

Therapeutic Trends

Pain Relief: A Provincial Comparison of Opioid Use

Insight and Outlook from IMS Health

Pain is a complex phenomenon and is different for different people. It is a response to a stimulus that is considered noxious and this response depends upon many things, such as an individual's:

- experience,
- social environment,
- age and
- gender.

Because of their potential for misuse and abuse, opioid analgesics have been one of the most widely-reported prescription pain medications.

CANADIAN PATTERNS OF PRESCRIPTION OPIOIDS

In Canada, several sub-groups of the opioid analgesic class exist and include:

- Benzomorphan derivatives (pentazocine)
- Diphenylpropylamine derivatives (propoxyphene)
- Morphinan derivatives (butorphanol, nalbuphine)
- Natural opium alkaloids (codeine, hydromorphone, morphine, oxycodone, oxymorphone)
- Phenylheptylamine derivatives (methadone)
- Phenylpiperidine derivatives (alfentanil, fentanyl, meperidine, sufentanil)

Total opioids consist of the molecules methadone, hydromorphone, meperidine, morphine, hydrocodone, acetaminophen with codeine, ASA with codeine, other codeine preparations and oxycodone. Fentanyl, as a patch, was not included in this map.

Estimated units per capita for opioids

- 35.5 to 41.2
- 29.8 to 35.5
- 24.1 to 29.8
- 18.4 to 24.1
- 12.7 to 18.4
- All others

Average: 30.4

*Numbers used are for oral solid forms only

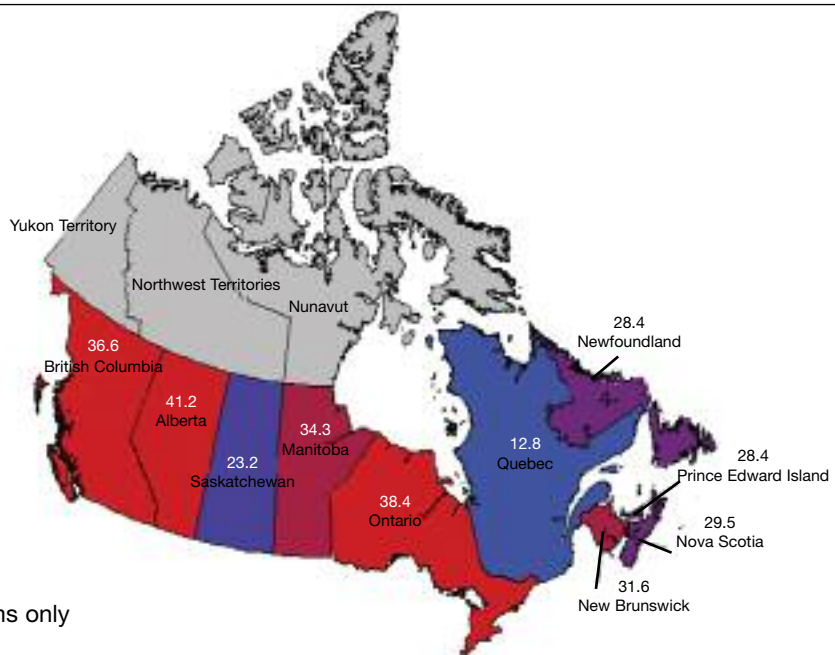


Figure 1. Regional view of total opioids caps/tabs dispensed per capita: October 2006 to September 2007. Source: IMS Health, Canadian CompuScript Audit, Statistics Canada.

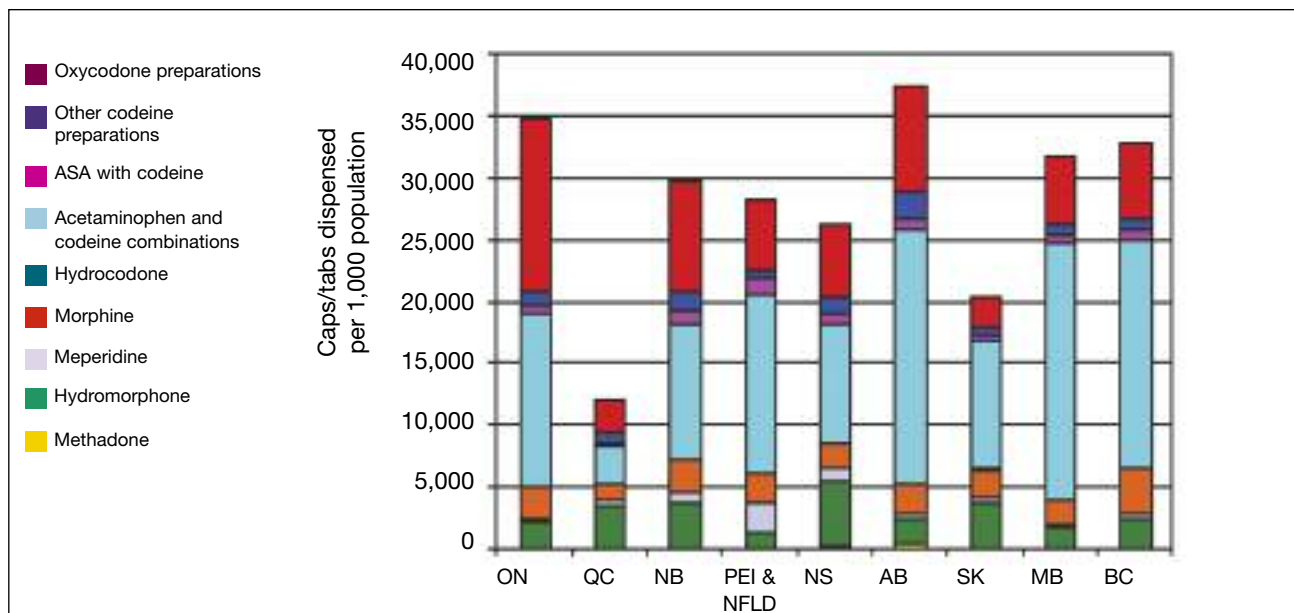


Figure 2. Opioid doses (oral tablets, capsules) dispensed from retail pharmacies in 2006 per 1,000 population by province.

- Buprenorphine, a synthetic opioid analgesic and thebaine derivative with a longer duration of action than morphine.

In Canadian provinces, Alberta has had the highest per capita consumption of opioids for each of the past five years. Ontario surpassed British Columbia in the year 2005, to become the second highest consumer of opioids on a per capita basis.

In the 12 months ending September 2007, Alberta drugstores dispensed approximately 41.2 doses (tablets and capsules) of opioids per capita; followed by Ontario (38.4), then British Columbia. Quebec was the lowest at 12.8 doses per capita.

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WHICH OPIOIDS ARE THE MOST PRESCRIBED?

There are many similarities and some differences in prescribing patterns for opioids between provinces. The most popular opioid in Canada overall is aceta-

minophen with codeine, which tops the list in:

- British Columbia,
- Alberta,
- Saskatchewan,
- Manitoba,
- Nova Scotia,
- New Brunswick,
- Prince Edward Island and
- Newfoundland.

The most popular opioid in Ontario is oxycodone (alone and in combination) and in Quebec it is hydromorphone. What causes these provincial differences is not really known, but they may be attributed to:

- differences in population demographics,
- local preferences by patients and health providers and
- drug plan design and reimbursement coverage.

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