



Controlled Evaluation of Group Health Opioid Risk Reduction Initiatives: 2006 - 2014

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Disclosures

No competing interests to disclose

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Outline

Health plan opioid risk reduction initiatives implemented among chronic opioid therapy (COT) patients

Evaluation design

Evaluation results:

- COT prescribing and management trends

- Opioid overdose trends

- Patient-reported outcomes

Group Health Chronic Opioid Therapy (COT) Risk Reduction Initiatives

- Group Health opioid risk reduction initiatives among COT patients:
 - 2008 – Sept. 2010: Reduce high-dose opioid prescribing
 - Oct. 2010 – 2014: Implement guideline-based risk stratification & monitoring (RS/M) initiatives
- These initiatives were implemented in Group Health's 26 Integrated Group Practice clinics (Intervention setting)
- The initiatives were not implemented in Group Health's contracted care clinics serving similar patients (Control setting).

Group Health COT Risk Reduction Initiatives

- Opioid Dose Reduction

- Keep COT doses as low as possible (below Washington State recommended 120mg morphine equivalent dose (MED) threshold)

- Risk Stratification/Monitoring (RS/M)

- COT guideline based on newly enacted Washington State law
- Single primary care prescriber for each COT patient
- COT care plan documented in electronic health record:
 - Prescription instructions and treatment agreement
 - Risk-stratified frequency of follow-up visits and urine drug testing
- Standard processes for refills, cross-coverage, consultations
- Enhanced clinician and patient education

Evaluation Design

Evaluation Design

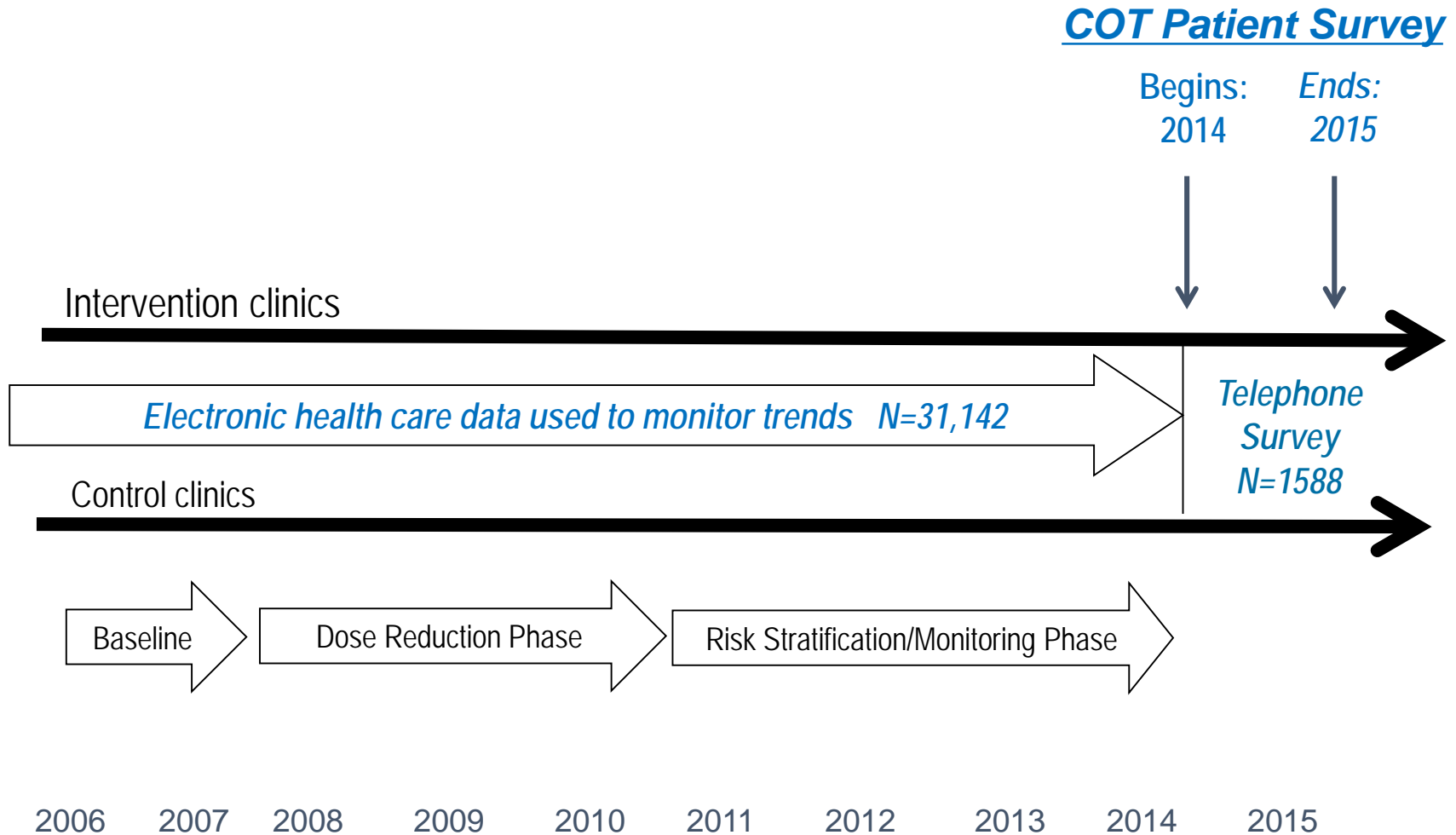
Initiatives	Dates	Intervention Clinics	Control Clinics
Opioid dose reduction	2008 – Sept. 2010	Yes	No
Risk stratification & Monitoring (RS/M)	Oct. 2010 – 2014	Yes	No
Evaluation methods			
Interrupted time series analyses	2006-14	N=22,673	N=8,469
Post-Initiative survey	2014-15	N=935	N=653

COT defined by 60+ days supply of opioids in a given 90 day period.

From 2006-14, we compared trends among COT patients from Intervention and Control clinics: A “natural experiment”.

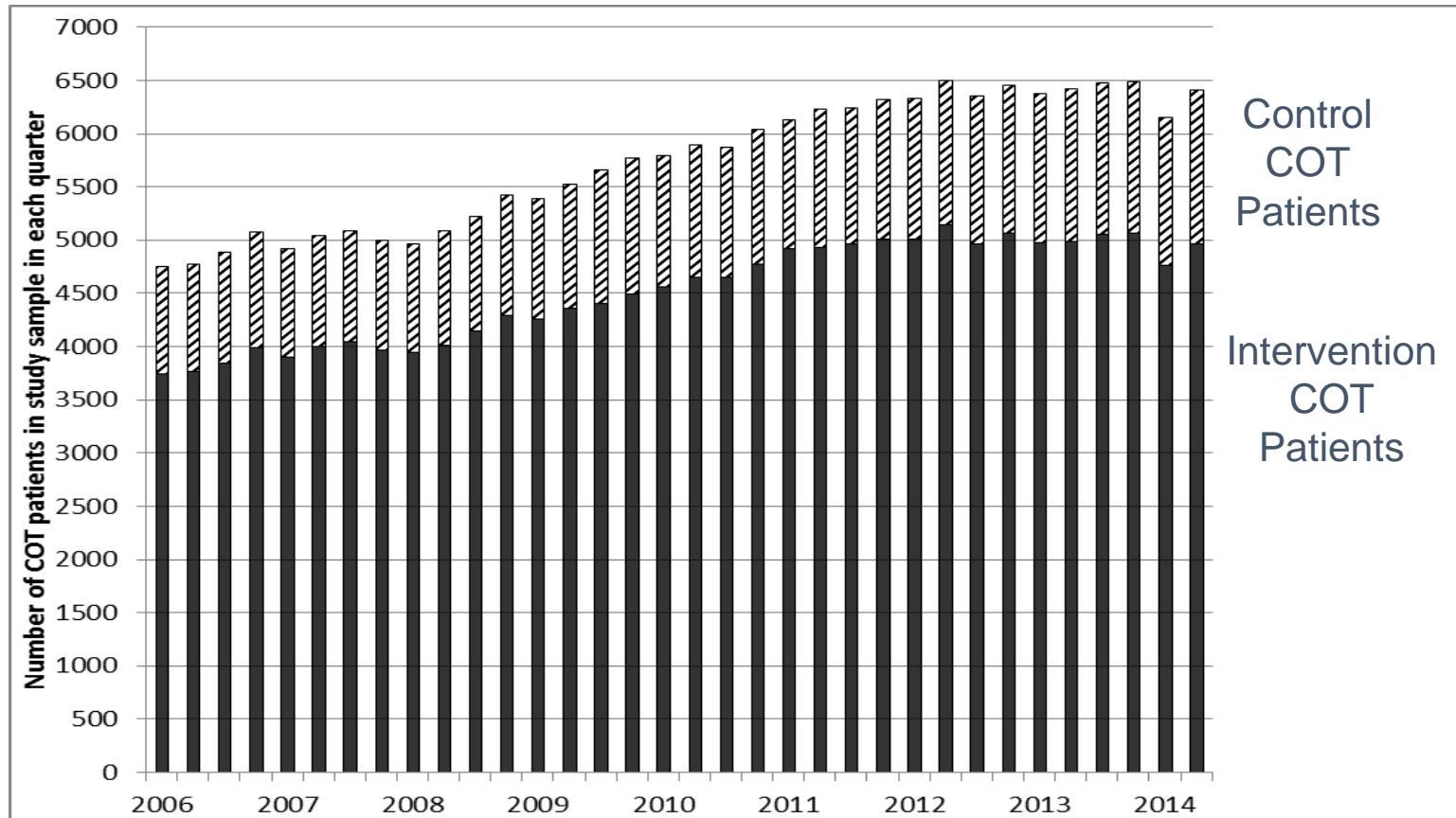
In 2014-15, we surveyed Intervention and Control COT patients, after the risk reduction initiatives had been sustained for 4+ years.

