



Insights from a multi-year improvement journey in system-wide patient-provider agreement completion for chronic opioid therapy

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Introduction

Guidelines for safe opioid prescribing recommend a myriad of elements to ensure safe and appropriate use.^{1,2} Patient-provider agreements (PPA) detail practices for patients and clinicians, aligning mutual expectations and patient care.³

Tracking annual patient-provider agreement (PPA) completion and chronic opioid treatment (COT) across a large integrated health system is challenging and little is published on this opioid safety intervention. This retrospective study illustrates the monthly incidence of COT, the % of patient-provider agreement completion for this population, and the tactics deployed to augment performance in a multiyear improvement journey.

Methods

After Endeavor Health IRB approval, analysis was completed of prospectively collected prescribing and PPA completion data from 10/01/2019 to 12/31/2022. Four key periods are demarcated by 4 improvement tactics (P1-P4) that were deployed at specific times and represented in the data set:

- I. Change to annual PPA completion requirement
- II. Implementation of PPA Completion Best Practice Alert for clinicians and staff
- III. Creation of a .smartphrase and searchable data element for virtual PPA completion
- IV. Data reporting of care gaps to clinical teams.

- Patients 18 or older who received at least three opioid prescriptions in the prior 12 weeks define the PPA-eligible denominator.
- Patients in that cohort with a PPA completed in the prior 12 months comprised the numerator.
- Descriptive analysis was used to evaluate percentage change over time between P1-P4. Linear regression was performed to assess trends in the rate of change in prescribing longitudinally.

Results

Figure 1: Pain agreement completion rates (October 2019 through December 2022)

Variable	Beta Coefficient (B)	Standard Error (SE)	P-Value
Period 1 (P₁): Changed PPA-activation requirement from one-time to annually	B	SE	P-value
Intercept	10.17	0.87	0.0003
Time	1.88	0.22	0.0011
Period 2 (P₂): Created PPA BPA to alert MD and clinical staff that PPA is due or expired for ≥90 days	B	SE	P-value
Intercept	20.02	0.89	<.0001
Time	-0.51	0.20	0.0493
Period 3 (P₃): Created PAINAGREEMENT .smartphrase	B	SE	P-value
Intercept	26.52	2.41	<.0001
Time	3.56	0.31	<.0001
Period 4 (P₄): Began sending monthly reports to FM/IM practice managers with patients due for PPA at their next office visit	B	SE	P-value
Intercept	62.36	0.97	<.0001
Time	-0.06	0.06	0.3223

