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REQUEST FOR PROPOSAL (RFP)

Reference Number: 1000173351

CLOSING DATE: **July 16, 2015** **CLOSING TIME: 2:00 PM EDT**

PROJECT TITLE: Investigation to Identify the Cause of an Observed Change in Mortality Risk Attributable to Ozone

Branch/ Directorate: Healthy Environments and Consumer Safety Branch
Environmental and Radiation Health Sciences Directorate
Environmental Health Science and Research Bureau
Health Canada

FOR ADDITIONAL INFORMATION PLEASE CONTACT:

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RFP Issue Date: July 2, 2015

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PART I **STATEMENT of WORK**

1. Scope

1.1. Title

Investigation to Identify the Cause of an Observed Change in Mortality Risk Attributable to Ozone

1.2. Introduction

Considerable research over the last 20 years has established a clear and significant link between ground ozone levels and adverse health effects, including asthma, heart attack, strokes, and death. Early research, largely consisting of cohort studies using case-crossover designs, linked these health effects to long-term exposure to ambient ozone. Continued efforts led to evidence of links between short-term exposure to ozone and several health markers, including myocardial infarction and ischemic stroke, cardiovascular and respiratory diseases, and mortality. Several meta-analyses have contributed to the evidence in support of a scientific link between ozone exposure and mortality, with additional work finding that there is no safe threshold level for individual exposure.

The first substantive results linking ozone to human health dealt largely with long-term exposures. This was due to two reasons: lack of suitable data, and lack of suitable analytical frameworks (including computational power). The invention and popularization of Generalized Additive Models (GAMs), and the development of computing resources sufficient to estimate them, provided sufficient structure to allow for the estimation of health risk due to acute exposure. Prior to 2003, most scientific work linking ozone and health effects dealt with long-term ambient exposure, rather than short-term acute effects.

Since 2000, there has been a tremendous amount of work published on the relationship between acute exposure to air pollution (AP) and a variety of health outcomes. These outcomes include mortality, ischemic stroke and any number of other diseases. The majority of these studies use time-series regression models, typically computed in the framework of Generalized Additive Model (GAM) or Generalized Linear Model (GLM). Additionally, most such studies use one contiguous time block for analysis, e.g., 1987—2000 (the NMMAPS database), or 2000—2005 (analysis of the heat wave of 2003). An exception to this rule has been the Air Health Indicator (AHI) project, which seeks to model time trends in the risk.

The AHI project has developed models for estimation of risk due to acute exposure to air pollutants, primarily ozone and PM2.5 in Canadian urban centers. The principal investigator of the present proposal has developed multi-year risk estimators and proposed a 7-year estimator for the AHI using a simulation study based on Canadian data. There was further shown to be no evidence for either an increasing or decreasing trend in NO2 adverse health effects on Canadian population using single-year estimators. Using the 7-year estimator, however, the AHI has recently detected a substantial decline in ozone's impact on Canadian heart or lung (cardio-pulmonary, CP) related mortality risks for the warm season from April to September. The decline seems to be strongly related to season and cause of mortality, as no change was observed in the cold season risk or in mortality from other causes. Further studies on historical ozone concentrations, the CP mortalities, additional confounders (e.g., heart or lung related drug usage), and correlations between ozone and ozone precursors (NOx, VOCs), and meteorological variables (MET, temperature, humidity, sunlight) are therefore necessary to prove or disprove the apparent declining trend in ozone-CP mortality associations at regional and national levels for warm season.

1.3. Objectives of the Requirement

The objective of this project is to validate a signal from the AHI that indicates the relative risk of warm-season cardio-respiratory mortality per unit concentration of ground-level ozone has substantially shifted in recent years. If verified, to explore possible explanations for this change. This work is supposed to provide information on the following questions:

(1) How to best manage missing ground ozone concentration data?
(2) How to best link drug usage to the ozone's adverse health effects?
(3) How to best link demo-socio-economic data to the ozone's adverse health effects?
(4) How to best model synthetically lagged ozone risk estimates at regional and national levels minimizing bias in risk estimates?
(5) How to best model warm season health risk using (1)-(4)?