Evaluation Timeline



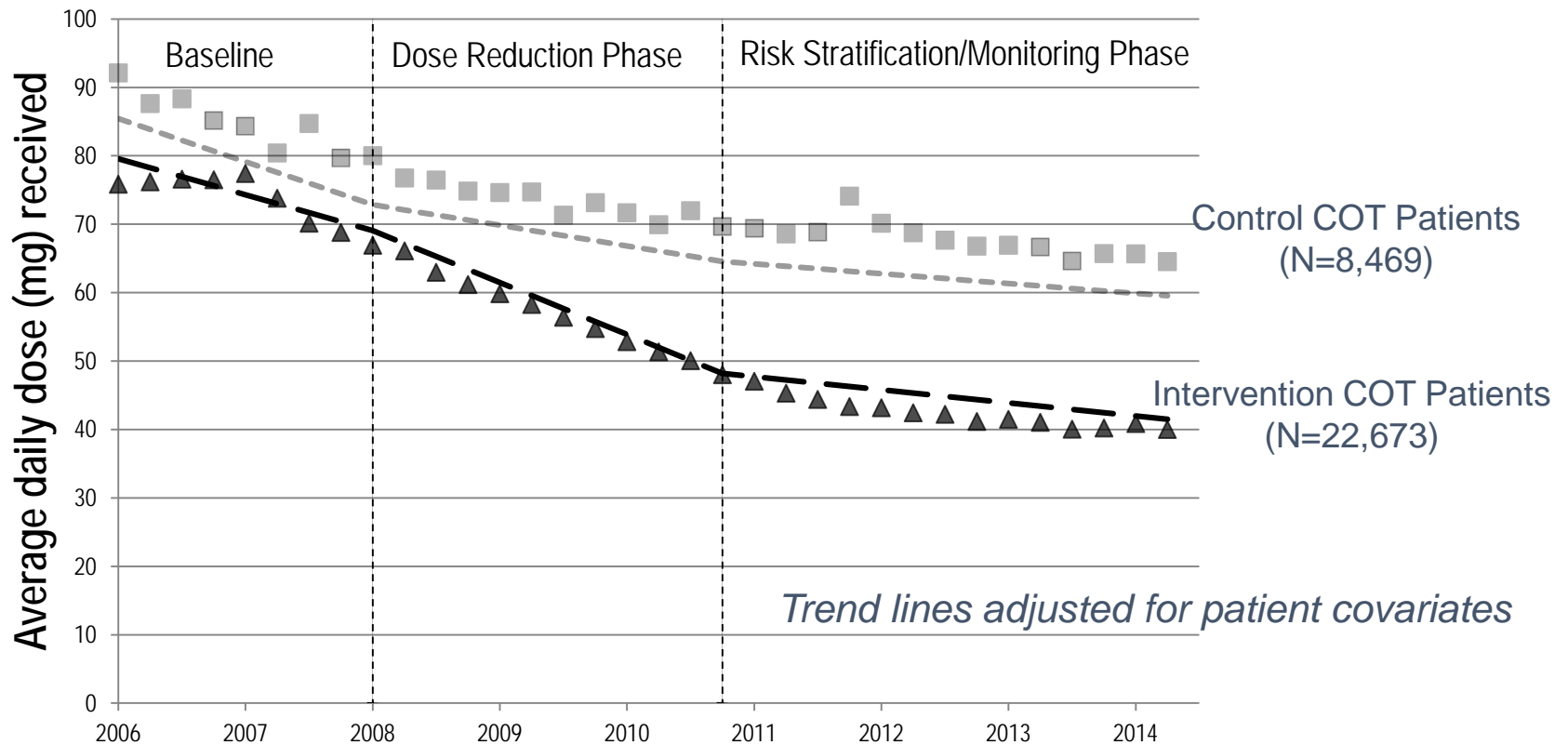
Opioid Prescribing and Management Trends: Intervention vs. Control Clinics

