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WP2 **WARRIOR
PERFORMANCE
PLATFORM**
POWERED BY
TIAG | COACHMEPLUS

DESIGNING HUMAN PERFORMANCE TOOLS FOR US ARMY H2F TECHNOLOGY ENABLEMENT:

CASE STUDIES FROM THE ARMY APPLICATION LAB'S PILOT PROJECT USING THE COACHMEPLUS WARRIOR PERFORMANCE PLATFORM (WP2)

Disclaimer

The view(s) expressed herein are those of the presenter(s) and do not reflect the official policy or position of the 82nd Airborne Division, the XVIII Airborne Corps, the U.S. Army Medical Department, the U.S. Army Office of the Surgeon General, the Department of the Army, Defense Health Agency, the Department of Defense, or the U.S. Government.

COACHMEPLUS

Built for Coaches and Warriors

- **Use What the Pros Use**

Clients across the NFL, NBA, NHL, MLB, MLS and top universities and colleges.

- **Over 200 Enterprise Clients**

7 years of working with enterprise clients inside complex environments.

- **30 Million Data Points per Month**

Human performance data from pro teams to fitness centers entered daily.

- **Military Tested and Ready**

5+ years of US Army, Navy, and Air Force experience with multiple pilot studies approved for follow-on phases.



*TIAG IS THE CM+ TEAM'S
EXCLUSIVE DOD PARTNER*



Relevant Department of Defense Experience

ARMY RECOVERY CARE PROGRAM



ADAPTIVE RECOVERY WOUNDED WARRIOR SOLDIER PERFORMANCE PLATFORM (SP2)

Operational Need and Improvement: Help ensure compliance of Soldier ARCP compliance, which can be divided at the lowest levels (Soldier or squad leader) up to the highest levels (entire SRU and enterprise-wide).



2021-2025

14 SOLDIER RECOVERY UNITS (SRUs)

- Hyper-personalize rehabilitative care for our Soldier's recovery process
- Increase the accessibility and efficiency of rehabilitation for wounded warriors

NAVY SBIR N171-079 – PHASE II 2017

HUMAN PERFORMANCE SELF-SERVICE KIOSK AND APPLICATION

Operational Need and Improvement: The Navy seeks a software and hardware platform that displays and shares human performance and is supported by commercially available wearable devices to include phones, tablets and physical activity tracking devices.



2020-2023

NAVY DELAYED ENTRY PROGRAM (DEP)

- Improve scores on the fitness test
- Improve compliance of fitness activities
- Integrate with commercial fitness wearables
- Learn from usage patterns to improve platform

USAF SBIR AF191-005 – PHASE II 2019

REMOTE FITNESS COACHING FOR AIRMEN

Operational Need and Improvement: Airmen in the reserve components (Air National Guard and Air Force Reserve) go through the same intensive training as their active-duty counterparts.



2020-2023

AIR NATIONAL GUARD – OH, WA

- Maintain or improve fitness standards
- Improve scores on the fitness test
- Improve compliance of fitness activities
- Learn from usage patterns to improve platform

Domains

Changing the Army's culture of Health and Fitness!

Mental Readiness

- ▶ Cognitive Capability
- ▶ Emotional Capability
- ▶ Interpersonal/Social Capability

Sleep Readiness

- ▶ Duration
- ▶ Timing
- ▶ Continuity

Spiritual Readiness

- ▶ Beliefs
- ▶ Principles
- ▶ Values

Nutritional Readiness

- ▶ Proactive
- ▶ Active
- ▶ Reactive

Physical Readiness

- ▶ Muscular Strength
- ▶ Muscular Endurance
- ▶ Aerobic Endurance
- ▶ Anaerobic Endurance
- ▶ Power



THE SOLUTION

The Connected Fitness Experience

Remote Training

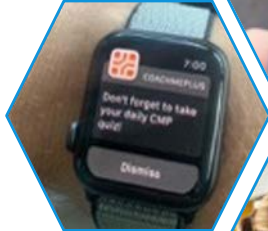
Anywhere, anytime is the new fitness model.



Connect Wearables

Bring your own device.

Coaches cast data with the proper contextual emotion.



Hyper-Personalize

Apps can't do it alone.

More fitness goals are achieved when Soldiers and coaches work together.

Connected Facility

Hybrid fitness both off-site and on-site increase compliance and improve fitness outcomes.



Coach Anywhere

Remote Coach. Maintain engagement in the coach-soldier relationship.



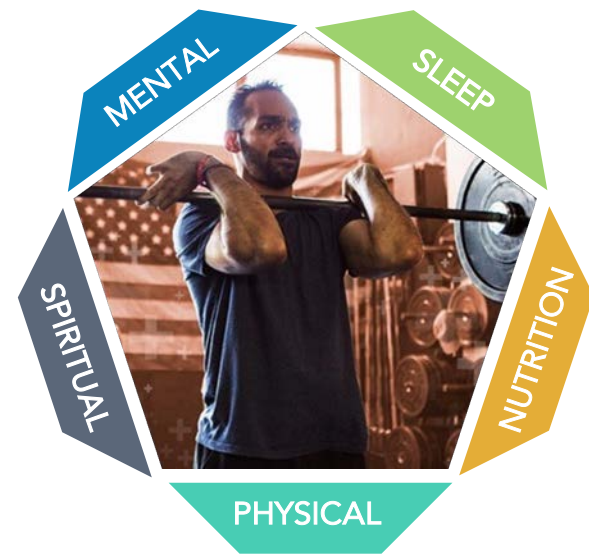
Enterprise Integration

Connecting to the data ecosystem reduces workload for busy coaches.



CONFIGURABILITY AND SCALABILITY

H2F Configuration



PHYSICAL NUTRITION SLEEP MENTAL SPIRITUAL

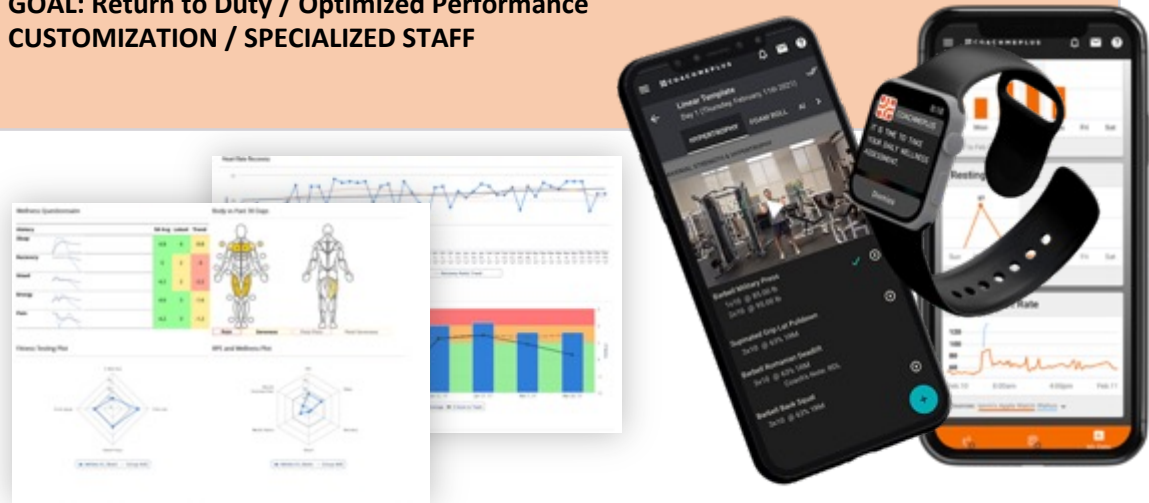
SINGLE PLATFORM – DIFFERENT MISSIONS

"HP" as Health Promotion and Human Performance



PROVIDE HEALTH PROMOTION MATERIALS
GOAL: Behavior Change / Education
HIGH AUTOMATION / LIMITED STAFF

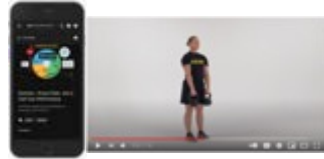
MANAGE HUMAN PERFORMANCE METRICS
GOAL: Return to Duty / Optimized Performance
CUSTOMIZATION / SPECIALIZED STAFF



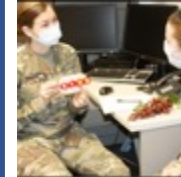
ACCOUNTABILITY MATTERS

Structure For Compliance

Who – H2F, Health Promotion, MEDCOM, CHAMP, etc.
 Role – Content, Programming



Who – H2F Green-Suit, PT, ATC, Nutritionist, LCSW, S&C, Chaplain
 Role – Intervention, Personalization, Content



Who – Commander
 Role - Mandate

Who – Human Performance Advisor (HPA)
 Role – Program Compliance, Review
 Personalization, Content



Who – MFT
 Role - Attendance, Safety Check

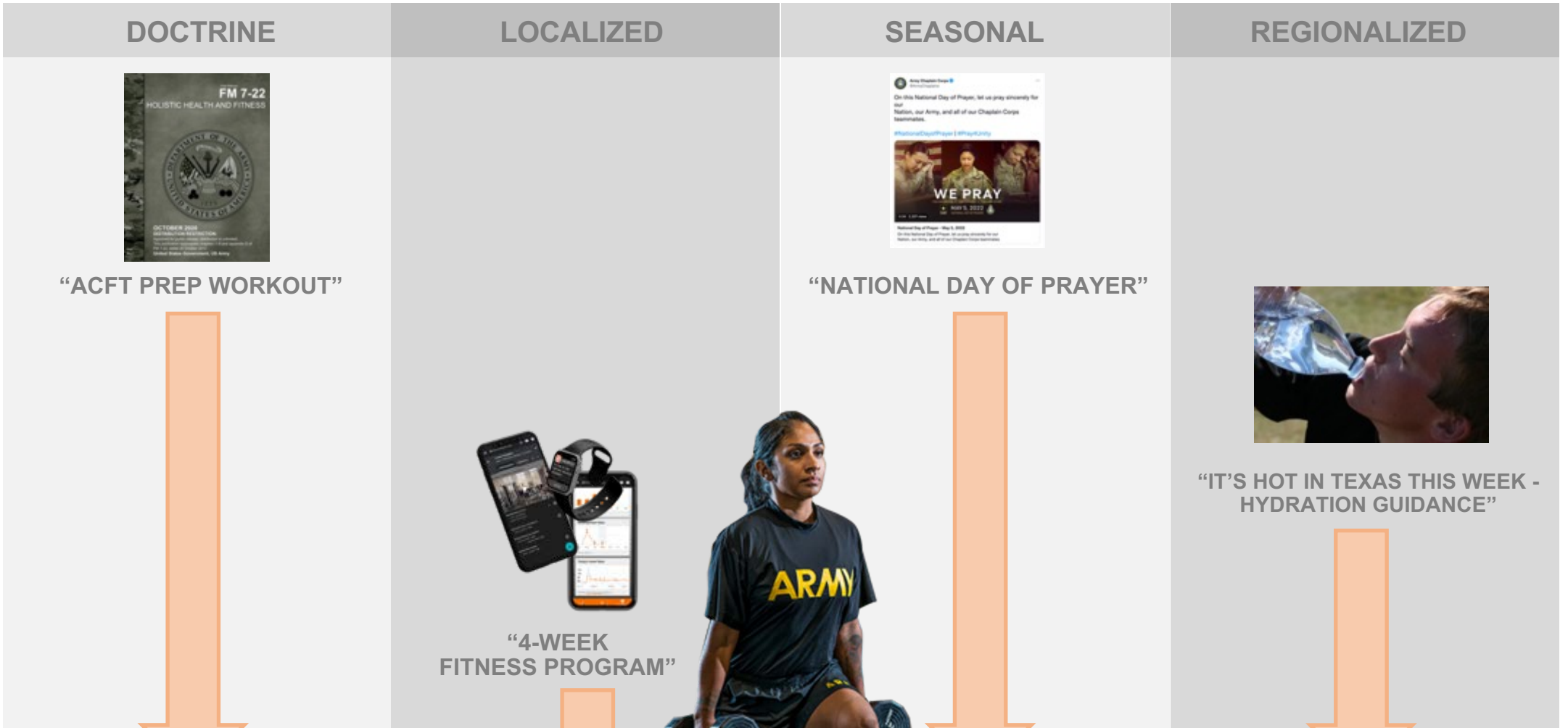


Who – Solders App
 Role - Semi-Automation of Programming
 - Capture of Data



SHARE THE LOAD

Provide Content – Provide Context



H2FMS Pilot Concept

Holistic Health and Fitness Management System (H2FMS)

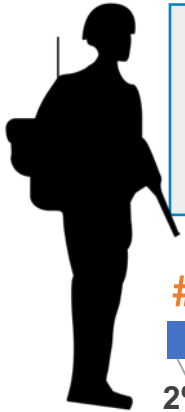
- Direct-to-Phase II SBIR sponsored by Army Application Lab (AAL)
- Army desires “*digital interface tool that incorporates all five H2F domains to better address Soldier readiness and well-being*”
- Three commercial athlete management system (AMS) vendors selected
- Vendor platforms were deployed sequentially at three separate Army units in round-robin fashion
