File No. 65381

C A N A D A

IN THE PROVINCIAL COURT OF BRITISH COLUMBIA

(BEFORE THE HONOURABLE JUDGE F. HOWARD)

SURREY, B.C.

1996 MARCH 08

REGINA

V

VICTOR EUGENE CAINE

And

SHANE MICHAEL FREDERICKS

PROCEEDINGS AT

TRIAL

APPEARANCES:

M. HEWITT/A. CHAN, for the Federal Crown

J. CONROY, for the Accused Caine

K. KUMAR, Court recorder

S. HUTCHINSON, Transcriber

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(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. CONROY: John Conroy appearing again on behalf of Mr. Caine, Your Honour, who's present.

MR. HEWITT: Your Honour, Michael Hewitt appearing for the Federal Crown. With me is Anita Chan. We're ready to proceed.

THE COURT: All right.

MR. HEWITT: Actually, there's perhaps—I have one housekeeping matter before we begin and that is, I've provided my friend with an additional volume of the Crown's Brandeis Brief. I think the brief was Exhibit 5. So, if we could add it to Exhibit 5. If my friend has no objection, that would probably be the best way to proceed.

MR. CONROY: No. That's agreeable.

MR. HEWITT: And what I gave my friend, what I stuck inside was a number of labels for all these different things that we—all these briefs that we're going to have in front of us when we get to argument. It'll probably make it a little simpler in terms of grabbing what we need.

THE COURT: All right. I actually may have Exhibit 5.

THE CLERK: Sorry?

THE COURT: Is Exhibit 5 large?

MR. HEWITT: There's two of these—

MR. CONROY: Two black binders.

THE COURT: All right.

THE CLERK: These are the ones, Your Honour.

MR. CONROY: Yes.

THE COURT: And so this is Volume 3?

MR. HEWITT: Yes.

THE COURT: All right. Of Exhibit 5.

THE CLERK: Will this one come out? Like these tags, should they be in there?

MR. HEWITT: That's just for Her Honour. Those labels are for Her Honour.

THE COURT: Leave them—actually, give them to me. I'll hold on to the labels.

MR. CONROY: The defence Brandeis Brief is in preparation. We're trying to make sure we don't duplicate anything that's in my friend's. Part of our problem is that a lot of what we're referring to is in books, which is a phenomenal amount of photocopying. We're trying to see if there's some way of simply having the books available, rather than copying them, so they can be just referred to by the Court or my friend or us and then obtained back subsequently but we'll try and work that out as we progress.

When we finished last day, Your Honour, Dr. Beyerstein was still continuing in chief. I hope to have him here for 1:30 this afternoon. We're prepared to proceed today with Dr. Peck, who is the deputy medical health officer, provincial health officer for the province.

I have—perhaps, Dr. Peck, if you could take the stand and I'll introduce the various documents through you.

SHAUN HOWARD PECK, a witness, called on behalf of the Defence, being duly sworn, testifies as follows:

THE CLERK: Please state your full name and spell your last name.

A Shaun Howard Saville (phonetic) Peck. Deputy Provincial Health Officer.

MR. CONROY: Now, Dr. Peck—

THE COURT: It's not a microphone. It just records your voice, so—

A Just records. Okay. Sure.

MR. CONROY: Dr. Peck has provided me with a copy of his curriculum vitae. If I could just have that perhaps marked as the next exhibit. I'm handing up two so that there's one that could be marked as the official exhibit and one—

THE CLERK: And a copy for Her Honour?

MR. CONROY: -- for the court and I'll just put one in front of Dr.—

THE CLERK: That will be Exhibit 10 then, Your Honour.

THE COURT: Exhibit 10.

EXHIBIT 10 - CURRICULUM VITAE re DR. S.H. PECK

MR. CONROY: Thank you. Now, attached to the back of Dr. Peck's C.V., is a copy of the Health Statutes Amendment Act which simply sets out the provisions of the Act pertaining to the provincial health officer. I do have a copy of the Health Act and I will file the actual Act as we proceed through.

THE COURT: All right.

EXAMINATION IN CHIEF BY MR. CONROY:

Q Now, Dr. Peck, as you've indicated, you are the Deputy Provincial Health Officer. Could you tell us what the office of the Provincial Health Officer does, what its role is and things of that nature? Tell us a bit about the office.

A Sure. A little bit of history, Your Honour. Under the Royal Commission in 1991, it was recommended that the office of the Provincial Health Officer be strengthened and that was where Bill 38 Health Tactics Amendments was passed. That charges the Provincial Health Officer, who is the senior medical health officer for British Columbia, to advise the Minister and senior members of the Ministry, in an independent manner, on health issues in British Columbia and on the need for legislation policies and practices respecting these issues.

We are charged with monitoring the health of the people of British Columbia and providing to the people of British Columbia, information and analyses on health issues. If we consider that it's in the interest of the people to—are best served by making a report to the public or on the need for legislation or change in policy or practice respecting the—the Provincial Health Officer must make this report in a manner that the Provincial Health Officer considers most appropriate.

We report annually—by legislation we are

required—must give the Minister a report on the health of the people of British Columbia, if appropriate, information about the health of the people as measured against population health targets. The Minister must lay the report before the legislature as soon as practical.

Our other duties are in relation to medical health officers and it—it says, "The Provincial Health Officer must not, insofar as the laws of British Columbia, give or be compelled to give evidence in a court or in proceedings (indiscernible) concerning knowledge gained in the exercise of his power or duty under"—I don't know what that means for today

but—"immunity"—

Q Well, it says, "Insofar as the laws of British Columbia." But we're here involved in a matter involving the Criminal Code of Canada which is a federal statute, so you needn't worry or concern yourself about the matter.

A Okay. I'd forgotten that, I'm afraid.

Q And you did receive a subpoena to testify here?

A Yes, I did. So, as the Deputy Provincial Health Officer, I have the full authority of the Provincial Health Officer, based on the Interpretation Act. I have a legal paper on that in my office.

Q Now, am I right in understanding that you have medical health officers throughout the province, in different parts of the province and as you've indicated, part of the role of the Provincial Health Officer is to have some involvement with the health officers throughout the province, is that right?

A That's correct. The medical health officers in the province have the responsibility, under the Health Act, to—well, investigate any hazards or—any health hazards. Our responsibility is to establish the standards for the health officers but also, we have the responsibility to order a health officer to do something to protect the public if it is felt—if we feel that they are not doing that.

Q So, am I correct in understanding they have local boards in various communities that are health boards and they have some interplay with the health office or health officers in each community?

A Yes. At the present time and I say the present time because it's all changing at the moment. The Union Boards of Health appoint the medical health officers and then—but it is subject to approval by the Lieutenant-

Governor in Council. So, there's a dual appointment by the Union Board of Health and by the Lieutenant-Governor in Council.

Q Now, so you have the Board, then you have the local health officers and then you have the provincial health officers, which are—there's Dr. Miller, who is the Provincial Health Officer, is that right?

A That's correct.

Q And you're the Deputy Provincial Health Officer?

A Yes.

Q And in addition, they have people in these roles in other provinces, is that correct?

A Several of the provinces have a chief medical health officer role but not all of them. Some of them.

Q And there is an association though of provincial health officers?

A There's an association of provincial health officers, the—it's called the Health Officers Council of British Columbia, of which I was the chairman up until about two years—or eighteen months ago. There's also an association of chief medical health officers for Canada that meets a couple of times a year.

Q Now, how long is that existed?

A The former has existed for about thirty years. We had our 100th meeting recently. They meet about twice a year. The latter, the chief medicals of Canada, was only formed about eighteen months ago.

Q Okay. So, the Health Council of British Columbia, did I—is that the former?

A The Health Officers Council of British Columbia.

Q Health Officers Council. Sorry. And that consists of health officers from across the province, I take it, together with representatives from your office?

A That's correct.

Q And then the federal—or the Association of Chief Health Officers consists of the Chief Health

Officers—

A Yes.

Q -- in the provinces that have them?

A The senior medical health officers for the province. Several of the provinces have actually got a similar appointment to British Columbia, under the statutes but they aren't all (indiscernible) in legislation like the British Columbia one is.

Q And the Association—

THE COURT: Could I—

MR. CONROY: Sorry.

THE COURT: Could I just clarify that. The Canadian association, does it have representatives from all provinces, whether or not they have similar legislation?

A They have—as part of their association they have a membership from every province but not each one—each province doesn't have the same statute that British Columbia has for appointing these people.

THE COURT: All right, but every province is represented on the association?

A Yes.

MR. CONROY:

Q And they meet once a year or twice a year?

A Twice a year.

MR. CONROY: All right. Now, maybe the easiest thing to do is to file these and then that will make it—

Q You've provided to me the Annual Reports from the Provincial Health Officer for 1992, 1994 and 1995, is that right?

A That's correct.

Q And these are reports that, as you put it, since the strengthening of the role of the office, there's a

requirement now for the Provincial Health Officer to produce an annual report to the Minister, is that right?

A That's correct.

Q And that's the document that you have provided to me?

A Yes. Those are the three reports that have been produced by Dr. Miller since this Bill 38 and these amendments were written.

Q All right. Perhaps—I'm just showing you—that's the 1992 report, is it?

A Correct.

MR. CONROY: Can that be marked then as Exhibit 11 and what I've done is I've got an extra one for the Court. That can be marked up by the Court.

EXHIBIT 11 - 1992 ANNUAL REPORT

MR. CONROY:

Q And then we have the 1994 report, is that right?

A Right.

MR. CONROY: If that could be Exhibit 12. There's an extra one.

EXHIBIT 12 - 1994 ANNUAL REPORT

Q And then we have the 1995 report, is that right?

A Yes.

MR. CONROY: If that could be Exhibit 13.

EXHIBIT 13 - 1995 ANNUAL REPORT

THE COURT: Is there some reason why there's no 1993?

MR. CONROY: I was going to ask him to explain it.

Q Is there some reason why there isn't a report for 1993?

A There just wasn't one.

Q Now, before I take you through those and have you explain in greater detail exactly how it works, let's just first go through part of your curriculum vitae to explain your own involvement and experiences in terms of health in the province and elsewhere. Your curriculum vitae indicates that you're the Deputy Provincial Health Officer from 1995 -- April of 1995 to present, correct?

A Yes.

Q Now, before that, from 1989 to 1995, you were the Regional Medical Health Officer for the Capital Regional District in Victoria?

A Correct.

Q And so your focus for those years was specifically the Victoria and surrounding area, is that correct?

A Correct.

Q And in that capacity, you would still be involved with consulting with a number of other communities within that Greater Victoria area, is that right?

A Yes. I worked for the Capital Regional District, which was made up of sixteen municipalities and electoral areas.

Q And continuing down through your C.V., you've got achievements indicated at the bottom and going over onto the next page. I take it that those are all things that you were involved in while you were the Regional Medical Health Officer for Greater Victoria, is that right?

A That's correct.

Q Okay, and I note, for example, at the bottom of page one, something called the Capital Regional District Clean Air Bylaw, which involved reduction of exposure to tobacco smoke, for example. Now, how would you become involved in that? Just explain to us the process and how that comes to your attention and what you would do?

A Well, I guess my involvement with this goes back at least ten years. When I worked for the City of Vancouver for five years, I was part of introducing the first clean air bylaw for the City of Vancouver. When I went to the Capital Regional District, they already had two bylaws and during the time that I was there, I increased—I had them amended—I mean the Board, the Health Board amended it, the Capital Regional District Board, twice to increasingly restrict the amount of exposure—to decrease the amount of exposure to environmental tobacco smoke in public places and in work places.

Q Was it limited to tobacco smoke or would it include any type of smoke?

A No. It specifically was related to tobacco smoke because of the evidence which has been accumulating for thirty or more years of the harmful effects, firstly, of cigarette smoking and secondly, in—over the last five or six years, of the harmful effects of environmental tobacco smoke.

Q Okay. It's always been limited to what's in the smoke from tobacco then, is that right?

A Yes. I can't recall exactly the words we used in the bylaw. I think we mentioned pipes and cigars and cigarettes.

Q Okay. Now, was this something though that—because it was well-known that tobacco smoking and smoke is a health problem, that you then, based on your experience from the previous positions you had, noticed the bylaw and how it was defined in Victoria and then recommended that changes be made, or was it something that came up to you as a result of information through the community that this was something that there was a need for in Victoria?

A There was certainly a public demand for—there was a very strong advocacy group in Victoria that was demanding more restriction in work places and public places for environmental tobacco smoke.

Q So, it wasn't—

A And there was also the science of—there's a wealth of scientific literature showing, for instance, that children exposed to environmental tobacco smoke have increased amounts of respiratory illness and spouses who live with somebody who smokes have also increased harmful effects as a result of the exposure to

the environmental tobacco smoke. That was—so, there was two things—

Q The combination—

A -- really that was making this a public health issue.

Q And if we go to the next page of your curriculum vitae, another example, it says "Mass Immunization Program for Meningococcal Meningitis." Now, similarly, how did you become involved in that? Was that as a result of suddenly a problem in the community that's brought it to the attention of your office or was it because of scientific literature or how did that come about?

A Well, as the medical health officer, we receive notification of infectious diseases. They are reportable under the Communicable Disease Act. That's one reason we know about it. We also get made aware by the hospitals, if there is an unusual illness in the community, particularly one that is preventable. In this particular case, we had two deaths and I think it was a total of six cases over a matter of six weeks or two months. We had a little cluster and so we then reviewed the scientific evidence and the recommendations from a national consensus. To cut a long story short, we immunized twenty-two thousand teenagers in a matter of a few weeks and fortunately, we didn't have any more cases of meningococcal meningitis following that.

Q The information about this being a problem or becoming a problem would come to you from what sources?

A It comes from a laboratory who—or it may come from the physicians who are attending people with meningitis at the Emergency Department or in the hospitals.

Q And is there a regular reporting process from these types of sources to your present office, the Provincial Health—

A Yes. In this particular case, it was a notifiable communicable disease, so there's a legal requirement to report it.

Q Do you also get reports from—on other health types of issues where there's no legal requirement to report on that?

A Yes. We may do. I mean, the public phone us. We may have issues raised by the Health Committee, which I was reporting to at that time. You know, take for example teenage pregnancy. I mean, that's not notifiable or anything like that but it's been recognized as a public health problem that is preventable. So, there are other health issues that come to us.

Q Now, would your present office and I assume that—is it fair to say that your present office is very similar to the role that you had as the Regional Medical Health Officer but now it's for the whole province?

A That is correct. Yes.

Q All right, and do you—apart from getting information coming to you from either doctors or emergency rooms or other people in the health care field, or—is that the primary basis for identifying a particular health issue and then investigating it further and making recommendations in terms of health policies and practices?

A Well, I think Dr. Miller will address issues that have been brought to him from many sources. The

medical—things are a little different in our office now. The health officers are the ones who may raise issues with us to address, less so than hospitals and doctors because it tends to go through the health officers. The Ministry of Health staff may point out some issue that's important or is felt to be important at this time. For example, this year's annual report has a special focus on the health of women. So, we looked into the public health aspect of women's health and made a number of recommendations. So, that was brought to our attention as something that was of great concern to British Columbians, there being women's health conferences and things like that. There have been an increased emphasis placed on women's health. The Women's Health Centre was established in Vancouver, here and so Dr. Miller felt that this—he has an Advisory Committee that he meets with, actually, it's the back of the—it's a very wide group of advisors throughout the province who recommend or advise on what should be the focus of the annual report.

Q All right. Let's just then finish quickly, going through your curriculum vitae and we'll come back and go through that in a little more detail. Prior to being the Regional Medical Health Officer in

Victoria—actually, during the time you were Regional Medical Health Officer, you were also chairman of the Health Officers Council which is the council of all health officers throughout the province, is that right?

A Yeah.

Q And in that capacity—that was more an organizational type of function for health officers, was it?

A Yeah.

Q And prior to being in Victoria, you were a Deputy Medical Health Officer for the City of Vancouver?

A Correct.

Q And you've indicated under that heading various health issues that you became involved in during that time?

A Yeah.

Q Some examples, an outbreak of botulism that occurred—two major outbreaks of botulism that occurred while you were there?

A Yeah.

Q And I take it there was a problem in a restaurant or something of that nature and again, through either the doctors or the emergency wards or so on, it would come to your attention as the Deputy Medical Health Officer ad then you'd take steps to try and deal with the problem on a broad basis, is that right?

A Yeah. The first call we had about the botulism was from Montreal where they said we've got two people in our intensive care unit and they passed through Vancouver. We thought you should know.

Q Okay. Another example is water quality was something that you'd get involved in. How would that come about, a similar process?

A We were advisors to the Greater Vancouver Water District at that time and the city engineer came to us, to Dr. Blatherwick and myself and said we're getting all these bacteria in the water supply. We wonder whether it's safe and whether anything needs to be done about it. So, we got quite involved in that particular issue.

Q At the bottom of the page, the reference to clean air, smoking in public places, this was the involvement you told us about a bit earlier on the same issue that you continued to be involved in when you were in Victoria?

A Yeah. When I went to Vancouver, I think many people felt Vancouver was a bit behind the times in preventing the exposure of the public to environmental tobacco smoke. The thing that triggered it was a member of the public actually wrote to the mayor at the time, who then said to the Medical Health Officer, please would you look into this.

Q Now, prior to being the Deputy Health Officer in Vancouver, you were with the North Shore Union Board of Health in 1987?

A That was just a very part-time—temporary appointment. Yeah.

Q From 1980 to 1984, you were the Medical Health Officer and Health Unit Director of the Northern Interior Health Unit, Prince George?

A That's correct.

Q And before—or at the same time, you were an intern or it says—

A Itinerant.

Q Sorry. Medical Health Officer for the Skeena Health Unit in Terrace?

A Correct.

Q From 1978 to 1980, you were involved as a graduate student, as a resident in community medicine at the Department of Health Care and Epidemiology?

A That's correct.

Q Epidemiology, what is that exactly, the study of epidemics?

A Well, no. It's the study of the determinants of the distribution of disease, including injuries in human populations and measures taken to prevent them.

Q Okay. Prior to that, from 1969 to 1978, you were a family physician in Victoria?

A Correct.

Q And before that, from 1963 to 1968, you had a number of hospital staff appointments, is that correct, in the areas specified there?

A Yes.

Q Pediatrics, thoracic surgery, internal medicine and emergency room?

A Yes.

Q Below that, you've set out your various degrees and diplomas?

A Yeah.

Q And you've been licensed to practice medicine since July 14th, 1969?

A Correct.

Q And as indicated further on, you play a role on a number of committees and have a number of appointments?