Trends in Number of COT patients

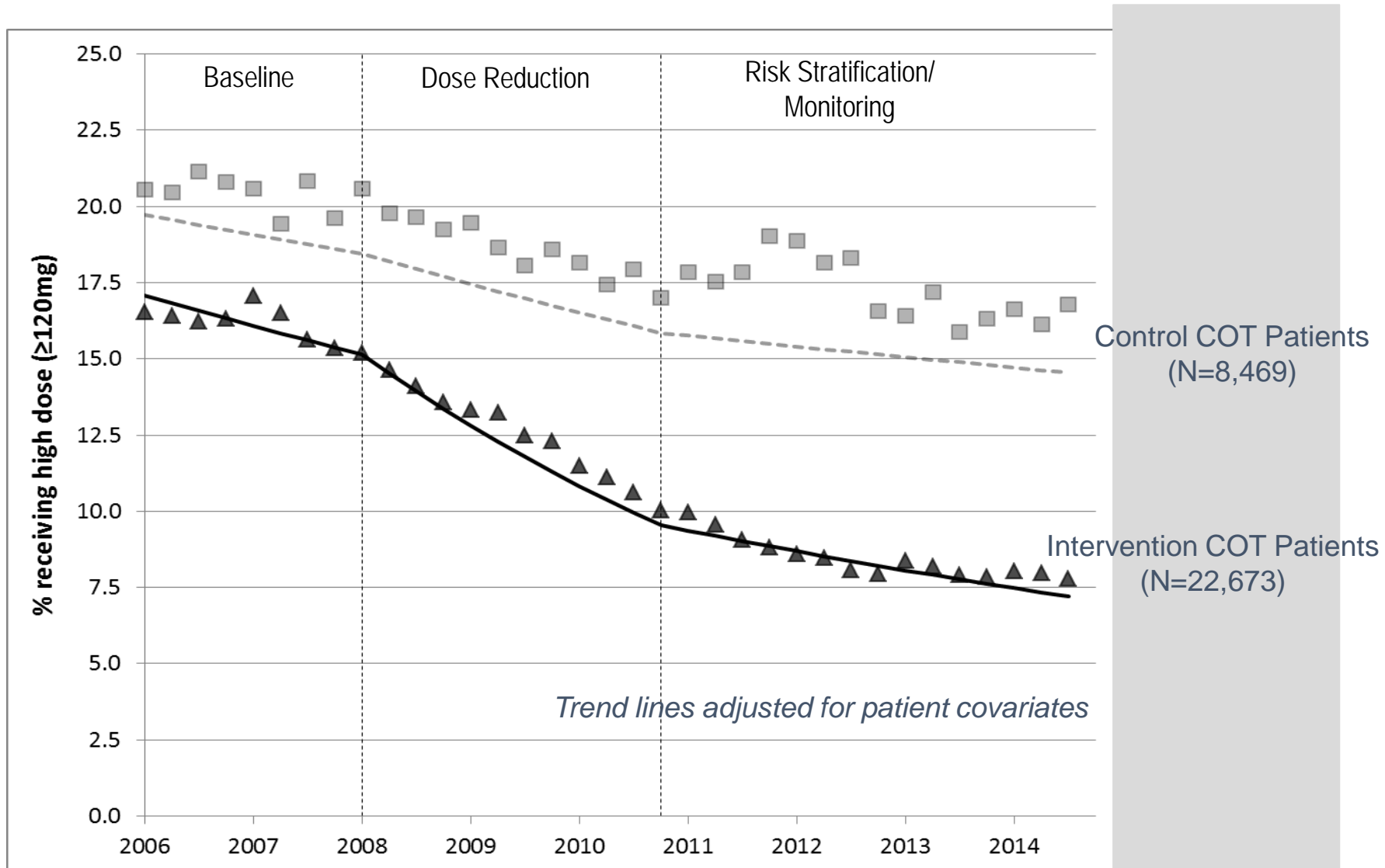


From 2006 to 2014, the percent of adults receiving COT increased from 1.9% to 2.7% in the Intervention Clinics and 1.4% to 2.8% in Control Clinics.

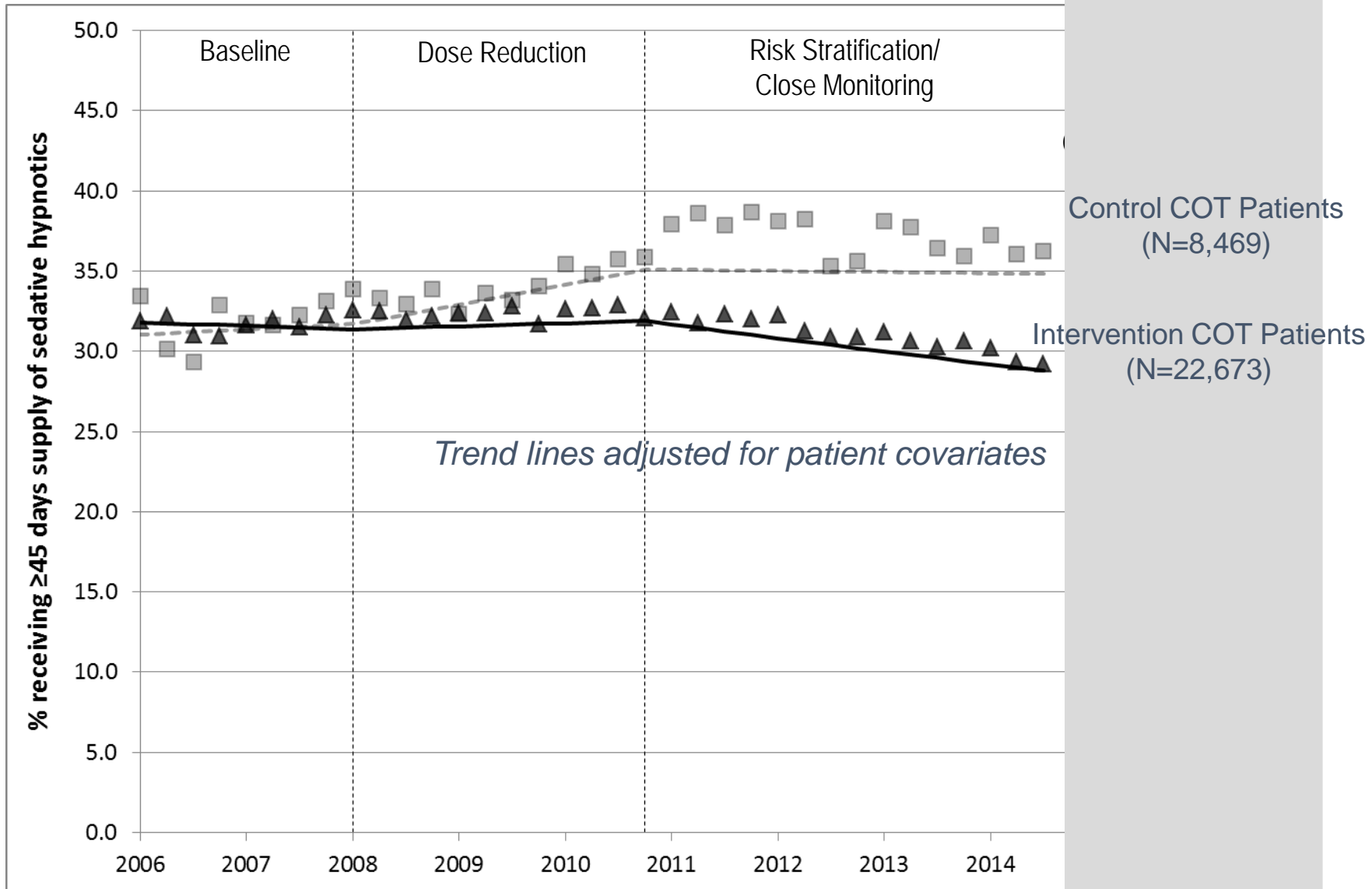
Trends in average daily morphine equivalent dose (MED) among COT patients in Intervention clinics were significantly lower than in Control clinics



