

Diverging Epidemics:

Shifting patterns of opioid use
between treatment-seeking opioid users
in Canada and the United States

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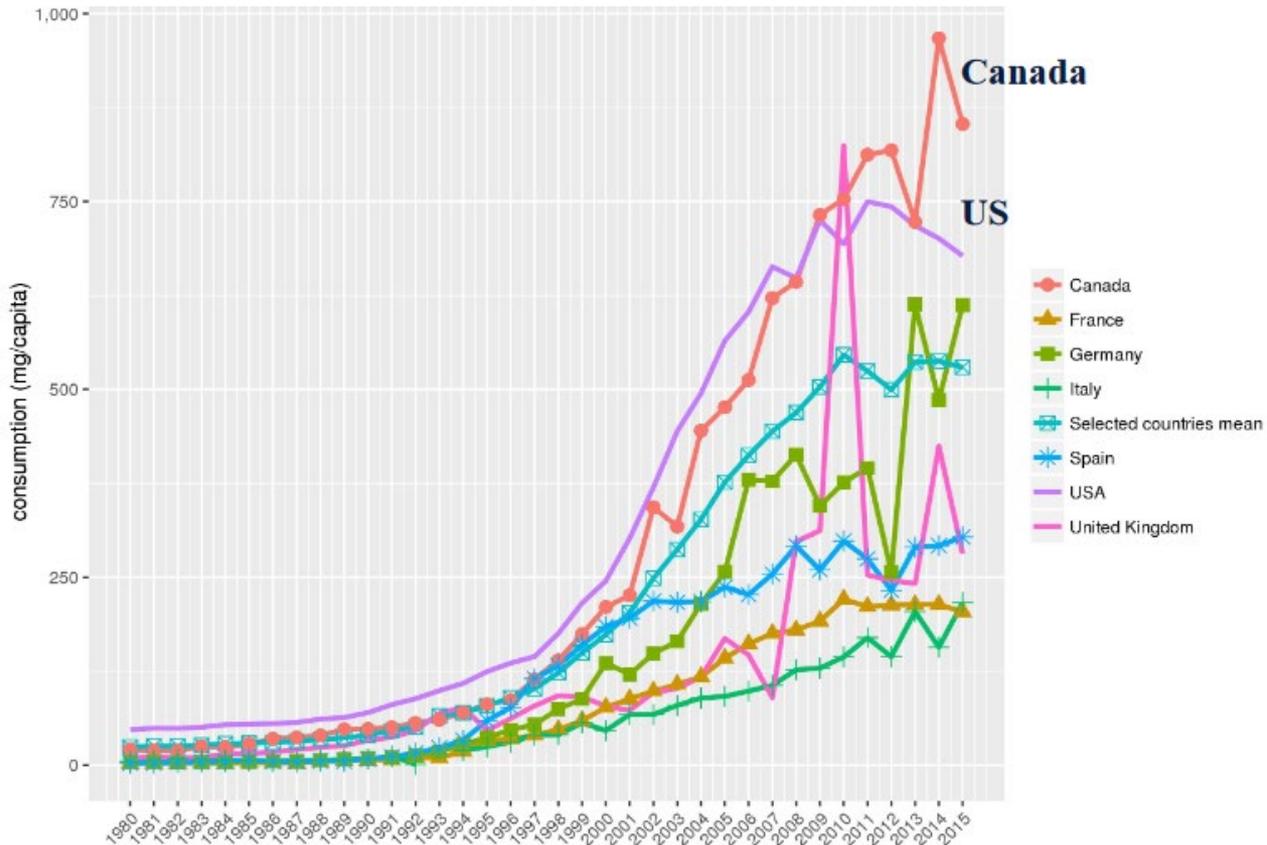
SCHOOL OF MEDICINE

No conflicts of interests to declare

Shared history of the opioid epidemic

- Pain as the 'fifth vital sign'
- Encouragement of professional orgs
- Pharmaceutical influence
- Introduction of extended-release opioids
- Misconceptions of abuse potential
- Motivations of use/mental health stigma

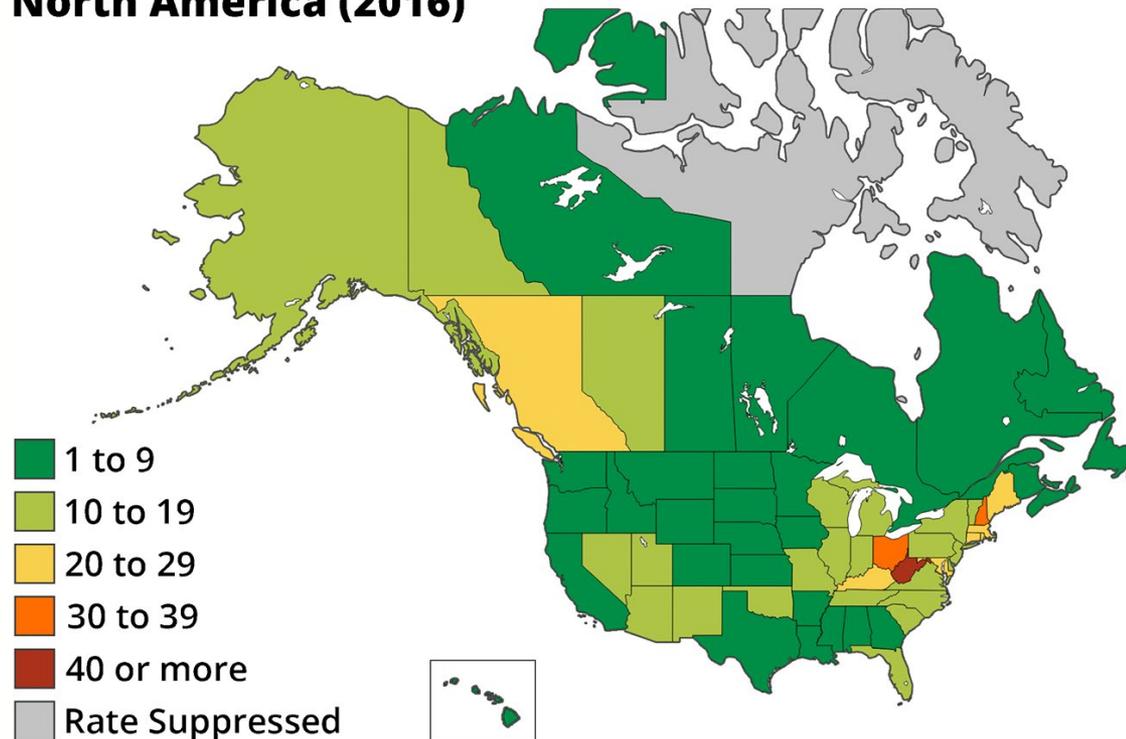
Shared history of the opioid epidemic



Sources: International Narcotics Control Board; World Health Organization population data
By: Pain & Policy Studies Group, University of Wisconsin/WHO Collaborating Center, 2018

Shared history of the opioid epidemic

**Rate of Opioid-Related Overdose Deaths, per 100,000
North America (2016)**



Donroe JH, Socias ME, Marshall BDL. The deepening opioid crisis in North America: historical context and current solutions. Current Addiction Reports. October 2018

Some responses shared

- Both countries have expanded access to naloxone without a prescriptions
 - Although access/cost varies and is not well understood
- Prescribing guidelines
- Abuse-deterrent formulations
- Prescription Drug Monitoring Programs

Differing Responses: Canada

- Medically supervised injection facilities
- Guidelines for the treatment of opioid use disorder
 - Emphasis on avoiding certain interventions
- Access to treatment
 - Network of recovery services
- Drug-testing services
- Focus on 'demand': prevention and harm reduction

Differing Responses: United States

- Greater focus on supply
 - Pill mill legislation
 - Law enforcement/DEA
- Access to treatment is biggest problem
 - No set guidelines
 - Staffing/resource issues, insurance, Medicaid
 - No comprehensive network of services
- Many states against/ban harm reduction
 - Stigma

How have opioid trends changed in response to differing responses of US and Canada?

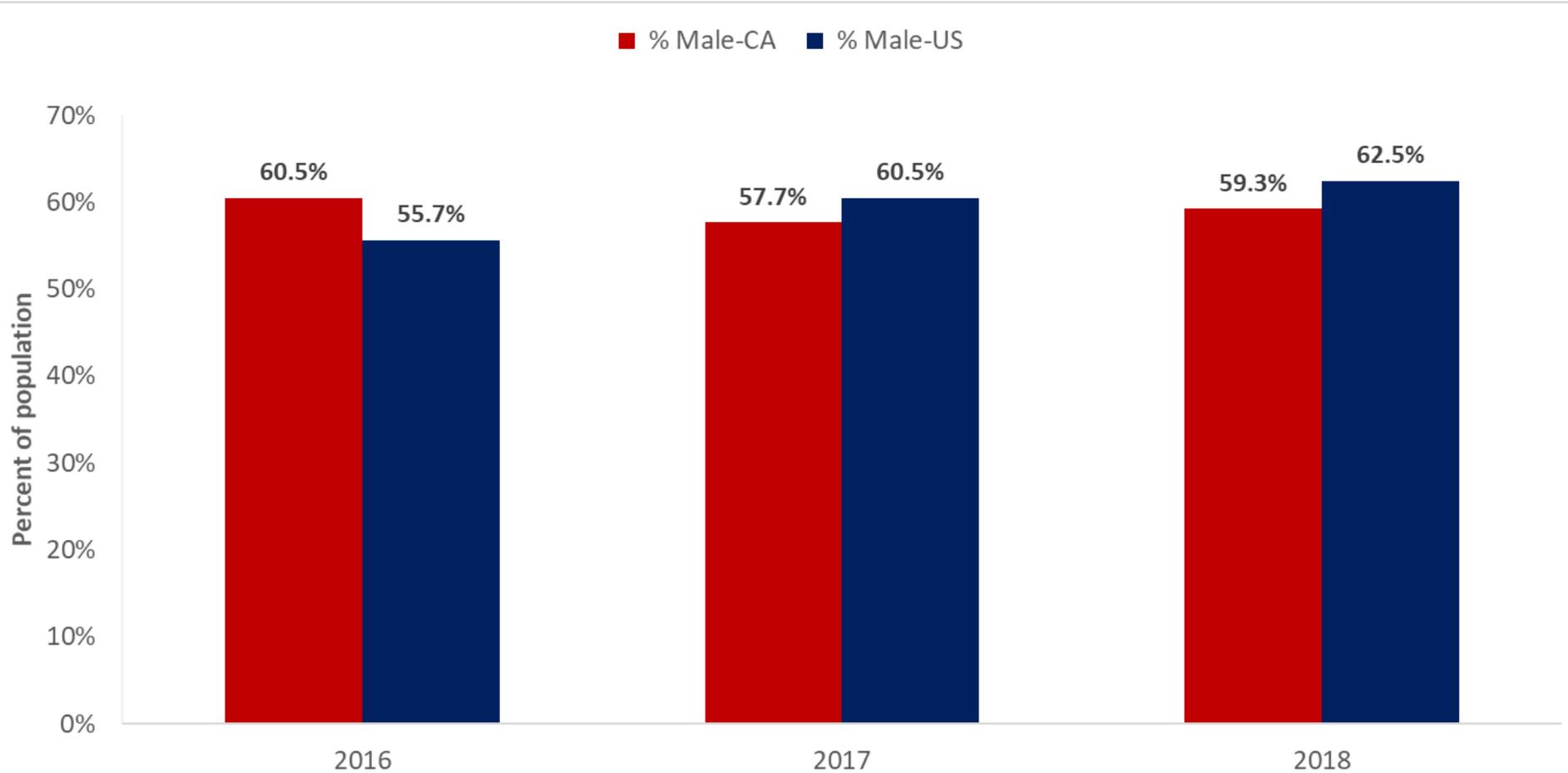
Data Source: United States

- Survey of Key Informants' Patients Program
 - Part of the national RADARS® Surveillance System
- 146 opioid use disorder treatment programs
 - Public and private
 - Various treatment modalities
 - 47 states
- Anonymous paper survey
 - 2016-2018: 7,385 respondents

