

**[Thedoctorpatientforum.com/Resources/DPFResearchandDocuments](https://www.thedoctorpatientforum.com/dpf-research/517-table-of-recent-studies-and-statistics-regarding-chronic-pain-and-opioids)**

**Table of Recent Studies, Research, Statistics**

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| # | Topic | Date of Pub | Statistic/Results | Source (Title) and Link |
| 1 | Association b/w long term Rx opioid treatment for non-cancer pain and initiation of injection drug use (IDU) in people w/o history of substance use | 11/18/21 | Rate of IDU within 5 years.*Chronic use* – 4%*Episodic use* – 1.3%*Acute use* - .7% | “Prescription opioid treatment for non-cancer pain and initiation of injection drug use: large retrospective cohort study”<https://www.bmj.com/content/375/bmj-2021-066965.long> |
| 2 | Decrease in opioid prescribing in the past decade | 9/21/21 | There has been a 44.4% decrease in opioid prescribing nationwide in the past decade. | “Report shows decreases in opioid prescribing, increase in overdoses”<https://www.ama-assn.org/press-center/press-releases/report-shows-decreases-opioid-prescribing-increase-overdoses>“2021 OVERDOSE EPIDEMIC REPORT Physicians’ actions to help end the nation’s drug-related overdose and death epidemic —and what still needs to be done.”<https://end-overdose-epidemic.org/wp-content/uploads/2021/09/AMA-2021-Overdose-Epidemic-Report_92021.pdf> |
| 3 | Rate of overdose deaths from 2013-2019 | 2/12/21 | From 2013-2019, the synthetic opioid-involved death rate increased by 1040% | “Trends and geographic patterns in drug and synthetic opioid overdose deaths- USA 2013-2019”<https://www.cdc.gov/mmwr/volumes/70/wr/mm7006a4.htm> |
| 4 | Rate of increase in overdose deaths from 2020-2021 | 11/17/21 | “There were an estimated 100,306 drug overdose deaths in the USA during 12-month period ending in April 2021, an increase of 28.5% from the 78,056 deaths during the same period the year before” | “Drug Overdose Deaths in the U.S. Top 100,000 Annually<https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm> |
| 5 | Relationship between the amount of opioids and injury-related mortality, including unintentional deaths, suicides, and homicides | 3/9/21 | “There is not a direct association between prescription opioids and injury-related mortality, including unintentional deaths, suicides, and homicides.” | “Opioids and injury deaths: A population-based analysis of the United States from 2006-2017”[https://www.injuryjournal.com/article/S0020-1383(21)00233-3/fulltext](https://www.injuryjournal.com/article/S0020-1383%2821%2900233-3/fulltext) |
| 6 | Accuracy of CDC’s date counting prescription opioid deaths | 3/24/21 | In a 2018 report titled *“Quantifying the Epidemic of Prescription Opioid Overdose Deaths*,” four senior analysts of CDC acknowledged that the # of Rx opioid OD deaths reported by the CDC in 2016 was erroneous, caused by miscoding deaths involving illicit fentanyl as deaths involving Rx fentanyl.” | “CDC’s Efforts to Quantify Prescription Opioid Overdose Deaths Fall Short”<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7987740/> |
| 7 | Opioid use disorder and overdose among youth following an initial opioid prescription | 3/19/21 | During the year after they filled an opioid prescription:*Rate of an opioid-related complication prescription*: .3%*Rate of OUD diagnosis*: .26%*Opioid related OD*: .04% | “Opioid Use Disorder and Overdose Among Youth Following an Initial Opioid Prescription.”<https://pubmed.ncbi.nlm.nih.gov/33739476/> |
| 8 | Rate of misuse or overdose in postsurgical prescriptions for opioid naïve patients | 1/17/18 | Members were followed for median of 2.67 yearsRate of opioid misuse: .6%, .2% occurring within one year after surgery | “Postsurgical prescriptions for opioid naïve patients and association with overdose and misuse: retrospective cohort study”<https://www.bmj.com/content/360/bmj.j5790> |
