Effects of Overweight and Obesity on Recruitment in the Military

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Roundtable on Obesity Solutions
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• Prevalence of overweight and obesity in military-age U.S. civilians.
• Ineligibility of military applicants due to body weight and body fatness.
• Prevalence of enlistees that exceed Army weight-for-height guidelines and associated health risks.
• Recommendations for military recruitment.
Introduction

• Obesity has been posited as a threat to national security.

• Negative health implications impact health costs.
  ~$1.5B annually in health care expenses and costs to replace unfit personnel due to obesity.

• Obesity = lost work days, degraded readiness, higher need for aeromedical evacuation and ineligibility in recruitment.

Overweight & Obesity in the U.S.

Americans Ages 17-24 years

Three leading preventable causes of not being able to join the military include being overweight, lacking adequate education and having a history of crime or drug use.

71% of young Americans aged 17 to 24 are ineligible for military service.

~1/3 of 17-24 year olds are too overweight to qualify for service

Civilians exceeding enlistment standards

Percent of military-age Americans that exceed service-specific weight-for-height and body fat standards (2008)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Army</th>
<th>Navy</th>
<th>Air Force</th>
<th>Marine Corps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>12%</td>
<td>13%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Women</td>
<td>35%</td>
<td>21%</td>
<td>13%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Ineligibility of Military Applicants

- Approximately 9% of active component enlisted applicants were disqualified due to obesity (based on ICD-9 code).\(^1\)
- Approximately 16% of active component enlisted applicants were disqualified due to weight, body build (based on “other medical failure” codes from USMEPCOM).\(^1\)
- Existing recruitment and accessions standards are not posing challenges to recruitment goals per each Service’s Recruit Commands.\(^2\)

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Weight status of Army Enlistees

- Objectives: identify changes in weight status at Army entry from 1989 to 2012, and the demographic characteristics associated with overweight/obesity.

- Prevalence of exceeding the screening table weights increased with time (5.7% in 1989, 22% in 1992, high of 31% in 2006 and 2007, ~25% in 2012).

- Demographic predictors (2008-2012):
  - women less likely to exceed the guidelines compared to men.
  - women 20-29 or 30-39 years more likely to exceed guidelines vs. <20 years.

Weight Status and Injury Risk

- **Objective**: examine the association between BMI at accession and lower extremity musculoskeletal injury disorder (MID) during a Soldier’s career.
- ~740K followed from accession into Army during 2001-2011.
- ~400K cases of MID documented; overall MID rate 2.62 per 100 person-months.

Weight status of Army Enlistees

Relative to Soldiers with normal BMI (18.5 to <25 kg/m²) at accession:

- BMI <18.5 = 7% higher risk
- BMI 25 to <30 = 11% higher risk
- BMI >30 = 33% higher risk

Objective: examine the association between BMI at accession and incident cardiometabolic risk factors (CRF).

Incidence of CRFs:
- Metabolic syndrome: 228 Soldiers
- Glucose/insulin disorder: 3,880 Soldiers
- Hypertension: 26,373 Soldiers
- Dyslipidemia: 13,404 Soldiers

Overweight and obese had significantly higher risk of developing each CRF.

1. Existing recruitment and accessions standards are appropriate and are not posing challenges to recruitment goals.

2. Recruitment centers should collect info re: individuals who are turned away due to weight status.

3. DoD should assess feasibility of training recruiters to calculate BMI and collect circumference measurements (IAW DoDI 1308.3).

4. Current accession standards should be maintained as minimal requirement for agile and responsive fighting force.

Questions?

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