risk of a crash requires taking samples from individuals not only in crashes, but individuals who were not in crashes. That's an extremely challenging issue from a research ethical perspective and logistical perspective: how do we stop people on the roadside and get them to give us blood tests so that we can measure cannabis in the roadside population relative to those involved in crashes? That's a challenging issue. More work needs to be done in this particular area. We need some high-quality studies and studies that measure THC in blood, not urine, and that measure THC, again, in these control samples.

In terms of the legislation, you've probably heard from expert witnesses on the topic around the current state of legislation for cannabis and driving in Canada. There are varying policies across the globe around how we detect and determine impairment. These policies vary in how cannabis drivers are detected, the methods that are employed to determine their legal impairment, and then the associated punishment, whether it's a criminal charge or administrative sanction.

Detection typically takes two forms. One is through an observation of driver impairment while behind the wheel. You probably have grounds that a driver is driving erratically and may be impaired, and therefore you stop them. That's what we use in Canada. You have the probable grounds that they're driving erratically and you pull them over. In other countries, they'll do random stops or spot checks, and assess without specific cause.

When you determine impairment, in Canada we have, as you probably heard, the drug recognition expert program, where we detect impairment through a series of 12 stages. First is to look for alcohol impairment, and then move on to other drugs. Other countries set zero tolerance levels, where any amount of THC present in the body is indication of impairment. That has some problems, because of the way you measure THC. If you measure it in blood, it's a little bit better, but most of the time it's in urine, and that's not so good, because it could include use that happened weeks prior. Other countries have per se limits like we do for alcohol, where you have 80 milligrams per cent for alcohol as a Criminal Code sanction. There have been suggestions of what that should be set at. Some places have a range in the 5 nanograms a microlitre, or 7 nanograms to 10 nanograms a microlitre, which would be equivalent to about a 50 milligram per cent for blood alcohol content. These are different examples.

We don't have very good roadside testing technologies. We don't have a breathalyzer for cannabis. There is some testing that's going on in Australia, for instance, using saliva tests, using saliva strips, but they have their own problems. These oral fluid tests have problems in terms of false positives and false negatives, so the jury is still out on that particular issue.

Do I have another couple of minutes?

● (0940)

The Chair: You have a minute and 10 seconds.

Mr. Mark Asbridge: I just want to touch on one of the other areas in which we've done some work, and that is how we define harmful or problematic cannabis use. A national and international group I work with has looked at how we define this issue. I know it's an issue of concern for the committee.

Simply put, there are various tools that are used by clinicians to assess or screen for problematic use. These tools include the WHO's ASSIST, for instance, and others, such as the CUDIT, the cannabis use disorders identification test. These tools are used to identify people at potential risk for cannabis misuse and problems.

When we look at this issue, we find that these items typically set the threshold or the bar too low. These items typically identify any use as being problematic use, so we see them as not very useful tools. What often gets looked at is simply whether somebody uses and the frequency of use.

For instance, with the ASSIST tool, you could use cannabis once a month and be identified as being a problematic or harmful user, and that would over-screen people from a health care perspective. That would be a terrible tool to identify problematic use. What gets excluded are true problems related to use that might be experienced by the individual. I think we have to be careful when we use these kinds of tools to identify problematic use, and we must consider broader issues around real harms that might be affecting the individual.

One of the things we looked at is that it's maybe more important to measure the quantity of consumption, as we do with alcohol. We can draw on the alcohol literature here. Quantity is more important than frequency. Bingeing is more important than regular use of one joint a day. It would be more important to look at somebody who smokes in excess of three or four joints in a single sitting at more irregular intervals or at somebody who uses multiple joints in a particular day. Drawing on the alcohol literature, I think quantity is something that's not considered strongly enough when we're looking for problematic and harmful use.

I have a lot more to say, but I'll leave my points right here and answer questions.

The Chair: Thanks very much, Mr. Asbridge.

Next up is Mr. Wood.

Welcome. Thank you. We know it is early out your way, but thank you again.

You have 10 minutes to present.

Dr. Evan Wood (Director, BC Centre for Excellence in HIV/AIDS, Urban Health Research Initiative, As an Individual): Good morning. Thank you so much for giving me the opportunity to speak. I have some brief prepared remarks and then I'd be happy to take any questions.

By way of introduction, I'm a professor of medicine at the University of British Columbia. I hold a Canada research chair in inner city medicine. I am the medical director for addiction services at Vancouver Coastal Health and I'm an American Board of Addiction Medicine accredited addiction medicine physician.

Today I will summarize some of the health harms of cannabis at the individual and public health levels and hopefully offer some insight into how these harms can be mitigated.

