THE AUTHORS REPLY

Delcher and Wang (1) were critical of our recent study (2), stating that we overlooked 2 important relevant factors:
“1) the growing lack of health care coverage among veterans and 2) the significant changes in institutions providing health care to veterans” (1, p. 473).

Contrary to their claim, an internal report from the Department of Veterans Affairs (VA) and a study by Himmelstein et al. (4) indicated that the rates of veterans without health care coverage did not change significantly over the period of 1995–2005 among nonelderly veterans (18–64 years of age) (3, 4). The rates of uninsured veterans in 1995, 1998, 2001, and 2004 were 13.7%, 12.4%, 10.8%, and 12.7%, respectively. Furthermore, there is no indication of a significant difference in the proportions of veterans insured between Gulf War veterans and non-Gulf War veterans during that period.

We did not collect information on health insurance coverage among the study participants, and this information is not readily available in the published literature. Data on income/educational levels, which Delcher and Wang (1) suggest as possible surrogates for insurance coverage, demonstrate no significant differences by Gulf War deployment status for participants in the 2005 survey (5). We do not have comparable data from the 1995 survey (6). However, in a 1995–1996 survey of a population-based sample of 3,695 Iowa veterans, Voelker et al. (7) found no differences by deployment status in employment (5% unemployed for Gulf War veterans vs. 6% for non-Gulf War veterans), income (54% with an income of ≥$30,000 for both groups), and educational level (58% with some college or more for Gulf War veterans vs. 61% for non-Gulf War veterans) at the time of the survey (7).

Health insurance coverage was one of many unmeasured potentially confounding variables that could have affected the estimated relative risk. We attempted to address this potential problem in the study design by selecting a reference group that was as similar to the study group as possible except for the exposure of interest (Gulf War deployment). We carefully selected contemporary military controls from 1990 to 1991 and matched them to deployed veterans by sex, unit component (active, reserve, or National Guard), and service branch (Army, Air Force, Marines, or Navy). We agree with Delcher and Wang (1) that Gulf War veterans could have had more health care needs because of their war experience, but lack of health insurance coverage is an unlikely explanation for differences in the health outcomes reported in our study (2).

With respect to their second point, it is unclear to us why “significant changes in institutions providing health care to veterans” are directly relevant to our findings. Health care service for veterans is not an entitlement program. Only a fraction of veterans are eligible for VA care. Nevertheless, because of special eligibility authorized by law, Gulf War veterans have had better access to VA care than have other veterans, as indicated by the proportion of veterans treated by the VA. For fiscal year 2000, the rates were 13% and 6%, respectively; for 2005, they were 17% and 10%, respectively; and for 2009, they were 22% and 13%, respectively (8). The veterans in our study were stratified random samples of military personnel who were on active duty at the start of the war; they were not sampled from VA health care users. Therefore, we do not believe any institutional changes, which nonetheless have provided better access to care to Gulf War veterans, could explain our findings.

ACKNOWLEDGMENTS

Conflict of interest: none declared.

REFERENCES


Han K. Kang1, Clare M. Mahan1, Bo Li2, Seth Eisen1, and Charles C. Engel3 (e-mail: han.kang@va.gov)

1 US Veterans Health Administration, Washington, DC 20420
2 Institute for Clinical Research, Washington, DC VA Medical Center, Washington, DC 20422
3 Uniformed Services University of the Health Sciences, Bethesda, MD 20814

DOI: 10.1093/aje/kwr500; Advance Access publication February 3, 2012