Presidential address, 1995. Surgery 2000: a look back to the future

Christopher Heughan, MB BChir, FRCSC

The present demoralized state of Canadian surgery is due to a number of short-term influences. They include financial restraints, the desire of government agencies to off-load blame for unpopular decisions onto doctors and altered public expectations. The major long-term challenge will be a shortage of physicians and a severe shortage of general surgeons because of the superimposition of longer-term trends in medical demographics on short-term political reactions to a perceived oversupply of doctors. General surgeons need to identify the significant, long-term threats and challenges. If they can do this and plan their responses knowledgably, with some measure of altruism, the future in general surgery will be a bright one for present and future residents and medical students.

Les milieux de la chirurgie sont démoralisés actuellement au Canada à cause de certains facteurs à court terme dont les compressions budgétaires, le désir des organismes gouvernementaux de faire porter aux médecins le blâme de décisions impopulaires et l'évolution des attentes de la population. Le grand défi à long terme sera posé par une pénurie de médecins et une grave pénurie de chirurgiens généraux. Les pénuries seront attribuables à la surimposition des tendances à long terme de la démographie médicale sur les réactions politiques à court terme face à un surplus perçu de médecins. Les chirurgiens généraux doivent définir les menaces et les défis importants à long terme. S'ils réussissent et s'ils planifient leurs réponses en toute connaissance de cause et avec un peu d'altruisme, l'avenir de la chirurgie générale sera brillant pour les résidents et les étudiants en médecine d'aujourd'hui et de demain.

About 6 months ago, my daughter, who was in her 2nd year at university, mentioned that she might want to go in for medicine. Today, we are in the midst of such a turmoil of unwelcome cutbacks, closures and consolidations that even without the present difficulties for our students, who must make a once-in-a-lifetime choice of a branch of medicine during the 3rd year at medical school, and for our residents, who are saddled with many new requirements having little to do with surgery, that it was hard to be encouraging. However, I believe that we are experiencing the worst of the storm and that when my daughter becomes a general surgeon, she will have a life that will certainly be different but will be no less enjoyable than the one most of us have experienced over the last 20 years.

In trying to look ahead, I am reassured by Allan Fotheringham, who wrote "No-one can possibly be wrong by writing about the future. It is only the past that presents uncomfortable truths."[1] I am less reassured by William Osler, who wrote "There are only two sorts of physicians. Those who practise with their brains and those who practise with their tongues."[2]

The traditional view

I would like briefly to review the traditional view of the physician because, as my department chairman keeps reminding me, surgeons are defined as gifted physicians.

From the Department of Surgery, Memorial University of Newfoundland, St. John's, Nfld.

Presented at the 18th annual meeting of the Canadian Association of General Surgeons, Montreal, Que., Sept. 15, 1995

Accepted for publication Feb. 13, 1996

Correspondence and reprint requests to: *Dr. Christopher Heughan, Department of Surgery, Health Sciences Centre, St. John's NF A1B 3V6*

The public, in repeated surveys, rates us highly as individuals. The qualities that merit this trust were described in the early part of the last century by John Brown (1810–1882): "Sagacity, manual dexterity, quiet reserve, a kind heart and a conscience. These, if here at all are always at hand, always inestimable . . . ."[3]

The rewards historically offered by society for these qualities have been an assured job, a comfortable income and a level of trust that, even in this era of profound cynicism, leads most patients to accept our advice without any serious question. No-one, apart from some politicians, suggests that we may be put in a conflict-of-interest situation by a fee structure that rewards procedures far more than opinions and judgement. This trust is a tribute from society beyond any value. It must be our most powerful weapon in the fight with politicians and bureaucrats. Yet it is under threat from several directions.

The first threat is from the financial constraints imposed by governments. These need no elaboration. Yet, however much we may loathe the idea, we are employees of government and, to an uncomfortable extent, its agents.

The second threat is a danger of alienating the trust of our "clients" by our own greed or at least the perception of greed. In my province, the average gross billings of specialists in 1994 was 10 times the average wage, and this figure has gone up over the last decade. At present, this is not perceived as a problem, according to a survey conducted by the Newfoundland and Labrador Medical Association in February 1995. However, there must be a limit to the tolerance of society, particularly in tough times, when many people, including those in the other health care professions, are losing their jobs. Furthermore, the media love to call attention to the most bloated physician incomes. The fact that these incomes are gross and not net and that they refer to specialties other than general surgery are subtleties that the public may not find very persuasive.

