METHODS
Feature Article Identification
To identify relevant feature articles we excluded the following categories of publications (Figure 1): articles that focused exclusively on the care of dependents or civilian applicants to military service (n=3); articles reflecting corrections to previously published articles and articles exclusively previewing future articles (n=5); editorials commenting on general themes or specific topics, as well as letters to the editor, notices to readers on methods, policy briefs, and historical vignettes (n=27); field reports and case reports that did not require analysis of existing DMSS data or similar data mirrored at AFHSC, and analysis conducted exclusively with external datasets, such as those maintained uniquely by the Air Force (n=55); and monthly summaries of Army basic training site acute respiratory disease surveillance conducted using a non-generalizable subset of DMSS data and equivalent to a routine field survey (n=100). We also excluded articles categorized as "summary tables and figures" including articles reflecting routine tabulations of demographic data and all-cause morbidity and mortality, including annual summaries of hospitalization and ambulatory encounters. Also excluded were feature articles describing patterns or predictors of mortality, hospitalization, ambulatory encounters, medical evacuation, procedure utilization, repeat healthcare utilization, or lost duty among various population groups. This category also excluded articles examining deployment-related outcomes and analyses derived from deployment-related health assessments, as well as routine tabulation of reportable medical events and sexually transmitted diseases, and issues related to their timeliness and completeness of reporting (n=474).

The remaining publications (N=329) met our inclusion criteria as feature articles. Specifically included were "surveillance snapshots", preliminary and brief reports, and major articles including routine updates to previously published analyses that utilized DMSS or related data mirrored at AFHSC to produce descriptive or inferential statistics focusing on the prevalence or incidence of specific diseases, or focusing on overall healthcare utilization related to specific categories of disease, among personnel across any of the military services.

Feature Article Categorization
Feature articles were categorized independently by two of the authors (RN and ECR, both former military physicians) according to the top-level ICD-9-CM classification of the primary outcome under analysis. After initial categorization, discrepancies were resolved by consensus. Feature articles whose primary outcomes fit the top-level ICD-9CM classification of mental disorders (ICD-9CM 290-319) were categorized as "mental". Those whose primary outcomes fit the top-level ICD-9CM classification of neurologic disorders (ICD-9CM 320-389) were categorized as "neurologic". Those whose primary outcomes fit the top-level ICD-9CM classifications of diseases of the musculoskeletal system (ICD-9CM 710-739) and injuries and poisonings (ICD-9CM 800-900) were categorized as "musculoskeletal and injury". Feature articles whose primary outcomes fit the top-level ICD-9CM classifications of infectious and parasitic diseases (ICD-9CM 001-139), respiratory (ICD-9CM 460-519), digestive (ICD-9CM 520-579) and

dermatologic disorders (ICD-9CM 680-709) were categorized as "infectious, respiratory, digestive, and dermatologic".

Feature articles focusing on the common military diagnoses of traumatic brain injury (TBI), heat and cold weather injuries, and carbon monoxide poisoning were categorized as "musculoskeletal and injury", while those focusing on syncope, insomnia, hyponatremia, and overhydration were categorized as "other". Feature articles focusing on alcohol and substance abuse and suicide were categorized under "mental", while feature articles focusing on noise-induced hearing loss were categorized as "neurologic". When a feature article focused on multiple outcomes within a single top-level ICD-9CM classification within a population defined by a specific category of outcome, the analysis was categorized into the outcome category. For example, the MSMR feature article "The risk of mental health disorders among U.S. military personnel infected with human immunodeficiency virus" [1] was categorized as "mental". Conversely, where outcomes fit multiple top-level ICD-9CM classifications, the analysis was attributed to the population-defining category of disorder. For example, the MSMR feature article "Incident diagnosis of common symptoms ('sequelae') following TBI" [2] was categorized as "musculoskeletal and injury".

Tabulation of Ambulatory Encounters

MSMR summaries containing annual tabulations of ambulatory encounters since 1998 were reviewed [3–15], and the number (Figure 2) and relative proportion of total ambulatory visits corresponding to each category were determined by year. Results were consistent with recent published summaries presenting equivalent data as rates [16].

