



**INSTITUTE OF
HEALTH ECONOMICS**
ALBERTA CANADA

**ALBERTA PRIMARY CARE PRACTITIONER
KNOWLEDGE ASSESSMENT FOR
LOW BACK PAIN AND HEADACHE
MANAGEMENT**

SUMMARY REPORT

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INTRODUCTION

The Alberta HTA Chronic Pain Ambassador Program started as a one-year pilot project that used respected clinical leaders to communicate research evidence on the management of chronic low back pain to multidisciplinary health care providers through workshops in Alberta's health regions. Three clinical and four research ambassadors conducted 11 two-hour workshops using an interactive, case-based instructional strategy in eight of nine health regions in Alberta in the fall of 2004. A total of 130 individuals representing 14 disciplines attended the workshops.

Program participants reported a significant increase in their knowledge of key treatments for chronic low back pain, sharing the evidence with colleagues and with patients, and changes to their practice based on what they learned during the workshop. Participants expressed a need for tools such as clinical practice guidelines (CPGs) that would help them to better use the research evidence in their clinical practice. Additional funding was obtained through Alberta Health and Wellness to expand the work of the Alberta HTA Chronic Pain Ambassador Program.

The Ambassador Program Advisory Committee recommended that a detailed knowledge assessment be conducted before work commence on developing a guideline. This report briefly summarizes the development and results of a knowledge assessment that was conducted in response to the committee's recommendation. The purpose of the assessment was to determine the level of knowledge of specific health providers (physicians, nurses, physiotherapists, occupational therapists) on the management (diagnosis and treatment) of low back pain and headache and solicit their views on the barriers to effective chronic pain management.

METHODS

A preliminary literature review was conducted to determine if any standardized knowledge assessments were available. Although several assessments were found for low back pain and headache, they were either dated or were not in a suitable format.

In addition, consultations occurred with the University of Alberta and University of Calgary medicine and pharmacy continuing education departments and the College of Family Physicians of Canada to determine if any suitable knowledge assessments for the two conditions were available.

No suitable knowledge assessment tool was identified. Therefore, one was developed to meet the requirements of the project. The content for the tool was developed through a consultation process involving a team comprising two pain management specialists, a psychologist and consultant (C. Spanswick, V. Becker, P. Taenzer, and H. Lopatka). The assessment tool was pre-tested with members of the advisory committee. Multiple drafts of the assessment were reviewed and refined.

The final format consisted of four sections; demographics, barriers to care, low back pain and headache knowledge. A total of 50 knowledge questions were developed using a true/false response format. The content of the questions queried the respondent's knowledge of specific aspects of care from published CPGs related to low back pain and headache. The assessment tool was administered via the web-based survey monkey option.

The request to complete the survey was sent out to health professionals through their respective professional associations (Alberta Medical Association, Alberta Pharmacists

Association, College and Association of Registered Nurses of Alberta, Alberta Physiotherapists Association and Alberta College of Occupational Therapists). The associations disseminated the request to their members in electronic and hard copy formats. Initial physician participation was very low so an additional recruitment of physicians occurred through the Calgary Health Region's Department of Family Medicine.

RESULTS

Demographics

A total of 147 participants responded to the online assessment, with 105 completing the full survey. Figure 1 shows the distribution of the 105 professionals who completed the full survey and Figure 2 shows the breakdown of respondents by individual health region. Fifty-four percent indicated their primary service delivery environment was community based, while 22% indicated their primary setting as an institutional environment. Family medicine physicians reported seeing the highest number of low back pain and headache patients with the average being 43 patients per month for the two pain conditions. Physiotherapists reported seeing an average of 28 patients per month, pharmacists 24 patients per month, occupational therapists 16 patients per month, and nurses three patients per month.

Overall Results

Health professionals rated three factors as the **most important barriers** in the management of chronic pain: ready **access to** pain management **guidelines**, **accessibility to** pain management **specialists**, and **concern about patient drug taking behaviour**.

The **average overall score** obtained in the knowledge assessment **was 57%**. MDs had an average overall score of 65% and non-MDs a score of 54%. More than one quarter of the respondents indicated they were unsure of the answer in 50% of the questions. Headache knowledge scores were slightly higher than low back pain knowledge scores.

Low Back Pain

The **average score** for the **low back pain** section of the assessment **was 55%**. Generally, diagnostic questions about red flags, yellow flags, and conventional non-pharmacological treatments were more likely to be answered correctly. Respondents were more likely to answer incorrectly or were unsure about pharmacological and surgical treatments.

MDs had an average knowledge score of 64% for the low back pain section and non-MDs had an average score of 52% (see Figure 3).

Headache

Similar results were observed for the headache knowledge assessment. The **average score** for the **headache** section **was 58%**. More respondents correctly answered questions about diagnosis than questions about pharmacological treatment.

MDs had an average knowledge score of 66% and non-MDs had an average score of 55% in the headache section of the assessment (see Figure 3).

DISCUSSION

The results of this assessment suggest that Alberta health practitioners have substantial gaps in their knowledge of recommended treatments for low back pain and headache. The average knowledge assessment scores are low overall, for each condition and health care provider discipline.

The knowledge of recommended treatments for headache was slightly higher than for low back pain. For management of headache, respondents knew more about diagnosis than about pharmacological treatment. For management of low back pain, respondents had more knowledge about diagnosis and non-pharmacological than pharmacological and surgical treatments.

MDs had higher average scores compared to non-MDs suggesting that a greater knowledge gap exists among non-MDs. The disparity between MDs and non-MDs was higher for the headache knowledge than for low back pain knowledge.

This knowledge assessment has a number of important methodological limitations which may have implications for its generalizability to the Alberta health provider population as a whole. A convenience sample was used to recruit health professionals. The response rate was very low considering the number of providers in the province. The questions were derived from published guidelines and may have been more focused on physician practice issues and may therefore not have addressed the knowledge base of non-physician providers adequately.