In recent years research has concluded that cannabis can contribute to some health harms, although I think in many instances these have been overstated, and I'd be happy to talk about in which instances I think they have been. As previous presenters have noted, while these health harms are a matter for concern, especially among vulnerable populations, relatively speaking, the health harms of cannabis in terms of individual health are believed in the scientific literature and in the medical community to be less serious than those of tobacco and alcohol.

Most importantly, I should note that cannabis is one of the most commonly used, certainly the most commonly used illegal drug. Most users use it infrequently and with no obvious harms to themselves.

I really come to this issue from a conservative perspective with respect to government accountability and the need for impact assessment of taxpayer-funded interventions. As you are likely aware, despite more than an estimated $1 trillion spent in the last 40 years trying to suppress the drug market in general, cannabis remains freely available to young people in our society. In many respects it is more accessible to young people than alcohol and tobacco. There are statistics from various U.S. government-funded sources, including the Monitoring the Future study, that show that about 80% of young people find cannabis easy to obtain.

In recent decades, rates of cannabis use have climbed; cannabis potency has increased, and the price of cannabis has decreased. Despite our best efforts in public education and law enforcement, it's clear we've not been able to effectively curb cannabis supply and demand, and importantly, a violent unregulated market has filled the void to supply cannabis to consumers.

The Fraser Institute, an economic and public policy think tank, has estimated that the market for illegal cannabis in British Columbia may be as large as $7 billion per year. This is more than double the total revenue from the province's agricultural, forestry, and fishing sectors combined. The well-intentioned efforts to reduce the availability and use of cannabis by making it illegal, like alcohol prohibition before it, has had a range of unintended consequences in terms of its contribution to organized crime. It's important not to separate the cannabis market from other illegal industries. For instance, the RCMP has done a very nice job describing how the export market for cannabis to the United States contributes in a substantial way to the importation of cocaine and guns into Canada.

Economists considering this issue have helped me understand that this is just simply the laws of supply and demand; that is, any consequential intervention into the cannabis market that in any way reduces supply will have the perverse effect of driving up the price of cannabis and incentivizing new individuals to get into the marketplace. In light of the harms of cannabis use and the social harms of cannabis prohibition the question is: what should be done next?

It's commonly argued that rates of cannabis use would be higher if law enforcement measures such as these were not in place, which raises the question: should anti-cannabis provisions be strengthened? Importantly, the scientific evidence does not supply this approach. A survey of UN member states that looked at how aggressively anti-drug laws, including anti-cannabis laws, were enforced demonstrated that there's no association in per capita rates of use in relation to how aggressively anti-cannabis prohibition are enforced.

● (0945)

Quite the contrary, settings with softer laws with respect to cannabis, such as the Netherlands, where cannabis has been de facto legalized, are lower than in settings where anti-cannabis prohibitions are aggressively enforced, at least traditionally, such as the United States.

While you've already heard from other speakers that the cannabis available on our streets is more potent than ever before, it's important to note that this has happened despite escalating expenditures aimed at reducing the cannabis supply. Our best efforts to limit supply and demand have not been successful. As a result, cannabis is freely available throughout the country in an unregulated way and to the benefit of organized crime.

As a physician and researcher, I stand with leading public health bodies, including the Health Officers Council of British Columbia and the Canadian Public Health Association, which have argued that we should be looking at the taxation and strict regulation of adult cannabis use as the best way to wage economic war on organized crime, and certainly to have the potential to better protect young people from the free and easy availability of cannabis that exists under prohibition.

I'll stop there. I'm happy to answer any questions that members of the committee may have.

The Chair: Thank you, Dr. Wood.

Next up we have Mr. Jutras-Aswad. Sir, you have 10 minutes.

Dr. Didier Jutras-Aswad (Assistant Clinical Professor, Psychiatric Department, Université de Montréal, As an Individual): I want to thank the committee for inviting me to talk about what, in my opinion, is probably one of the most controversial but also very scientifically challenging topics in mental health. Talking about mental health and addiction, psychiatrists leading the addiction psychiatry unit at the Centre hospitalier de l'Université de Montréal, also leading a laboratory focusing on the endocannabinoid system and the neurobiology of addiction....

I have the chance to follow, I think, an amazing group of highly skilled very renowned researchers that probably talked about a lot of different aspects of the risks related to cannabis. Therefore, I'll be able to focus on a very specific aspect of cannabis and risk that's related to that substance. That is basically the content of cannabis, which in my opinion is one of the very important factors to take into consideration when trying to understand the risks that can be related to cannabis.

