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Overview

Title

Research and Innovation to Improve Physical and Mental Health of Soldiers: A Challenge to the Department of Defense

Abstract

In recent years, warfare has played a vital role in the nation's security. Army soldiers are an essential and significant component in combat and provide peace to the nation. The real-time collection and monitoring of soldiers' physical and mental health data on the battlefield can be critical for commanders and others. Additionally, as soldiers transition from the battlefield to civilian life, they may need basic and advanced medical care within the Department of Veterans Affairs (VA) health system. Notwithstanding, the wearable technologies success with the Rapid Analysis of Threat Exposure, or RATE program led to the 2022 National Defense Authorization Act, which directs the Department of Defense (DoD) to develop and advance a digital health strategy to incorporate new and emerging technologies, such as wearable devices, that could utilize big data and predictive analytics to bring the value-added capability to personnel across the Department of Defense. Further, Cerner's electronic health record (EHR) failure and inability to produce a basic EHR product, after three years and $4B, that meets the requirements, functionalities, and deliverables specific to the Department of Defense award has all culminated in a perfect storm of opportunity. Parker Health™ considers research into wearable technologies, specifically Parker Health™ bio-sleeves and the development of a full-body suit that is interoperable with our current Parker Health Suite™, a big data and predictive analytics software, to be the solution to these problems. The benefits gained from this research, subsequent prototype, and completed product can be used by the DoD, VA, government officials, and congress to make thoughtful funding decisions, lower healthcare costs, create a battlefield to civilian medical data pipeline, cure the Cerner's electronic health record (EHR) failure and build on the DoD's wearable technologies successes.

Background

Healthcare Spending Costs

The Department of Veterans Affairs (VA) is ranked fifth in spending among all federal agencies and accounts for 5% of all federal spending. Expenditures have nearly tripled in the past 20 years, from $70 billion in the fiscal year 2000 to $200 billion in 2019 (Staff Writer, 2021). However, simultaneously, the veteran population in the US has shrunk and increased in age, thereby increasing healthcare costs. The number of veterans declined by one-third, from 26 million to 19 million, from 2000 to 2019. According to the US Census Bureau, veterans went from 9% of the population in 2000 to 5% in 2019 (Staff Writer, 2021).

Although the number of veterans is declining, VA's medical care spending has risen much faster than inflation. The Veteran Population to VA Medical Spending chart below reveals the extent of the VA's problem. In the past ten years, VA medical spending has risen from $43 billion in 2011 to $88 billion in 2021, while the number of veterans fell from 22 million in 2011 to just over 19 million in 2021. This is a clear sign of increased healthcare costs for veterans.

With the projections for VA medical spending to be north of $105 billion by 2028 (Golding, 2018), the VA has demonstrated significant concern about the problem. According to the VA, a major factor in the rising costs of health care is the increasing age of the veterans and the implementation of the MISSION Act (Campos, 2021). Strategies to combat the soaring cost include changes in the copay structure, public-private healthcare partnerships, limiting access to out-of-network doctors, telehealth, mobile clinics, and wearable technologies are all being considered.

