

Innovation Partnership  
**Procurement by Co-Design**

VHA Home HealthCare – Predictive Workforce  
Analytics for Homecare  
**Challenge Brief**



**Contact name**

Drew Wesley

**Response deadline**

October 20, 2017

**Phone number**

416-482-4629

**Challenge Brief reference #**

VHA-003

**E-mail**

[dwesley@vha.ca](mailto:dwesley@vha.ca)

**Maximum procurement budget**

\$ 25,000

Note: this does not obligate provider to procure any solution

**Project Team**

Drew Wesley – Executive Sponsor  
Debbie Friday – Project Lead  
Elena Popova – Data Analyst  
Chung Li – HR Specialist

All vendor responses must be made via completion of an "Innovator Brief" template and forwarded to the above contact via email by the response deadline, with a cc to [designchallenge@marsdd.com](mailto:designchallenge@marsdd.com).

## The Challenge

Maximum of 1200 characters

### **Challenge**

How might we better align our Personal Support Worker (PSW) workforce with client demand to generate more accurate staffing forecasts and better establish our recruitment priorities?

VHA has historically determined PSW staffing forecasts and recruitment prioritization with a limited set of decision support tools and data. VHA is under equipped to accurately predict the number of PSWs required to meet client demand or define the geographic area, skillsets, and day/time parameters under which PSW recruitment should be prioritized. As a result, VHA has faced periods of PSW resource constraint that manifests into operational strain and ultimately poor patient experience due to missed visits. This is a common challenge in the homecare sector.

### **How have we tried to solve this problem?**

Recently, VHA has started to produce analytics that reflect PSW availability (supply) compared to client visits (demand) for the past month. We are using this data to determine where we have resource constraints in order to better guide our recruitment priorities. This new process has enabled improved decision support however we see great potential to extend this work with predictive modeling (i.e. exploit patterns in historic and transactional data to identify and score specific recruitment requirements).

### **Why do current solutions in the market fall short of solving this challenge?**

Predictive workforce analytics tools exist in the market today. However they tend to address HR issues such as employee engagement impact, flight risk scores, onboarding success rates, etc. or are specific to operational disciplines such as call centres. VHA has been unable to identify a predictive workforce analytics tool that that is tailored to the homecare market.

## Desired Outcomes

Maximum of 3 outcomes based specifications (OBS)

OBS#1: VHA would like to reduce the amount of time required to generate PSW staffing forecasts by 40% over 3 months.

OBS#2: VHA would like to reduce the amount of time required to establish PSW recruitment priorities (e.g. geographic area, skillsets, and day/time parameters by which VHA should prioritize hiring) by 50% over 3 months.

## Evaluation Criteria

Criteria to be used for vendor selection (NOT to evaluate solutions).

### *Company (15%)*

Has the company demonstrated the competency to act as partner? Do they have an innovative vision? Do they have a strong leadership team? Do they have strong references?

### *Proposed approach (30%)*

Is the proposed approach to the challenge innovative? Do you agree that it can solve the challenge proposed? Will it have a significant impact on VHA's recruitment requirements gathering process?

### *Ability to execute (30%)*

Has the company demonstrated the ability to deliver a solution to other complex challenges? What has been the outcomes of solutions they have implemented? Does the company have experience in predictive modeling?

### *Ability to produce validation data (10%)*

Has the company demonstrated their ability and expertise to produce validation data? Have they shared an example of data they have produced for any of their products or prototypes? Is the quality of that data sufficient enough to make a procurement decision?

### *Experience of project team (10%)*

Does the team have experience working on innovative solutions? Did the company propose the right type of project team to take on this engagement?

## Key Dates

The following is a summary of key dates in the RFP process. Program sponsor (MaRS) and provider may change any of the dates below, in its sole discretion and without liability, cost, or penalty.

