



Request for Information (RFI) Number: 1000213457

**Health Canada
Healthy Environments and Consumer Safety Branch
Population Studies Division**

Project Title: Analysis of air pollution and disease trajectory and intervention using Ontario healthcare administrative data

The purpose of this Request for Information (RFI) enquiry is to determine if any existing suppliers have the necessary tools and skillset to provide required services

Objectives of the Requirement

HC requires the services of a contractor to address the following objectives through the use of health administrative data in the province of Ontario:

1. To determine how air pollution influences the transition of health states from incidence of major chronic diseases, to their progression, and finally to premature death; and
2. To evaluate the effectiveness of some widely-implemented or potential individual-level and population-level strategies in reducing the harmful effects of air pollution on health in Canada

Activities and timelines

Item no.	Deliverables	Delivery Date
Original contract period of August 1, 2019 to March 16, 2020		
1	Submit report describing the characteristics of study populations, ascertainment of outcomes, and descriptive statistics of air pollution exposures	2019.10.30
2	Submit report characterizing how air pollution influences the transition of health states from incidence of diabetes to premature death	2019.12.30
3	Submit report characterizing how air pollution influences the transition of health states from incidence of stroke or heart failure (HF) to premature death	2020.02.28
Option years 1 (March 17, 2020 to March 12, 2021)		
4	Submit report characterizing how air pollution influences the transition of health states from incidence of diabetes, to related readmission, and finally to premature death	2020.08.30
5	Submit report characterizing how air pollution influences the transition of health states from incidence of stroke or HF, to related readmissions, and finally to premature death	2020.12.30
6	Submit report examining whether use of common cardiovascular medications may moderate the negative effect of air pollution on cardiovascular morbidity and mortality	2021.02.28
Option year 2 (March 13, 2021 to March 11, 2022)		
7	Submit report characterizing how air pollution influences the transition of health states from two causally ordered incident diseases (diabetes to	2021.08.30

	myocardial infarction [MI], diabetes to stroke, diabetes to HF), and finally to premature death	
8	Submit report examining whether use of common cardiovascular medications may be mediators in the negative effect of air pollution on death and hospitalization from any coronary heart disease	2021.12.30
9	Submit report examining whether use of common cardiovascular medications may be mediators in the negative effect of air pollution on death and hospitalization from stroke	2022.02.08

Option year 3 (March 12, 2022 to March 10, 2023)

10	Submit report describing detailed results of studies that evaluated the potential benefits of a common intervention	2022.08.30
11	Submit report examining the extent to which a hypothetical policy would yield health benefits with incident MI and stroke	2022.12.30
12	Submit report examining the extent to which a hypothetical policy would yield health benefits with deaths from non-accidental, cardiovascular, and respiratory causes	2023.02.08

- The contractor must use its own equipment and software for the performance of the work.
- Work will take place at the Contractor's facilities.
- All deliverables will be in English.

Contractors Minimum Requirements

1. The contractor must have access to Ontario health administrative database(s) and has completed the creation of a population cohort that contains the entire adult population in the province of Ontario with detailed individual-level information on air pollution exposure, incident cases of major chronic diseases such as diabetes, cardiovascular disease, pulmonary disease, and disease progression, and cause-specific mortality between 1996 and 2018.
2. The contractor must demonstrate that they have completed validation of this cohort, and used it in air health scientific publications.
3. The contractor must have experience in assisting with optimizing algorithms for the ascertainment of chronic disease outcomes using large-scale health administrative databases in Ontario.
4. The contractor must have subject-matter expertise and the ability, demonstrated by published scientific papers, to perform data linkage, cohort creation, and data analysis using data derived from large health administrative databases and air pollution and other environmental data in Ontario.
5. The contractor must have experience, with scientific publications, in conducting advanced statistical analysis, especially spatial random-effect survival analysis, with air pollution exposure data.
6. The contractor must have subject-matter expertise (shown in scientific publications) in developing concentration-response curves for the impact of air pollution on chronic health outcomes using Shape Constrained Health Impact Function and other advanced statistical methodologies.
7. The contractor must be able to begin the analyses in September 2019, and complete the tasks within the required timeframe.
8. The contractor has at least 3 years of experience in analysing air pollution health effects using large study cohorts with a demonstrated ability to deliver high-quality analysis suitable for publication in peer-reviewed scientific papers.

Contractors who wish to respond must demonstrate they meet the above requirements and estimated cost for doing the work.

Note to Potential Respondents:

This is not a bid solicitation and a contract will not result.

Potential respondents are advised that any information submitted to the government in response to this Request for Information may be used by the government in the development of a subsequent Request for Proposal (RFP).

The issuance of this Request for Information does not create an obligation for Canada to issue a subsequent RFP.

It should also be noted that no agreement to do business with any respondent will result from this specific enquiry.

Closing Date:

Responses to this Request for Information will be accepted at any time until July 18th 2019, 2:00pm EDT

Contracting Authority:

All enquiries and responses related to this Request for Information shall be directed to the Contracting Authority: Angel de Chantal
angel.dechantal@canada.ca