Enhancing the U.S. Army Performance Through Key Nutrition Initiatives

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Enhancing the U.S. Army Performance Through Key Nutrition Initiatives

https://learn.extension.org/events/3370
Today’s Presenter

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Performance Triad Nutrition Lead
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Disclosures

"The views expressed in this presentation are those of the author(s) and do not necessarily reflect the official policy of the Department of Defense, Department of the Army, U.S. Army Medical Department or the U.S. Government."
Learning Outcomes

• Participants will be able to discuss the tenants of the Performance Triad – sleep, activity and nutrition and the highlights of the FORSCOM P3 lessons learned

• Participants will be able to describe the components of the Go For Green 2.0 ® program

• Participants will be able to describe the components of the Healthy Army Communities initiatives to change the food environment on military installations
The Status Quo Is Not Acceptable

Fiscal Impact
>$3B Annually
This report summarizes calendar year 2016 data for readiness indicators, health outcome metrics, health factors, environmental health indicators, healthcare effectiveness measures, and Performance Triad data from existing medical data systems.

Why Measure Health of the Force?

- To assess health, readiness, and well being of Soldiers at an installation
- To create a standardized health assessment process that aligns with those performed nationally
- To better understand variations in overall health, leading health indicators, and key Performance Triad (P3) measures across installations
- To identify best practices and enhance the health of all Soldiers
Medical Readiness was achieved by 83.3% of Active Component Soldiers. Readiness decreased with age (85.5% of AC Soldiers <25 were medically ready compared to 76.2% of AC Soldiers 45 and over).

**HEALTH OUTCOMES**

**Injury Incidence** ▶️ **52%**

In 2016, 51.6% of Soldiers were injured; some individuals experienced multiple injuries during that period. There were 1,399 new injuries per 1,000 AC person-years in 2016.

**Behavioral Health** ▶️ **20%**

In 2016, 20.4% of AC Soldiers had a diagnosis of Behavioral Health disorder. Rates ranged from 14.7% to 28.9% across installations.

**Chronic Disease** ▶️ **12.7%**

12.7% of AC Soldiers evaluated had one or more diagnosis of chronic conditions. Chronic disease rates ranged from 8.2% to 33.8% across installations.

**PERFORMANCE TRIAD**

**Average P3 Scores, AC Soldiers, 2016**

- **SLEEP**: 68.4
- **ACTIVITY**: 83.6
- **NUTRITION**: 71.4

OTSG Target Score for each P3 component is 85.
### Obesity
- **17%** Overall, 17.3% of Soldiers were classified as obese. Obesity ranged from 7.9% to 25.8% across installations.

### Tobacco
- **26%** In 2016, tobacco use (smoke or smokeless) was reported in 26.4% of Soldiers. Tobacco use ranged from 7.3% to 35.8% across installations.

### Sleep Disorders
- **14%** In 2016, 14.4% of AC Soldiers were diagnosed with a sleep disorder. Sleep disorder rates ranged from 7.7% to 26% across installations.

### Substance Abuse
- **5%** Among AC Soldiers, 5% had a diagnosis of substance use disorder. Rates ranged from 1.8% to 8.3% across installations.

### Tobacco Use by Type, AC Soldiers, 2016

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Smoking Tobacco</td>
<td>14.3%</td>
</tr>
<tr>
<td>Smokeless Tobacco</td>
<td>9.1%</td>
</tr>
<tr>
<td>Both</td>
<td>3.0%</td>
</tr>
<tr>
<td>Do Not Use Tobacco</td>
<td>73.6%</td>
</tr>
</tbody>
</table>

Percentages of all tobacco use are based on smoking and/or smokeless tobacco use; because some Soldiers use both, the individual percentages do not add to the total.
Military Communities: DoD and Civilian

Service members require multi-component support programs that integrate the resources within the DoD networks and connect to the civilian community.¹


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DoD Community Members

| Individual: Active Duty and Reserve Component Service member, family member, DoD civilian, retiree |
| Interpersonal and Professional Relationships: Family unit, partners, peers, colleagues |
| Units and Organizations: Unit members, commanders, supervisors |
| Installations: Installation, base, forward deployment regions |
| Services: Army, Navy, Marine Corps, Air Force, Coast Guard, National Guard and Reserves |
| DoD: Office of the Secretary of Defense-level components and offices, departments and agencies |
The Performance Triad (P3) is a public health initiative intended to improve Soldiers’ readiness and resilience by improving sleep, activity, and nutrition (SAN).

