team already knew his blood type and any relevant personal medical information.

It turned out that Clinton's secretary of state, Warren Christopher, was the one who needed a doctor. Suffering discomfort from a bleeding ulcer, he spent a night at the Civic and flew home the next afternoon with Clinton.

Whenever VIPs come calling, Brunet coordinates with regional representatives and provincial officials to ensure that a hospital has been designated and placed on emergency notice. Plans became complicated this summer during the Queen's visit to Bonavista, Nfld. The town only had a cottage hospital, says Brunet, and that wouldn't do. Health Canada added a helicopter, which could airlift the Queen to nearby Gander, to its contingency plans, which also allowed for a team of paramedics and an ambulance.

Things became even trickier late last year when hundreds of VIPs converged on Ottawa and Vancouver for separate international conferences. The Ottawa meeting to sign the global treaty banning the use of land mines attracted foreign ministers from well over 100 countries, and they not only had access to physicians but could also call on dentists and an optometrist.

The Vancouver meeting of the Asia-Pacific Economic Cooperation Forum involved 18 heads of state and at least 14 of the leaders, including Clinton, were designated high-security VIPs. Each one had a personal physician assigned around the clock, and until they left their entourages always included an ambulance. A medical clinic that operated 12 hours a day was also set up at the Vancouver meeting. — © *Christopher Guly*

Diabetes threatening young native children

An epidemic of non-insulin-dependent diabetes (NIDD) in First Nations' adults in central Canada is now affecting the health of aboriginal children as young as 6, a Winnipeg pediatric endocrinologist says.

Dr. Heather Dean says she started to see First Nations' youngsters with NIDD in the early 1980s. "It took me quite a while to realize that this was not type I diabetes because it was appearing in such a young population," she said.

Indeed, Dean said her original pa-

Action needed on ozone layer, auditor general warns

Canada's auditor general, who usually comments on federal finances, took an extraordinary step in December when he chastised the federal government for ignoring the growing health threat posed by a thinning ozone layer. He also said that many Canadians don't even take simple precautions, like using a sun-screening lotion, despite the potential danger. Canada is considered to be at severe risk because the thinning ozone layer has been most noticeable over the Arctic. An audit conducted by Denis Desautels' department found that Canada's efforts to protect the ozone layer "have lost momentum." So have Canadians' efforts to protect themselves by using sun screens and taking other precautions — the auditor's report said half of Canadians do not protect themselves adequately from ultraviolet radiation during leisure activities. The report also criticized federal departments for failing to take the lead in eliminating the use of ozone-depleting substances.

Jeanne Simpson

The thinning of the ozone layer hold serious implications for Canada's physicians. "Because of its northern location, Canada is one of the countries most at risk from the harmful effects of ozone depletion," said Desautels. "It is believed to have played a role in the 300% increase in the rate of melanoma cancer between 1969 and 1992. In 1997 it is estimated that 61 000 Canadians will develop skin cancer and 3200 will have melanoma."

The annual auditor general's report usually casts a close eye on examples of government waste. In entering the ozone-depletion debate, the federal agency said that even though this is considered one of the most serious health threats humans have ever faced, "the federal government has failed to live up to its own commitments to lead by example in 'greening' government." The report concluded that Ottawa should attempt to develop effective strategies and work closely with the provinces to help deal with the problem. — *Patrick Sullivan*

per on 12 aboriginal children with NIDD was rejected by medical journals because reviewers felt she had not eliminated the possibility that the disease was simply early insulin-dependent diabetes, which is common in both aboriginal and Caucasian populations.

"Type II diabetes is not found in the youthful Caucasian population, so it took a long time for me to convince the medical community that these aboriginal kids were indeed suffering from the type II form of the disease."

In 1990 Dean and her colleagues made a presentation on the subject to the Canadian Paediatric Society, and this was followed by a paper in *CMAJ* in 1992 (Dean HJ, Mundy RL, Moffatt M. Non-insulin-dependent diabetes mellitus in Indian children in Manitoba. *Can Med Assoc J* 1992;147:52-7). "Since then many physicians in Saskatchewan, Manitoba and Northwestern Ontario have reported increased experience with this new problem," she said.

Dean said the number of cases is small — about 75 young patients have been diagnosed with NIDD since the mid 1980s — so the optimum management is unknown. "None of the drugs licensed for use in adults with type II diabetes are licensed for use in children, so safety and efficacy have yet to be proven in the pediatric age group," Dean said.

Furthermore, she said researchers haven't studied children with NIDD for sufficient time to know the long-term prognosis. Dean expects that their future may be bleak. One of the children she diagnosed with the illness, who is now 23, has already developed chronic renal failure, is receiving dialysis and is almost blind.

"An illness that normally causes macrovascular disease in the late adult population may cause more microvascular disease in this population earlier," she said. Dean said 1 child aged 6 has been diagnosed with the illness, but most of the pediatric patients are females aged 10 to 14, indicating that the disease may have a gender bias. "We also know that if an aboriginal mother has diabetes during pregnancy, there is a higher risk her offspring will develop diabetes at a younger age."

Dean said First Nations' leaders are taking the problem seriously. "They are working with rural physi-

BC to establish Canada's first genome-sequencing centre

The British Columbia Cancer agency is establishing the first gene-sequencing centre in Canada and one of only a few in the world. Dr. Michael Smith, the Nobel Prize laureate from the University of British Columbia, will serve as director.