Trend in percent of COT patients with average daily dose ≥ 120 mg. MED

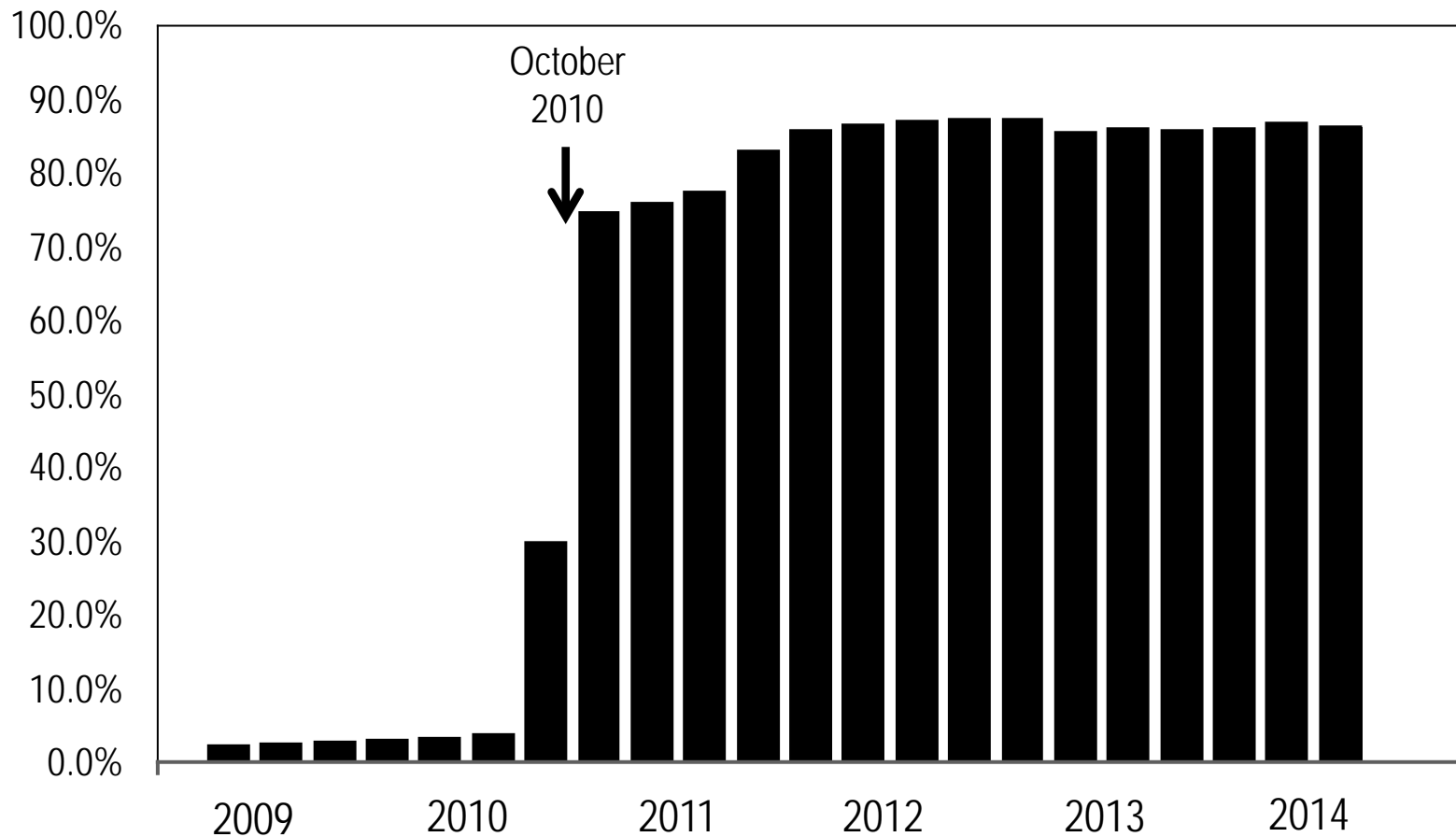


Trend in percent of COT patients with chronic sedative use (45+ days supply)



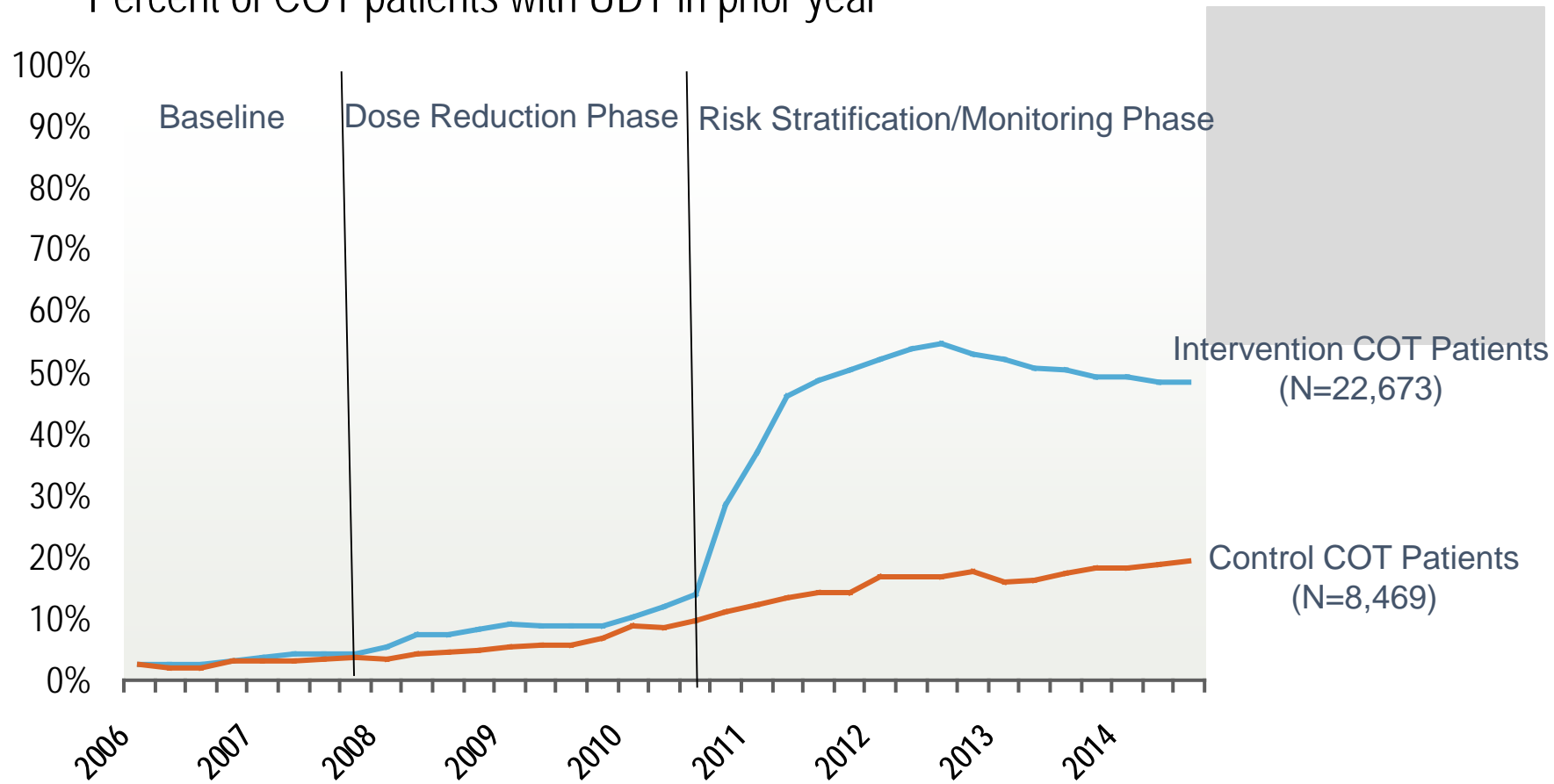
Trend in percent with COT care plans: Intervention clinic COT patients only

Percent of Intervention Clinic COT patients (N=22,673) with care plans



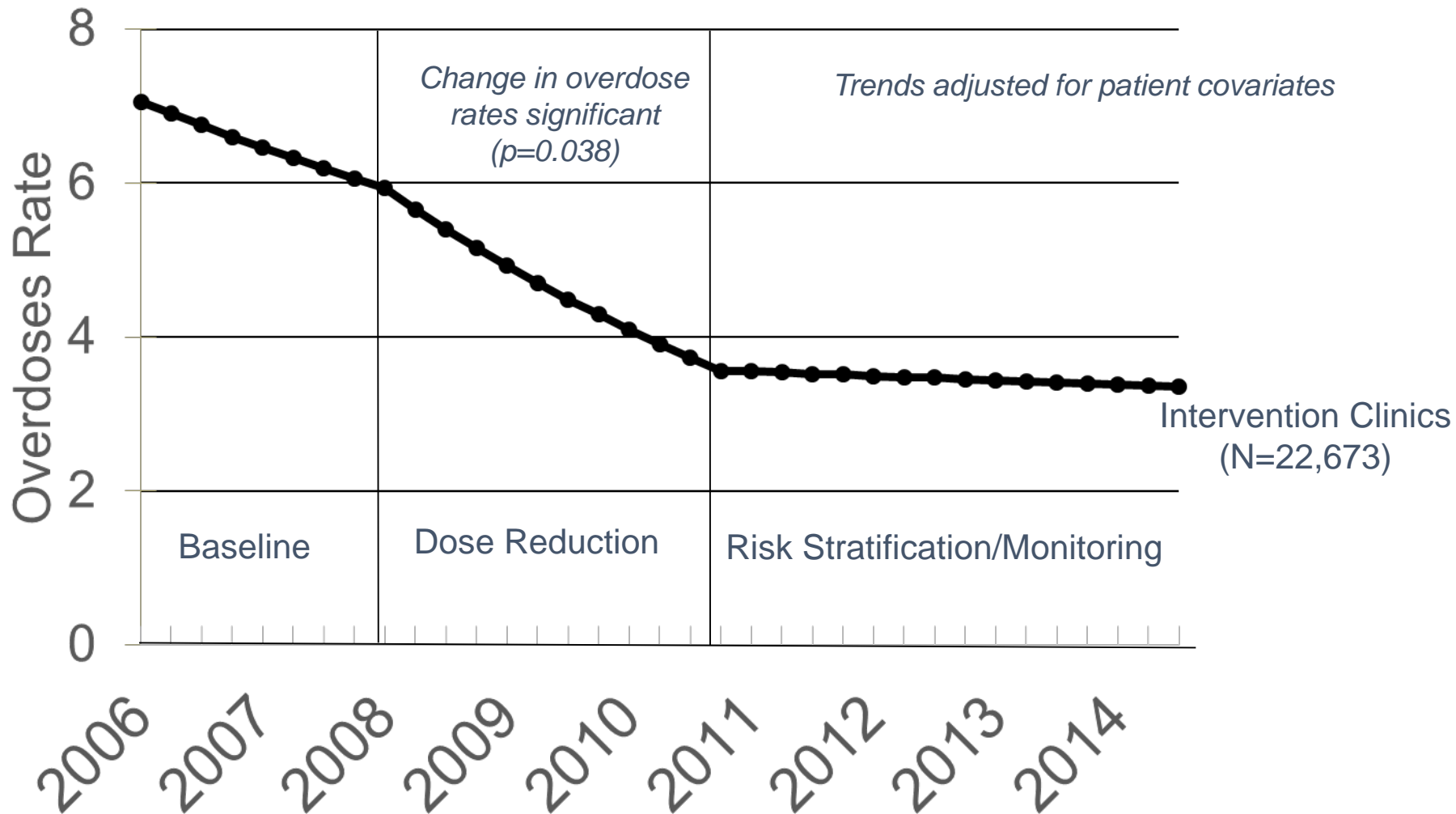
Percent of COT Patients with Urine Drug Test in Year

