[Chairman: Mr. Kowalski] [10:02 a.m.]

MR. CHAIRMAN: Good morning, ladies and gentlemen. Welcome to the eighth day of hearings with members of Executive Council. Before we begin with the Hon. David Russell, I have just a bit of information to provide to you by form of update.

By now all members of the committee should have in their possession transcripts of all meetings to date. As well, you should have minutes of all meetings to August 30, 1983. You will recall that when we met with the Hon. Al Adair on August 10, 1983, the committee had requested that he circulate as soon as possible the annual report of the Alberta Opportunity Company for the year ended March 31, 1983. That was circulated to all members of the Legislative Assembly on September 6, 1983, as a request we made prior to the upcoming second meeting with Mr. Adair several weeks hence. As well, all members of the committee and all members of the public are now in possession of the quarterly report of the Alberta Heritage Savings Trust Fund to June 30, 1983. You should have that in your possession as well.

One of the interesting things about being chairman of this committee is that you have to deal with the scheduling of a lot of people. So we have issued a revised schedule, as necessitated by a minor adjustment. What we have done is put a note in your schedule that it's revised to September 12, 1983, so you should feel very, very enthusiastic about ripping up all the previous schedules and, if there are further changes, we'll put the date on which it's been revised to. It will contain all the meeting times previously.

There is one adjustment on this schedule from what your knowledge of the schedule was prior to receiving this document. If you look on Wednesday, September 21, originally we had the Hon. Larry Shaben scheduled to meet with the committee in the afternoon; that is, the p.m. of Wednesday, September 21. There has been cause for a scheduling change. He has now been moved from the afternoon of Wednesday, September 21, to the morning of Wednesday, September 28, 1983. That's the only change from all previous documents. Hopefully this will be the last time we will have to have a revised schedule.

We have with us this morning the Hon. David Russell, Minister of Hospitals and Medical Care. All members of the committee might wish to refer to pages 16 and 17 of the annual report, 1982-83. You'll note that in the report there is a listing of several projects that are under the jurisdiction and administration of the minister. One is Alberta Children's Provincial General hospital, applied cancer research, the Southern Alberta (Tom Baker) Cancer Centre and Specialty Services Facility, as well as the Walter C. Mackenzie Health Sciences Centre. The Minister of Hospitals and Medical Care also has under his jurisdiction one other project that has received funding from the Heritage Savings Trust Fund, and that's the Alberta Heritage Foundation for Medical Research Endowment Fund. Mr. Russell has also forwarded to Mrs. Davidson three major documents that were circulated to all members yesterday.

So at this point in time, Mr. Russell, we welcome you here. We would ask you to introduce the people with you and to initiate the discussion this morning with some overview comments. Then we'll proceed to questions from committee members.

MR. RUSSELL: Thank you, Mr. Chairman. The people I have with me to help me answer the questions are, on my right, George Beck, Assistant Deputy Minister of the department, for finance; on my immediate left, Joan Nightingale, special services planner from the department, who is here primarily to answer questions in detail of the cancer research program; and, appearing here for the first time, Dr. Lionel McLeod, president of the Alberta heritage fund for medical research. Members may recall that last year I was asked a question about the fund — it had never been questioned before —

and I was unable to answer. Because of that incident, I thought I'd better bring Dr. McLeod this morning. They are due shortly, under the Act which governs them, to submit their first report to the Legislature, but I thought this morning would be a good chance for members to perhaps ask some initial questions.

Of the projects listed in the annual report of the fund, the children's hospital in Calgary is now finished and is operative. They are now moving into renovating the old building and work is progressing well there, but there is no more heritage fund money scheduled for that project. Applied cancer research, of course, has gone through its initial five-year period and is into a second period of extension. The specialty services facility at the Foothills hospital in Calgary, which includes the Tom Baker Cancer Centre, is finished; it has had its official opening and, again, is a project that we're pleased to see is functioning well and won't require any more capital funding.

The Walter C. Mackenzie Health Sciences Centre is the major capital project still under way under this particular method of funding, and we've discussed that project at some length in this Legislature. I'm pleased to say that it's now well organized. Last year they spent about what they had projected they would — approximately $5 million a month — which, at the time given to me, I thought a very ambitious target. But they did make it, and things seem to be going rather smoothly there now. So I'm pleased to report on that.

Whether there are any more general comments is hard for me to guess at this time, Mr. Chairman. Although it's not listed here, the twin program of the applied cancer research — that is, the applied heart research, of course — has now been rolled into the annual operating budget of the department, and I'm sure all MLAs are aware of the excellent special cardiac units there are around the province and the variety of hospitals now operating on an ongoing basis as part of the Alberta hospital system.

So, generally, I would like to say that the projects that were launched when the heritage trust fund was launched under the responsibility of this particular department are going well. The first big ones are open and giving good service, and those that are still under way appear now to be well managed and proceeding without further difficulties.

MR. CHAIRMAN: Okay, then we'll move to questions in the following order: Mr. Notley, to be followed by Mr. Martin, then Mr. Nelson and Mrs. Cripps.

MR. NOTLEY: Mr. Russell, toward the end of page 14 of the University of Alberta Hospitals, Walter C. Mackenzie centre, [report] are these words:

> The turn-around in the economy which was not foreseen in the early part of the year is the reason why the escalation experienced on the initial contracts awarded is substantially higher than that on the work tendered near the end of 1982/83 fiscal period.

Perhaps you could expand a bit.

MR. RUSSELL: In other words, the initial experience in construction inflation that plagued this project is no longer there. Because of the turnaround — that is, the downturn in the construction industry — the final estimate for the building is now lower than the one I gave you last year.

MR. NOTLEY: I see. I guess one could read that both ways. I was a bit puzzled when I read it because you seemed to be indicating that things had shifted around for the better, and I hadn't been aware of that.

MR. RUSSELL: Well, it depends. It's where you're looking at it — better for the price of this project but not generally for the economy.

MR. NOTLEY: Just in terms of following that along, there's no question that the slowdown in the economy has been a major factor. But in terms of the changes that were put in place as a result of some of the difficulties that were uncovered, how are those changes working out? As I recall, during our somewhat extended discussion of this in the fall of 1981 there had been difficulties with change orders, for example, difficulties with the administration of the project. Perhaps we could have a bit of a report, Mr. Minister, on just what changes were made in the management of the project itself and how they have worked out in terms of the success, as opposed to the fact that the economy has turned down and almost any project is now coming in at a more advantageous final cost than would have been the case several years ago.

MR. RUSSELL: The main change was in administration, which was related not only to planning decisions but also matters of fiscal control. At the time the thing erupted as a matter of concern, both of those were pretty loose. For example, you had the architectural consortia taking a variety of instructions on a cost-plus basis from any number of people who were interested in submitting ideas. That sort of thing was going on. That was going on at a time when the inflation factor in the construction industry was running at two digits a year. Those two things compounded themselves and made them worse.

There's a gentleman called Gordon Pincock, who was very experienced in administering the hospital itself. He was on staff in the hospital and was also very interested in the development of the new project. He's been given the senior position on the hospital staff as the vice-president in charge of this. In addition to that, two former employees of the Department of Hospitals and Medical Care were hired by Mr. Pincock as project manager and assistant to the project manager. Those gentlemen both had a wealth of experience in managing capital projects for the government, and took their procedures and experience with them. Along with that, the contract with the architectural consortia was rewritten and renegotiated, and a cap was put on the consulting fee. A variety of other administrative check points were built in.

The net result is that the project, which was on a construction management or fast-track basis, was put on a much more orderly and tight system. This was done, of course, after a complete audit by the Provincial Auditor. So I'm satisfied now that the procedures are working well. The looseness in everything has been taken away, and the ability of a variety of people to submit ideas has been taken away unless they go through an organized way. There's one window which is open for people to get their ideas to the architects. So that's the nature of the kinds of things.