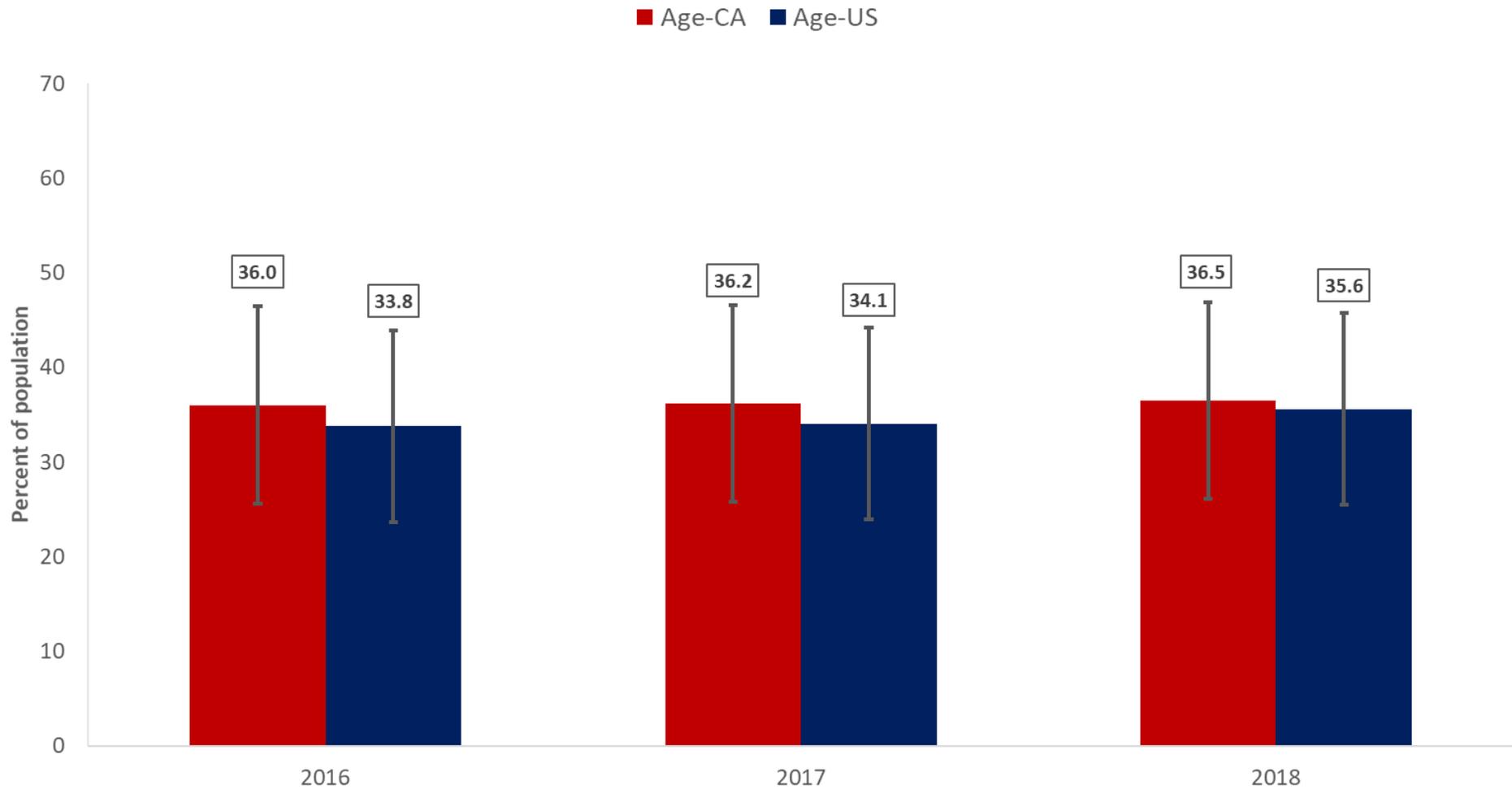
Data Source: Canada

- Opioid Dependence Treatment Program
 - Part of Canadian Consumer Product and Pharmaceutical Safety, Inc.
- 53 opioid use disorder treatment programs
 - Primarily Ontario, Alberta and British Columbia
- Anonymous paper survey
 - 2016-2018: 1,551 respondents

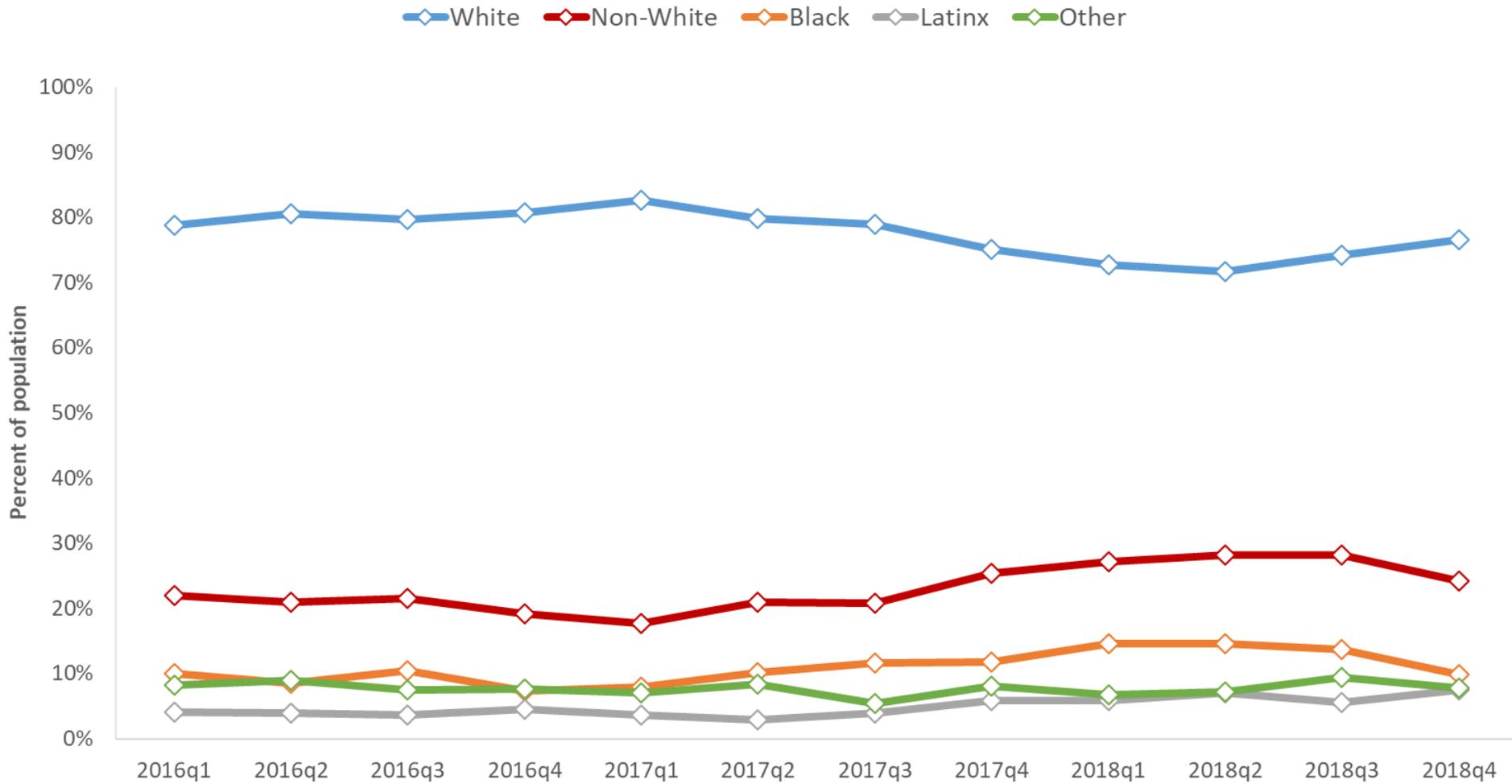
GENDER



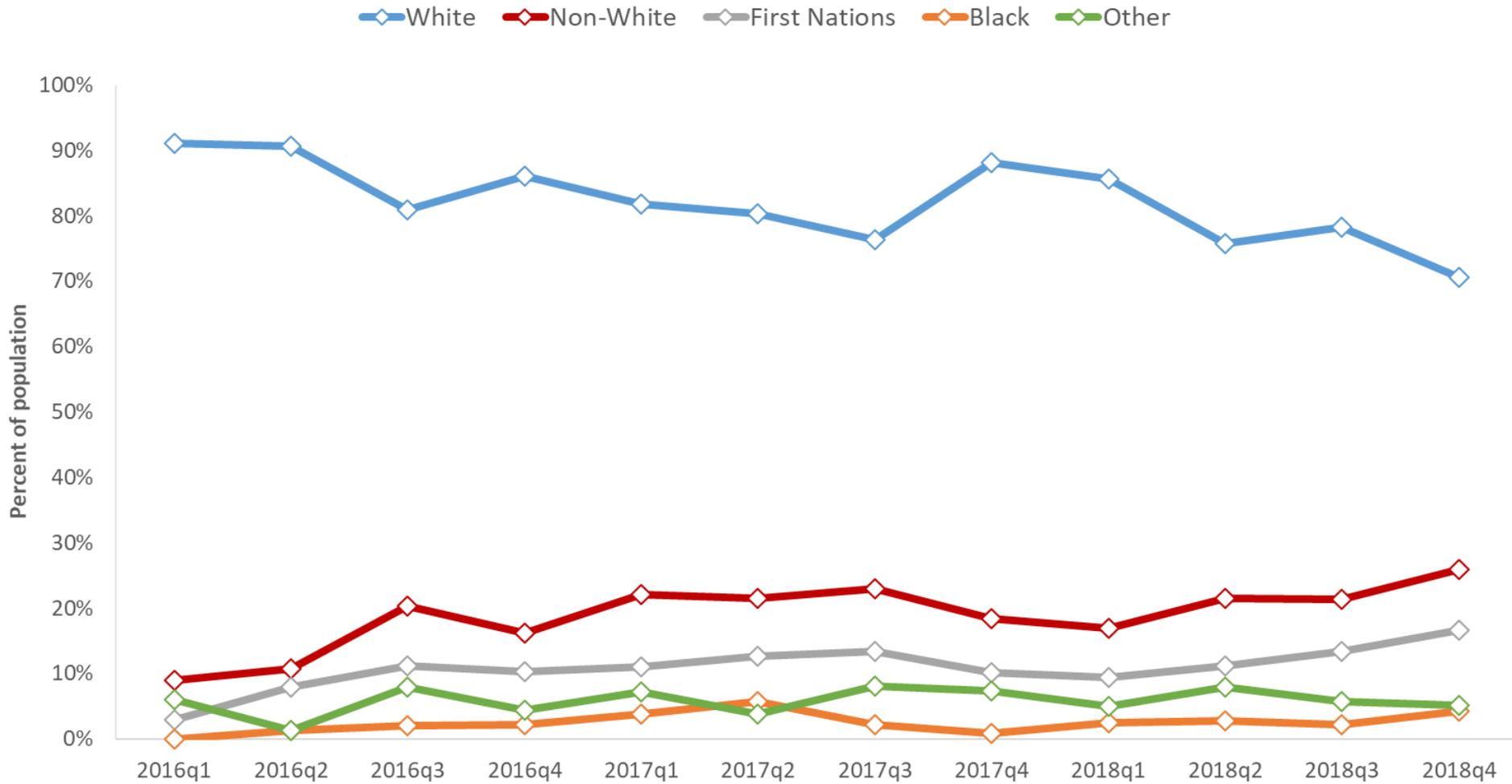
MEAN AGE



Race/Ethnicity: UNITED STATES



RACE/ETHNICITY: CANADA



USER POPULATIONS

USER POPULATIONS

- US is trending toward more males
- Canada has a more equal gender distribution of users