As a general introduction, one thing that is very interesting at this point in science related to cannabis is actually the growing understanding we have of the neuroscience of addiction, and more specifically the understanding of the endocannabinoid system, which is what we now understand to be main compounds that are found in cannabis, namely THC. I think that understanding really allowed us to get a better sense of what the short-term and long-terms effects of exposure to cannabis are. Also, the emerging knowledge that we have now, that we'll talk about very soon, is about the content of cannabis, which is a very complex substance.

As you probably have heard, there are different outcomes that have been assessed in relation to cannabis exposure. Obviously, there are some very specific outcomes related to mental health that have been very well studied, including: the relationship between cannabis exposure and psychosis; between cannabis exposure and the risk of developing addiction to that substance but also other substances; the relationship between cannabis exposure and the risk of developing anxiety and depressive disorders, as well as developing learning and cognitive problems.

In the last five to ten years, probably more the last five years, in the neuroscience world and also the clinical and the addiction psychiatry world, the growing knowledge that really highlighted and put a new light on the association between cannabis exposure and various outcomes is the fact that clearly all are not equal in front of cannabis exposure. By that I mean, very clearly, when you look at the general population who are not vulnerable from a mental health or even a genetic perspective, the exposure to cannabis is quite rarely related to very severe long-term negative effects, including mental health.

What is clear now is also the fact that there are some factors that can really increase the risk of developing very significant negative effects when someone is exposed to cannabis. Among these factors, one is definitely genetics. When you look at all the data on the relationship between cannabis exposure and psychosis, certainly there are genetic factors that will definitely modulate the risk of developing psychosis when you're exposed to cannabis. Among other factors, obviously, is age. Probably other researchers have talked about the fact that age will definitely modulate the risk of developing, for example, cognitive problems when you're exposed to cannabis. The younger you are when exposed, the longer will be the term you'll probably have cognitive problems.

One of the factors, which is why I'm here and what I want to talk about today, that will clearly modulate the risk associated with cannabis exposure and other cannabinoids is actually what is found in cannabis. For a long time the main focus has been on THC, which in laboratory settings has been associated with a lot of the outcomes that I talked about—cognitive problems, psychosis, anxiety, for example—but now we have a really good understanding, actually a better understanding, of other cannabinoids that are found in cannabis. Clearly, there is not only THC. For example, there's cannabinol and also there's cannabidiol.

Why I talk about this is that all of these other cannabinoids that we find in cannabis are very different from THC. I'll give you an example. Clearly, when someone comes into a laboratory...and groups around the world have shown that when someone comes into a controlled setting and are administered THC in sufficient dosage, you'll see cognitive problems. You'll see psychotic symptoms. You will see anxiety symptoms very easily. On the other hand, when someone in a controlled setting is administered another cannabinoid, for example CBD, cannabidiol, you see very different effects. I'll give an example.

● (0950)

In the lab, when you administer THC to someone at a significant dosage, you will induce symptoms very similar to schizophrenia. If you pre-treat these people, these subjects, with cannabidiol, you can decrease the symptoms of psychosis. That's just to give you an example of how this drug is very complex, but different compounds will have a different effect.

That has very important implications in terms of how we understand the risks associated with cannabis, but also what kind of data we need to really be able to get a better sense of what the risk is associated with cannabis and also how to deal with changes in the laws and how we'll deal with, for example, therapeutic cannabis, if we were to go that way in society.

I think the implications are very important. First, I think the assessment of clinical effects and the risks associated with cannabis can only be made accurately if THC and CBD contents are taken into account, because depending on the ratio of CBD and THC, the effect of that substance can vary widely and very importantly.

The therapeutic use of cannabis is not a topic I talk about, but there is clearly some therapeutic potential for that substance as a whole, and it can only be made in a scientific evidence-based manner with rigorous control of the THC and CBD content. We know that each substance has a very specific effect, and if we want to use them in a therapeutic manner, we have to be able to control that, just as we do with all other medications.

In terms of research, I also think that significant research effort should be devoted to examining and discriminating the specific effect, but also the risk associated with THC and CBD. Studies looking at cannabis risk and therapeutic properties should consider THC and CBD content when looking at that association.

In terms of recommendations, if I can make some, as a general statement I think it's crucial to underline that much remains to be understood in regard to the deleterious effect of cannabis. The risk can only be truly understood by taking into account all the factors that can modulate that risk. Again, all are not equal in front of cannabis exposure. One of the major issues that needs to be solved is the understanding of the specific effects of the various cannabinoids that can be found in that substance, mainly THC and CBD.