The other thing they had to do was get control of the number of change orders that were occurring because people were changing their minds. I believe that's been brought under control again, and you're not getting a number of change orders that would be unusual for a project of this size.

The last thing, of course, and I referred to this in my opening comments, was to set some kind of realistic spending target, because we had reached a point at one time where work had virtually ground to a halt. Although the Legislature was approving funds, they weren't being spent. When the reorganized team told me they thought they could spend at the rate of $5 million a month for the last fiscal year, I was very sceptical. In fact they spent just over $62 million. So they slightly more than achieved their target, and they did it in a well-organized way without any kinds of problems that were brought to my attention.

The implementation committee, which is a review committee established at the time Gordon Miniely was minister, is still in place. They're certainly satisfied by the way contracts are being awarded, the prices that are coming in, the decrease in change orders, and the acceleration of the spending amount.

They're now well into phase two. The commissioning and use of phase one has

started. Many of the beds are occupied, and many of the support service and administrative areas are being used. Phase two is a very difficult phase because it involves the demolition of a number of buildings, and moving of departments from one old building into another while something is torn down and started to be rebuilt. But for any of you that have been able to go over there and visit the site, I think you'd be pleased at what you'd see.

MR. NOTLEY: Just a final supplementary question. I gather the total now would be $419 million in 1983 dollars. Could we have an estimate as to what that will finally be when it's finished? And beyond that, because the lower rate of inflation is a plus in terms of getting better value for our public dollars, I think from our point of view the changes that were made in procedures are more crucial. Hopefully this downturn will not continue forever, and we are going to be building other capital projects. What guidelines, if any, have been developed for other larger projects stemming from the problems at the Walter C. Mackenzie?

MR. RUSSELL: I guess I should answer that in two parts, because we deal with capital projects differently depending on whether they're tendered and go out for a lump sum, fixed-price contract or whether they're larger and go by way of construction management or fast-tracking, or whatever you want to call it. We haven't had any problem with the first category, the fixed-sum ones, other than during the days of inflation, when you couldn't get contracts to come in anywhere near your latest estimate. We're now in a period where the news is going the other way. So we're seeing the other side of the pendulum, particularly in hospitals, where we're seeing these latest batches of smaller hospitals that are going out for tender all coming in below estimate, which is a nice change from what it was two years ago.

In the construction management projects, the kinds of procedures that maintain control, that I talked about, I think are now well known, at least in the hospital community throughout Alberta, as a result of the bad experience the Mackenzie health sciences people had. I don't really have any concern with any other project. The two that come to mind, the Rockyview hospital in Calgary and the Grande Prairie hospital in Grande Prairie, are going forward by the same method, with professional construction managers, a rolling budget, which is accommodated or adjusted for the inflation factor as it's re-estimated every three months. Those jobs are going well, and the package tenders are inevitably all coming in below estimates.

The only real unknown — and this is the one I always have difficulty with — is trying to guess ahead what the inflation factor is going to be in the construction industry. I've appeared in front of this committee before and been asked what the final price of the Mackenzie Health Sciences Centre is going to be and said, well, it could be anywhere from $450 million to $600 million. That didn't mean because the costs increased; it meant because the inflation factor has done that to the unspent commitment that's there. So this year, the figure is down from what I gave last year and reflects the current situation in the construction industry.

MR. MARTIN: Mr. Chairman, welcome back to the minister from his sojourn in Halifax with his friend, Madam Begin.

I'd like to follow along the same lines a little more specifically, so I can get a better idea of what's occurring. We're some $18 million difference from the budget last year to this year, and I believe approximately $12 million of that is in phase two of the building. Just in terms of budgeting, how we budget — for example, in Calgary we hear about the Saddledome going $16 million over, and there are all sorts of problems there and people looking into it. It seems to me, again, that $12 million from one year to the next is still a substantial amount of money.

So could you explain, or have somebody here explain, why it would be $12 million? I

know you've alluded to the fact that you're looking at different dollars with inflation, but I always thought that that was part of the budgeting process, and with the downturn it should be easier now.

MR. RUSSELL: What page are you on? I want to make sure that we're talking about the same $12 million.

MR. MARTIN: The page where they show the figures — the last page in this green book, where it has phase two. It says: Budget, April 1982, approximately $168 million, and then Budget, April 1983, $180 million.

MR. RUSSELL: Mr. Beck may want to go into more detail. That's specifically just the inflation factor for that past year, which I think was 4.5 per cent or 4.6 per cent. We're using the same factor as our Department of Public Works, Supply and Services is.

MR. MARTIN: Let me just follow up in terms of the budgeting, whichever factor we're using. Correct me if I'm wrong, but it's my understanding that when you estimate a project — and I agree that there was some difficulty in the boom times knowing where inflation would be. But is that not taken into consideration? For example, for the Saddledome they had a budget they were supposed to live with; they were supposed to take into account inflation, and hopefully that would still come into the budget. This is not the case here?

MR. RUSSELL: There are two ways you could do it. You've talked about the Saddledome. What they did there was try to get a global final figure for the thing. In a project like this, which has gone over a period of 10 to 12 years by way of planning and construction, it's very tough to do that through the economic cycles. So you project your commitments and your unexpended balance, and try to put a rolling or floating inflation factor against the latter, because obviously you wouldn't want to apply an inflation factor against the total price of the thing. So you have to allow for the funds that have already been spent.

I suppose it's a guessing science at the very best. There is a variety of professional cost consulting firms that our department uses. They probably have as good a knowledge of current construction costs as anybody. But with these project-managed facilities that go over a period of years, that I mentioned, you're almost working on a cost-plus basis. I should explain that by saying that as the different tender packages go out, you're locked into what you've already done and, if you're going to keep going, you're obliged to take the best price that you get at the time you let tender package number 45 or 46. So although you may have a final objective in mind, unless you do get a low price or you're able, if the price is high, to take it back and redesign and get it lower — unless you're able to achieve one of those things, you're obliged to go with the price you've got. So you're literally going on a cost-plus basis.

The theory in that is that it's got two advantages. Number one, because you're putting out several small tenders rather than one big one, you're involving a wider range of bidders and it's likely that you'll get a wider range of prices; secondly, instead of taking five or six years to get everything down on paper and put it out for one big bid, you can take the advantage of that planning time and get foundations, superstructures, and things like that up while you're still in the design stage. That's the textbook theory of project management. In a highly inflationary period, it's obviously a very tricky method of construction to use. That's a personal opinion that I just gave.

MR. MARTIN: Let me put it this way, then. What we're saying basically, other than the guidelines you referred to, is that if, for example, the OPEC nations tightened up and all of a sudden we had a shortage and a year or two down the line the price of oil

skyrocketed again, and that would have an upturn on our economy, we basically would have no control on that in terms of what we're doing here under this system. Our costs would again skyrocket.

MR. RUSSELL: I think that's true to a degree, and certainly we saw it happen in our Department of Transportation when the prices of crude oil and the heavy crude which is used in asphalt shot way up. The cost of building highways went way up, and that certainly wasn't within anybody's control. So you had to decide if you were going to pour money into the system or build fewer highways. We're looking at the same thing here, in a way. You can decide to keep going by pouring more money into a project or cut back on the projects, and we've done both.

MR. NELSON: Mr. Russell, I had an opportunity to go out to an activity during the spring session, and I didn't know the Heritage Savings Trust Fund was involved with this until that time. It doesn't seem to have been publicized too much. Maybe you could give us some background information on the $300 million, as I understand it, that's being invested in research for medical and scientific projects, as to what and how that is being utilized and possibly when we might receive a breakdown or report regarding the activities of this investment.