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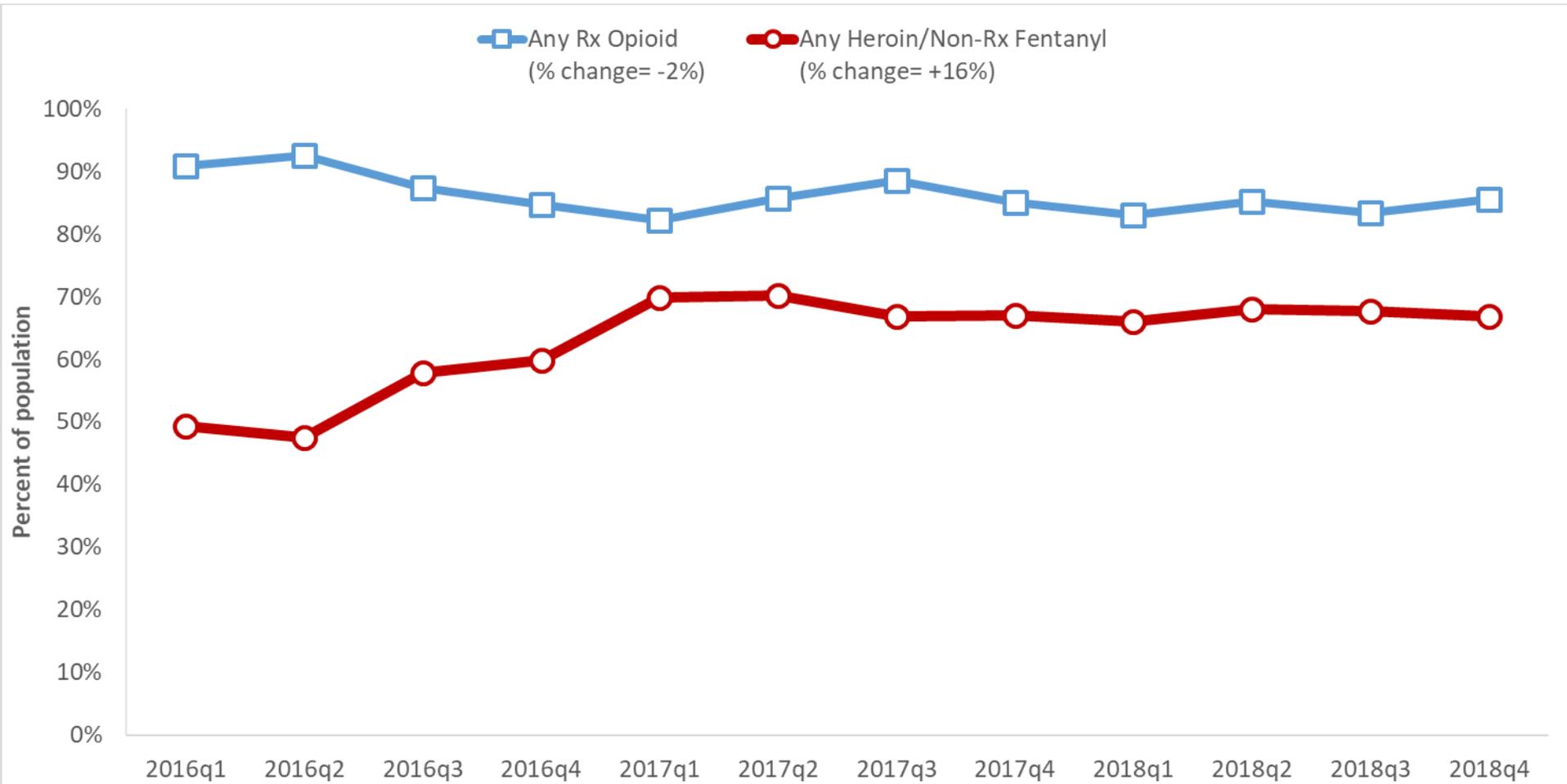
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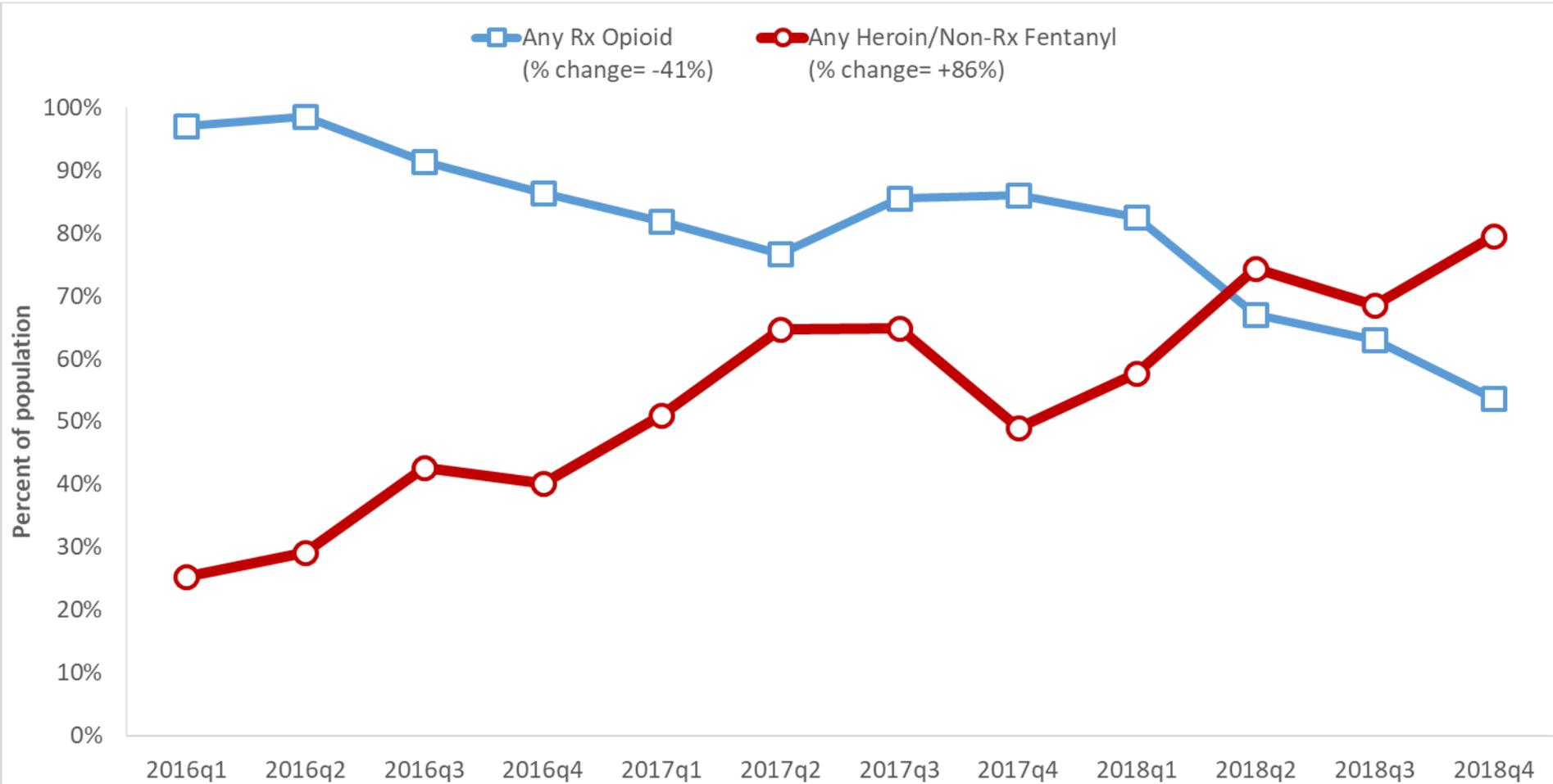
- US is trending toward more males
- Canada has a more equal gender distribution of users
- Both countries have aging user populations
- Percentages of white users are decreasing
- First nation users second greatest user population