In terms of regulation, I think that definitely the content ratio of CBD and THC should be taken into account as part of any regulation regarding cannabis, both for recreational purposes and for medical therapeutic use.

I also think that compound simple with high CBD and low CBD should be considered for now as potentially safer in the absence of more definitive data, based on what we have available in terms of scientific data on the effect of both compounds.

I definitely think that research related to other cannabinoids, including cannabidiol, but also cannabinol and other cannabinoids—there are dozens in cannabis—should be facilitated, including by alleviating some of the burdens that are related to the study of that substance. It's pretty amazing at this time that for a researcher, it's much more difficult to study specific compounds, specific cannabinoids, in an evidence-based, very strong scientific manner than it is to study a substance such as cannabis that will have a very different content. It is really difficult to study it as a medical compound for medical use.

I also think that regulations that pertain to other cannabinoids, including CBD, should be revisited. Actually, cannabidiol, which is anti-addictive, does not induce psychotic effects, is not abused on the street, is considered as dangerous and as addictive in terms of scheduling in terms of regulation as substances like THC that can be addictive, or other substances such as cocaine or heroin.

I'll be happy to take questions.

● (0955)

The Chair: Thank you very much.

We're going to go into our first round. Ms. Davies, go ahead, please.

Ms. Libby Davies: I'd like to direct my questions to Dr. Wood.

First of all, thank you so much for getting up so early. I think there are at least three of us on the committee who have an appreciation of how early you had to get up to present to us today from Vancouver.

I know you've done a lot of research and you also have a lot of on-the-ground experience in Vancouver. This study that we're doing is quite restrictive in that it's only looking at the harms and the risks of marijuana use.

I have three questions that I want to ask you, and I hope you can answer each of them.

Relative to a whole number of substances, whether it's alcohol, tobacco, prescription drugs, or other drugs that are illegal, would you consider marijuana to be a lethal drug?

Dr. Evan Wood: Do you want me to take them one at a time?

Ms. Libby Davies: Yes, one at a time. I have two more questions after this one. We have seven minutes for back and forth, so we'll just keep our eyes on the time, too.

Dr. Evan Wood: Very quickly, a great deal of study has gone into looking at the relative harms of different psychoactive substances and pharmaceutical drugs. As I made clear during my remarks, there is broad scientific consensus, and I think people would be way outside that consensus if they were to place cannabis as being more harmful than alcohol and tobacco. Certainly, alcohol and tobacco are much more addictive and toxic.

In terms of cannabis, you're asking if it could be lethal. In terms of the physiologic properties of cannabis and the prevalence of use, those types of reports are almost non-existent in the literature. With confounding factors of poly-substance use and other things, cannabis itself is relatively safe. I agree with the former presenter and have personally seen individuals who have become psychotic from using high-dose cannabis, but that's a transient effect of cannabis intoxication. I've never seen anyone with persistent effects of that. I think it's important to note that alcohol, during intoxication and withdrawal, could make people psychotic.

So relatively, certainly it's much safer.

● (1000)

Ms. Libby Davies: Thank you, Dr. Wood.

I'll go to my second question.

I don't know if you are familiar with Kevin Sabet, from Florida. He presented as a witness at the committee. In fact, he has been widely quoted. He has an emphasis on a project called SAM, smart approaches to marijuana. I've been reading some material that disputes his credibility in terms of scientific evidence and whether or not he has peer-reviewed material.

I wonder if you are familiar with his work, and whether or not you have an opinion as to the credibility of the conclusions he presents.

Dr. Evan Wood: Yes, I know Kevin's work. Kevin tends not to conduct original research and is not part of the scientific community that's actively working in this area. He is known to work with policy groups favouring a shift from outright prohibition to a sort of prohibition light. I wouldn't place Kevin in the group of highly credible scientists who are working in this area who are taking a bit more of a nuanced approach.

Ms. Libby Davies: Does he have peer-reviewed papers that you're aware of?

Dr. Evan Wood: I haven't seen original scientific work from Kevin. I believe he has published commentaries and articles of that nature, but not work such as that presented today funded by the Canadian Institutes of Health Research, or my own work, funded by the U.S. National Institutes of Health.

Ms. Libby Davies: So he would be more of a commentator than someone who's actually done scientific research.

I have a third question, and you did partly address this in your comments. We're talking about substances that to varying degrees all provide harm. Probably the thing that we do every day in our lives that is one of the greatest risks is driving a car, right? We use seat belts. We try to mitigate the risks and promote a safe environment.

In your opinion, what provides better control and safety when it comes to marijuana? Is it prohibition, or is it regulation?