FOR PEAK PERFORMANCE, REACH ALL TARGETS AND + GOALS

- **Get 8 hours of quality sleep per 24-hour period.**
- **Aim for 10,000 steps per day + 5,000 additional steps (spread throughout the day).**
- **Eat at least 8 servings of fruits & vegetables per day.**
- **Include at least 2 days or more resistance training per week + 1 day agility training.**
- **Re-fuel 30-60 minutes after strenuous exercise.**
- **Go caffeine free 6 hours before bedtime to reset sleep.**
- **Incorporate at least 150 minutes of moderate aerobic exercise + 75 minutes of vigorous intensity exercise per week.**

PerformanceTriad.mil
Performance Triad: Return on Readiness

- Just one sleepless night (< 4 hours) can impair performance as much as a 0.10% blood-alcohol level.
- Fatigue was a contributing factor in 628 Army accidents and 32 Soldier deaths (FY 11-14).
- < 5 hours sleep for 5 days (or 1 day without sleep) correlates to a 20% decrease in cognitive ability (memory & decision-making).

43K active duty (~12 BCTs) are non-deployable due to medical profiles.

10% decrease in overweight Soldiers enables FORSCOM 90% deployable goal.

36% less likely to deploy, 43K active duty (12 BCTs) non-deployable due to medical profiles.

$4.2B to train and replace all Soldiers BMI > 30 who are 36% less likely to deploy.

Calcium and Vitamin D status associated with increase likelihood of stress fractures.

$137M annually to replace Soldiers discharged due to weight control ($75.9K per new recruit).

20K (36%) trainees, will not complete their first term of enlistment, a loss of $1.03B annually.

Overweight recruits are 47% more likely to become injured and use 49% more healthcare in first 90 days.

10 million limited days of duty of COMPO 1 Soldiers on duty limiting profiles.

Performance Triad Pilot study baseline reports 99.6% of Soldiers do not meet all target behaviors.

Performance Triad: Optimizing Human Performance & Unit Readiness
Over 6-month pilot, positive effects were observed in 6 of 22 measured outcomes:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tbody>
<tr>
<td>Hours of weekday sleep</td>
<td>+ 15 min per day</td>
</tr>
<tr>
<td>Daily servings of fruits and vegetables</td>
<td>+ 1.5 servings per day</td>
</tr>
<tr>
<td>Frequency of refueling after exercise</td>
<td></td>
</tr>
<tr>
<td>Sleep, Activity and Nutrition knowledge</td>
<td>Increased 7-9%</td>
</tr>
<tr>
<td>Goal setting behaviors</td>
<td></td>
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<tr>
<td>Self-monitoring behaviors</td>
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FY15-16 P3 Program Success Stories: Sleep

Commander’s Comment

“What we learned most about and saw the fastest return on investment was in sleep management.”

“Commanders found that sleep banking prior to field densities increased cognitive performance for greater durations, increased performance in all tasks, and mitigated risks related to fatigue.”

COL Hayden
1/1 ABCT FT Riley
Soldier’s Perceptions of the Food Environment

- On average, Soldiers agree that the **commissary is a good place to get healthy food**.
- **Ratings of the DFAC and restaurants were neutral** while ratings of the vending machines fell in the “somewhat disagree” range.
- In focus groups, Soldiers expressed the **desire for healthier food options** (e.g. DFAC, food outlets on post, and vending machines).

“We don’t have control over what gets served to us or what we have to choose to eat from...you take money from me to pay for this food and tell me to eat a banana before PT, but there is no way to get a banana at the DFAC, it’s not even open.”

– P3 Participant

Data Source: KAB Survey; Endpoint Focus Groups
FY15-16 P3 Program: Conclusion and Lessons Learned

• Leadership
  – Soldiers look to their leaders to model SAN
  – Knowledge alone is not enough to change behavior
  – Leverage leaders to promote SAN

• Warfighter management
  – Field missions presented SAN challenges
  – One-third of units integrated healthy behavior into planning, execution, and recovery

• Installation environment
  – Make the healthy choice the easy choice
  – DFACs, vending machines, and on-post dining as areas for improvement

• Personal Readiness Device
  – Increased individual Soldier self-monitoring
  – Ineffective for population behavior change

Data Source: Endpoint Focus Groups
History of Go For Green ®

• LTG Hertling, first Commander of Initial Military Training, partnered with the Joint Culinary Center of Excellence to bring innovative changes for performance nutrition into Army dining facilities creating the “Soldier Fueling Initiative".
Lessons Learned from Original G4G

- No standardization of coding
- Limited guidance on how to code foods, beverages, and recipes
- No training for coders
- No standardization in who could create Food Cards with color codes
- Coding linked to ordering systems

Results

- Inaccurate coding and nutrition information
- Codes varying from facility to facility
- Inaccurate Food Cards
- Lost diner trust - no longer trusted that the color-code was correct or meant what it said
Transition for Go For Green ®

Original G4G (G4G 1.0)
- Started with Soldier Fueling Initiative
- Adopted by Army, Air Force, Navy
- This version was in Healthy Base Initiative
- Fueled to Fight® was adopted by Marine Corps

G4G 1.5
- Tested in 2015 as part of Army Performance Triad pilot
- Implemented in 2015 at Navy afloat and ashore

G4G 2.0
- G4G 2.0 defined as of February 2017
- Implementation plans in progress
Case Study: Joint Base Lewis McChord: Endpoint Focus Groups

• Soldiers in 89% of the focus groups indicated that P3 resulted in a heightened awareness of the importance of nutrition.

• Soldiers in 56% of the focus groups mentioned noticing changes in DFAC, some specifically mentioned how Go for Green® rearranged the DFAC layout to make healthier options more prominent (e.g., put fast food behind salad bar).

• Soldiers in 61% of the focus groups indicated still needing changes in DFAC (more healthy choices, hours of operation amenable to a Soldier’s schedule); Soldiers in 83% of groups mentioned the DFAC as a barrier to nutrition.

Data Source: FY2015-16 P3 Focus Groups
# G4G ® Versions Comparison

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<tr>
<td>Printed Materials</td>
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<td>Standard Food Cards</td>
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<td>Menu Coding Goals</td>
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<td>Food Placement</td>
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<tr>
<td>Standardized Staff Training (initial)</td>
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<tr>
<td>Standardized Staff Training (on going)</td>
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<tr>
<td>Promotion of Green-coded Items</td>
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<td>Marketing Plan</td>
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<td>Defined Program Requirements</td>
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G4G 2.0 Program Requirements

1. Standardized Dissemination of G4G Through Training and materials (e.g., Food Cards, table tents, pamphlets, and posters) through training
2. Food and Beverage Coding Based on Approved G4G Criteria
3. G4G Menu Coding Goals
4. Standardized Display of G4G Color and Sodium Codes
5. Food-Placement Strategies
6. Promotion of Green-Coded Foods
7. Marketing and Education
8. Staff Training at the Dining Facility/ Galley level
Highlights of the G4G 2.0 Program Changes

#1 - Standardized trainings through G4G Program Office

#2 - Coding of food, beverages, menu items, and ready-to-use items using the G4G Coding Algorithm

# 3 – G4G Menu Coding Goals
# 4 – Display G4G codes using standardized and approved

# 5 – Food-placement strategies to make Green-coded choices, the easy choice
# 6 – Promote Green-coded foods and beverages

# 7 – Marketing campaign with print, social media, articles, and briefs

# 8 – Staff training to educate on G4G 2.0
Resources

GO FOR GREEN® (G4G) is an all-service performance-nutrition initiative that improves the food environment where service members live and work. G4G prompts better food and beverage selections in order to optimize performance, readiness, and health.

https://www.hprc-online.org/page/Go-for-Green
Healthy Base Initiative

The Healthy Base Initiative was a comprehensive three-year effort to test and measure over 30 health and wellness initiatives at 14 locations (all four branches and USCG). The results below focus on food, though HBI also addressed other aspects of Total Force Fitness

Selected from across the Services, CONUS & OCONUS
- Army: Fort Meade (MD), Fort Sill (OK), Fort Bragg (NC)
- Air Force: Yokota (Japan), Mountain Home (ID)
- Marine Corps: 29 Palms (CA), Quantico (VA)
- Navy: New London (CT), Pearl Harbor (HI)
- Guard/Reserve: Camp Dodge (IA), March (CA)
- Coast Guard: Cape Cod (MA)
- Headquarters locations:
  - Defense Health Headquarters (VA)
  - Defense Logistics Agency (VA)
HBI Lessons Learned

The DoD Food System is complex and needs to be transformed
- The current system is outdated and operates in silos
- Need for greater focus on nutritious food; making healthier choices easier

A multifaceted approach is needed. Doses of interventions must increase. Implementing one or two interventions in isolation is not enough to change behavior
- Need multiple options at more than one location

Dining Facilities offer healthy options but access and convenience are lacking

Vending and fast food venues need significant improvement

Family members want education in healthy eating, shopping and cooking

Assessment and measurement tools should be used to improve future efforts
Healthy Army Communities

Commitment

Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Healthy Army Communities
Vision and Mission

Vision

The Army community at all levels is mission ready, healthy, and resilient.

