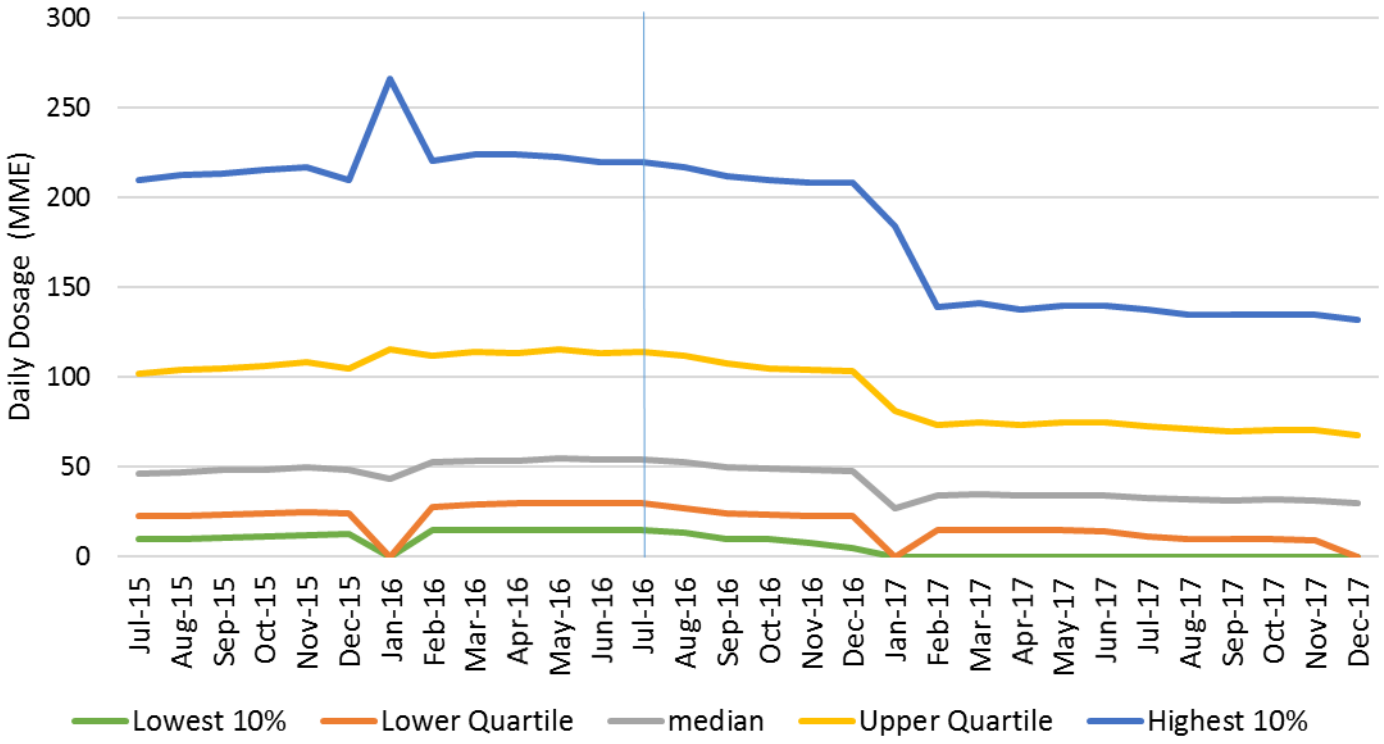
Rapid tapering of long-term opioid prescriptions in Washington state, January 2017.

Washington All-Payer Claims Database, 2015-2017

In 2016, the Centers for Disease Control (CDC) issued guidelines for primary care physicians prescribing opioids to patients with chronic pain,[1] and Washington state formally adopted the Washington State Opioid Response Plan.[2] In July 2016, a large Seattle-based pain clinic, with branch offices around the state, closed after the state of Washington suspended the license of its medical director. About 8,000 patients were affected by the closure. In this study, we identify a cohort of long-term opioid users in 2015 and 2016, and examine changes in their opioid prescriptions in 2017 following the closure of the pain clinic and the release of CDC guidelines.