Percent of COT patients with UDT in prior year

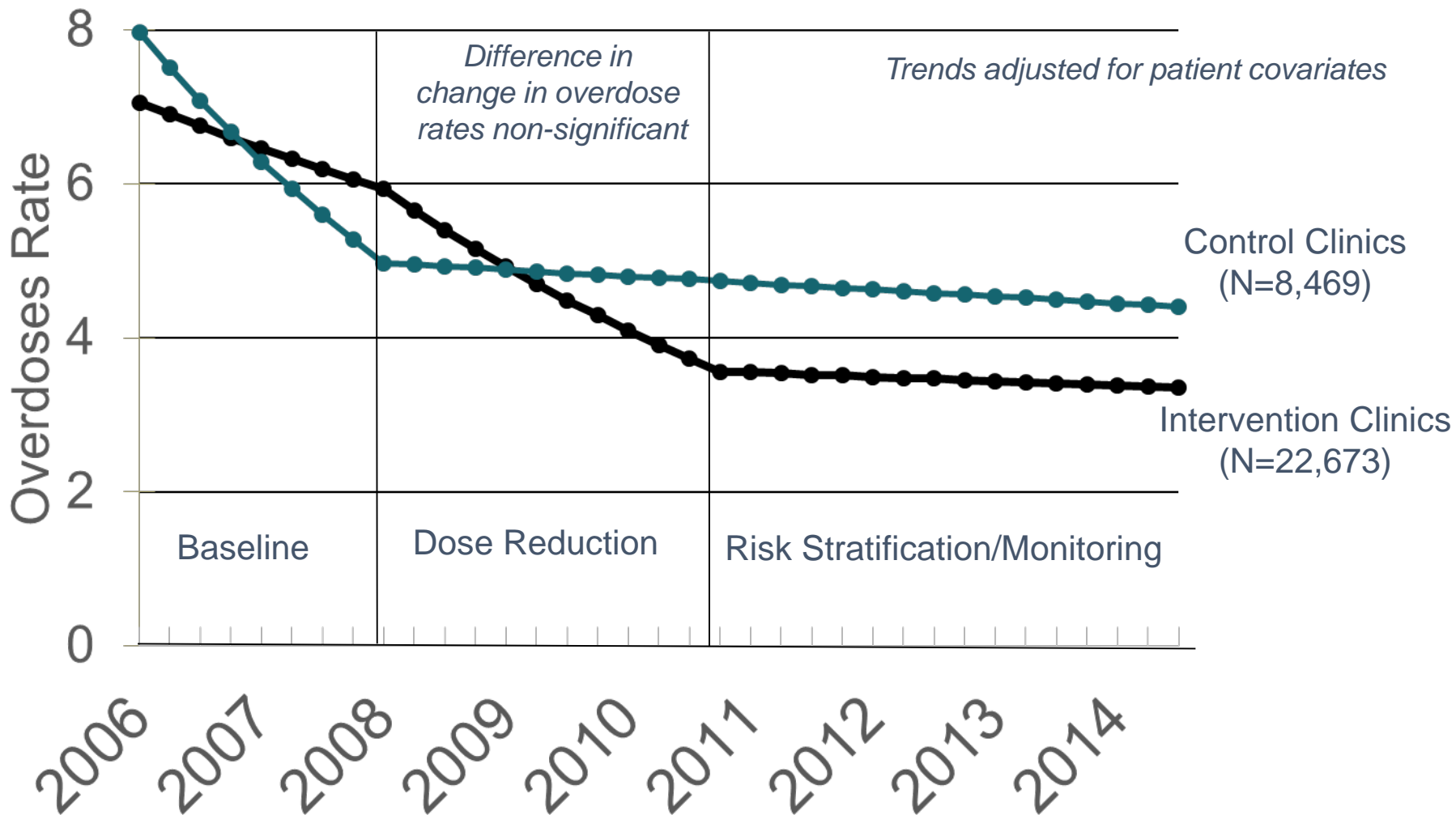


Trends in Opioid Overdose Rates Among COT Patients: Intervention vs. Control Clinics

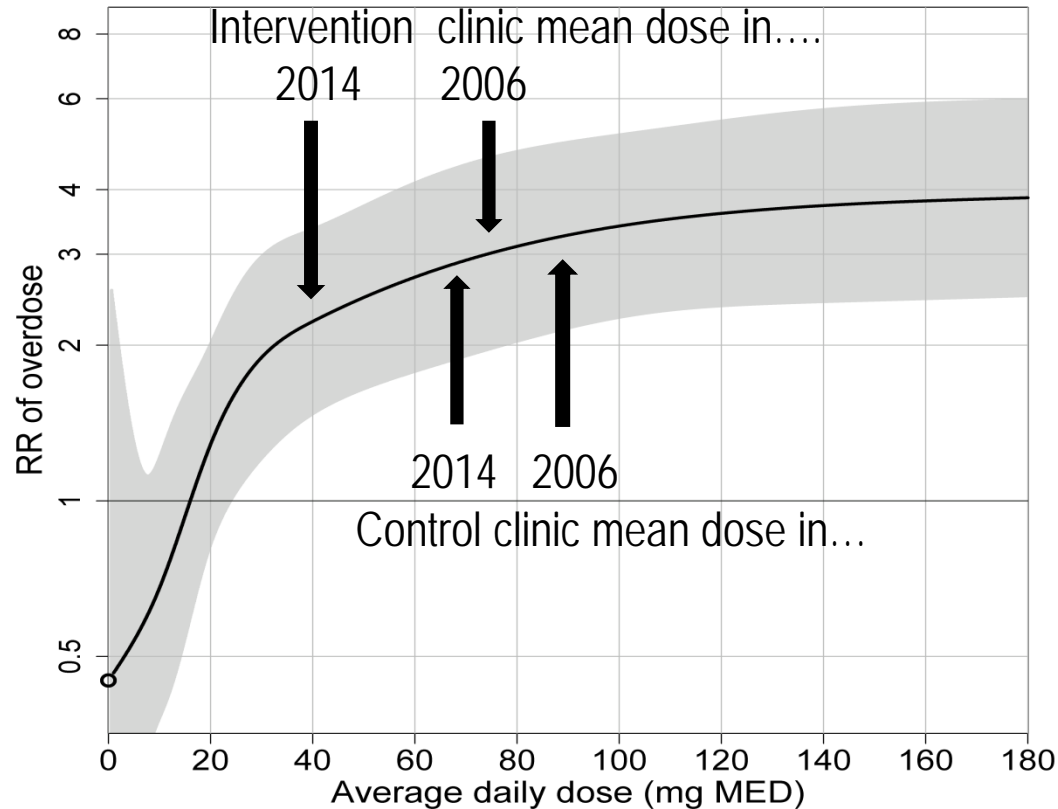
Trend in Opioid Overdose Rate (non-fatal & fatal) per 1,000 COT Patients per Year