1.4. Estimated Contract Value

The total amount of funds available for this contract is $55,000, plus applicable taxes. A seven-month contract will be awarded to the bidder who receives the highest technical score on their technical proposal and who can do the work within the proposed budget.

1.5. Background and Specific Scope of the Requirement

A substantial body of research has established that the health risk associated with common air pollutants rises and falls with levels of pollution within a time frame of one to several days. This has been demonstrated for several health markers including mortality, particularly for heart and lung related (cardiovascular and respiratory) diseases. The Air Health Indicator (AHI) was developed to track changes in this relationship. The indicator not only presents the changes in risk associated with varying pollutant concentrations, but is also capable of spotting changes in the relationship between pollutant concentration and health risk. These changes may result from a change in: population susceptibility (due to better health protection), exposure (due to changes in the built environment), or unidentified co-pollutants that fall out of synchronization with the measured pollutant. The AHI tracks, among other endpoints, the risk that ozone poses in term of Canadian population deaths due to cardio-respiratory diseases. This component of the AHI has recently revealed a shift in relative risk, i.e., an apparent change in mortality risk per ppb of ozone. In order to investigate the cause of the apparent shift, this project will re-examine the data used in the risk estimates and will incorporate into the analysis of other data that could explain the observed change (e.g., socio-economic data, volatile organic compound (VOC) and NOx (NO and NO2) precursors of ozone, and new cardiac drugs). Two previous contracts have done work on unusual ozone data detection and corrections and trends in cardiopulmonary drug data, respectively. Thus this study is required to review the statistical analysis methods suggested by the previous contract and to combine all the methods for the ozone AHI update.

The study target population is the Canadian population using three types of information over a 26-year period, 1984-2009 (or latest year): daily numbers of cause-specific deaths, concentrations of ozone and precursors, and potential confounders to the annual ozone-mortality association. Based on the criterion of having a reasonably complete time series of AP and weather measurements, and sufficient daily mortality counts, 24 urban communities will be included in this study and classified into 5 regions (Table 1). The final risk estimates at regional and national risk levels are to be derived through a Bayesian hierarchical approach based on these 24 cities.

Table 1: Region classification of 24 major cities			
City name	Region	City name	Region
Halifax	Atlantic	Waterloo	S. Ontario
Saint John	Atlantic	Windsor	S. Ontario
Quebec	S. Quebec	Sarnia	S. Ontario
Montreal	S. Quebec	London	S. Ontario
Ottawa	S. Ontario	Sudbury	S. Ontario
Durham	S. Ontario	Sault Ste. Marie	S. Ontario
York	S. Ontario	Winnipeg	Prairies
Toronto	S. Ontario	Regina	Prairies
Peel	S. Ontario	Saskatoon	Prairies
Halton	S. Ontario	Calgary	Prairies
Hamilton	S. Ontario	Edmonton	Prairies
Niagara	S. Ontario	Vancouver	British Columbia

To estimate city-specific risks spectral methods have been developed to filter the pollution series and a new smoother (Slepian smooth functions) has been introduced. The new smoother isolates only the higher frequency variations in the daily data, so as to more faithfully estimate the short-term effects of pollution on mortality. In typical risk models, a single lag of the primary pollutant is chosen as the predictor of interest (e.g., Ozone lag-1, meaning lagged one calendar day). A more sophisticated technique involves the use of so-called distributed lag models. Another advanced technique (called "synthesized lag model"), which combines all temporally local lags with finer time resolution than day, has been developed as the aggregate risk.

This project is required to incorporate the developed methods mentioned above, correction of ozone, Slepian smoother and synthetic lag models.

2. Requirements

2.1. Tasks, Activities, Deliverables and Milestones

The primary goal of this project is to investigate potential sources of the declining trend observed for warm-season-specific mortality risks attributable to ground-level ozone. It is required to use three new statistical methods developed by previous contracts:

(1) new methods for ozone data correction,
(2) new Slepian smoother,
(3) synthetic lag models in addition to traditional single day lag models.

Health Canada will be providing the data, publications and reports on contracted outcomes that the contractor will use to perform the activities described below.

(a) *Validation of ozone and NO2 data:* Applying the method (1) above, updated ozone and NO2 data should be validated.

