

PERFORMANCE WORK STATEMENT
 DESIGN AND IMPLEMENTATION OF COLLABORATION/PROJECT
 MANAGEMENT OF VA PITTSBURGH HEALTHCARE SYSTEM
 VETERANS ENGINEERING RESOURCE CENTER PROJECT:

**Development of a Personalized Risk Assessment and Follow-up Decision
 Support Guidelines for Congestive Heart Failure (CHF)**

DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

1. DEFINITIONS

- A. **Contracting Officer (CO):** The person with the authority to enter into, administer, and/or terminate contracts and make related determinations & findings.
- B. **Contracting Officer's Representative (COR):** Any person or persons authorized to act for the Contracting Officer within specific limits of the contract, normally to provide technical assistance and advice, coordination of workload, and certification of invoices.
- C. **Contractor:** An individual, partnership, corporation, affiliate or organization having a contractual relationship with the Government for provision of services.
- D. **Contractor's Employee:** An individual hired by the Contractor to perform work under this contract.
- E. **Full Time Equivalent (FTE):** A full time equivalent is defined as a Contractor's employee working the equivalent of forty (40) hour per week or 2080 hours per year.
- F. **Hours of Operation:** The terms identified below have the following meanings:
 - i. **Regular VA Administrative Work Hours (hours of operation):** Monday - Friday, 8:00 AM to 4:30 PM.
 - ii. **National Holiday:** The ten holidays observed by Federal Government are:

New Year's Day	Martin Luther King's Birthday
President's Day	Memorial Day
Independence Day	Labor Day
Columbus Day	Veterans Day

Thanksgiving

Christmas

And any other day specifically declared by the President of the United States to be a national holiday.

2. ACRONYMS

1. **VA – Department of Veterans Affairs**
2. **VHA – Veterans Health Administration**
3. **VAPHS – VA Pittsburgh Healthcare System**
4. **VERC – Veterans Engineering Resource Center**
5. **CDW – VA Corporate Data Warehouse**
6. **FAR - Federal Acquisitions Regulation**

3. BACKGROUND

Personalized discharge planning has the potential to decrease readmissions, improve quality of life, and lead to significant monetary savings. Studies have looked at elderly populations as well as adult populations. Patients who received a comprehensive discharge plan and remained an active part of the process were readmitted less often than those who did not. Elderly groups who received discharge planning and home follow up care were 17% less likely to be readmitted to the hospital at least once, exercise and telephone follow up were readmitted 23% less to the ED and 42% less to the general practitioner, post discharge care transition program were 10% less likely to be readmitted than those who did not, those who received tools and encouragement to remain active participants in transition had 3.5% less readmissions at 30 days and 5.8% less readmissions at 90 days. An adult group that received patient education, assistance making follow up appointments, and additional discharge services had a lower rate of hospital utilization. Multiple studies have found that discharge planning can also lead to financial savings.

Good discharge planning includes educating the patient about relative diagnoses such as Congestive Heart Failure, making appointments for follow up testing, discussing pending hospital tests, confirming medication plans, reconciling plans with national guidelines, transmitting discharge summary, assessing degree of understanding of patient, and giving patient their personalized discharge plan. Follow up care delivery then incorporates tracking, monitoring, and providing real-time feedback. Customizing these needs to individual patients requires thoughtful integration of people, processes and technologies that can deliver multiple capabilities such as (1) models to predict who is at high risk for readmission, (2) identification of specific drivers of readmission risk for any individual patient, (3) determination of which interventions have the potential to generate the highest reduction in readmission risk for this patient, and (4) technologies

and tools to develop and deliver customized discharge, education, follow up and monitoring plans for the individual's care.

This project aims to address these challenges and requirements by developing a personalized discharge planning approach via an existing technology platform to guide Congestive Heart Failure (CHF) patients. It integrates methods for risk prediction, targeted assessment and visualization with a decision support tool which allows healthcare professionals to easily create personalized, multi-media rich discharge guidelines for individual patients that make use of text, images, video, and audio and delivered to mobile devices of patient's choice. The major deliverable is the personalized risk assessment and follow up decision support guidelines for Congestive Heart Failure (CHF) to be used in the technology platform.