A Yeah.

Q And then you've listed for us a number of publications and reports that you've been involved in—

A Correct.

Q -- throughout your period, is that correct?

A Yeah.

Q One interesting one that I asked you about that I noticed at the bottom of the page, it says, "Rock Music, A Health Hazard." Did you determine rock music to be a health hazard or—

A What we determined was that if people are exposed to high levels of noise for periods of time, they suffer ringing in the ears and temporary loss of deafness but we couldn't—the evidence wasn't quite clear about whether that became a permanent matter. That's what the letter said.

THE COURT: I could have told you that.

MR. CONROY: My friend can't hear what the witness is saying. He's been to too many rock concerts.

Q On the last page, towards the bottom, you refer to the Harm Reduction Presentations, one to the B.C. Anti-Prohibitionist League, September 22nd, 1994. Another one to the Victoria Branch of the Criminal Justice Association and another presentation to the Canadian Public Health Association Workshop in November of 1995. Now, what is this harm reduction, what are you talking about there?

A What happened—if I could tell the story—

Q Sure.

A -- about how I became involved in this. In British Columbia there was increasing numbers of deaths from heroin overdose were being reported. The Public Health people got more and more concerned about—particularly the relationship with intravenous drug use and hard drugs and we were concerned for two particular reasons. One was because it was a route in which the HIV virus was spread and we wanted to make sure that all the preventive measures were being put in place there. Secondly, because of this very significant rise in deaths.

The Chief Coroner was appointed to investigate this and I personally wrote to him and met with him during that investigation because I'd read a fair amount of the literature about the harm reduction approach and the concern on a world wide basis, particularly a series of articles in The Economist, which said that what's happening is this increasing amount of hard drug use throughout the world, the trade in drugs is getting worse and worse and the war on drugs approach is just not working. What it's resulting in is more and more police, more and more—the United States has more people in jail than any other country in the world and a large proportion are substance abuse related, more and more court time and a terrific burden on society in the approach, yet it wasn't making any difference. I pointed out, you know, there was some sort of similarity to the alcohol prohibition years from 1922 to 1933, I think it was, in which eventually the United States saw the light and realized that the war on the alcohol was killing more people than alcohol itself. Therefore, they gave it up.

So, the arguments I was making was that it makes more—it's more appropriate to take a harm reduction approach, which is, rather than treating the user as a criminal, to treat them as a victim of the circumstances in which causes them to take the drug and that it would be better to provide support for people who—you know, for employment retraining, preventive health measures, prevent the spread of HIV, awareness measures to try and make sure people don't take this high potency heroin which is killing people. There

was a news report a couple of weeks ago about a series more of deaths because of the presence of high potency heroin on the—and so, I—I wrote to the coroner and was interviewed by him and I also participated in a paper that the Health Officers Council—I was chairman at the time, presented to the coroner which summarized the Public Health approach to hard drug use and recommended that a harm reduction approach should be taken. This report was produced about two years ago now, I think and in—in our annual report to the government this year, we expressed concern that the government hasn't taken any action on many of the recommendations that were put forward by Mr. Caine in his report.

So, my story is to illustrate that my—I was personally involved in a—talking about this publicly and it reports to the Health Committee and I gave these talks and participated in a paper that was presented to Vince Caine and I continue to support it through our office. The—that the government should address some of the issues that were recommended by Mr. Caine and his report.

Q And the Caine report that you're taking about is the report of the task force into Illicit Narcotic Overdose Deaths in British Columbia, from the Office of the Chief Coroner?

A That's correct.

Q And the Chief Coroner is Mr. Vincent Caine, is that right?

A Yeah. I call him Vince but Vincent.

MR. CONROY: Just to distinguish him from the accused here, his name is Vic Caine. Just to indicate that there's no relationship, you understand, between the two. I will be—I'm endeavouring to obtain additional copies of this document, Your Honour. I just haven't been able to get it as yet but we will be producing that.

Q Now, is it fair to summarize what you've just said though, your focus was on this problem from a health perspective, to start off with? You were looking at present approach to the use of these drugs or abuse of these drugs and what it was doing from a health perspective and recommending a different approach because the cure—or not necessarily the cure but the approach being taken seemed to exacerbate the health problem, is that a fair way to summarize it?

A Well, the thing that really made it a public health issue was because of the deaths that were occurring and secondly, the concern about the spread of HIV, the infection that causes AIDS.

Q And was it the feeling that the approach being taken to it, namely, the prohibition and so on, that that was not solving the problem but was contributing to the problem and that you were recommending a different approach? Am I understanding you correctly?

A We recommend—yes. We were recommending that the governments—and it's got to be an international thing, need to examine their approach to how drugs—because it appears that the approach is not working.

Q In the sense that there's continuing significant health problems but the approach that you're recommending is one then that focuses on the health problem. Is that why you use the term harm reduction, to reduce the health problem?

A Yeah.

Q Okay.

A Harm reduction may incorporate a number of things, like needle exchange programs, connecting people to addiction services, making sure that people have adequate health care. Perhaps making available control availability of methadone and even we recommended the consideration of controlled, legal availability of the hard drug, as has been tried in some other countries.

Q Okay. Now, I notice in going through your curriculum vitae and the various health issues that have come to your attention or that you've investigated or become involved in, none of the areas seem to involve marihuana, is that fair?

A That's true.

Q So, you—throughout the time that you've been involved in this capacity, your present capacity but also in all the earlier capacities throughout the province, the use of marihuana and its consequences was not something that was brought to your attention either through emergency wards or doctors or other health officers and things of that nature, is that right?

A It was—there were a few instances where we were—we knew about the use of marihuana. I can't say that we've been aware of significant harm that was happening to the population as a result of the use of marihuana. For example, the adolescent health survey that was done in 1991, indicated—it showed the usage

that high school students in British Columbia were making use of. I don't know whether you want me to walk through some of the information that I've uncovered since I've been asked to be a witness here because obviously, when someone raises an issue, you want to look into it and try and figure out, in your mind, whether it really is a problem.

Q Prior to being asked to look into it for purposes of this case, had there—had it ever been brought to your attention or were there any concerns brought to your attention prior to this case in terms of significant health concerns in the province, through the process that you've described to us, as a way of these things—

A Certainly nothing formally, only informally that we knew that there was a fairly extensive use in the population and when I would talk to my medical health officer colleagues, they were—you know, we didn't feel it was an issue that needed addressing from a public health point of view.

Q So, -- and again, correct me if I'm misstating things here but what I'm understanding you to say is that the office was aware that there was widespread use but there was no information coming to the office suggesting that there was a significant health problem as a result of the use?

A That is correct, from the point of view of our office.

Q All right. Now, let's then—so, the materials that you have in front of you and the youth survey that you referred to, those are all matters that you went and gathered and researched for purposes of trying to look into this issue further for purposes of this case, is that correct?

A That's correct. I mean, if anybody brings any issue to our attention, my inclination is immediately to go and investigate it.

Q Of course. All right. We'll come back—

THE COURT: It's your job, I guess.

A Hmm?

THE COURT: It's your job, I guess.

MR. CONROY: Okay. We'll come back to that in a second. First, I want to take you through, fairly quickly if we can, these health reports. Now, I wonder if the Doctor could have the actual exhibits, 11, 12 and 13. The Court, I believe, has extra copies. So, he could have those in front of him and my friend has it.

A I've got the 1995 one but I haven't got the other—all right.

Q Okay. Let's first go to 1992. This is the first such report that was made, was it?

A Yes.

Q And if we look at the table of content, that gives us a general overview, I take it, of the types of issues that were looked at by the office during that 1992 period?

A Yes.

Q Okay, and in the introduction at page 1, it essentially describes the history in terms of the Royal Commission and its recommendations in terms of the stronger role of the Provincial Health Office, is that right?

A Yeah.

Q And the definition of health that's followed by the office is as set out at the bottom of page 1, is that right?

A Correct.

Q Okay. Now, if we go then to page 3, it sets out an overview of the health status of British Columbians?

A Mm-hm.

Q And the topics that are listed there, are those then the significant health issues that were brought to the attention of the office during that period—

A Yes.

Q -- and that the office focused on and treated as priorities?

A That's correct. I should point out that I wasn't in the office in '92. I didn't go there until '95.

Q Okay. Based on your experience—

A But on the other hand, I was meeting with Dr. Miller on a regular basis and he would form his decision about what to put in the Annual Report from discussion with health officers and his Advisory Committee.

Q And I take it information—you would supply information then in your capacity as the Regional Medical Health Officer in Victoria, to the Provincial Health Office that would have some—which would then come out in these reports?

A That is correct.

Q Okay.

A We may raise it at the Health Officers Council.

Q All right. Now, looking at the 1992 report, page 3, the topics are inequities and health status, aboriginal health issues, unintended pregnancies, injuries from automobile, bicycle use, things of that nature, suicide and then smoking. Then over the page, heart disease and all cause mortality rates, right?

A Yeah.

Q Now, are these in any—do you know if they're in order of priority or simply, these are the significant health issues that the office was dealing with in 1992?

A I couldn't say that they're in any order priority.

Q Okay.

A They were just issues that Dr. Miller felt were significant in 1992 and to be addressed, particularly where it's hoped that some action, particularly preventive, can be taken.

Q Okay. Now, the one that the comes closest to—well, first of all, just a quick comment on the first one, inequities and health status. Am I right in simply understanding that a major concern of the office, that continues until today, is that there seems to be a difference in the health of people depending upon their income status? In the low income areas there seems to be poorer health than in higher income areas?

A That is correct. At this time, the office has been travelling the province, talking to each region and demonstrating the significant disparity like five years lived longer in Richmond compared with the Peace River of British Columbians. The correlation of that with such indicators as lack of educational achievement, income and unemployment. I mean, one might term it poverty. The relationship between poverty and health and the determinants of health is something that our office is very concerned about and wishes to, in effect, challenge the government to try and address that in the measures that the government may take.

Q Okay. Now, at the bottom of the page then, the top that may have some relevance to what we're considering is the reference to smoking. That's a summary, I take it, of the greater detail that's further on in the report, indicating that there were five thousand deaths in British Columbia each year from smoking and indicating the percentages that are going up and down and the people who are involved in the smoking, is that right?

A Correct.

Q And over on the page, also exposure to secondhand smoke as a health concern causing an estimated fifty deaths per year?

A Yeah.

Q Now, again, the smoking referred to here, was it only tobacco smoke or was it other types of smoke, or do you know?

A We'd not—I mean, we've always addressed cigarette smoking, pipe smoking, cigar smoking and as far as I can recall, we have not addressed the smoking of cannabis.

Q Okay. Now, if we were to continue on through the report, am I right that it simply takes each one of these topics and deals with them in greater detail and suggests strategies to prevent these types of problems?

A Yeah.

Q So, if we went to page 11, for example, under number 8, the reference again to reducing smoking and eliminating secondhand smoke is set out there in terms of the recommendations, is that right?

A Mm-hm.

Q And while the reports, you've told us, don't deal with other types of smoking besides tobacco smoke, I take it that the position of the office would be that in the face of any evidence of any kind of smoke causing similar problems, you'd expect the same types of rules and so on to apply to any kind of smoke?

A Any kind of smoke—

Q That causes any health concern.

A We know that, in other words, diesel smoke—or you can be pretty sure that it does contain small amounts of carcinogens.

Q So, for example, when you say under paragraph 8 of—the report says under paragraph 8 that we should actively discourage individuals from exposing their families to secondhand smoke and raise the age in terms of cigarette smoking and make recommendations in terms of licensing, you're taking—the office is taking what appear to be the major health concerns and making specific recommendations as to how those particular problems should be dealt with?

A That's correct. I should add that Dr. Miller—I mean, we both feel very strongly that in order to maintain the credibility of the office, that we should base our recommendation on evidence when there is good evidence.

Q All right.

A With environmental tobacco smoke, the evidence is clear.

Q And to date, no evidence has been produced to the office then to suggest similar problems to cause the office to make similar recommendations in relation to marihuana smoke, is that correct?

A That's true. I'm not aware—not that I have done extensive research on the subject but it's certainly never been brought to our attention that there are studies that demonstrated it. But I would have a concern, in effect, because of the fact that it's smoke and that there is—any smoke, it doesn't matter whether it's diesel engine or smoke or whatever, is potentially a health hazard because of the chemical content of it.

Q And assuming that it does have—or could have the same types of consequences as tobacco smoke, the recommendations would be the same—or we could assume that they would likely be similar or the same to what's being recommended in terms of tobacco smoke. There's no recommendation that tobacco be turned into a criminal offence, for example, in your—in any of the reports from your office?

A We have—

MR. HEWITT: Is that a question, Your Honour?

MR. CONROY: Well, I'm just asking if that's ever been recommended. It doesn't appear to be recommended, at least in the 1992 report.

A I'd have to—I'm not a great expert on the word criminal. We have actually introduced the provision for ticketing for smoking in public places and the—and fines. So, I'm not—is that—

Q Well, tell us—

A Is that criminal?

Q Tell us—

THE COURT: As a smoker, no.

MR. CONROY:

Q You say that's been introduced, in British Columbia?

A Yes.

Q And recently?

A Within the last couple of years?

Q And under the Health Act?

A Not for the whole—I'm not sure that it's possible for the whole of British Columbia but the ticketing is available—is for—in the legislation with regards to sales to minors and also for people who allow smoking in public places in the Capital Regional District.

Q Okay. So, in Victoria. And is that done through—is it done through your office or was it—not through your

office but do you know if it's under the Health Act or is it under some other legislation, or do you know?

A I think it's some sort of ticketing and offence act or something like that but I'm not an expert.

Q All right, and you don't know if it's done through the municipality or the city, specifically, or is it provincial—

A In the Capital Region and the City of Vancouver, it'll be based on the municipal bylaws.

Q Okay, so it's a bylaw.

A The ticketing provision. Now, I regret to say I can't quite remember whether we have got the ability to ticket smokers but we can certainly ticket premises that allow smoking in prohibited places and people who sell cigarettes to minors can be ticketed under the federal legislation.

Q Okay, and does your office then—has your office been receiving reports emanating as a result of that—those provisions? In other words, a number of people ticketed, statistics that arise as a result of this legislation—or these bylaws?

A In our experience, for the first year or more, was that no tickets were given. What we found in the Capital Region was that when you started to gather the evidence that you needed to, that people would comply but I believe recently in the Capital Region they have issued a few tickets in the sales to minors.

Q Okay. Let me just see if I understand you. So, what you're saying is that once the health information was provided to the population, in terms of consequences, it was found that people complied and so there was not much ticketing. Do I understand that correctly?

A In terms of sales to minors and smoking in public places, yes.

Q So, it was a process of educating people, they seemed to respond to that rather than—and it became unnecessary to ticket?

A Sort of educating and flexing one's muscles a little bit and then people would comply.

Q And the muscle flexing though consisted solely of a ticketing thing, similar to a traffic ticket?

A What we usually did was to send the bylaw—the health educator along with the health inspector and you know, start gathering information. On several occasions we found that people complied.

THE COURT: So, you mean gathering information with respect to an alleged offence?

A Yes.

THE COURT: As you start to investigate the alleged offender, immediate consequence is compliance or—

A That's right.

THE COURT: -- in many cases. All right.

MR. CONROY:

Q Do you know what the penalties are for noncompliance? Is it fines? Is that the idea, or do you know?

A A hundred dollars, I think. Something like that.

Q Okay. All right. Just continuing then with the 1992 report—

A I think I've got the fines wrong. I've got—there's another figure of two thousand that I've got but I'm afraid I can't recall it.

Q Okay. We could easily obtain that information through your office?

A Yes. You can obtain it from the local bylaws in the Capital Region and in Vancouver for sure and there are other bylaws in other municipalities.

Q Okay. Now, if we jump to page 17 of the 1992 report, I take it these are all—not necessarily studies done by the Provincial Health Office but they've gathered this information together and then presented it with the graphs and so on, in order to provide this information basically to the public?

A That's correct.

Q And if we go—sorry?

A Yes.

Q If we go, for example, to the one on page 27, low birth weight as an example. Again, can I assume that through all of the doctors, health officers, hospitals and so on, through the various sources you mentioned, this information comes to the office and the study

is—or the information is then presented in the report according to the information that's been brought into the office?

A Yes. For every graph there are different sources of information. For low birth weight, that's recorded according to vital statistics in the (indiscernible) of live birth. That is legally required any time a child is born.

Q Now, this indicates, for example, that a birth weight of less than two thousand five hundred grams is considered low birth weight. It goes on to say that babies born—or 4.8 percent of babies born in British Columbia had low birth weight and it indicates that British Columbia's low birth weight was lower than Canada's and equal to that of Sweden but higher than Finland and Norway. Now, what's the significance of that or can you comment on the fact that there's low birth weight? I mean, is this some problem or is it something that over a year, the children come up to their regular weights, or do we know what the cause of this problem is or was that investigated at all?

A Well, we consider that low birth weight and also infant mortality as being one of the best indicators of the social health of a population. If you're going to avoid low birth weight, you need to have a health mother who hopefully doesn't smoke in pregnancy and who is—has adequate nutrition and good prenatal care, prenatal education and also good medical care. But we consider that because there isn't such a close correlation with medical care alone and these indicators, that it's the real determinants of health of a population that effect whether you get a low birth weight rate. So, countries like Sweden, for example, have a very excellent social support system for children and families and likewise, Norway and Japan, to a degree, which tends to have—or no. Sorry. Japan doesn't—I'm thinking of length of life but certainly the Swedish—Sweden is a country that we look to, to emulate in terms of what it does for mothers and children in prevention of low birth weight.

Q Okay. So, you're saying that it's not a good thing for there to be low birth weight or are you saying that it is a good thing?

A It's not a good thing to have a high low birth weight rate. In other words, you don't want too many low birth weight babies born because they end up having a high incidence of handicaps, needing intensive care, etcetera.

Q Now, was anything done to—I mean—so, you're saying it's the general health of the population, as far as you know, that results in this low birth rate, as opposed to a specific cause, a particular drug, for example?

A It's many factors and I refer back to the determinants of health. When you have a country with extreme poverty, lack of health care, lack of education, poor nutrition, etcetera, you get very high rates of low birth rate or infant mortality.

Q Now, the only other part of this particular report that I should bring to the attention of the Court then is page 45, is where it deals with the smoking issue. Illness is attributable to smoking and has the various graphs continuing on the pages thereafter, right up to page 50 -- oh, sorry. I guess it's—no. Sorry. Up to page 48, is that right?

A Correct.

Q And again, all of that information, up to this point, deals with tobacco smoke?

A Correct. It says cigarette smoking there.

Q Right. Now, if we go to page A1, which comes after page 52, I take it these are the people on the Advisory Committee and—that's on page A1 through A3, am I understanding this correctly?

A That's correct.

Q So, you have four people mentioned at the top of the page and then all of these other people listed are from the Ministry of Health, --

A That's correct.

Q -- and Ministry Responsible for Seniors. Over onto the next page, it says again from the Ministry of Health and Ministry Responsible for Seniors. So, all of these

people—all three pages are all on this Advisory Committee, is that right?

A That's correct. Well, the first page is annual report (indiscernible) and second page is contributors.

Q Oh, I see. What's the distinction? Contributors are just people who—

A Well, Dr. Miller meets with the Advisory Committee and sort of says to them, let's talk about what our focus should be on this year and do you think we should do one on cancer next year and one on children and families the year after or the other way around. That's—and then the Advisory Committee review the drafts of the report.

Q And so to look at some of the people referred to, for example, Wendy Van Ike, secretary, Epidemiology Branch of Community and Family Health. Now, she would

come—or contribute to your office any indications from an epidemiological point of view or any information that's come through her capacity and her particular job and raise that with your office, is that correct?

A I think in the case of Wendy Van Ike, her contributions were the sort of writing and language aspects of it, rather than raising of particular issues.

Q Well, the title and roles of all of these people are indicated beneath their names.

A Yes.

Q Can we assume that they have input, in part at least, because of their role and their positions?

A Yeah. I mean, we also do list the support staff who actually do the writing and the constructing of the reports. So, if you call that input, that is true.

Q All right. Well, what I'm trying to get at though is if you have a large Advisory Committee of people with all these different roles in the health field, the purpose of the committee, I take it is, in addition to these other sources that bring information to the office, these people provide information to the

office—

A Yes.

Q -- about concerns in their area?

A The first page is the Advisory Committee and the second two pages, A2 and A3 are those who have contributed to it.

Q Which could be—

A In many ways. Either by information or contributed to putting the report together.

Q All right, but the Advisory Committee, then on A1, would be people that would be expected to, in addition to the other sources you've already mentioned, bring information to the attention of the Provincial Health Office of concerns about problems—health problems in the province?

A That's correct.

Q And again, to the best of your knowledge, no information apparently from looking at this report, in any event, the problem of marihuana use doesn't seem to have been raised?

A I didn't see it in the 1992 report.

Q Okay. Let's then quickly go to the 1994 report. I take it there just weren't any health problems in 1993 and that's why we don't have a report.

A Unfortunately, the provincial health officer didn't comply with the statute and it was not possible due to the staffing at that time for him to do it but that's why he got a deputy.

Q All right.

THE COURT: Before you start on that report, it is almost five to eleven. It might be an appropriate time for the morning adjournment. I will stand down for fifteen minutes. Thank you.

(WITNESS STOOD DOWN)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

SHAUN HOWARD PECK, recalled, testifies as follows:

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q Now, we were about to go to the 1994 report. That's Exhibit 12. Now, again, this then shows the—if we look first at the table of contents, it shows the areas that were focused on in 1994, correct?

A Yes.

Q And on the Executive Summary, which is the next page, there's a reference there I see to—in the second column, the epidemic of narcotic related deaths, 1993?

A Correct.

Q And that was what you were referring to before that led up to eventually—or is the beginnings of what led up to the coroner's report?

A Yeah.

Q Okay. Now, if we go over to page Roman numeral 6, just a couple of pages further—well, first of all, the recommendations that are set out on page 5, again relate to the major health issues or health concerns identified by the office during this reporting period, is that right?

A Right.

Q So, if we go over then to 6, the one that deals with—the second column, tobacco related illness and then illicit drugs.

A Yes.

Q And so again, the tobacco related illness is specific to tobacco issues, correct?

A Yes.

Q And the illicit drugs is again primarily to do with the heroin and presumably, heroin in combination with other drugs such as cocaine or alcohol?

A That’s correct.

Q So, if we go—it refers to page 49. We go then to page 49, that gives us the specific information contained in this report for that year relating to illicit drugs, am I right?

A That’s correct.

Q And so if we go to that page, the information there, as I understand it, arises primarily, if not exclusively, from the heroin problem that you referred us to earlier?

A Yes.

Q Now, it says at the bottom of page 48 -- or let’s go, first of all, to the first column there higher up on page 48. The second paragraph, "Deaths due to illicit drugs have increased markedly over the last six years and can be considered to have reached epidemic status. The number of deaths has risen from 39 in 1988 to 331 in 1993, an increase of 750 percent over this time period." Then it goes on to talk about the cause being availability of unusually pure heroin and then it refers, in the next paragraph, to heroin and cocaine either alone or in combination with each other or in combination with alcohol, methadone or other drugs. It gives a typical profile. It refers to age group and the leading cause of death for males and females ages 30 to 44 and then it says, "Most of the drug deaths occurred in the City of Vancouver. While Vancouver has the highest mortality rate, all areas of the province have experienced illicit drug deaths, particularly other metropolitan areas, Skeena, Northern Interior and Vancouver Island."

Now, just stopping there for the moment, did marihuana factor into any of this information? The term "drugs" is used in—without breaking it down in some of those sentences I quoted. Do you know if marihuana figured into it at all in any way, shape or form?

A I should point out that I wasn’t actually part of developing this ‘94 report but in all the discussions I’ve had with Dr. Miller and I—you know, even before I was appointed to work with him, I would meet with him every month. I do not recall the discussion around marihuana occurred with these illicit deaths. We really were concerned with the heroin related deaths in particular.

Q Okay.

A But we recognized that in any addictions, there is a tendency for people to take a combination of illicit and even, you know, ordinary drugs. I mean alcohol and other drug.

Q Okay, and then if we look at the second page dealing with this topic, page 49, at the top it says, "This epidemic of drug related deaths is more than a criminal problem. It's an urgent public health problem." It then goes on to summarize the situation.

Jumping down to the next paragraph, it says, "Like all major health issues this epidemic of drug related deaths is ultimately related to socio-economic factors. Those who become narcotics users and addicts are more likely to be drawn from a part of the population with fewer social and family supports, lower education, unemployment, etcetera. Rather than focusing on regulatory or punitive measures to reduce or eliminate drug use, we need to adopt a more supportive approach which considers the health and social problems faced by illicit drug users."

Now that, I take it, together with the recommendation that follows, was basically what you were telling us earlier, that after the investigation by your office and the coroner's office, the position was that they should be changing the legal approaches to illicit drug regulation and looking at it from a different point of view, focusing on the health aspect?

A Yeah. This approach is something that we recommended from many health conditions but as—it particularly applies to when you listen to the individual histories of people who eventually become addicted to heroin and cocaine. They often had suffered impoverished childhoods, family break-up, even sexual abuse, etcetera, which are all products of poverty, lack of education, high unemployment. So, we think—we've recommended to government that they have to keep looking at the real determinants of the health of the population rather than the symptoms of the health of the population.

Q Okay. Now, if we just go over a couple of pages to page 51, there you've talked about injury prevention and focuses on injuries of many kinds for various causes. If you go to the next page, there's a table which says, "Factors which influence the occurrence and consequence of motor vehicle injuries." In the first column, "Host," a reference is made to alcohol intoxication.

A Yes.

Q Do you know whether or not any information was provided with respect to marihuana intoxication in relation to the causes of injuries or—in this section?

A I'm not aware of information for British Columbia. I've read studies in other places where they've investigated for the presence of cannabis in people who've had injuries and it always almost seems to be with the presence of alcohol and it's very difficult to break out the effect of the cannabis from the alcohol as a causative factor. The other thing, of course, the difficulty in determining whether it's contributing to motor vehicle is there isn't an easy way of doing roadside determination or testing on a routine basis, that I'm aware of.

Q Okay.

A Of course, I should point out that we know that from the pharmacology of cannabis, that it can impair people, particularly in high doses.

Q And what it impairs, correct me if I'm wrong, is their motor skill co-ordination?

A I think so.

Q And if a person's motor skill co-ordination is impaired, presumably that might manifest itself in erratic driving or an inability to co-ordinate the functions required to drive a vehicle properly?

A Yes.

Q Okay. Now, that should be apparent to an observer, somebody observing them driving a car or walking a straight line or anything of that kind, would you expect?

MR. HEWITT: Your Honour, if I can interject at this point. This witness hasn't yet been qualified to give any opinions and I've been wondering, throughout his evidence, what he might be qualified to give evidence on or not. Of course, I haven't cross examined him and there hasn't been a ruling in relation to that. Most of the evidence he's given is really just evidence in his capacity as the Deputy Health Officer and I have no objection to that. Most of the evidence has been what they have or haven't done or what information they have or haven't compiled. The last few questions are more questions calling for an opinion and they don't—I don't suggest the doctor's not been qualified to give some kind of an

opinion but I'd like to know what opinions he's being offered for and have the opportunity to explore that before examination in chief goes into those areas.

MR. CONROY: I appreciate my friend's position. My intention was really to call Dr. Peck really to tell us about the Health Office and what it's done, what the results of its investigations and reports are. I have slid into this area in terms of effects of marihuana on driving simply because of this area of the report. So, I have asked him, I guess, to explain what—he told us that he had done some investigations and did come across some information in relation to marihuana. So, I was just trying to clarify that. Maybe I can approach it this way.

Q You've told us what your background is and you're a medical doctor. Are you able to express opinions about the effects of marihuana or other intoxicants on human behaviour, as a result of your training and experience?

A Well, I'm certainly able to express opinions and look at it from a broad public health point of view but I wouldn't like to consider myself an expert on the, you know, exact intoxicant effects.

MR. CONROY: So, I would ask that he be permitted to

only—to express opinions that would arise naturally as a result of being a qualified medical practitioner, in terms of—to a limited extent, in terms of what he would expect if—as we go through, focusing on his role as the Deputy Provincial Health Officer but if we get into areas where the opinion arises or could be given as a result of him being a medical doctor, in terms of just cause and effect, I would ask that we be permitted to go at least that far. But I'm not tendering him as an expert on the effects of marihuana.

THE COURT: Are you, at this time, seeking that he be qualified—

MR. CONROY: To a limited extent.

THE COURT: -- to that limited extent, in the event that, during the course of the examination, he does give evidence in that respect or you wish to elicit evidence in that respect?

MR. CONROY: Yes.

THE COURT: Any position on having him qualified as—

MR. HEWITT: I certainly don't object to him giving evidence as a medical practitioner and in his role also as

a medical health officer. The problem, of course, is going to become how do we define that. So, on the last few questions, I have the objection that, in my submission, those questions don't fall within that. I think the way we can deal with it is so long as Mr. Conroy establishes the foundation for the connection between what he's qualified for and what he's giving evidence on, I won't have an objection. But I do have an objection on the questions relating to the effect on driving and that sort of thing because I don't see how that arises from the qualification.

MR. CONROY: All right.

THE COURT: Let's deal with what seems to be non contentious which is that he is qualified and I will qualify him to give expert opinion evidence in the field of general medical practice.

MR. CONROY: Thank you, Your Honour.

Q If we just look at it this way then, Dr. Peck, I mean, in the 1994 report, the office was provided with certain information about injuries and causes of injuries. There's no—doesn't appear to be any reference there to any of these injuries being caused by marihuana consumption, am I right?

A That is correct.

Q The only intoxicant that appears to be referred to is alcohol intoxication, is that correct?

A That's correct.

Q Okay, and as a medical doctor, if somebody consumes alcohol to a certain degree, what do you expect to see as a result?

A Well, there's a dose related response which can start off with apparent euphoria and progressively become—with progressive inco-ordination of motor skills and mental functioning and if they consume enough, they can go into a coma.

Q Okay, and are you familiar with the effects of marihuana compared to alcohol?

A To a degree. I'm not—I would not like to express myself as an expert.

Q All right. To what degree are you familiar with the effects of marihuana?

A Well, I could—for the purpose of this, I wanted to get a summary of the effects and so what I did was to find a report produced by Health Canada, illicit drugs in Canada. It was a 1989 publication from Health and Welfare which seemed to summarize fairly well what the effects of marihuana were.

Q Okay, but there what you've done then is you've gone to a specific report, read what's in the report and you would just be telling us what information you gleaned from the report or does it involve your expertise as a medical doctor?

A Well I've, you know, been familiar of the health effects of marihuana ever since I've been in medical practice. I can recall personally researching the issue in the 1970's when the commission was holding hearings at that time to try and figure out how much of a health problem really it was.

Q So, just leaving aside the report or extract that you read or investigated, as a medical doctor, given what you've just told us about alcohol, do you know what effects marihuana would have and analogous to alcohol? Would it have a similar effect to alcohol consumption that you've mentioned? What do you know?

A The difference between—I mean, my understanding of the difference between alcohol and marihuana is, first of all, marihuana is more of a euphoriant. In other words, it makes people happy. It's less liable to produce aggressive behaviour which you tend to get in alcohol. It certainly can impair people in their motor functions and it's a dose related response.

Q Okay.

A The other thing that has always concerned me is the long time it takes to be excreted because even after taking one joint, people—it can be measured for at least a week, if not longer, afterwards and there's the accumulative effect that does occur. I recall even in the 1970's, one of the sort of lasting concerns about it was the fact that heavy users suffered—may suffer irreversible brain memory deficit and that was one of the uncertain questions about how harmful it was to society as a whole.

Q Now, as a medical doctor though, you've told us that if somebody consumes alcohol, one of the things that you can see—again, depending upon the dose and the individual, one of the things you can see is that it's affected that person's motor skills. You can observe that, can't you, in that individual? You're nodding your head. You have to say yes or no.

A I mean, I personally can't recall observing anybody in my medical practice with this but from what I've read, I believe that is what you observe.

Q But even just—

A With high dosage.

Q -- looking at the medical cause and effect from a medical point of view, if somebody takes a substance that affects their central nervous system in such a way that it affects—they take a sufficient amount that it affects their motor skills, do you expect that to be a pattern, from a medical point of view, with any intoxicant?

A Well, I—you have to examine each intoxicant separately because they may exhibit different impairments.

Q Depending on the dose and the individual?

A Yes. The individual, the dose and the nature of the substance.

Q If you have a substance and a dose that clearly affects a person's motor skills, is that observable to another person, the affected motor skills?

A It depends to what degree. In—with mild levels of intoxication, it may not be directly observable but if you do test—reflex tests, etcetera, you will find that they are impaired. So, it's a dose related thing and with the heavier doses, then it may be observable.

Q And obviously, the heavier the dose, the more it affects the motor skills, presumably, is that fair?

A I think as a generalization, that is true that most—I can't think of intoxicants that do not have a dose related relationship.

Q What you're saying there though, the dose isn't necessarily common to each individual. The dose could vary with different individuals in terms of how it affects them?

A That's true. There will be variation in individuals based on their body weight and their ability to absorb. There will be variation based on the body's ability to adapt which occurs with many intoxicants. The liver adapts to metabolize many intoxicants very quickly. So, for instance, somebody with chronic alcoholism can consume vast amounts without apparently, obviously being impaired but they may have very significant amounts of alcohol in their system.

Q Okay. Then just to finish off with this report, at page 72 there's a reference again to the topic illicit drugs. I take it that that really appears to be just a summary again like we had at the beginning?

A Yeah.

Q In fact, it's the same paragraph.

A It's the recommendation—yes. Just a summary of the recommendations.

Q That's the recommendation then that was made by the Provincial Health Office in 1994 in relation to illicit drugs?

A Correct.

Q Okay. Let's then go to Exhibit 13, the Annual Report pertaining to 1995. If we go again first to the index, again it appears then that you have the areas—the broad areas that were of concern to the office indicated under number 2 and then the specific focus on women's health, that it was decided to follow in 1995?

A Yeah.

Q And so again if we go to the next two pages, the Executive Summary, it essentially talks about the population health status of the province generally and then focuses on living and working conditions. Then if you go over to the next page, under "Individual Skills and Choices," again the focus there initially is tobacco and tobacco smoke, is that right?

A Correct.

Q And it then carries on in the third paragraph to focus next on alcohol?

A Yes.

Q And then illicit drugs?

A Yeah. In this report we are referring to heroin and cocaine.

Q To the Caine Report?

A No. The heroin deaths, in particular. Heroin and cocaine. The 356 deaths and the 306 deaths—

Q All right.

A -- which are mostly due to heroin.

Q And at the very bottom, the reference to the Chief Coroner and his recommendations is the task force report that we referred to earlier?

A Yeah.

Q Okay. Now, it says—and maybe you can't answer this for me but if you can, please indicate so. At the bottom of the page it says, "As recommended by the Chief Coroner, policies and legislation need to be re-examined and a comprehensive harm reduction program implemented." Now, you told us earlier about harm reduction and your involvement in relation to the heroin, cocaine or a combination drug situation. Has any information been brought to the attention of your office in 1995, or in the earlier years, 1994 and 1992, of the harm from marihuana use, so that you could tell us what harm reduction approaches would be taken in relation to marihuana use, so one can identify the harm and then say what one would do to try and reduce the harm, or are we in a situation where the office simply hasn't been provided with any information?

A In any discussions that I can recall having around this, our main focus has been on the hard drugs, as they're called and you know, if we raise the question what about marihuana, people haven't been sure what to do. So, no—there's no recommendation that's been made on this and neither have we taken, up until now, any effort to do any systematic research into the problems that might be associated with marihuana use.

Q Okay. So, we don't have similar recommendations, such as if we move back up that page, in terms of smoke free policies, the second paragraph essentially contains recommendations of the Provincial Health Office as to what should be done to try and reduce tobacco consumption, is that right?

A Yeah.

Q And the next paragraph on alcohol, for example, a recommendation is labelling of all beverage containers to discourage inappropriate use and empowering consumers to make wise, personal choices?

A Right.

Q So, again, none of the recommendations—and correct me if I'm misunderstanding it, but none of the recommendations are—the government should go so far as to prohibit or anything of that kind. All of them seem to be ways of encouraging people to do things—

A Make appropriate—

Q -- in the interest of their health, is that correct?

A Yeah. I think—I mean, our office's recommendation that the most appropriate response to a lot of the things is harm reduction. That a lot of substances that people ingest are just a fact or life. You might say they're not something that we have realistic recommendations about banning alcohol or something like that.

Q All right.

A Or totally banning cigarette smoking. I mean, we'd love to put the tobacco companies out of business but we are realistic.

Q In other words, -- I mean, are you saying it wouldn't be practical?

A We don't think it's practical.

Q To do so. Okay. Just drawing your—

A We're not going to recommend to government totally impractical and unachievable actions. Harm reduction, we feel, is a very practical and sensible approach to many problems related to addictive substances.

Q All right. If we move on to page 9, again still in the summary, it says, "Feature report women's health," and this summarizes then the feature report, am I right?

A Yeah.

Q And there's a brief reference there in the second paragraph to healthier lifestyle choices in terms of smoking, drug or alcohol abuse, etcetera. Now, if we continue on, the next series of charts, if I can call them that, page Roman numeral 13 through 20, these tables summarize the recommended objectives and actions of the Provincial Health Office in relation to the particular health problem or—

A That's correct.

Q -- area that the office feels should be addressed in order to improve health generally?

A Yeah.

Q Okay. So, the one pertaining to tobacco, for example then, is at 14?

A Yeah.

Q The one pertaining to alcohol is at 15?

A Yeah.

Q And the one relating to substance misuse by—in the women's health area is 18?

A Yeah. Just before mental health.

Q It's just a summary, isn't it?

A Yeah.

Q All right. So, if we then go to the main body of the report, if we went to page 101, that takes us to that area relating to substance misuse by—in relation to women's health, is that right?

A Mm-hm.

Q Now, as we go through this section, first of all, the top of page 103, there's a reference to deaths due to illicit

drugs. Am I right that this is, again, heroin and cocaine in combination with alcohol, primarily?

A Or other drugs.

Q Or other drugs. All right. Now, when we use the term other drugs there, again, is there any indication that marihuana has played a role in that in any way, shape or form?

A We haven't got any indication in the report of that but I would say that it's quite common to find a whole series of substances.

Q If we go over to 104, there is a reference in the chart there to cannabis?

A Yeah.

Q And that chart relates to women's admissions to alcohol and drug services by primary drug cited. What does that mean?

A That means that when they register for admission to a treatment program that this is considered to be the drug of prime concern for which they are seeking services to try and cure their addiction.

Q Okay. So, in other words, a woman then has come in to a particular treatment centre and said I'm having a problem with smoking cannabis, or I want to stop, or something like that and has sought assistance in relation to it and that's the primary reason for coming in?

A Yes. As I said before, from my discussions with people who work in addiction field, it's extremely common for people to be taking a combination of drugs and alcohol, illicit and otherwise but what this table tells us is that this is considered the—cannabis was indicated as the primary drug cited for women's admission to alcohol and drug services in 1993 and '94, in about—it looks like 8 percent of the admissions.

Q Okay. Alcohol being by far and away the largest at about—almost 65 percent?

A That's true.

Q And then cocaine and heroin follow?

A Yeah.

Q Quite a bit less but still more than cannabis and then narcotic. I take it that would be other narcotics to those listed, is that—

A Yes, it might be codeine or methadone even. I should point out that in society, there's a tremendous difference—I mean, we've got a high percentage of alcohol admissions and we should point out the consumption of alcohol by the population is vast compared with certainly cocaine and heroin. I'm not so sure about cannabis. My suspicion is that cannabis

is—or the evidence is that it's fairly widely used but we've got very—relatively small numbers of people being admitted as the prime drug cited.

Q Okay. Now, I just want to go back for a minute quickly in this report just to draw the Court's attention to the other areas that might be of some bearing. The information in relation to smoking is page 18, 19 through 21 and that, again, focuses specifically on tobacco smoking, correct?

A This is a general report for the whole population, not just the women's health.

Q Yes. This is the whole population.

A Right.

Q So, that's the data and the detail and the recommendations of your office with respect to—

A Yes.

Q -- smoking in terms of 1995 are on those pages. Then on page 22, the same but with respect to alcohol?

A Correct.

Q I see that there the report indicates in the second paragraph, "Alcohol is a generally accepted and traditional part of Canadian life and almost certain to remain so. When used safely, alcohol can be an enjoyable part of the lives of many Canadians without demonstrable harm." That's basically a statement of the Health Office with respect to use of alcohol, correct?

A Mm-hm.

Q But it takes a different position with respect to tobacco in the next sentence, saying that tobacco—that there's no recognized—

A Safe level—

Q -- safe level of use?

A Correct.

Q Okay. Again, no information here specifically with respect to marihuana?

A Not that I can see.

Q And if we go to the next page, 24, it deals with illicit drugs. Specifically, -- and this is the data for the whole population to do with illicit drugs, runs from 24 through to 27?

A Yeah.

Q And am I right that the focus again here in these charts and so on are heroin and cocaine, alcohol, or in combinations of those three or four?

A That's correct. And we also mention the concern about communicable disease, HIV, Hepatitis B and Hepatitis C, amongst needle—

Q Now, it says in the column on page 24, "In 1987, the Canadian Government adopted harm reduction as the framework for Canada's national drug strategy. The primary concept underlying the harm reduction approach is to reduce the negative consequences associated with drug use rather than the traditional focus on reducing the prevalence of drug use." You see that there on page 24?

A Yes.

Q Do you know here that comes from?

A I regret to say I haven't seen the reference on that but I certainly could find it, if you wished.

MR. CONROY: All right. I note the time, Your Honour.

A I'll look in the reference, just in case—

MR. CONROY: I don't expect to be much longer with the doctor but I'd like to see if we can find that reference.

Q The only other comment before perhaps closing for the morning is if we look at the appendix to this report, the current Advisory Committee is set out on that page, is that right? It comes after page 184.

A That's correct.

Q And then as in the previous reports, the following pages deal with either people in a specific working group to do with women's health or people who have contributed in some other way to the report?

A That's correct.

MR. CONROY: Okay. This would be a convenient time then, Your Honour and we'll try and get that reference over lunch. I don't expect to be very much longer with the doctor.

THE COURT: All right. We'll adjourn for the lunch your then. We will resume at 1:30 this afternoon.

(WITNESS STOOD DOWN)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

SHAUN HOWARD PECK, recalled, testifies as follows:

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q Now, when we broke, we had—I had drawn your attention to the quote in the margin on page 24 of the 1995 report, which made reference to the Canadian Government national drug strategy and we were trying to locate a reference for that over the noon hour. Am I right in understanding that where that appears to come from is the report of the task force into illicit narcotic overdose deaths in British Columbia, the Chief Coroner's report, --

A Yeah.

Q -- and specifically, the part on harm reduction, page 18, virtually contains the same quote?

A Yes.

Q And our belief is that that, in turn, comes from a document entitled "Canada - Ministry of National Health and Welfare, Canada's Drug Strategy, Ottawa, 1992?"

A We—we—I mean, I'm assuming that the statement will appear in the 1992 document. I wasn't able to find the actual 1987 document that was quoted here.

Q Okay. Now, before we—just before we go into what you determined as a result of some research into the issues after getting a call from me, I first want to deal with the Council of Medical Officers you told us about earlier. You said there's this council will all of the counterparts from different provinces and it's only been in existence for about eighteen months?

A Correct.

Q And I understand in preparation for coming here, you went and reviewed the Minutes of the meetings that have taken place between these various officers?

A Yes.

Q And was that several meetings or just one meeting

or—

A It was—I was able to—I think they just had their third meeting last week. I haven't seen the Minutes of that. The Minutes I was able to find was one meeting that was held in the fall and it was very comprehensive. They covered a large number of subject areas.

Q And was the subject of marihuana use and it's consequences referred to at all in—

A I didn't see it referred to in the Minutes of those.

Q Okay. So, as far as you know, that hasn't come up as an issue?

A No.

Q Okay, and are you familiar with a group called the American Public Health Association?

A I'm a member of the American Public Health Association.

Q And what is it?

A It's an organization—it's the largest public health organization in the world and it publishes annually

the—sorry, monthly, the American Journal of Public Health. It holds an annual meeting some place in the U.S., and it's an organization of people with many interests, many public health interests, whether it's communicable disease or cancer or drug use or whatever.

Q And do you know if it passes resolutions that reflect the decision of its membership?

A Yeah. Part of their annual meeting is always a resolution section in which people—they—they—which the Board passes as the—the position of the organization each year.

Q And resolutions, if passed, would then appear in the American Journal of Public Health, is that right?

A That's correct.

Q And one can access that through the Bio-Medical Library of the University of British Columbia at Vancouver General Hospital?

A That's correct.

Q Are you familiar with any of their resolutions with respect to the marihuana issue?

A No, I'm not.

Q But if there were any, we would be able to access them through that journal?

A Yes.

Q Okay. Am I right in understanding that that association—you said it's the largest association in the world. So, it—

A Largest public health association.

Q Largest public health association in the world. It includes not just people involved in health issues in the United States of America but throughout the world?

A It's an international membership, although it's called the American Public Health Association. I've personally been to at least half a dozen of the meetings and there's always people from all of the world and they discuss international health issues as well.

Q Has the topic of marihuana use and its potential harm in society or anything of that kind come up at any of the meetings that you've been at?

A I was at the meeting in San Diego this year and I went to several sessions on harm reduction—

Q Yes?

A -- and my recollection is that marihuana was mentioned but the focus was more on the hard drugs and the public health movement, as I would say, towards the harm reduction approach rather than the war on drugs approach which is being carried out but the U.S., in particular and other countries are going along with it.

Q All right. Let's then turn to what you discovered after receiving a call from me about this issue. If I understand things correctly, prior to hearing from me, it had not been a topic that had come to your attention as a major concern of any kind. I think you told us that earlier.

A Yes. It's not something that our office had felt needed to be looked into because it was causing a lot of morbidity like deaths or—I'm sorry. I mean mortality deaths or morbidity which is injury or hospitalizations in the province.

Q So, you then did some research to see if you could find out what the situation was, to some extent?

A Yes. Well, I mean, the nature of our office, as I mentioned earlier, is that if somebody raises an issue with us, even if it's being asked to go as a witness, one does a little bit of research to try and find out what the burden of illness is in the society that we have.

Q So, tell us what you did and what you found out.

A Okay. I'd just like to refer a few things that I uncovered. First of all, in—I'm pretty sure the year was 1991, the McCreary (phonetic) Society did an adolescent health survey and there was—one section of their report was on substance use and abuse. This one table here shows that the percentage of students in B.C. who had used marihuana in a lifetime, that means more than one or two times, was—it was 22 percent in Grade 9, that's Grade 9 males and 46 percent in Grade 12 males. For females, it was 21 percent had used marihuana in their lifetime and for the Grade 12'ers, it was 37 percent. So, that—from that, I conclude that there is a considerable use. Another—

Q Now, just identify the document again. You said McCreary—

A It's called the Adolescent Health Survey, Province of British Columbia, McCreary Centre—the McCreary Centre Society.

Q And that's a group somewhere here in—

A In Vancouver.

Q Okay, and they did this for the Ministry of Health?

A The Ministry of Health was one of the funding agencies that contributed to it and this survey—it should be available at the public library.

Q Okay. Can I just clarify what you meant there by having used marihuana in their lifetime. Now, does that mean having just used in once or more than once or do we know?

A Well, the table is broken down into one to two times, three to nine, ten to nineteen, twenty to thirty-nine, forty to forty-ninety, a hundred plus times. I was just summarizing the total—

Q I see.

A -- amount. I could—

Q Well, we may mark the document at the end and that would then give us the breakdown, would it?

A Yes.

Q Okay. Carry on. Sorry I interrupted you.

A The other thing I was going to point out from this was that there's one table which correlates regular marihuana use with certain behaviours, should we say and certainly—and so the one thing that concerned me that—for adolescents who had not used marihuana in the previous month, 29 percent had skipped school in the month but those who had used it on one or more days in the past month, had skipped school 74 percent of the time. Now, I should point out that that doesn't necessarily mean that marihuana causes the skipping of the school. It's correlated with skipping school.

THE COURT: I'm not sure I got matching numbers. You said 29 percent of those who had not used it had skipped—had not skipped—had skipped school and then your 74 percent figure—

A Right. They don't add together, do they?

THE COURT: Well, you said 74 percent—those who had used it missed school for 74 percent of the time or 74 percent of those who—

A They had skipped school -- 74 percent of them had skipped school in—

THE COURT: Okay. 74 percent—

A -- a month. It doesn't say for how long. It just says they had skipped school in the last month.

THE COURT: All right.

A And the other—another one was 29 percent of those who hadn't used marihuana were in physical fights in the previous year and 57 percent of those who used marihuana on one or more days were in physical fights. Now, in interpreting this, I keep a fairly open mind on it because, as I said earlier, Your Honour, the—we have to think about who are the kids who are actually using the marihuana. Are they poor, less educated kids who come from backgrounds which makes them more influenced by peer pressure and whether there's a cause and relation between the marihuana use and the skipping school or physical fights. I don't think we should rush to that but I just wanted to point out that this table does exist in the Adolescent Health Survey and I just got that as part of my research.

MR. CONROY:

Q Could I just get clarification. You said 29 percent of those who hadn't used were in physical fights? Hadn't used in the previous month?

A Yes. Were in physical fights in the previous year.

Q In fights in the previous year?

A Yes.

Q So, hadn't used in the previous month, in fights in the previous year?

A That's the way it reads.

Q And 57 percent who had used—

A Had used marihuana on one or more days in the past month were in physical fights in the previous year.

Q In the previous year again. Okay. Was it not—was it your evidence—did you give us any evidence about marihuana use and aggression?

A Yes. From my readings, my understanding is that marihuana use is less liable to cause aggression than alcohol.

Q Okay. So, again, your ending comment after reading that was—again, I'm just trying to paraphrase what you're saying but what as I understood, you're saying there's so many variables in each individual that one can't rush to say that there's a causal connection?

A Yeah. I would be very cautious to make a cause and effect relationship between these findings but I—all I want to say is that I did discover this table and

it—you know, it makes you think, what's the relationship.

Q Are those the two most significant harm indicating factors in that whole Adolescent Youth Survey or I assume that there's many other factors that they went into.

A I only brought with me the chapter on substance abuse. The chapter—I mean, the rest of the report is on such things as sexually transmitted disease, sexual behaviour, condom use, those kind of things.

Q Could I have a look at what you brought then. Do you have any difficulty with us taking your copy—

A You can keep it.

Q -- what you brought and marking it here so we have exactly what—and any writing on it is your writing?

A My writing.

MR. HEWITT: No objection.

MR. CONROY: Let's mark that as Exhibit 14, was it?

THE CLERK: Fourteen. That's correct.

EXHIBIT 14 - EXTRACT FROM ADOLESCENT HEALTH SURVEY

MR. CONROY: Perhaps we counsel can then arrange with Madam Clerk to get copies of that as well at some point. All right.

THE CLERK: Are you taking this back, Mr. Conroy?

MR. CONROY: No. Not at the moment.

A The other thing that I discovered in my studies, I looked at a national alcohol and drug survey, 1990, from Health and Welfare Canada because I wanted to get some idea of what—the latest figures that people had on the use. It says here, "Use of cannabis marihuana or hashish at some time in their lives reported by 23.2 percent of adult Canadians. The rate of use is higher amongst men, 28.9, than among women. The highest rate of use was reported by Canadians 20 to 34 years," that's 43.1 percent, followed by the 35 to 44 year group, 25.8 percent and the 15 to 19 year old group, 23.2 percent. A little lower down it says, "Cannabis use is most prevalent in British Columbia where 9.6 percent of the population have used the substance in the past twelve months." So, this was a 1990 publication. Other publications I read showed that, in general, the trend has been a reduction over time.

Q Let me just make sure we've got that clear. 23.2 percent of the adults in Canada, according to a 1990 survey, had used marihuana in the previous year?

A Sometime in their lives.

Q Oh, sometime in their lives. And it doesn't say how much they used, --

A No.

Q -- it's just that they had used. Okay, and 28.9 percent of the men had used in their lives?

A Use is higher among men 28 -- that's right and 17.7 percent of women.

Q 17.7 percent women and then you said the highest age group was 20 to 34 year olds?

A Yeah.

Q And that was 45?

A 43.1 percent.

Q 43.1. And then the other age group was 35 to 45 year olds, 25.8 percent; 15 to 19 year olds, 23.2 percent?

A Yeah. It was 35 to 44 year age group.

Q Sorry. Now, then you said this survey also indicated the highest use was—per province was British Columbia at 9.6 percent of the population—

A Used the substance in the past twelve months.

Q In the past twelve months. Okay, but overall, your understanding is that there's been a gradual decline in use over what period?

A I'm afraid I haven't got the reference here but there was another one that I found where it showed—oh, here we are. This was a document called the 1995 Canadian Profile of Licit and Illicit Drugs and it said between 1989 and 1993, the proportion of Canadians who used cannabis declined from 6.5 percent to 4.2 percent.

Q Okay. Canadian Profile—sorry. What's that called?

A 1995 Canadian Profile C.C.S.A., Canadian Centre for Substance Abuse. That's where that comes from.

Q All right.

A And Addiction Research Foundation.

Q Okay. Now, -- so, the national alcohol and drug survey, 1990 Health and Welfare Canada. Is there anything else arising out of that document that you wanted to refer us to or should we mark that as the next—

A No. I think there's—no.

Q All right and again, any markings on that document—

A Are mine.

Q -- are yours?

MR. CONROY: Exhibit 15?

EXHIBIT 15 - DOCUMENT

Q Now, the Canadian Profile. Anything else arising out of that?

A No.

MR. CONROY: Again, any markings are yours. If that could be then Exhibit 16.

EXHIBIT 16 - COPY OF 1995 CANADIAN PROFILE ARTICLE

A The next thing I did, having figured out—you know, an idea in my mind of what the usage was, what effect does it have. I found a sort of summary paragraph in another Health and Welfare Canada 1989 publication but I don't know whether you really want me to read this into the testimony or—

Q So, you found the usage levels. You then went to determine what effects but the document you had was from an earlier time, is that the problem?

A 1989. Yes. And my next question was, okay, can I find any evidence from Poison Control Centre or hospital data of what effect it's actually having.

Q All right. So, the 1989 report—let me just have a look at it then. This was a Health and Welfare Report 1989, simply entitled Licit and Illicit Drugs. So, it's a chapter from a Health and Welfare publication, is that right?

A Mm-hm.

Q Okay, and so what you're simply saying is that there's a four paragraph conclusion or indication of the effects and instead of reading it into the record, it's there. We could mark this as an exhibit.

A Sure.

Q Okay. Is there a way of just summarizing in the record?