Statistical Analysis and Power Calculations

Upon consensus categorization, feature articles were tabulated by their assigned category overall during the 16 year period and, owing to small annual sample sizes, during successive four year periods. Proportions of articles were compared to the proportion of ambulatory encounters in each corresponding category overall and during each four year period by two-sided binomial exact test owing to small sample sizes. Statistical tests and 95% binomial confidence intervals (95% CI) for observed numbers of articles were reported using the Jeffreys method [17] under the assumption that published articles represented a sample from an underlying population on which the analysis drew inference. Only two-sided p-values at P<0.001 and P<0.01 were reported as significant owing to multiple comparisons. With a sample size of 329 articles and an overall proportion of ambulatory encounters due to mental disorders of 13% over the 16 year period, the analysis was determined to have 84% power to detect a 5% deficit and 73% power to detect a 5% excess in the proportion of feature articles focusing on this category of disorder relative to overall ambulatory encounters. All statistical analyses including power calculations were calculated using Stata/SE version 13.1 (College Station, TX).

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15.   Armed Forces Health Surveillance Center: Ambulatory Visits Among Members of the Active Component, U.S. Armed Forces, 2013. Medical Surveillance Monthly Report 21(4):15-20, 2014
16.   Armed Forces Health Surveillance Center: Signature Scars of the Long War. Medical Surveillance Monthly Report 20(4):2-4, 2013
17.   DasGupta A, Cai TT, Brown LD: Interval Estimation for a Binomial Proportion. Statistical Science 16:101-133, 2001

FIGURE 1: Feature article identification
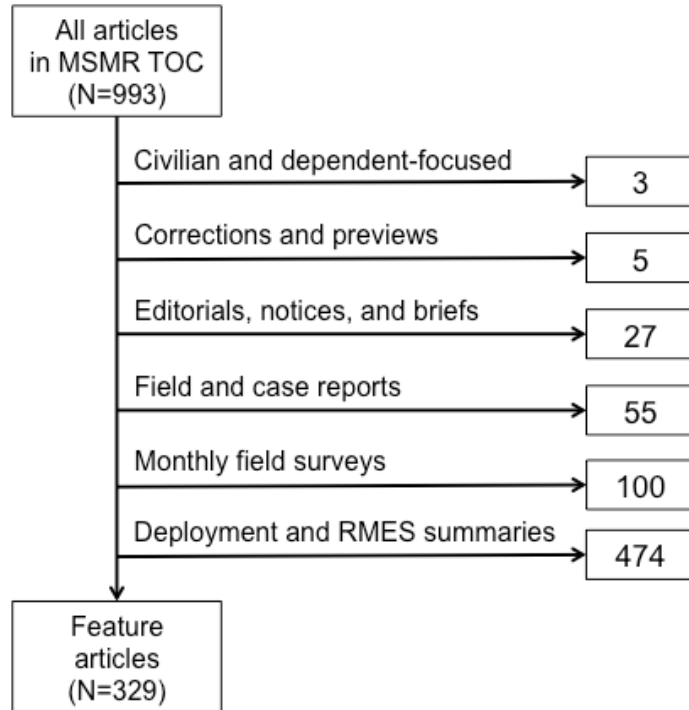
Abbreviations: MSMR, Medical Surveillance Monthly Report; TOC, Table of Contents; RMES, Reportable Medical Events System