- Each rotation lasted eight (8) weeks
- Vendors were evaluated based on:
 - Ability to drive/encourage utilization
 - Ability to support all five H2F domains out of the box

H2FMS Goals & Objectives

- **Reduce Redundancies:** The platform should aggregate information across pre-existing Army systems, accelerate access to care to the right provider, and turn data into information for leaders to make decisions.
- **Scheduler:** Across all pillars of H2F, practitioners need a consolidated scheduling application for individual and group classes with the ability to have director and leader oversight.
- **Dashboards at Echelon:** Leaders at all levels should have a consolidated dashboard of their unit's health, performance, and progression of fitness and care.
- **Programming:** NCOs plan and lead PRT.
- **Usability and Content:** The platform should operate as BYOD and incorporate both Paratrooper and Practitioner data collection. H2F practitioners and leaders have the ability assign content to specific Paratroopers, groups, or ALL.

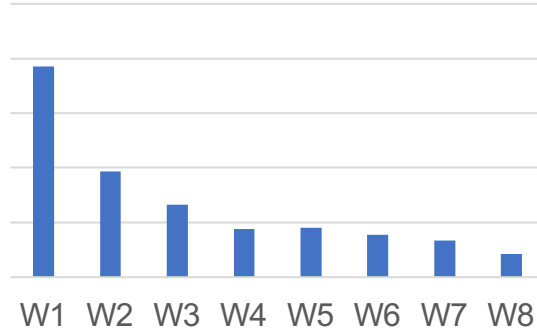


82nd Airborne – Tracking Engagement

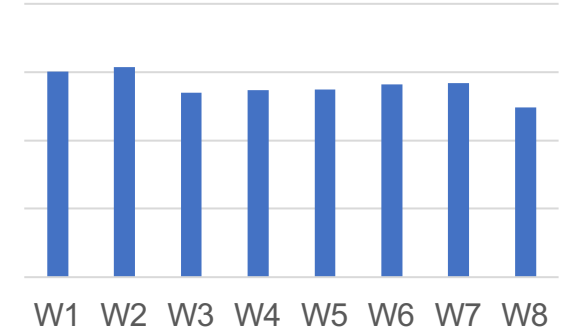


1,310
Registrations

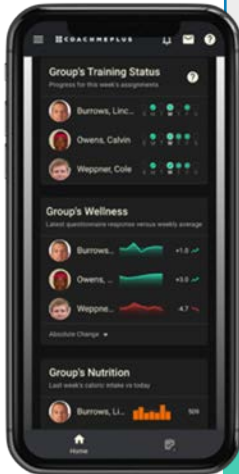
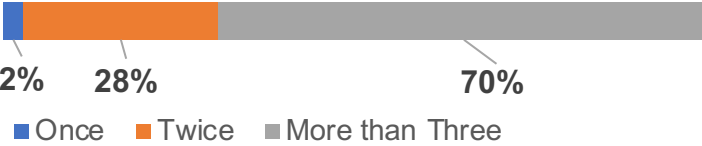
10,759
Logins