4. GENERAL REQUIREMENTS

- A.** Contractor shall provide clinical decision support system, machine learning, statistical, engineering, and information technology expertise to adequately execute the tasks outlined in this contract.
- B.** The resources specified in the Supplies or Services and Prices/Costs Section may be changed using unilateral or bilateral modifications within scope of work only and by written modification to this contract. Only the Contracting Officer has right to issue unilateral modifications.
 - i.** Unilateral Modifications will be used to
 - (1) Make administrative changes;
 - (2) Issue change orders;
 - (3) Make changes authorized by clauses other than a changes clause (e.g., Property clause, Options clause, or Suspension of Work clause); and
 - (4) Issue termination notices
 - ii.** Bilateral modifications will be used to
 - (1) Make negotiated equitable adjustments resulting from the issuance of a change order;
 - (2) Definitive letter contracts; and
 - (3) Reflect other agreements of the parties modifying the terms of contracts
- C.** The VA will provide to the contractor at no cost all expendable and non-expendable supplies and equipment as may be deemed necessary for proper operation of the project.

5. ROLES AND EFFORT LEVELS

No roles contained in this contract shall constitute inherently government tasks or violate FAR Subpart 7.503 (c). Roles and Effort Levels provided include but are not limited to:

- A. Principal Investigator (PI)**

The Principal Investigator, shall develop and monitor all the Project Management functions related to the project, which shall comply with applicable Government mandates and regulations as specified in this Performance Work Statement. The PI shall ensure timely and thorough completion of functions described in this document.

- i. Contractor shall provide .20/100 (0.20) PI FTE level of effort from Carnegie Mellon University H. John Heinz III School of Public Policy and Management to support functions related to the development of concept and product, organization of meetings, documents, and progress related to the Readmissions Project. This Contractor's employee will perform duties at the Carnegie Mellon University but will be required to have on site hours at VAPHS to be determined by VAPHS VERC Director. The PIs must have earned doctoral degrees in an appropriate Engineering, Management Science or Healthcare Informatics related field and at least 10 years of teaching experience at the university level.
- ii. PI shall organize bi-weekly team meetings and maintain minutes that include dates, attendees, objectives, progress notes, and other relevant discussion points. These meetings may include clinical advisory staff from VAPHS as needed.
- iii. PI shall develop appropriate reporting views, templates and other project status updates needed to ensure visibility to project information
- iv. PI shall act as daily point-of-contact for issues between the Carnegie Mellon University, VAPHS VERC, and VAPHS functional managers.
- v. PIs will work off site but will be required to attend meetings at VAPHS H.J. Heinz III campus as identified by the VAPHS VERC Director.

B. Post-Doctoral Fellow/Systems Scientist

This scientist will assist the PI with all the key tasks associated with the conceptualization, design, engineering and pilot testing of the platform that integrates risk assessment and visualization with personalized guideline generation and monitoring; monitor the daily tasks on the project; document the process, components, testing and manuals; and coordinate the day-to-day management of the project tasks
6.A. – 6.E.

The Contractor shall provide a half time 50% (0.50) FTE Post-Doctoral Fellow/Systems Scientist to support functions related to the extraction, organization, and modeling of data related to this project. This Contractor's employee will perform duties at the Carnegie Mellon University but will attend occasional meetings at VAPHS as mutually agreed to with VAPHS VERC Director.

C. Graduate Student Research Assistants

The Contractor shall provide two Graduate Student Research Assistants to assist the Principal Investigator and the Post-Doctoral Fellow/Systems Scientist on the design, implementation and testing of each of the components as well as the integrated technology platform, and in the timely and thorough completion of functions described in 6.A.-6.E.

- i. The Contractor shall provide two part time (.25) FTEE Research Assistants to work with the PIs in developing the algorithmic, technical, and research aspects of the project. The Contractor's employees will perform duties at the Carnegie Mellon University but will be required to have on site hours at VAPHS to be determined by Principal Investigator. The Research Assistants must have earned graduate degrees in an appropriate Engineering, Business or Statistics related field should have appropriate experience in healthcare analytics or operations science research including an appropriate background in the preparation of technical documents and in management science modeling techniques.
- ii. The Research Assistants will help maintain minutes that include dates, attendees, objectives, progress notes, and other relevant discussion points.
- iii. The Research Assistants will take share responsibility for the definition and development of technical reports and journal articles resulting from the project, and will work closely with the Principal Investigator and the Post-Doctoral Fellow/Systems Scientist to prepare and polish those documents for submission and publication.

6. TASKS

Tasks will be performed by Contractor both at VAPHS H. J. Heinz III campus and off site. Tasks will be delegated to Contractor's employees by the PIs based on expertise. Similar tasks may follow as identified and mutually by the Principal Investigator and the VAPHS VERC Director.