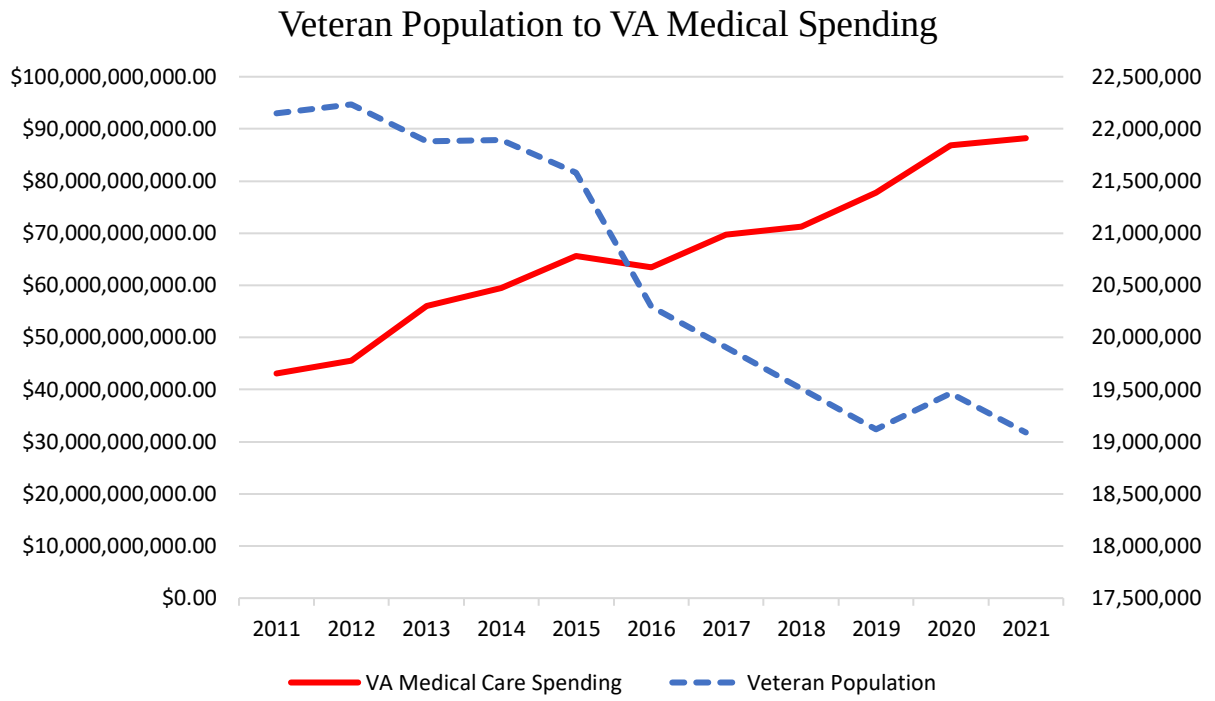


Figure 1: Source US Department of Veterans Affairs

Battlefield to Civilian Medical Data

In the US military's current environment, infantry units on the battlefield must verbally call-in medics services, troop positions, and field reports that are limited by their very nature. Additionally, the collection and spread of medical information about soldiers on the battlefield, IE, gunshot wounds, are communicated back to field medics with little or no accuracy as to the actual medical severity or triangulation that could pinpoint the source of enemy fire. Moreover, as these frontline soldiers transition from the battlefield to civilian life, they will need basic and advanced medical care within the VA health system to improve their lives and reduce ever-growing healthcare costs for the government. Currently, no battlefield-to-civilian medical data pipeline exists.

Wearable Technologies Success

Wearable technologies refer to devices that soldiers and veterans attach to their bodies to collect health, fitness, and other data, which they can provide to military commanders, field medics, VA doctors, other health providers, and other relevant parties. In semi-structured interviews with 26 Veterans and 16 VA clinicians, a study reveals that despite setup challenges, there is sufficient support for using wearable technologies such as Fitbits to engage veterans and help manage their

health. The study further suggests that the VA should consider the expanded use of wearable devices (Saleem, Wilck, Murphy, & Herout, 2022).

Wearable technologies on the battlefield have been previously proposed yet have been limited to sensor patches and dog tags. In 2014 Sentient Science and the University at Buffalo were working on wearable technology (sensor patches) that fuses real-time medical and physiological data with computer models (University at Buffalo, 2014). As late as 2021, NextFlex—a San Jose, California-based research and manufacturing consortium- proposed using "smart dog tags" to track soldiers' medical data and treatment history.

To the VA, wearable technologies are nothing new. In 2014, Air Force Marathon runners took part in an Air Force Research Lab trial of wearable biosensors for monitoring, storing, and transmitting the wearer's vital signs (Staff Writer, 2014). In 2020, the Army Medical Research and Development Command invited defense firms to submit proposals for a $25 million effort to design prototypes of a wearable diagnostic capability for "pre-/very early symptomatic detection of COVID-19 infection (Cox, 2020). That incitive produced the Rapid Analysis of Threat Exposure or RATE, a combination of a Garmin watch and an Oura Ring. In 2022, the US Space Force announced they would rely on wearable fitness monitors to track troops' sleep routines, heart rates, and physical activity ahead of the rollout of the service's new health assessment (Novelly, 2022).

The DoD realized the potential of wearables with the success of the Rapid Analysis of Threat Exposure, or RATE, in 2020. The combination devices provided data from 165 different biomarkers into an algorithm that takes advantage of predictive analytics, allowing those potentially sick to know up to 48 hours ahead of being symptomatic. With a sample size of 8,500 military personnel, the DoD moved to adopt it quickly, and the program has expanded across the military services and is now common among senior leadership at the Pentagon.