FIGURE 2: U.S. military ambulatory encounters by major category of disorder, by year, 1998-2013
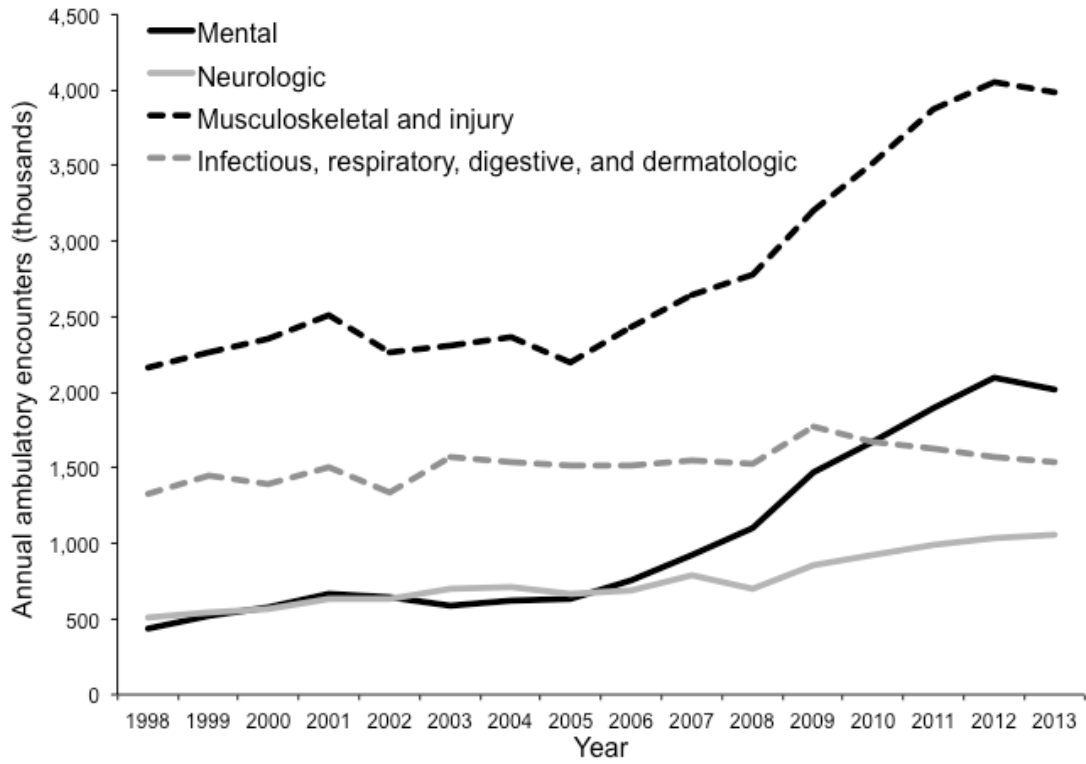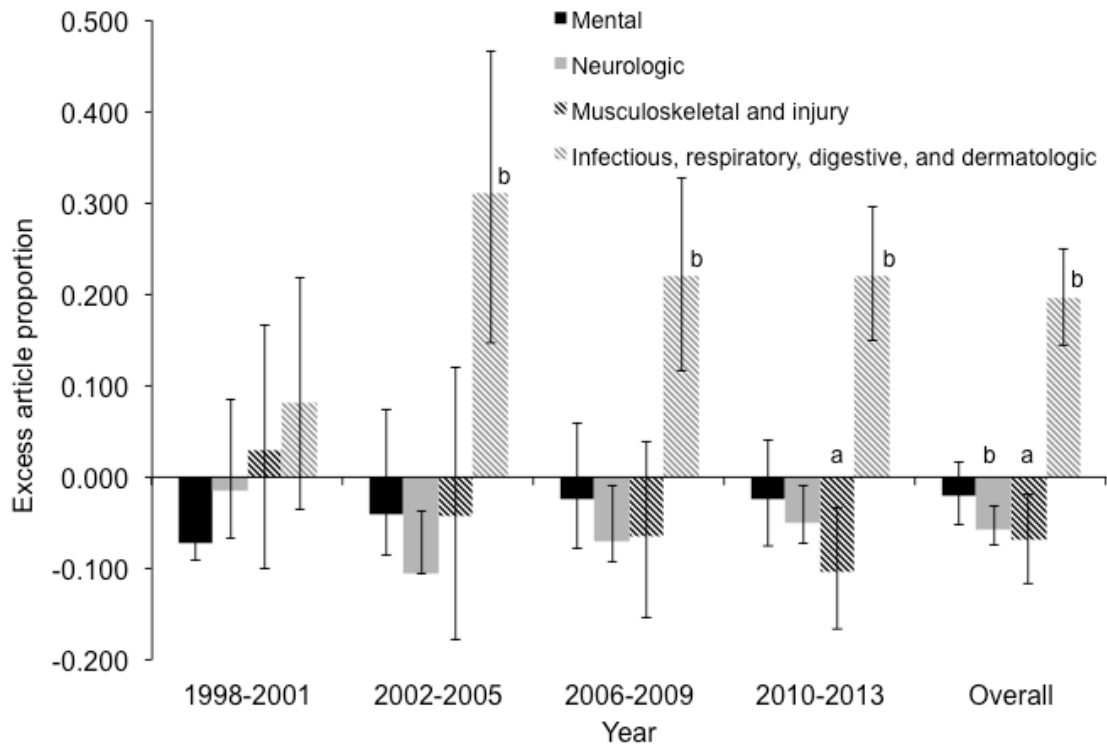
FIGURE 3: Excess proportion of articles relative to proportion of U.S. military ambulatory encounters, by major category of disorder, 1998-2013, by four year period and overall

a. P<0.01 by two-sided binomial exact test
b. P<0.001 by two-sided binomial exact test