A Well, yeah. It goes into the low dose effects, "Which are influenced by individual environmental factors. The acute affects which are—which are pleasant in low, moderate doses and in high doses, can cause distortion. Adverse affects are not infrequent and can occur unexpectedly even for experienced users. They can include acute toxic psychosis, acute panic reactions and flashback phenomena." Then it goes on to talk about the—impair motor activity which we've talked about. "Impair memory. Alter time sense and reflex response time and limit attention span. It's also been associated with the antimotivational syndrome, wherein the user becomes extremely apathetic, unmotivated and unable to perform tasks which are complex or require some time to complete." Then it goes on to talk about "Users become more sensitive to the drug after several administrations and may require less to achieve the desired effects. Studies of heavy, frequent users have demonstrated that some tolerance can occur wherein increasingly large doses of the drug are needed to maintain the desired intensity. If these users abstain for days, their original sensitivity to the drug effect will return. Psychological dependence and craving have been shown to occur with regular high use of the drug. There's been no studies of general population to determine the rate of serious adverse reactions to marihuana." That's of great interest. "The number of patients reporting to treatment facilities with adverse psychological effects is small, given the apparently extensive use of the drug in some populations. In 80 percent of cases of adverse reactions in clinical studies (indiscernible) of other hallucinogens have been report."

So, that is just a summary, you know, that I think is—accurately reflects what you might call medical opinion about the effects of cannabis or marihuana.

Q As of 1989?

A 1989. Mm-hm. Yeah.

Q And it has footnotes for most of the statements that you've read, correct? So, would the publication at the back have the specific references to the specific studies?

A Yes.

Q And could we—would we be able to have you provide us with that so we could attach that to this as an exhibit?

A Yeah. It's in the Ministry of Health library and I could obtain that if you wish.

Q If you could send it to me and then I'll arrange—

A Sure.

Q -- to have it added to this exhibit so we know exactly what the references are.

MR. CONROY: If that could be—

A I think you better let me just write down the title again.

MR. CONROY: All right. It's Licit and Illicit Drugs in Canada, 1989 publication, Health and Welfare Canada, Part Two, Illicit Drug Use.

A So then what I did was to go to some sources that we would normally do when we're trying to find out about how much of a public health problem is this and so—

MR. CONROY: Let me just stop you a minute before you go into that and we'll just see if we're going to mark this one. Just so that it—it might help you too, Doctor. The footnotes that we would want are from 24 through—oh, actually, it varies. So, the footnotes, I'll have to give you the actual numbers because it goes back and forth.

A Okay.

MR. CONROY: 24, 6, 2, 25, 7 and then it looks like the others repeat. Mostly 24, 25 and 2. All right.

A Sure.

MR. CONROY: If that could then be marked as Exhibit 17 and I'll undertake to get from the doctor the list of references and to supply that so that we have that to be added to that document.

THE COURT: Is that 17 or 18?

THE CLERK: It is 17, Your Honour.

MR. CONROY: 16 was the Canadian Profile.

THE COURT: All right.

EXHIBIT 17 - COPY OF HEALTH and WELFARE PUBLICATION re

LICIT AND ILLICIT DRUGS

MR. CONROY:

Q Okay, and the next step then after this research?

A Yeah. In the time available, I decided I would try and figure out what the sort of effects were on the health care system or from the data sources that I might be able to obtain. So, the first thing I did was to go to the hospitalization statistics and for the year April 1, '94 to March 31st, 1995, there were 312 people admitted to British Columbia hospitals for drug dependence. Of those, the—ten of them were coded as being hemp, hashish or marihuana. So, it's 3.2 percent or ten cases where it was the primary diagnosis.

Q So, can we assume from that, we don't have any further detail of exactly what the problem is but we can assume from that, that somebody attended or was brought to an emergency ward and the information was that they were drug dependent on hemp, hashish or marihuana—

A That's right.

Q -- as the primary drug dependency?

A And when the medical coder came to code it at the end of the stay, based on the history recorded in the chart, they coded it as that particular code which is 304.3, which is drug dependence involving hemp, hashing or marihuana.

Q Sorry. Did you say 3.0403?

A 304.3.

Q I'm sorry. What was that?

A 304.3. Three hundred and four point three.

Q Oh, I see. What was the—I thought you said 312 people came in and ten of them were hemp—

A That's correct. 312 people came in and ten were—

THE COURT: This is the code that he's talking about.

MR. CONROY: Oh, the code.

A The code number is 304.3.

MR. CONROY: Oh, I see. Okay.

A Just to point out how the system works.

Q All right. And so, can we assume then that the persons gave this history to the doctor or whoever dealt with them and that information was written down somewhere and then ends up being coded in this way?

A And it's usually the discharge diagnosis on which the coding is done.

Q Okay. All right. Now—and you just extracted those figures from the publication that you looked at. You don't have the actual document here?

A No. I asked the researchers to look into the hospital statistical database for me and to find out how many people had been admitted to hospital.

Q All right.

A Another source of information I went to was the Poison Control Centre. Now, the Poison Control Centre is located at St. Paul's Hospital and it is the information source for all poisonings in British Columbia. If somebody is admitted to an emergency department or a physician sees them in their office and they want to get information about the nature of a particular substance or advice on treatment of somebody who is intoxicated, then they talk to St. Paul's. They keep a database and

the information that I was given was that a total of 27 out of 18,722 person substance exposures were recorded in a—the 1994 year. I can break it down by age group, if you like.

Q Let me just see if I understand that, first of all. 18,722 persons were in contact with the Poison Control for exposure to particular substances?

A Well, it would be the physicians or the nurses who were in contact for the 18,722 persons. They recorded as, you know, one person and the nature of the substance that they had—

Q Right. And 27 of those—of the 18,722 were marihuana?

A Yeah. This—they were recorded as marihuana.

Q Okay. So, you're saying that the Poison Control Centre at St. Paul's had 27 people in 1994 -- information was supplied about 27 people in 1994 as having been affected in some way by marihuana?

A Yeah. Who had either ingested it or they were—

had—were suffering from toxic effects. It doesn't mean that—I mean, it may have been a child that was found with marihuana leaves in its mouth, which was one case that I was quoted. It doesn't mean that they had toxic symptoms. It just means that they phoned up to find out what was going to happen to this child if it does absorb a significant amount of cannabis.

Q Okay. So, five us the further breakdown.

A There were two in the 0 to 23 month—two in the first year of life. Three in the 2 to 12 year old age group. Ten in the 13 to 19 year old age group. Eleven in the 20 to 64 year old age group and one was unknown.

Q The age was unknown?

A Hmm.

Q Okay.

A And it says that nine were accidental and eighteen were intentional.

Q Anything else?

A Not from there. The other thing I—

Q Before you then go on, in order to determine exactly what the nature of the problems were for those eighteen intentional users, one would have to do research and get the consent of the patients to release the medical information, I take it?

A That's correct. The information is protected by the Freedom of Information—for privacy, a researcher who's got a particular interest, can get hold of these with the appropriate releases, as long as they preserve the confidentiality of the individual.

Q So, there's no greater detail or explanation of the cases in the Poison Control information?

A I can't tell you the total amount of information that they collect because I just asked them a specific question because I knew that they kept a record.

Q So, you don't know if they might have a breakdown of exactly what the problem was in those eighteen cases?

A When I asked the researcher, can you tell me how many people were intoxicated or not, they said no, they didn't think they could.

Q So, they can't tell us that?

A They can't tell us whether the people who they've been phoned about were intoxicated because they may not have that—when the caller calls up, they may not know whether they—whether the person is intoxicated. I mean, they might have ingested it now and they might get intoxicated later. So, the database would not be there.

Q So, this could just be somebody phoning in, not necessarily attending at St. Paul's?

A Oh, yes. It's from all over the province. It's

B.C.'s—

THE COURT: So, if I telephoned and made an inquiry, would I be recorded as one of these numbers?

A I think—

THE COURT: Just out of a general interest.

A Yes. Yes. If you were making inquiries specifically about a potential—somebody who's ingested something. I'm making an assumption here that they've only recorded it based on—that somebody has actually ingested. They wouldn't put it down—if you just said I want to know what—the side-effects of marihuana, I don't think they would record that in their database but if you said that my child has taken marihuana, they would record that in the database.

MR. CONROY:

Q Or the person themselves saying I've just taken marihuana and I'm feeling a problem. We phoned to St. Paul's to ask for help or something.

A Yeah.

Q That's what would get recorded?

A Yes.

Q Okay, but we can't—we have no way of knowing what the particular problem was, based on the research we have so far?

A I'm afraid you'd have to ask the people who keep the database because I didn't ask—all I asked was can you tell me how many were the—what record do you have of people who have phoned in who have ingested marihuana and can you tell me whether they were intoxicated. They said, no. I don't think we can tell you whether people were intoxicated because we don't keep that. We just keep a record of the number of people who have had ingestions, that were people who have inquired to us to get information about what to do.

Q So, to use an example, we can't say how many of the eighteen were panic reaction or something of that kind. We just don't know?

A No.

Q The data doesn't appear to have been kept but it would require considerable further research and getting the consent of the patients in order to get that?

A Yes. Or if—I mean, if you wanted to hear from the people who keep the database, they could tell you a lot more about it, the details of it.

Q And this would be the Poison Control people at St. Paul's?

A Yes.

Q All right. Anything else?

A Well, there was one other line of—I phoned up the coroner's toxicology lab to find out how many people who came—who were coroner's cases, who the toxicology showed that there was cannabis in their blood. They were able to look back—do three years for—and it says, "The following table represents the number of deaths in B.C. investigated by the coroner's office in which the toxicology results were positive for canniboids. Canniboids were present alone or in combination with other drugs. Users of these statistics are also advised that in a live database environment, the current data are constantly being updated. Consequently, the statistics can change over time." But what it did show was that in 1985, there were—the number of—total number of deaths with marihuana canniboids present in the deceased's blood was 8 out of 3,992 coroner's cases investigated. In 1994, it was 13 out of 4,143 investigated and in 1993, 12 out of 4,360 investigated. The lab did also tell me that there were—there was another toxicology lab that—at the R.C.M.P., which does criminal cases. So, this toxicology database does not capture the criminal—people who were—had toxicology done who were part of a criminal charge and therefore, it does not give a complete picture of the province.

Q If I understand your correctly, what the statistic is then, is somebody has died and the coroner has had an inquest and as a result of the autopsy or whatever, information is supplied to the inquest which indicates that there was marihuana present in the blood of, for example, 8 people out of 3,992 such inquests or autopsies in 1985? Yes?

A Yeah.

Q And does that mean that that was the only substance in their blood, intoxicant or—because you mentioned at one point alone or in combination or do we know?

A It was present alone or in combination with other drugs.

Q And so we don't know how many were only marihuana alone, for example?

A Yeah. Nor do we know whether the marihuana contributed to the person's death.

Q Okay. So, it was merely to see if it was there?

A We just know they were cases in which the coroner asked for toxicology in which, presumably, substance ingestion or abuse was suspected as contributing to the death and for that reason, they will have asked for the toxicology.

Q Okay. So, it doesn't really tell us much—or anything really, about harm. It just is a fact that there happened to be marihuana in the person's blood, is that right?

A Yeah.

Q Okay. Anything else?

A No. That's all I've been able to obtain in the short time and as I may say, I did this for my own interest because I felt that I couldn't come and provide evidence here without having a better idea of what the burden of illness or—was on our society.

Q Given this information that you have been able to dig up and bearing in mind, in particular, the usage rates that you've told us about, how does this then appear to you as a Deputy Provincial Health Officer, when you compare it to other health concerns that the office has looked at and are reported in the reports?

A Well, given the evidence of fairly widespread use, I can't come up with a lot of evidence to show that it is causing a great deal of harm in terms of hospitalization or deaths or poisoning of children, etcetera. I mean, there is a certain amount of that, obviously. There are some gaps in my knowledge. I mean, there are such things as to what extent does it contribute to motor vehicles but I think that that information is not easily obtainable. I think if we try and put it in the perspective of other things, the evidence for the hard drugs, you know, is quite clear, the 300 plus deaths per year. The evidence for smoking related deaths, like at least 5,000 per year are attributed. That's very clear. I think we also have to think of other significant causes of death like—I mean, downhill skiing, for instance, is a dangerous activity and there's always a few deaths every year and certainly many injuries and hospitalizations. So, that's a fair burden on our society but it's not something that we actually write about in our report, although we'd like to see more preventive measures put in place.

So, all I can say is that I haven't been able to have evidence of the burden of illness. The effects on adolescents does give me concern, the effects on learning and motivation, etcetera and the evidence in the literature of precipitation of such things as mental illness gives me concern but I can't find evidence from the kind of databases that we have that it's putting a burden on our society, either in hospitalization or other types of care.

So, that's—is my general conclusion of this.

Q Let me just put something else to you. Under the Health Act and within your realm as the Deputy Health Officer, it seems clear that there are a large number of different types of health problems that the office deals with and some of them involve contagious or infectious diseases and possible epidemics which could very quickly spread and cause serious health problems in the province. Fair enough? Sorry. You have to say yes or no.

A Yes.

Q All right. And do you get involved with discussions with federal counterparts in terms of when the matter becomes too big for the province and becomes a national matter, or is there any way of us knowing where the line is drawn in any way, or can you answer that?

A Well, there are some subjects which there is a federal role in—for instance, there's an L.C.D.C, the Laboratory Centre for Disease Control in Ottawa that provides sort of a national perspective on communicable disease control and Health Canada has a number of directorates and there is one on drugs. That assists the province by doing research or producing physician papers, that assists the provinces in their mandate which is to deliver health services. So, I'm not sure whether I'm really answering your question but there is a federal—there's a federal role in health and there's a provincial role in health. It's defined in the British North America Act of 1897 and so that generally defines what the federal versus provincial role is.

Q Have you ever been involved in a situation where the problem seems to have got so big and spread to so many provinces that it's then sort of taken over as a priority by the federal government as opposed to the individual provinces dealing with the problem, from a health perspective?

A Well, yes. I mean, take measles. Immunization has been established as a national goal. The federal government produced some background documents on

it and each province is now—at least most of the provinces are now instituting a second dose measles campaign which is going to start in British Columbia on the 1st of April, in which all the kids up to Grade 12 will get a second shot of measles, who haven't had it. So, that's an example of the federal and the provincial people working together.

Q Okay, but has there ever been one where the federal government has indicated, well, this has become such a national concern that we're going to sort of take over and we're going to be the primary people, even though we're going to have you do things on our behalf?

A Well, apart from the aboriginals and report health

and—the federal government doesn't have a role in the delivery of health services.

Q Okay. I guess—but the reason I'm asking this is because you have these other types of health problems, such as HIV or the heroin deaths we talked about, these sorts of things. Yet, it seems that the province has continued to be the ones primarily responsible for trying to deal with that problem, from a health perspective anyway. Is that right?

A Well, that's right and—but they always have got the mandate to deliver the service but the fed's role is more of a sort of co-ordinating, perhaps support role, a resource. It's a sort of—the nature of the Canadian—it's said to be a loose federation of ten provinces. It's—and in health service delivery, we do have this division in which certainly Health Canada will assist the provinces often in particular issues by taking some leadership role. I'm particularly involved in injury prevention at the moment and so the feds sponsor national conferences on injury control to assist them in developing injury prevention things—programs within the provinces.

Q Has anything like that occurred during the time that you've been involved with provincial health, including when you were a medical health officer in Vancouver and so on, has anything like that occurred where the federal government has come and said we want to do this or that because of a marihuana use or abuse problem?

A Not that I'm aware but I would say that just in the fall there was a—the Canadian Public Health Association sponsored a harm reduction conference and I think the federal government helped in sponsoring that too but

that was mainly directed towards the hard, illicit drugs. So, there is, across the country, people are coming together to address the kind of issues that are mentioned in the Caine report.

MR. CONROY: Okay. Thank you, Doctor. If you'd answer any questions that my friend would have, please.

CROSS EXAMINATION BY MR. HEWITT:

Q Doctor, I note obviously from your curriculum vitae, your position, you have a great deal of experience with health problems generally as they affect people. That's fair to say? Yes?

A Yes.

Q With respect to marihuana, I understand that the background you have in dealing with health problems associated with marihuana is limited to some studying that you did in the 1970's and then in the last couple of weeks, is that correct?

A I wouldn't say that's totally correct. What I meant was that I suddenly can recall reading fairly extensively back in the 70's but over the years if I've seen an article, I will try to keep myself up to date but I haven't taken a special interest in this particular area until just the last couple of weeks.

Q Okay, and you, by no means, are familiar with all of the literature relating to the health effects of marihuana, is that right?

A Not all the literature but I've read summary articles.

Q All right.

A A series of summary articles which I obtained in the last couple of weeks.

Q Let me ask you about a couple.

MR. HEWITT: Madam Clerk, if he could be shown Exhibit 5 for a moment, the first volume.

Q Perhaps if you could turn to the table of contents of that report. I'm just trying to get an understanding of what you've reviewed. There's a—without going to the

different articles, let me just refer you to a couple of reports in the table of contents. There's a reference at Tab 1 to a report by the World Health Organization, a 1981 report on Adverse Affects and Behavioural Consequences of Cannabis use. Are you familiar with that report?

A No, I wasn't. I haven't read that one.

Q You've not read that one? Did you come across references to it in the things that you'd read?

A I don't recall. I can pull out my—

THE COURT: Is the report there? I mean, I think just giving him a title is a little unfair. If the

report—

MR. HEWITT: Well, the tab is there. If you want to turn to the tab to answer the question—

THE COURT: If you can—you can actually turn to the report itself.

MR. HEWITT: Certainly.

A I mean, I—no. I did not—was unable to obtain this in the last—this is 1981, --

Q Yes.

A -- it was fourteen years ago.

Q That's right. Okay. Can you turn to Tab 3, there's an Australian report called the Health and Psychological Consequences of Cannabis Use. Are you familiar with that? Did you have the opportunity to read that?

A I didn't read it but somebody I talked to mentioned this and quoted me a few things out of it—

Q Okay.

A -- as being a very good resource document.

Q Your understand it to be a good resource document? All right. Keep that in front of you. I don't know if we'll come back to that or not. Now, if I wanted to be asking you questions about, as an example, the effect of

marihuana as a carcinogen, do you feel comfortable and able to answer questions regarding the extent of the nature of health consequences of that kind?

A I wouldn't like to consider myself having reviewed the literature.

Q Okay. So, you're not sufficiently up-to-date on the literature to know exactly what the proper position is and what the various authorities have said on the topic, is that correct?

A That's quite correct.

Q Okay, and is the same true with respect to the psychological impact of marihuana use generally?

A I—I—well, I've got a pretty good view of what a summary—I mean, I read you out a summary and I've read articles in the past that have referred to that, so—but I'm not going to assert myself as being an expert in the psychological aspects of cannabis use or having reviewed the total literature on it.