Notwithstanding, and adding to the RATE success, the 2022 National Defense Authorization Act directs the Department of Defense to develop and advance a digital health strategy to incorporate new and emerging technologies, such as wearable devices, that could utilize big data and predictive analytics to bring a value-added capability to personnel across the Department of Defense.

Electronic Health Record (EHR) Failure

While the VA has seen successes, there have been failures. On June 1st, 2017, former VA Secretary David Shukin signed a Determination and Findings authorizing the VA to issue a solicitation directly to Cerner to acquire the electronic health record (EHR) system being deployed by DoD. Effective May 17th, 2018, then Acting VA Secretary Robert Wilkie announced that the US Department of Veterans Affairs (VA) had signed a $16 billion indefinite delivery indefinite quantity (IDIQ) contract with Cerner Government Services, a wholly owned subsidiary of Cerner Corporation (Cerner) to transition the VA’s Office of Electronic Health Record Management (OEHRM) to a new EHR system.

The Mann-Gradstaff VA Medical Center in Spokane, Washington, was chosen as the facility where the EHR transition would begin. However, on February 10th, 2020, six weeks before

the intended go-live date (March 28th, 2020), a VA spokesperson stated that the EHR rollout would be delayed because it was only “75-80%” completed. On October 24th, 2020, facility providers and staff finally began using the new EHR for clinical and administrative work.

After three months of using Cerner’s EHR system, the Office of the Inspector General (OIG) published a 77-page strategic review as well as a survey that assessed the facility staff’s ability to successfully use the system. The survey found that 65% of respondents disagreed or strongly\ disagreed with the statement, “I am able to navigate the different applications of the new HER without difficulty” and that 55% of respondents disagreed or strongly disagreed with the statement, “I am able to document patient care in the new VA EHR without difficulty.” Additionally, employees at the Mann-Gradstaff facility reported high anxiety levels and that the training they received was insufficient.

As recently as March 4th, 2022, the VA took the Cerner EHR offline and delayed additional rollouts in future sites such as Columbus, Ohio. This is not the first, nor the last, time such an outage will occur; however, for a $16B price tag and Cerner's "commitment" to veterans, their product should be superb. Subsequently, on July 14th, 2021, the Senate Committee on Veterans’ Affairs held a hearing entitled “VA Electronic Health Records: Modernization and the Path Ahead” to address yet another pause on the EHR modernization contract. Senator Jon Tester (D-MT) stated that “transparency and truthfulness, quite frankly, have been absent.”

After more than three years into a $16 billion contract (over $4B paid out), Cerner has not produced a basic EHR product that meets the requirements, functionalities, and deliverables specific to this award. Further, what has been delivered has significant errors and is not inoperable.

Research Problem

The problem addressed in this research is whether wearable technologies, specifically Parker Health™ bio-sleeves and the development of full-body suits along with the current Parker Health Suite™, a big data and predictive analytics software solution, can reduce VA healthcare costs, and create a battlefield to civilian medical data pipeline.

> *Fundamental research means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons. - Defense Advanced Research Projects Agency*

Furthermore, this research meets the Defense Advanced Research Projects Agency's definition of fundamental research, given it is broad enough to expand beyond military applications. Parker Health™ seeks to create a new mission-critical health system, with a primary goal of developing and demonstrating capabilities for the military and veteran application, yet still have broad commercial (NFL, MLB, MHL, NBA, physical therapy) uses.

Purpose

The purpose of this research and development project is to evaluate wearable technologies, specifically Parker Health™ bio-sleeves and the development of full-body suits along with the current Parker Health Suite™, a big data, and predictive analytics software solution, as a solution to reduce VA healthcare costs and create a battlefield to civilian medical data pipeline. The phenomenon of interest was the lack of medical information about soldiers on the battlefield and their relationship with civilian medical data, wearable technologies' success with the RATE program, and Cerner's electronic health record (EHR) failure.

