

Request for Proposal

Data Analytics and Business Intelligence Services



January 7, 2022

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Purpose

The College of Physicians & Surgeons of Alberta (CPSA) is seeking proposals for business intelligence tools and analytic capabilities to aid physicians in improving their quality of care and patient safety and fulfilling CPSA's mandate to serve the public by guiding the medical profession.

CPSA engages in collecting data about physicians and their professional practices from a variety of sources, analyzing the data then developing programs, reports and resources to support physician quality assurance and improvement.

For examples, refer to Prescribing on the CPSA website <https://cpsa.ca/physicians-competence/physician-prescribing-practices/>.

Business intelligence tools and analytic capabilities are also required for the Physician Prescribing Practices Program and the Tracked Prescription Program (TPP Alberta), Alberta's prescription monitoring program, administered by CPSA. [See https://www.tppalberta.ca/](https://www.tppalberta.ca/).

Deadline for proposals is February 28, 2022. Please send submissions in PDF format by email to:

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Program Manager, Prescribing, Analytics & TPP Alberta
College of Physicians & Surgeons of Alberta
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Edmonton, AB T5J 0N3
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College of Physicians & Surgeons of Alberta

Our Organization

CPSA is responsible for the regulation of the medical profession in Alberta. The main lines of business include:

- Registering physicians and physician assistants
- Supporting continuing competence of regulated members
- Investigating and resolving physician and physician assistant-related complaints
- Contributing to public policy affecting health care delivery
- Accrediting health facilities
- Guiding professional conduct and ethical behavior

CPSA's web site is cpsa.ca

CPSA currently operates under the authority of the *Health Professions Act* and applicable regulations and bylaws.

CPSA's governing Council includes physician members, public members and representatives from Alberta's medical schools. Physician members are elected annually by Alberta doctors, while public members and medical school representatives are appointed. CPSA staff, with the majority located in Edmonton, number approximately 155. The Chief Executive Officer, who carries the title Registrar, is Dr. Scott McLeod.

Our Vision

The highest quality medical care for Albertans through regulatory excellence.

Our Mission

To protect the public and ensure trust by guiding the medical profession.

Project Definition

Introduction

CPSA's Analytics, Innovation & Research Department (AIR) is seeking a vendor for business intelligence, analytics and data management services to support key initiatives within various CPSA departments and TPP Alberta. Contract term will be negotiated with the successful firm with a minimum period of one year from start date.

Analytics, Innovation & Research Department

CPSA's Analytics, Innovation and Research Department (AIR) oversees the collection and use of data for analytics, reporting, education and research purposes to inform physician practices and, ultimately, contribute to best practices, public health and safe patient care.

Data dashboards are created that support the development of innovative programs as well as the evaluation of these and existing initiatives. Medical regulatory research is also conducted by the Research and Evaluation (REMU) team of AIR. <https://cpsa.ca/about-cpsa/research/>.

AIR supports various quality improvement and competence initiatives. <https://cpsa.ca/physicians/competence/>.

The Physician Prescribing Practices (PPP) is an educationally-focused program that engages physicians through collaboration and advice encouraging self-reflection and identifying opportunities for improvement. <https://cpsa.ca/physicians-competence/physician-prescribing-practices/>

Key AIR outputs include prescribing resources and tools, MD Snapshot-Prescribing and Practice Checkup profiles (innovative audit and feedback initiatives), and research.

TPP Alberta

Administered by CPSA and overseen by PPP, TPP Alberta collects, monitors and provides reporting on dispense data for monitored drugs in the province. The majority of dispense data is derived from Alberta Netcare's Pharmaceutical Information Network (PIN) but some data is manually entered by program staff, e.g., dispense data from veterinary prescribers; compounded TPP prescriptions and 'office use' TPP prescriptions.

Support is required for:

- data-entry application including PIN and manual entry
- consolidation of data from multiple sources within CPSA (e.g., registration data)
- development of analytic products for both client-facing and external reporting
- production of the TPP Alberta atlases.