Trend in Opioid Overdose Rate (non-fatal & fatal) per 1,000 COT Patients per Year



Relative risk of opioid overdose by average daily morphine equivalent dose



Dose reduction in Intervention clinics was not on a steep part of the dose-response curve for overdose risk

Patient Reported Outcomes
After Implementation of Dose Reduction & RS/M Initiatives:
Intervention vs. Control Clinics

PEG pain severity and interference ratings (0-10)

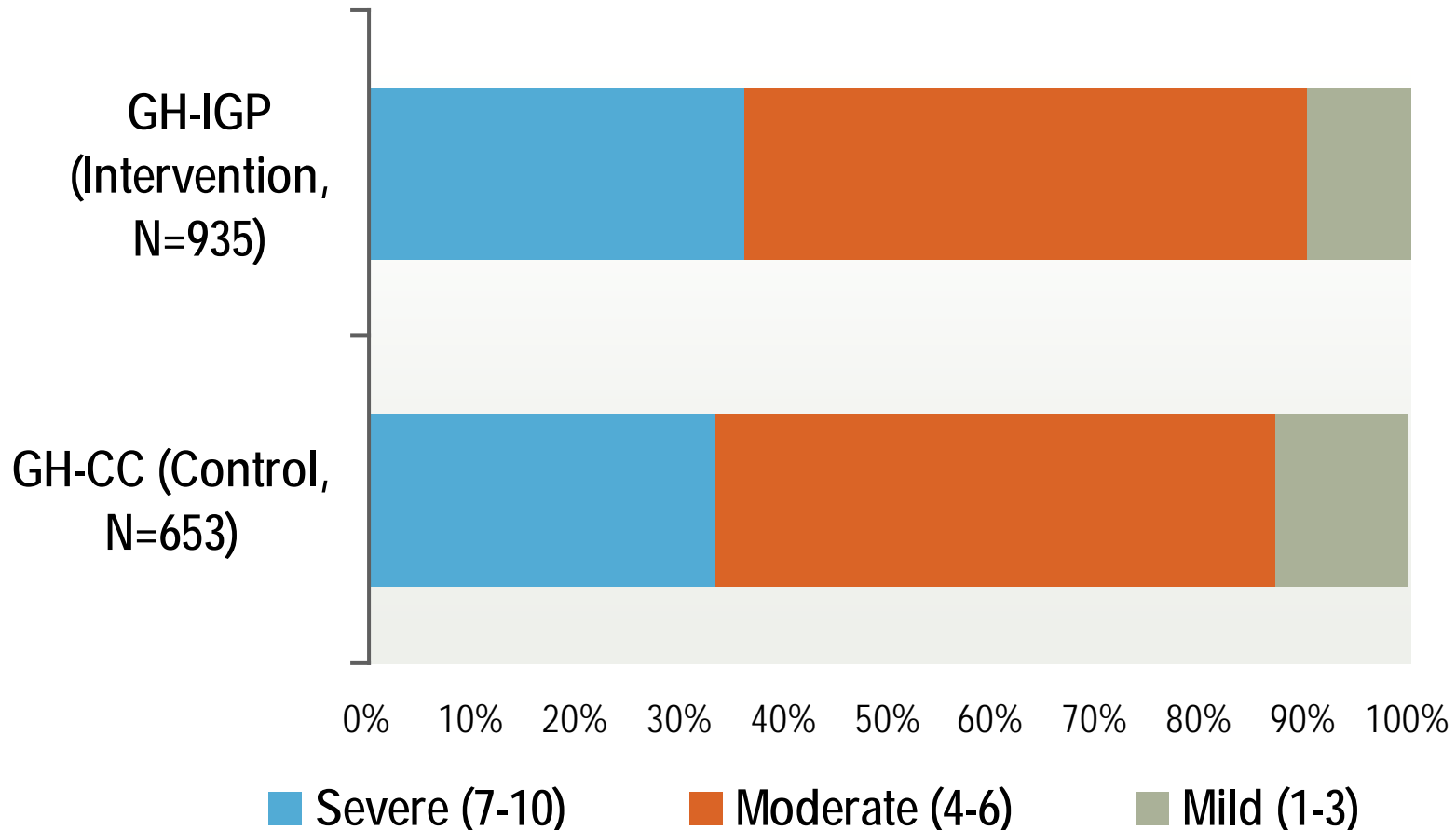
In the past 7 days, how would you rate your pain on average?

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
No pain										Worst Imaginable Pain

In the past 7 days, how much did pain interfere with your day-to-day activities?

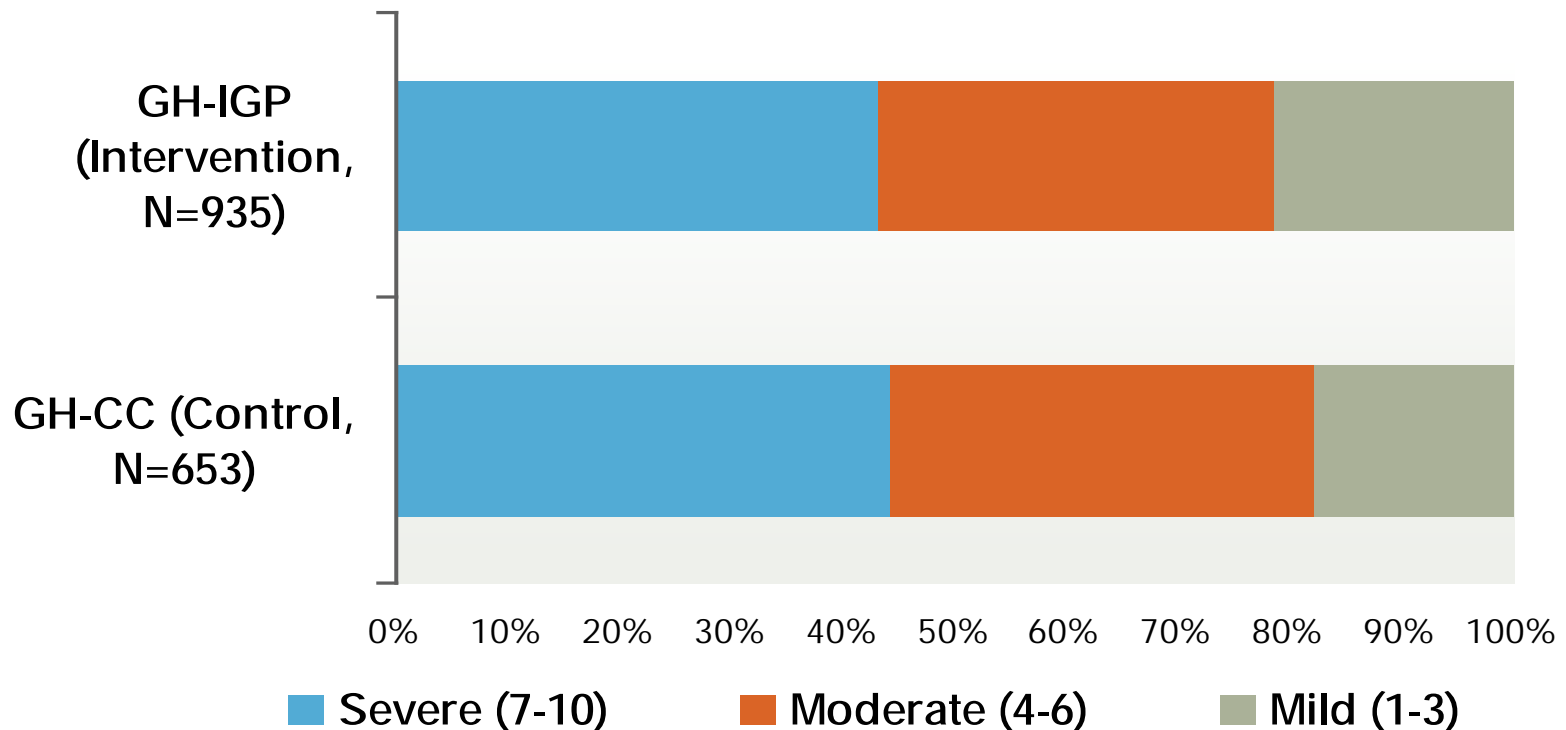
<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere at all										Completely interferes