Solution

Parker Health™ considers this research into wearable technologies, specifically Parker Health™ bio-sleeves and the development of full-body suits that are interoperable with our current Parker Health Suite™, a big data and predictive analytics software, to be the solution to the problems listed above. The insights gained from our research solution, subsequent prototype, and completed products can be used by the DoD, VA, government officials, and congress to make more thoughtful funding decisions, lower healthcare costs, create a battlefield to civilian medical data pipeline, cure the Cerner's electronic health record (EHR) failure and build on the DoD's wearable technologies successes.

Parker Suite™

Parker Suite™ is a full-stack, cloud-based medical service (SAAS) created by Parker Health™ with customizable features including Electronic Medical Record (EMR), Electronic Health Records (EHR), Remote Psychological Monitoring (RPM), Remote Fitness Monitoring™ (RFM), Telehealth, patient care management, prescription drug management, e-prescribing, computerized provider order entry (CPOE), automated coding and Revenue Cycle Management, and bioinformatics powered by Artificial Intelligence (AI) and analytics for research and development. The Parker Suite™ is the only integrated EHR, telehealth, and RPM platform on the market that exceeds FHIR compliance regulations and offers real-time access to medical records, live biometrics, and data sharing.

Vibe™ - Medical Biosensors & Wearables

Parker Health is currently leading research and development of the first wearable device and biosensor to provide non-invasive blood pressure and glucose monitoring. The Vibe™ device is a wrist-worn non-invasive optical sensor that monitors changes in electrical signals produced by heart activity with electrocardiography (ECG). Vibe™ biosensor can be modified for other wearable options, i.e., shirts, chest straps, etc. The combination of ECG sensors, temperature sensor, accelerometer, and gyroscope, combined with LTE wireless communication, allows for an efficient, low-cost, reliable device that can collect data in 'real-world' environments to support inpatient, outpatient, and remote patient care, as well as decentralized research initiatives.

Remote Fitness Monitoring™ (RFM)

A term coined by Parker Health team Remote Fitness Monitoring™ (RFM) allows patients

who do not have a "medical necessity" for a traditional FDA-cleared RPM device to monitor their biometrics continuously. Patients can purchase or bring their commercial devices to integrate with their medical records. Major brands like Fitbit, Garmin, Apple Watch, and Google Pixel are strategically partnered and integrated into the Parker Suite™.

Vinny A.I ™ & DX Tools

Experience your health data in a whole new way. Vinny A.I.™ continuously runs intelligent functions on your PHI to help you make faster clinical decisions. All clinical notes are processed through our health artificial intelligence, allowing the system to automatically identify and predict diagnoses, procedures, conditions, outcomes, and medications. The integration of live DX tools enables positive patient outcomes and rapid intervention with at-risk patients. The Parker Suite™ operates on seven (7) algorithms that strictly focus on patient monitoring, disease management, biometrics, clinical recommendations, genomics & pharmaceutical intervention, clinical support & training, and bioinformatics.

Cautionary Warning System™ (CWS)

Cautionary Warning Score™ (CWS) systems are used in hospitals worldwide to quantify patients' well-being quickly and standardize the monitoring and response to acute illness. These CWS systems score individual vital signs based on severity and use an aggregate score value to predict patient outcomes and reduce miscommunication in safety-critical situations through a "Common language of sickness." While these systems have proven valuable in stratifying risk and need for intensive care, some issues include reliance on intermittent biometric snapshots and universal scoring thresholds, which do not account well for individuals with pre-existing conditions or fit individuals. Parker Health has developed a baseline-adjusted early warning score algorithm to address these limitations of traditional CWS systems. Through continuous and passive biometric monitoring of vitals, including heart rate, respiratory rate, oxygen saturation, and arterial compliance, the Parker Health CWS can correct for pre-existing health conditions and comorbidities to reduce false positives by basing its scores on relative changes from stable baseline values and variance.

SMART Tract Ecosystem™

The integrated use of Artificial Intelligence (AI) entitled Vinny A.I.™ the Parker Suite™ provides a holistic management solution to manage facility security, maintenance, emergency services integration, and business operations, including human resources, professional development training, payroll, scheduling, coding, and billing, supply chain, inventory management, and other customizable solutions. At Parker Health, we call this the SMART Tract Ecosystem™; it allows data to be received, analyzed, and executed in real-time across the entire continuum of care, facility-wide, including patients, emergency services, and hospital staff.

Organizational Conflicts of Interest

Parker Health™ has created a company-wide policy concerning organizational conflicts of interest/ OCI mitigation plan.