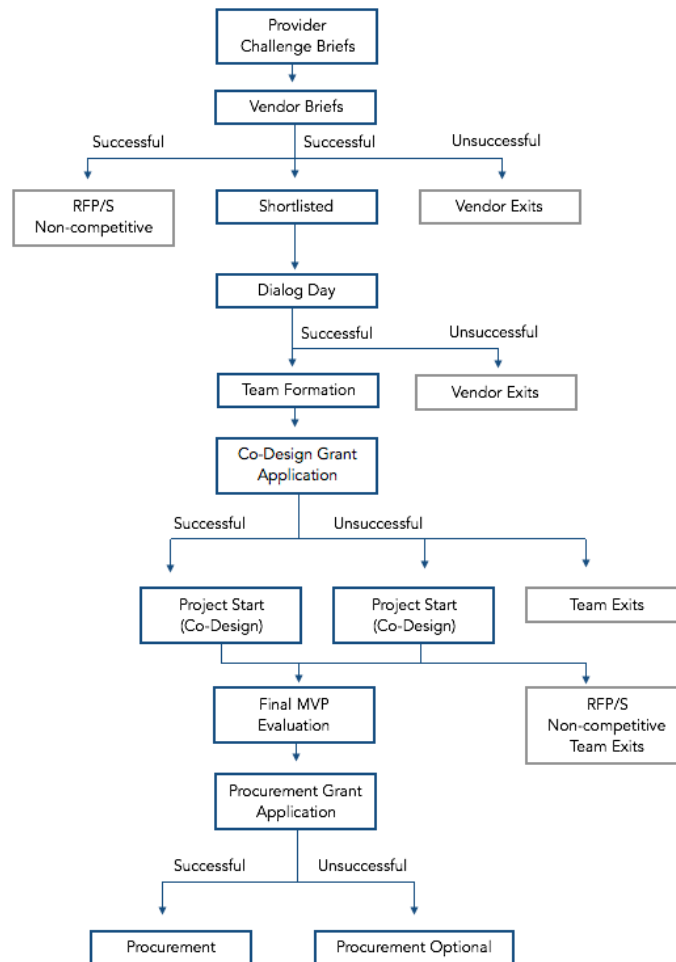
Key Dates	Milestones	Duration
<b>Sept 28, 2017</b>	Program launch, providers invited to download and complete a Challenge Brief	<b>2 weeks</b>
<b>Oct 16 - 20</b>	All challenges posted online, vendors begin to respond with Innovator Briefs	<b>1 week</b>
<b>Oct 23 - 27</b>	Vendors have all submitted Innovator Briefs. Providers shortlist vendor selection.	<b>1 week</b>
<b>Nov 6</b>	Dialog day. Each provider will hear their selected vendor pitches. Final vendor selection completed.	<b>1 day</b>
<b>Nov 7 - 10</b>	Teams prepare and submit co-design grant application.	<b>1 week</b>
<b>Nov 13 - 17</b>	External judging panel reviews grant applications. Meets on 17th to make final decision. Co-Design grant winners announced.	<b>1 week</b>
<b>Nov 20</b>	Co-Design Workshop #1: Discovery. Teams sign collaboration agreements.	<b>1/2 to 1 day</b>
<b>Nov 20 - Dec 15</b>	Teams work on discovery phase.	<b>4 weeks</b>
<b>Jan 15, 2018</b>	Co-Design Workshop #2: Ideation & Concept testing	<b>1/2 to 1 day</b>
<b>Jan 15 - Mar 3</b>	Teams work on ideation and concept testing phase.	<b>8 weeks</b>
<b>Mar 5 - 8</b>	Design review sessions. 1 - 2 hour sessions with each team to review learnings from discovery and concept testing results.	<b>1 week</b>
<b>Mar 9</b>	Co-Design Workshop #3: MVP prototyping and evaluation framework.	<b>1/2 - 1 day</b>

<b>Mar 9 - Jun 15</b>	Teams work on MVP development and evaluation phase.	<b>14 weeks</b>
<b>Jun 18 - Jul 5</b>	Teams make procurement decision and formalize agreements.	<b>3 weeks</b>
<b>Jul 9 - 13</b>	External judging panel conducts site visits.	<b>1 week</b>
<b>Jul 20</b>	Final solutions day. Judges award up to \$50k for procurement.	<b>1 day</b>

## Terms and Conditions

1. The “Innovation Partnership: Procurement by Co-Design” program may or may not lead to a procurement. There is no requirement for procurement at the end of the program, and procurement is at the discretion of the Provider. There are a number of potential outcomes from participation in this program (see figure below).
2. This Design Challenge document is issued to invite vendors who are able to develop solutions within the program timelines or have existing solutions that require refinement or validation, to respond and partner with the Provider to solve the proposed challenge.
3. The process will be in four phases:
  - a. Phase 1: Challenge Brief
    - i. Proponents prepare a submission in response to OBS
    - ii. Providers evaluate submissions based on evaluation criteria published in Challenge Brief, and generate a short list of qualified proponents
  - b. Phase 2: Dialogue Day
    - i. Short listed proponents are invited to present on submissions
    - ii. Providers evaluate presentation/discussion based on published criteria (to be made available to short listed proponents) and a proponent is selected. There are now two possible outcomes:
      1. Proponent may find an ideal solution and decide to pursue an RFP/S or non-competitive procurement strategy
      2. Proponent may form a team to pursue co-design
  - c. Phase 3: Co-Design
    - i. Selected proponent and provider form a team to co-design a solution and evaluate a minimum viable product, and decide whether to apply for the co-design grant. There are now three possible outcomes:
      1. Co-design moves forward with grant funding
      2. Co-design moves forward without grant funding
      3. Co-design does not move forward
  - d. Phase 4: Procurement

- i. Providers evaluate success of the minimum viable product based on published desired outcomes
- ii. Providers determine whether to move forward with a procurement, and whether to request the additional grant from IPPCD. There are now three possible outcomes:
  1. Procurement moves forward with grant funding
  2. Procurement moves forward without grant funding
  3. Procurement does not move forward



4. Questions related to the Challenge being proposed must be directed to the Provider, and questions that modify the Challenge will be posted publicly for all potential proponents. Questions related to the Innovation Partnership: Procurement by Co-Design Program must be directed to MaRS ([designchallenge@marsdd.com](mailto:designchallenge@marsdd.com))
5. Submission requirements (mandatory requirements; proponents who do not meet the mandatory requirements will be disqualified)
  - a. Interested proponents must respond via submission of an Innovator Brief document, available online on <https://www.marsdd.com/systems-change/procurement-co-design>
  - b. The Innovator Brief document must be submitted directly to the Provider by the due date listed on the cover page of this document, with a cc to [designchallenge@marsdd.com](mailto:designchallenge@marsdd.com).

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- c. The submission must include proof of necessary licenses.
- 6. Bid disputes must be directed to the Provider, and will be managed according to the Provider's published bid dispute resolution process.