Support also applies to analytics initiatives for other CPSA departments, e.g., Key Performance Indicators (KPI) measure dashboards.

Required Competencies

The consultant providing business intelligence and analytic services must have expertise in the following domains:

1. Understanding of CPSA's work, TPP Alberta and Alberta Netcare including the Pharmaceutical Information Network (PIN).
2. Knowledge of pertinent legislation and policies (e.g., Alberta's *Health Information Act*) and experience working with and development of relevant procedures and protocols for sensitive data.
3. Business Intelligence and Analytics:

Databases

Familiarity with and experience using data, databases and applications (within and external to CPSA or similar to them).

Databases may include but are not limited to:

- Alberta Netcare – Provider Registry (for all Alberta prescribers), Pharmaceutical Information Network (PIN)
- Person Demographic Information
- CPSA: Renewal Information Form (RIF), practitioner documentation data and information (DOC), Physician Portal
- Health Canada – Drug Product Database
- Statistics Canada – Alberta population
- Postal code and geographic information.

Analytics

- Software applications - awareness of options, use, development and maintenance
 - Machine learning and artificial intelligence understanding & application to projects and for operational support
 - Development, upgrading, maintenance, and troubleshooting of interactive dashboards and workbooks for internal use and internal/external reporting
 - Predictive modelling capabilities and case-generation against identified risk measures, e.g., prescribing factors
 - Data quality assessments, management, corrections
 - ETL – development and maintenance
 - Program development and support, for example: TPP Alberta, case generation software for program interventions
4. Reporting functionality, for example:
- TPP Alberta Atlases [TPP Alberta Atlas 2020](#);
 - Regular, annual and ad hoc reporting (including completion of data extracts, analyses), e.g., quarterly profiles with individualized prescribing data (“[MD Snapshot- Prescribing](#)”)
 - Individualized reporting for CPSA members and/or TPP partners, on-demand and scheduled (quarterly & annual).
5. Evaluation and Research
- Contribution to CPSA research initiatives – data extracts, analyses, data interpretation, reporting, etc.
6. Continuous Quality Improvement (CQI)
- Ongoing and dedicated responsibility for validation processes and prevention (proactive process and product checks) and resolution of issues in a timely manner
 - Collaboration with the client including customer service, e.g., Helpdesk support and User Acceptance Testing tools
 - Agility/flexibility - ability to adapt to unanticipated changes in client priorities or feedback.
7. Business/Operational Expertise
- Management of large volumes of data including regular receipt of data feeds for data currency and completeness, e.g., PIN data for TPP Alberta and CPSA use
 - Technical resources – infrastructure and personnel
 - Business planning – development of annual business and work plans including budgets
 - Data management policies and procedures, e.g., back-up processes
 - Data security policies and procedures (e.g., addressing cyber security – fire walls, malware, data breaches, etc.)
 - Contractual requirements such as but not limited to: privacy and confidentiality policies/processes, security requirements, liability insurance, etc.

- Appropriate human resources including addition of expertise as required (e.g., medical geographer/cartographer, clinical scientist, epidemiologist, data analysts, program developers, graphic artists, etc.)
- Ability for flexible work arrangements with regular touch bases with CPSA
- Ability to work collaboratively with applicable CPSA program areas for user support and development of: business intelligence solutions, data dashboards, UAT processes, work plans and budget, research initiatives. Program areas may include: Analytics Innovation and Research (AIR), Physician Prescribing Practices Program (PPPP), TPP Alberta, Research and Evaluation Unit (REU), Information Technology (IT), Competence (e.g., Group and Individual Practice Review programs), Communications, and Finance
- Ability to liaise with applicable parties external to CPSA as required, e.g., Alberta Health (Netcare/PIN, privacy and data e.g., for High Level Security Assessments, Information Sharing Agreements, etc.), Alberta Health Services, TPP Alberta partners, other health professional regulatory bodies, etc.

8. Additional Expertise

- Project Management, e.g. manage project deliverables to meet agreed upon requirements and schedules
- Innovation and Insight
- High level communication skills (e.g., ability to convey information to people with varying levels of technical expertise).