MR. RUSSELL: I'll let Dr. McLeod answer your question in detail. I only want to say by way of introduction that the $300 million is set aside as a special separate Act of the Legislature. It's meant to operate at arm's length from elected governments so that in future some government in different economic times can't shut the money tap off. It's meant to be administered by a panel of experts, and the income is to be used for what is called pure scientific or medical research. The reporting procedure to be used by that trust and its board of directors is laid out in the Act, and it's quite exact.

But I'm glad you asked the question, and I'd like Dr. McLeod to go into some detail.

DR. McLEOD: Thank you, Mr. Russell. I trust I can recall all the implications of your question, sir. Should I omit a point, please come back. I guess the general question is how we are doing. I'd like to think we're doing very well. As a primary goal, we have attempted to concentrate on the promotion of new medical scientists to the province of Alberta, their establishment within the province, putting funds into those positions such that they become highly competitive scientists in the national and international scene. To date, we have put approximately 60 people in place at the principal investigator level. That's the equivalent of half a basic science department of a modest medical school. So one might say we've added the equivalent of approximately one-third of a medical school to the province of Alberta through this research funding technique.

The second step in that process has been to try to establish opportunity for young people to do two things: to acquire some experience with medical research in order that they might make a career decision in favor of medical research, and then for those who wish, to have ample opportunity to pursue training.

Our report will be coming to you shortly. There are well over 200 young people now in training. In addition to that we put an almost equivalent number in fellowship training, further training following the acquisition of their degree. So we have a very significant body of young people in the province who are either in the initial stages of training or are completing their training.

That has probably been the largest and most dramatic alteration in the pattern of training in Canada. The two medical schools for instance — we don't deal only with the medical schools, but in terms of the amount of research moneys each spends, the two medical schools have moved from a very modest position in the Canadian scale of things to the point where I believe the University of Alberta Faculty of Medicine is now fifth in the country and Calgary, a much smaller and newer school, is now ninth, having come

from something like the 14th position in the country. So I think it's fair to say that the impact has been quite significant.

We've also attempted to try to assist the existing medical scientific community. They had long dry years. For instance, the opportunity to acquire modern scientific equipment, updating it, replacing obsolescence, and so forth was negligible for a period of something like seven or eight years. The Medical Research Council of Canada, the National Cancer Institute, and other agencies had largely discontinued equipment programs due to the shortage of funds in those categories. As a result, we've been swamped with requests for equipment. It's now beginning to plateau. Therefore we believe we've built up the base for the execution of medical research in that fashion in the province.

I suppose the other main thrust has been to try to enrich the general research climate of the province, both within the medical schools and within other faculties that are interested in medical research, by ensuring that there are funds for distinguished visitors from other parts of the world, ensuring that the research scientist of Alberta has an ample opportunity to visit and acquire new skills in other parts of the world. We've done that in a number of different ways, including such matters as conference support and so forth.

That, I hope, is a summary of where we're at. The Act requires that as soon as practicable after our third fiscal year we will table, through the minister, our third annual report, a so-called triennial report. We believe that will be ready in November of this year and will be presented to Mr. Russell at that time for transmission to Members of the Legislative Assembly. That will encompass the detail of our expenditures by program categories and all matters. At the present time the provincial Auditor is completing his review of our third fiscal year, so I hope that in November the detailed information will be available to you.

MR. NELSON: A supplementary, Mr. Chairman. With regard to the investment of the money that has been placed in the care of a board of directors, first of all I'd like to know if this investment is done at arm's length to the government, and where the investment stands now as far as how much money there is and so on.

DR. McLEOD: The funds are not held by the foundation and the board of directors. They are held by the government, in the heritage fund. We call upon those funds as we require them. They're not managed by the foundation; that is the component that is not at arm's length. I'm uncertain of the current status of that fund other than to make the point that it was impossible and would probably have been inappropriate for us to have attempted to expend the annual earned interest of the fund. As a result, within the Department of the Treasury we have accumulated unspent earnings. They were of the order of in excess of $70 million to $75 million. I don't know their actual status as of today. I understand from the Auditor that that information will be provided in time for our triennial report. But there are unspent retained earnings.

MR. NELSON: One further supplementary, Mr. Chairman. With the investment of a considerable amount of money in the research area, is there some return being seen or sought by those people who are doing research, through the development of various commodities, you might say, for the betterment of society? Can we see some return to the province, either in a medical sense or possibly in the development of specialized industries within the province?

DR. McLEOD: Let me try to answer that in two ways. With respect to the medical aspect, I believe there is now evidence that the foundation has had a beneficial impact. For instance, the depth and breadth of specialty care in the province has been increased by reason of the scientists that we have recruited to Alberta. Therefore the quality

control of specialty care programs, the direct contributions by these scientists to the specialty care programs as a part of their research or parallelling their research, exists today. That, I would think at this point, is limited in scope because clinical research has been the more difficult to develop. I anticipate seeing that having a continuing increase. So I suppose that's one phase of an answer.

The second phase or the question might be directed to the specific new research findings as they apply to patient care. If there are at this point, I am unaware that there are direct findings that one would apply immediately to patient care. I think I would be the most delighted person in Alberta if that were the case, because I believe that will be a slow process. The findings of an Alberta scientist may not be registered within Alberta. For instance, if a scientist in Alberta is able to clarify the mechanisms by which an infecting organism bothers a small child, it may be that that finding is carried on in some other part of the world and the return comes to us in a secondary or a third sense. I think that's true, of course, of all basic science research.

The third aspect of your question, I suppose, deals with this issue of transfer of knowledge and commercialization of new ideas. We have entered into considerable discussion with universities, because all these people at the present time are within universities. We have encouraged universities to look to this area. The chairman of the trustees, Mr. Eric Geddes, and I have visited a number of centres, trying to determine the best ways and means of encouraging that kind of development.

At the present time we are examining the question, I guess, as to whether the foundation itself should budget funds to assist in that process. We are uncertain of our role in that matter, because the medical research community in Alberta is not a large one. It was a very modest community, and the original objective of the foundation was to do its darndest to try to increase the scope of that group. So the answer at the moment to the last part, and a very important part, is that we do what we can to encourage those scientists to think long those lines. We have encouraged the universities to ensure that those findings have an appropriate place in Alberta. At the present time, we are looking to that final question: who should provide the extra funding that's necessary for that commercial development, and what role should the foundation play in that question?

MR. NELSON: I would just make a comment, if I may. Considering the significance and the importance of this program — it is a considerable investment administered by Mr. Russell — I would like to make a suggestion. Maybe this is inappropriate at this time. But maybe we should have something in this little booklet relevant to this, because it certainly is a positive development and we should expand that so the public and other people know that we have this in place.

MR. CHAIRMAN: Thank y~ v ry much, Mr. Nelson. Perhaps that would best fit the agenda when we come to discuss the recommendations of the committee. That will be forthcoming.

MRS. CRIPPS: Mr. Chairman, I guess my questions will be supplemental to Stan's. Anyone who has ever had a terminally ill family member who might benefit from breakthroughs in medical research has to really appreciate the medical research endowment. I guess I fall into that category.

Did you say that the fund is invested by the Treasury Department on your behalf?

DR. McLEOD: I don't have the background or the experience for the correct wording, but let me put it to you this way: the foundation and its trustees do not manage the endowment; it is managed by the government of the province of Alberta. We call upon the earned interest, as required, for our programs. That would be the best statement I might make on that point.

MRS. CRIPPS: Secondly, you said that you were setting up or — I understood it to be — inviting new scientists into the province. What about the scientists that were already here and were scrimping and saving for funding? Were they considered and were their projects given any kind of priority, or were all the scientists imported?

