data to project future needs … implies that the way we do things now is optimal.” Wrong. There is no such implication in our analysis. In our calculations, we simply keep fixed the most recent utilization rates (whatever they are) and allow only population to change.

Charles Low feels that apparent shortages of both family doctors and specialists make our future projections “difficult to evaluate.” Again, what we were projecting was not changes in requirements for physicians from all causes, but changes resulting only from population aging and growth. We make no judgement about what utilization rates *should* be but take them as they are.

Michael Borrie and associates assert that we underestimated the “provision and need for services for elderly patients” because we failed to give explicit treatment to geriatricians. We dealt with an exhaustive set of 19 categories of physicians, the maximum for which age-sex rates of utilization are available. The underlying patient utilization data were compiled from OHIP records (the only source), as provided by the Canadian Institute for Health Information (CIHI). Geriatrics is included in the CIHI category “internal medicine” (along with 10 other specialties). Given what Borrie and associates recognize as the low numbers of physicians who have been trained in geriatrics, it should be clear that any separate treatment would have had only a negligible effect on the overall projection results.

Through our analysis we found that demographic effects on overall physician requirements are likely to be smaller than might have been supposed in light of popular discussion of the “aging crisis.” A helpful response to that finding would be something like the following: Good — and now that we have that out of the way, let’s focus on other factors that are likely to be more important, including those mentioned by the letter writers. Population aging cannot be ignored, but it should not be at the top of the list of things to worry about in physician human resource planning at the aggregate level.

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**References**


**The whiplash debate**

In a review published in *The Left Atrium*, Walter Rosser1 lauds as a “remarkable book” Andrew Malleson’s *Whiplash and Other Useful Illnesses.*2 Rosser writes that Malleson “challenges many different groups … for their self-interest and their failure to critically assess the medical case for whiplash.” Yet in Malleson’s book, no study that found evidence of a valid whiplash syndrome is accurately presented, whereas those against are highly praised.

As just one example, Malleson promotes a Norwegian–Lithuanian paper that claimed that 202 drivers involved in rear-end collisions resembled control subjects at the end of 2 years.3 He writes, “Schrader and his Norwegian colleagues … had cut too close to the quick. Like frightful Vikings from the past, they had threatened to wreak havoc with the profitable whiplash industry.” This paper was evaluated by the Norwegian Centre for Health Technology Assessment, a group established by the Department of Health and Social Affairs for Norway and operating as a unit within SINTEF Unimed, a non-profit independent research organization. The expert group who wrote the Centre’s report4 concluded that more than 4000 individuals in each group would be needed to discover with 80% probability a statistically significant difference in the occurrence of chronic neck complaints between subjects who had and had not been involved in a collision, and the Schrader study was denied validity.

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**References**


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**[The author responds:]**

There are no studies that confirm a “valid whiplash syndrome.” Perhaps what annoys Harold Merskey about my book is that I presented inaccurately the studies that do exist but that I presented them too accurately, leaving the studies, their authors and their advocates bereft of scientific credibility. Merskey cites a report of the reputable Norwegian Centre for Health Technology Assessment to condemn my book. Ironically, the authors of that report, after commenting on the lack of science in the whiplash literature, confirm the very thesis of my book with the following conclusions:

- “There is no documented evidence supporting a causal relationship between type or grade of injury and specific symptoms or symptom constellations.
- “Evidence-based documentation has not been found to support the contention that chronic complaints following a whiplash injury mechanism are specific or are directly related to the actual injury mechanism.”
The Norwegian–Lithuanian study\(^1\) was the first controlled study to examine the association between rear-end collisions and the development of chronic neck pain and headaches. Following the sudden occurrence in Norway of a devastating “epidemic” in which 70 000 people, from a population of 4.5 million, claimed to have been disabled by whiplash, Harald Schrader and his Norwegian colleagues wanted to learn more about the course of whiplash uncomplicated by the availability of insurance and fashionable beliefs that whiplash causes disabling symptoms. They chose Lithuania, a country in which there was no personal injury insurance and where few people had heard of whiplash.

They matched each of 202 Lithuanian drivers whose cars had been rear-ended in the previous 3 years with a control subject from the same city as the collision victim. Without revealing the purpose of the study, the investigators sent health questionnaires to all study subjects. Thirty-three percent of the collision group reported neck pains, but so did 33\% of the controls. Fifty-three percent of the accident group had headaches, but so did 50\% of the controls. Fifty of 4.5 million, claimed to have been disabled by whiplash injury is small. This means that for any individual whiplash claimant, the chances of persistent symptoms being due to the collision rather than to the ordinary exigencies of life are much below the 50\% probability required by civil law for the perpetrator of the accident to be held financially liable. If lawyers and medical expert witnesses refrained from bringing to court “junk” whiplash science, judges would seldom award compensation for whiplash complaints. Given that the high cost of auto insurance premiums reflects the excessive cost of whiplash claims, premiums could thereby be reduced to more manageable levels.

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References

[Harald Schrader, Gunnar Bovim and Trond Sand respond:]

Harald Merskey, in attacking Walter Rosser’s review\(^1\) of Andrew Malleson’s book,\(^2\) makes the misleading allegation that one of our studies was “denied validity” by the Norwegian Centre for Health Technology Assessment. In fact, the Centre’s report,\(^1\) after praising our study design in terms of selection of material and use of control groups, concluded (as did we) that it seems impossible to document a causal relation between whiplash trauma and the development of chronic symptoms.

However, it was emphasized that for the demonstration of small differences in symptoms between collision victims and controls, a greater number of subjects would be required than we used in our study. The final statement of the report\(^1\) concluded that whiplash should be managed as “an acute self-limiting process.” Incidentally, Magne Ro, the leader of the investigative group for the assessment, has praised Malleson’s book in a published review.\(^4\)

Studies from Western countries indicate that 15\% to 58\% of people with a whiplash injury experience the late whiplash syndrome.\(^1\)\(^3\)\(^4\) Our 2 controlled studies\(^5\)\(^6\)\(^7\)\(^8\) were conducted in Lithuania, a country where whiplash injury provides little opportunity for “secondary gain” and where there is little awareness that whiplash injury is a reputed cause of chronic pain and disability. Altogether, we evaluated 412 people who had been involved in rear-end collisions, which gave an estimated minimum of 180 subjects with acute whiplash injury (i.e., acute symptoms).\(^1\)\(^9\)

According to previous reports this number should have yielded between 27 and 104 people with late whiplash syndrome. Yet we identified no subjects with chronic symptoms related to the collision. If the late whiplash syndrome does exist, it seems to occur very infrequently in Lithuania.

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