Potential Undue Foreign Influence

Parker Health™ has not nor does any of our leadership team receive any outside investment from Communist Chinese Military Companies or companies affiliated with Communist Chinese Military as per Executive Order 13959. All products and technology are made in the United States. Additionally, all patents, trademarks, and copyrights are registered with the US Trademark and Patent Office and the US Copyright Office. Furthermore, Parker Health™ is committed to employing US citizens and does not plan to recruit or sponsor foreign talent.

Confidentiality and Nondisclosure

Press releases, marketing material, or any other printed or electronic documentation related to this research project shall not be publicized without the written approval of the DoD.

Statement of Work (SOW)

Scope

The scope of work for this project includes research. Preclinical, clinical, product manufacturing, and software development activities fall into the following areas: non-clinical efficacy studies; clinical activities; manufacturing and software integration activities; and all associated regulatory, quality assurance, management, and administrative activities.

The R&D effort for the development of Parker Health's full-body bio-medical device and integration with our current big data, predictive analytics software, Parker Suite™, will progress in specific stages that cover the research and project segments (I) to be labeled Contract Line-Item Number (CLIN) 0001 and other components (II to V) to be labeled CLINs 0002 to 0005 as specified in a government contract. Parker Health™ will complete specific tasks required in each discrete work segment. The scope of work is broken into the following five phases (CLINs), which are discrete work segments:

I. Market feasibility and Pilot Launch (CLIN) 0001
II. Clinical Efficacy, Framework, and Initial Clinical Safety Phase (CLIN) 0002
III. Good Manufacturing Practice (GMP) Manufacturing Scale-up (CLIN) 0003
IV. Clinical and Pivotal Non-Clinical Studies Phase (CLIN) 0004
V. New Drug Application Filing Phase (CLIN) 0005

Objectives

The overall objective of this research & development project is to advance the development of Parker Health's full-body bio-medical device and integration with our current big data, predictive analytics software product, Parker Suite™, for military use. Other project objectives are as follows:

1) To explore wearable technologies and predictive analytics on lowering VA healthcare costs,
2) To construct and evaluate a battlefield-to-civilian medical data pipeline,
3) To explore standardizing clinical workflows using wearable technologies,

4) To formulate purchasing recommendations to the DOD in terms of effective wearable technologies for soldiers and veterans.

Requirements

This document contains the high-level architectural and functional requirements needed to obtain the objectives. A detailed list of requirements will be produced within the Market feasibility and Pilot Launch Phase. Requirements already met by the Parker Health Suite™ software and Bio-Sleeve are marked as "Developed."

Inputs / Outputs Requirements

- REQ- IO2017 Web interface (Input and Output) – It must be possible for patients, health professionals, and other authorized users to add, edit, view, and monitor HIPPA-compliant data via a web portal. **Developed.**
- REQ- IO2018 Mobile application (Input and Output) - It must be possible for patients, health professionals, and other authorized users to add, edit, view, and monitor HIPPA-compliant data via a mobile application (iOS and Android). **Developed.**
- REQ- IO2019 Wearable Devices (Input and Output) - It must be possible for patients, health professionals, and other authorized users to add, edit, view, and monitor HIPPA-compliant data via a wearable bio-sleeve device. **Developed**
- REQ- IO2020 Wearable Devices (Input and Output) - It must be possible for patients, health professionals, and other authorized users to add, edit, view, and monitor HIPPA-compliant data via a wearable full-body device.
- REQ- IO2021 Rest API (Output only) - It must be possible for developers and researchers to retrieve HIPPA-compliant data via a Rest API. **Developed.**

Architectural / Functional

- REQ- AF10006 The system and wearable devices must be 100% FHIR and HIPPA compliant. **Developed**
- REQ- AF10007 The system must comply with the 21st Century Cures Act (Cures Act). **Developed**
- REQ- AF10008 The wearable devices must obtain FDA and FCC approval.
- REQ- AF10009 The system should offer interoperability between all F10k wearable devices. **Developed**
- REQ- AF10010 The wearable devices must have the ability to monitor patients remotely. **Developed**
- REQ- AF10011 Wearable devices should have the ability to asynchronously push patients' data to a secure encrypted database. **Developed**
- REQ- AF10012 The system should have encrypted data collection at transport and at rest while also containing active breach monitors. **Developed**
- REQ- AF10013 The system should capture heart rate, weight, breaths per minute, blood pressure systolic/diastolic data points. **Developed**

