HEALTHY BEHAVIOUR DATA CHALLENGE

Canada

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

MaRS

HealthDataChallenge.com

Agenda

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HBDC Partners

- MaRS Discovery District (lead partner)
- Public Health Agency of Canada (supporting partner)
- Canadian Institutes of Health Research (supporting partner)

Update

www.healthdatachallenge.com

HDC Health Data Challenge

ABOUT PHASE 1 FINALISTS PARTNERS FRANÇAIS

Innovation in tracking public health

Technology advances are opening up new ways to collect health data. There is an opportunity to use these new platforms and sources of data to improve public health surveillance. This raises the question: how can we best leverage these new sources of information and integrate them into existing health monitoring systems?

To answer this question, leading federal Canadian and American health and innovation organizations have come together to create the Healthy Behaviour Data Challenge. It seeks to identify and evaluate new data sources and methods to enhance public health surveillance.

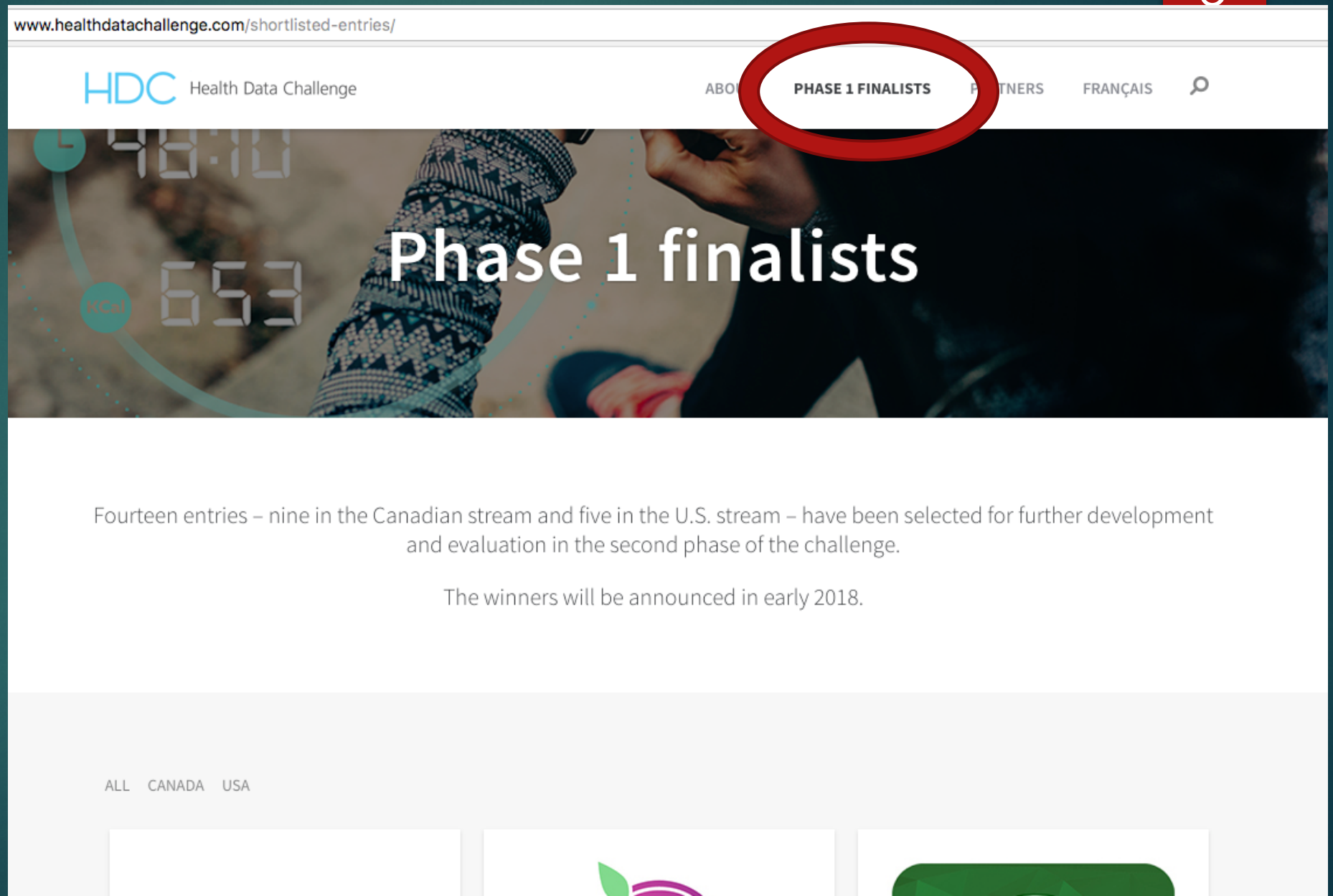
The challenge asked innovators to propose creative new types of data and data sources that can be used to measure indicators of **physical activity** (e.g. daily number of steps), **sleep** (e.g. number of times awake per night), **sedentary behaviour** (e.g. average number of hours per day spent sedentary), or **nutrition** (e.g. servings of fruits and vegetables consumed per day).

After evaluating entries from across the country, nine Canadian proposals have been selected to move forward to the second stage of the contest, where they will be developed further and evaluated. U.S. entries are being evaluated separately.