(b) *Sensitivity analysis on risk estimates to ozone data (uncorrected versus corrected ozone)*: Single-pollutant models for ozone and NO2 validated in (a) should be developed for regional and national risks. Applying the method (2) above, various values of degree of freedom should be investigated by season, gender and age groups for Canadian mortality and morbidity.

(c) *Synthetic lag model versus distributed lag model*: Applying the method (3) above, the outcomes should be compared to those from distributed lag model including single day lag model. Thorough comparisons are required at city, region and nation levels.

(d) *Analysis of drug usage and demo-socio-economic status as effect modifiers on ozone risk*: To account for potential effect modifiers between ozone and cardio-pulmonary health outcomes, Canadian drug, demo-socio-economic data should be extensively investigated. Those effect modifiers are usually available monthly at province level, whereas mortality and morbidity data are available daily at city-level. The temporal and spatial differences in availability between them should be first examined and then integrated for annual regional and national risks.

(e) *Trends in annual ozone risk at regional and national levels:* Accounting for confounders and effect modifiers, adverse health effects of ozone on the Canadian population should be estimated by season: warm season from April to September and cold season from October to March. Trends in those seasonal annual risks at national and regional should be tested through statistical methods using parametric or non-parametric approaches. It is also required to explain any trends observed.

The following sequence of work products will be prepared during this period:

1st report on September 28, 2015: Progress report #1 on items (a) & (b) prepared by the contractor.
2nd report on November 30, 2015: Progress report #2 on item (c) prepared by the contractor.
Final report on February 29, 2016: A final report on all items (a)-(e) for FY2015 prepared by the contractor.

The Contractor must submit one (1) electronic copy of reports to the Project Authority outlining the accomplishments for the given period, open issues and upcoming milestones on a biweekly basis.

2.2. Specifications and Standards

All analyses conducted under this contact, along with any recommendations for further research, will be summarized in a written report of 50-60 pages for progress reports and extended up to 100 pages for the final report. The report will describe the sources of all data used in these analyses, the statistical methods applied, and the results obtained. The report will conclude with a proposal for an improved AHI and an explanation of the underlying statistical methods. The final report will include an executive summary of 2-3 pages, and all data developed will be delivered on an encrypted USB.

2.3. Technical, Operational and Organizational Environment

This work is part of the CESI initiative headed by Environment Canada and is being done in collaboration with Environment Canada and Statistics Canada. The current AHI work extends some of the technical aspects of the methodology and will involve the expertise of the contractor. This will be facilitated by regular teleconferences and in-person meetings.

2.4. Method and Source of Acceptance

All analyses will be summarized in a written report which will describe the sources of all data used in these analyses, the statistical methods applied, and the results obtained. The Departmental Representative will assess the work in terms of quality, provide feedback to the Contractor, request any necessary modifications, and be responsible for determining final acceptance of the report.

Health Canada needs to provide comments/suggestions on progress reports and final report

submitted by the contractor within 10 working days.

2.5. Reporting Requirements
Refer to Section 2.1.

The Departmental Representative will arrange meetings with the contractor on a regular basis (biweekly, via email, phone, video conference, or in person) to discuss current progress and updates.

2.6. Project Management Control Procedures
Refer to Section 2.5, “Reporting Requirements”

3. Additional Information

3.1. Authorities

Authorities will be identified in the contract

3.2. Canada’s Obligations

Access to facilities and loan or use of Government Furnished Equipment is not required. Data pertaining to the project will be provided by Health Canada.

3.3. Contractor’s Obligations

Unless otherwise specified, the Contractor must use its own equipment and software for the performance of this Statement of Work.

The Contractor has no other obligations outside of those described elsewhere in this Statement of Work.

3.4. Location of Work, Work site and Delivery Point

The majority of the work is expected to be completed at the contractor’s workplace. All personnel assigned to this contract are ready to work in close and frequent contact with the Departmental Representative.

3.5. Language of Work

The work will be conducted in English.

3.6. Security Requirements

There are no security requirements.