OPIOID TRENDS

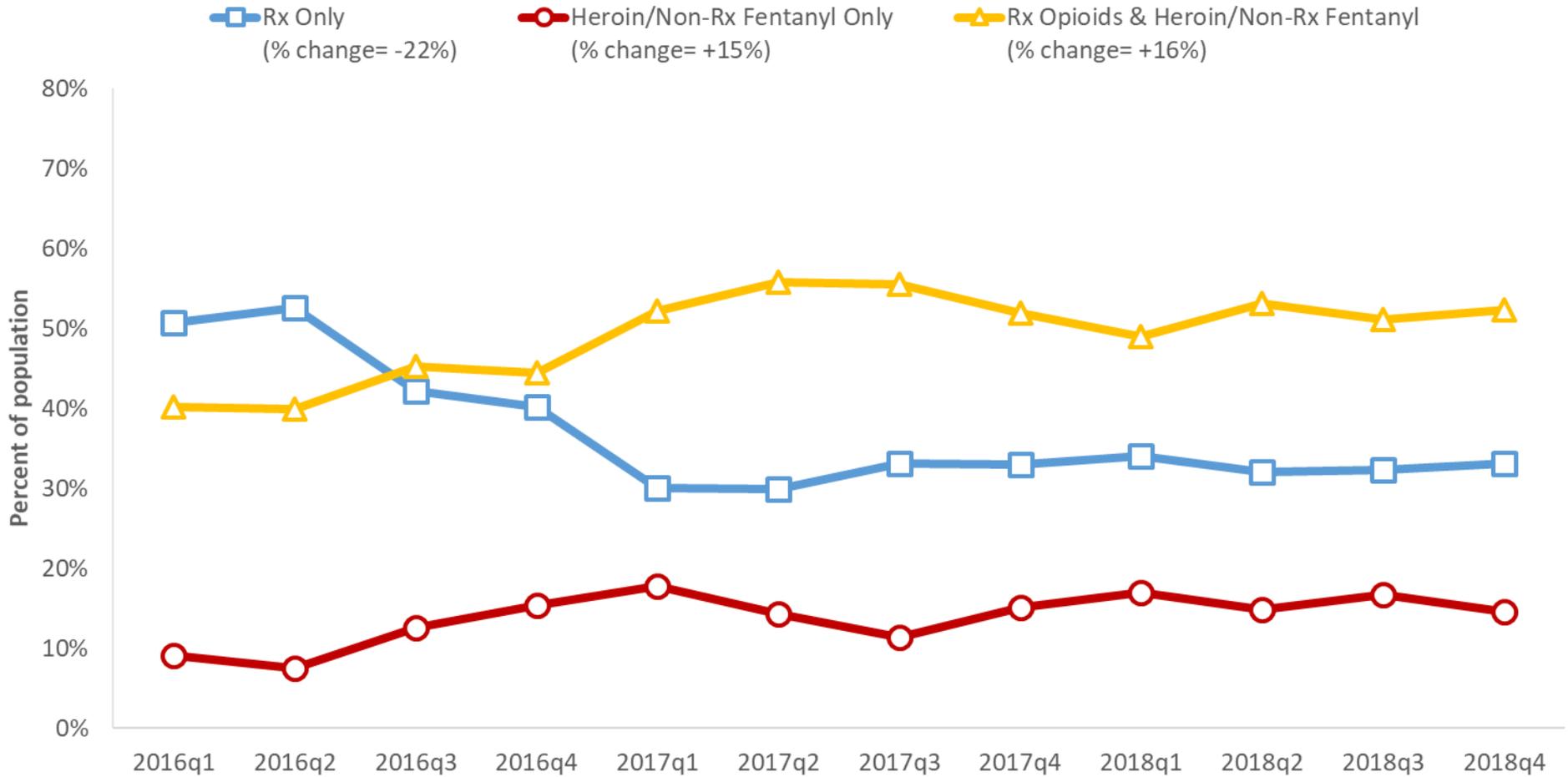
Opioid Use: UNITED STATES



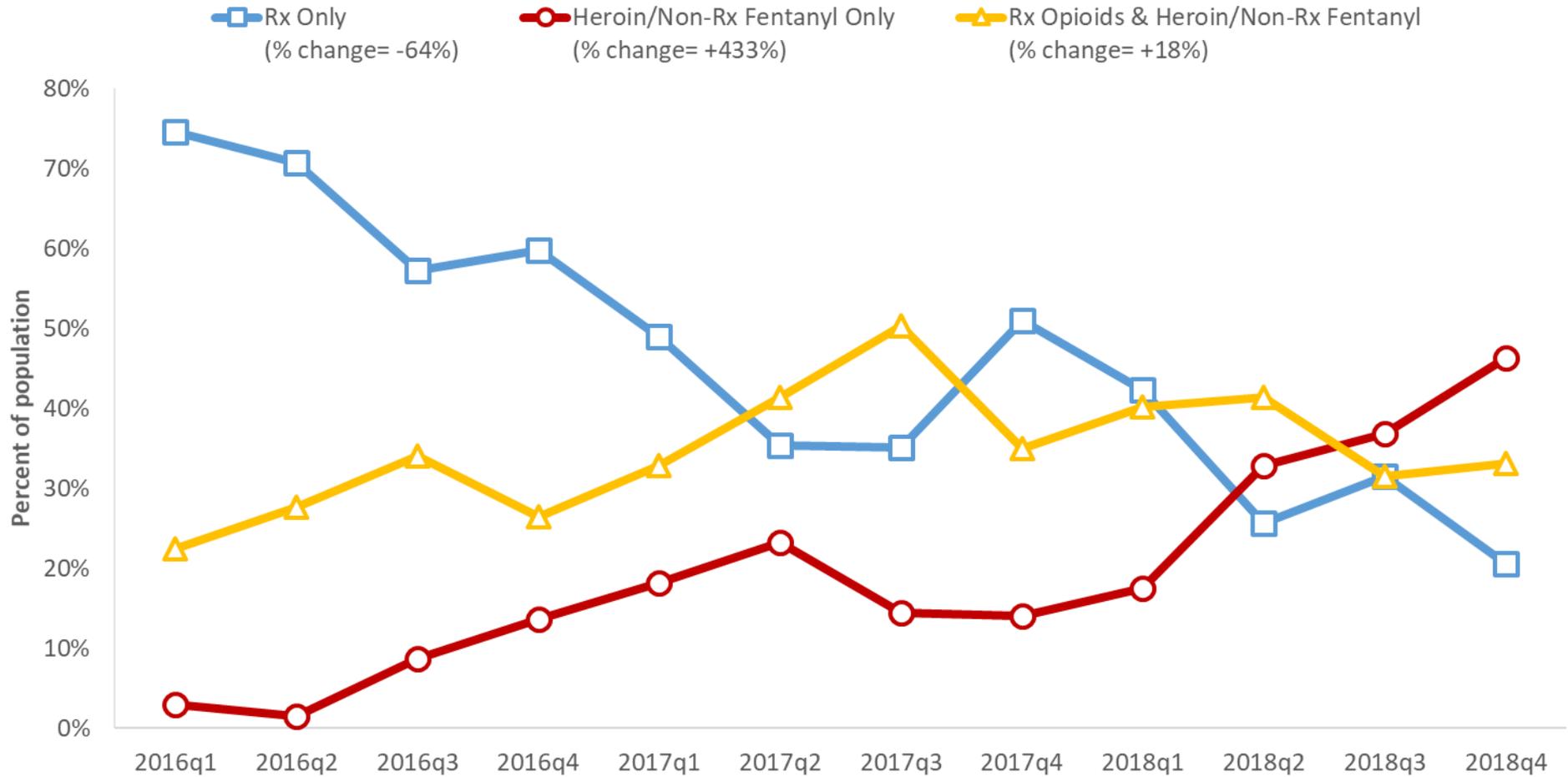
Opioid Use: CANADA



Opioid Use: UNITED STATES



Opioid Use: CANADA



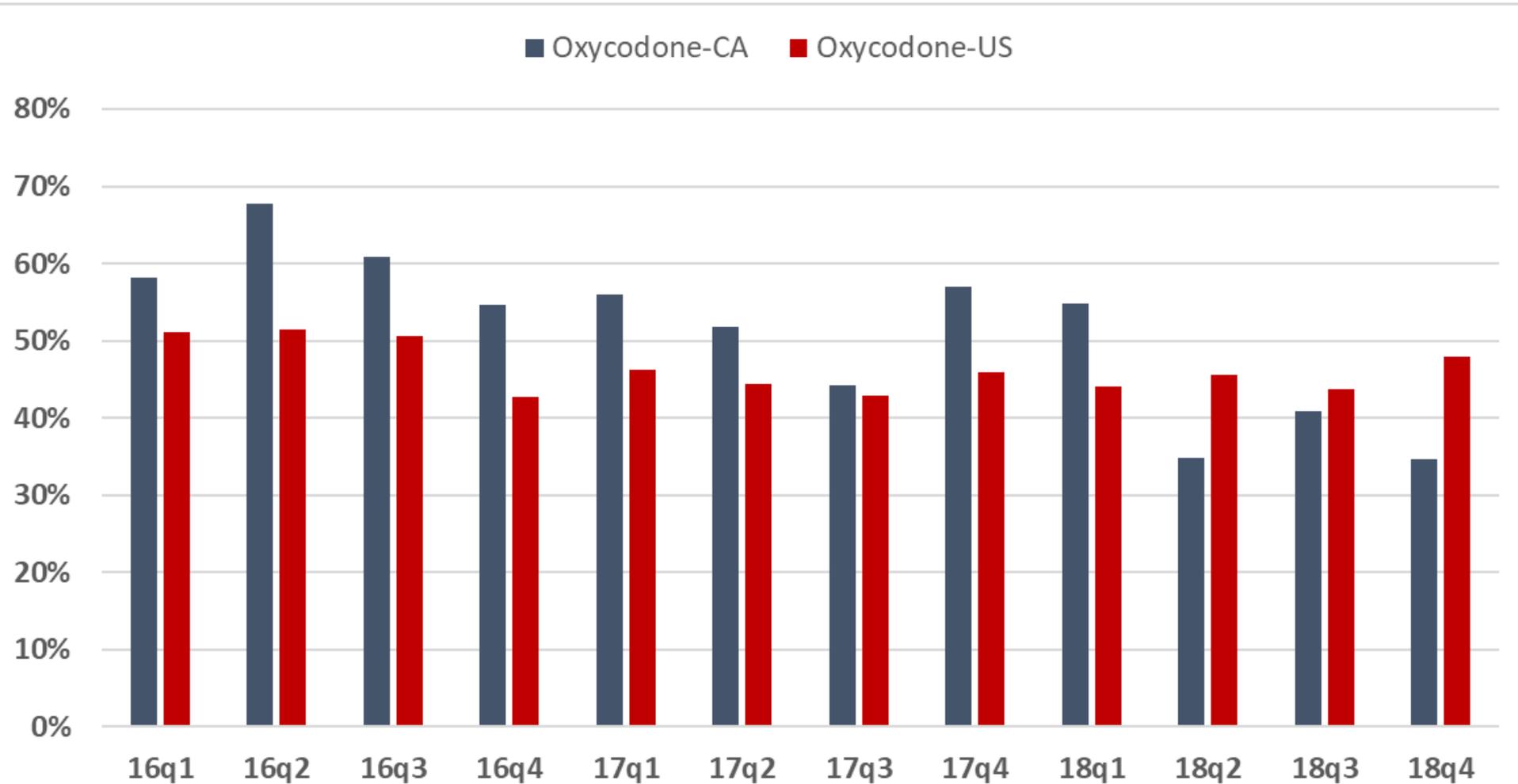
PRESCRIPTION OPIOID TRENDS



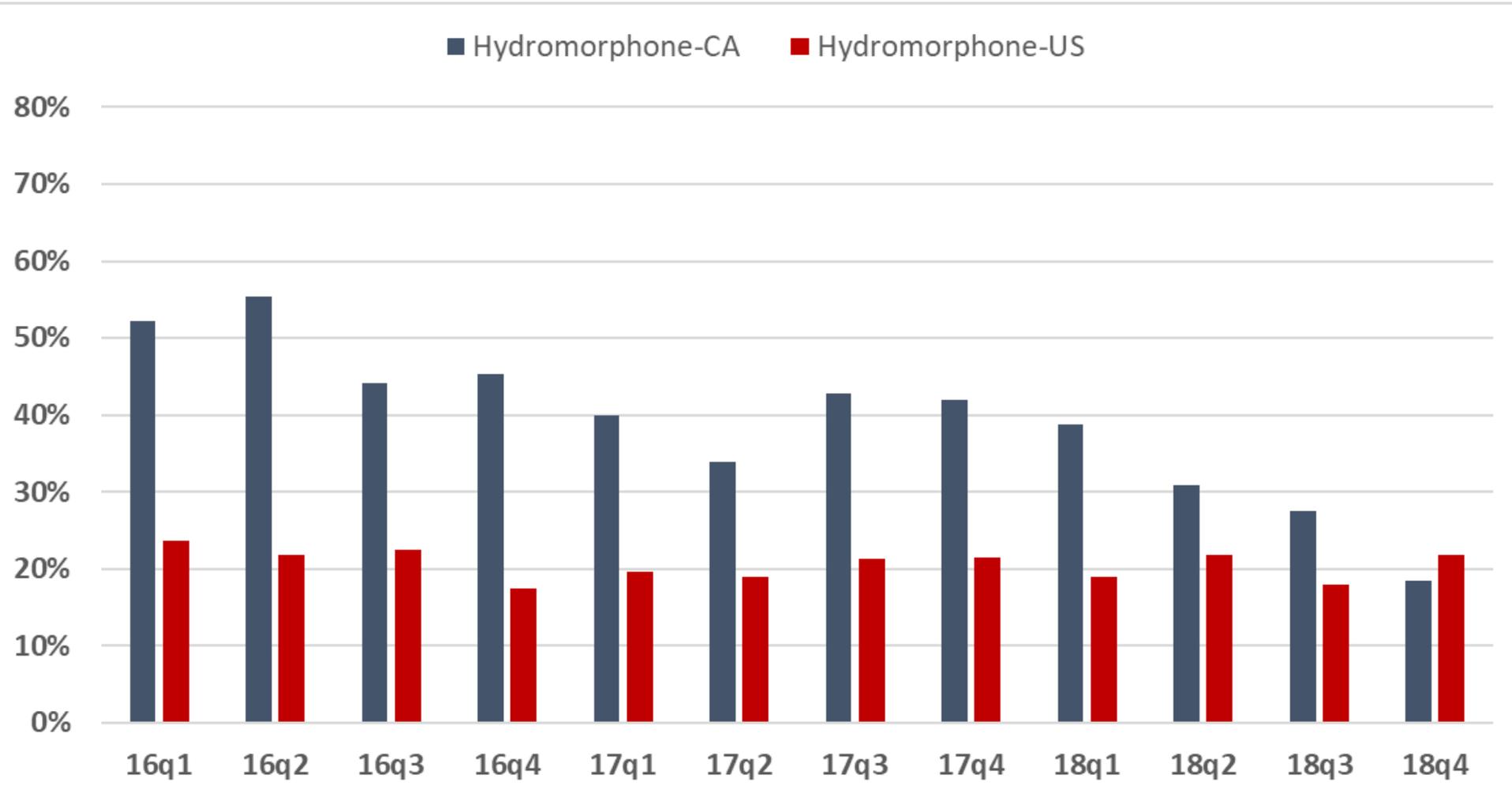
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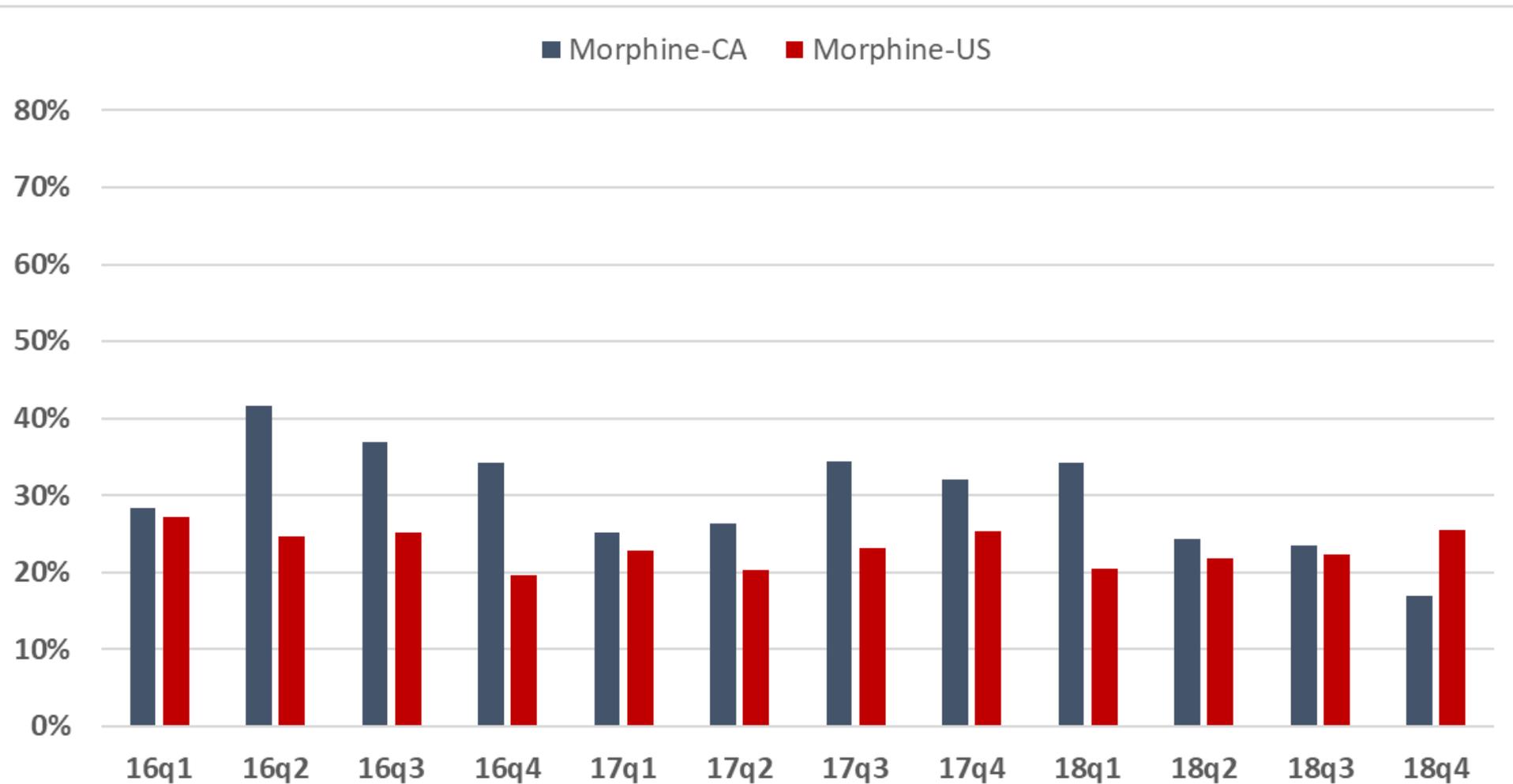
OXYCODONE