Dr. Evan Wood: That's a really good question. I think it's important for people to understand that there is a middle ground between prohibition and legalization. I alluded to the Health Officers Council of British Columbia, and the Canadian Public Health Association, which believes that the strict taxation and strict regulation of adult cannabis use would wage economic war on all the organized crime groups that control this market and better protect young people from the free and easy availability of cannabis. That's certainly my opinion as well.

Ms. Libby Davies: To follow up on that, one of the issues that Mr. Sabet puts forward as the reason we need to continue with a prohibition model is the higher potency of THC content over the years. It just strikes me that if we did have regulation just as we do for smoking or alcohol, that's something we could actually regulate. It would then produce a less harmful health risk. We could regulate in terms of adult use, as opposed to youth using.

In terms of regulation, I know the medical officers did a lot of work on this, but how do you actually see a regulatory regime in terms of managing the risks and harms?

Dr. Evan Wood: This has been a huge area of scientific inquiry with respect to looking at other substances, particularly tobacco and alcohol. How they're regulated, how they're supplied, in what potency, the outlet density you allow, and prohibitions on advertisement and promotion all can have a huge impact upon rates of use and related harms. That science could be lent to a regulated market for the taxation and regulation of the adult use of cannabis.

Certainly, things like potency or, as a prior speaker described, the relative potency in terms of cannabinol and THC are all things that can be controlled. The increasing potency of cannabis, we have to recognize, has emerged under prohibition, and there's the increased sophistication of the market in that context. We've totally handed over regulation to illegal bodies, and many of us strongly believe that if we take control of this market, we can regulate this type of thing.

● (1005)

Ms. Libby Davies: Thank you very much.

The Chair: Thank you, Dr. Wood.

Next up for seven minutes is Ms. Adams.

Ms. Eve Adams (Mississauga—Brampton South, CPC): Dr. Jutras-Aswad, in very plain language, can you explain to me what a psychotic episode looks like and what a schizophrenic episode looks like?

Dr. Didier Jutras-Aswad: Actually, they're different things. You can have psychotic symptoms that include hallucinations, obviously, and delusions and ideas outside of the reality. That can actually occur in a lot of different kinds of circumstances, such as when you're severely depressed or when you have schizophrenia or a very severe psychotic disorder that is a more long-term disorder, but also when you're exposed to certain substances that can induce psychotic symptoms, such as, actually, cannabis, or cocaine, or a lot of other different drugs.

Ms. Eve Adams: Thank you.

I'm not sure if you're aware of a study from 2011 conducted by the Canadian alcohol and drug use monitoring group. It's a survey they ran, and it showed that in the last year.... They measured how many folks actually used marijuana. In 2004, 14% of the general population—they're extrapolating—had used marijuana at some point in the previous year, but by 2011 it was down to 9.1%. That's a statistically significant decrease. It's also a very sizable decrease. It seems as though it was much more popular in 2004 but was very much diminishing in popularity by 2011.

I guess we're somewhat concerned that all of a sudden this has become a political football, and people are trying to throw this out on the front pages and so on, when in fact there isn't this big clamouring for legalization or the ability to sell marijuana at every corner store. I'm particularly concerned about what the impact would be on the developing mind, about what those health consequences are.

This is actually our last day of testimony for this study. What we're struggling to find is independent scientific evidence that really speaks to the effects and the impact on individuals' health of using recreational marijuana, especially on developing minds. That study said that the overall population is really not using marijuana quite so much, but it did find, however, that youth really are using marijuana, and some of the numbers are really, really high. In the past year, cannabis use by youth was 21.6%, or three times higher than that of adults.

I guess the concern is that if you were to make marijuana readily available at variety stores and simply say that you needed to be a certain age in order to purchase it, similar to cigarettes.... I think we could all say realistically that we've seen teenagers smoking cigarettes, so somehow they have them in their possession. Have you undertaken any research on young participants, 13-, 14-, or 15-year-olds, to see what the health consequences are of recreational marijuana usage, or are you aware of any studies or science on this issue?

Dr. Didier Jutras-Aswad: I'm not sure if I understand the question. Is it about the availability of the drug, or whether the change in the law would make it more available for youth? Or is it about what the long-term effects would be?

Ms. Eve Adams: With regard to health, it's about whether you're aware of any science that has actually looked at the impact on the developing brain of using recreational marijuana. I assume that in the studies you were referencing they were of consenting adults over 18 or 19 years of age, but is there any science out there about what the impacts would be on the brain of a 12-year-old or a 13-year-old?