DR. McLEOD: That's a very good question. It is a point that causes us regular and, I would say, quarterly concern. The foundation, based upon the advice it received from the majority of local scientists and the internationally based council which we used for advice, recommended very strongly that we not enter into the so-called operating grant arena. That was done because it was felt that those people who were in the province at this time, those who had been unable to acquire funding, would benefit and acquire the help that they needed to become more competitive in the national scene by the infusion of new, young people — not necessarily young, but new people from outside.

I think that's beginning to take place. For instance, the amount of money that's coming to Alberta from outside is increasing, suggesting that the Alberta scientific community at large is becoming more competitive, as the jargon has it. There still are, however, some areas which trouble us. This policy is under continual review and will again be examined on September 24 by the council.

It's argued, essentially by the national and international bodies, that there are funds available if the Alberta scientists will spend the kind of time that's required to be competitive, will acquire the kinds of assistance that nowadays is required to become competitive; that the national agencies, while pinched, still are able to fund the vast majority of the projects with which they are confronted. The difficulty we have is the discomfort, that if there are local, provincially based operating grant programs, it will allow the referees looking at national programs a bias in not favoring the granting of funds to a scientist within the province of Alberta. I am unable to say whether that's an overstated apprehension at this point in time, but we have a fair amount of evidence that it is certainly one that is a reasonable cause for concern.

I might add that the Medical Research Council of Canada, the National Cancer Institute, and others have been most helpful to us in monitoring this, in trying to follow it along, calling to our attention where there may be growing difficulties. We may have to change our posture on this point in the future. As I say, it is under continuous examination.

MRS. CRIPPS: Maybe you could clarify for me what "competitive" is, in your answer to the other question. The second supplemental is in reference to Stan's last question, and that deals with the long-term benefits, or lack of, in medical research. It may take years before there's a medical breakthrough. Is there any mechanism to assure that the public knows what's going on with this endowment fund, in laymen's terms, to give an ongoing updating of the medical advances that are being made because of this enhancement of research in Alberta?

DR. McLEOD: Each granting agency has a series of programs along the lines that I described are held by the foundation. Scientists across the country make application in a format that has become worldwide in its nature. The applications, as we handle them, are screened and examined by a rather well-defined system. Firstly, there is a multidisciplinary group, a group of people from a number of different disciplines, which looks at the application for its general acceptability. It is then referred to what is called a peer review system, whereby people who deal specifically with the kind of project in question have an opportunity to critique it, to provide comment on its suitability, on whether the scientist is likely to be able to conduct that experiment, whether the experiment is properly designed, whether it is ethical, whether the statistics are in place, and so forth. That peer then provides a rating on the grant, weighs it out of 10 or five,

or whatever number that particular system uses, and a cutoff is established, whereby if someone has a grant that is reviewed by a series of people and the aggregate rating is less than six out of 10, it just simply isn't funded, on the grounds that it requires further improvement. That is the spirit of the competition that's held.

With respect to the long-term benefits, I obviously don't know when we will experience a breakthrough in that sense. I need not, I'm sure, tell you the difficulties in predicting those and the serendipitous way they sometimes seem to come upon us. I do know, from the experience of medical science, that the stronger the body of researchers, the more able they are, the more active they are, and the more vigorous they are, the more likely it is that one experiences those delightful times in science when new knowledge leads to a specific benefit.

I would like, however, to emphasize — and perhaps this comes more from my previous position than my current position — the importance of the presence of these people within our medical communities. They influence the quality of the teaching of the undergraduate medical student. They have a direct bearing upon the quality of patient care, especially in the sophisticated tertiary care setting, so that there is an inherent benefit that is ongoing in a chronic way, if you wish, in addition to that hope that perhaps there would be a major addition at any time in the course of the foundation's life. So there are the two kinds of benefits, and I would argue that we are receiving the benefits of the slower and more chronic but important kind at the present time.

Public knowledge and public understanding: it disturbs me that Mr. Nelson's associates are less aware of the foundation than they should be. We do try to co-operate with any group that wishes to discuss anything about medical research. We do attempt to co-operate fully with them. We have a newsletter which we're trying to put together in non-technical language. I think it's improving. It's not an easy chore to find the people who can move from the technical to the non-technical, but I think it's improving and I'll be certain that you have the next copy. I would accept any advice that I could receive on how to expand this aspect — for another reason, not necessarily for the benefit of the foundation. I believe that if our community is to benefit from this investment in a general sort of way, then our entire community needs to understand the process: how it works and how long it takes. I certainly acknowledge that.

MR. HYLAND: Mr. Chairman, my questions are related first to applied cancer research. Looking through that report, I note that, unless I missed some, it looks like the majority of the moneys spent in that research component are in the province of Alberta. I'm wondering if any money was spent outside for a project, or if there are any projects where there is a co-operation between people in Alberta and elsewhere, where they've found it beneficial to exchange information and try to come to some sort of a finding that way.

MR. RUSSELL: I'll let Joan Nightingale go into some detail. This program is administered through the Alberta Cancer Board, which runs the Cross hospital in Edmonton and the Tom Baker centre in Calgary, so it's understandable that the majority of proposals and support would go through that board to Alberta-based practitioners or students, and that equipment grants would be funded the same way. But I'll let Joan go into more detail.

MISS NIGHTINGALE: You're quite right. Most of the projects are awarded to researchers in Alberta. However, there is a personnel component of it, and any principal investigator in Alberta who requires assistance on a research project can apply for funds to import, if you will, a researcher or senior fellow in research who has particular expertise in that field of scientific endeavor. They come and work on their project for the total period of the award, and then move on to other jurisdictions.

MR. HYLAND: My second question is exactly the same thing, relating to the $300 million put aside for research. When you outlined what the programs were, it was kind of left open if there is any research that is taking place elsewhere, or where it's taking place elsewhere and working together with research done here.

DR. McLEOD: Yes, there are funds expended beyond the province of Alberta, in two immediate ways that I can think of. One, there are occasional students. These are people who would have a bachelor of science degree, an engineering degree, or a medical degree, who would plan to enlist in a graduate science program, a program leading to a doctorate in a basic science. If that student has sound accomplishment in his undergraduate degree, and if a faculty person from an Alberta university will support and sponsor an application for this individual to go elsewhere on the grounds that the experience elsewhere would be highly beneficial, would be unlikely to be acquired in the province of Alberta, then the review panels will look at that application. Some have been funded, such that there are a few students — there are two or three in Stanford University, one or two in the eastern seaboard of the United States, a couple in Toronto, and one in the United Kingdom.

Following the completion of a doctorate by an Alberta student who is taking his doctorate degree in an Alberta university, that student has done well, and if, again, there is a degree of sponsorship from an Alberta institution and that individual seeks stipend support for the furtherance of his experience in that discipline elsewhere, and there's not a commitment to return to Alberta but there's a reasonable belief that if the student continues to do well it would be desirable to recruit him back to Alberta, then that individual is also eligible for support. There are also opportunities for students to do graduate research training in disciplines where there are no programs in Alberta; for instance, in veterinary medicine. That's the student side of it.

We are looking at a program to try to enhance clinical research. As in all of North America, we've been very concerned by the small numbers of clinicians who are prepared to take training in research, and we are looking at a program whereby we might fund individuals to go away from Alberta to highly specialized centres to further their training. I believe that program will be instituted; it has great favor. So that would constitute a third area of possible expenditure outside the province of Alberta.

Finally, there is a very considerable number of Alberta scientists who collaborate extensively on clinical trial programs: the use of new drugs and new procedures, especially diagnostic procedures, et cetera. There is a fair number of Alberta scientists for whom we are funding stipends who are collaborating extensively with programs outside the province, and I'm sure we would all agree that it is very desirable that they do that.