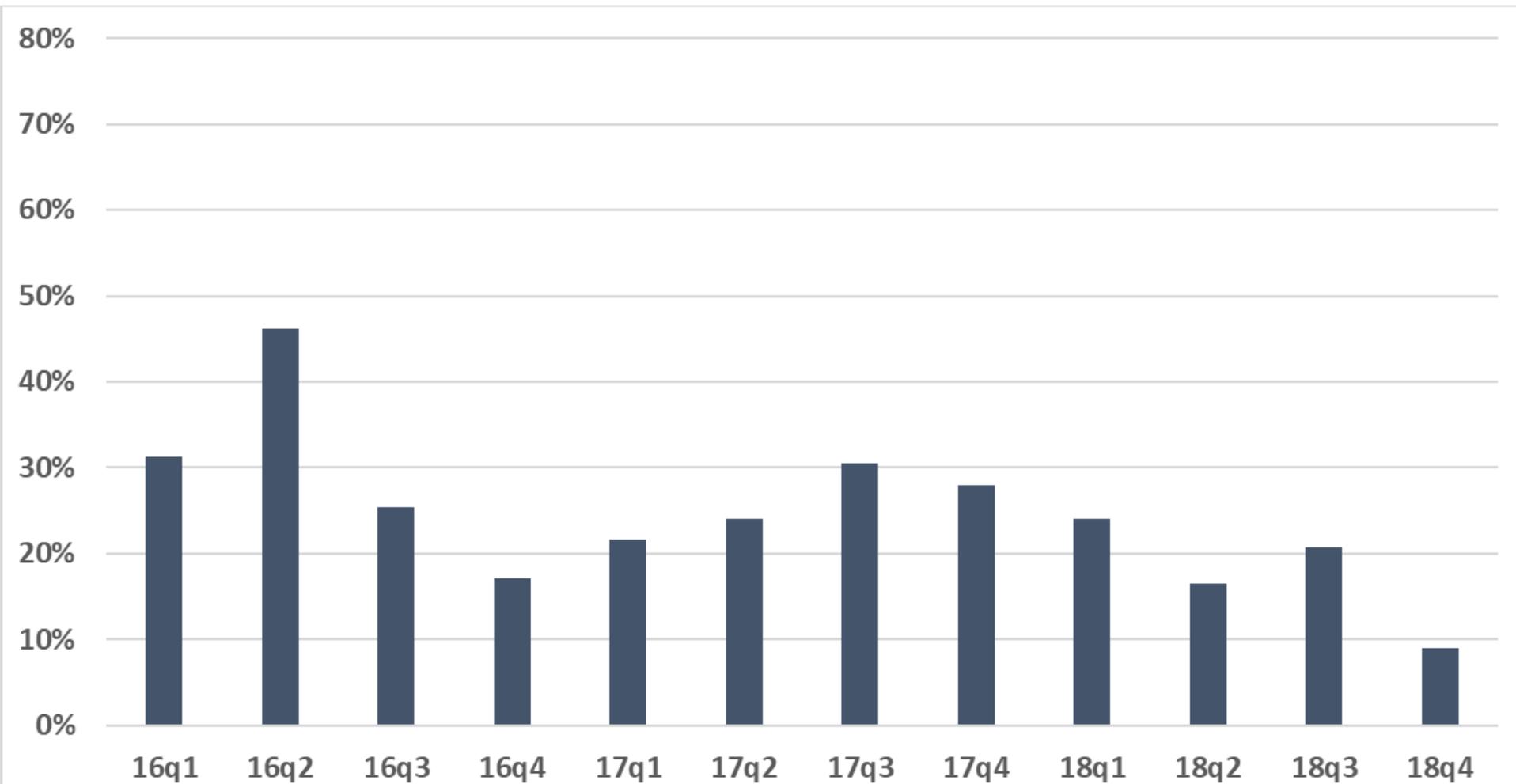
HYDROMORPHONE



MORPHINE



CODEINE



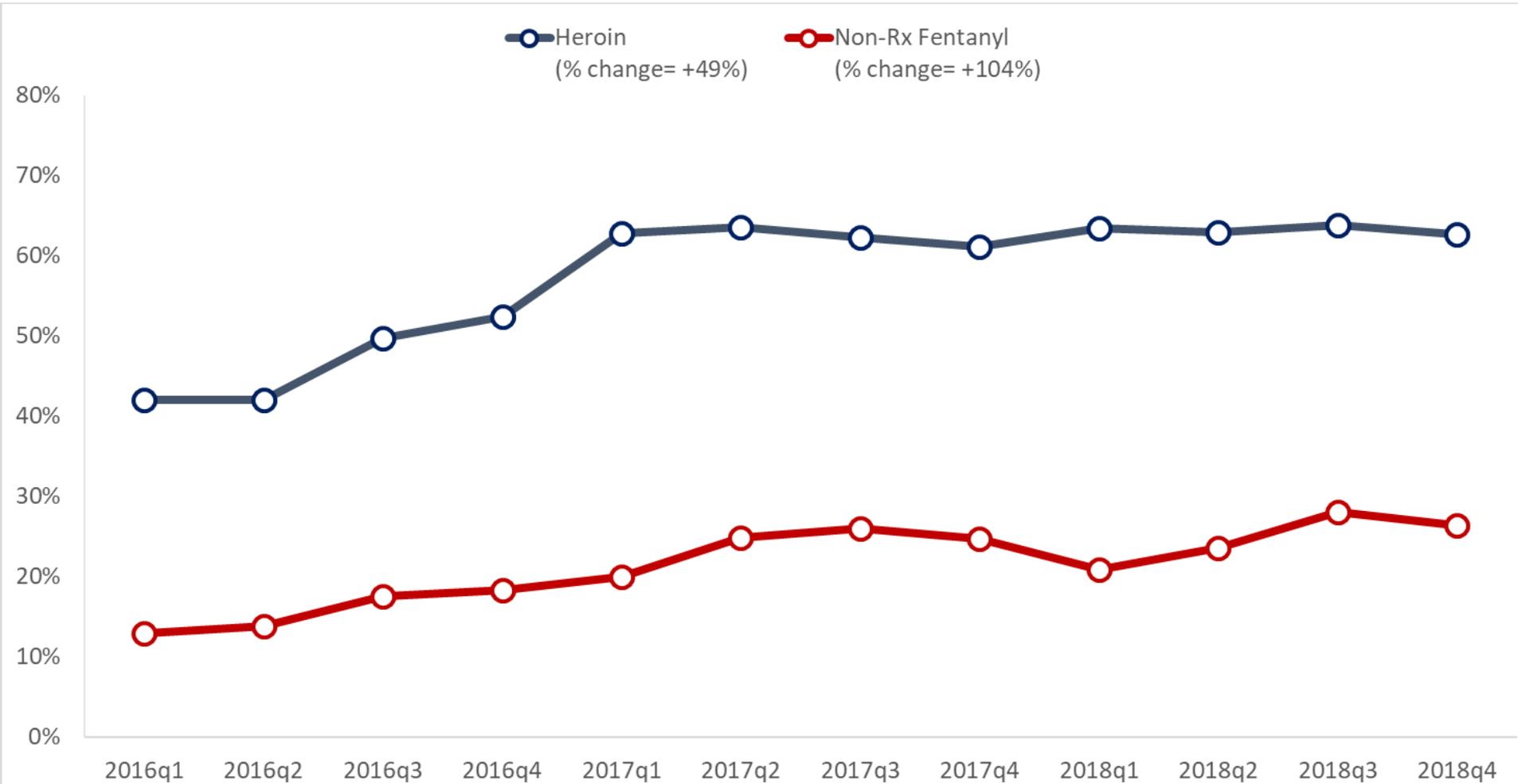
ILLICIT OPIOID TRENDS



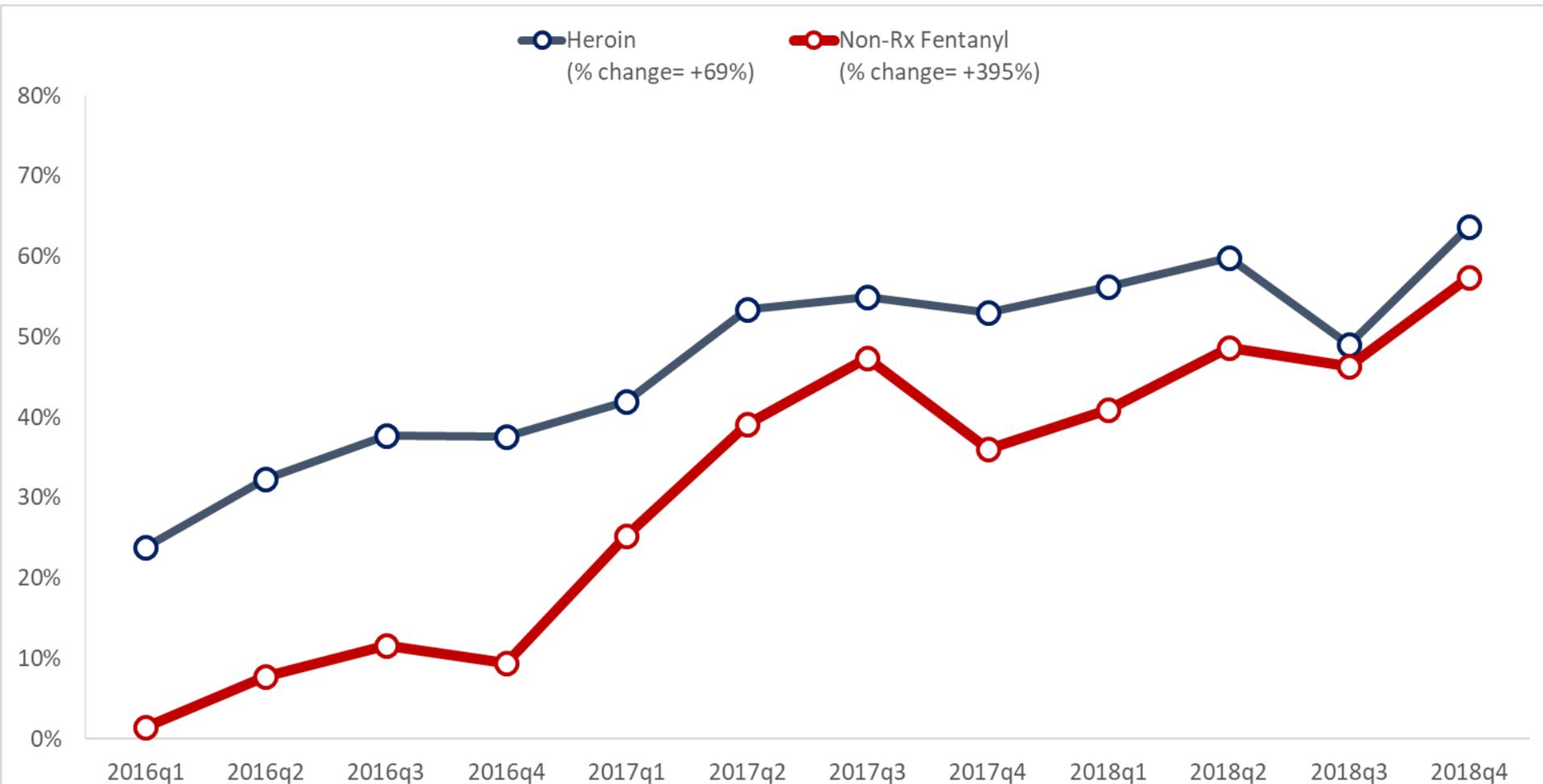
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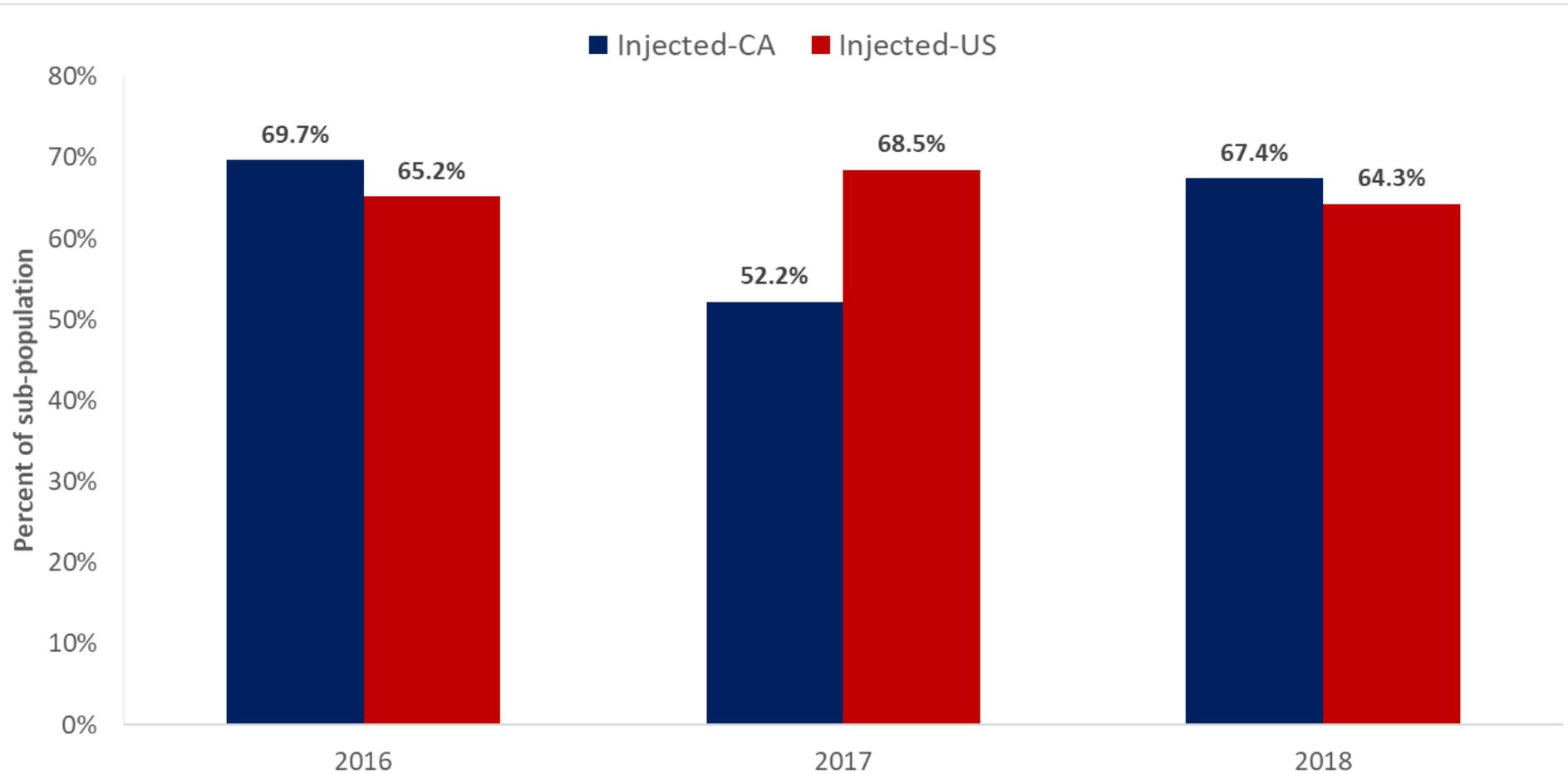
Illicit Opioid Use: UNITED STATES