Dr. Didier Jutras-Aswad: Yes, there are data. As I said, actually, it is quite clear, as Dr. Wood mentioned in some way.... The data for now shows that in general and for the general population the risk associated with cannabis actually is relatively minor in some ways, when someone is not vulnerable, but there are clearly some factors that would put people more at risk. As I mentioned, there's genetics, but clearly the age and youth....

One of the data we have now is about the cumulative consequences of exposure to cannabis. One of the factors that will actually increase the risk of having cognitive problems associated with cannabis is the age of exposure. Some studies that have been conducted are basically saying that when the exposure occurs before 15 or 16 years of age, the effect on cognition can be much more important and much more long term than when the exposure occurs at an older age, let's say, or in adulthood, for example.

● (1010)

Ms. Eve Adams: Would it surprise you that, according to the study, the average age at which someone first tries cannabis is 15.6 years? You're saying that this is a critical period of time. This is the average, which means that many more people try it at a later age, but many people try it at a much younger age. Is that of concern to you?

Dr. Didier Jutras-Aswad: There are two things. Is it surprising? Not really. We know that cannabis is among the first substances used when someone starts using drugs, with tobacco and also alcohol. We know that cannabis will be one of the first drugs used by youth in general. We also know that the peak from an epidemiological standpoint, although I'm not an epidemiologist, is indeed during adolescence or early adulthood; so it's not very surprising.

Is it of concern? As I said, the younger the exposure the more likely someone is to have long-term consequences from cannabis exposure. Obviously, if that peak occurs later in life during adulthood when the brain is well developed, more solid, and less flexible, we might think that the burden associated with cannabis exposure might decrease.

Yes, it is concerning that it occurs at a young age, rather than exposure occurring later.

Ms. Eve Adams: Finally, let me turn to pregnant women. Currently, possession is obviously not legal. If it were readily available in variety stores.... I think we've all been concerned, when we see women drinking or smoking when they are pregnant. There are a number of studies now showing that there are some significant impacts on the infant.

Can you speak to those impacts, please?

Dr. Didier Jutras-Aswad: We have much better data on the impact of exposure during pregnancy for alcohol and tobacco, for sure, but we have emerging data for the impact of cannabis exposure.

I have to say, though, that all the research in that area is very difficult to conduct, just for ethical reasons. Obviously you cannot expose a woman and do a controlled placebo study, but the data we have now—from the human study from Brain Bank, for example, but also from animal models—show that cannabis can have some impact on brain development for the fetus and also in the long term. Obviously, as I said, the younger the exposure, including during the fetal life, the more important the long-term consequences can be.

Again, that research field is at its beginning, and it's a very difficult one to study for ethical reasons.

Ms. Eve Adams: I imagine it would require self-disclosure.

Dr. Didier Jutras-Aswad: Yes. We can talk about it for a long time, but obviously disclosure is a main problem for the validity and quality of the information reported by women saying whether or not they have used cannabis. It's a huge problem to conduct a really good study in that field.

The Chair: Ms. Bennett, you're up for seven minutes, please.

Hon. Carolyn Bennett (St. Paul's, Lib.): Thank you all.

I'm afraid that our track record at parliamentary committees, with this government being able to use its majority to put in recommendations and even confine studies such as this in a narrow way and then replace what was heard with what they have already predetermined would be the recommendations of a committee hearing, means that I would prefer to use my time, particularly with Dr. Wood and Dr. Jutras-Aswad, for you to make very clear what, if you were writing the report for this committee, the recommendation would be.

We've heard from Dr. Wood that free and easy access under prohibition is not a good thing. The Canadian Public Health Association has recommended an approach with taxation and regulation. We've heard that there needs to be more research, and more research around even the kind of research we're doing on personalized medicine, genetic predisposition. I'm afraid I'm old enough that, as a physician in the emergency department at the Wellesley Hospital in Toronto, we saw people having psychotic breaks from having seen *The Exorcist*, because they were predisposed in some way.

I would like to give you both the time to tell us, if you were writing the recommendations for this committee around this study and the broader study that we wished it were, what those recommendations would be, so that the people of Canada will know what this committee heard when they see the weak recommendations that will come out because this Conservative majority continues to use its majority to replace what was heard from the witnesses.

It is very important that you tell us now what needs to be in this committee report.

● (1015)

Dr. Evan Wood: Just listening to the conversations this morning and watching the debate in society around this issue, I think the biggest challenge for people, including members of the committee whose comments this morning reflected concerns for adolescents, for unborn children, and drug-impaired driving, is that, while all of these concerns are valid, in my opinion, they are worsened by prohibition. All the organized crime, grow ops, home invasions, and fires where these grow ops exist are all a natural consequence of prohibition in the same way that all the organized crime, corruption, and violence emerged under alcohol prohibition.