A. Develop a prototype tool for risk assessment and visualization

Develop a prototype tool for risk assessment and visualization for patients with Congestive Heart Failure (CHF). The models and data for risk prediction for CHF will be provided by VAPHS VERC.

B. Determine the requirements for discharge planning for CHF patients.

Survey and/or interview key physicians, clinical, administrative and IT staff, and patient groups, and examine literature to gather detailed requirements for discharge planning for CHF patients at high risk for readmission.

C. Develop sample use cases.

Develop sample use cases for the target patient groups. The use cases will be required to conduct tasks 6.D. and 6.E below.

D. Implement use cases as guidelines in the prototype tool

Based on knowledge gained from Tasks 6.A. - 6.C. implement the use cases as guidelines in the prototype tool.

E. Pilot Study

Test the pilot scenarios with the fictitious test patient data created in Task 6.C.

7. COST OF SERVICES:

- A. The Contractor shall provide all services required by this contract at the costs contained in the "Price Schedule". Such costs shall include all salaries; fringe benefits, including sick leave, personal leave, vacation, continuing medical education, retirement benefits, social security benefits; professional dues; liability/malpractice insurance; costs associated with teaching and supervision of residents; and any other overhead/administrative expenses and profit fees, if applicable.

8. REQUIREMENTS FOR ACCESS TO VA COMPUTER SYSTEM:

- A. No Contractor employee providing services under this contract will require logical (technical) access to VA information and VA information systems.

9. Training:

- A. All Contractor's employees performing services under this agreement will:
 - i. Successfully complete "VA Privacy and Information Security Awareness and Rules of Behavior" training prior to the performance of the contract and annually thereafter. Training must be completed in VA's Talent Management System (TMS) system (<https://www.tms.va.gov>). Contractors must use the TMS Managed Self Enrollment method to complete the training in TMS.
 - ii. The COR must ensure that all contractors are validated in the PIH domain. Proof of training completion must be verified and tracked by the COR.
- B. The Contractor shall provide to the Contracting Officer and/or the COR a copy of the Contractor Rules of Behavior signed by each applicable employee within 1 week of the initiation of the contract and annually thereafter, as required.

10. CONTRACTOR PERSONNEL SECURITY REQUIREMENTS:

- A. Contractor's employees will be required to comply with physical security guidelines by either checking in with the VA Police each time they come on-site to perform contracted services or by obtaining a VA Contractor ID badge in accordance with VAPHS Policy. The VA ID badge must be worn at all times.

11. Designation of Contracting Officer's Representative (COR)

- i. Joseph DeUnger is designated as the Contracting Officer's Representative (COR) in monitoring and certifying as to the receipt of services rendered under this contract.
- ii. The Contracting Officer's Representative shall have the following scope and limitations of authority:

- (1) Coordinating the work between the Contractor and the staff of the Medical Center.
 - (2) Monitoring the Contractor's performance to assure compliance with technical requirements of the contract to ensure that performance is strictly within the scope of the contract.
 - (3) Notifying the Contracting Officer if performance is not proceeding satisfactorily or if problems are anticipated.
 - (4) Recommending in writing to the Contracting Officer changes desired in the contract with justification for the proposed change.
 - (5) Assuring that any changes in work under the contract are not implemented unless written authorization or a contract modification is issued by the Contracting Officer.
 - (6) Maintaining an administrative File.
 - (7) Keeping a record of services required and performed under this contract, documenting contractor performance, and involving the Contracting Officer in any unresolved problems with this contract.
 - (8) Ensuring Contractor's employees receive annual training for privacy and cyber security. Providing copies of training certificates and Rules of Behavior to the Contracting Officer and Information Systems Dept.
 - (9) Obtaining copies of ACLS/BLS (if Applicable) and providing copies to the Contracting Officer.
 - (10) Completing Contractor Performance Assessment Reporting System (CPARS) annually or as needed.
 - (11) Reviewing and certifying Contractor invoices for payment of services rendered in accordance with the contract terms.
- iii. This delegation of authority does not include any authority to make changes in quantity, quality and delivery.
 - iv. All changes to the contract must be made by the Contracting Officer acting within the scope of his/her authority.
 - v. This designation is issued under the terms of this contract and shall remain in effect through the contract period, i.e., until the contract completion date, unless sooner revoked in writing by the Contracting Officer.

