Are alternative funding plans a good idea?

Marshall Godwin and colleagues are to be congratulated for their survey of the effect of an alternative funding plan on physician referrals[1]; however, we have several concerns.

First, the authors state that to interpret the "negative perceptions" of the respondents regarding the alternative funding plan one should "consider the confounding effect of other changes in the health care system in Ontario." A control group should have been selected. Reductions in health care allocations in Ontario are not exclusive to the academic centre studied.

Second, a null hypothesis would be that physician referral would not be affected by changes in funding. However, 39% of the surveyed physicians sent fewer patients to the study's tertiary care institution, and 37% sent more to the tertiary care (nonstudy) institutions. Although we realize the limitations of post-hoc analysis, this shift is probably nonrandom. Moreover, the consultant physicians at the nonstudy centres who were already dealing with cutbacks were now forced to cope with an increased caseload deferred from the study centre. Fortunately, some physicians within the study centre opted out of the alternative funding plan and assumed a major increase in referral work, according to the authors' data.

Third, the authors infer support for the alternative funding plan among referring physicians by commenting that "only 39% … indicated that they would not want to be part of an alternative funding plan." This is a confusing interpretation. Their results show that only 35% of the referring physicians stated that they would want to participate in an alternative funding plan.

Finally, the alternative funding plan is a funding experiment, requiring more bureaucracy, implemented without evaluative plans. For a publicly funded enterprise, citizens have the right to ask about the "value-added" features of this new bureaucracy. In the absence of unequivocal evidence of benefit, would it not be reasonable to terminate the experiment and restore the previous system?

Michael J. Jacka, MD
Subdbury, Ont.
Brian Milne, MD, MSc
Kingston, Ont.

Reference

1. Godwin M, Shortt S, McIntosh L, Bolton C. Physicians' perceptions of the effect on clinical services of an alternative funding plan at an academic health sciences centre. *CMAJ* 1999; 160(12):1710-4.

[Two of the authors respond:]

We commend Michael Jacka and Brian Milne for their thoughtful reading of our paper[1] and welcome the opportunity to clarify the 4 points they have raised.

First, comparison with physicians from nonacademic centres might be interesting but would represent a different study; our study was designed to document perceptions of immediate stakeholders in the alternative funding plan. One identified perception was that the alternative funding plan had less impact on service delivery than other contemporaneous changes in the broader health care system. Obviously, this does not imply that reductions in resources have been confined to academic centres.

Second, 71% of the referring physicians stated that they had not increased referrals to consultants participating in the alternative funding plan in Kingston or to consultants in other secondary care centres. However, 39% stated that they had decreased their referrals to consultants participating in the plan. This suggests that referring physicians themselves may be providing more care by eliminating marginally necessary referrals, a trend that must be considered as an improvement in appropriateness of care. Although not mentioned in our paper, the survey revealed that a similar proportion of consultants participating in the alternative funding plan (14%) and of those not participating in the plan (16%) reported increased referrals following implementation of the plan. In aggregate, we do not view these changes as indicating a large workload shift.

Third, 39% of the referring physicians stated that they would not wish to be part of an alternative funding plan. However, 26% were uncertain, and 35% stated that they would like to participate. We agree that this may suggest an ambivalence on the part of the referring physicians, in contrast to alternative funding plan consultants (again not mentioned in our paper), of whom two-thirds were pleased to be in the alternative funding plan, while one-quarter were not.

Finally, we agree that "citizens have the right to ask about the 'value-added' features" of the alternative funding plan. Jacka and Milne will be pleased to learn that the South Eastern Ontario Academic Medical Association commissioned 19 evaluation studies, in addition to an interim and final evaluation. Relevant aspects have been and will continue to be shared with the citizens' representatives, the Alternative Payment Branch of the Ontario Ministry of Health, to assist in crafting future iterations of the program.

Given the legitimate concern Jacka and Milne show for evaluation, we are puzzled by their suggestion that the South Eastern Ontario Academic Medical Association should "restore the previous system." The fee-for-service system has never been subject to evaluation showing "value-added" for the major stakeholder: the tax-paying public. On the contrary, it has been shown to encourage high-volume practice, bearing an undetermined relationship to patient need.[2]

Sam Shortt, MD, PhD
Marshall Godwin, MSc, MD
Queen's University
Kingston, Ont.

References

1. Godwin M, Shortt S, McIntosh L, Bolton C. Physicians' perceptions of the effect on clinical

services of an alternative funding plan at an academic health sciences centre. *CMAJ* 1999; 160(12):1710-4.
2. Shortt SED. *The doctor dilemma, public policy and the changing role of physicians under Ontario medicare.* Montreal: McGill–Queen's University Press; 1998.

