

# PROJECT SNAPSHOT

## 6B: Reducing Inappropriate Improving Antibiotic Stewardship in Primary Care Clinics: A Co-design Approach

Pillar: Surveillance

Theme: Education & Societal Impact

Keywords: Antibiotic Prescribing; Stewardship; Primary Care; Appropriate Usage; Dispensing



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### AIM

This project will provide the first provincial-level analysis of appropriateness of antibiotic prescribing in Alberta's primary care settings. The project aims to link provincial diagnostic data with prescription dispensing data to gain a better understanding of Albertan family doctors' antibiotic stewardship practices. Aiming long-term to work with Alberta's Primary Care Networks (PCNs), the project has the potential to provide more granular analyses of, and interventions into, primary care provider antibiotic prescribing decisions.

### WHY IS THIS IMPORTANT?

Understanding the patterns of antibiotic prescribing in Alberta's primary care is an essential first step in designing and implementing evidence-based programs to improve antibiotic stewardship in the province. Further, documenting the rates of 'inappropriate' antibiotic prescribing both at a provincial and, eventually, at the PCN-level will give insight into primary care's relationship to AMR in Alberta. Developing a collaborative relationship with PCNs - the most impactful organizations in primary care - is an important first step towards improving stewardship amongst primary care providers.

### OUTCOMES

Our project will produce a comprehensive analysis looking at the appropriateness of antibiotic prescribing in Alberta's adult primary care practices. Beginning relationships with PCN partners, the project will set the groundwork for future, local-level projects to understand, and intervene to improve, prescribing patterns.

### RESEARCH QUESTIONS

- 1 What are the patterns of antibiotic prescribing in adult primary care settings in Alberta?
- 2 What proportion of Albertan family physicians are prescribing antibiotics 'appropriately'?
- 3 Which antibiotic drugs are most commonly prescribed inappropriately by family physicians in Alberta?
- 4 How severe is the problem of inappropriate prescribing of antibiotics in adult family medicine in Alberta, and what contribution does this make to AMR in the province?

### OUR APPROACH

Researchers and quality improvement experts from the University of Calgary (UofC), the Clinical Research Unit (CRU), and the University of Alberta (UofA) will be working together with administrative data provided by Alberta Health (AH) and, over time, from partner PCNs.

Our teams will analyse the data provided by AH and replicate a methodology from a US-based study to detail the levels of appropriateness in prescribing. This will be done with a method that links provider diagnostic billing codes to prescriptions dispensed to patients within a certain 'lookback' window of time.

Looking forward, to working with PCN-level data, our team will engage with quality and practice improvement managers to extract data from local electronic medical records (EMRs). This will allow for links to be established between provider diagnostic codes and written prescriptions within PCNs. Our team will work with PCNs and their member-providers to develop quality improvement programs that target antibiotic stewardship based on this evidence.

### ALIGNMENT WITH THE AMR - ONE HEALTH CONSORTIUM

### LEVERAGED SOURCES OF SUPPORT

University of Alberta Dept. of Family Medicine (expert input & advice) • University of Calgary Clinical Research Unit (analytic expertise & tools) • University of Calgary School of Public Policy (Infrastructure) • Data from EMRs at various partner PCNs

### KNOWLEDGE & TECHNOLOGY EXCHANGE AND EXPLOITATION

- We will work in conjunction with data from Alberta Health and, longer-term, with provincial PCNs to produce a comprehensive snapshot of antibiotic stewardship in primary care. This data will be shared and form the basis of quality improvement programs targeting prescribing with PCNs and other partners in the province.

### TRAINING OF HIGHLY QUALIFIED PERSONNEL

- 2 Research Associates (SPP)
- 1 Research Scientist (CRU)

### AFFILIATIONS:

