Holistic Health and Fitness (H2F) Overview

COL Kevin Bigelman
H2F Director
AMERICA’S ARMY: Globally Responsive, Regionally Engaged

Holistic Health & Fitness
Why do we need H2F?

70% of people between 17-24 are unqualified for military service.

17% of AC Soldiers and 25% of Reserve/ National Guard Soldiers are obese.

55% of Active Component Soldiers sustain a musculoskeletal injury each year.

10 million limited duty days & $577 million in patient care.

53% or ~8 BCTs of Active Component non-deployable Soldiers are non-deployable due to medical reasons.

12% of Soldiers have sleep disorders & 5% of AC Soldiers require prescription sleep aids.

Implement H2F to:
- Optimize Soldier personal readiness
- Optimize physical and non-physical performance
- Reduce injury rates, particularly over-use MSKI rates
- Rapidly rehabilitate and recondition Soldiers following injury
- Improve overall Soldier and unit morale and effectiveness

“I want to ensure every Soldier can play home and away games.”
– GEN McConville 40th CSA– 13 APR 20
Use of interdisciplinary performance teams is a proven approach to attaining performance optimization and optimal care for athletes.
AMERICA’S ARMY: Globally Responsive, Regionally Engaged

Holistic Health & Fitness
How & Who: Doctrine

The U.S. Army
Holistic Health and Fitness Operating Concept

The U.S. Army’s System for Enhancing Soldier Readiness and Lethality in the 21st Century

FM 7-22
HOLISTIC HEALTH AND FITNESS

ATP 7-22.01
H2F Testing

ATP 7-22.02
H2F Drills & Exercises

U.S. Army H2F Operating Concept
Changing the Army’s Culture of Health and Fitness!

Physical Readiness
- Muscular Strength
- Muscular Endurance
- Aerobic Endurance
- Anaerobic Endurance
- Power

Mental Readiness
- Cognitive Capability
- Emotional Capability
- Interpersonal/Social Capability

Spiritual Readiness
- Beliefs
- Principles
- Values

Nutritional Readiness
- Proactive
- Active
- Reactive

Sleep Readiness
- Duration
- Timing
- Continuity
Deployment Training Lockers

Treatment and Training Equipment

Tier 1:

- x14 Strength Coaches
- 4x Athletic Trainers
- 4x Athlete Trainers
- 2x Athlete Trainers

Tier 2:

- 3x Physical Therapy Assistants
- 1x Physical Therapy Assistant
- 1x Physical Therapy Assistant

H2F Performance Team Structure

Soldier Performance Readiness Center

Deployable Medical Equipment Sets

AMERICA’S ARMY:
Globally Responsive, Regionally Engaged

CUI

CPS Program Director/Provider (O3-4/65A OT)

Physical Therapy Specialist (E4-6/68F PT Spec)

Physical Therapy Specialist (E4-6/68M NC Spec)

Registered Dietitian (O3-4/65C RD)

Nutrition Program Director/Provider (O3-4/65B PT)

Injury Control Director/Provider (O3-4/65B PT)

H2F Tier 1

H2F Program Director GS-0601-13

Holistic Health & Fitness

x4 Strength Coaches

x4 Athletic Trainers

Occupational Therapy Specialist (E4-6/68L OT Spec)

Cog. Performance Specialist (CON CPS)

Occupational Therapy Aide GS-0636-07

Physical Therapy Assistant GS-0636-07

Physical Therapy Assistant GS-0633-12

Physical Therapist GS-0633-12

Physical Therapist (O3/65B PT)

Nutrition Health Educator GS-0640-07

Nutrition Care Specialist (E4-6/68M NC Spec)

CIMT – H2F // SEP21
Holistic Health & Fitness
Soldier Performance Readiness Centers (SPRCs)

Facility Design Standards

- Facility Size
  - BDE (42,700 SF)
- X3 Distinct Physical Training Zones
  - Resistance Training
  - Accessory Training
  - Work Capacity / Agility Training
- X2 Classrooms (25 PAX each)
- X1 Rehab & Cognitive Performance Area

- Prep / Warm-up Area
- Resistance Training
- Accessory Training
- Work Capacity / Agility Training
- Rehabilitation & Cognitive Performance Area
- Admin / Class / Team room

Zone 0: Warm-Up

Zone 0
- Prep / Warm-up Area

Zone 1
- Resistance Training
- Accessory Training
- Work Capacity / Agility Training
- Rehabilitation & Cognitive Performance Area
- Admin / Class / Team room

Zone 2
- Accessory Training

Zone 3
- Work Capacity Agility Training
Army Combat Fitness Test

Dr. Whitfield East
Research Physiologist
AMERICA’S ARMY:
Globally Responsive, Regionally Engaged

Baseline Soldier Physical Readiness Requirements Study
(HQDA 041-13)

Identify HPDT tasks:
1. Movement to Contact
2. Build Fighting Position
3. Move O/U/A/T in Urban Terrain
4. React to man-on-man contact
5. Extract & evacuate a Casualty

Simulation must mimic the warrior task
Similar physiological demands

Predictive Tests:
- Muscular Strength
- Muscular Endurance
- Explosive Power
- Speed / Agility
- Aerobic Endurance

Muscular Strength
Muscular Endurance
Explosive Power
Speed / Agility
Aerobic Endurance

Army Combat Fitness Test

80% predictive of Warrior Tasks and Battle Drills performance

Concurrent Validation
Physical Fitness Constructs – WTBD

Muscular Strength
- Lift, carry, drag heavy loads
- Work for long periods of time

Muscular Endurance

Speed - Agility
- Move quickly over, under, around, through obstacles

Aerobic Endurance
- Move for long distances over uneven terrain under load

Explosive Power
- Generate and apply force

Generate and apply force
**AMERICA’S ARMY:**
Globally Responsive, Regionally Engaged

**Warrior Tasks and Battle Drills Simulation Test**

1- Movement to contact

2- Build a hasty fighting position

3- Move over-under-around-through obstacles on uneven terrain
4. Employ progressive levels of strength / power (man-man contact)

5. Extract – Evacuate a casualty
What test events are better predictors of WTBD-ST performance

- Push-up
- 2-mile Run
- Sit-up
- Sled Drag
- 2-mile Run
- Deadlift
- Sled Push
- Push-up
- Deadlift
- Leg Tuck
- Power Throw
- 300m Shuttle
- Sled Push
- S-D-C
- 2-mile Run
- 3RM Deadlift
- HR Push-up
- Leg Tuck
- Power Throw
The regression lines below represent residuals \((Y-Y')\) across the six (6) ACFT test events by Event_sex by Sex for the FT Riley sample. \(R^2 = 0.803\).

- The trend lines are parallel demonstrating the effects of physical fitness on Warrior Tasks and Battle Drill – Simulation Test performance.
- The gap between the men-women trend lines represents physiological differences and training gaps between men and women.
- As Soldiers continue to train, trend gaps will decrease as performance regresses towards the mean.
QUESTIONS