- REQ- AF10014 The system should have the capability to do telehealth. **Developed**
- REQ- AF10015 The system should have the capability for patients, health professionals, and other authorized users to communicate by email or messaging. **Developed**
- REQ- AF10016 The system should be capable of predictive analytics to diagnose and/or suggest or forecast ailments. **Developed**

Methodology

The methodology for this research and development of the Parker Health™ full-body suit seeks to unify medical, therapeutic, and engineering guidelines for research, development and innovation (Dávila-Vilchis, LAZ-Avilés, Ávila Vilchis, & Vilchis-González, 2019). This methodology is divided into two stages (A and B) and four phases, which are integrated into the High-level task framework. Stage A includes phase 1 to identify the main necessity for a patient that will define the target device. Stage B encompasses phases 2, 3 and 4. The development of three models (virtual, mathematical, and experimental physical) of the required device is addressed in phase 2. Phase 3 concerns the control and manufacture of the experimental physical model (EPM). Phase 4 focuses on the EPM experimental validation (Dávila-Vilchis, LAZ-Avilés, Ávila Vilchis, & Vilchis-González, 2019).

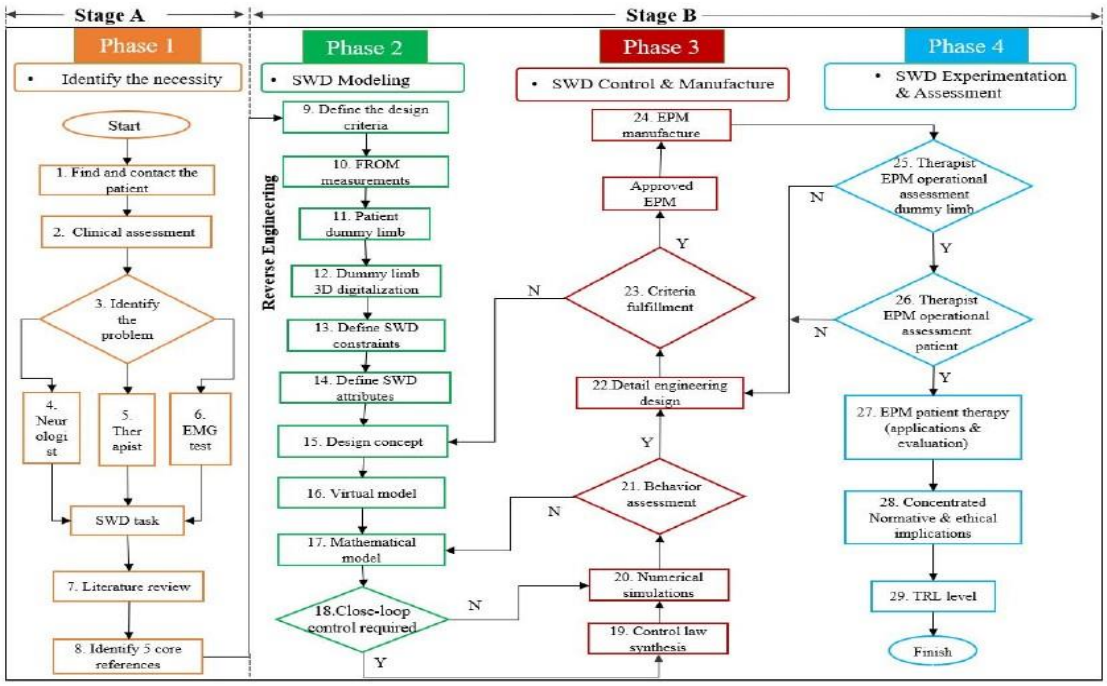


Figure 2: Flowchart of soft wearable devices methodology.

High-Level Tasks

These are the high-level tasks needed to obtain the objectives and are broken down by the CLIN numbers. These tasks are well integrated into the methodology framework.