Information which is to be used in the development of the contracted product, as reference material or otherwise made available to the contractor, must be unclassified material and considered to be releasable to the public by Health Canada and/or The Government of Canada.

No Protected or Classified information is to be made available to the contractor, used in the production of the contracted product, or produced as a result of this contract.

3.7 Insurance Requirements

It is the sole responsibility of the contractor to decide whether or not any insurance coverage is necessary for its own protection or to fulfil its obligations under the contract and to ensure compliance with required federal, provincial or municipal law. Any such insurance shall be provided and maintained by the contractor at its own expense.

3.8 Travel and Living
Not applicable.

4. Project Schedule

4.1. Expected Start and Completion Dates

The services of the Contractor will be required for a period of approximately seven months commencing on or about the 27th of July, 2015. The expected completion date of this project is the 29th of February, 2016.

4.2. Schedule and Estimated Level of Effort (Work Breakdown Structure)

1st report on September 28, 2015: Progress report #1 prepared by the contractor.
2nd report on November 30, 2015: Progress report #2 prepared by the contractor.
Final report on February 29 2016: A final report for FY2015 prepared by the contractor.

Budget

The total funds available for this work is $55,000 plus applicable taxes.

Payment	Deliverables	Amount	Due Date
#1	A progress report #1	$15,000	September 28, 2015
#2	A progress report #2	$20,000	November 30, 2015
#3	A final report	$20,000	February 29 2016

5. Required Resources or Types of Roles to be Performed

The contractor(s) should have experience working with various types of data, including time series data, health data and climate data, and expertise with many different statistical methodologies and models, including the generalized additive model, smooth functions, and hierarchical model.

Applicable Documents and Glossary

5.1. Applicable Documents
Not applicable.

5.2. Relevant Terms, Acronyms and Glossaries
Not applicable.

PART II PROPOSAL REQUIREMENTS

7.0 Administrative Instructions for Completion of the RFP

7.0 Administrative Information

7.1 General Information

7.1.1 Components, Language and Number of Copies

You are invited to submit via e-mail electronic copies in either official language (English or French) of both the Technical and Cost Proposals to:

Robert.Merrick@hc-sc.gc.ca

The RFP Reference Number and the name of the Requirement must be in the subject line of your e-mail and your proposal must be structured in the following manner:

$ one covering letter, signed by an authorized representative of your firm;
$ *one* (1) *electronic* copy of the Technical Proposal;
$ one (1) copy of Certifications (Appendix "A") and;
$ *one* (1) copy of the Cost/Price Proposal (Appendix "B") ") **saved as a separate document.**

If the proposal is **greater than 20mb**, the firewall protecting Health Canada's network system will not permit the e-mail to be received. In which case, the bid will have to be physically delivered to the address cited below and an email sent to the Departmental Representative (found on page 1) stating that the bid has been delivered by hand / courier. You **must** send an email to the Departmental Representative to ensure your bid is included in this solicitation. The RFP Reference Number and the name of the Departmental Representative must be marked on all documents, binders and respective envelopes delivered by hand. If you are delivering hard copies, your proposal must be structured in the following manner:

- one covering letter, signed by an authorized representative of your firm;
- four (4) copies of the Technical Proposal;
- one (1) copy of Certifications (Appendix "A") and;
- *one* (1) copy of the Cost/Price Proposal (Appendix "B"), contained in a ***separate sealed envelope*.**

Deliveries by hand / courier are to be sent to the following address:

Health Canada Bid Receiving Unit
Federal Records Centre Building,
161 Goldenrod Driveway (Loading Dock),
Ottawa, Ontario K1A 0K9
Attention: Robert Merrick
RFP Reference Number: 1000173351

Hours of Operation: 07h30 to 16h30 (EST) Monday to Friday

7.1.3 No Payment for Pre-Contract Costs

No payment will be made for costs incurred in the preparation and submission of a proposal in response to this RFP. No costs incurred before receipt of a signed contract or specified written authorization from the Departmental Representative can be charged to the proposed contract.

7.2 Delivery Instructions for Bid / Proposal

As per section 7.1.1

The onus for submitting bids on time at the specified location rests with the bidder. It is the responsibility of the bidder to ensure correct and timely delivery of the entire bid to the Crown, including all required information and proposal pages.