Radiofrequency radiation: What's safe?

In their study of radiofrequency radiation in Vancouver schools, Artnarong Thansandote and colleagues "… conclude[d] that the levels measured during [their] study posed no health risk to the students, school staff or the general public …."[1] In fact, they did not measure health. They showed that levels of radiation in schools with antennae nearby are thousands of times higher than background radiation levels, which, granted, are lower than the mysterious safety code levels. I looked up the authors' references and I am unable to figure out how the safety limits were determined. To conclude that there is no health risk seems to be an inappropriate leap of faith far beyond what the data would warrant.

We know that x-radiation at a level substantially lower than that which causes immediate harm is still potentially lethal over time. Why should we think that radiofrequency radiation is any different? This study does not provide any reassurances to this pertinent concern.

Ronald G. Cridland, MD
Calgary, Alta.

Reference
1. Thansandote A, Gajda GB, Lecuyer DW. Radiofrequency radiation in five Vancouver schools: exposure standards not exceeded. *CMAJ* 1999;160(9):1311-2.

[The editorialist responds:]

Ronald Cridland questions the interpretation of health risk on the basis of radiofrequency exposure measurements and comparison to a permissible exposure guideline in the study by Thansandote and colleagues.[1] The results of risk assessment may change over time as additional studies become available. In addition, various assumptions must be made, such as the shape of the dose-response curve at low doses. Given these uncertainties it is difficult from a scientific perspective to deny risk definitively even at very low levels of exposure, especially when dealing with stochastic effects such as cancer.

The permissible exposure limits for radiofrequency radiation questioned by Cridland are based on the threshold for subtle thermal effects in tissue.[2] The specific absorption rate depends on frequency, and therefore the permissible exposure levels, measured in power density units, vary with frequency. The thermal effects associated with radiofrequency radiation demonstrate a clear threshold phenomenon. The very low levels of exposure to radiofrequency radiation measured in 5 Vancouver schools by Thansandote and colleagues[1] were orders of magnitude below the permissible limits and should not be associated with any thermal effects. The other health outcomes associated with radiofrequency — nonthermal effects and cancer — are at present speculative.

The interpretation of risk from ionizing radiation mentioned by Cridland is different because there is definitive evidence of risk of carcinogenicity for ionizing radiation and there are good data regarding dose response. Even if these currently speculative outcomes for radiofrequency radiation were later shown to be present, the risk would be dependent on absorbed dose and hence low in areas of measured low exposure of this ubiquitous form of non-ionizing radiation. Therefore, the results of the study by Thansandote and colleagues[1] should be reassuring after evaluation of the probability of any adverse health effects being associated with such exposure.

Ron House, MD CM, MSc
St. Michael's Hospital
Toronto, Ont.

References
1. Thansandote A, Gajda GB, Lecuyer DW. Radiofrequency radiation in five Vancouver schools: exposure standards not exceeded. *CMAJ* 1999;160(9):1311-2.
2. Elder JA. Radiofrequency radiation activities and issues: a 1986 perspective. *Health Phys* 1987;53:607-11.

[Two of the authors respond:]

Ronald Cridland is correct in stating that we did not measure health in our study of radiofrequency emissions at several Vancouver schools.[1] However, our conclusion that there is no apparent risk to human health remains valid. It is based on the fact that the measured radiofrequency power densities were thousands of times below the Safety Code 6 limits, which incorporate a 50-fold safety factor from the scientifically established thresholds for harmful effects. Although we acknowledge that there is a body of evidence of biological effects at levels near or slightly below the Safety Code 6 limits, the evidence of adverse health effects at these intensities is weak. If one then considers the low probability of adverse health effects occurring at radiofrequency radiation levels thousands of times below the lim-

Submitting letters

Letters may be submitted by mail, courier, email or fax. They must be signed by all authors and limited to 300 words in length. Letters that refer to articles must be received within 2 months of the publication of the article. *CMAJ* corresponds only with the authors of accepted letters. Letters are subject to editing and abridgement.

Note to email users

Email should be addressed to **pubs@cma.ca** and should indicate "Letter to the editor of *CMAJ*" in the subject line. A signed copy must be sent subsequently to *CMAJ* by fax or regular mail. Accepted letters sent by email appear in the Readers' Forum of *CMA Online* (**www.cma.ca**) promptly, as well as being published in a subsequent issue of the journal.