I hope that answers the question.

MR. HYLAND: Thank you. My third question is related to the children's hospital. First, a comment. One of the staff at the Bow Island hospital had her little girl in the children's hospital, and she was very impressed with the facility and the care the child received there. In most hospitals, children are very anxious to leave and feel very uncomfortable when they're there. Not that her daughter didn't want to leave, but for the time she had to spend there because of her severe illness, she felt at home in that facility and received what the person thought was the best medical care possible, and sked that at some place and time I pass that comment on.

My qu stion is: is there any change in departmental plans, through the trust fund or other means, relating to the construction — and I know we've talked about this almost as much as we've talked about the Walter C. Mackenzie Health Sciences Centre — of a children's hospital in the northern part of the province?

MR. RUSSELL: At the present time, I can't see any change in the government's thinking. We have a number of opinions, from a wide variety of sources, which are inconclusive insofar as a need for a hospital goes. Even if there were to be a hospital and the funding available for it, there's a divergence of opinion as to how big it ought to be and where it ought to go. Frankly that's something that's had to go on the back burner for now because of the shortage of capital in both the heritage budget and general revenue funds for the annual budgets of the department. We simply haven't had anything that proves conclusively that a children's hospital is needed in northern Alberta, and have to have some concern about the number of empty pediatric beds there are in Edmonton at the present time. On any day they run about 45 per cent vacant, and at today's operating expense that's quite an investment not to have used.

So the commitment that was put out there, that we'd get the best advice we could and that if a children's hospital is needed it will be built, still stands, but there seems to be quite a variety of opinion as to whether or not it's needed.

MRS. CRIPPS: Mr. Chairman, we've asked questions of the other groups on the implications of the heritage trust fund projects on the provincial budget, so my question is: what is the ongoing cost to the provincial budget of the development of these major health facility projects out of the fund?

MR. RUSSELL: Awful. We've had a rule of thumb in the department that the annual operating costs of a hospital facility are about 40 per cent of the capital investment, and I'm afraid that our experience has shown that that's almost bang on. So the bigger challenge to some future government is going to be to find the money to run these things. Let us round the Mackenzie Health Sciences Centre off to $.5 billion. You're looking at 40 per cent of that every year to keep it open, and that applies to all the other facilities. It's a big impact.

That probably was the major item of concern and discussion at the recent health ministers' conference in Halifax, not only when we met alone but also when we met with the federal minister Monique Begin — the growing concern among governments as to how we're going to continue to fund the Canadian health care system that's in place. It's a problem that's getting worse each year and not better. So far in Alberta we've been very lucky.

MRS. CRIPPS: What would be the implications for next year's hospitals budget with the opening of these facilities? A couple have opened this year. Are they built into this year's budget, or will they be coming on stream in budget terms next year?

MR. RUSSELL: They don't come on bang, with a sudden spurt, when they're a big project like this. They're phased in. So you'll see, perhaps in the case of the Mackenzie Health Sciences Centre, parts of programs start to be introduced, parts of wards start to be opened so all the beds don't open at once. Even if you had the money, it would be physically impossible to do it that suddenly. So it's a growing thing, and the department estimates I bring forward each year reflect that. You'll see the rapidly growing cost of these facilities.

In response to what Mr. Hyland said — he talked about his constituent in Bow Island. I know the children's hospital gives good regional services for southern Alberta, but those have to be funded back into a per day bed cost to give us some idea of what those programs are costing. The children's hospital costs $1,100 per day bed to operate this year.

MRS. CRIPPS: I guess I've talked to you before about it, but I've spent a lot of time in the pediatric wing of the University hospital. I know the children get top medical attention and treatment there. If there's any place we're lax in those facilities in the

pediatric area, it's in admitting and emergency. That is god-awful. It's . . . I won't go into it, but it is, believe me. If we could do something about setting up separate children's admitting so children felt at home and the people that you met and talked to were familiar with children and pediatrics, you'd have far less hue and cry for an independent free-standing children's hospital.

You said that the vacancy rate in pediatric beds was 40 per cent. Do you have a vacancy rate in the adult beds in the Edmonton area?

MR. RUSSELL: That varies from hospital to hospital, but it would probably run somewhere between 15 and 20 per cent for the total hospital complement. That would include the pediatric beds that I gave. So your adult vacancy rate is far less.

MR. NOTLEY: Mr. Chairman, for a moment or two I'd like to follow up on a question Mr. Hyland raised on cancer research, and ask either the minister or his colleagues first of all to advise the committee what integration or relationship there is between some of the privately raised funds — we are going to have the Terry Fox run in a few days' time, and money will be raised right across the country. To what extent are there any formalized discussions between those who are entrusted with money raised from this kind of venture and the efforts that we undertake in the province of Alberta?

MISS NIGHTINGALE: Most of the researchers that I'm familiar with, as I read their progress reports, are engaged in research in several endeavors perhaps at once, or where they can't obtain all of their funds from the cancer grants. So they are concurrently being funded from either the National Research Council or the National Cancer Institute. I believe they compete for those funds on their own initiative. Does that answer your question?

MR. NOTLEY: Well, I wanted the relationship between anything we do and these others.

MR. RUSSELL: I believe this same question came up in an earlier year. The process for a person to apply for money goes through really two screening committees. Those committees are drawn from fields of experts who know the other sources of funds. It's on a competitive basis — and we talked about this earlier — so that everybody that applies doesn't get money.

The net result at the other end is the publishing of papers. In the appendix of this report you will see that to date there have been 192 or so papers published by recipients of those moneys.

It's like any other scientific class; it's a pretty close community. The exchange of information, although not on a formal basis, is pretty effective. I'm simply repeating what I've been told as a lay person.

MR. NOTLEY: My first supplementary question, Mr. Chairman, would be with respect to the question of where the emphasis is placed in our research. As I look through the various projects, we're dealing with research on cancer itself. To what extent is there a role for research into ways in which you might prevent people getting cancer? I'm talking about environmental research, this kind of thing: everything from better working conditions to the possible impact of sour gas in communities — the sort of larger question of preventive health care as it relates to cancer.

The minister properly points out the concern that we have in our health system about the cost of curative treatment of one kind or another. It seems to me that as we look at cancer research, one of the things that has to be emphasized is how we can, through environmental changes, et cetera, reduce the incidence of people getting cancer. What are we doing there?

MR. RUSSELL: The titles of some of the projects will give you a clue as to some of the things that go on, whether it's pre-screening or related to nutrition. I think everybody in this room knows that one of the biggest steps that could be taken is for people to quit smoking. We know that causes cancer, and yet people won't stop doing it. It doesn't do us any good to spend government money or pass laws to say quit smoking, because that's not going to do it. But that would be one of the biggest steps that we could take as a society: throw away those bloody cigarettes. Yet nobody will do it, so society picks up the cost. You don't need a bunch of researchers to tell you that, because that's been done. Obviously I'm one of those obnoxious people who used to smoke and has quit, so I can sound off like this.

Joan, why don't you add to what I've said.

MISS NIGHTINGALE: There is an effort to understand the risk factors. There have been projects funded to determine the risk factors in certain communities for women with breast cancer, for instance. Other efforts are made in terms of determining the risk that people who obtain certain types of cancer might be subjected to. There are epidemiological research projects that are funded to determine the incidence and regional nature of cancer. So there is a great deal of effort in that area, to add to the body of knowledge about why people get cancer and where they are at the greatest risk.