Using prescription claims in the Washington All-Payer Claims Database, we identified a cohort of 30,934 members, age 18+, with opioid prescriptions for 324 or more days' supply (90% of days) between July 1, 2015 and June 30, 2016, and with continuous prescription drug coverage through December 2017. Of these, 21,151 were high dosage, with average daily prescription strength of 50 morphine-milligram equivalents (MME) or higher. Members with cancer diagnosis or hospice indication were excluded. We examined trends in monthly prescription strength.

Figure 1. Daily dosage in MME, showing median, upper and lower quartiles and upper and lower deciles.



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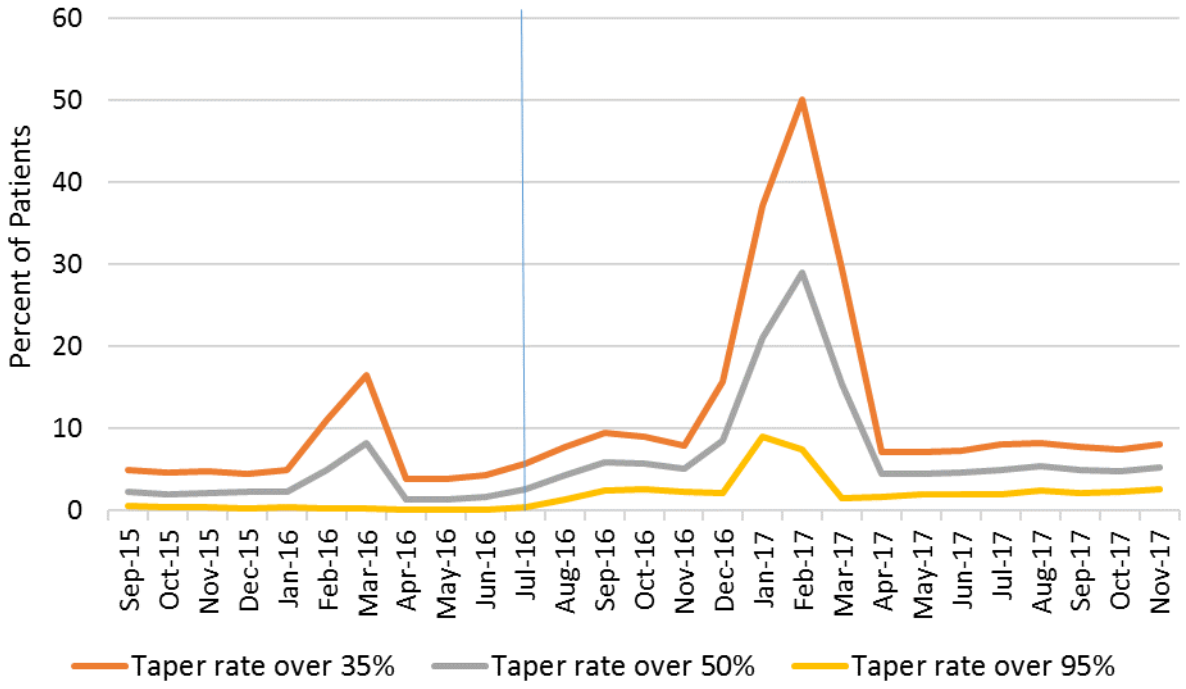
Statewide daily opioid dosages (figure 1) declined slightly from July – September 2016. The timing of this decline would suggest that it reflects the immediate impact of the clinic closure in July. Dosages declined precipitously at the start of 2017, with the greatest decline seen at higher dosages. Most changes in coverage and reimbursement policies are put into effect at the start of the calendar year. The dramatic shift in opioid prescription patterns in January and February 2017 likely reflects initiation of new policies at that time. Dosage percentiles also fluctuated temporarily in January 2016, but soon returned to previous levels, indicating that the sustained dosage reduction in 2017 reflects a unique event at that time, not merely an artifact of annual accounting.