7.3 Non-Acceptance of Proposal by Facsimile

Proposals sent by fax, telex and telegraphic means will **not** be accepted.

7.4 Closing Date and Time

All proposals must be received at the specified on the front page of this Request for Proposal. Proposals received after this time will be returned unopened. The onus for submitting bids on time at the specified location rests with the bidder. It is the bidder's responsibility to ensure correct delivery of its bid to the Crown.

7.5 Time Extension to Closing Date

A request for a time extension to the closing date will be considered only in exceptional circumstances. Any requests for extension must be received in writing by the identified Departmental Representative.

7.6 Non-Compliance / Unacceptable Proposals

Failure to meet the mandatory requirements of this RFP will result in your proposal being declared non-responsive.

Proposals received after the proposal closing time will not be considered and will be returned unopened to the bidder. Further, for any proposals which are found to be non-compliant, the financial part of the bid or proposal will be returned unopened with a letter from Health Canada indicating that the bid/proposal was non-compliant.

7.7 Bidders Conference / Site Visits

There is no site visit with this requirement. However, resource(s) proposed by the Contractor will be interviewed in order to confirm their level of knowledge and experience.

7.8 Announcement of Successful Contractor

Health Canada will communicate to all bidders the name and address of the successful candidate as well as the total dollar value and award date for the contract only after contract sign-off.

7.9 Rights of the Crown

The Crown reserves the right to:

- reject any or all proposals received in response to this RFP;
- accept any proposal in whole or in part; and
- cancel and/or re-issue this requirement at any time.

7.10 Sample Long Form Contract

The successful bidder for this requirement will be expected to enter into agreement with Health Canada as per departmental contract terms and conditions.

7.11 Employment Equity

Not applicable.

7.12 Procurement Business Number (PBN)

Public Works and Government Services Canada (PWGSC) has adopted the Procurement Business Number (PBN) for all its purchasing databases, and now requires that its suppliers have one for each of their offices that may be awarded contracts. Go to **Buyandsell.gc.ca** to register in the Supplier Registration Information (SRI) service and to obtain your PBN. As an existing or potential supplier to the Department, you must obtain a PBN to avoid possible delays of any contract award. It is Health Canada=s intention to use this sourcing system for all its procurements of goods and services to which the trade agreements do not apply.

SRI is a database of suppliers who have registered to do business with the Government of Canada. The PBN is created using your Canada Revenue Agency Business Number to uniquely identify a branch, division or office of your company. Unlike many existing departmental vendor databases, your information in SRI is accessible to all federal government buyers. SRI can help to open up new opportunities with the federal government for requirements not posted on the electronic tendering service, www.buyandsell.gc.ca.

Visit the **Buyandsell.gc.ca** Internet site at https://srisupplier.contractscanada.gc.ca/index-eng.cfm?af=ZnVzZWFjdGlvbj1yZWdpc3Rlci5pbnRybyZpZD00&lang=eng for information and registration procedures.

7.13 Order of Precedence

In the case of any dispute which may arise during the period which may be covered by any ensuing contract, the following documents will be considered in order of precedence in terms of importance in resolving any disputes between the parties:

- The Health Canada Contract;
- Any changes to the terms and conditions contained herein which have been approved by General Counsel for Health Canada;
- The Statement of Work in this RFP; and
- The terms identified in this RFP.

8.0 Technical Proposal

8.1 General Information

Your technical proposal must address all the requirements of the SOW and demonstrate that you are capable of meeting all obligations of the contractor specified in the same.

Your technical proposal must meet **all of the Mandatory Requirements** listed in Section 12.0, as well as the **minimum score identified for the Point Rated Requirements** in Section 13.0.

Furthermore, your technical proposal should include the following:

8.2 Understanding of the Requirements

A brief statement that demonstrates that the contractor understands the requirements of the SOW, including the objectives, scope of work and deliverables.

8.3 Approach and Methodology:

8.3.1 General Approach

A description of the overall approach and strategy to this project.

8.3.2 Methodology

Identify methodologies and techniques to be used, including identifying any proprietary information which is proposed to be used in the program.