MR. NOTLEY: Just a comment. I don't always agree with the minister, but on the question of smoking I think that's probably a good point. However, I realize that some of these projects might be oriented towards prevention, but the bulk of them, it seems to me, deal with how we deal with people who have cancer. I don't pretend to be anything other than a layman. But I have heard people say that if there is any criticism of cancer research in North America, it is that it tends to be concentrated on what we do in alleviating the problem of people who have cancer as opposed to reducing the incidence of cancer, and that that is a serious error in our research in terms of public focus. With people here who are experts in the field, I think it would be useful to have some evaluation of that.

You mentioned several of the projects that are listed here. But in Alberta, I think we have obvious areas of interest; for example, the whole question of the impact of sour gas development on people and the incidence of cancer in certain parts of the province. The question I come back to is — no one should say we shouldn't have research into the problems of people who have cancer; that's an important part — should we in fact look at shifting the focus?

MISS NIGHTINGALE: If you read through a lot of the project titles, I think you will find that many of them deal with the identification or characterization of certain cells as they might be identified in cancer tumors. Very basically, in lay terms, cancer invades the body and effects a change in the cell growth, and it develops in an aberrant fashion. Much of the work that is funded in these applied research cancer grants concerns the identification of what happens in tumor changes. They are doing a lot of emphasis on the immune process as well, which is felt to influence the development of cancer, and in hormone receptors and in genetic changes in cell growth. Much of the focus here is in identifying just how the person's body is affected by the cancer.

MR. MARTIN: Mr. Chairman, I would like to return, if I could, to bidding methods. We have been talking about them generally, but certainly we've been talking about the Mackenzie area. I appreciate what the minister is talking about in terms of the cost-plus. I understand what they're dealing with.

I would like to ask the minister if this is the best way to go. I understand from what he's saying that you're looking at a long-term project. Over the length of it there are a number of years, and it's hard to estimate. Would it not have been possible, though, to

break it down, either by phase or specific projects in a year, where you could get away from the cost-plus type of bidding? From my experience with cost-plus bidding, it seems to me that it's almost guaranteed to overrun because the controls aren't there. I wonder if the minister could comment on that, and I ask him specifically if they looked into the bidding system, if there is a better way to do it?

MR. RUSSELL: Excuse me, I didn't mean to leave the impression that these project management types of buildings are being built on a cost-plus basis. I said the effect of sequential tendering gives you a cost-plus effect, and I didn't mean to say that we were doing it that way.

So in both systems, the fixed sum and the sequential tendering, you always get the ability to compare competitive bids and have a fixed price for a package of work. In the one case, a package of work is the whole thing. In the other system, the package of work is only the next step, so you're always building onto past costs and not having really much choice as to what you do with the specific step that you're at. That's the weakness of it. I described earlier the advantages. If I had to make a choice today, I would go for project management on the large projects. I'm guessing that you're still probably better off.

MR. MARTIN: Let me follow up and tie in two things by that statement. That cannot be done for different phases now, even at this point. I would ask if you could look at that.

The second thing: you indicated before, I believe, and it's in here, that you're trying to work with a final inflation figure of something like 4.6 per cent. I would point out to the minister, and ask if he can explain this, that in phase two — I know in the overall phase you're in that range, but just in phase two, which is the most recent one, I believe it is 7.1 per cent, which would be a significant increase. I wonder if he could explain that.

MR. RUSSELL: They do this. The inflation factor is checked twice. A year ahead, or at least at the beginning of a fiscal year, you have to guess what you believe inflation is going to be for the next year. So we would say, for example, to the Mackenzie health sciences people, you've got $200 million left to spend — you've committed the other $200 million in contracts already awarded — we're guessing that you're going to spend $60 million of that $200 million during the next fiscal year and that the inflation factor might be 10 per cent. So that gives us $66 million on that, so you now have $206 million rather than the $200 million. Then you do the arithmetic again and try to project the inflation for two years down the road — and three years, if the project is that long — and you come up with a final bottom figure which says that the final cost in today's dollars is estimated to be whatever the figure is. Then each year you can check with hindsight the accuracy of the forecast you made before. We're in a good news period now, because we're actually getting inflation at or near zero. But at the time the estimates were made we were estimating higher figures, and the reverse worked true earlier in the project.

The Mackenzie Health Sciences Centre is probably a Canadian classic of a project-managed scheme that was going ahead on that basis in the highest inflationary time, almost an experimental type of design, to house a science and an activity that is changing almost annually. So they got into a lot of trouble.

MR. MARTIN: If I could follow up, there's a second part to that question, and I want to get a last one in. So maybe I can do a double whammy here so that the chairman doesn't cut me off.

Have you looked at project management for the rest of it? You said that in retrospect, on the total project — is it possible to look at parts of that and change? The second part of it that I'll ask is: is there some discussion about phase three? I noticed

that in discussions last time, no decision was made at that specific time. I'd ask where that sits mainly because, as the minister is well aware, there is some criticism by certain people — I believe at the University of Alberta — that there wasn't space for research, and I take it that that was going to be part of phase three. That ties in to what we were talking about before in terms of research. So if I could, I'd ask that double whammy question.

MR. RUSSELL: On the matter of research, actually there are three things that have been asked for in addition to the research space. Those are all being considered separately and I expect very shortly, within the next few weeks or couple of months, to have a final answer to give on that.

MR. MARTIN: Would that be phase three or phase two?

MR. RUSSELL: That would be phase three, or at least we'd call it that for purposes of budgeting, because this is only two phases that we're dealing with now.

The interesting thing, of course, is that Dr. McLeod's foundation is now putting some capital funds into research space at both the University of Calgary and the University of Alberta. Whether that will affect the demand for hospital based medical research space is something I don't know yet. So that's another thing that's complicating it a little bit.

I've forgotten the first part of your double whammy question.

MR. MARTIN: Just that you'd indicated in one of the answers that perhaps in retrospect, you might have looked at a project management type of overlooking the building. Is it not possible at this point, in phase three or whatever, to do that?

MR. RUSSELL: You mean at Mackenzie health sciences? Yes, there's a project manager there.

MR. MARTIN: But you're saying that that wasn't there at the start?

MR. RUSSELL: No, the commercial project manager was always there. The project management within the hospital administration was very weak, and that's what's been fixed.

MR. ALEXANDER: Mr. Chairman, two questions perhaps. As I read the material and watch the progress of the research fund, it strikes me that the objectives of the fund are not perhaps as clearly or extensively defined as they might be on a project of this size. In the description and in answer to a couple of questions this morning, we have heard about grants to students, degree programs, graduate research training, attempting to enhance clinical research, publication of papers, and so on.

My first question has to do with whether the objectives of the fund and what it is attempting to do in terms of linking up with the world community to try to find some relatively short-term answers to the causes and cures of cancer — what part of the program is devoted to that kind of effort as opposed to the other things within the program, as described in the booklet, that just logically seem to be happening? In other words, a number of questions have been raised this morning about the impact of research done so far, what results might be forthcoming in the short term. But the program seems to be kind of going along, not illogically but not perhaps precisely defined in terms of its objectives. Could somebody describe as clearly as possible what the objectives of the fund are as described so far?

MR. RUSSELL: When you say the fund, are you talking about the $300 million medical research trust? I'll refer that question to Dr. McLeod then.

DR. McLEOD: Mr. Alexander, the foundation acquired an Act with objectives that are really fairly general but, I think, were considered by a number of scientific advisors to the government to be highly compatible with the flexibility that was probably required within the province. The development of medical research willy-nilly had to be based upon the existing resources and moved forward from that point.

The primary objective, at least as we hold it, is the development of — I think the precise words are — a balanced program of medical research in the province of Alberta. The best judgment that was given to the trustees from a great many sources both inside and outside the province was this remarkable shortage of committed medical research manpower, that the first step and the first phase of any reasonable development would be its enhancement. As a result, those programs which we described under studentship, fellowship, scholar, et cetera — really full-time medical research positions — were the foundation's response to what was perceived to be the greatest need.