9. Compliance with applicable CPSA policies

- Contractor Vaccination for Covid-19 Policy.

Project Sponsor

Ms. Fizza Gilani, Program Manager, Prescribing, Analytics & TPP Alberta, College of Physicians & Surgeons of Alberta.

Business Sponsor

Mr. Ed Jess, Chief Innovation Officer, Analytics, Innovation and Research, College of Physicians & Surgeons of Alberta.

Deliverables

Key deliverables of the project are:

- Business intelligence and analytics – maintenance and enhancements
- Support and maintenance of services and databases
- Program development
- Reporting
- Business requirements
- CQI
- Evaluation and research
- Project management

Major Phases and Activities of the Project

TPP Alberta

- Ongoing:
 - TPP drug updates
 - TPP app maintenance and enhancements
 - TPP operations including pad ordering and data errors tracking
 - Ad hoc reporting
 - Identification and resolution of issues in datasets, including possible quality issues
 - Regular maintenance.
- Yearly release:
 - Provincial reporting using TPP data: TPP Atlases: Opioid and Benzodiazepine/Z-drugs; Antibiotics.

Physician Portal:

- Quarterly:
 - Liaise with program staff and CPSA IT for the development and delivery of individualized reports for CPSA registered members through a secure online portal
- Ongoing:
 - Developing and implementing enhancements of the MD Snapshot-Prescribing and Practice Checkup reports as required, e.g., measures, delivery mechanisms, etc.

PPP:

- Quarterly:
 - Case generation and management application that uses existing and new high-risk measures
- Ongoing:
 - Dashboards and workbooks – creation of new visualizations to meet program needs and regular maintenance of existing views;
- Yearly enhancements based on CPSA input.
- Support analyses for research projects, in part or fully, depending on program needs.

REVV:

- Yearly:
 - Practice Check-up that analyzes and visually represents physician demographic and practice characteristics

Other Resources

A number of resources will be available to assist with the project as needed including time and expertise from:

- Chief Innovation Officer
- Program Manager, Prescribing, Analytics and TPP Alberta
- Pharmacist, Prescribing & Analytics
- Program Administrator, TPP Alberta
- Research Associate, Research and Evaluation Unit
- Senior Medical Advisor, Prescribing & Analytics:
- Administrative Assistant, Prescribing & Analytics.

Proposals

To be considered, the proposal must contain:

- A business plan outlining in sufficient detail the requirements and methodologies for completing each phase of the work (ideally, a range of methodologies, with pros and cons, will be identified);
- An estimate (or range) of the costs associated with each phase of the work;
- Examples of previous, similar work.

Work on the project will start April 30, 2022. The chosen consultant will work closely with the Physician Prescribing Practices Program to choose the specific elements and processes within each phase.

Success will be a plan that:

- lays the groundwork for CPSA's work required under the *Health Professions Act* and as the administrator of Alberta's Tracked Prescription Program (TPP Alberta);
- is understood and endorsed by CPSA administration, PPP and the TPP Alberta Steering Committee; and
- Identifies key measurable outcomes that will achieve CPSA's mandate.

The approximate budget for the project is \$ 1,000,000 per annum, which must include all professional fees, subcontract fees (if applicable), expenses and taxes. CPSA is not exempt from GST.

Required Bidder Information

The following information should be included in your (your firm's) proposal to CPSA:

Firm Expertise

Describe the firm's expertise, qualifications and experience with respect to each aspect of the activities described in the project definition. Alternatively, describe the process by which you propose to select suitable individuals/firms to which you would subcontract such activities.

Firm Resources

Describe the expertise, qualifications and experience of each person who would be providing services to CPSA, including the proposed role of each individual.

Please include the biographies of all individuals who would be assigned to work on the project.

Describe any project management or administrative support that would be part of the firm's services to CPSA. If any portion of the project is to be done by subcontractors, please include in the pricing information.