For people who are sincerely concerned about young people, fetuses, and all of the harms to our society from this massive unregulated cannabis industry, I just encourage them to pause, take a deep breath, and acknowledge the fact that cannabis is more freely and easily available to young people than alcohol and tobacco are, and that, if we strictly and with a great deal of government intervention, regulated the adult use of cannabis, we could probably address many of these harms and at the same time do away with the forbidden fruit phenomena that is also a natural consequence of prohibition with young people wanting to use cannabis because we've made it illegal.

The policy has been a failure. It's been an extreme burden to taxpayers. It has been a taxpayer investment that has resulted in the growth of organized crime. It simply has not worked, and we shouldn't continue to pour money into this failed exercise.

We should be having a thoughtful conversation about taxing and regulating the adult use of cannabis as a strategy to address all of these harms that we've been dealing with for a long time. It's going to take a lot of courage for any government to do this, but I certainly encourage our current government to approach this in a thoughtful way and look to be innovative instead of making the same mistakes that we've made in the past.

Dr. Didier Jutras-Aswad: I go back to what I said earlier that, in general—and in general is very important—cannabis is rarely harmful, but there are some specific people for whom cannabis may be harmful, and there's also a very specific aspect of cannabis, including the ratio of THC and CBD, that should be taken into account.

That being said, obviously there will always be people who use cannabis. If we want to decrease the burden associated with cannabis use, we have to be able to protect those who are vulnerable, but also be able to control what is in the substance and be able to actually make sure the messages sent to society in general are accurate, but also can be said clearly.

The question is how we could regulate to protect vulnerable people to make sure that...for the general population for which cannabis is not harmful, it would not necessarily prevent them from doing something that is harmful, but how we could protect those people and control what is in the substance. That question is obviously outside of my specific knowledge. What I can say from a clinical standpoint is that regulating and controlling what is in the substance is obviously not something that is done by drug dealers who sell the drug on the street, and it is not done by criminal organizations that would actually put the cannabis on the market. That's very clear to me.

The second point is for me to be able to conduct more accurate research on the specific effect of the different chemicals that can be found in cannabis. Also a very important thing for me is to differentiate therapeutic use from the law and regulations regarding cannabis use for recreational purposes.

Those are two very different reasons and topics which, in my opinion, are sometimes mixed together in the population, but also among politicians and even scientists.

● (1020)

Hon. Carolyn Bennett: People do see cannabis as their medicine for very serious medical conditions, such as MS in a lot of my patients. Therefore, you'd think that, in personalized medicine in the future of health and health care in Canada, research on personalized medicine, including THC and cannabinoids, is important.

Dr. Didier Jutras-Aswad: As for therapeutic use, I think more research is needed. If you were to use a compound as a medication, then just as for any other kind of medication, you have to know as a scientist but also as a doctor what is in that medication. Sorry to use this as an example, but if I had a bag full of pills, not knowing what is in those pills, I would not give any to one of my patients.

To be able to use something for medical use, you have to know what's in it. The regulation does not allow for that when using cannabis for therapeutic purposes.

The Chair: Thank you very much, Ms. Bennett. Your time is up.

Now we're going to Mr. Lunney, for seven minutes.

Mr. James Lunney (Nanaimo—Alberni, CPC): Thank you to all of the witnesses for contributing today.

Way out there in Halifax, is it Dr. Asbridge? Is it doctor or mister?

Mr. Mark Asbridge: I'm in Toronto, actually, and it's mister.

Mr. James Lunney: Oh, you're in Toronto.

Mr. Asbridge, you mentioned in one of your comments about a study that showed 6% tested for THC in B.C. I think you were referring to a roadside test. Were those accidents that you were referring to? How was that test done? Was it saliva, urine, or blood? Could you clarify that for me, please?

Mr. Mark Asbridge: Yes. That was the B.C. roadside survey. There have been a couple of iterations of that. This was the 2010 version. It was random stops at the roadside. These were not drivers in crashes. It was determined with an oral fluid sample.

Mr. James Lunney: I think you said there were problems with reliability.

Mr. Mark Asbridge: A little bit, small problems.... It generally is pretty good but there are some false positives and false negatives, as with most tests.

Mr. James Lunney: Impaired driving is certainly a concern in terms of public safety. There's compelling evidence that in Colorado there are a lot of accidents related to marijuana use and hospitalizations related to these crashes have been going up. I just want to leave that for a minute and go in another direction.

