

# **Gulf War Illness classifications and changes in subjective health among Reserve Component veterans who had deployed to the Persian Gulf**

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## **Abstract**

Data from 644 Reserve Component Persian Gulf War veterans were analyzed to compare changes in subjective health with classification status as having Gulf War Illness (GWI) by either the Centers for Disease Control definition or a slightly modified version of the Kansas (Steele, 2000) definition. Recall bias has sometimes been cited as a reason to challenge the validity or meaningfulness of self-reports of illness, including Gulf War illnesses. If recall bias, as a random variable, was entirely responsible for variance in self-reports of illness or subjective ratings of personal health, then associations between self-reported ratings of personal health and GWI classifications based on systematic evaluation of health symptoms and conditions should be minimal, even non-significant. However, our results indicated relatively strong associations between both current subjective health and changes in subjective health since the first Persian Gulf War with GWI classifications. Associations between GWI and subjective health are only slightly lower for health issues recalled during the war than for current health issues, suggesting minimal changes in any impact of recall bias over different retrospective time periods. Nevertheless, such associations were far from perfect. Small percentages of veterans with GWI symptoms reported having both excellent health currently and before the war, while others not classified with Gulf War illness did report either currently poor subjective health or substantial declines in subjective health. Because classification of GWI depends on having symptoms in multiple areas, veterans whose symptoms are more concentrated may be among those overlooked by current GWI classifications and yet among those veterans who report declines in personal health status. Implications for the search for causal factors responsible for the health problems of many Persian Gulf War veterans are discussed.

*Keywords:* Gulf War illnesses, Persian Gulf War, changes in subjective health, recall bias