The third threat to our good reputation is the rise of consumerism. For patients to be involved in and to take responsibility for medical decisions is a good thing. It reflects the fact that surgery is now often concerned with quality-of-life decisions rather than with simple life or death. There may not be much room to discuss options with a patient who has acute appendicitis, a rectal cancer or a ruptured spleen. However, a lot of thought, discussion and negotiation may be needed before embarking on surgery for uncomplicated Crohn's disease, gastroesophageal reflux or early breast cancer. Unfortunately, consumerism can run wild. At its most extreme, it relegates the physician to the status of a hired scalpel with the technical skill to re-configure the body to the latest fashion, to deliver a baby during a lull in the business cycle or, at the end to assure a speedy, painless and timely death.[4]

The final threat to our good name is from technology, which in most ways has been a boon. However, we are all tempted to react aggressively to the latest electrolyte, blood gas report or computed tomography scan and delegate to the nursing staff or the clergy the treatment of the frightened, frequently difficult, human being who owns these reports.

Left unchecked, there is a danger that the specialist of the 2000s will no longer be the trusted, wise and kindly friend and counsellor but an avaricious, soulless, number-crunching technocrat who like the local "porno" store simply gives the public what it wants and makes a few bucks in the process.

The surgeon and current economics and organization

We are all suffering the anguish of closures in the name of saving money, consolidations in the name of increased efficiency and the reduction of duplicated services. We are all suffering from some form of program management in the name of making health care needs-driven with predictable costs rather than demand-driven with unpredictable costs.

I suggest that all these sources of misery will not last beyond the next 2 to 5 years. By then we will be into the next economic downturn. The present low interest rates will be significantly higher. Major capital expenditures needed to build new "super hospitals" or add new wings will be impractical. Even the present Draconian cost-cutting measures by all levels of government have only addressed the year-over-year operating deficits and have not reduced the accumulated debt load, which now stands at $18 700 for every man, woman and child in the country.[5] These initiatives, which are presently making all of our lives so wretched, will turn out to save little or no money.

The reasons that I say this are, first, that there is no evidence that program management will save any money. Even the system's most staunch supporters (at least those who are honest) agree.

Second, the costs in health care are to a major extent unit-driven. A complete blood count, an appendectomy or a coronary bypass procedure cost much the same whether they are performed in a mega-complex or a small community hospital. The tight money now has been with us for long enough to have shaken out all the obvious redundancy and duplication.

Third, 50% of the increases in the

costs of medical care over the last 2 decades can be attributed to technology. Unless we stop inventing new drugs and new diagnostic and therapeutic equipment, any saving from reorganization or from not having to maintain crumbling buildings will be swamped by the overall increases in the cost of doing business.

Finally, there seems no good reason why politics should not continue to be the major influence in all decisions affecting health care. In St. John's, the new health care corporation is the biggest employer in the province and at present has the most angry and hostile set of employees. I cannot see government continuing to alienate a block of 3000 voters as election time grows near — however noble it may feel its cause is.

To take this point one step further I suggest that the only reason that governments have gone so far is that they have successfully "downloaded" accountability to the public for unpopular decisions. The process started with the introduction of established program financing in 1977. This allowed the federal government to shift responsibility for problems in the health care system to the provinces where, incidentally, it belongs according to the Constitution. This accountability now is being shifted to the regional health boards. For example, in St. John's, the announcement of the closure of three hospitals was made not by the provincial health minister but by the chief executive officer of the new Health Care Corporation of St. John's. The federal health minister, whose department supplies the money for Newfoundland, was nowhere in sight.

This downloading has been passed very rapidly from federal to provincial governments and now to the regional health boards. Would anyone care to guess who the next recipients of this unpopular task will be?

As surgeons we are being involved in focus groups with other stakeholders to make sure we have meaningful input into the restructuring process. Unless we are vigilant and make sure that we have our priorities straight, we are going to be manoeuvred into a position in which we will be held responsible for bed closures, lay-offs and longer waiting lists.