Illicit Opioid Use: CANADA



Injection of Illicit Opioids



OPIOID USE TRENDS

- Prescription opioid use has significantly decreased in Canada compared to US

OPIOID USE TRENDS

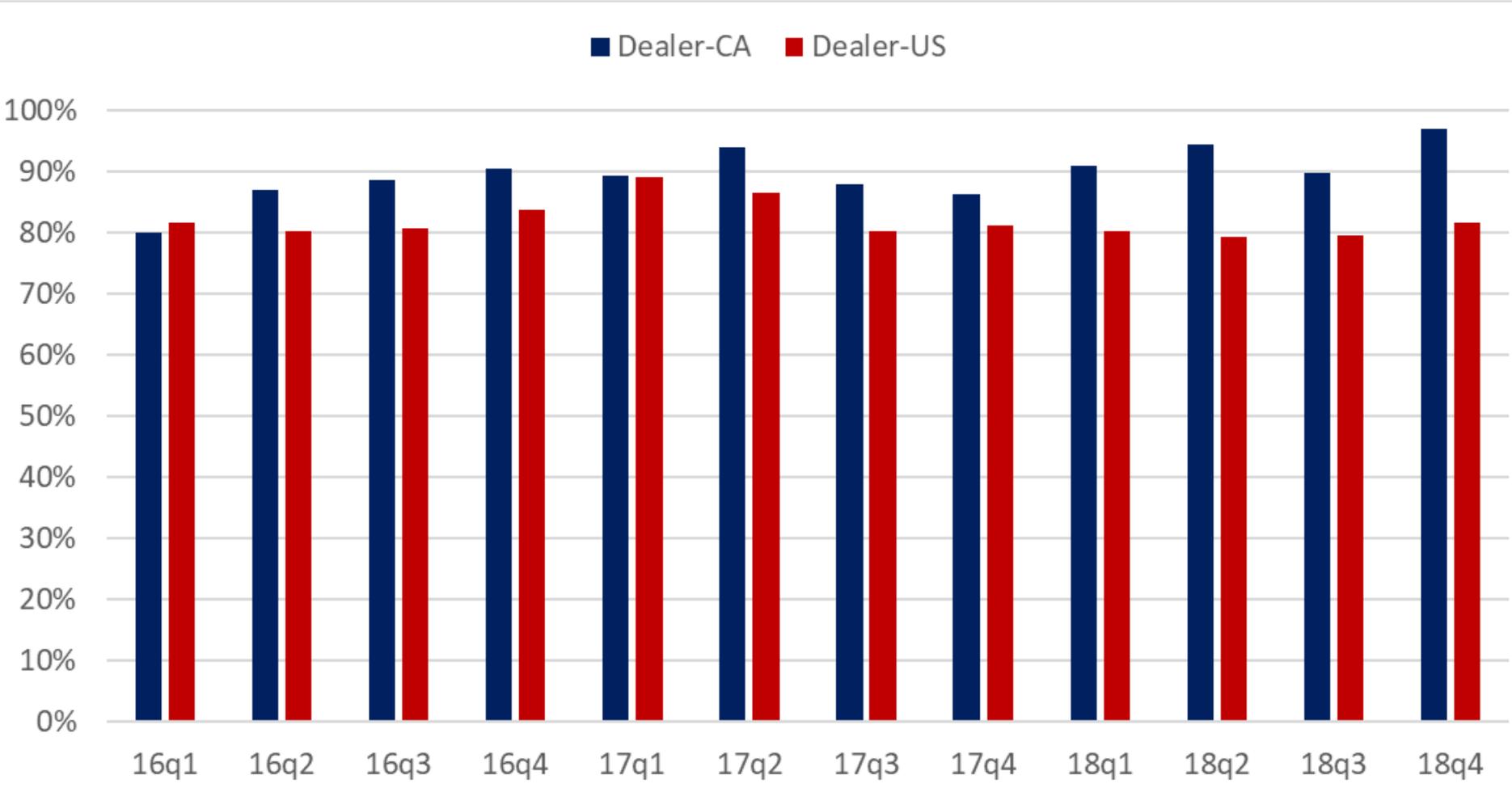
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- Use of illicit opioids alone is now most common form of use in Canada
- Non-rx fentanyl use now equal to heroin use in Canada

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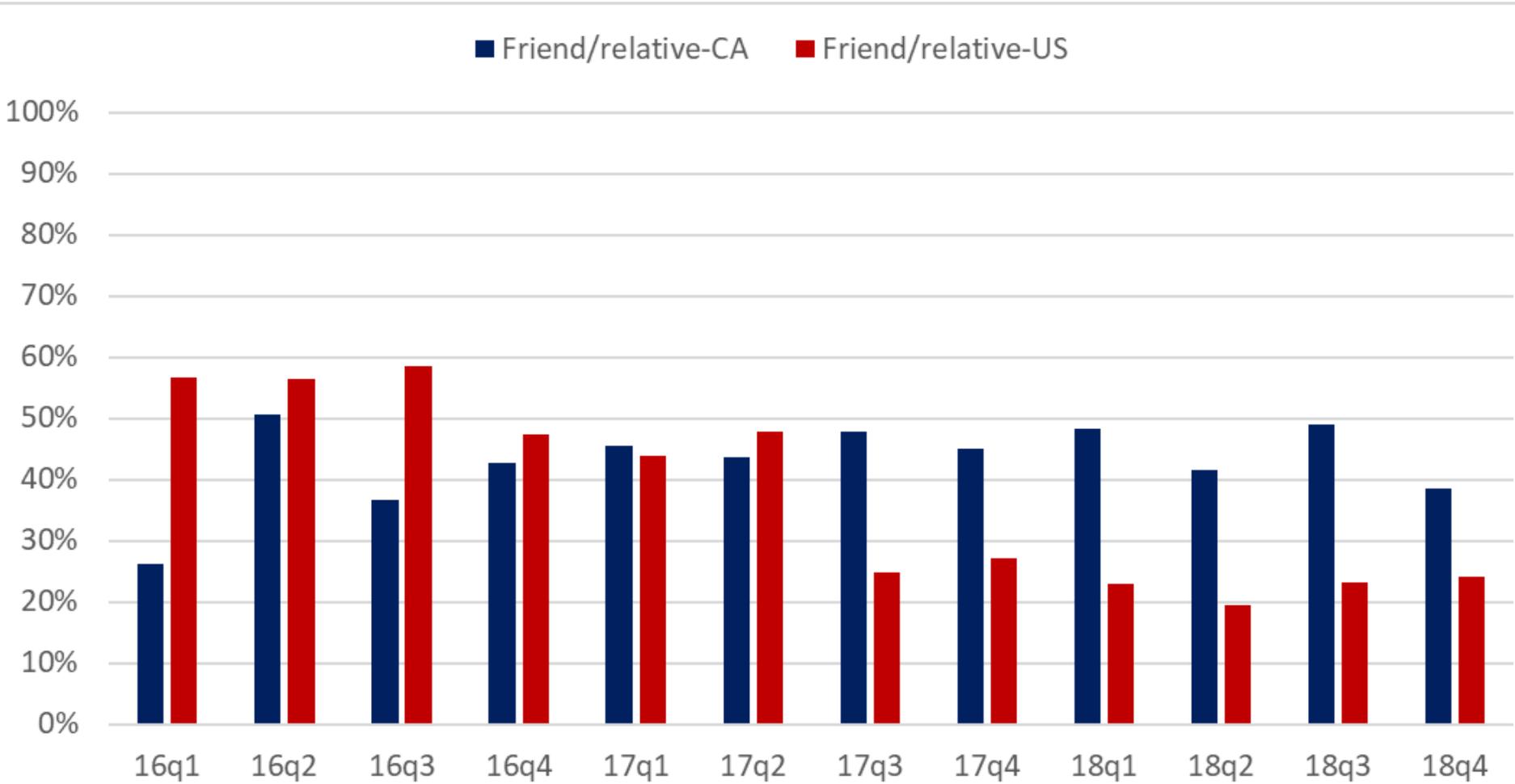
- Prescription opioid use has significantly decreased in Canada compared to US
- Use of illicit opioids alone is now most common form of use in Canada
- Non-rx fentanyl use now equal to heroin use in Canada
- Injection of illicit opioids is similar between countries

Source(s) of Opioid Drug(s)

