

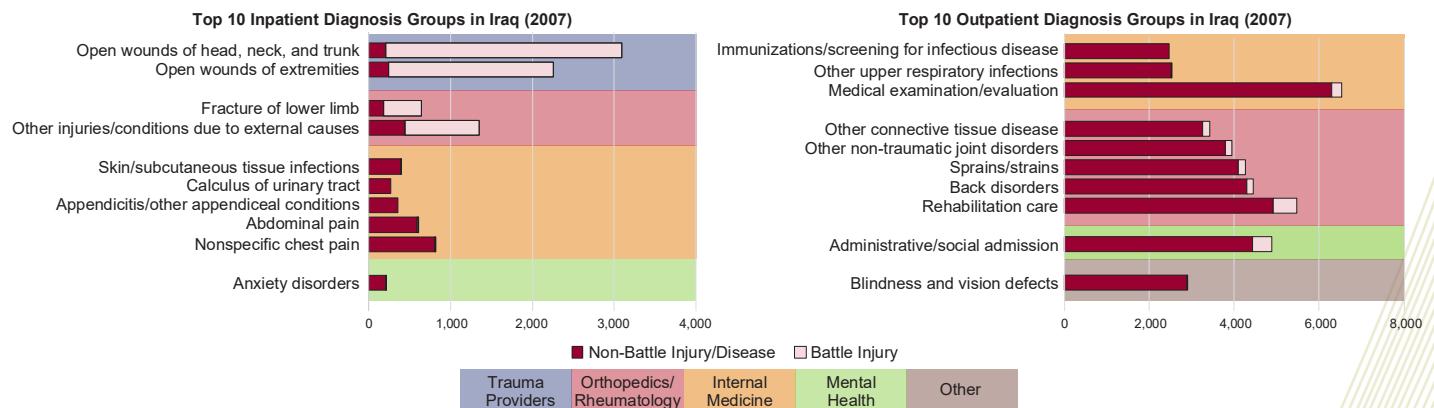
Non-combat Medical Care for Deployed Military Personnel

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IDA has devoted considerable research to issues surrounding medical care of U.S. military personnel injured in combat. Although also of great importance, delivery of care to the same personnel for day-to-day, non-battle medical issues has garnered less attention. To address this disparity, **IDA researchers examined data from U.S. military experiences in Iraq during Operation Iraqi Freedom (OIF) and in Afghanistan and surrounding areas during Operation Enduring Freedom (OEF).** IDA found that disease and non-battle injury (DNBI) resulted in more deaths during these operations than would be expected if the same-sized population experienced peacetime mortality rates. Further, we found that day-to-day medical problems may require different medical specialties than typically needed for battle injuries.

During OEF (October 2001–December 2014), non-battle deaths were 22% of total deaths among U.S. military personnel (510 non-battle versus 1,836 battle deaths). In the case of OIF (March 2003–August 2010), non-battle deaths were 21% of total deaths (929 non-battle versus 3,479 battle deaths). The non-battle totals exceeded IDA estimates using peacetime mortality rates by 197 deaths in OEF and by 218 deaths in OIF. We expect that non-fatal DNBI rates were elevated as well.

Iraq data from 2007 (the year of the surge in that theater) show that while various types of wounds were prevalent among the battle-injured, conditions at least initially treated by internal medicine specialists were more prevalent among non-battle inpatient episodes (see chart below left). The most common outpatient diagnoses in Iraq were clustered among infectious disease as well as conditions treated by orthopedists or rheumatologists (“non-surgical orthopedics,” see chart below right). Our findings for Afghanistan during the surge year of 2010 in that theater (not shown) were similar.



What caused these unexpectedly high rates in non-battle-related medical problems?

The answer is twofold:

- **Austere conditions.** OIF and OEF troops were required to carry heavy equipment (sometimes in excess of 60 pounds) over rocky terrain at high altitudes, or across desert sand in high temperatures. Some regions of Afghanistan, for example, reach altitudes well above 4,000 feet, where physical and cognitive performance begins to be affected.

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- **Age of Reserve and National Guard personnel who served.** One study estimated the median age of Reserve and Guard personnel in Afghanistan to be 31 and 30, respectively, and that of active-duty service members to be 24. The older personnel would be more likely than younger service members to be adversely affected by physical demands and harsh conditions experienced. Among the most common conditions associated with austere conditions and age are back and knee injuries.

IDA also found that women who served in OEF or OIF—while comprising nearly 10% of the deployed force—were less likely than men to be wounded or require medical evacuation as a consequence of combat. While women have served in combat roles since at least 1993, they were first deployed in direct ground combat positions in 2016. Nonetheless, because few women's healthcare providers were deployed in OEF/OIF, non-battle medical issues specific to women were not adequately addressed within the theaters of military operation.

For example, in 2007, while up to 20,000 women were deployed to the Iraq theater, approximately 5 full-time equivalent (FTE) women's health providers accompanied them. (The women's health providers included here were obstetrics/gynecology, nurse midwife, and women's health nurse practitioner. The latter specialty does not exist in the Army.) That was during a period when the total active and reserve medical inventory numbered about 450 specialists in obstetrics/gynecology and another nearly 200 in other specialties related to women's health. Similarly, for Afghanistan in 2010—where up to 10,000 women were deployed—the military deployed about 1 FTE women's health provider from an inventory of about 700 such providers.

Questions remain about what constitutes an adequate number of providers in specialties relevant to these medical problems. **Our research indicated that more attention is needed in the following areas: internal medicine, non-surgical orthopedics, mental health, and women's health.**

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