The surgeon in the 21st century

Two pieces of information that I found most interesting come from the Association of Canadian Medical Colleges.[6] The first is the numbers of students enrolled into medical schools in Canada over the 10-year period from 1984/85 to 1994/95 (Fig. 1). The figures show a steady decline from 1838 to 1610 — a decrease of 14%. Note that most of this period was well before that covered in the Barer–Stoddart report.[7] The number of physicians has been kept up by uncontrolled immigration, but this is now and will remain a much smaller source of medical manpower.[6]

At the Conference of Specialties in June 1995, Ryten presented the projected data on medical manpower for the next 30 years. A major increase in immigration of physicians, followed shortly thereafter by an increase in the output of physicians from Canadian medical schools, occurred in the late 1960s and early 1970s (Fig. 2). Physicians who constitute this doctor boom will be reaching retirement age at the beginning of the 21st century after about 35 years in practice, leading to a rapid decline in the rate of growth in the numbers of physicians until 2011 when attrition actually will exceed supply (Fig. 3).

However, before our health economists and deputy ministers start putting the champagne in the "fridge," they should realize that the physicians still working will also be older, and there will be a higher proportion of women. Furthermore, the

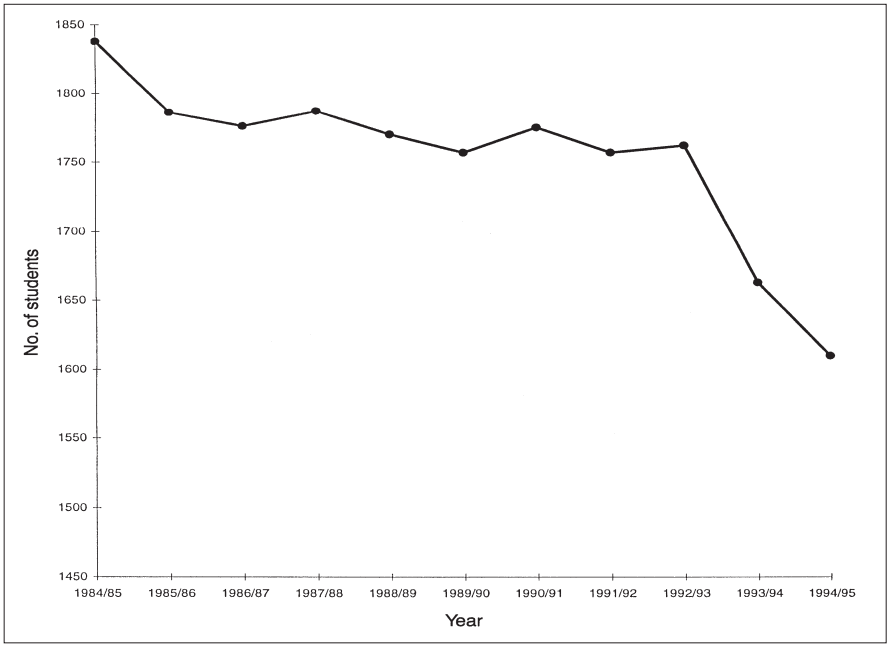

FIG. 1. Total first-time enrolment into Canadian medical schools 1984/85 to 1994/95 (modified with permission from Ryten E: Enrollment in programs of study leading to the award of the M.D. degree, Canada, 1995/96. *Forum* 1996; 29: 12–18).

population will have increased by around six million and will contain a higher proportion of senior citizens than it does now.

The CAGS data on manpower, derived in 1986 by Frank Turner and the old Manpower Committee, have been criticized recently but are still relevant and are the best we have.[8] This report predicted that many of us in general surgery were (and are) nearing retirement age. There has been no offsetting increase in recruitment to residency programs with the possible exception of the province of Quebec.

All of these data provide convincing evidence that there will be a shortage of physicians and an even more severe shortage of general surgeons in the next century. Is this good news for our children?

Governments will react to this shortage in predictable ways: by forcing new graduates into areas of immediate need, by manipulating the distribution of specialists with financial inducements or disincentives and by looking at unrestricted immigration as a quick fix. I suggest that none of these will provide a long-term solution.

It takes 8 years to grow a trained surgeon from the seed of a 3rd year medical student who applies to the Canadian Resident Matching Service for a post in general surgery. If there is to be a severe shortage of doctors in general and an even more severe shortage of general surgeons in the early part of the next century, the last opportunity to address the problem is now.

Does this mean that the level of service we can provide will fall? It seems that the answer is inevitably "Yes."