Statewide changes in opioid prescriptions are seen at all dosage levels, but are most dramatic at higher dosage. This is a concern, because high-dosage patients are most at risk for adverse effects following rapid reduction or discontinuation of opioids.[3,4] When it is determined that the risks of continued high-dose opioid use outweighs the benefit for a particular patient, the CDC recommends that their dosage be tapered back at a rate no faster than 10% per week, 35% per month.[5] Monthly tapering rate for study population members with 50 MME daily dosage or higher was measured as the percent change in daily dosage compared to the previous month. We excluded cases where a dose reduction in one month immediately followed an increase of 15% or more in the previous month. Such instances were likely to represent a temporary effect, for example stocking up prior to travel, rather than a reduction in prescribed daily dosage.

Figure 2. Percent of high dosage opioid patients (50 MME daily dosage or higher) with unsafe tapering rates.



Monthly tapering rate among high dosage patients (average dose > 50 MME prior to July 2016) increased following the clinic closure in July 2016, and peaked sharply from January - March 2017 (Figure 1). The increase in unsafe tapering following July 2016 likely reflects pain clinic patients who were unable to have their prescriptions filled at the same dosage elsewhere. The spike in unsafe tapering after January 2017 is consistent with the hypothesis that new prescribing and reimbursement policies were put into effect the start of the new calendar year, resulting in abrupt reduction in many patients' prescribed dosages. A smaller spike in unsafe tapering is also seen in early 2016, indicating that other factors, such as difficulty meeting annual deductibles, may also have played a role.

Over half (56%) of all high dose opioid patients experienced a monthly tapering rate over 35%, at some time during the year from July 2016 – June 2017 (Table 1.). A third (33%) experienced a monthly tapering rate over 50%, and 4.5% had their opioid prescriptions effectively discontinued (taper rate over 95%). In the previous baseline year, July 2015 - June 2016, 27% experienced tapering over 35% in a month, 13% experienced tapering rate over 50%, and only 1% had their prescriptions discontinued. Tapering rates varied by payer, with Medicare and Medicaid Fee-For-Service patients most likely to experience unsafe tapering rates. Unsafe tapering among Medicaid Managed Care and commercial payers increased only slightly.

Table 1. Percent of high dosage patients (50 MME daily dosage or higher) experiencing unsafe tapering rates at some time during the year, before and after July 2016, by payer.

	Before: July 2015 - June 2016		
	Taper rate over 35%	Taper rate over 50%	Taper rate over 95%
Commercial	23	12	0.7
Medicaid Fee-For-Service	31	12	0.7
Medicaid Managed Care	23	11	0.7
Medicare	30	14	1.3
All Payers	27	13	1.0
	After: July 2016 - June 2017		
	Taper rate over 35%	Taper rate over 50%	Taper rate over 95%
Commercial	29	16	2.9
Medicaid Fee-For-Service	86	52	9.1
Medicaid Managed Care	29	16	4.7
Medicare	88	53	3.7
All Payers	56	33	4.5

Discussion:

Several confounding events occurred in the latter half of 2016 with potential to impact opioid prescribing patterns in Washington state – pain clinic closure, release of CDC and Washington state guidelines, and cultural shifts in the willingness of health professionals to prescribe high dose opioids. In this study, we examined the timeline of changes in opioid prescription fills to try to identify impacts of these developments. The study population was selected to represent established patients who were receiving continuous long-term opioid treatment for chronic pain management prior to July 2016.

Rapid decrease in prescription strength in January - March 2017, together with a high prevalence of unsafe tapering rates in the same time period is most consistent with the hypothesis that misinterpretation and heavy-handed application of guidelines by insurers, particularly Medicare and Medicaid, has led to unintended consequences for pain patients.[3,4] Changes in physician culture would likely produce a more gradual effect, and the impact of clinic closure had already been seen. While it is not possible to definitively establish causality in a time series, the fact that patients' opioid prescriptions were abruptly reduced immediately following the end of open enrollment, together with the differential tapering rates by payer suggests that the rapid changes observed in opioid prescription fills are mainly related to changes in Medicare and Medicaid policy at the start of calendar year 2017.

References:

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