8.3.3 Work Plan / Project Schedule

Break down the work by task - show phases, planned start, completion dates and the estimated level of effort (i.e. person days) needed to complete the task. The work plan may include a matrix and/or time line charts. A project schedule structured in weeks, reflecting milestones and deliverables, should be included.

8.3.4 Performance and Quality Control

Specify how you propose to deal with the performance and quality assurance of the work provided by your organization to the Crown. Include information about quality control methods and reporting mechanisms.

8.4 Proposed Team

8.4.1 Personnel

Identify the proposed personnel, including **Project Manager**, who will be assigned to this contract, describe the role they will be performing, including the amount of direct time dedicated to the project by principals and/or senior personnel, and explain why they are well suited for the work, referring to their qualifications, certifications, education and experience.

If applicable, include a list of proposed sub-contractors, with reference to their capabilities, experience and degree of involvement in the work.

The bidder must certify in the technical proposal that the information provided in all the personnel résumés has been verified to be true and accurate. In addition, for every resource proposed by the bidder who is not an employee of the firm, the actual resource must certify that they are aware that they are being bid as part of the bid/ proposal and state their relationship with the firm.

8.4.2 Contingency Plan

If the contract cannot be completed by the assigned personnel, the following individual(s) will complete the work. *Attach résumés.*

8.5 Contractor Profile

8.5.1 Organization

Provide background information about your company, including its legal name and the province in which the company is incorporated.

8.5.2 Relevant Work Experience

Describe your company's capacity and experience in this field.

8.5.3 References

If references for a firm or proposed resource are requested, identify the number of referenced; the criteria against which they will be applied; and the specific details which the reference will have to address. Caution should be taken when using references: they are not criteria in themselves but are instead ways of verifying compliance with a specific criteria. Further care should be taken to ensure that the person providing the reference is able to provide objective, useful and valid information.

8.6 Résumés of Personnel

Attach résumés of proposed personnel.

9.0 Cost / Price Proposal Please see Appendix B

9.1 General Information

The Price Proposal must contain a detailed breakdown of the **total quoted price**, by phase, or by major tasks, or both. The Price Proposal should address each of the following, if applicable:

9.1.1 *Per Diem*

For each individual and/or labour category to be employed on the project, including subcontractors, indicate the proposed time rate and the estimated time requirement. Although detailed support for the rates is not requested at this time, you should be prepared to substantiate the proposed rates.

9.1.2 Travel

Estimate the cost of travel using the current Treasury Board Travel Directive. **9.1.3**

9.1.3 Other Expenses

List any other expenses which may be applicable, giving an estimated cost for each (e.g. long distance communications, reproduction, shipping, equipment, rentals, materials, etc.).

9.1.4 Goods and Services Tax / Harmonized Sales Tax

Various items in your cost proposal may be subject to GST / HST or custom duties, and this charge must be included in the cost estimates where applicable.

10.0 Enquiries

All enquiries or issues concerning this procurement must be submitted **in writing only** to the Departmental Representative named on the front cover page of this RFP document **not later than seven (7) working days prior to the bid closing date.**

To ensure consistency and quality of information to Bidders, the Departmental Representative will provide, simultaneously to all bidders to which this solicitation has been sent,

- any information with respect to significant enquiries received, and
- the replies to such enquiries without revealing their sources,

provided that such enquiries are received no less than seven (7) working days prior to the bid closing date.

All enquiries and other communications with government officials throughout the solicitation and evaluation period are to be directed **only** to the Departmental Representative named on the front cover page of this RFP document. **Non-compliance with this condition during the bid solicitation and evaluation period may be sufficient reason for bid disqualification.**

PART III BID SELECTION PROCESS

11.0 Introduction

Below are separate mandatory and point-rated criteria to be used to evaluate the bids.

12.0 Mandatory Requirements

12.1 Method of Evaluation

Mandatory requirements are evaluated on a simple pass or fail basis. Failure by bidders to meet any of the mandatory requirements will render the bidder's proposal **non-responsive**. The treatment of mandatory requirements in any procurement process is absolute.