CONCLUSION

This assessment suggests that Alberta community based health care providers have significant knowledge gaps related to the diagnosis and treatment of low back pain and headache. Respondents indicated that lack of access to clinical practice guidelines was one of three important barriers to effective chronic pain management. Therefore, we conclude that the development and effective dissemination of Alberta clinical practice guidelines would be an appropriate strategy to address these knowledge gaps.

Figure 1: Disciplines of respondents

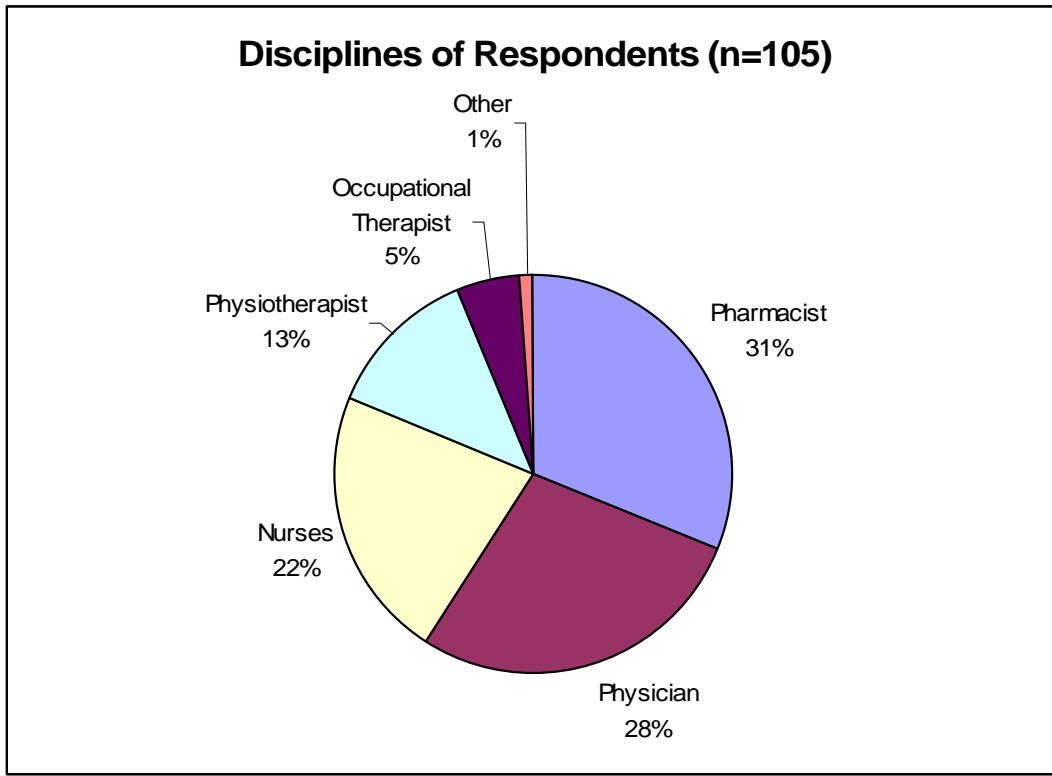


Figure 2: Respondents per region

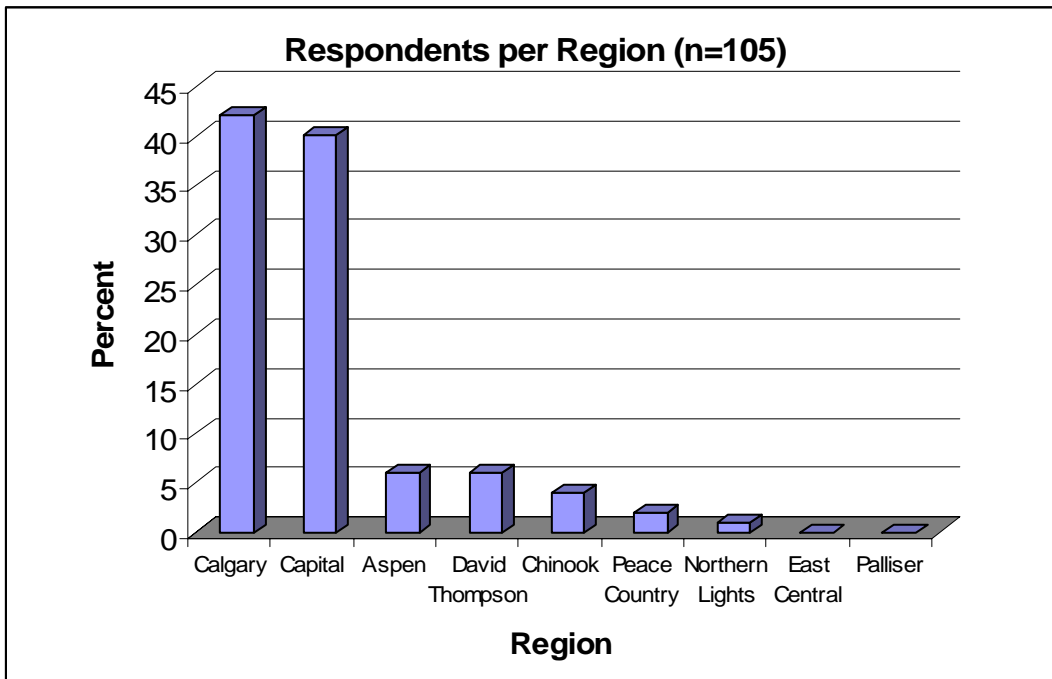


Figure 3: Knowledge assessment - comparison of average scores by professional discipline (chronic pain condition)