I. Market feasibility and Pilot Launch Phase (CLIN 001, Stage A)

- Market research

- Hardware product component research
- Detailed requirements documented.
- Additional FTE expansion
- IRB clearance review
- Pilot launch

II. Clinical Efficacy, Framework, and Initial Clinical Safety Phase (CLIN 002, Stage B)

- IRB clearance
- Diagnostic capabilities
- Engage government research agencies.
- Standard operating procedure for device usage in clinical state
- An initial clinical safety plan
- Medical and clinical review standards
- Develop a security requirement plan.
- Develop reporting standards and metrics.
- Engineering (necessity, SWD modeling)

III. Good Manufacturing Practice (GMP) Manufacturing Scale-up Phase (CLIN 003, Stage B)

- Create manufacturing review standards.
- Engage government research agencies.
- Product prototype manufacturing
- Initial FDA process
- SWD Control and Manufacturing

IV. Clinical and Pivotal Non-Clinical Studies Phase (CLIN 004, Stage B)

- Obtain government research agency approval.
- Clinical, combat, and civilian study
- Implementation of reporting standards and metrics.
- Implementation of the clinical safety plan
- Implementation of security requirement plan
- Implementation of medical and clinical review standards
- SWD Experimentation and Assessment

V. Full Product Review and Launch Phase (CLIN 005, Stage B)

- Review clinical and pivotal non-clinical study data.
- Final inspection
- Full product review and release
- Stakeholder training

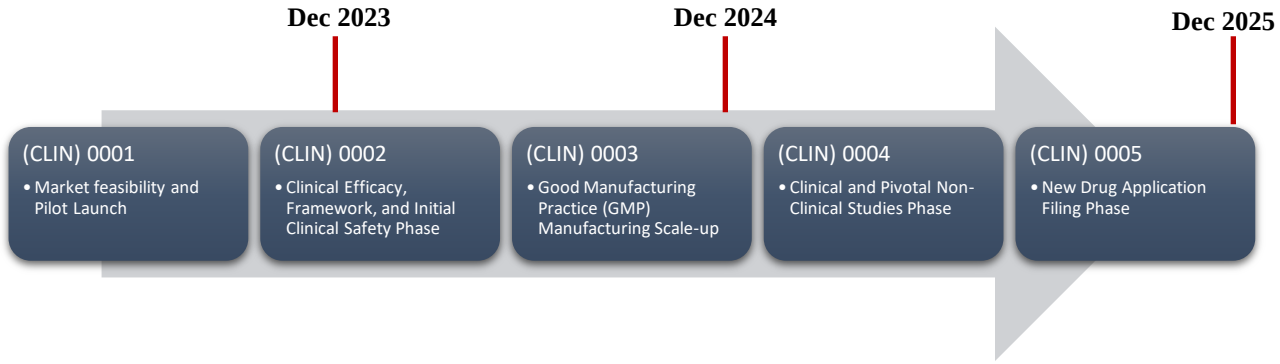
Deliverables

Description	Deliverable
Market feasibility and Pilot Launch Phase	• Research Report, • Prototype

Clinical Efficacy, Framework, and Initial Clinical Safety Phase	• Safety Plan, • IRB Clearance, • Medical standards documents, • Clinical standards documents, • Security requirement plan, • Reporting standards, and metrics documents
Good Manufacturing Practice (GMP) Manufacturing Scale-up Phase	• Manufacturing review standards document, • Completed FDA documents
Clinical and Pivotal Non-Clinical Studies Phase	• Completed government research agency approvals, • Start final manufacturing
Full Product Review and Launch Phase	• Final product release, • Final study report, • Stakeholder training

Project Timeline

With subsequent manufacturing and release, this research development project will take place over a multiyear timeframe with the projected product launch date of December 2025.



If for any reason, any deliverable cannot be delivered within the time frame Parker Health™ will explain in writing to the DoD and VA, including a firm commitment of when the work shall be completed.

Performance

Unless otherwise specified, all work shall be performed in accordance with all DoD and VA standards.

Budget

The budget for this research and development project is a multiyear budget, covering the five steps Market feasibility and Pilot Launch (CLIN) 0001, II. Clinical Efficacy, Framework, and Initial Clinical Safety Phase (CLIN) 0002, III. Good Manufacturing Practice (GMP), Manufacturing Scale-up (CLIN) 0003, IV. Clinical and Pivotal Non-Clinical Studies Phase (CLIN) 0004, V. New Drug Application Filing Phase (CLIN) 0005. Costs are broken down based on the functional area, which crosses individual phases. Parker Health is prepared to take advantage of an indefinite delivery indefinite quantity (IDIQ) contract with the DoD using the cage code #8UQY9 and an active SAM profile.

