

Health and Safety Augmentation

Advanced solutions for enhancing worker safety and patient engagement

Aptima's **Health and Safety Augmentation (HSA)** capability builds and delivers innovative technology solutions and knowledge products to Government, commercial, and clinical partners. Our work spans the integration of data from multiple sources, the meaningful analysis of these data to address health and safety problems, and the foundational capabilities to ensure our contributions are compliant with privacy and security requirements in these domains.

HSA improves human abilities through:

- **Wearables as observational and active intervention tools in the health and safety domains**
 - Provides contextual information to help evaluate the link between physical activities and cognitive state
 - Delivers real-time safety alerts, interventions, and recommendations to improve safety
- **Privacy-preserving analytics and synthetic health data generation**
 - Provides differential privacy and homomorphic encryption to protect data as its being collected and processed
 - Enables synthetic health data production for development and evaluation of healthcare solutions
- **Data-driven patient-provider communication in remote patient monitoring (RPM)**
 - Facilitates conversations over health and safety data
 - Delivers the right content at the right time

Health and Safety Sensing

Integrate wearables and user state assessments
Explore modalities that constantly evolve
Leverage real-time and streaming data

Health Care Analytics

Generate actionable health and safety recommendations
Facilitate meaningful collaboration between patients and providers
Predict safety incidents

Organizational Compliance

Management and analysis of Protected Health Information
Methods for maintaining privacy in models and data
Compliance with new privacy regulations (GDPR-type, CPRA)

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