



**[Jill Strachan, of the Canadian Institute for Health Information, responds:]**

The Canadian Institute for Health Information (CIHI) maintains 2 databases on physicians in Canada. The Southam Medical Database contains information on the supply of physicians in Canada and includes physicians who are engaged in clinical and nonclinical practice (e.g., teaching, research and administration). The second database is the National Physician Database, which contains information on Canadian physicians and their activity levels. Information derived from both of these databases can play a role in physician resource planning.

The Southam Medical Database is useful for this purpose because it allows for the identification of supply, distribution and migration trends at both provincial and national levels for all physicians, not just those engaged in clinical practice. This database has been validated,<sup>1</sup> and the counts by province and specialty are consistent with those of other national databases such as the Canadian Medical Association Masterfile, counts provided by the Royal College of Physicians and Surgeons of Canada and the IMS Canada Database. All specialty allocations are based on the physicians' most recent certified specialty. This database does identify physicians who are retired and semi-retired, and these records were excluded from the data provided for the study by Dr. Roos and colleagues.

Dr. Hugenholtz is correct in stating that the information derived from this database should be interpreted with caution when it is used for physician resource planning in relation to clinical practice, because it does not take into consideration whether the physician is engaged in clinical practice and if so, his or her associated type and level of activity. The National Physician Database

would have been a better source for the study by Roos and colleagues, since it is based on physician claims data provided by the provincial medical insurance plans. However, timely data from this database were not available when the study was undertaken.

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**Reference**

1. Southam Medical Database: quality assurance review. Ottawa: Canadian Institute for Health Information; 1996.

**[One of the authors responds:]**

We compared the counts of different specialists provided by the CIHI with counts of Manitoba specialists using both billing data and lists of practitioners provided by the Manitoba Medical Association and others. We also compared counts of practitioners with full-time equivalent estimates derived from billing data and other sources. In other words, we carefully constructed Dr. Hugenholtz's requested measure of clinical activity and paid close attention to the issues that concern Dr. Nazerali and associates. We found that the CIHI data (over the 6 years examined) underestimated by 2% the number of specialists in the province, although for some of the smaller specialties the discrepancies were larger. The physician counts tended to overestimate specialist clinical activity (as judged by full-time equivalents) by 11%; the percentage varied across specialist groups. Therefore, for our purposes, the database seemed adequate.

We share Dr. Donen's frustration at being unable to include approximately 25% of specialists in our analyses, but Canadian data collection for anesthetists, radiologists, patholo-

gists and other hospital-based specialists is particularly poor and we could not include them. Similarly, individual subspecialists (e.g., geriatricians and geropsychiatrists) are not well served by our existing data systems.

We also agree that it is difficult at this juncture to predict the future. There are many factors in addition to the decrease in class sizes that influence specialty numbers, including the closing of the US border to Canadian specialists.

Given the figures quoted by Donen, it would appear that, had we included anesthesiology in our analysis, this specialty would have had an annualized growth in the range of 1%, lower than most of the surgical groups except general surgeons (Table 1 of our article). This would have translated to a slower-than-predicted growth to keep pace with population change (Table 3 of our article). Yet the number of specialists is the wrong indicator on which to focus; many other issues warrant attention. In the case of anesthesiology, for instance, there are no certified or noncertified specialist anesthetists practising in Manitoba's rural south, and the number of rural family practice anesthetists decreased sharply over the period 1986–1996. Despite the appearance of a critical shortage of these specialists, residents of the rural south undergo more surgery than other Manitobans.

We take no issue with the observation of Nazerali and associates that our assumption about the provision of adequate levels of service to the elderly in 1986 needs validation. Likewise, any assumption that current levels are correct must also be validated. Our work clearly supports the contention that physician numbers are the wrong matter about which to worry, which is 1 of the 2 main points we tried to make. However, Nazerali and associates seem to have missed our second main point: the aging of the population per se places few de-