

radiation therapy, radiology and nursing.

### Radiation therapy

Radiation therapists are the technicians who administer radiation treatments and monitor patients during procedures. More than half of all cancer patients receive radiation treatment, and a shortage of therapists is one of the main reasons for long waits for therapy and the transfer of patients to US centres.

There are currently 980 radiation therapists in Canada, according to Canadian Association of Medical Radiation Technologists (CAMRT) membership data. CAMRT maintains that over 240 more therapists are needed this year (Table 1). Audrey Lawrence, Director of Education at CAMRT, explains that in the mid-1990s government downsized training facilities. Although these schools are now being reopened, they have yet to begin graduating students. Inter-provincial salary differences are further hampering some provinces' efforts to recruit and retain radiation therapists. Lower-paying provinces such as Manitoba and Saskatchewan are having to compete against provinces offering more generous compensation.

### RADIOLOGISTS

"We are exhausted, frustrated and stressed," said Dr. John Radomsky, President of the Canadian Association of Radiologists, which represents Canada's complement of 1,872 radiologists. Radiologists are the specialists who read the x-rays and scans and undertake the diagnosis, staging and continuing care of cancer patients. Shortages of these specialists have already led to unconscionable delays in the diagnosis and treatment of serious diseases, including cancer. "Investments in doctors, and in the equipment they need to practice high-quality medicine, are desperately needed from government," said Dr. Radomsky.

The shortage of radiologists stems partly from the 1992 decision to reduce medical school enrollment, which saw the number of radiology graduates drop from 80 to 60 per year. As a result, Canada is currently short about 150 full time radiologists, and the problem will grow as increasing numbers leave for the US or re-

TABLE 1. Estimated shortages of radiation therapists in Canada for 2000, by province

PROVINCE	NUMBER
BC	49
AB	16.5
SK	3
MB	10
ON	77
QC	70
NB	6
NS	7
PE	0
NF	6
Total	244.5

Source: CAMRT submission to the Human Resources Planning Working Group of the Canadian Strategy on Cancer Control, 2000.



tire. According to Normand Laberge, CEO of the Canadian Association of Radiologists, the average age of Canadian radiologists is now 55 to 56 years old, with a range that goes as high as 75. Recruiting radiologists from other countries is a possibility, but United Nations rules prohibit the recruitment of specialists from countries which are also lacking certain health care professionals. Radiology training requires between five and seven years of specialization after obtaining a medical degree, making quick homegrown fixes unlikely.

### ONCOLOGY NURSES

The shortage of cancer nurses is definitely part of Canada's larger nursing shortage at the moment. But compounding the problem is the absence of incentives for nurses to undertake the specialized training in oncology. "Right now," says Carolyn Tayler, President of the Canadian Association of Nurses in Oncology (CANO), "those who get their certification get minimal payback. It isn't really worth their while. Employers are paying for recertification in other nursing specialties, which puts additional pressure on the oncology specialty to do the same."

Australia, and Ontario has enlisted the cooperation of Immigration Canada and Human Resources and Development Canada to expedite the entry process for foreign therapists and oncologists.

But it remains an uphill battle. Princess Margaret Hospital in Toronto (which is managed separately from Cancer Care Ontario) has recruited 23 radiation therapists in the past 15 months through international drives and starting bonuses. Their net gain, however, is just three: in the same 15 months, 20 existing therapists have either moved to another province or country, or changed profession. "We would expect to lose about 10% of our staff a year," says Dr. Bernard Cummings, Chief of Staff in Oncology at PHM, "but it becomes a problem when it's far more than that and you don't have a pool to replace them."

Many provinces are boosting the number of training positions in their colleges and universities, positions that were cut in the early 1990s (the Toronto College of Radiation Therapy was actually reopened last year, but it will be another few years before graduates begin entering the workforce.) Brian Schmidt, Chief Operating Officer at the BC Cancer Agency, believes the most fundamental barrier to lasting human resources solutions in Canada is very poor human resources planning, particularly in oncology. "The short-term problem is supply: we simply don't have enough cancer care professionals to meet current needs," says Mr. Schmidt. "Provinces have taken a boom and bust approach, going in 10-year cycles of need, when we really need a coordinated long-term strategy." The mobility of Canadian professionals, coupled with regulatory barriers between the provinces, also work against maintaining a consistent supply.

Dr. Brent Schacter, President and CEO of Cancer Care Manitoba, agrees that long-term solutions will require a Canada-wide strategy. Though Manitoba regards increased training positions as a promising way to replenish cancer care resources, Dr. Schacter feels that the lack of a coordinated and integrated human resources and training strategy across Canada "results in the development of deficiencies in certain areas without the ability to predict shortages and adjust training programs accordingly." Ontario cancer centres have started to work more closely in the past couple of years with the training schools to look at the total needs of the province. "One question that comes up is whether we can plan as though every therapist who trains in Ontario will work in Ontario, or whether we must accept that a certain number will train here, then go work in another province.

A report CANO submitted to the Human Resources Planning Working Group of the Canadian Strategy for Cancer Control highlights a number of factors working against an adequate supply of nurses: the average age of Canadian nurses is now 46 years; health reforms have created a negative image of nursing as a career choice; casualization has had a negative impact on workplace quality; there are inadequate spaces in training programs; there is inadequate access to ongoing specialty education.

### Solutions

Shortages are affecting care in every province, and each has adopted strategies to improve the situation. Radiation therapists are being wooed by one-time signing bonuses, relocation packages and salary increases of over 10% in many provinces. These measures are attracting therapists from one province to another and are trying to stem the exodus to the US. The Canada-wide supply is so low, however, that international recruiting is also playing a part in many provincial strategies. Québec found five therapists in Paris to come over on six-month to one-year stints, Alberta is hiring four from