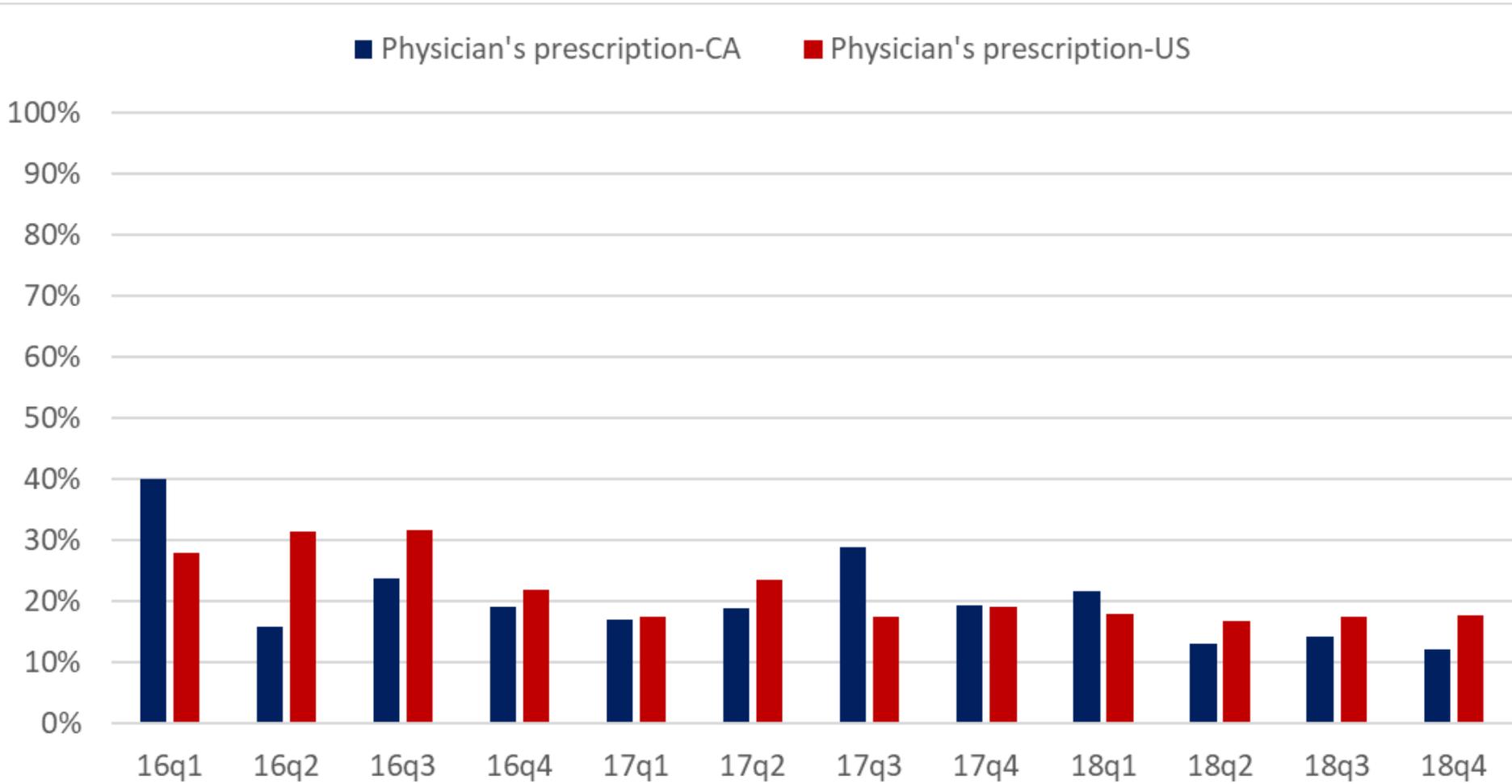
DEALER/STREET



FRIEND/RELATIVE

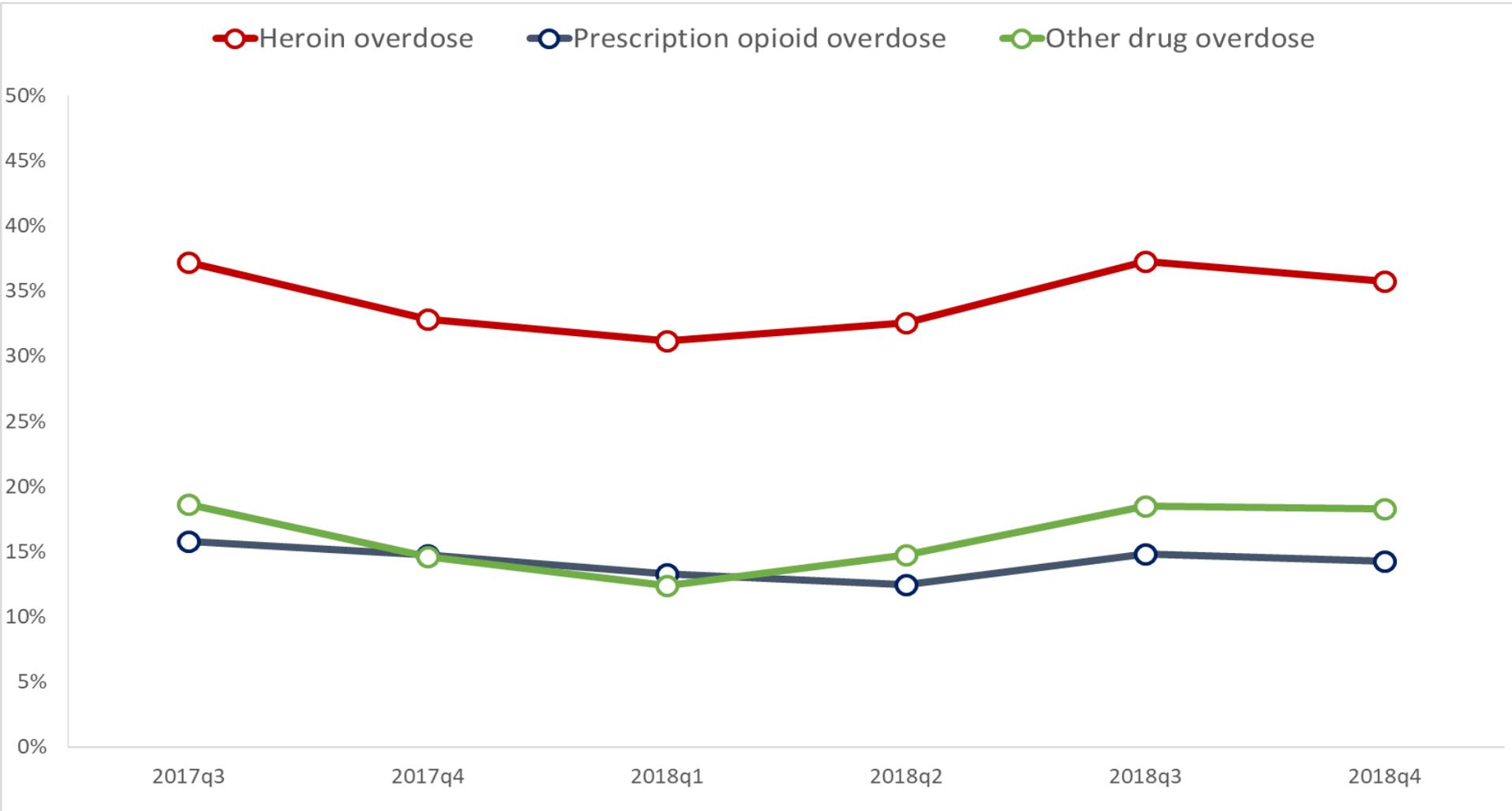


PHYSICIAN'S PRESCRIPTION

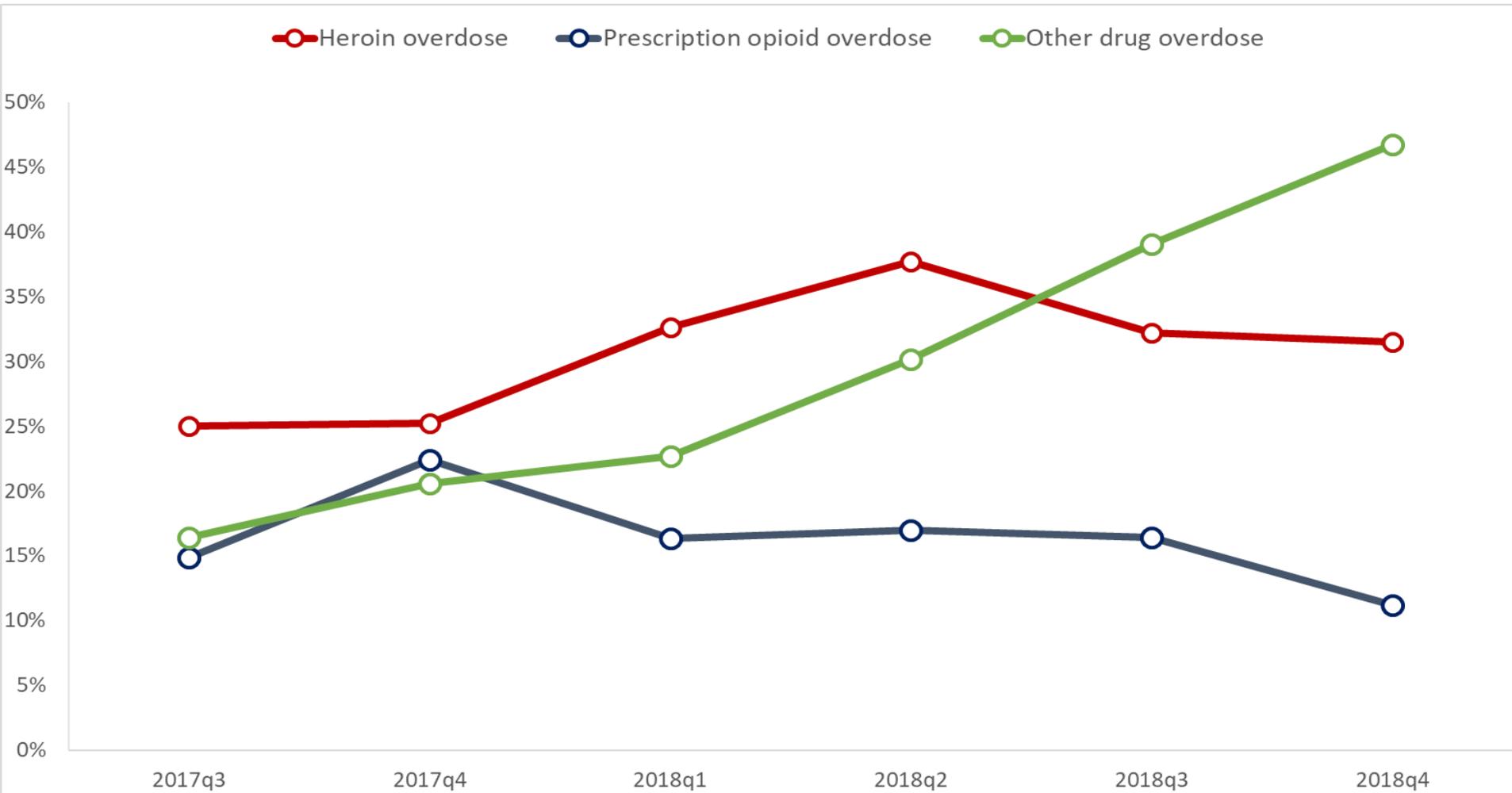


OVERDOSE HISTORY

Overdose History: UNITED STATES



Overdose History: CANADA



CHRONIC PAIN HISTORY

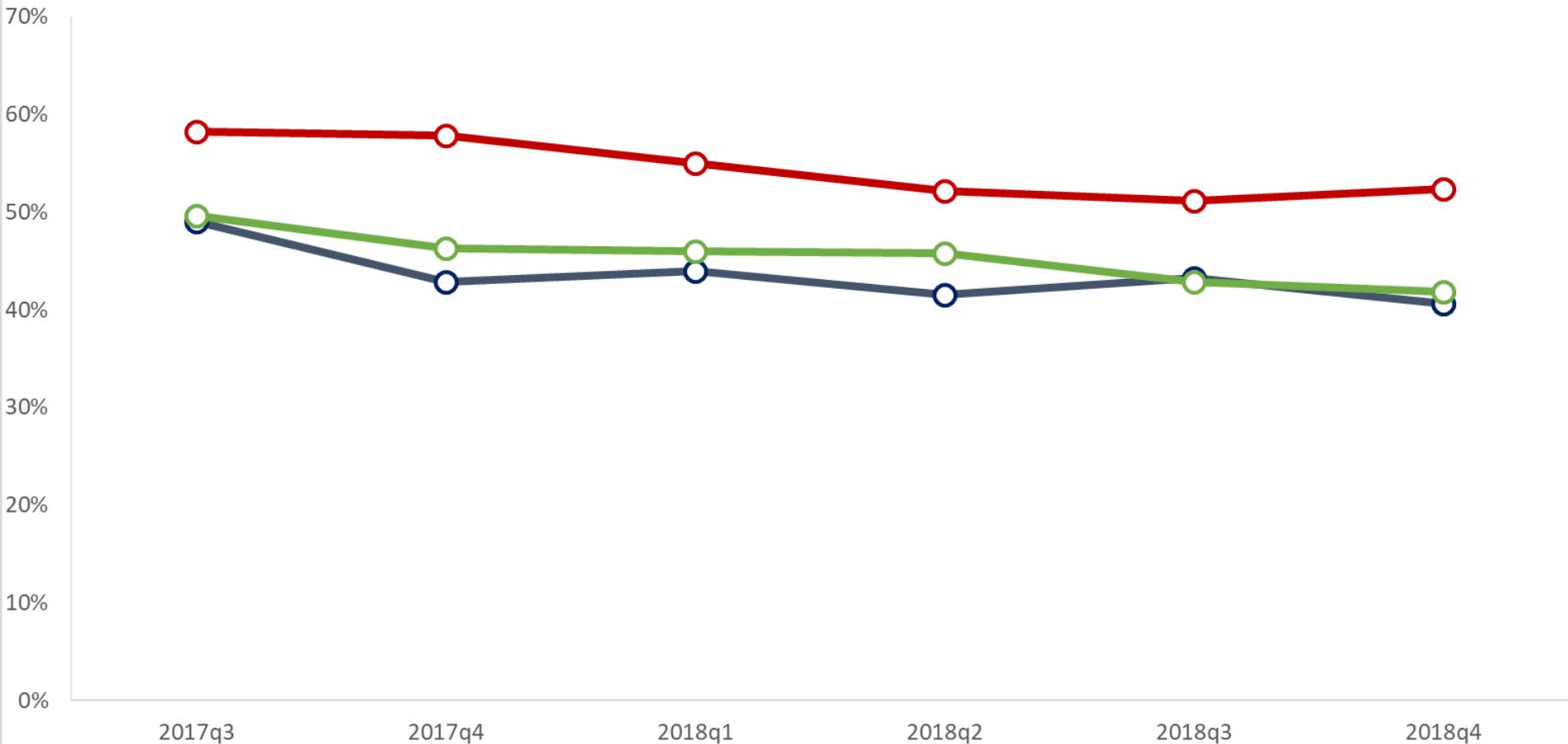


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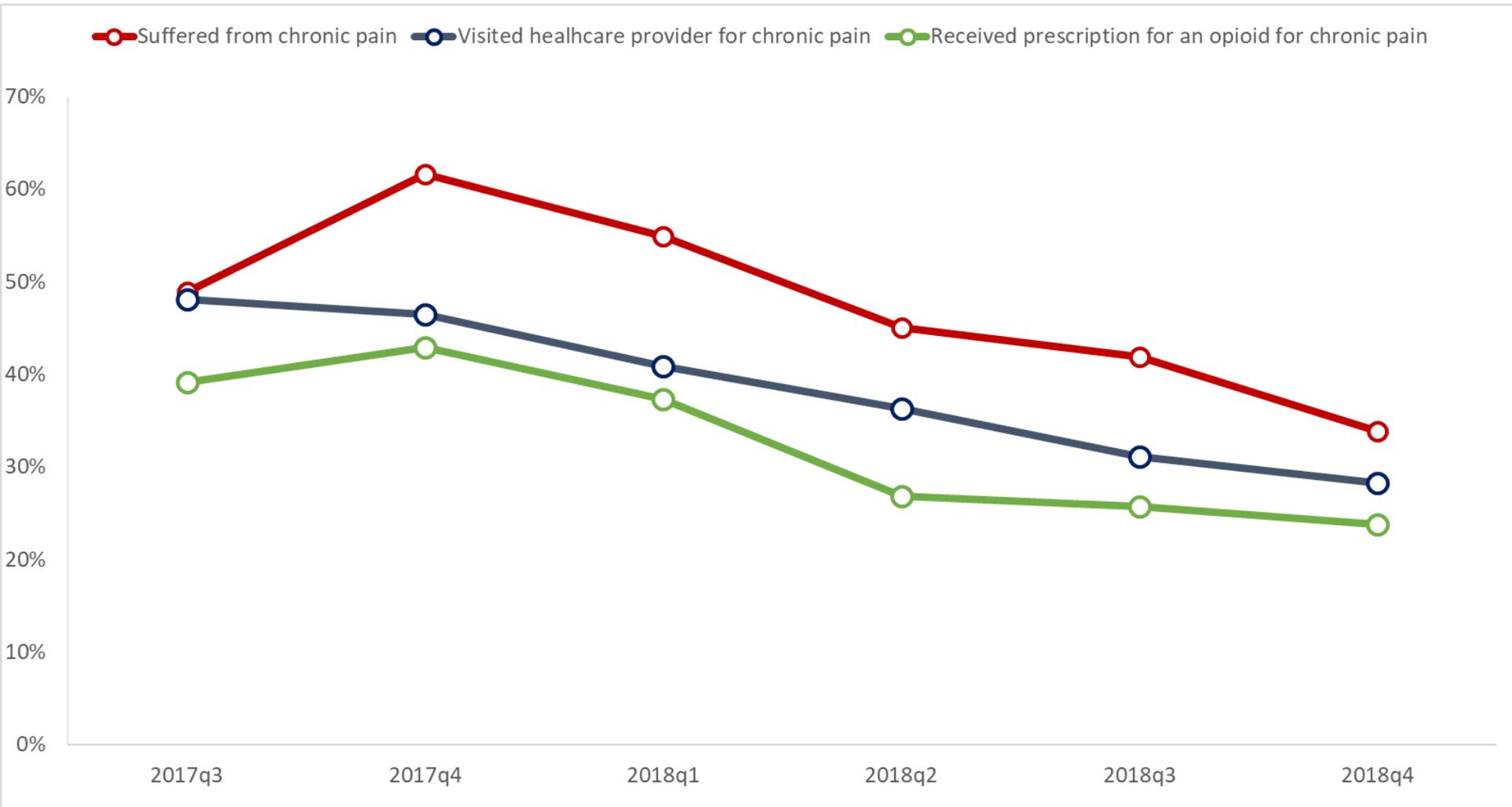
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Chronic Pain History: UNITED STATES

○ Suffered from chronic pain ○ Visited healthcare provider for chronic pain ○ Received prescription for an opioid for chronic pain



Chronic Pain History: CANADA



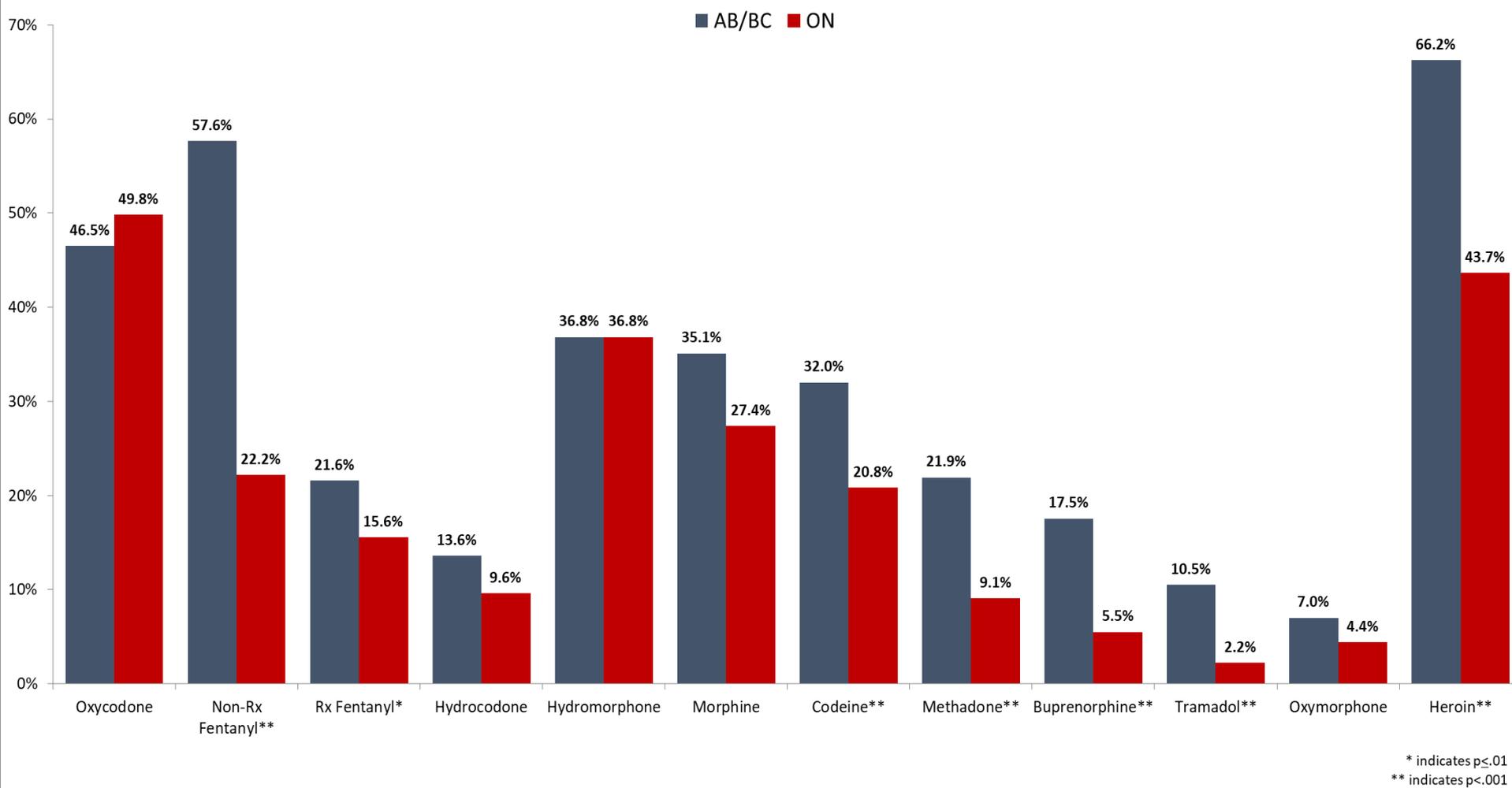
REGIONALITY



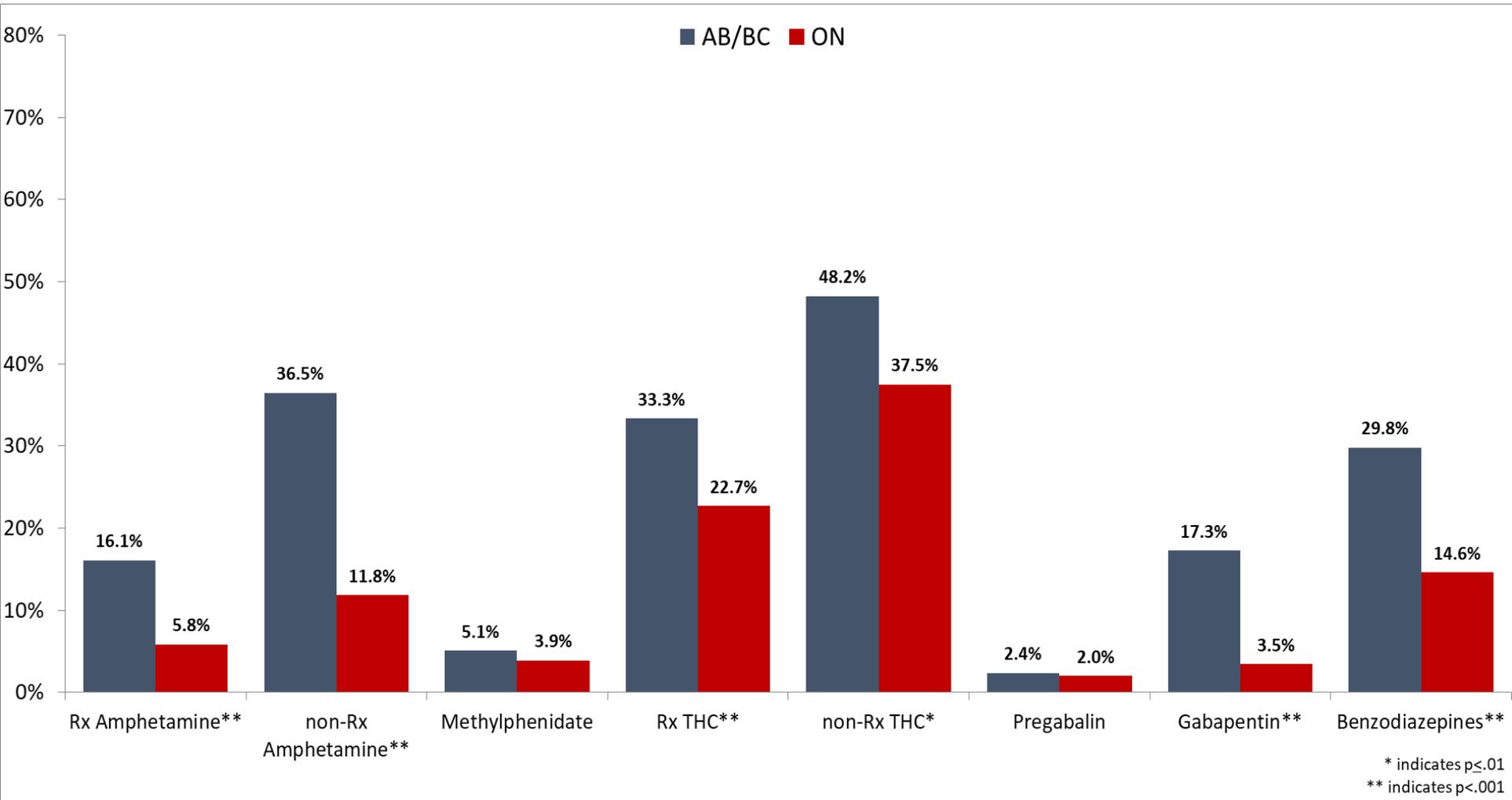
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Opioids: WEST vs. CENTRAL CANADA



Non-Opioids: WEST vs. CENTRAL CANADA



Conclusions

- Despite a shared history, Canada and United States have differed on responses to the opioid epidemic

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Conclusions

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- Prescription opioid use and history of chronic pain among opioid users has decreased significantly more in Canada
- Strong regional differences and greater influence of fentanyl in Canada
 - Greater need for harm reduction

Limitations

- Treatment-seeking users may not be representative of opioid use in general
- Sample size and coverage
- No causal inferences
- Other factors
 - Supply chain differences
 - Structural differences

Future research

- Causal associations
- Understanding treatment outcomes
 - Wrap around services/Continuum of Care
- First drug of use
- Polysubstance use
- The impact of structural differences

QUESTIONS?