12. ROLES OF CONTRACTOR PERSONNEL PROVIDING SERVICES

- A. The Contractor shall designate in writing, all personnel who will perform the necessary services at the VA Pittsburgh Medical Center to the Contracting Officer prior to any performance of work. Additions or deletions to key personnel listed made during the contract period shall be submitted in writing to the Contracting Officer prior to performing services under the contract and will be subject to mutual acceptance by both the Contractor and VA. Any providers added to the contract must complete all requirements under the contract (background investigation, be credentialed and

privileged, certifications, computer training, etc.) prior to performing any work under this contract.

- B. The Contractor shall identify in writing to the COR their contact person(s) who shall serve as liaisons between the Contractor and VA and who shall ensure that services are performed in accordance with the contract specifications.

Contractor Coordinator: _____

13. KEY PERSONNEL AND TEMPORARY EMERGENCY SUBSTITUTIONS:

- A. During the first ninety (90) calendar days of performance, the Contractor shall make NO substitutions of key personnel (identified in section 5.a. – 5.c. above) unless the substitution is necessitated by illness, death, or termination of employment. The Contractor shall notify the Contracting Officer, in writing, within 15 calendar days after the occurrence of any of these events and provide the information required by paragraph (b) below. After the initial 90-day period of the contract, the Contractor shall submit the information required by paragraph (b) to the Contracting Officer at least 15 calendar days prior to making any permanent substitutions.
- B. The Contractor shall provide a detailed explanation of the circumstances necessitating the proposed substitutions, complete resumes for the proposed substitutes, and any additional information requested by the Contracting Officer. Proposed substitutes shall have comparable qualifications to those of the persons being replaced. The Contracting Officer will notify the Contractor within 15 calendar days after receipt of all required information of the decision on the proposed substitutes. The contract will be modified to reflect any approved changes of key personnel.
- C. For temporary substitutions where the key person will not be reporting to work for three (3) consecutive workdays or more, the Contractor will provide a qualified replacement for the key person. This substitute shall have comparable qualifications to the key person. Any period exceeding two weeks will require the procedure as stated above.

14. CONTRACT ADMINISTRATION DATA

A. Contract Administration

- a. The Contractor shall contact the Contracting Officer on all matters pertaining to the administration of this contract. Only the Contracting Officer is authorized to make commitments or issue changes which will affect the price, quantity, quality, or delivery terms of this contract.

B. Electronic Invoice Submission

- a. Please refer to VAAR 852.273-76, Electronic Invoice submission (Interim OCT 2008) which is included in full text under Section I – Contract Clauses.

C. Electronic Funds Transfer Payment Method

- a. Payments under this contract will be made by the Electronic Funds Transfer Payment Method in accordance with FAR 52.232-34, Payment by Electronic Funds Transfer—Other Than Central Contractor Registration. Contractor must register at <http://www.ccr.gov> and keep registration current.

D. Contract Monitoring Procedure

- a. Documentation of services performed shall be reviewed prior to certifying payment. The COR will perform periodic spot checks to ensure monitoring reports are valid. Contract monitoring and record keeping procedures shall be sufficient to ensure proper payment and allow audit verification that services were provided.
- b. Quality Assurance Surveillance Plan identifies the performance standards by which the contractor will be monitored. Any incidents of contractor noncompliance will be forwarded immediately to the Contracting Officer.
- c. The contractor shall not invoice for work which exceeds the number of scheduled hours each month.
- d. The Contractor shall not invoice for any hours below the scheduled number of hours each month.
- e. Schedule of Hours can be found in Section 5 of the Quality Assurance Plan.

E. Payments

- a. The Contractor will submit invoices monthly in arrears covering the services performed under this contract. The invoices will contain the following information:
 - i. Invoice Number
 - ii. Contract Number/Purchase Order Number
 - iii. Month Being Invoiced
 - iv. Name of Contractor's Employees Performing Work
 - v. Monthly Rate for Each Employee
 - vi. Total Amount Due
- b. Sums due the Contractor will be paid monthly, in arrears, upon receipt of a properly prepared invoice. The Contractor shall submit all invoices to the following address:

Dept. of Veterans Affairs
 Financial Services Center
 P.O. Box 149971
 Austin, TX 78714-8971

15. REQUIREMENT OF A TERMINATION REPORT WHEN A CONTRACT THAT HAS NOT BEEN COMPLETED IS DISCONTINUED INCLUDING A SUMMARY OF RESULTS OBTAINED AND THE REASONS FOR TERMINATION.