Q Okay. So, if I wanted to get into the detail of a variety of different effects say on cognitive skills and all the different literature relating to it, that's not something that you feel comfortable getting into? That's no?

A No.

Q Okay.

MR. CONROY: It seems to me my friend objected to me tendering him as an expert in this area. So, I'd just like to make it clear, I'm not doing that.

MR. HEWITT: No. I'm not suggesting he is. I'm just trying to get a—

THE COURT: I think he's just trying to define the limits of—

MR. HEWITT: Of cross examination.

Q The same goes, I take it, for effects of marihuana use on psycho-motor skills. That's not something you've done sufficient reading on to—

A I'm not going to assert myself as an expert. I'm happy to read the summary documents that are produced by

such agencies as Health Canada, which I've already talked about.

Q Okay.

A Because my main focus of my—was to try and figure out what—can I actually find out what harm it's actually causing in British Columbia. That's what I was trying to figure out.

Q Right. Okay. You made some reference, I think, to the deaths that are known to have resulted from tobacco use and the effects on pulmonary functions, that sort of thing. That's been well-studied?

A For tobacco use.

Q For tobacco use.

A Yes.

Q It's, to your knowledge, been well-studied or not with respect to marihuana use?

A I'm not aware that it has been.

Q And I take it there would be some difficulty—I take it from your evidence there'd be some difficulty in differentiating between one and the other, or there could be?

THE COURT: One or the other what?

MR. HEWITT: Sorry.

Q The effect of marihuana use and the effect of tobacco use on—

A I think it would be very difficult to do a study on a population basis because what you've basically got to do is find a group of people who have been exposed to marihuana smoke compared with those who have not been exposed and when you're dealing with a substance which is illegal, it makes it more difficult—

Q Okay.

A -- compared with a legal substance, such as tobacco.

Q And your evidence, I think was clear, that any time that there is smoke involved, there's cause for concern from that perspective. In other words, the same health effects that we've seen as a result of tobacco smoke should be considered an obvious possibility also for marihuana smoke?

A I would agree with that.

Q And I think also in your evidence you said that there was no—perhaps you can just rephrase it without going to it. There was no—it was as if there was no minimal level of tobacco use that was considered acceptable?

A That was a direct quote out of the—this Annual Report this year.

Q Can you explain—yes. Can you explain what is meant by that? That was as a—let me just pause for a moment. That was as opposed to alcohol. You seemed to be saying that there was some levels of alcohol use that could be harmless but there didn't seem to be any level of tobacco use—

A Yeah

Q -- that you could say the same about?

A Well, when you're dealing with a carcinogen or something that causes cancer, we talk about whether it's got a linear relationship. In other words, do you get an increasing effect with the dose, which is in a straight line, or is there some sort of threshold which you could say it's harmless and that's what Dr. Miller is saying in the report. That there is no threshold which is acceptable to people who are exposed to environmental tobacco smoke because of the known carcinogenic effect and all the health studies that have been done.

Q There's no reason to think that even a small amount of tobacco smoke is harmless, is that—that's what that's saying, isn't it?

A We should—we must assume that small amounts are harmful. That's correct.

Q And it stands to reason that until someone establishes that there's a difference with marihuana smoke, that the same reasoning probably applies to marihuana smoke, is that fair?

A I do not know enough about the content of marihuana smoke but in a general—generally speaking, whenever you've got any burning substance, you do get a large number of chemicals produced, many of which may be carcinogenic.

Q Now, your office deals, as I understand it, generally with the more major health problems in the province, is that right?

A Yeah.

Q And things would be—come to your attention as a result of things like a crisis in hospitals would come to your attention, that sort of thing would be likely to come to you?

A We would address it if it was causing an adverse affect on the health of the population. As one health economist said, the health system is always in crisis.

Q All right. I understood you to be generally—well, I would expect that your office, like everybody else, is somehow limited by its resources. In other words, you can't cover every health issue and every health concern in the province every year, is that correct?

A That's correct.

Q All right, and it seems as if your focus is on things that are causing death or things that are causing sufficient injury to have people in the hospitals, is that correct?

A I think our focus really is on things that are causing a significant impact on the health of the population and for which there is an effective preventive measure and the evidence—the evidence for the harm is there and the evidence for the intervention is effective. That's what drives the thinking behind what we put in the Annual Report and the recommendations we make to the government, the Minister and the Ministry of Health.

Q The reports—for example, the 1995 report reflects some current issues of the day that people in your office think are the more significant issues, health issues of the day for the province?

A It's not just our office. It's an Advisory Committee that very broadly represents, hopefully, the—all the people in British Columbia or the health interests.

Q The report though tends to highlight some of the more significant issues at a specific point in time, in any event?

A Yeah.

Q It's not, by any means, intended to be exhaustive of the health issues in the province at any point in time?

A That is correct.

Q And it shouldn't be taken by anybody to be a suggestion that if it's not in this report, we needn't worry about it, is that correct?

A I would agree with that. In fact, there's a sort of limit to the amount that we can do each year and in fact, some people have suggested that even this report is a bit heavy going for one year. So, it's likely that in the future the office will address more issues one at a time as they seem to be important to the—for recommendations to be made.

Q In your evidence, you said that you had the opportunity to examine a number of documents before giving evidence here and one of them—or a couple of them gave you some idea of what the level of marihuana use was in the province currently and in recent years, is that right?

A Yeah.

Q Yes? What was the number that you understand to be an approximation of adolescent use?

A Unfortunately, I've given you—

THE COURT: Can you give him the exhibits.

MR. HEWITT: Oh, I'm sorry.

A I've given a bit of paper up but that was from the Adolescent Health Survey.

THE COURT: I think you filed it as an exhibit.

MR. CONROY: Exhibit 14.

MR. HEWITT: Exhibit 14. The McCreary Health Survey.

Q My note is 22 percent of Grade 9 students, 46 percent of Grade 12 students.

A Right. That was males and it was 21 for females and 37 for -- 21 for females in Grade 9 and 37 percent of females in Grade 12.

Q Okay, and I take it those numbers, at least, raised your eyebrows in the sense that it was a significant number and therefore, it made you wonder what impact, if any, that might be having on adolescent—for example, adolescent educational performance?

A Absolutely.

Q And if studies were brought to your attention in combination with those numbers to suggest that, in fact, marihuana use does have a negative impact on adolescent educational performance, that's something that might be of interest to your office, I take it?

A Yeah. If that sort of study existed.

Q All right. That's something—when you talk about the health of the province and the things that your office is concerned with, one of the significant ones, isn't it, when you talk about determinants of health, is that, for example, young people are sufficiently healthy to be productive and to be educated properly and that sort of thing?

A Yes. Absolutely, and what I would say is that I'm concerned about the usage, knowing some of the research about effects on learning and potentially heavy users. But the approach that we would advocate for is look at the determinants of health. Look at why kids may get involved in smoking, unwanted pregnancy, dropping out of school and marihuana use, etcetera and see if we can't do a bit more on the preventive side to strengthen the families. Look at ways of keeping kids in school, looking at ways in building self-esteem amongst children in order that they do not involve themselves in these different behaviours which are potentially harmful to their health.

Q So, those are all the things you might study if, as a result of some of the reading you've done recently, you decide that one of the issues you should look at is the impact of marihuana on teens. You would look at all those issues? Yes?

A Yeah, but we would look at it in the context of the determinants of health and other behaviours that they might be involved with. I don't—we probably wouldn't just look at it on its own because the chances are that we'd find that that was just one of the things that these kids were doing as they're sort of what you might call acting out behaviour.

Q So, you might be looking more broadly at teen development, or something like that, in a report? That's yes?

A And even the preventive aspect which is how can we get to improve early childhood education and family support so that when people—kids get to be teens, they make good behaviours for themselves—they make good decisions for themselves and they do not get themselves involved in risky sexual behaviour, unwanted pregnancy, risk accidents, alcohol, tobacco and marihuana.

Q Based on your knowledge, at this point, you're not able to say that marihuana is not having a negative impact on those sorts of things, on adolescent development and that sort of thing?

A From what I've read, the evidence is clear that it can interfere with learning and cause demotivation syndrome. So, I'm concerned about its use.

Q So, you may—it's a reasonable possibility then, you may well find yourself in one of your reports in the future, dealing with that issue?

A It's possible but I haven't had a chance to discuss it with Dr. Miller or our advisors about whether they feel there's enough evidence for us to put more time into this or, you know, if people in the educational system will come forward with something that tells us about it and whether there are preventive measures that we

would—or new kind of preventive measures that we would recommend. I think, from my knowledge to date, we would still recommend the same kind of preventive measures that we're recommending for a lot of other problems in teenagers.

Q Okay. So, the current state of knowledge of your office as of today, you don't have sufficient information to know whether or not you should investigate further and actually get involved in reporting on that topic?

A And whether it's important enough of a public health issue to put it as part of our Annual Report. Whether it's as important as unwanted—you know, teenage pregnancy or tobacco or alcohol use.

Q There was some discussion earlier in your evidence with respect to low birth weight babies. That was with respect to other topics but I take it from what you've said about how—what you're able to testify to, you're not fully familiar with the literature with respect to the impacts of marihuana on the birth weight of children?

A No.

Q And again, if it was brought to your attention that there was scientific evidence that marihuana use had a negative impact on the birth weight of children, that might be something worth investigating through your office?

A Yeah. It wouldn't surprise me because we know it, in tobacco smoking, that people who smoke in pregnancy have lower birth weight infants.

Q And it's, therefore, discouraged?

A Very much so.

Q And it's the—the fact of a low birth weight child, regardless of whether the weight is regained in the future or something like that is, in any event, considered a negative health consequence, isn't it?

A Yeah. The—I think for a baby that is carried to term, the fact that it's a few ounces less may not have any significant effect on their long term health, but where it does cause a problem is if the baby is going to be born premature and the mother is a smoker. Then the baby may be at much greater risk because of the effect that it has on the blood supply to the fetus.

Q All right. It's somewhat related, I just want to show you—

MR. HEWITT: If the witness, please, could be shown—this is the new part of Exhibit 5, the fourth volume. You can put back volume one. I'm sorry. I don't want to have things pile up in front of you. Any exhibits I've shown can go back.

THE CLERK: You said the fourth volume. I've only got three volumes.

MR. HEWITT: Oh, sorry. Third volume. The new one today.

Q I'll ask you to turn in that volume—

MR. HEWITT: I guess Your Honour wouldn't have your own copy of this, would you?

THE COURT: No, because you only filed one.

MR. HEWITT: I forgot to file one for you today. Perhaps I can pass up this one, although I've highlighted what I'm about to talk about but that's the only mark in the whole book. If my friend has no objection—I have another one here. I have two.

MR. CONROY: If you want, use mine and I'll share yours. No. I have two. I'll just hand that up and you can keep that, as long as that one marking isn't objectionable.

MR. CONROY: No. I have no objection.

THE CLERK: And you're referring to Exhibit 5, volume 3?

MR. HEWITT: Yes.

Q Have you got Tab 32 there?

A 32? Yeah.

Q That's a study called the Ottawa Prenatal Perspective Study, do you see that?

A Mm-hm.

Q Now, all I want to refer you to is the abstract. Perhaps I'll—and I'll read a portion of it. Starting almost halfway down the—sorry, the summary at the beginning. About the tenth line where it starts, "The results." It says, "The results suggest that in neonate state alterations and altered visual responsiveness may be associated with in utero exposure to marihuana. Global measures, particularly between the ages of 1 and 3 years did not reveal an association with prenatal marihuana exposure. However, this initial apparent absence of affect during early childhood should not be interpreted as in utero marihuana exposure having only transient effects for, as the children become older, aspects of neuro-psychological functioning did discriminate between

marihuana and control children. Domains associated with prenatal marihuana exposure at 4 years of age and older included increased behavioural problems and decreased performance on visual perceptual tasks, language comprehension, sustained attention and memory."

Now, I'm not, for a moment—well, you're not familiar with this report, I take it?

A No.

Q And I'm not going to suggest—I'm not going to ask you to evaluate it in any way or give an opinion in relation to it. My question though is with respect to the passage that I've read to you, is that the type of information, if you considered it to have some validity, that might have some impact on your work and on your report?

A I would interpret it as being one study which gives rise to concern. I haven't obviously had a chance to review the methodology about whether these are

valid—

Q No. Absolutely. I—

A -- conclusions but—

Q I'm not—I'm going to ask you—I know it's difficult, as a scientist, to sort of ignore that there's a study behind the comment and the only—but the only reason I refer to the comment is as a means of stating an abstract comment to you. If you—my question is, if you later were to follow up on that piece of information and determine that it had some validity to it, is that not something that would have some concern—or raise some concern for your office?

A It certainly would be an additional concern about pregnancy but the advice that the public health nurses and physicians give to pregnant people, that they should avoid all substances during pregnancy, whether it be alcohol, tobacco, drugs of any sort.

Q But the down the road impacts that are referred to in that study on the children as they get older, those you would consider when you consider the broad notion of health that you look at, those are negative health impacts of a society, aren't they? Even though it's an

impact on a person other than the one consuming, obviously.

A Yeah. From what it says here, it looks as though

this—that marihuana might cause long term affects on children's learning, etcetera, if taken during pregnancy but I haven't had time to sort of study about what the exposure was, except to presume that all the people took significant amounts. But that certainly—but it would reinforce the general message that one gives to pregnant women, is that, you know, the developing fetus is a very sensitive organism and people would be advised to avoid exposures to anything that could possibly have any harm and I would take it in that kind of context.

Q Okay.

A I'm not sure that we would do a special report because of this, because it wouldn't go against what the advice everybody should be getting in pregnancy now.

Q But if—well, as an example, if you were doing a report on pregnancy—or I don't know, health issues of women probably included a significant mention of some of the concerns during pregnancy, that would be a significant concern that should be raised from your perspective? That's yes?

A It might be added to the list of things that people are advised not to expose themselves to.

Q Okay. You won't need that exhibit any further.

A I would—I mean, I'm partly guessing here but I'm pretty sure that our public health nurses are teaching classes now, that if they are aware that women may be smoking marihuana during pregnancy, they would advise strongly against it, like they would with taking alcohol and smoking cigarettes.

Q Okay. Now, you had the opportunity to look at some information with respect to whether there may or may not be connections between motor vehicle accidents and fatalities as a result of cannabis use. You looked at some of that information in preparing to come here today?

A Yeah. It's something that I didn't feel that I had enough information on. As I pointed out, I didn't manage to get to the R.C.M.P. toxicology lab to find out

whether they had some information on that from the mortality point of view with criminal impaired charges or—and I—but I know that there has been some research done with airline pilots, for instance, in terms of measuring their reflexes and that type of thing.

Q Yes. There's a study written on that testing, among others. I took it from the report that you considered it an important function of your office—or a function of your office to be concerned about the impact that alcohol use would have on motor vehicle collisions. That was something that you considered in one of those reports?

A Yeah. Very much so and it's part of a recommendation this year to do with driver—establish a mandate, reassessment and treatment rehabilitation program for impaired drivers, is one of the recommendations out of this Annual Report.

Q All right. I take it that there's not—again, your office isn't sufficiently aware of information to comment one way or the other on whether or not marihuana is also a concern in the same way?

A It hasn't been brought to the attention of our office.

Q And you haven't investigated that?

A No.

Q And again, if studies are brought to you attention to suggest there's a clear cause and effect relationship between marihuana use and motor vehicle collisions, that's something that you'd take note of and perhaps want to consider in relation to some of these other topics, when you're talking about the alcohol effects?

A Yes. Right. And the kind of sources we would go to is to the police and reports and to I.C.B.C. Just determine whether they can give us any evidence to that effect.

Q And you've read enough to know that there's at least some problem in terms of evaluating whether that cause and effect relationship actually exists at this stage?

A From my somewhat limited reading, one of the difficulties has been it's often taken in combination with other substances and also the measurement is not that easily available to demonstrate.

Q I'm going to ask you—

THE COURT: All right. It's just a minute before three. If you're about to move on to a different topic—

MR. HEWITT: No. It's a good time for the break.

THE COURT: All right. We'll take the afternoon break at this time then.

(WITNESS STOOD DOWN)

(PROCEEDINGS ADJOURNED)

(PROCEEDINGS RECONVENED)

SHAUN HOWARD PECK, recalled, testifies as follows:

CROSS EXAMINATION BY MR. HEWITT continuing:

Q Dr. Peck, you—again, based on what you've said, I don't intend to ask you to give any evidence in any depth about health effects of marihuana use but from the—from what you have had the opportunity to read, I take it you will have noted the existence of some rather significant debates within the scientific community in relation to the existence or absence of a variety of different effects, is that fair, or have you read it in sufficient depth to notice those things?

A Yes, but like most medical science things, there is always a debate and it takes time to build a body of evidence that points to a clear relationship.

Q And during the time frame of a debate of this kind, there's frequently persons on both sides of the debate that would be considered equally competent and able in their fields, is that fair?

A Yeah.

Q And that's true of this—some of the debates in relation to marihuana? Are you able to say that or is that—

A No. I don't know enough about it.

Q Okay. Just with respect to that, I'm going to ask that you be shown that summary document.

MR. HEWITT: Exhibit 17, please. If Exhibit 17 could be shown to the witness.

Q I just want to be sure that I'm clear on your evidence on that point. I know that you referred to it as a summary of medical opinion as of 1989 in relation to cannabis health effects, is that right?

A Yeah. 1989 publication, Health and Welfare Canada, Licit and Illicit drugs in Canada. I—from a lot of the documents I read, I took this as a fairly reasonable summary of what is known.

Q Are you suggesting that that document contains a good and exhaustive analysis of the knowledge in the area?

A No. I wouldn't agree with that. I—but when anything is endorsed by Health and Welfare Canada, the expectation is that they've had some good scientists look at it and do a careful analysis of the literature that exists.

Q But it really—it only refers to some main points, doesn't it? It doesn't get into detail about a variety of different other things that show up in the literature in other places?

A All it does is summarize it in four paragraphs, the overall effects of marihuana with the references which were obtained.

Q Okay. That's all I want with that particular exhibit. You're familiar with the World Health Organization?

A Yes.

Q And you've had the opportunity to read their work at various times?

A Certainly on different subjects.

Q All right.

A They have produced useful documents and they certainly produce a lot of good data on the comparison of the health studies of populations across the world.

Q That's their function, generally, to do that sort of thing?

A I think one of their major functions is to report on the health of the world and they produce a lot of reports on the variation of the health status of different countries. That's a very important function. They also, from time to time, establish, you know, offices that deal with particular issues.