Mission

Army Communities inspire, identify and integrate active solutions for Healthy Army communities to be healthier places to live, learn, eat, work, play, shop and sleep; increasing readiness, resiliency, retention and recruitment through an Army culture of health.
Healthy Army Communities

Team Work

Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Healthy Army Communities
Innovation Demonstration Locations

Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Healthy Army Communities
G4/JCCoE Innovations

Healthy Grab-and-Go Options

Menu Labeling and Nutrition Education

New Healthy Recipe Collaboration with Natick

Adopt-a-Chef Program

Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Healthy Army Communities

Exchange Innovations

Healthy Vending Machines

Menu Labeling

Operation “Be Fit” at Express Stores

Healthy Brand Transitions
Healthy Army Communities
Commissary Innovations

- Shopping Tours
- Healthy Grab-n-Go Products
- Cooking Classes
- Meal Replacement Products

Licensed by J Chilek from AdobeStock
Healthy Army Communities
IMCOM G9/FMWR Innovations

25%

Healthy Menu Requirement
500 Calories or less
<40% calories from Total Fat
<10% calories from Sat. Fat

Introduce New Healthy Recipes in MWR Venues & Java Cafes

Set Up “Charging Stations”

Introduce Digital Menu Boards with Nutritional Information

Food Service Healthy Cooking Training

Source: Clarksville Now  Photographer: Photo submitted by Fort Campbell MWR

Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Healthy Army Communities
Stakeholder Innovation Demonstration

IMCOM G9 / FMWR
- Introduce Fitness Center Grab-n-Go Partnerships
- Develop “STRONG B.A.N.D.S” like Monthly Fitness and Activity Challenges

Children and Youth Services
- Food Delivery Partnerships – Fit Meals at CDC’s
- New nutrition requirements at CDC’s
- Focus on Physical Activity vs. Sports teams
- Presidential Youth Fitness Program
- Fitness Certification

Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Healthy Army Communities = Mission Ready, Healthy, Resilient, and Army Strong
Military Nutrition Environment Assessment Tool (m-NEAT)

- m-NEAT is an assessment of an installation’s environment and policies related to promoting and supporting healthy eating within the workplace, community and school settings.

- The m-NEAT is designed to assist health promotion professionals, dietitians, food operators, commanding officers and other stakeholders in collecting information and developing action plans at the local level and at the headquarters level.

- The m-NEAT 1.0 version is a tool used by the Army, Navy and Air Force.

- Currently testing m-NEAT 2.0 version for Healthy Army Communities and DoD.
m-NEAT 2.0 Sections

- Fast Food
- Moral & Welfare Recreation Food Facilities
- Commissary
- Express, Snack Shop, Grab n Go
- Vending
- Dining Facilities
- Community
- Worksite
Assesses and scores facilities on five key constructs of the environment that support healthy eating.
All efforts around this Army-wide effort
What is an AWC?

• Provide integrated and standardized primary prevention programs and services that promote enhanced and sustained healthy lifestyles to improve the overall well-being of Soldiers, Family Members, Retirees, and DA Civilians.

• AWCs are delivered in standard facilities with highly trained staff (i.e., certified by American College of Sports Medicine) using advanced testing equipment.

Leveraging Technology to Increase, Readiness, Performance, and Resiliency.
Standard Programs and Services

- Health Assessment Review
  - Risk Stratification
  - Wellness Questionnaires
  - Biometric Screening

- Physical Fitness
  - Exercise Testing
  - Exercise Prescription

- Healthy Nutrition
  - Metabolic Testing
  - Weight Management
  - Healthy Nutrition Education

- Stress Management
  - Stress Management Education
  - Biofeedback

- General Wellness Education
  - Healthy Lifestyle Habits
  - Wellness Coaching
  - Good Sleep Habits

- Tobacco Education
  - Tobacco Free Living
For More Information……

• Performance Triad:  
  http://performancetriad.mil

• Go For Green ®:  
  https://www.hprc-online.org/page/Go-for-Green

• Healthy Army Communities:  
  https://www.armymwr.com/programs-and-services/resources/healthy-army-communities/

• Army Wellness Centers:  
  https://phc.amedd.army.mil/topics/healthyliving/al/Pages/ArmyWellnessCenters.aspx
Acknowledgements

- Office of the Army Surgeon General, System for Health
- Performance Triad Team
- Army Public Health Center
  - Health Promotion and Wellness Directorate
  - Public Health Assessment Division
- Installation Management Command, Health Army Communities
- Joint Subsistence Policy Board
- Go for Green ® Team
- Military Community and Family Policy, Healthy Base Initiative
- Total Force Fitness/ Operation Live Well
Questions?
Evaluation and Continuing Education Credits

MFLN Nutrition & Wellness is offering 1.0 CPEU for today’s webinar.

Please complete the evaluation at: URL

https://vte.co1.qualtrics.com/jfe/form/SV_2fPRBMMM48KqolL
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Time: 11am-12pm ET

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