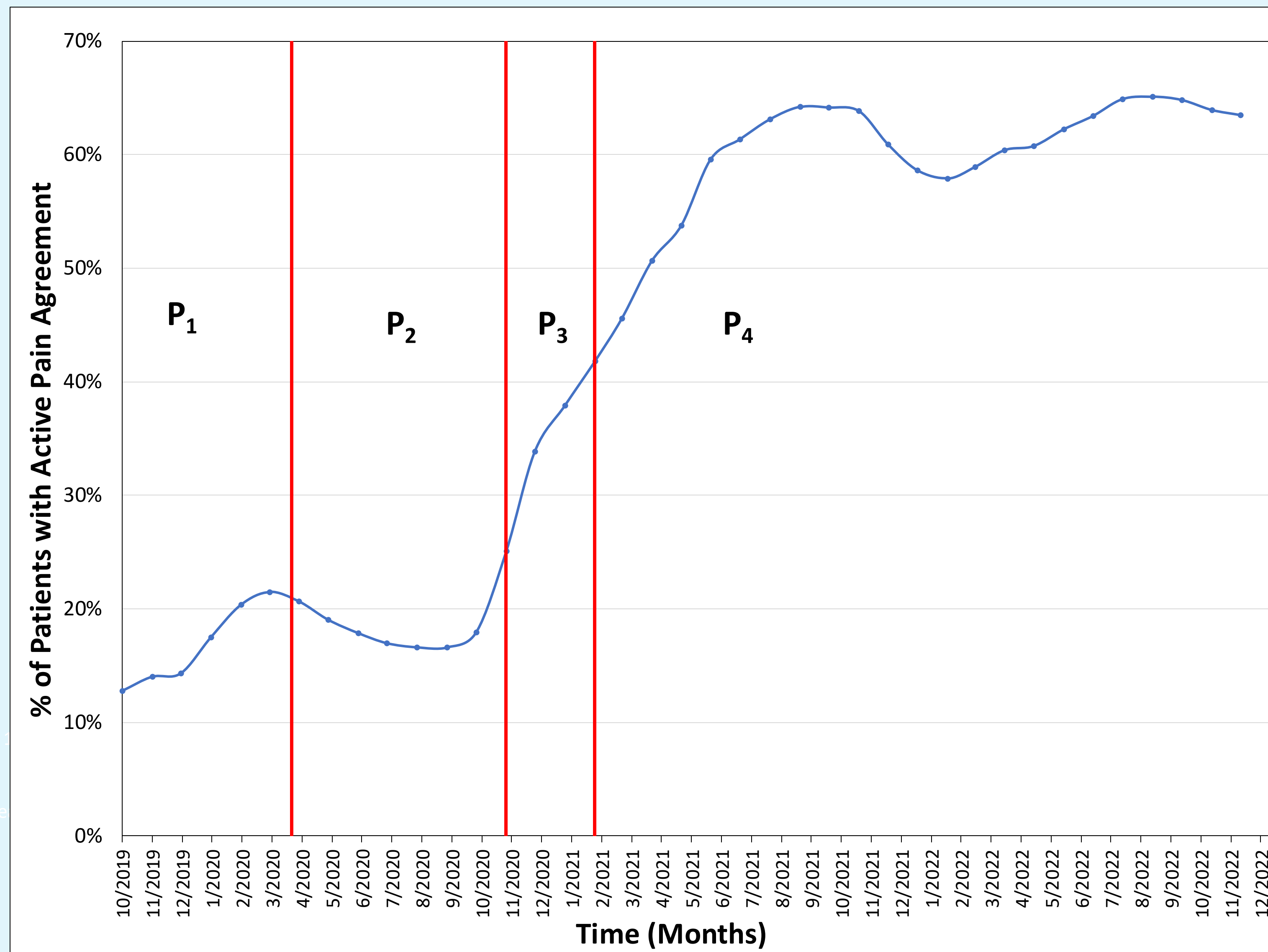
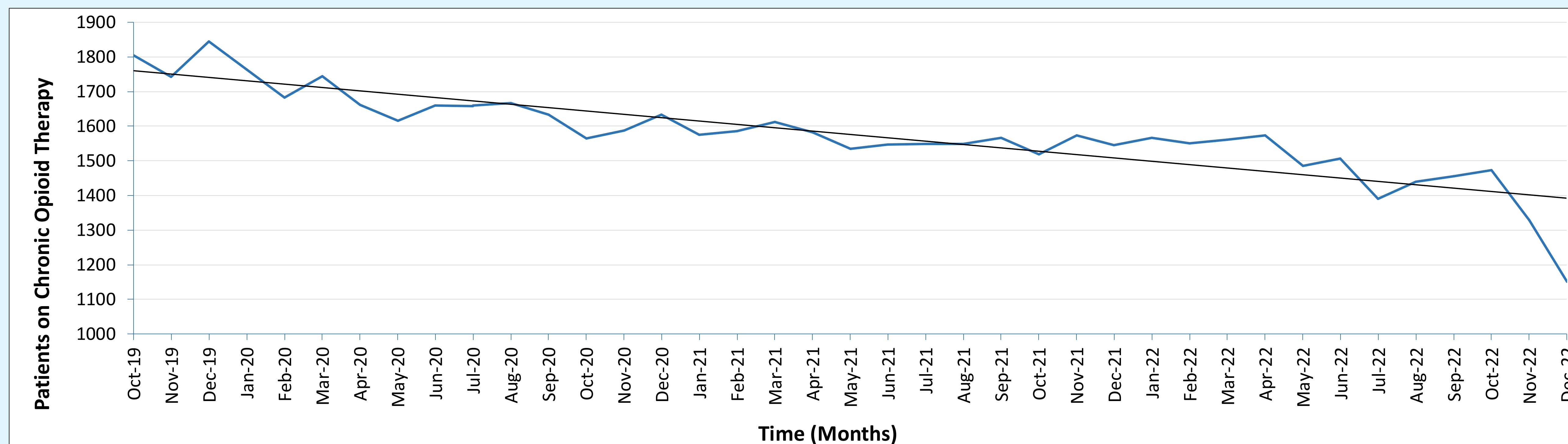


Figure 2: Longitudinal trend in patients on chronic opioid therapy across the Endeavor Health system



Discussion

- The deployment of the .smartphrase (P3) resulted in the most significant change in PPA completion with a 40% increase in rate of completion.
- Access to standardized PPA documentation with a .smartphrase serving as a searchable data element enabled this safety practice for both patients and providers.
 - This new process was utilized in tele-visits and was a critical workflow change during the COVID pandemic. Prior to this, PPA completion could solely be completed via an in-person, face-to-face workflow.
 - This option remained highly utilized with the return to in-office care.
 - While COT was reduced by a statistically significant 35% from the beginning to the end of the cohort, this trend may also have been influenced by other factors such as national prescribing trends.

In summary, annual completion of a PPA for COT was influenced by multiple factors: clinician engagement, improvement prioritization by system leadership, analytic support for data tracking and reporting, informatics alerts, accessible workflows for completion, and monthly performance score card tracking. Future work should examine functional outcomes in patients receiving COT as well as trends in prescribing

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