| 9 | Efficacy of opioids in chronic pain | 5/3/18 |  “There is an ample evidence base supporting the efficacy of opioid analgesics for at least 3 months’ duration, a standard period for the evaluation of treatments for chronic pain and other chronic disorders.”“This evidence base is at least as large as that for any other class of analgesics, and analysis of responders demonstrates clinically meaningful improvements.” | “Efficacy of opioid versus placebo in chronic pain: a systematic review and meta-analysis of enriched enrollment randomized withdrawal trials”<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5939920/> |
| 10 | Association of opioid tapering with risk of OD or mental health crisis | 8/3/21 | “Among patients prescribed stable, long-term, higher-dose opioid therapy, tapering events were significantly associated with increased risk of overdose and mental health crisis.” | “Association of Dose Tapering With Overdose or Mental Health Crisis Among Patients Prescribed Long-term Opioids”[**https://jamanetwork.com/journals/jama/article-abstract/2782643?guestAccessKey=a13d0857-892c-4c51-b888-0412f36c9640&utm\_source=For\_The\_Media&utm\_medium=referral&utm\_campaign=ftm\_links&utm\_content=tfl&utm\_term=080321**](https://jamanetwork.com/journals/jama/article-abstract/2782643?guestAccessKey=a13d0857-892c-4c51-b888-0412f36c9640&utm_source=For_The_Media&utm_medium=referral&utm_campaign=ftm_links&utm_content=tfl&utm_term=080321) |
| 11 | Association of stopping opioid prescriptions and overdoses or suicides in US veterans due to the OSI (Opioid Safety Initiative) | 8/14/21 | “a sizable group of veterans, particularly those living in rural areas, have suffered as a result of a stricter opioid environment (after many years of relatively lax opioid policies). Our findings suggest that policies that swiftly and significantly curtail opioid prescriptions should be approached with great caution.”“The increased suicides we found were unlikely to have been offset by lives saved by other means as a result of the program.” | A program tried to cut opioid addiction among veterans. Did it cause suicides?<https://www.washingtonpost.com/outlook/2021/08/24/opioids-veterans-suicides-interventions-safety/> |
| 12 | Rate of PDMP use by prescribers | 9/21/21 | PDMP use has increased from 61.5 million in 2014 to 910.6 million in 2020 | “Prescription drug monitoring program national survey”<https://end-overdose-epidemic.org/wp-content/uploads/2021/09/AMA-fact-sheet-PDMP-2014-2020-blue-FINAL.pdf>“2021 OVERDOSE EPIDEMIC REPORT Physicians’ actions to help end the nation’s drug-related overdose and death epidemic —and what still needs to be done.”<https://end-overdose-epidemic.org/wp-content/uploads/2021/09/AMA-2021-Overdose-Epidemic-Report_92021.pdf> |
| 13 | Since mandating PDMP use, overdose deaths have skyrocketed | 7/29/21  | “This study finds that Prescription Drug Monitoring Programs fail to reduce opioid overdoses and increase the use of black-market opioids” | “Prescription Drug Monitoring Programs: Effects on Opioid Prescribing and Drug Overdose Mortality”<https://reason.org/policy-study/prescription-drug-monitoring-programs-effects-on-opioid-prescribing-and-drug-overdose-mortality/>“Prescription drug monitoring programs: PDMP effects on opioid prescribing and drug overdose mortality.”<https://reason.org/wp-content/uploads/prescription-drug-monitoring-programs-effects-on-opioid-prescribing-and-drug-overdose-mortality.pdf> |
| 14 | No correlation between Prescription Opioid Deaths, Opioid Treatment Admissions/addiction and Prescription Opioid Sales from 2010-2019 | 8/4/22 | “The analyses revealed that the direct correlations reported by the CDC (of prescription opioid sales/opioid treatment admissions/opioid deaths) based on data from 1999-2010 no longer exist. Based on data from 2010-2019 the relationships have either reversed or are non-existent.”“The guideline, guideline update, CDC’s public, medical profession, and intergovernmental communications should be correlated/updated to state no direct correlation has existed between prescription opioid sales, opioid treatment admissions, any opioid overdose death, prescription opioid overdose death, and total overdose death since 2010.” | “Overdose, opioid treatment, admissions, and prescription opioid pain reliever relationships: United States, 2010-2019”<https://www.frontiersin.org/articles/10.3389/fpain.2022.884674/full> |