PEG pain severity ratings (0-10) after implementation of dose reduction and risk stratification & monitoring initiatives



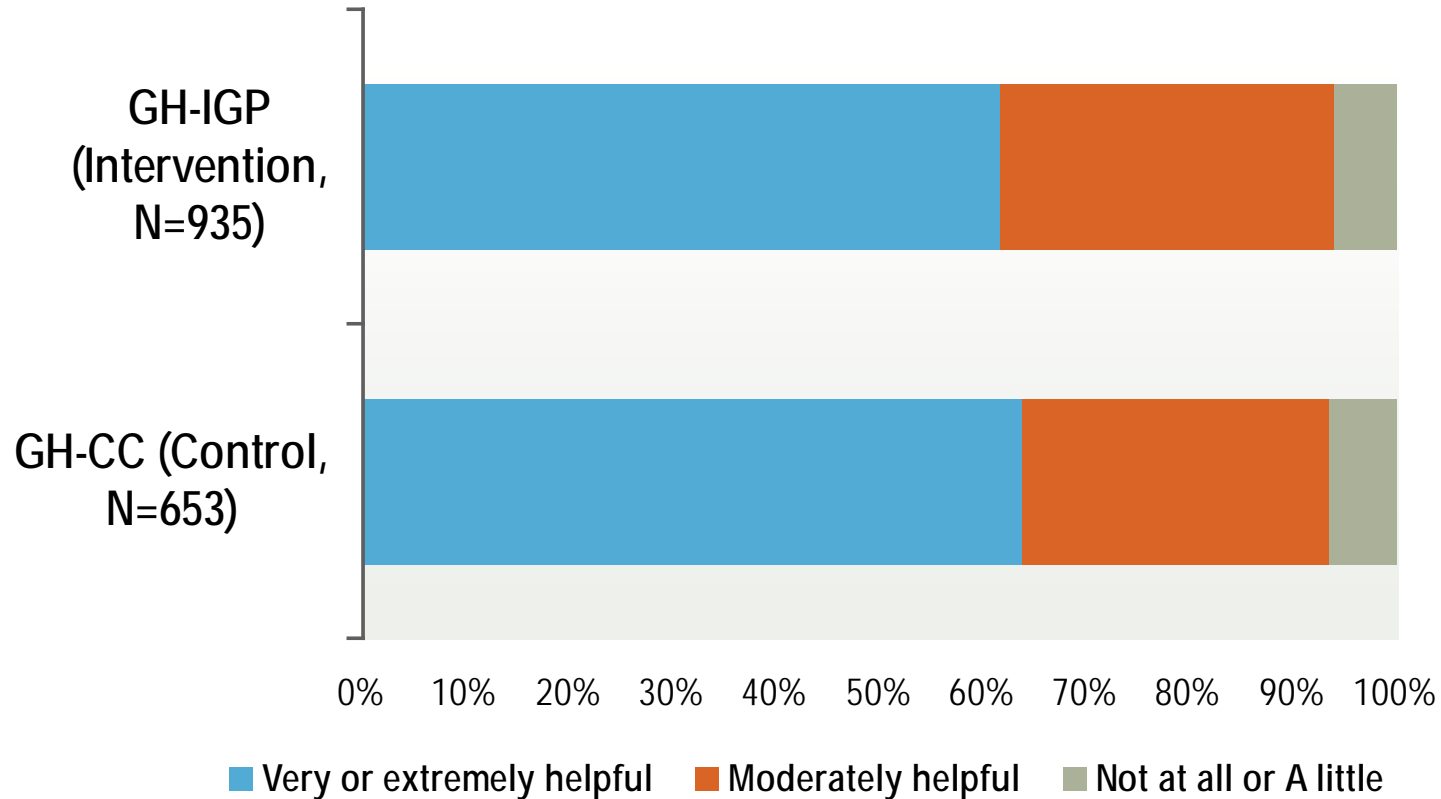
Covariate adjusted mean difference (Intervention minus Control) = 0.17 (95% CI= -0.02, 0.35)

PEG pain interference rating (0-10) after implementation of dose reduction and risk stratification & monitoring initiatives



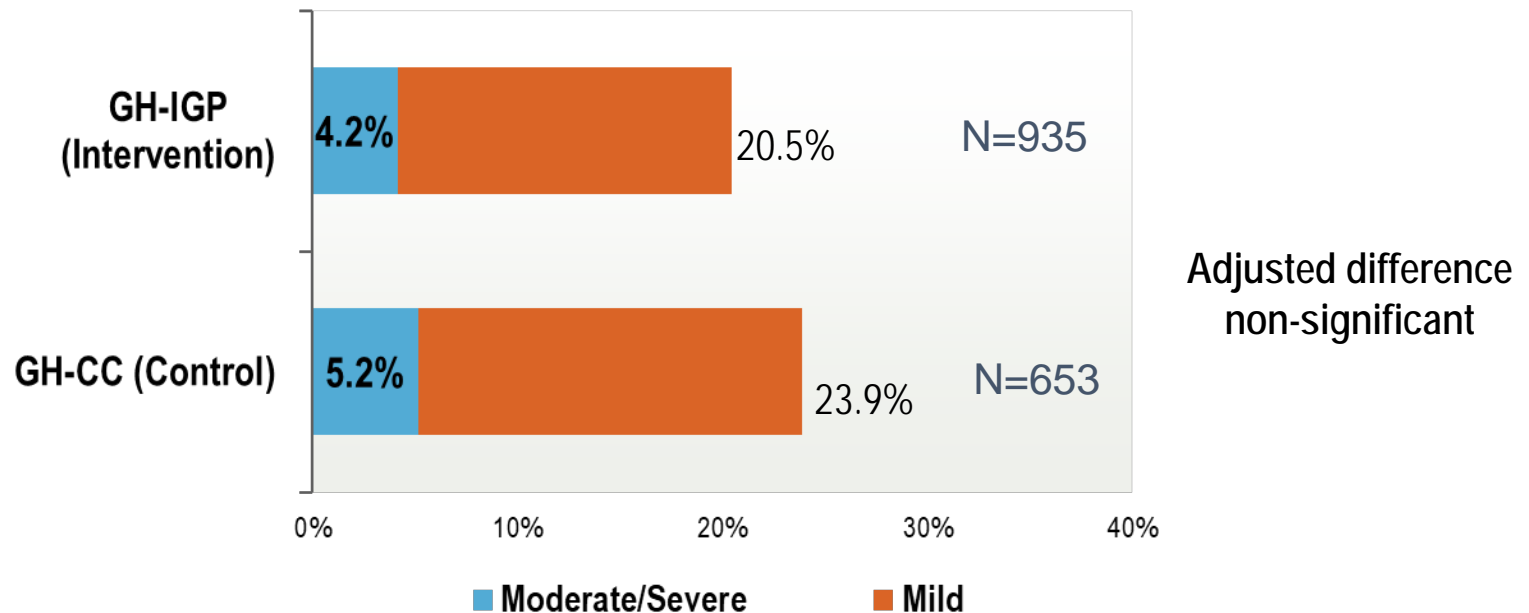
Covariate adjusted mean difference (Intervention minus Control) = -0.12 (95% CI= -0.40, 0.16)

Perceived helpfulness of opioids after implementation of dose reduction and risk stratification & monitoring initiatives



Covariate adjusted odds ratio for less perceived helpfulness of opioid for pain relief (Intervention compared to Control) = 1.11 (95% CI= 0.89, 1.40)