I think it's fair to say that considerable progress has been made. As I mentioned earlier, there have been approximately 60 new medical scientists introduced to the province. That's a substantial number by any comparative base that one has. We hope that that number will increase to something in excess of 150. We're unsure of the length of time it will take to get there, for the simple reason that the foundation has taken the position of a granting agency and not an institution that performs research. One could be challenged on the rate of recruitment, or complimented as the case may be, were one responsible for the execution of research, but we're not. So at the present time, I think the consensus within the medical/scientific community is that the correct direction has been taken to try to achieve that particular set of objectives.

The criticisms, or those that are dissatisfied would argue along the lines of an earlier question; namely, should the foundation chose certain specific areas that it or society sees as of great priority? Environmental toxicology was mentioned earlier. The question of cancer is obviously on all our minds, especially as we get older, along with other matters. I think you have to be aware of the fact that there is a backlash in the system outside the foundation about focussing that particular kind of direction, in the sense that that's been tried a number of times, has not proven to be particularly successful, as the breakthroughs, the better findings, have basically come from well-trained capable people irrespective of their particular discipline.

So the argument of the moment is: develop this pool of people, make sure they're first class, make certain they are well-established so they can carry this process on, on an indefinite basis, and once that pool is reasonable for the opportunity of the province, then look into perhaps the expenditure of funds in specific areas. We may be approaching that area. That is the point I mentioned earlier that we hope to discuss this month with our international advisers.

I hope that's clear, sir.

MR. ALEXANDER: Yes, thank you, it is. Following on that, that seems to almost suggest an answer to my second question. Last week I was fortunate enough to attend a seminar in Vancouver at which one of the participants was a member from the heritage foundation in the U.S. One of the people at the heritage foundation was known as the vice-president in charge of the resource bank. The resource bank in this instance is what might be called a glorified librarian. It seems that one of the things that's happened with research funds worldwide has been that a great amount of money has been spent in areas which are complementary or duplicate each other. If you like, there are two solitudes out there and they're not touching. The resource bank idea is one which sets up a structure wherein a person's specific responsibility is to accumulate, find, and gain access to all other similar kinds of work being done in the world. It's a global kind of concept.

If such a resource bank approach, let's say, is not at the present moment under way

within this foundation, would that not be a constructive way to do two things: within the global community to build a quicker link perhaps to some short-term results, as well as making the other problems of people, the work they do, the linkage with other work of a similar type, pull together much more quickly?

DR. McLEOD: That's a very reasonable suggestion, and it was one that was hashed out at one point, especially at an early time when we thought we had a very large foundation. I think it's important to remember that while the $300 million is an enormous amount of money to me personally and the interest from that is remarkable, considering the total scope of funding that is available in other agencies, especially those that are nationally or internationally based, it seemed more appropriate to us to support that kind of development elsewhere, contribute to it if it seemed appropriate to Alberta. In the meantime it was part of the basis of the decision that we would provide for visitors extensively, that we would be prepared to assist publication if necessary; in other words, do the secondary kinds of things that would enhance the exchange.

It's also the reason we have within the foundation another set of programs, which I didn't mention for sake of time; namely, infrastructure programs to the universities, whereby we will provide additional funds to assist in the development of library materials but especially library collaboration with such centres as the National Science Foundation in Washington, where we hope that kind of resource would be more readily available and more extensive.

It's a very difficult question. I have to admit I was not in the foundation at that time, but my understanding is that it was decided that it was better for us to do that other level first and hope others would take up that resource bank approach. I'm interested to hear that there's some further active discussion.

MR. GOGO: Mr. Minister, I want to put a couple of questions regarding points that have already been raised, one dealing with operating costs of hospitals as they relate not only to the heritage fund project but hospitals generally, and then a comment and a question on prevention. I applaud your comments with regard to tobacco. Last spring we raised tax on tobacco in this province some 400 per cent. In a major way for those who view that as a revenue source, it's self-defeating in that it decreased. But in your department, I think it had very positive impact in that the decrease in smokers has been significant. I think Alberta doctors should be commended for their efforts in convincing people. Some 28 per cent of the girls and 23 per cent of the boys in our school system smoke, so obviously they're not consulting their doctors. Legislation, of course, prevents that if they're under 16.

It just seems, Minister, that we spend some 1 per cent of our resources on prevention in the health field and some 99 per cent on the curative process. It seems to me that if the heritage fund, through your department, could make a major impact it would be in the area of prevention. It's fine to hear your comments today as to what your druthers would be. However, when I look at what cancer research is doing, it really tells us where we've been. We keep studying and studying and studying, whereas you have just said that if we could only sort of bite the bullet and put some life style changes in place, we'd probably have a far more dramatic increase in prevention. As a consequence, that 40 per cent operating cost would decrease.

Dr. Lionel McLeod, former dean of medicine at the University of Calgary, is here. I'd like to have him hear the question on that point and maybe respond. It seems to me that if we're concerned about the future operating costs of the hospitals and those beds, particularly with those funded by the heritage fund, a change in attitude on the medical side — one looks with interest at the medical schools and the implications, I guess, of the utilization study that was done in Alberta showing the practice of Alberta physicians, which surely must come directly from the schools of medicine in the province of Alberta, not from imported doctors but those training systems we presently have in place. As

Emerson said, as I am so I will be. I look forward to Dr. le Riche releasing that document with that.

Minister, really the first question would be: could you offer other suggestions with regard to prevention as an alternative to continuing the 40 per cent of the operating cost?

MR. RUSSELL: I'm not sure what impact would be seen at an early stage if we had an effective program of preventative medicine because of all the other things that just keep happening. You mentioned the rate at which we're turning out doctors, the fact that health care is universally accessible, and all of those things. There are a number of ailments and accidents that happen to people that have nothing to do with their good intentions to lead a good and healthy life. So we will always need the system. Whether the system and the access to it is abused is a matter of current debate, and there are two strong schools of thought connected with that.

Some of the things you mentioned do raise interesting questions. Again, we discussed them at the recent Financial Post conference in Saskatoon, where the consensus of some pretty eminent educators in this country was that we're training too many doctors; not only that, but we're training the wrong kinds. The big health crisis that's coming at us is the problem of the aging, and yet we're not increasing our stock of geriatricians but we are of obstetricians, the hope being perhaps that 65-year-old ladies are going to have babies because of some medical breakthrough. I'm being facetious now.

But there are, I suppose from my point of view, a number of things that are obviously wrong with the system. I have some difficulty with people building up hopes about the effectiveness of a government-funded preventative medicine program. A lot of it is just plain common sense, and we've dealt with it in this building so many times: seat belts, safety at work, the abuse of alcohol and drugs, smoking, good dietary habits. I'll bet half the people in this room will tramp out and get on the elevator and ride up two floors instead of taking the stairs. They will go down two floors and have a plate of chips and gravy and some other junk for lunch, and then go home and wash it down with a good glass or two of Scotch. But they will drive to get home; they won't walk home. I'm being kind of superficial in my remarks, but so much of it is just common sense and based on what we know. I am not sure that government should even take on the challenge of trying to teach people common sense.

MR. GOGO: A supplementary question to the minister. Recognizing that there are some 85,000 or 90,000 claims at medicare every working day of the year and yet there are some 20 per cent of Albertans that never access the system, one could very quickly come to the view that the system is being abused. Yet one should note that only less than 8 per cent of Canada's resources, the gross national product, go to health care, whereas in America — for those champions of the American system — it's over 10 per cent. Frankly, I think we've made remarkable progress. I'm not saying there's not much more that can or should be done. It would seem to me that when we talk of heritage, we're talking about not only our past or our present but our future. There could certainly be many efforts made with regard to future Albertans who are in our school system today with regard to prevention.

