Goertz et al. report the results of their pragmatic comparative effectiveness clinical trial that addresses the question, does the addition of chiropractic care to usual medical care (UMC) improve outcomes for patients with low back pain (LBP) in military health care settings? They recruited 750 patients who were serving in the military in 3 states and had acute or chronic LBP. The patients were allocated to UMC alone or to UMC plus chiropractic care. Usual medical care often included prescription of nonsteroidal anti-inflammatory drugs and referral to physical therapy. Chiropractic care most often included spinal manipulation, electric muscle stimulation, heat or cold therapy, and exercise recommendations. At the end of the 6-week treatment period, patients in the group receiving UMC plus chiropractic care had experienced statistically significantly greater improvements in pain and function and were more satisfied with their care than those in the UMC group. Specifically, at 6 weeks, 62.6% of patients in the group receiving UMC plus chiropractic care had improved by a statistically significant and clinically meaningful amount (30% improvement from baseline) in their back-related function compared with 46.6% of those randomized to UMC alone—indicating a number needed to treat of approximately 6 patients. Percentages with statistically significant and clinically meaningful improvement in pain were also higher in the group receiving UMC plus chiropractic care compared with those receiving UMC alone: at 6 weeks, 57.5% vs 32.5%, respectively (a number needed to treat of approximately 4 patients). Superior outcomes for the group receiving UMC plus chiropractic care were largely maintained after 12 weeks, 6 weeks after chiropractic care had ended. No serious adverse effects were identified.

Because of the trial's large sample size, high follow-up rates (approximately 90% at 6 weeks), and strong analytic methods, the findings are unlikely to be spurious. This trial represents an important contribution to our minimal knowledge of the potential of chiropractic care to improve outcomes of care in military populations. These findings are particularly noteworthy because it is usually more difficult to detect meaningful treatment benefits in patient populations who have especially promising natural histories as they are young, physically fit, and unlikely to be using opioids (<6% of patients) and include a large fraction of patients with acute pain. Despite this challenge, it is remarkable that the numbers needed to treat found for this population are similar to those in other trials of other “nonmedical” treatments for chronic LBP in civilian populations.2-4

The main limitations of this trial are the nonrandomized study design, the lack of a measure of longer-term outcomes, problems with adherence to both treatments at the one site that relied on respondents to recruitment advertisements (as opposed to clinician referrals), the inability to determine how to explain the observed benefits in the chiropractic care group, and the absence of data to evaluate the cost-effectiveness of chiropractic care in military settings. There are several possible explanations why chiropractic care improved outcomes: in contrast to most clinicians, chiropractors are specialists in back problems and enjoy seeing patients with LBP; chiropractic care often included treatments not included in UMC (electric muscle stimulation, heat or cold therapy); and at study entry, patients had higher expectations of UMC with chiropractic care than UMC alone (score of 8.3 vs 5.1 on a scale of 0 [expectation of treatment being not helpful at all] to 10 [expectation of treatment being extremely helpful]). Furthermore, it appears that patients in the group receiving UMC plus chiropractic care may have made more total visits than those in the group receiving UMC alone. Although the reasons are unclear, the effects of the chiropractic care “package”
implemented in this trial were comparable to those of other treatments for LBP that are recommended in high-quality, evidence-based guidelines.  

Future evaluations of incorporating chiropractic care into the military health care system should measure longer-term outcomes, estimate its cost-effectiveness, and consider alternative and potentially more efficient implementation strategies. Measurement of longer-term outcomes will be challenging because the transient nature of military service will make follow-up difficult. Estimation of cost-effectiveness can provide reassurance to decision makers concerned that implementing new intervention strategies that have been found effective can be justified. Because the data presented in the trial suggest that UMC in these military populations infrequently included use of opioids, pain clinics, and specialist services (including injections and surgery), the primary driver of cost-effectiveness may be the relative costs of primary care vs chiropractic care services. A recent cost-effectiveness analysis for cognitive and mind-body therapies for chronic back and neck pain illustrates how such analyses can provide valuable information for decision makers to decide whether to include these treatments as covered benefits. 

Finally, there are a variety of ways in which chiropractic care could be made more available in the military and other health care systems. For pragmatic reasons, Goertz and colleagues decided to make chiropractic care an adjunct to UMC. Although it may be more complex, true integration of chiropractic care into the military health care system involving professional communication and referrals between chiropractors and medical personnel has the potential for more effectively and efficiently serving patients and for providing models for other integrated health care systems in civilian settings to follow.