

# SIGMA+ Health Platform

An end-to-end data collection and analysis solution to improve Service member health, readiness, and performance

## The Challenge

Downtime is not an option for military personnel and Service members because optimal health is critical to mission success

Leaders need to ensure their teams are as healthy as possible and bring awareness to changes in performance before issues arise. For military operations, wearable sensors can provide information to ensure optimal physical and mental health for operational readiness and decision support. Changes in physiological parameters can indicate signs of physical or mental stress, increase or decrease in body temperature, or fatigue from extreme exertion. Wearables can also evaluate sleep quality as a measure of physical recovery or psychological health. In addition to health tracking, wearable devices can supplement operational needs such as providing navigation or activity tracking.

## The Solution

### Introducing SIGMA+ Health

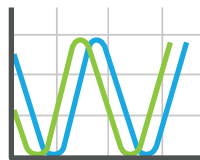
RTI can help you integrate wearables to provide actionable information for military relevant scenarios. Experts at RTI conduct basic and applied research on health monitoring using wearable products, provide guidance and technical support to plan and implement studies that use wearables for data collection, manage pilot and demonstration programs, and monitor and evaluate efforts to ensure they generate trusted and actionable data.



Identify, evaluate, select, and configure the most appropriate wearable(s) for your study's participants.



Manage study logistics, obtain informed consent, register devices, and onboard participants in a collected or distributed environment.



Develop unique algorithms for the processing of physiological metrics generated by wearables, and convert those metrics to algorithms for the detection of health conditions.

## Applications

- Military health and training performance
- Traumatic brain injury
- Cognitive and physical performance
- Fatigue and sleep monitoring
- Early detection for COVID-19 and other illnesses
- First responders
- Research studies
  - Longitudinal
  - Observational

## Advantages

- Continuous data collection with and without Wi-Fi
- Compatible with a range of wearable devices including smartwatches, wristbands, or rings
- Custom data processing and predictive analytics—data is never transmitted to third-party cloud servers and is independent of vendor algorithms
- Data stored in a single secure location or transmitted data to Department of Defense (DoD) specified endpoints
- Integrated electronic consent
- Easily scalable
- Low operating cost

## The Technology

A comprehensive, end-to-end solution

SIGMA+ Health enables teams to collect, manage, and analyze wearables data from large cohorts in a streamlined, evidence-based, and cost-effective manner. RTI's SIGMA+ Health platform provides a highly robust, scalable, and secure platform for sensitive data, and can be configured to meet DoD requirements, such as storage on Amazon Web Services GovCloud or other secure DoD specified endpoints.



Data flows directly from the wearable device to the SIGMA+ smartphone app and then to a server of your choice.



### SIGMA+ Health App

- Cross-platform compatibility with iOS and Android
- Compatible with a range of wearable devices and sensors
- Data streaming directly from wearable device to server— not shared with third parties
- On-device customizable surveys to combine with sensor data collection in research studies
- Home screen widget to improve compliance
- Data storage by RTI or on client-specified server location
- Simultaneous data collection from multiple devices

### Interested in learning more? Contact us.

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