2.8
AVG Login/Week



Times Logged In

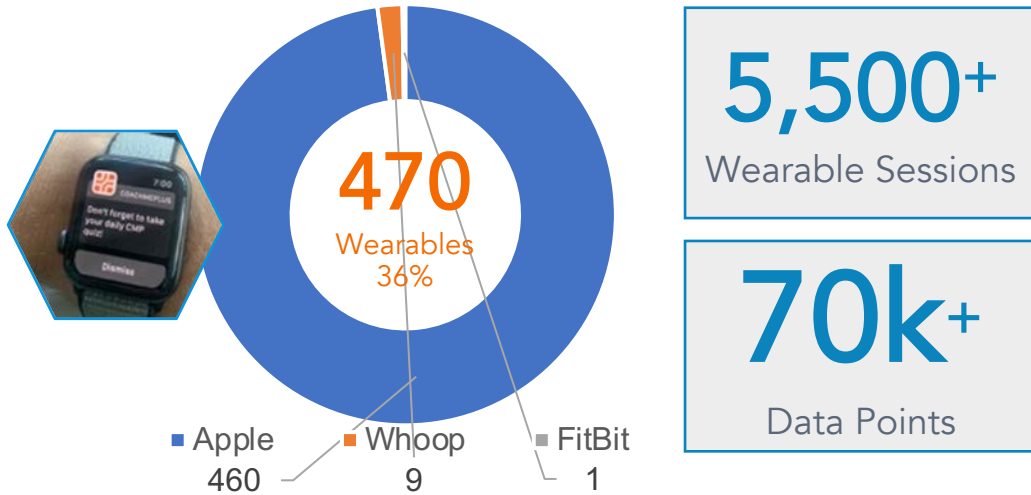


<p>62,844 Exercise Sets Tracked</p> <p>Built Programs 47 Coaches 107 Programs</p> <p>PHYSICAL</p>	<p>128 (10%) Tracked Meals</p> <p>7 Soldiers imported 3rd party</p> <p>NUTRITION</p>	<p>543 (41%) Reported Sleep Data</p> <p>151 Soldiers imported 3rd party</p> <p>SLEEP</p>	<p>543 (41%) Reported Mindful Data</p> <p>7 Soldiers imported 3rd party</p> <p>MENTAL</p>	<p>N/A No Chaplain Participation</p> <p>SPIRITUAL</p>
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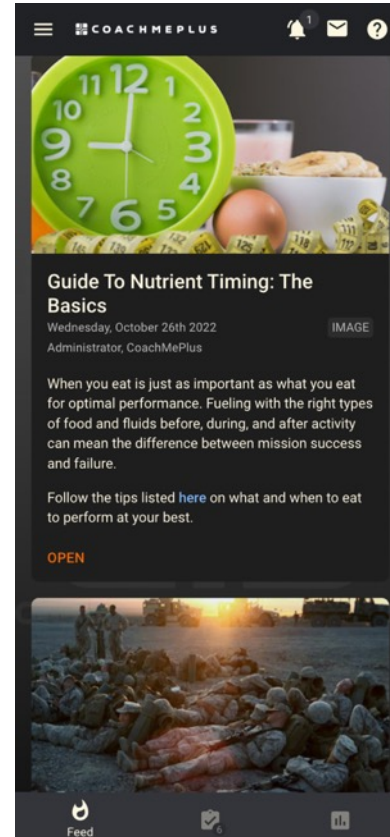