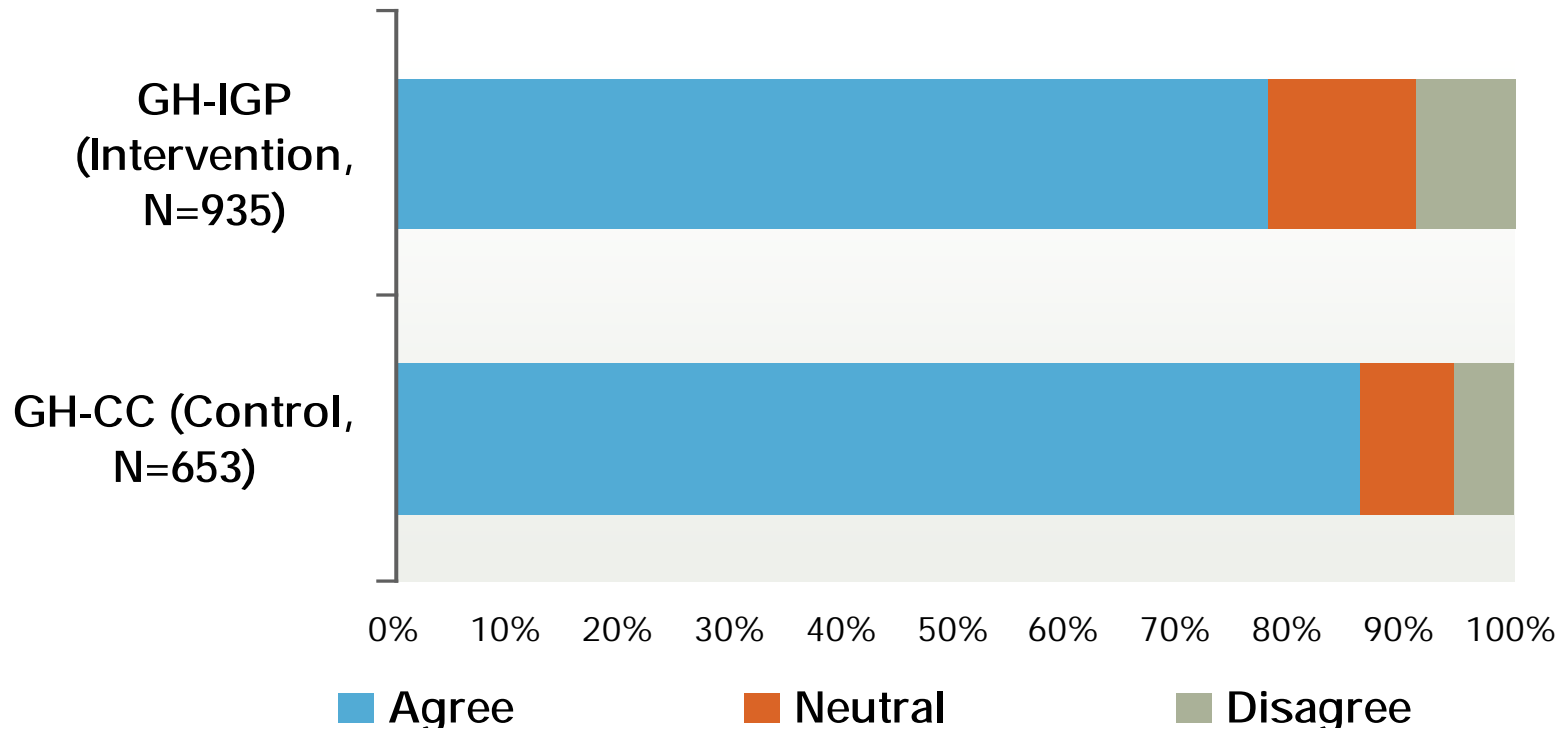
Percent with DSM5 prescription opioid use disorder after full implementation of both initiatives



Mild to moderate prescription opioid use disorder was common among COT patients in the IGP after full implementation of both risk reduction initiatives.

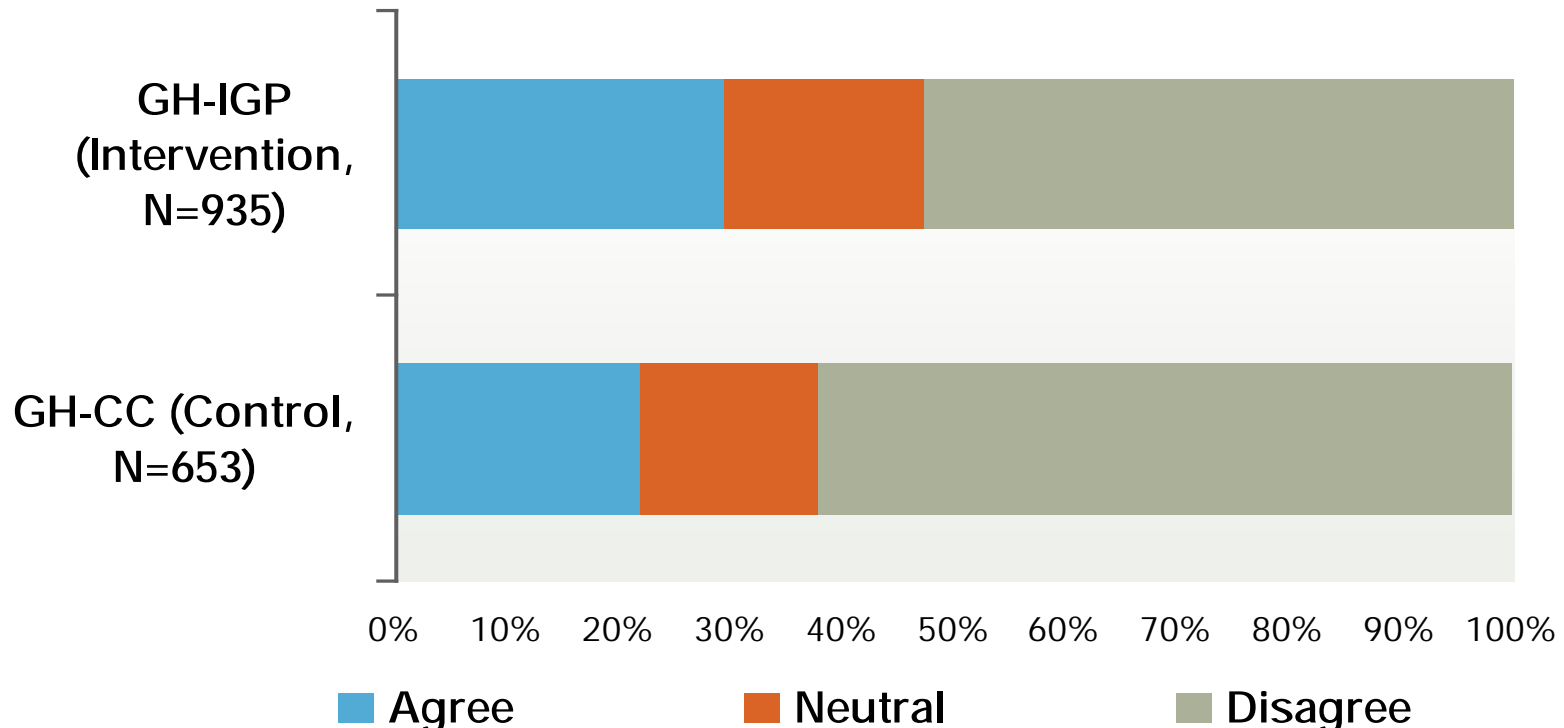
Patient rating:

"I trust my doctor's judgment in managing my opiate pain medicine"



Chi-square test $p < 0.001$

Patient rating: "I sometimes worry that my doctor will stop prescribing my opiate pain medicine."



Chi-square test $p=0.002$

Conclusions

- Intervention clinics lowered opioid doses and successfully implemented risk stratification and monitoring initiative. Changes were sustained long-term.
- Overdose rates may have declined after doses reduction, but evaluation results were inconclusive.
- The risk stratification and monitoring initiative did not lower overdose rates.
- Intervention COT patients had similar pain ratings to Control COT patients on higher doses. Patients typically reported moderate-severe pain.
- Prevalence of prescription opioid use disorder did not differ between COT patients in Intervention and Control clinics. Prescription opioid use disorder was common in both settings.
- COT patients in Intervention clinics had somewhat lower ratings of doctor-patient trust in opioid management than Controls.