probably contributed to the complex hatred between the Tutsi and Hutu in Rwanda. Is it not time for physicians and others to consider the carrying capacity of all countries, including Rwanda, when they sally forth to save lives?

As biologists Peter Vitousek and colleagues[3] have stated, at current levels of population and technology growth, human activities degrade ecosystems. The results include soil erosion, destruction of plants and animals, and pollution of land, air and water.[3]

Two billion people are currently malnourished — about the same number as the total world population in 1940.[4] What will the situation be like in 2050, when the population is predicted to reach 9 billion?

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Helicobacter pylori

In reply to my letter concerning the availability of randomized controlled trials relating to eradication of *Helicobacter pylori* (*CMAJ* 1997;157[9]: 1199), Dr. Sander J.O. Veldhuyzen van Zanten and associates refer to 3 trials.[1–3]

It would appear from the first trial that the length of triple therapy is the decisive factor, and from the third trial it would appear that omeprazole is unnecessary for documented ulcer healing and eradication of *H. pylori*.

These findings lead to the question of why we should be wasting millions of dollars on expensive "proton pump inhibitors" such as omeprazole when an inexpensive regimen of tetracycline, bismuth and metronidazole is effective on its own.

They also raise the dilemma that new manifestations of disease will be researched only by pharmaceutical companies, since they alone have the resources. These companies are under no obligation to compare their treatments with available medications, so their research often results in a new, very expensive pill for every new ill, devastation to health care budgets, and little or no gain for patients.

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Breast self-examination techniques

In the article "Effect of breast self-examination techniques on the risk of death from breast cancer" (*CMAJ* 1997;157[9];1205-12), Dr.

Bart J. Harvey and colleagues report a lower incidence of advanced breast cancer or death from breast cancer among women who were carefully instructed in the methods of breast self-examination (BSE) and who adequately implemented the program using optimal visual and palpatory techniques. It is clear from Table 3 of the article that only about half of the women so instructed actually practised any form of BSE, but I found no information as to the proportion of women who practised *optimal* forms of BSE. If this proportion was small in a clinical trial of this nature, we can be reasonably certain that it would be even smaller in the real world of clinical practice. Could the authors give us these figures?

Kenneth G. Marshall, MD
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Received by email

[The authors respond:]

Dr. Marshall raises an important issue: How clinically applicable are the results of a clinical trial? In response, we would first like to clarify that Table 3 of our article summarizes women's self-reported screening practices *before* their entry into the Canadian National Breast Screening Study. In Table 1 accompanying this letter, we provide the information requested by Marshall. These results are similar to those found by Baines and To,[1] and we believe that they are applicable to the "real world of clinical practice."

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Fluoridation and fracture

The article "Current and projected rates of hip fracture in Canada" (*CMAJ* 1997;157[10]:1357-63), by Emmanuel A. Papadimitropoulos and colleagues, exhibits the "view through the wrong end of the telescope" that is so often criticized as a deficiency of allopathic medicine. This paper is excellent, in terms of pointing to the seriousness of the problem of proximal femoral fracture (PFF) in the elderly. However, it presents a limited view with regard to the cause. The "grabber" in the first sentence is that "Osteoporosis is an important public health problem, especially in postmenopausal women." The "clincher" in the Discussion refers to "the serious implications for Canadians if incidence rates are not decreased by some form of intervention."

The interventions implied are hormone replacement therapy for postmenopausal women and therapy with calcium, vitamin D, bisphosphonates, calcitonin and fluoride. One important aspect not mentioned is the mounting evidence of a positive relation between excess fluoride intake and PFF, especially as a result of the fluoridation of drinking water. Although the references for this paper include articles by S.J. Jacobsen and C. Cooper, the epidemiological studies of the same authors showing a statistically significant relation between residence in a "fluoridated" community and PFF[1,2] are not cited. Also omitted are studies by other researchers showing a positive relation.[3–5]

The study reported in *CMAJ* found a lower incidence of PFF among men in BC than in the other 2 provinces studied — of the 3, BC happens to be the one with the least fluoridation. Several researchers have observed higher incidences of PFF in fluoridated than in non-fluoridated communities.[3,6,7]

The issue of the relation between fluoride and PFF is of concern at the level of government. For example, the *Toxicological Profile for Fluorides, Hydrogen Fluoride, and Fluorine (F)*, published by the Agency for Toxic Substances and Disease Registry, US Public Health Services, includes the following statement:[8]

The weight of evidence . . . suggests that fluoride added to water can increase the

Table 1: Practice characteristics of breast self-examination (BSE) among control subjects relative to year of screening during Canadian National Breast Screening Study

	Year of screening; % of control subjects			
BSE characteristic*	Year 2†	Year 3‡	Year 4§	Year 5‖
Visual examination	72.0	79.6	80.2	83.2
3 middle fingers used	62.8	70.9	74.8	77.6
Finger pads used	63.3	70.8	76.0	79.3
Systematic search used	73.8	79.5	82.8	84.9
Circular palpation used	46.8	54.9	59.5	61.5
Most of breast covered	65.1	68.6	70.6	74.2
Axillae examined	64.0	71.3	78.1	81.3
≥ 12 examinations performed per yr	46.8	51.6	53.6	56.5
All of first 3 practices included	37.1	48.7	54.8	60.9

*According to screen-examiner assessment.
†A total of 1252 control subjects assessed by screen-examiners, of whom 1236 (98.7%) reported practising BSE.
‡A total of 1458 control subjects assessed by screen-examiners, of whom 1442 (98.9%) reported practising BSE.
§A total of 1490 control subjects assessed by screen-examiners, of whom 1476 (99.1%) reported practising BSE.
‖A total of 1096 control subjects assessed by screen-examiners, of whom 1088 (99.3%) reported practising BSE.