82nd Airborne – Additional Engagement

Wearables Integrated



Educational Materials



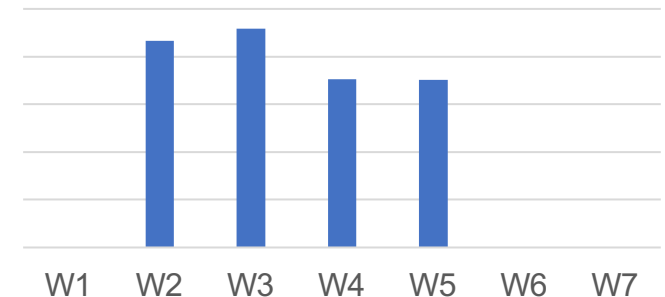
Activity Plans - 875 Opens
92% Mobile

PHYSICAL	219
NUTRITION	254
GENERAL	402

Encounter Requests - 71 Soldiers

S&C TEAM	19
DIETITIAN TEAM	17
OT TEAM	35

Educational Email - 1595 Opens
97% Desktop





82nd Airborne – Lessons Learned

- **27% of No Shows for Scheduled Encounters:** Paratroopers are constantly performing rotations in the field, jumping, preparing to jump, conducting daily operational duties, and can be assigned last minute taskings such as guard duty and staff duty. This battle rhythm creates challenges for Paratroopers to attend scheduled appointments, which had obvious implications on the success of the WP2 team and utilization of the application.
- **Use of “ALL” Button – Easier Filtering:** Across all pillars of H2F, practitioners expressed the need to be able to mass assign content to all Paratroopers.
- **Educational Content Specific to Mindfulness:** Facilitating dialogue on the education gap that exists within the tactical training environment provided ample opportunity for a greater understanding of this content and how practitioners can best apply it.
- **Uploads to Library:** With the influx of content from multiple practitioners, the WP2 library began to slow in its loading capabilities. The WP2 Team identified this issue quickly, and the software development team made software changes to optimize load times and improve overall end-user experience.
- **Role Designation and Roster Management:** Account creation, role designation, and roster management of 4500 Paratroopers within the system was time intensive for set-up and requires H2F and WP2 teamwork. Long term maintenance of the system should streamline; however, unit turn-over will require constant monitoring.



82nd Airborne – Success Stories

A Soldier's Thoughts on Access and Utilization of the Application:

*"The CM+ application is an opportunity to gain access to more resources, tools, and educational content. This **application solves the issues of communication, accessibility and Soldier performance/participation tracking**. It is an incredible way to make this stuff more accessible to the Force rather than the small percent."*

– De-identified Soldier Survey

Accessibility to All H2F Practitioners

CM+ was the first pilot that provided access and usage to the entirety of the 82nd H2F Team, particularly the Nutrition and Occupational Therapy Teams. The CM+ application possesses the ability to record nutritional content, with a breakdown of macro- and micro- nutrients. It further allowed the Dietitians to see what each Soldier is consuming on a day-to-day basis.

– Dietitian Team

Ease of Programming

Anyone is able to go in on any device, mobile or desktop, and write up a program in minutes. Multiple practitioners shared their excitement about this feature; they appreciated that they were able to work on programs in the office, at home, and on the road.

– S&C and Injury Prevention Teams

Alerts via SMS

One of the key features developed by the WP2 Team during the latter four weeks of the pilot phase was the ability for practitioners to receive SMS notifications when a Soldier wished to speak with them.

– OT Team

Commander engagement

LTC Means expressed his pleasure with the CM+ application, highlighting his ability to utilize it both as a Battalion Commander and as an individual. He recommended the following sustainment and improvements: Leaderboards and Goals communities, Training Program selection, Direct request for communication through WP2 team, Education on landing page.

– LTC Means – 3-73 (CAV) Commander

Next Steps

Currently executing 12-month extension to further refine operating model and prepare for broader deployment.

Key Activities:

- **Ongoing operational pilots** with the 82nd ABN and other resourced and non-resourced Army units
- **Cybersecurity Accreditation**
Currently undergoing 3PAO assessment in pursuit of DoD Provisional Authorization (PA) at IL-4, as well as an Authority to Operate (ATO)
- **Army Data Fabric Integration**
Exploring and prototyping integration with Army Vantage and other authoritative Army and DoD systems, as well as multiple H2F-related data warehouse initiatives
- **Core platform enhancements** to better support the operational requirements of the H2F program

Priority Enhancements

CLASS SCHEDULING AND APPOINTMENT SCHEDULING

Solution: The class scheduling capability currently exists within the commercial CoachMePlus product and will be incorporated into the H2F deployment.