Q Okay, and their work, to your knowledge, is generally relatively well-respected in the scientific community, is that fair to say?

A I'm not sure that I look to them necessarily as a research organization. Sometimes you can get better research out of universities but they will tend to try and bring together the best experts around the world on an issue.

Q So, the people they bring together are generally highly regarded?

A Usually.

Q I just want to ask you for a moment about this harm control that you referred to several times. I just want to understand your evidence on—

A Harm reduction.

Q Harm reduction, sorry, and what that means. One aspect of it, I understand, is that you said and that you've read out of documents, is that there are certain approaches to be taken and are suggested to be preferable to some of the current mechanisms of control that are being used. Does that explain it?

A Yeah. I can't—when you look at the word harm reduction, there's a number of concepts that are part of that, such as, you know, providing needle exchange programs. Linking people to addiction services. Making sure that people's health is—access health services. Providing counselling to try and get people back into the workplace who've got a problem with addiction. Retraining. Providing legal—controlled legal availability of illegal substances, particularly heroin and cocaine—or heroin and methadone are the two which have been made sort of legally available. There's a lot of debate about whether you could do that with cocaine, actually. So, all those things are part of what is called a harm

reduction approach, where you're treating the individual more as a victim of the addiction, rather than as a criminal.

Q All right. So, is the suggestion that it is—do you go so far, when you refer to harm reduction, to suggest that it is exclusive of criminal law policy? In other words, it's never compatible with also having criminalization in existence?

A Well, where it's been—examples that are given are such as Merziside (phonetic) in the U.K., where there was an arrangement established with the local police that enabled people who were addicted to access public health clinics without them being subject to criminal proceedings. So, even though I think a lot of the drugs that were still officially illegal, there was some arrangement made to enable people to have controlled legal availability of methadone and heroin, although that has varied—switched to and fro in the U.K. I've heard, but the principle is trying to minimize the harm to the individual and also the harm that's happening to society as a result of the addiction. So, the individual doesn't have to involve themselves in crime in order to support their drug habit. That's all part of the harm reduction but there has to be controlled legal availability of illegal substances, in some cases.

Q When you talk about harm reduction, I take it you—you've said that you don't make recommendations that are impractical but I take it there also are—you're aware that there are always policy issues in existence that are beyond the ability of your office to take into account when you're recommending things, that's correct?

A Yeah, and we haven't been nearly as specific as Mr. Caine has in his report about what might be done. We recognize that some of the things that the Caine report recommends are going to take some years before they may be able to be implemented but what—we're very anxious to impart the concept of harm reduction rather than the kind of war on drugs approach.

Q So, you're suggesting that the concept ought to be adjusted and parliament and the legislators ought to—and the people of the country ought to come around and over time, adjust policies in relation to the issues, is that fair?

A Well, I think there's many people in the public health movement now who feel that it's just a question of time before an international basis—it can only be done on an

international basis because Canada can't do it on their own, that there will be some recognition that the war on drugs isn't working. That it's just resulting in increasing costs to society, increasing crime, increasing number of police, people in jail, excessive use of court time, etcetera. That is—that would be reduced if it—if a different approach was taken and I think the lessons of the 1920's and 1930's and what happened with prohibition is something that people are going to be revisiting. The people in the public health movement—and I'm certainly not alone in thinking this, feel that it's just—it's a question of time but it may take five or ten years before this can happen.

MR. HEWITT: I'm going to ask that the witness be shown Exhibit 13, that's the 1995 report. Do you have it before you?

A I've got a copy here.

Q All right. I want to ask you about one area. It's on page 104. It's something you referred to already. That's the chart with the percentage of admissions in relation to variety of different drugs.

A Yeah.

Q Cannabis, it looks like, is at 8 percent, is that right?

A It looks about 8 percent.

Q So, that means that 8 percent of the people who are presenting at hospitals for—and that's in relation to cannabis as the primary reason for their presentation at the hospital. Some problem associated with cannabis?

A Yeah.

Q Usually, some abuse or addiction related problem, is that your understanding of that figure?

A Yes. It's to alcohol and drug treatment agencies and treatment services which wouldn't necessarily just be hospitals.

Q Now, is that a figure that—obviously, the

alcohol—

A All those bar graphs should add up to 100 percent.

Q Right. And the 100 percent—the big picture 100 percent of people who are substance abusers, those—all of those situations across the board are of concern to your office in the sense of being one form of a health problem, is that right?

A Well, it's certainly placing demands on the health care system and obviously the individual who present themselves, it's interfering with their lives to the point that they have presented themselves for treatment.

Q So, it's—in addition to the strain on the health system, it's evidence of other problems that would sort of impact on society in a variety of different ways?

A Well, usually when people present for addiction services, it's because they've been caught for impaired driving or there's family breakdown or they've lost their job or—or certainly people have expressed concern that they are impaired and that's usually how people get into—it's interfering with their life in some way.

Q Right. Okay. That 8 percent for cannabis, do you consider that to be a number of any significance or cause for any concern?

A It's certainly of some concern. I was trying to figure out the significance of it. The reason I made the comments about—we have to—when you see that 65 percent of people present themselves with alcohol and you think well, what's the alcohol usage in our society. Well, it's huge. So, you're seeing—and then I say look at cocaine and heroin, which is a relatively small amount of uses and then cannabis, it seems that it's a fairly widespread thing. So, we might say that it's a relatively small proportion of the overall cannabis use but that's just purely hypothesizing on my part.

Q And it wouldn't make much of a difference, would it, from a health impact perspective, whether it was—whether it was 1 percent of the cannabis users who are having problems or whether it was 20 percent of the cannabis users were having problems. Isn't the significant number that it's 8 percent of the people who are presenting themselves are, in fact, presenting themselves because of cannabis?

A I think you need to examine in terms of percentage who are using. I mean, it's like saying what percentage of people who go downhill skiing get killed or injured. If it's a high percent, then it's a much bigger problem than it is—than if it's a very small percent.

Q Well, if 8 percent of the people who were getting killed in our society were getting killed because of downhill skiing, even if that was just a very small percentage of the people who ski, that would still be a significant health problem, wouldn't it?

A If it was 8 percent—but this isn't 8 percent of the people who smoke cannabis that are being admitted.

Q No, but it's 8 percent of the people who are presenting themselves with drug abuse problems or substance abuse problems.

A It's like saying 8 percent of the people admitted to the Lions Gate Hospital have been admitted there for skiing injury.

Q I'm sorry?

A It's like saying 8 percent of the people that are admitted to one hospital are there for skiing injuries.

Q Yes.

A It doesn't tell you—

Q Yes.

A It doesn't tell you how many people are skiing.

Q No, but that's what I'm asking you. It isn't that significant, is it, how many are actually skiing or how many are actually using?

A In terms of trying to figure out the magnitude of the problem, yes it is. I mean, let's say, for example, that we reckoned that there were a hundred thousand people using cannabis and that 8 percent—or this—whatever the number is, admitted themselves to treatment centres in B.C. The proportion of the number is a significant fact in trying to discern the burden of illness that that particular substance is causing.

Q Well, it tells you the burden in relation to the users but it doesn't—but the 8 percent number is the number that tells you the burden on the system, isn't it? It tells you how many people are presenting at hospital.

A It tells you it's 8 percent of the total number have been admitted to treatment services. Yeah.

Q Yeah, and that's where the real impact on the system is, isn't it?

A In relation to what other addiction people are being admitted for, yes.

Q Sorry. I don't understand the last—the real impact on the system is reflected here, regardless, isn't it, of how many people are involved in any of these activities?

A 8 out of every 100 people who are admitted for drug and treatment are admitted for cannabis. So, it tells you that.

Q Yeah. So, we don't—if the impact on the system is measured by the number of people presenting themselves in hospitals, which is certainly one impact, isn't it?

THE COURT: I'm having a little difficulty with the use of the word system. If you want to say precisely what the study is about, it tells you the burden on the alcohol and drug treatment agencies.

MR. HEWITT: All right. Well, --

THE COURT: Then you've got 8 percent. Is that a fair statement?

A That—I would agree with that, Your Honour.

MR. HEWITT:

Q And those agencies are one component of our health system, is that—

A They're one component. Correct.

Q And so all—the only point I'm trying to make in asking you to agree is that 8 percent of that group are complaining of the same thing. That is not something that ought to be discounted in the scheme of the health system, regardless of how many people are actually using it?

A I agree with you that it reflects the proportion of those who are accessing assessment, detoxification counselling and residential addiction services—

Q Okay.

A -- but I think it's important that we don't use it to give us any indication of what proportion of marihuana users are being admitted, --

Q Certainly.

A -- I think, the same with alcohol and the others.

Q Yes, and I'm just—I'm saying 8 percent is not a number that ought to be discarded as insignificant and not to be ignored from a health system perspective. That's true?

A Yeah.

MR. HEWITT: Okay. Those are my questions, Your Honour.

MR. CONROY: I don't think you're going to make it, Doctor.

A Oh. I'll get the next one.

MR. CONROY: His flight was at 4:45 by heli-jet, Your Honour. It would take a half an hour from here, so—

RE-EXAMINATION BY MR. CONROY:

Q My friend put to you the information you had from the advisory—or I'm sorry. He asked you about the reports and you mentioned that the information came from a broad group on the Advisory Committee people from all over British Columbia. Then he put to you that what was contained in the reports was not exhaustive of the health issues in British Columbia. So that if it was not in the report, that didn't mean that it wasn't something we should worry about. Do you remember that? Do you remember him putting that to you?

A Yes.

Q Now, am I right though, if the issue was a significant health problem, it would likely be addressed in one of your reports?

A I think I have to govern that by saying if it's essentially a problem that we feel that the government should be taking more action on because there is an effective intervention that can occur. If there is a significant health problem out there that the health system is currently looking after all right, we make not

report on it. I mean, we report on a number of people who die of heart disease but there's a very comprehensive system in place for the prevention and treatment. So, we haven't spent a lot of time talking about the prevention of heart disease.

Q But given the broad Advisory Committee and the sources throughout the province, am I right in assuming that if there was a significant problem, it would likely come to the attention of your office and if it was a significant health problem, it would then be reported?

A Yes, and particularly if it was something that—we felt that there was something that could be done.

Q Okay. My friend also then asked you—or got into usage rates and concerns with respect to usage. You said, well, part of the concern would be why people were using and you mentioned a number of determinants. Do you remember that?

A Yeah.

Q Now, you said you focused on the preventative side, strengthening families, building self-esteem and you gave a number of examples. In looking at that, has your office or does your office also look at the consequences of going through the criminal justice system as a determinant? And again, focusing on health aspects in the same way as self-esteem or strengthening families, these sorts of things?

A Well, certainly not recently but the health of people in jails is a very important public health issue which most public health authorities deal with that at different times to try and ensure that adequate health services are provided and rehabilitation, put people back into society from a public health point of view. Prevention of—we've addressed HIV infection in jails and have advocated for, you know, the free distribution of condoms, for instance and we've even advocated for the distribution of needles, although the people in the system don't like that very much because they can be used as weapons but—so that's one aspect of people in the criminal justice system that we have addressed.

Q But when you focused on a number of issues that you saw as effecting health, you mentioned self-esteem, strengthening families, the reports indicated poor or lower income families having more health problems. Have you taken into account, in some of these studies, the impact of having to be processed through the

criminal justice system? Investigated by the police, brought to court, perhaps pleading guilty, being found guilty, receiving a penalty, all of those sorts of things. I'm trying to put this in the context of this harm reduction—

A Yeah.

Q -- and all that you've talked about. Has that been a factor in terms of the determinants?

A Well, in going around the province and talking about the health goals which Dr. Miller and I have been doing, we point out that if you want to improve the health of the population, you need to look at reduction of poverty, education, employment, early childhood education and support. In those societies that have done that, they end up with less people in jail. You end up with less people involved in drug addiction and criminal activities. You end up with less teenage pregnancies and you end up with people staying in school and having better skills to get a job. So, that's the kind of stuff that we have advocated for very strongly and although we haven't reported on it, I certainly am aware of different rates of incarceration that occur in different countries that have different support systems.

Q Okay. Let me maybe put it to you this way. Later on, my friend said—or asked you specifically in terms of the harm reduction and you mentioned specifically Merziside as an example. You said the drugs were illegal but there was an arrangement made for controlled availability, so as to minimize harm to the individual and to society so that the individual wouldn't be involved in crime to support their habit and so on. Now, I took it and correct me if I'm wrong, that you were saying there that the enforcement of the criminal law exacerbated the situation and made it more difficult for the health—people involved in health to prevent health problems, am I right?

A Well, that's right but, of course, the things that—preventive health does not include just people in health. It involves the social system, housing, employment, education. So, if only a criminal approach is taken and the individuals are treated as criminals rather than put into a rehabilitative kind of program, then the crime is going to carry on and the crime needed to support the habit is going to carry on.

Q But you seem—

MR. CONROY: Sorry?

THE COURT: Maybe I can help because I'll let you know what I took from your original answer, was that police officers who are on the front lines, if they're going to be there enforcing and arresting for the infraction, are then unable to also deliver those people into the types of services that you hope will be made available for them, the people will stay away from the police, whereas treat the police as people who might be able to deliver the support services that—

A Yeah. I'm not sure that—whether the police actually have delivered people into treatment services but I think what my understanding is, that when places are set up like Merziside, there's an agreement between the service delivery people and the police that they won't come—the police won't come in and start prosecuting people for—because they may be involved in some criminal activity and also there's some agreement for making the drugs legally available in a controlled manner. We've had some experience of this even in the Capital Region where we meet with the police to ensure that we can continue our needle exchange program without the people being harassed. The police have come to accept that this is an important public health measure.

MR. CONROY:

Q And so the police are performing—changing their role somewhat and instead of looking to catch the people and then bring them through the criminal justice system, they are acting more as a friend to catch them and then assist them by directing them in a better direction where the health issue will be dealt with, is that—

A I'm not aware that the police have got around to the point of actually directing people into treatment but they've, in effect, stayed away from the treatment services to enable the people to get the treatment.

Q But the ideal then, I suppose, in terms of harm reduction, is having all of the agencies trying to focus on the health problem but the other side of that coin, if I'm understanding you correctly, is if they use the criminal justice approach, that exacerbates the health problem rather than helping it, is that right?

A That's right, because now opportunity is presented for that individual to improve their lives, which will reduce harm to the individual and to society because if there's

controlled legal availability, then they're not going to be involved in crime.

Q Okay, and similarly, another factor that arises from that is, as you've said—my friend asked you about pulmonary effects of tobacco use and whether or not you knew of similar information with respect to marihuana, for example. You said, well, when it's illegal, it's more difficult to assess. So, I take it from that, that the mere fact of the illegality makes it more difficult for health professionals to gather the data that they would like to gather in order to determine exactly what the problem is?

A I would agree with that.

Q And so as long as it remains illegal and is—not just illegal but—and it's enforced through the criminal justice process, it makes it more difficult for health professionals to determine exactly what the nature of the problem is?

A I would agree with that.

MR. CONROY: All right. Thank you. That's all I have. I'm afraid you won't make that jet, but thank you very much. That's all I have, Your Honour.

THE COURT: I'd like to give you some kind of immunity on your travels there, in terms of speed but I have no such—

A You mean if I get a speeding ticket—

THE COURT: I have no such power. Thank you.

A Thank you.

(WITNESS EXCUSED)

MR. CONROY: I do have Dr. Beyerstein here to continue and we can do that. I am going to ask the Court if we could finish a little bit early because we've asked the clerk if she could make copies of the reports that Dr. Peck provided us, so that you have a copy and we all have a copy even over the weekend. So, --

THE CLERK: Yes. I have requested from the registry -- there is another clerk available who could run copies but

I'll just have to wait until somebody does come, if you're not going to use them now, so that we can sort of stay within—not go into overtime.

THE COURT: All right.

MR. CONROY: Dr. Beyerstein, if you could take the stand.

BARRY LAINE BEYERSTEIN, recalled, re-sworn, testifies as follows:

THE CLERK: Please state your full name and spell your last name for the record.

A It's Barry Laine Beyerstein. B-e-y-e-r-s-t-e-i-n.

THE CLERK: Thank you.

THE COURT: You may have a seat, sir.

A Thank you.

EXAMINATION IN CHIEF BY MR. CONROY continuing:

Q Now, Dr. Beyerstein, what I wanted to do, to continue with your evidence, was to have you comment first of all on some of the materials that are contained in the Crown's Brandeis Brief. Have you had an opportunity to look at that material since we were here last time?

A Yes. I've looked through most of it.

Q Let me then put in front of you my copy of Volume 1 which has the table of contents and I have another—Volume 2, I believe, has the same table of contents. That, I believe, is Exhibit 5.

THE COURT: Could I—he's got a spare copy. Do you have Exhibit 5 there? Mine's upstairs. I'm sorry.

THE CLERK: There's three volumes here.

MR. CONROY:

Q Now, perhaps what we could do is start from the top and have you comment as we go along. The first report that's referred to is the report of the—and I take it that

is the Addiction Research Foundation, World Health Organization, scientific meeting on adverse health and behavioural consequences of cannabis use, 1981 by Fehr and Gallant (phonetic). Now, the first comment—or first question for you, I see it says 1981. Is that significant, in terms of all of the time that's gone by since 1981?

A Probably not. There hasn't been any kind of great breakthrough in the interim that would greatly change my opinion about this or about the issue in general.

Q Okay. Can you comment then on that particular report and anything that we should be aware of from your perspective in relation to that?

A Yes. By and large, it's a reasonable summary of the literature and it's couched in fairly cautious terms. For the most part, it doesn't really point to any smoking guns. There's nothing in there that justifies criminal sanctions for use of marihuana. There are things that a prudent person would take care regarding use in certain amounts and certain vulnerable populations and that sort of thing but it certainly doesn't point to legal sanctions as the way to get around the relatively minor problems that it puts forth. I think you'll note that this is one of the documents that national task force in Australia looked at very carefully and updated and relied upon and despite everything that's in there, they still came out in favour of a decriminalization policy for the country.

Q Now, when you say the Australian people, I take it you're referring then to the matter at Tab 3, Colin, (indiscernible) and Lemmon? Or are we talking

about—

A No. Hall is the one I was thinking—no.

Actually—

Q What tab is that?

A Number 3. Oh, excuse me. I'm sorry. Did I mishear you?

Q Yeah.

A Yes. I'm sorry. That is the one. I'm sorry. Yeah.

Q Okay. You said the Australians relied on the report of the Addiction Research Foundation, World Health Organization, Tab 1 and updated it, you said?