Proposers must meet **all** the mandatory requirements described below. This will be evaluated as either "**Yes**" or "**No**". Proposals not receiving "**Yes**" for any mandatory requirement will ***not*** be considered further.

12.2 Mandatory Requirements

Attention Bidders: Write beside each of the criteria the relevant page number(s) from your proposal that addresses the requirement identified in the criteria.			
Mandatory Criteria	**Page #**	**Yes**	**No**
M1. The bidder's project leader must have a PhD from a recognized university with specialization in Statistics with experiences in public health, environment or epidemiologic studies. Provide a description in 250 words or less.			
M2. The bidder's project leader must demonstrate that within the last 5 years, he/she has undertaken at least one project on Canadian health or clinical trials. Provide a one-page summary for the most recent project.			
M3. The bidder's project leader must have at least one peer-reviewed publication on statistical method development in scientific journals listed in the Science Citation Index Expanded (within the last 5 years). Provide title, journal and year.			
M4. The bidder's project leader must show that they have experience working with Canadian databases on drug, demographic and/or socio-economic status. Provide a description in 250 words or less.			
M5. The bidder's project leader must have experience working with generalized additive models, generalized Poisson models and/or hierarchical models. Provide a description in 250 words or less.			

M6. The bidder's project leader must show that they have experience working with statistical software such as R. Provide a description of experience in 250 words or less.			

13.0 Point Rated Requirements

13.1 Method of Evaluation

A proposal with a score less than the specified minimum for technical compliance for any one criteria will be considered non responsive, and eliminated from the competition. To be considered responsive, a bid must obtain the required minimum of **50 points** for the criteria which are subject to point rating. The rating is performed on **a scale of 100 points.**

13.2 Point Rated Requirements

Attention Bidders: Write beside each of the criteria the relevant page number(s) from your proposal which addresses the requirement identified in the criteria.

Point-Rated Criteria	Page Number	Points Allocated for the Criteria	Minimum Points Required	Score
R1. Indicate the number of publications or formal reports (including book chapters hereafter) related to air pollution in Canada for which the bidder's project leader was listed as an author. Provide the name and date of the publication, report or book chapter. Two points for each, up to a maximum of 10 points.		10	4	
R2. Indicate the number of publications or formal reports related to prevalence of disease in Canada for which the bidder's project leader was listed as an author. Provide the title and date of the report. Two points for each, up to a maximum of 10 points.		10	4	
R3. Indicate the number of publications or formal reports related to generalized additive models or generalized Poisson model for which the bidder's project leader was listed as an author. Provide the name and date of the publication or report. Two points for each, up to a maximum of 10 points.		10	4	
R4. Indicate the number of years of experience within the last 10 years that the bidder's project leader has in adverse health effects of air pollution. *Two points for each half year, up to a maximum of 10 points.*		10	6	

R5. Indicate the number of years of experience within the last 10 years that the bidder's project leader has in Canadian cardiopulmonary related drug usage. *Two points for each half year, up to a maximum of 10 points.*		10	6	
R6. Indicate the number of years of experience within the last 10 years that the bidder's project leader has in Epidemiology or community studies in Canada. *Two points for each half year, up to a maximum of 10 points.*		10	6	
R7. Indicate the number of years of experience within the last 10 years that the bidder's project leader has with respect to clinical trials, cohort or survival. *Two points for each half year, up to a maximum of 10 points.*		10	6	
R8. Indicate the number of years of experience within the last 10 years that the bidder's project leader has with time series and/or smoothers. Two points for each half year, up to a maximum of 10 points.		10	6	
R9. Indicate the number of years of experience within the last 10 years that the bidder's project leader has in Canadian demographic, socio-economic data. One point for each half year, up to a maximum of 10 points.		10	4	
R9. Indicate the number of years of experience within the last 10 years that the bidder's project leader has with respect to survey or sampling in Canada. *One point for each half year, up to a maximum of 10 points.*		10	4	
Total Points		100	50	

14.0 BASIS OF AWARDING CONTRACT

Highest Technical Score within Budget:

It is understood by the parties submitting proposals that, to qualify, bidders **must** meet all mandatory requirements as well as the minimum score identified for the point-rated criteria. The contract will be awarded to the bidder whose technical proposal receives the highest technical score and who commits to doing the work described in the Statement of Work for an amount not to exceed the $55,000 budget, plus applicable taxes.