Functional Areas	**Total**
Administration	$200,000,000
Product Engineering	$300,000,000
Software Development	$300,000,000
Prototyping	$200,000,000
Clinical Trials or Military Testing	$250,000,000
US FDA Medical Device Approval	$50,000,000
Full Manufacturing (133,000 Units)	$400,000,000
Total	**$1.7 billion**

Within the full manufacturing process, we estimate a cost of *$3,000* per unit, while a total cost of *$12,790* per unit over the entire life of the project.

Training.

After research and production are complete, training sessions shall be provided by Parker Health™ for all interested stakeholders.

Changes to Statement of Work

Any changes to this SOW shall be authorized and approved only through written modifications by Parker Health™ and DoD.

Reporting Requirements

Parker Health™ will provide the monthly written progress reports on a date established by the DoD. These progress reports will cover all work completed during the preceding month and shall present the work to be accomplished during the subsequent month. This report will also identify any problems that arose, along with a statement explaining how the problem was resolved. This report shall also identify any issues that have occurred but have not been entirely resolved, with an explanation.

Team

Vincent Lopez (Chief Executive Officer) is the founder/CEO. Mr. Lopez has been listed in Forbes 30 Under 30 class of 2023 and is a Mentor Maker with the NASDAQ Entrepreneurial Center, advising aspiring and current entrepreneurs. He is a Mentor for Village Capital's, Innovations in Health Equity Accelerator program sponsored by Johnson & Johnson Venture Impact Fund. He is the founder of the Lopez Foundation, Inc., a 501 (c)(3) non-profit working to advance education and health access in disadvantaged communities. He serves as a managing partner and director at L'PAJ Ventures. Mr. Lopez serves on the Steering Committee for Black Maternal Health, Fund II Foundation a Robert F. Smith organization. Mr. Lopez serves on the NYU School of Global Public Health, Dean's Council. He is a member of the Royal Society of Medicine, and the Sequoia Project.

In 2015, he was nominated to the Pennsylvania State System of Higher Education (PASSHE) Board of Governors by Governor Tom Wolf (D-PA). He's the former student body president of the Indiana University of Pennsylvania (he Majored in English & Political Science) and chairman of the PASSHE Board of Student Government Presidents. He completed a fellowship emphasizing STEM education in minority communities (7th Ward, Washington, DC) with then-President Obama's Organizing for Action. He has worked on programs for the US Department of Homeland Security and the US Department of Defense.

Christopher Parker (Chief Technology Officer) has led the architecture and development of the Parker Suite™, the world's first EHR platform that exceeds FHIR compliance regulations and policies. Before joining Parker health, he was the lead developer and CTO for other major US technology companies. Mr. Parker is an expert in cloud computing with multiple accreditations for the Microsoft Azure platform. He is also the CEO of Story Data IO, a blockchain and AI-focused software company providing virtual developmental services for the entertainment industry. He is the current Treasurer of the non-profit organization Parker Foundation.

Dr. Philip McDonald, M.D. (Chief Medical Officer) is a board-certified physician in Diagnostic Radiology by the American Board of Radiology. Dr. McDonald received his MD degree from the University of Connecticut School of Medicine on a four-year full-tuition academic scholarship. Dr. McDonald completed his residency in Radiology at Staten Island University Hospital/Northwell Health and went on to complete his Fellowship in Musculoskeletal/Sports Medicine Radiology at Duke University Medical Center. He specializes in Sports Medicine Imaging and Spine Imaging and is also highly proficient in interpreting general radiology disciplines using MRI, CT, X-Ray, and Ultrasound, including Obstetric Ultrasound.

Dr. Gregory Parker, Ph.D., MPA, ChE (Chief Government Affairs Officer) is a government and technology executive with 20+ years of experience in the public and private sectors. Dr. Parker has been an elected official, city manager and was appointed by the Governor of Texas to oversee the operations of a state-wide agency. Moreover, Dr. Parker is a Board-Certified Chartered Economist, author and has testified before several government bodies. Additionally, Dr. Parker has managed several large-scale, multi-million-dollar technology projects in the private sector in which the approval of the FDA or other government agencies was necessary.

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