A That's right. They referred to it and considered its findings in their own deliberations.

Q And then you said the Australians concluded that there should be a decriminalization?

A That's right. This report that we have here is only one of a—I believe, a quartet. I think there were four volumes dealing with different aspects the national task force was asked to consider and one of those volumes was the recommendations. So, they said in light of everything that's in this volume, that we have in front of us, and the other two that they considered, we have looked at the possible psychological and social and medical dangers of this substance and we conclude that the law is doing more harm than the substance and therefore, we must reassess our thinking on this and they have recommended a—essentially, a decriminalization policy for small amounts of personal possession and use, they're recommending decriminalization.

Q With the kind of facts that we have here?

A On this document. That's right. In fact, both the Fehr and Gallant one and the Hall one, which are in the Crown's Brandeis Brief, were ones that went into the consideration of the national task force in Australia.

Q All right.

A The MacDonald Report, I guess we could call it for shorthand.

Q The MacDonald Report is the whole Australian task force, is it?

A No. It's one of the four that—it's the one that recommends the policy directions that they think they ought to institute in Australia, based on the scientific and sociological data in the other reports.

Q And that's the one that contains the specific recommendation—

A That's right.

Q Okay, and do you have that or do you just have information from the people who were involved?

A I have an executive summary of it but I don't think I have the whole thing. I might have. I can just check my files, if you like.

Q All right. Now, any other comment about the first one?

A No. That's—

Q How about the second one then, Gallant and Goldstein, Drug Policies Striking The Right Balance 1990?

A Yes. Well, that's an interesting paper. It appeared in Science and I read it when it first came out. It—if you look at it carefully, in its categorization of harms and that sort of thing, it actually puts marihuana closer to coffee than it does other illicit substances, in terms of addiction potential and potential medical problems. It actually begins with a statement that I support. It says that in a free and democratic society, the state should not interfere with people except when there is a clear and present danger to be overcome. They then go on and talk about various policies of decriminalization, legalization and the status quo and other intermediate things but they—they lump all the drugs together. The so-called hard drugs and soft drugs and—although, when they talk about marihuana, they put it on the low end of the continuum and they certainly decry the excesses of the drug war. They use words like hysteria to talk about the national obsession with the dangers that even the harder drugs are supposed to pose but they actually point out that all of this seems pale by comparison to the problems caused by alcohol and tobacco which are perfectly legal.

So, it's kind of a mixed thing there. They don't follow their own logic in many ways. They say that these things are potentially harmful but they don't really provide a lot of evidence of the harm, admit that it's not harmful in certain cases and then say we should continue the status quo. I find that to be self-contradictory.

Q So, at the end of the day, they recommend that things just continue as they are in terms of the criminal justice policy?

A They do—they do make some fairly positive comments about the Dutch approach, the decriminalization approach that the Dutch have made and that's another sort of inconsistency in the paper. They admit that there has been some good that's come out of that and of

course, the Dutch are well-aware of everything that's in this brief. I mean, they've read it. They contributed to it themselves and they're among the most savvy people in the world when it comes to studying these things. Their assessment of all of these things is that in the final balance, the medical, psychological and social consequences of marihuana use are not sufficiently bad to justify the harm that comes from a legal way of trying to control them.

Q Okay. Three is the—is part then of the Australian Government report. Any further comment on that?

A No. I think that's—

Q Basically what you indicated before is—how would you compare the Australian report to say the Ledane Report that we had here in Canada in 1972 or some of the other quite in depth studies? Is it a comparable document brought up to 1994, is it?

A I think that's a good summary statement and they concur with Ledane in terms of the benefits of decriminalization.

Q Okay. Next, Hollister. Health Aspects of Cannabis 1986.

A Again, it's a reasonable summary of the literature and I think we dealt with most of the things he raised in my earlier testimony when we raised the Zimmer and Morgan report which is a more recent attempt to go over the same things. So, again, I don't think there's anything in there that raises sufficient concern to justify the criminal sanctions for use.

Q And you would say that the Morgan and Zimmer report that we filed earlier is an up-to-date review of the same—most of the same materials as Hollister?

A It covers largely the same things. Yes.

Q Okay. So, Morgan and Zimmer are simply more up-to-date?

A That's right.

Q Next we have Pope, The Residual Neuro-Psychological Effect of Cannabis, The Current Status of Research, 1995.

A Yes. What they do in this paper is compare very heavy users—extremely heavy users, as a matter of fact, to casual users of marihuana and they find that, in this case, like most abusive use of things, that there are some negative things that can be measured in people who abuse as opposed to use the substance. But interestingly enough, when they compare these people in terms of social functioning, in terms of social or economic status and their functioning in society and that sort of thing, they find that even heavy users, despite these relatively minor differences in cognitive functioning that they point to, are really functioning in society about as well as the casual users.

Q Can you help us, is there a way of knowing where to draw the line between use and abuse, in terms of amount smoked or used or consumed, or is it possible to do that?

A I think it probably isn't, in terms of making some kind of absolute cut off because people are quite individually variable in this regard. Some people try any psychoactive substance and find they just don't like the effect and stop. Other people can use what can seem like quite high amounts and show no detrimental functioning at all. In our research, we've dealt with people in professions and in occupations that require a great deal of cognitive ability and sharp memory and that sort of thing, have been very high users and certainly show no detrimental effects at all but that doesn't mean that everybody could do that either.

Q So, when they compared the heavy users to casual users, you said extremely heavy users, I took it from that, that you put them into a category of abusers. Was I wrong or—

A I think that's right and in fact, we've introduced a document in our Brandeis Brief that is an article by Shedler and Block that appeared in the American Psychologist a few years ago and what that study does, which almost none of these other ones have done, is do what we call prospective studies. In other words, they started studying people in infancy, your toddlerhood, I guess to be more exact, long before any of them ever thought of trying drugs and then followed them through. What they found was that, first of all, in adolescence and early adulthood, people who were moderate users of marihuana were actually the best adjusted of the group. That the abstainers and the very heavy users were actually not as well-adjusted by the measures that they took as those who engaged in casual use

throughout most of their adolescence. So, the other nice thing that they were able to show was that even though the very heavy users were adversely effected on the measures that they took, they

also—it was a prospective study, so they could go back and say well, what were they like before they started using the drug. What they found was they were ill-adjusted beforehand and what they conclude in that study is that the ill-effects are, in fact, a consequence of—the—excuse me. The other way. That drug use is a consequence of the psychological maladjustments, not that drug use causes those maladjustments. They could say that because it was a prospective study, whereas all of these are retrospective studies.

Q Now, that particular article you're referring to, you said the defence Brandeis Brief, that was Shedler,

S-h-e-d-l-e-r, --

A That's right.

Q -- and Block and the article, Adolescent Drug Use and Psychological Health and Longitudinal Inquiry, American Psychologist, 1990?

A Yes. That's the one.

MR. CONROY: I'm going to, Your Honour, just hand you up a copy of the index to our brief which we hope to have in bound form for you by Monday, just so that you know what is in the brief.

Q Any further comment on the Pope study then?

A Other than that I know the author, Harrison Pope and I know that he also considers his findings to be insufficient to justify a criminal justice model of drug control. He told me that on the telephone just recently when I spoke to him.

Q Okay. The next one this is Woo, Influence of Marihuana Potency and Amount of Cigarette Consumed on Marihuana Smoking Pattern, 1988.

A Yes. This is a study that address the titration issue. Much has been said already about the fact there seems to be an increase in the potency of marihuana available on the market in North America and that this might be cause for some concern. The contrary argument is that

alcohol comes in various potencies as well. People don't drink as much distilled spirits as they do 5 percent beer, for instance, that people titrate their doses. What this particular article claims is to show that they don't titrate their doses but it's very interesting. If you look at the actual potency of what they are—what they're using here, it's a very, very low dose. There's a placebo dose and an under 2 percent dose which is a very low dose. They conclude that people don't smoke these two substances differently. That they don't increase the amount they drag into their lungs or hold it in longer or whatever but this, in no way, says that people smoking the heavier doses available, sinsemilla marihuana, wouldn't do that. So, it's not really a refutation of the titration thing, it's a—it just says if you use very, very low doses, people can't tell the difference and I'm not surprised at that.

Q The word you're using is titration?

A Titration. Yes.

Q And that is a word to mean that people will use a lesser amount of the substance in order to achieve the same level of intoxication?

A That's right. This is true with smokers of tobacco, for instance. That if you increase nicotine in a unit amount of tobacco, people will actually smoke fewer cigarettes. They take fewer puffs on the ones they do smoke. They leave bigger butts in the try and so on. So, what this says is with all psychoactive drugs that we know of, including tobacco, including alcohol, people have a desire in mind when they approach the substance. They want some kind of relaxation. They want some kind of sensory effect. They want some other psychological effect that they find pleasurable. Once they're aware of how much it takes of any given substance to achieve that, then they become quite good at increasing or decreasing their dosage to maintain a safe and effective psychological effect. So, if you then change the ground rules, as it were, you give them more potent stuff, whatever it is, they generally tend to use less of it and that's what we mean by titration. That they learn to recognize the psychoactive effects. They recognize when they're increasing, when they're decreasing and then they increase or decrease their amount used accordingly. That paper claims to show that that doesn't happen with marihuana but I think there's lots of other evidence that it does. I think it's an artifact of the low dose in the paper.

Q All right. Next we have McCorea (phonetic) and Aldridge, Cannabis, 1988, Old Drug New Dangers, The Potency Question. I take it, it's on a similar topic?

A Yes. I find this very ironic that it's in the Crown's brief because Aldridge and McCorea are two or the strongest advocates I know of decriminalization. I know them both personally and I can say that their views on this subject parallel my own. I saw them at a conference just a few months ago, as a matter of fact. Anyway, what they're essentially saying in that article is that there's a lot of hype about the fact that there's an allegedly increasing potency of marihuana available on the street but not much evidence that it's causing any kind of serious additional problems. That, as they're trying to argue, there's essentially a titration that goes on and when people get a more concentrated form of the drug, they treat it as such and don't increase their usage or even keep it (indiscernible). They'll titrate their doses, they're saying.

Q So, they support, in this article, the titration theory?

A That's—it's not quite aimed at that but you can certainly conclude that from that because what they're saying is, as Gallant and Goldstein said in their article that we discussed earlier, there's this sort of anti-drug hysteria and that's the literal word that Gallant and Goldstein used too, that blows the actual dangers of any of these substances well out of proportion. It's a kind of media driven frenzy that leads to unwise policies because people tend to go after mice with bazookas. It's not that big a problem to bring the big guns in.

Q You mentioned the media. Did you happen to—I've been told about this because I don't read the Vancouver Province myself, but did you happen to see a series of articles by a person—I think her name is Kathy Tate in the Vancouver Province of the last several months?

A I've heard about them but, no. I didn't see them either.

Q Do you not read The Province either?

A No.

Q All right. Let me just ask you. You said you know McCorea and Aldridge. Who are they and what—

A Todd McCorea is a psychiatrist in the San Francisco bay area and a man who's written extensively on the history of marihuana, a lot of the evolution of its usage in modern society and a lot on its positive effects as well as some down side effects of it. He makes the claim that a lot of people use marihuana safely and effectively and without harm to themselves or society. They find it an enjoyable thing that enhances their aesthetic lives and their spiritual lives and their social lives. Michael Aldridge is a PhD and he's the curator of—I think it's Hugh Ludlow Library in San Francisco. It's a private research library that is a tremendous resource for drug researchers and people interested in historical and modern information on all sorts of drug use.

Q You mentioned earlier that you also knew Mr. Pope, the author of number five, Harrison Pope?

A That's right. He's a professor of psychiatry at Harvard University.

Q Okay. The next article then is Jones, Drug Abuse Profile Cannabis, 1987.

A This one's a bit redundant with the others. It's a summary primarily for readers of that journal who would be clinical chemists as opposed to psycho-pharmacologists. It pretty much goes over the same grounds. It summarizes pretty much the same toxicological evidence. To my recollection, he doesn't really introduce anything new from the other ones we've already discussed.

Q Is that Reese Jones?

A Yes. That's right.

Q Do you know him?

A Not personally, no. I know colleagues of his but

not—

Q All right, and then number nine, Mason, Cannabis Pharmacology and Interpretation of Effects.

A Here again—I don't recall this one quite as well but what I do remember is that, again, it's another one of these summary articles, in this case, aimed at a different population. The readers of The Journal of Forensic Science, where that one appeared, would be

primarily people in the criminal justice system, in one form or another and it's an attempt to sort of summarize things. It relies fairly heavily on the Institute of Medicine report which most of the other people doing these summaries that we've talked about already have relied on too because it was a very big report. That World Health Organization one also was a source for much of that review, as I recall.

Q That one's at Tab 9 there if you wanted to glance at it.

A Yeah. It reviews the chemical constituents of the drug. In fact, that's one of the major things it talks about. Metabolism. The enzymes, to break it down. The metabolites, which ones remain psychoactive, which ones don't, what their ultimate distribution is. The pharmaco-kinetics of marihuana. Also, a lot of medical things on plasma binding and things of interest to people who would be doing quantitative analyses of cadavers and they may be interested in the drug content of the body or that sort of thing. Then it goes through and summarizes pretty much the same behavioural literature on the effects of acute marihuana use, which is while the drug is still active, when someone is still smoking it. Again, I think a competent summary of those effects on perceptual motor skills and mood and attention variables and that sort of thing. That's really about all they deal with.

Q All right. Number 10, Doherty, The Effects of Smoked Marihuana on Progressive Interval Scheduled Performance in Humans.

A Yes. This is a—the Journal of Experimental Analysis of Behaviours, a journal mainly read by the people who are interested in very esoteric research on learning. This is a particular study of a particular kind of reinforcement interval, you probably don't really

want—I mean, I'm happy to if anybody wishes me to expound but anyway, it—it's a particular technique that people who study human learning use to measure the ability to make estimates of time intervals, essentially. What they find is something that everybody else who has done marihuana research has found, is that on acute effects, when the drug is still active, people have a less accurate sense of time intervals and ability to gauge them. So, that's essentially in keeping with what all the other authors that we've talked about and have said on other grounds. I said myself when I summarized marihuana's acute effects in my first testimony.

Q Next, Hollister, Cannabis, 1988. It's the same Hollister, I understand, as number four?

A That's right. Leo Hollister.

Q Any comment on that?

A Here again, it's another fairly comprehensive review of the psychological, psychomotor and psychiatric and medical literature on marihuana. In the summary, he comes to the conclusion, in the abstract, -- here it says, "Cannabis appears to be relatively safe as compared with other current social drugs."

Q And are there any significant—the ones we've gone through so far and I've taken you now through the first volume of the Crown's material. Are there any particularly—particular things in there that you disagree strongly with, in the first twelve that we've gone through—first eleven, I guess, we've gone through.

A Not really. I think they're fairly accurate and detailed scientific summaries of individual cases of research and general review articles. In looking through them, I was particularly looking for some kind of smoking gun that I had missed in my own summaries of this literature over the years and—on which I concluded that the danger was not nearly sufficient to equal the high cost that the criminal justice systems intrudes on when it enters into this area. So, I don't see anything in here that would change my mind and I don't think that any of the authors would have said that that was the case either.

MR. CONROY: Okay. I note the time, Your Honour. It might be a good place to stop. I should tell you that I hope to have—I apologize for this business of not having one witness going right through but I've had to juggle in terms of people's calendars and so on. So, I'm hoping that we have Neil Boyd back here Monday morning to complete him in chief and Dr. Beyerstein is going to be here, hopefully, in the afternoon. Hopefully we can complete him in chief. The plan for the rest of the week, I had here a moment ago, is—and this, I'm afraid, can't be etched in stone because I've got some people coming some distance to try and be here. But my hope would be that we could finish Dr. Beyerstein, I think it was on Tuesday, Tuesday morning was available to Dr. Beyerstein.

A Yes.

MR. CONROY: And Professor Boyd is available in the morning a well but I don't think he's available in the afternoon. So, I'm going to be juggling around anyway, those two—

A I am available in the afternoon, if that would make it easier to put him in, in the morning, if it fits his schedule.

MR. CONROY: Okay, and that's Tuesday?

A Yes.

MR. CONROY: I also have—for Wednesday, I'm hoping we have Dr. John Morgan, who's from New York, who's going to try and fly here from Toledo on Tuesday night. He's testifying there on Tuesday and we'll hopefully have him in here Wednesday and out of here Wednesday, so that he has to be back teaching in New York on Thursday. He is one of the authors of that Morgan and Zimmer scientific review from Lindesmith Centre that we presented last time. The only other witness I hope to have is Dr. Al Connolly, who used to be with the—he was with the Narcotics Addiction Foundation of British Columbia from '71 to '74 and the Alcohol and Drug Commission in British Columbia through to 1981 and has testified extensively on these topics.

So, it will be a matter of juggling Professor Boyd and Beyerstein to enable my friends to cross examine them. Hopefully, we'll be able to do Dr. Morgan in a day and Dr. Connolly is available, I know, on part of Tuesday, if we need him and on the Thursday and that will probably be all the witnesses for the applicants on this issue. My friend then has a number of witnesses he's advised me of that he will likely be calling. I think it's a bit premature to say whether or not we'll get through them in the other two days that we have on the 20th and 21st, but hopefully.

THE COURT: You best be attending at the trial

co-ordinator's office, not necessarily today but at some point in time to book some additional time. This is still the Section 7 stage.

MR. CONROY: Yes. Yes. As you may recall, initially it was our view that we would only have to establish a prima facie case and let my friend do this but having changed my view on that, I see it as our obligation to try and persuade you that there is a Section 7 violation. So, we've had to go to a much greater extent and putting all of this material before you.

THE COURT: All right. We'll adjourn then until tomorrow morning.

THE CLERK: Next Monday?

THE COURT: Are you telling me you won't be here tomorrow? I have a feeling I will be.

MR. CONROY: I can tell you I'll be working somewhere.

THE COURT: All right. Until Monday morning then. I have an unfiled copy of Volume 3 of Exhibit 5. Do I get to keep that or—

MR. HEWITT: Yes, you can. I think you have 1 and 2, don't you, your own?

THE COURT: I have 1 and 2, yes.

MR. HEWITT: So that completes your set.

THE COURT: All right.

MR. CONROY: Thank you, Your Honour. I understand that we're going to be back in this courtroom, so we're allowed to leave—

THE COURT: All next week. Yes.

MR. CONROY: -- some of our piles.

(WITNESS STOOD DOWN)

(PROCEEDINGS ADJOURNED TO 1996 MARCH 11 AT 9:30 AM)