The centre, which will open next summer, is the cornerstone of the agency's ambitious new millennium campaign. Over the next year it hopes to recruit up to 40 scientists to work in 3 main areas of DNA research: computer-generated data, mapping, and cloning and sequencing.

The appointment of Smith, who will return to Vancouver from sabbatical work at Seattle's University of Washington Genome Centre, is expected to attract Canadian scientists currently working overseas to key leadership positions.

Smith says that as well as strengthening knowledge about cancer, the centre's work will also be "fundamental to major advances in all areas of medicine." Additionally, he says, it will "attract activity in the biomedical research sector and in industries, encouraging companies to work here and take advantage of the technology and information that will be developed." BC's burgeoning biotechnology sector and its forestry industry are expected to benefit from the research.

Dr. Michael Smith

Once established, the centre will collaborate with laboratories in France, Germany and the United Kingdom in the Human Genome Project, which hopes to complete the sequencing of the human genome by 2005, a goal that Smith feels is "achievable."

Started 10 years ago, just 1.5% of this task has been completed. Ultimately, the gene-sequencing work will enable researchers to read gene structures of single cells and identify specific cell changes that are harbingers of cancer, thus creating new possibilities for effective early detection. Through these advances, the agency predicts that all aspects of cancer control will eventually undergo fundamental change.

Funding for the centre will be provided entirely by donations, with $10 million committed so far. The centre's first phase is expected to cost $13 million, and the final bill will be $25 million. Annual operating costs will total $3.8 million. — © *Heather Kent*

cians to disseminate information on how to combat the onset of the disease through such things as diet, lifestyle and awareness." — © *David Square*

Complexity of problems changing face of adolescent health care

School problems, family breakdowns and other stresses take a high toll on teenagers, the founder and director of the Teenage Health Unit at Montreal's Jewish General Hospital says. Dr. Michael Malus says half of all visits to the clinic involve psychological problems such as anxiety, depression and suicidal tendencies.

Sexual issues are also a major concern among adolescents. Malus says that when clinic staff visit local high schools to answer anonymous written questions, half the questions are about sex. "Teens are the second most sexually active segment of the population, after 20- to 24-year-olds, but they get more STDs, they use fewer condoms, they combine sex with alcohol and they are a 'surge' group for AIDS."

Malus says family physicians need to address sexual issues with these patients. This can be difficult when the doctor has known the entire family for years, but "if you ask their permission to discuss their sex lives, teenagers are often eager to ask questions."

His unit, which grew out of a 1985 research project into the delivery of health care to adolescents, gets several thousand visits a year. "When we visit schools, we hand out cards with a 24-hour number when we leave. We tell teens they can come to us if they don't have another doctor, or if there is an emergency at night or on weekends." The hot line currently receives about 3000 calls a year.

A walk-in clinic is held early each morning and evening, allowing teens to raise topics ranging from drug-related issues — these account for about 5% of visits — to a variety of medical problems such as acne and sports injuries. Thirty percent of patients have concerns related to sex, including contraception, STDs and abortion.

Confidentiality is stressed. When a parent accompanies the patient, the doctor sees the parent and teen together, the adolescent alone, and then both together again. Malus suggests that "this is something physicians should start when the child is about 11 to 13 — ask the mother to leave the room for a few minutes and let the child know that he or she has private access to the doctor." — © *Janice Hamilton*

Nova Scotia town tackles teenage-sexuality issue

Art Pope, the mayor of Kentville, NS, made headlines last year when he told his town council that he was distressed by the number of young girls in his town who were having children. He wondered if the town should get involved in educating its young people.

Pope probably wasn't aware of a program in Amherst, another small Nova Scotia town, when he made his comments. That project, run by the Amherst Association for Healthy Adolescent Sexuality (AAHAS), is an innovative program involving researcher Dr. Donald Langille, a faculty member at Dalhousie University. Designed to address adolescent health issues, the community-focused project is attempting to improve the sexual health education and other services available to Amherst's young people.

The 2-year pilot study, which receives funding from the National Health Research and Development Program, has enjoyed strong support from parents, teachers, the media, town council and religious community. (A Baptist minister has chaired the board that helps coordinate the project's activities.)

Teachers, parents, guidance counsellors and students are participating in a review of the sexual health curriculum in order to improve education programs, and communication workshops are available for parents.

Amherst's pharmacists and physicians are also working together to produce accurate and "user-friendly" information about contraception for young people, and a teen health centre has opened in the Amherst Regional High School. It provides general health education and services, including pregnancy testing and information about contraception, and distributes condoms. Local physicians provide the centre's referral service and volunteer time to support its operation and help develop its policies.

Public response has been positive. Surveys indicate a high level of awareness and support for AAHAS activities. There has been little public criticism, and the consensus appears to be that Amherst residents believe better sexual health education will help adolescents make better choices about sexual issues.

The project has pinpointed a number of significant problem areas, including the need to respond appropriately to the serious health and social issues associated with high-risk sexual activities among young people. Every year, 4% to 5% of Nova Scotia females aged 15 to 19 have pregnancies that end in delivery, miscarriage or therapeutic abortion. These data have been a major impetus in designing the project's objectives.

Langille says the success enjoyed by AAHAS should serve as a valuable lesson to those who decline to take action on controversial issues because they fear public resistance. — © *Dorothy Grant*