SPEED IMPROVEMENTS - MULTIPLE SYSTEM LOCATIONS

Solution: Implement the software and system improvements and optimizations identified during the pilot period.

MACRONUTRIENT TARGETING

Solution: We will develop a target for calories per day. This daily caloric goal can then be allocated, on a percentage basis, by both meal and by macronutrient.

MEAL BUILDER

Solution: A meal builder function that integrates with the Macro Nutrient Targeting capability. Dietitians will be able to set daily caloric goals and build a meal plan around these targets.

CREATING MICRO GROUPS AND "FRIENDING"

Solution: Determine what controls should be placed on user posting to limit the interactions to H2F-related activities and content.

IMPROVED PROVISIONING- ACCOUNTS AND GROUPING

Solution: New methodology for assigning Soldiers to groups. Potential methods include user self-selection, practitioner assignment, or commander assignment. We will create the functionality and work with the 82nd Airborne Soldiers to determine what is most effective.

MISSED ENCOUNTER AUTOMATION –THE 27%

Solution: "Missed encounter" automation to allow an H2F Practitioner to assign an activity. Report function to track missed appointments by unit so leaders can increase compliance and accountability.

REARCHITECT FITNESS BUILDER - IMPROVED SCALING

Program Sequencing, Fitness Builder Library Management, and speed enhancements.

Customer Comments



Sidney Crosby
Pittsburgh Penguins 

"It's not always the information you get. It's how you interpret that information."

Buster Posey
San Francisco Giants



"I've had this conversation with our trainer: Regardless of what the machine tells me, I need to be ready to play every day."



Jose Abreu
Chicago White Sox 

"It's a very useful and helpful app -- that helps you to be in the best shape possible when you go to spring training."

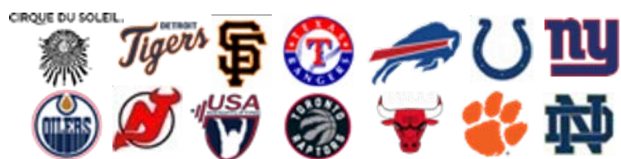
 

Brian Kelly
Head Coach



"Just having the opportunity to talk to players based on what we saw today -- helped them."

SAMPLE OF EXISTING CUSTOMERS



Thank You



ARMY RECOVERY CARE PROGRAM (2021-2025) ADAPTIVE RECOVERY WOUNDED WARRIOR SOLDIER PERFORMANCE PLATFORM (SP2)

Operational Need and Improvement: Help to ensure Soldier compliance with Adaptive Reconditioning activities, with metrics visible at the lowest levels (Soldier or squad leader) up to the highest levels (entire SRU and enterprise-wide).

ARMY SBIR PHII H2FMS Pilot (2022-2023)

HOLISTIC HEALTH & FITNESS MANAGEMENT SYSTEM

The Army currently measures Soldiers' health primarily using physical fitness data. This ignores the other four readiness domains targeted by the Army's Holistic Health and Fitness (H2F) initiative: sleep, nutritional spiritual, and mental. A digital interface tool that incorporates all five H2F domains so we can better address Soldier readiness and well-being.

USAF SBIR AF191-005 (2019-2023)

REMOTE FITNESS COACHING FOR AIRMEN

Operational Need and Improvement: Airmen in the reserve components (Air National Guard and Air Force Reserve) go through the same intensive training as their active-duty counterparts.

US ARMY RESERVE H2F PILOT (2021-2022)

81ST READINESS DIVISION H2F TECHNOLOGY SUBCONTRACT

Operational Need and Improvement: Provide Prime Contractor and 81ST Readiness Division with a software solution to improve unit and individual readiness through education and training across the spectrum of human performance.