However, the United States has the spare capacity and the entrepreneurial talents to provide at least an elective service in Boston, Buffalo, Detroit or

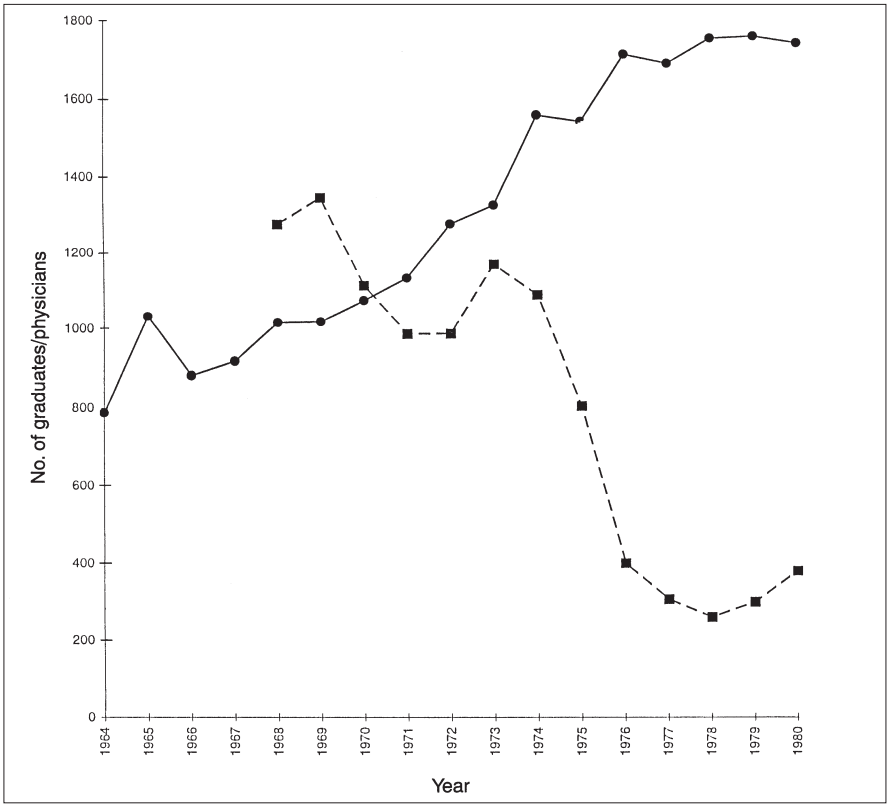

FIG. 2. Graduates of Canadian medical schools (circles) 1964 to 1980 and immigration of physicians (squares) 1968 to 1980 (modified with permission from Ryten E: Enrollment in programs of study leading to the award of the M.D. degree, Canada, 1995/96. *Forum* 1996; 29: 12–18).

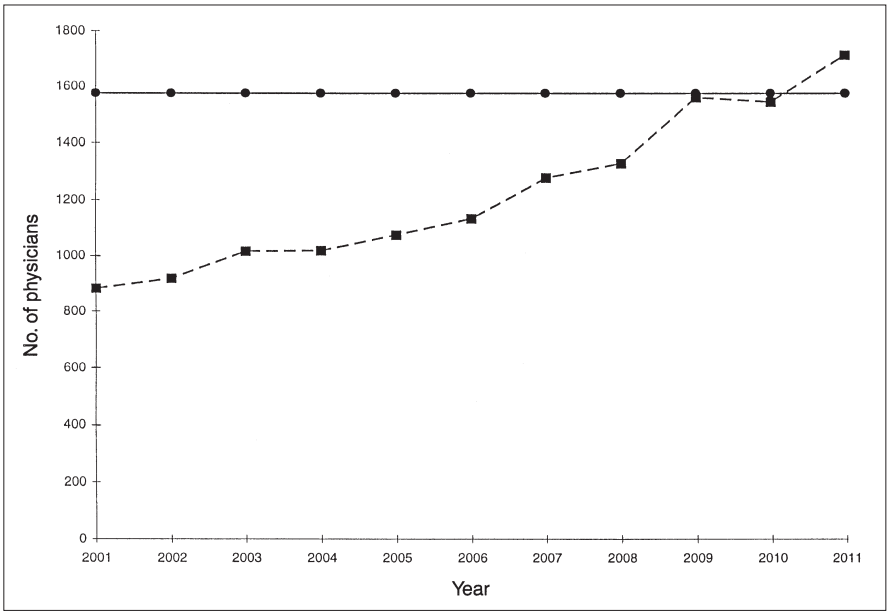

FIG. 3. Physicians graduating from Canadian medical schools (circles) and physicians reaching 35 years after graduation (squares), projected for years 2001 to 2011 (modified with permission from Ryten E: Will present day medical school outputs meet future societal needs for physicians? Paper presented to Royal College Conference of Specialties, Ottawa, June 1995).