I want to go back to Dr. Jutras-Aswad. Well, I go back to Dr. Kalant from University of Toronto who spoke here. He's a professor of pharmacology. He particularly emphasized the fact that those who start young have the greatest impairment, the risk of depression later, risk of motor vehicle accidents.

We had other evidence, in fact, of impairment in cognitive development, from functional MRI, that in fact there's delayed myelination in the frontal areas, where higher executive functions are developing, where reasoning, problem solving, decision-making... areas that can affect adolescents later in life...even maternal smoking has an impact; it's measurable later in life.

In your review of some 120 studies that looked at different aspects of the relationship between cannabis and the adolescent brain.... That is a concern to a lot of us here because it seems they're starting young. They may be choosing their career path unwittingly at a very young age because they're going to impair their ability to do higher executive functions with their brain that would require greater cognitive engagement.

You talked about the association between cannabis and subsequent addiction to heavy drugs and between cannabis and psychosis. I would like you to expand a little bit on that because your time was limited earlier.

Dr. Didier Jutras-Aswad: There are obviously two different questions here. One is the relation between cannabis and subsequent addiction to other substances, which is also known as the gateway theory, which has been studied and reported on for a number of years. It basically says that a lot of studies have shown that a vast majority of people will go on to use cocaine, heroin, or what are called hard drugs. When you look back at their story of substance use, they started by using cannabis, or quite often cannabis will be on the path of using other drugs. That has led to this idea that maybe cannabis was leading to other addictions that obviously as for all or most other outcomes what has been shown actually.... It's pretty much a similar story to psychosis. Indeed there is some data showing that cannabis may have some impact on how the brain will develop that could put someone at an increased risk of developing an addiction.

Obviously there are other much more important factors involved in developing addiction to other drugs.

The other thing we have to take into account goes back to what I was saying, that, in general, cannabis is not related to long-term harmful consequences. Most people or even most adolescents who use cannabis will not go on to use harder drugs. From epidemiological data, we know there's a minority of people who will go on to use other harder drugs, but still, cannabis is along the way. We know there is some neurobiological effect of early cannabis exposure that could increase in some ways the risk of developing other addictions.

As for psychosis, and again to put it briefly, what is known now is that cannabis per se is probably not itself a cause of schizophrenia or of long-term psychotic disorders. What we know now is that cannabis can act as a stressor or as a trigger for people who have a vulnerability with respect to psychosis; when exposed to cannabis, they will go on to develop schizophrenia, for example.

● (1025)

Mr. James Lunney: You talked about the areas of the brain affected by cannabinoids and by cannabis; areas that govern our learning and the management of rewards and motivate behaviour, that are engaged in those functions of decision-making, habit formation, and motor function. Those things are developing in adolescence. When we talk about a genetic expression, I mean, genes are turned on and off by external factors in many cases.

Are you aware of the impact of maternal smoking or picking it up in the home—there's a lot of talk about second-hand smoke in other capacities—where there's marijuana in use and the kids are growing up in that environment? In your research, are you aware of any connections between maternal smoking or environment affecting the kids growing up in that environment?

Dr. Didier Jutras-Aswad: I would not be able to comment on that from a scientific perspective, other than on fetal exposure to cannabis through maternal smoking, as I responded earlier.

Mr. James Lunney: Dr. Jutras-Aswad, you talked about the medical use. This study is not about medical marijuana, per se, but the other factors in marijuana. Because of this perception that marijuana is harmless and well tolerated, it hasn't adequately been studied in terms of the full range of compounds in marijuana and the impacts they have. I think you made that remark to Dr. Bennett about an unknown quantity there, the mixtures, the numbers, the potency of marijuana.

To go back to the Le Dain commission, I guess it was, the potencies way back in that era 20 years ago were 1%, maybe 2%. Currently, they're at 10% to 15%, and some are as high as.... Where I'm from on Vancouver Island, we have Lasqueti Gold out there. Somebody referred to the widespread production of marijuana in British Columbia. Some of that is very high potency, even up to 30%. At least we've heard evidence that it can be as high as 30% in some productions. We're talking about something that has a hugely different impact from what earlier generations experienced.

Can you comment on that aspect, of the range?

The Chair: You are over time, sorry.

Mr. James Lunney: Really?

The Chair: I'm sorry to tell you that.

Anyway, ladies and gentlemen, we're pretty close to the time when we want to get into committee business. What we'll do is thank our guests today for taking the time. I know they're very busy. Thank you.

We're going to suspend for a minute or two and that will allow us to reconvene at half past and get into committee business. Then, we'll have about 15 minutes for that.

We'll suspend the meeting and we'll be back in a couple of minutes.

[*Proceedings continue in camera*]