CERTIFICATIONS

15.0 In order to confirm the authority of the person or persons signing the certifications or to establish the legal capacity under which the Bidder proposes to enter into Contract, any Bidder who carries on business in other than its own personal name shall, if requested by Canada, provide satisfactory proof of:

(a) such signing authority; and
(b) the legal capacity under which it carries on business;

prior to contract award. Proof of signing authority may be in the form of a certified copy of a resolution naming the signatory(ies) that is (are) authorized to sign this tender on behalf of the corporation or partnership. Proof of legal capacity may be in the form of a copy of the articles of incorporation or the registration of the business name of a sole proprietor or partnership.

Note to Bidders: The following certification requirements apply to this RFP. Bidders complete these certifications by filling in the appropriate spaces below and include them with their proposal.

Legal name and bidder's information (print clearly)

Bidder's Legal Name _____

Bidder's Complete Address _____

_____

_____

Bidder's Phone number (_____)_____

Bidder's Authorized Representative _____

Bidder's Authorized Representative Phone number (_____)_____

Bidder's Authorized Representative e-mail_____

Bidder's GST/HST Number _____

Bidder's province in which he is incorporated. _____

15.1. Bidder Certification

We hereby offer to sell to Her Majesty, in accordance with the Health Canada terms and conditions referred to herein or attached hereto, the goods and/or services listed herein and on any attached sheets at the prices set out therein.

We certify that all information provided herein is accurate. Furthermore we have satisfied ourselves that the

personnel proposed by us for this requirement are capable of satisfactorily performing the requirements described herein. In addition, we certify that individuals proposed will be available until completion of the project. Also, that the work specified herein can be met in a timely manner, and will be achieved with the time frame allocated.

Signature of the Authorized Representative of the Bidder Date

15.2. Bid Validity Certification

We certify that all pricing identified in the bid/ proposal will be valid for a period of one hundred twenty (120) days from the closing date of the RFP.

Signature of Authorized Representative of the bidder Date

15.3 Employment Equity

Not applicable.

15.4. Status of Resources

If we have proposed any person in fulfillment of this requirement who is not an employee (of the Bidder), we hereby certify that we have the written permission from the person to propose his/her services in relation to the Work to be performed in fulfillment of this requirement.

Signature of the Authorized Representative of the Bidder Date

15.5. Price Certification

We certify that the price quoted in this Proposal is not in excess of the lowest price charged anyone else, including its most favoured customer, for like quality and quantity of the products/services, does not include an element of profit on the sale in excess of that normally obtained on the sale of products/services of like quality and quantity, and does not include any provision for discounts to selling agents. **Furthermore, we certify that our total bid price is not in excess of any funding limitations set out herein.**

Signature of the Authorized Representative of the Bidder Date

15.6. Joint Venture Information (if applicable)

A joint venture is an association of two or more parties who temporarily combine their money, property, knowledge, or other resources in a joint business enterprise. There are two primary types of joint ventures, the incorporated joint venture and the contractual joint venture, i.e. formed through a contractual agreement between the parties.

If a contract is awarded to a contractual joint venture, all members of the joint venture shall be jointly and severally or solitarily liable for the performance of the Contract.

If the Bidder is submitting a type of joint venture, the Bidder must provide the following information in the proposal:

(a) indicate the type of joint venture:
- incorporated joint venture
- limited partnership joint venture
- partnership joint venture
- contractual joint venture
- other (explain)

(b) provide the legal names and addresses of all of the members of the joint venture (i.e. the legal name of the firm associated with the Business Number (BN) or Social Insurance Number (SIN) for sole proprietorships), as well as the legal name and address of the joint venture business entity**.**

Appendix "B"

Tableau "A1" – From Contract award to February 29, 2016

A	B	C	D (BxC)
Category of Personnel Insert rows as required	Per Diem Rate(s)	Level of Effort/Number of Days Required	Total Costs for Professional Fees TAXES NOT INCLUDED
1.	$		$
2.	$		$
		Sub-Total 1:	$