It is my view that we should — and perhaps Dr. McLeod will respond — be looking at influencing young people in their life styles, which I happen to think is a public health or a health issue per se. Secondly, we seem to be so hung up on the curative process. I know of no funding in Dr. McLeod's endowment that deals with nutrition, and yet I think it's on very good authority that the future could well lie with regard to nutrition and eating habits. It just seems that we continue to pursue what's gone on in the past. We wait until we get sick and complain, and then we open all doors and try to fill all hospital beds with the curative process.

Dr. McLeod, could you comment as to what, if anything, is being done with your

endowment with regard to prevention, particularly with nutritional research?

DR. McLEOD: Yes, Mr. Gogo, I could try. You are engaging me in a very difficult field for a number of reasons, and it's the kind of topic which I would love to spend considerable time with you on. I accept its importance, but I also accept that it's a very difficult area.

At the present time, there are two people dealing essentially with nutritional research: one based in Calgary and one based in Edmonton. There are four different proposals that I am aware of that are in the mill, which I expect will reach the foundation this fall. One of them is an extraordinarily large commitment to nutritional research in the community at large. It is fraught with many difficulties; namely, the co-operation of citizens in providing information in a controlled climate, and so on and so forth. But we are very hopeful that it will come off.

The second answer to the question is that one of the most difficult problems we have, not just in Alberta but in any locale dealing with this particular problem, is that there are, perhaps because of the past, very few people who have had extensive training in the problems of designing experiments that deal with large populations of people. It's an exceedingly difficult thing to do. It's much easier in controlled societies, for instance, than it is in a society such as our own. But we are attempting to have one or both universities set up units that would deal with nothing else but advice to physicians, whether they're in Edmonton, Alberta, or Wainwright, Alberta, to design projects that might help in this particular venture.

That's the general situation. I think we're not there because of the difficulty in acquiring the right kind of people, because the numbers of young people who have been trained in research in those areas are few and far between. That may well indeed reflect the past focus of medical research.

Having said that, and speaking now only as an individual, I must confess to some discomfort. I have been through the phase in my life where I expected to be able to influence the educational system of my children and so on and so forth. I believe that's where many of the solutions lie. I think it's evident in parts of North America that there is now a very significant rate of decline in the numbers of people having malcardio infarctions due to hardening of the arteries. When you look at the basis for that finding — and it's a very definite finding in North America — it proves to be almost impossible to finger the particular issue or issues that resulted in that improvement. It may very well be that the interest of the media in communicating to society what conventional wisdom is with respect to diet, exercise, and so forth — a composite of things may be more important than the kinds of specific research projects that we can design. There are many more questions than answers in that particular field, but we do hope to make a significant contribution to that area in the next year.

MR. GOGO: Mr. Chairman, do I have a final question? I very much appreciate those comments, Dr. McLeod and Mr. Russell. I think Participaction has been extremely successful. I think we tend to get too negative sometimes.

I'd like to put a question to Dr. or Miss Nightingale — I apologize; I got the name from my colleague here, and so I hope I'm not out of line in using the name. It's with regard to cancer research. It would seem to me that although pure research is commendable and it's nice to know something about the accountant's business as to where we've been in terms of certain research projects and it's nice to study the potential for the future, it comes back to me that there are many citizens suffering from cancer in the province of Alberta. It's too late for a lot of these things. We're now dealing with the palliative thing, we're dealing with terminal and with a variety of things.

My question — and maybe it's not in order, but it seems to me that many cases have been made for the viability of, for example, using heroin in treatment as opposed to morphine. It's much more effective. There have been cases made and proven in many

U.S. states for the use of cannabis or marijuana for those who have gone through the nausea and sickness of chemotherapy, and yet it seems that we as a province ... I recognize we don't have the jurisdiction. So the question I'm coming to is: do the cancer research people look into that type of thing, and have they made recommendations to this government that we should be trying to convince the federal authorities, who are responsible for narcotic control, that we should be attempting to have those ties loosened, so that the suffering of these citizens may be made more bearable? Is that a fair question?

MR. CHAIRMAN: As you were able to bring cancer research into it, it'll get through.

MISS NIGHTINGALE: I'm not sure whether any particular researcher is studying the advantages or disadvantages of the use of heroin or other drugs. They do some work in palliative care: understanding palliative care and how they can alleviate the suffering. There are projects here that look at a lot of the chemotherapy and the effects of chemotherapy on tumor growth, and there have been some projects on pain control. But I'm not aware of any particular initiatives by the researchers in the cancer projects that are focussing on efforts to influence the federal government in narcotic control. Maybe Dr. McLeod can add to that, but I think there is some controversy in the literature and among the scientific community on the merits of heroin and other drugs.

DR. McLEOD: I don't think I could add more. I do believe there is conflict as to whether or not freedom or greater access to those medications would offer a significant advantage over the current concerns. I would only speak as an individual in saying this, but I think that probably the advantages that might be acquired by a more team approach to the control of discomfort in the palliative setting might be a greater advantage than specific medications. I believe there's some evidence that suggests that in the approach where you have differing disciplines dealing with those problems, perhaps the advantage is even greater.

MR. CHAIRMAN: That now exhausts the list of questioners I have before me. Would there be additional questions from members of the committee? Mr. Alexander and then Mr. Hyland.

MR. ALEXANDER: Not a question, but just before lunch to add to Doctor Russell's list of dos and don'ts: healthwise, it strikes me that some Canadian research somewhere also pointed out that it could be carcinogenic to ingest the equivalent of 400 pounds of saccharin per day. I might just add that to your list of don'ts as you head off for lunch.

MR. HYLAND: Mr. Chairman, I was going to move we adjourn.

MR. CHAIRMAN: We will in about three minutes. I'd like to discuss one item of business with committee members after I thank Mr. Russell and those people with him for appearing before us today. Hopefully, if all goes well, we'll all be back one year hence. Thank you very much.

To committee members: the revised schedule that was circulated today has an open date on it, Tuesday, September 20, 1983. I need direction from you in this regard. We've now basically passed the halfway point in terms of meetings with members of Executive Council. I think today we've now met with nine and we have eight more to go, minus one; I don't include Mr. Rogers in there. We have nothing scheduled for Tuesday, September 20. We do, however, have the important responsibility of looking at the area of recommendations that might want to go into the report. I wonder if I might suggest, and you give me your feedback, that perhaps on Tuesday, September 20, we schedule some time for an initial review of the recommendation process. If not, my only other

suggestion is that at this time we just simply cancel Tuesday, September 20. I'm open for suggestions, direction, and guidance.

MR. THOMPSON: Mr. Chairman, I think that's a very good idea and especially valuable for the chairman to get a feeling for what the committee's recommendations and feelings are. However, I hope that we could hold it in the morning, say at ten o'clock; some of us have other commitments in the afternoon.

MR. CHAIRMAN: Is that a general consensus of committee members that we would meet on Tuesday, September 20, ten o'clock to noon? It would be here. It may be 10:30, because I think some of us may already have to go to another legislative committee meeting that has been scheduled for 8:30 that day. But that would be the time frame.

Let's just book it in right now: 10:30 to noon. How's that?

HON. MEMBERS: Agreed.

MR. CHAIRMAN: Okay. Thank you very much.

MR. NOTLEY: We would discuss the recommendation process we want to follow?

MR. CHAIRMAN: Yes. That would be the initial go-around. Thank you very much.

The administrative forms are here. Mrs. Davidson has them. Please dutifully take care of that. We had indicated previously that Monday, September 12, would be set aside for in-depth reading of all the information that has been brought forward to the attention of committee members. So if you worked, consider it; if you didn't, don't.

[The meeting adjourned at 11:54 a.m.]