In the event of termination a written report must be submitted. It will include, but not be limited to current status of the project/s, specifications and location of software that may have been used or developed, confirmation on the location of all data related to the project/s (including file names and naming configurations used), specific location of all equipment and supplies related to the project/s, and location of any prototypes, drawings, diagrams or publications that may be in the developmental stage.

This report will also include the reason for termination and the process by which it was handled.

16. REQUIREMENT THAT VA SUPPORT BE RECOGNIZED IN PUBLICATIONS

In compliance with VHA Handbook 1200.19 (Required Notification Regarding Publication or Presentation of Research Findings), the VA must be acknowledged on all articles, books, chapters, presentation slides, press releases, oral presentations, etc. resulting from the work specified in this Contract. It is the responsibility of the COR to ensure VA acknowledgement.

17. GOVERNMENT/CONTRACTOR RELATIONS

The Government and the Contractor understand and agree that the services to be delivered under this contract by the Contractor to the Government are non-personal services, and the parties recognize and agree that no employer-employee relationship exists or will exist under the contract between the Government and the Contractor. It is, therefore, in the best interest of the Government to afford both parties a full and complete understanding of their respective obligations.

- A. Contractor personnel under this contract shall not:
 - i. Be placed in a position where they are under the supervision, direction, or evaluation of a Government employee.
 - ii. Be placed in a position of command, supervision, administration or control over Government personnel, or personnel of other Contractors, or become a part of the Government organization.
 - iii. Be used in administration or supervision of Government procurement activities.
- B. It is the responsibility of the COR to ensure that activities of Contractor personnel do not constitute personal services. The COR shall:
 - i. Conduct regular review of Contractor/ government staff relationships to ensure reporting is consistent with contract but does not constitute supervisory arrangement.

18. REQUIRED REGISTRATION WITH CONTRACTOR PERFORMANCE ASSESSMENT REPORTING SYSTEM (CPARS)

- A. As prescribed in FAR Part 42.15, the VA evaluates Contractor past performance on all contracts that exceed \$150,000, and shares those evaluations with other Federal Government contract specialists and procurement officials. The FAR requires that the Contractor be provided an opportunity to comment on past performance evaluations prior to each report closing. To fulfill this requirement VA uses an online database, the Contractor Performance Assessment Reporting System (CPARS). The CPARS database

information is shared with the Past Performance Information Retrieval System (PPIRS) database, which is available to all Federal agencies.

- B. For contracts with a period of one year or less, the Contracting Officer will perform a single evaluation when the contract is complete. For contracts exceeding one year, the Contracting Officer will evaluate the Contractor's performance annually. Interim reports will be filed each year until the last year of the contract, when the final report will be completed. The report shall be assigned in CPARS to the Contractor's designated representative for comment. The Contractor representative will have thirty calendar days to submit any comments and re-assign the report to the VA Contracting Officer.
- C. Failure to re-assign the report to the VA Contracting Officer within those thirty calendar days will result in the Government's evaluation being placed on file in the database with a statement that the Contractor failed to respond.

19. PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL

All personnel employed by the Contractor must comply with Homeland Security Presidential Directive 12 (HSPD-12). Office of Management and Budget (OMB) Guidance M-05-24 and Federal Information Processing Standards Publication (FIPS PUB) Number 201, which requires all federal employees, Contractors, and affiliates to have a Personal Identity Verification (PIV) identification card. The PIV process will be initiated and completed by the VA Medical Center. The Contractor Physician will be responsible for all costs associated with transportation of the employee to the VA Medical Center to initiate the fingerprinting and overall.

20. CONTRACTOR CERTIFICATION (IMMIGRATION)

Citizen-related requirements. Contractor must return a signed certification as found in Section D of this solicitation. This certification concerns a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under 18. U.S.C. 1001.

21. NON-EXCLUSIVE CONTRACT

This contract is non-exclusive and shall not prohibit VA or the Contractor from entering into contracts with other health care providers or purchasers of health care services.

22. PERIOD OF PERFORMANCE

Period of Performance is for one (1) year, from date of Contract Award.

23. REQUIREMENT THAT VA SUPPORT BE RECOGNIZED IN PUBLICATIONS

In compliance with VHA Handbook 1200.19 (Required Notification Regarding Publication or Presentation of Research Findings), the VA must be acknowledged on all articles, books, chapters, presentation slides, press releases, oral presentations, etc. resulting from the work specified in this Contract. COR will ensure compliance by submitting all proposed publication to the office of research for review of proper acknowledgement.