Check out the Phase 1 finalists

FINALISTS

Update


www.healthdatachallenge.com/shortlisted-entries/
HDC Health Data Challenge
PHASE 1 FINALISTS
FRANÇAIS
Phase 1 finalists
Fourteen entries – nine in the Canadian stream and five in the U.S. stream – have been selected for further development and evaluation in the second phase of the challenge.
The winners will be announced in early 2018.
ALL CANADA USA

Judging Rubric

Criteria	Description	Score
Innovation	Does the technology introduce new data sources and methods to enhance public health surveillance? Is the concept creative and innovative compared to existing methodologies of measurement?	10
Accuracy	Do the proposed metrics reasonably measure the indicator in the framework they are intended to measure? If the measure already exists, does the metric improve the accuracy of the measurement according to the Comparison Document*? Is the accuracy of the data explained qualitatively and quantitatively?	20
Functionality	Does the prototype function properly? Can the prototype be developed into a functioning product with reasonable time and cost requirements?	10
Scalability	Is the technology easy to use and easy to access? How well could this concept and data sources be scaled to cover a wide population?	15
Intelligibility of the Results	Will the Canadian population understand the measures and indicators, and therefore use the technology regularly?	15
Representativeness of the Data	Does the the data have the potential to be representative of the Canadian population?	10
Integration into Public Health Surveillance Practice	Does the technology solve a real problem or significantly enhance public health surveillance (with existing indicators) or fill a gap (with new indicators)? Can the product be integrated seamlessly to existing public health surveillance?	20

*Comparison Document can be found here: https://infobase.phac-aspc.gc.ca/pass-apcss/

Submission Form

Healthy Behaviour Data Challenge
Phase 2 Submission Form

Instructions:

1. Provide your responses to the questions in the Word document.
    a. Please follow the word limits indicated for each section.
    b. Include any additional documents in the Appendix. There is no limit for the length of the Appendix section.
2. Save your submission form in PDF format.
3. Submit your report by logging onto the HeroX platform (https://herox.com/healthdatachallenge) and uploading the PDF file as a single attachment.

Submission deadline: January 15, 2018, 11:59PM EST

Contact Timothy Luk (healthdatachallenge@marsdd.com) if you have any questions regarding the submission process.

Submission Form

Healthy Behaviour Data Challenge
Phase 2 Submission Form

Applicant:
Applicant Organization:
Title:

Section 1: Project Summary
Provide a 100-word summary of your project.

Section 2: Innovation

a. (250 words) Introduce your technology, its functionality, and/or data sources. In what ways would these new data sources or methods enhance public health surveillance? How is this innovative compared to existing methodologies of measurement?

Submission Form

Section 3: Technical/Data

a. (750 words) Present the data, metrics, and indicators. How did you generate those values? What is the population breakdown for the data presented (age, education, ethnicity, gender, etc.)? What is the sample size used to obtain this data? What indicators can be generated for each user of the technology? Ensure sufficient evidence is present to justify the accuracy of the data presented.
b. (250 words) How do the indicators presented compare to PHAC's existing measures and data? (https://infobase.phac-aspc.gc.ca/pass-apcss/) If it is the same indicator as what PHAC currently measures, describe how your indicator is an improvement. If it is a new indicator, describe how you are measuring the indicator and demonstrate that you are measuring it accurately. How does this approach enable PHAC to do something they traditionally have not been able to do?

Raw data and algorithms can be included in an appendix.

Submission Form

Section 4: Results and Insights

a. (750 words) Summarize your results and provide some insight into the population you've studied. Please indicate the specific population breakdown (age, education, ethnicity, gender, etc.) when presenting each insight and reporting on your indicators, and if available, compare the results to existing results for the same indicator.
b. (250 words) Describe how a non-expert audience might use your results to improve or understand his or her health. How likely is the technology to be used regularly by the general public? In what format(s) can the resulting collected data be shared to the general public (e.g. excel, raw text, proprietary format)?

Section 5: Anticipated Impact

a. (500 words) Given the current state of physical activity, sedentary behaviour, and sleep (PASS) in Canada (as you understand it), how will this technology impact or improve on PHAC's ability to monitor the health of Canadians? Describe how the data/indicators provided in this submission are representative of the Canadian population. If the data is not currently representative of the Canadian population (or subpopulations), describe a practical set of steps that could be taken to make them more representative.

Submission Form

Section 6: Plans for Build-Out

a. (750 words) Describe the plan required to build out this prototype and integrate it into practice at PHAC. What are the timelines, cost requirements and any other considerations (e.g. intellectual property, data availability to PHAC and outside partners) that must be made?
b. (250 words) Is the technology easy to use and how easily will the measures and indicators it generates be understood and used by Canadians?
c. (250 words) Is the technology widely available or easy to access? How will this technology scale to increase the geographic coverage of the population you studied as part of this submission? (e.g. if you are collecting data on urban youths in Edmonton, how would you scale to capture data on youths in other urban areas or youths outside of urban areas?)
d. (250 words) How would you increase the representativeness of the data to cover more of the Canadian population? (e.g. If you are collecting data on youths, how would you increase representativeness so that the data can be collected for youths and other age groups?)

Upcoming Timelines

- January 15, 2018: Phase 2 submission deadline
- Late February 2018: Phase 2 winners notified
- March 2018: Funding agreement signing and distribution of funds
- April 2018: Official US/CAN announcement for Phase 2 winners

Questions?

- Post any questions you have on the HeroX forum.
- You can also email questions to healthdatachallenge@marsdd.com.