Pricing Information

The proposals must include a detailed description of the basis for the charging of fees and expenses associated with the project.

Conflicts of Interest

The proposals must identify any potential conflicts of interest known to the firm that may affect the provision of services to CPSA.

References

Please include three references. References for similar projects and/or organizations similar to CPSA are preferred.

Proposal Process

Schedule

January 7, 2022	RFP will be made available to invited firms.
February 14, 2022	Deadline for Vendors to submit any questions to CPSA.
February 28, 2022	All proposals must be submitted to CPSA by 4 pm of this day.
March 15, 2022	Internal screening of proposals. CPSA will develop a short list of at least two firms.
March 31, 2022	Short-listed firms will present their proposal in a virtual session to CPSA. CPSA will conduct reference checks on short-listed firms.
April 15, 2022	Selection of the successful firm will be made and negotiation of terms of engagement undertaken. Other short listed firms will be notified.
May 2, 2022 (start for Q2 work)	The successful firm will start the project.

Proposal Requirements

Proposals must not exceed 25 pages in length, including appendices. A statement of interest or executive summary should be included with the Proposal.

Proposals are to be submitted by email to:

Ms. Fizza Gilani, Program Manager, Prescribing, Analytics & TPP Alberta
College of Physicians & Surgeons of Alberta at fizza.gilani@cpsa.ab.ca

Selection Criteria

Proposals will be evaluated against the following criteria:

Criteria	Weighting
<p>Consultant’s qualifications and experience in similar work, including:</p> <ul style="list-style-type: none"> - Demonstrated expertise in BI solutions development and provision - Demonstrated expertise in data analytics - Ability to maintain databases and services - Demonstrated expertise in application development and maintenance, including dashboards in Tableau, SAS or other similar software - Experience in Machine learning and artificial intelligence - Evaluation and research experience 	55%
<p>Customer service</p> <ul style="list-style-type: none"> - Helpdesk, UAT, responsiveness, etc. - Agility/flexibility (ability to adapt to unanticipated changes in client priorities or feedback) 	5%
<p>Demonstration of Continuous Quality Improvement Process-oriented and proactive in anticipating and preventing issues, e.g. proper data validation</p>	5%
<p>Understanding of CPSA and TPP Alberta mandates and applicable government structures, operations and legislation</p>	2%
<p>Demonstrated ability to work cooperatively in a team environment with client(s)</p> <p>Ability to communicate with clarity when interacting with individuals with varying degrees of technical expertise.</p>	3%
<p>Fees and pricing</p>	15%
<p>Quality of the proposal, including approach, timeframes and work plan</p>	15%

Those consultants whose proposals are selected for further consideration may be asked to make a personal presentation and/or answer questions in advance of our final selection.

CPSA will not necessarily select the lowest cost proposal.

Proposal Conditions

Contingencies

This Request for Proposals (RFP) does not commit CPSA to award a contract. CPSA reserves the right to accept or reject any or all proposals or waive irregularities if CPSA determines it is in the best interest of CPSA to do so.

Acceptance or Rejection of Proposals

Proposals shall remain open, valid and subject to acceptance anytime up to four months after the proposal opening date and time. CPSA realizes that conditions other than lowest cost are important and will award contract(s) based on the proposal(s) that best meet the needs of CPSA.

Modifications

CPSA reserves the right to issue addenda or amendments to this RFP.

Proposal Submission

To be considered, all proposals must be submitted in the manner set forth in this proposal. It is the Proposer's responsibility to ensure that its proposal arrives on or before the specified time.

Incurred costs

This RFP does not commit CPSA to pay any costs incurred in the preparation of a proposal in response to this request and Proposer agrees that all costs incurred in developing its proposal are the Proposer's responsibility.

Negotiations

CPSA may require the firms selected to participate in negotiations, and to submit cost, technical, or other revisions of their proposals as may result from negotiations.

Final Authority

The final authority to award contracts as a result of this RFP rests solely with CPSA.

Contact Information

All inquiries should be directed to the following individuals:

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and

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