Seattle for Canadians who want a better service than our health care system can provide. At present, this service may be too expensive, but in response to the demands of business and insurance companies, the purchasers of health in the United States, prices are coming down. This surgical "cross-border shopping" would cream off the elective hernias, laparoscopic cholecystectomies and breast biopsies from our surgeons and from our trainees and would create just the sort of two-tier system that has always been anathema to our politicians and to the Canadian public. If this occurs, the predictable outrage that it engenders will force governments and health boards to address the problem by almost any means possible.

It seems unlikely to me that privatization will be able to provide much more service than it does at present. Apart from being politically unacceptable for our national ethos, the cost of administering it fairly to both rich and poor would be prohibitive. The British experience of privatization has not been totally happy.[9]

We, in the CAGS, should decide now what level of service we should provide and, more importantly, what our residents will be able and willing to provide after they have finished their training. We need to decide what sort of a working environment and what professional, human and physical resources will be necessary for its provision.

Some type of managed care seems inevitable because governments will demand to "call the tune" since they are "paying the piper."

Fee-for-service billing is likely to become extinct. Already capping and proration have created a *de-facto* salary system with none of the offsetting benefits for physicians. From governments' viewpoint there is no economic sense in a system designed expressly to encourage physicians to be workaholics.

We must decide whether the next generation of general surgeons should do and, more importantly, will be willing to do cesarean sections, hand surgery, manage some fractures or, as requested by the Canadian Association of Neurosurgeons, evacuate epidural hematomas. If so, our already overstressed training programs will need to be made even longer, and our training objectives will need rewriting.

We have reached agreement with the College of Family Physicians of Canada on who should do what for surgical patients. We will have to engage in a similar but reverse turf battle with our fellow surgical specialists over what our successors will *not* do.

We general surgeons have many virtues and advantages. We are flexible, broad-based in our outlook and our services are cheap. We are a coherent group, not an amalgamation of subspecialists like the internists. We should have a major voice in the evolving configuration of health care but as advocates for our patients not as some type of barefoot administrators or politicians or apologists for and distributors of an inadequate, third-rate system.

I think we can approach the future optimistically, at least in the medium to long term. We demand honesty of our colleagues and trainees and we should expect it from managers and planners. It is essential that we understand the language of the epidemiologists for they play an important role in providing the raw data on which decisions will be made. We must demand that these data are current and relevant to the situation in Canada.

We must avoid being greedy or self-serving, and we must accept that we can no longer control our own incomes. In this regard, it would be well for us to recognize the paradox so well described by Doc in *Cannery Row*: "The things we admire in men — kindness and generosity, openness, honesty, understanding and feeling are the concomitants of failure in our system and those traits we detest — sharpness, greed, acquisitiveness, meanness, egotism and self-interest are the traits of success. While men admire the quality of the first, they love the produce of the second."[10]

And what about my daughter who started off this discussion?

If she goes to medical school and if she becomes a general surgeon, I think she will enjoy a life as diverse, challenging, fascinating and deeply rewarding as that of her father.

References

1. Fotheringham A: Why the rush by politicians to muscle in on writers' turf? *The Financial Post* 1995; Aug. 19–21: 17
2. Daintith J, Isaacs A (eds): *Collins Reference Dictionary of Medical Quotations,* Collins, London, 1990: 44
3. Daintith J, Isaacs A (eds): *Collins Reference Dictionary of Medical Quotations,* Collins, London, 1990: 49
4. Kass LR: "I will give no deadly drug." Why doctors must not kill. *Am Coll Surg Bull* 1992; 77: 6–17
5. McLeod S: The impact of Canada's debt and deficit on your financial planning. *Strategy* 1995; August: 8
6. Ryten E: Enrollment in programs of study leading to the award of the M.D. degree, Canada, 1995/96. *Forum* 1996; 29: 12–18
7. Barer ML, Stoddart GL: *Toward Integrated Medical Resource Policies for Canada*, Manitoba Health, Winnipeg, June 1991
8. Hinchey EJ: Presidential address, 1987: the future of general surgery in Canada. *Can J Surg* 1988; 31: 94–96
9. Pollock AH: The NHS goes private. *Lancet* 1995: 346: 683–684
10. Steinbeck J: *Cannery Row*, Bantam Books, New York, 1972: 89