| 15 | Relationship between discontinuation of prescription opioids and accidental overdose death | 7/2023 | “Consistent with prior research, our findings suggest prescription opioid analgesics may protect against fatal overdoses.” | Buprenorphine and opioid analgesics: Dispensation and discontinuity among accidental overdose fatalities in the Indianapolis metropolitan area, 2016–2021<https://www.sciencedirect.com/science/article/abs/pii/S2949875923001030>[pdf of full study](file:///C%3A%5CUsers%5Cbevsc%5CDownloads%5CBuprenorphine%20and%20opioid%20analgesics_%20Di..%20%282%29.pdf) |
| 16 | Effectiveness of Long-term opioid therapy for chronic pain in an outpatient palliative medicine clinic | 8/8/23 | “This QI project presents evidence that providing ongoing palliative care over a four-year timeframe offers through lasting treatment-related reduction in pain intensity, preservation of performance status, and reduction in overall overdose risk”“Our findings also call attention to the common policy practice of distinguishing cancer from noncancer pain and begs the question of “whether it is science or politics that that demands there be a difference.” | “Effectiveness of Long-term opioid therapy for chronic pain in an outpatient palliative medicine clinic”<https://www.liebertpub.com/doi/10.1089/jpm.2023.0251> |
| 17 | Risk of long-term use following a prescription of opioids | 8/10/23 | “In this population-based cohort study of 3.47 million adults, 5 trajectories of opioid use were identified. Approximately 3% of individuals were classified to the sustained use trajectory group, which was characterized by individuals with older age, a higher number of comorbidities, and higher use of psychotropic and other analgesic drugs and health services vs other trajectory groups."“Results of this cohort study suggest that most individuals commencing treatment with prescription opioids had relatively low and time-limited exposure to opioids over a 5-year period. “ | “Five-Year Trajectories of Prescription Opioid Use”<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2808144> |
| 18 | False Positive UDT – percentage of false positives for differentclasses of drugs | 11/16/16 | “We found the PPV of cannabinoid and cocaine screening results to be 100% in the limited number of cases (19 and 27, respectively) submitted for confirmation. The PPV for opiate screening results also was quite high at 86.8%. For the benzodiazepine screen, the PPV was 74.6% and the oxycodone screen had a PPV of 67.6%. Unsurprisingly, the PPV for the amphetamine screen was very low: 9.3%. The most unexpected finding was the low PPV of the methadone screen: 44.1%. The low PPV for methadone prompted us to implement a policy of confirming all unexpected positive methadone screening results.”  | Predictive Value of Positive Drug Screening Results in an Urban Outpatient Population  [https://academic.oup.com/jat/article/40/9/726/252744 9?login=false](https://academic.oup.com/jat/article/40/9/726/2527449?login=false)  |
| 19 | Frequency of Persistent Opioid Use 6 Months After Exposure to IV Opioids in the Emergency Department | 8/2024 | “In conclusion, among 506 opioid naïve ED patients administered IV opioids for acute severe pain, only one used opioids persistently during the subsequent 6 months. Our findings suggest that the use of IV opioids for acute pain in the ED is extremely unlikely to lead to opioid use disorder.” | “Frequency of Persistent Opioid Use 6 Months After Exposure to IV Opioids in the Emergency Department: A Prospective Cohort Study”<https://www.sciencedirect.com/science/article/abs/pii/S0736467924000805> |
| The following studies are about involuntary opioid tapering/cessation and effects on patients – risk of harm (OD and/or suicide) |
| 1 | Long-term risk of adverse events after opioid tapering | 6/13/22 | “These findings suggest that opioid tapering was associated with increased rates of overdose, withdrawal, and mental health crisis extending up to 2 years after taper initiation.” | “Long-term risk of overdose or mental health crisis after opioid dose tapering”<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2793293> |
| 2 | Risk of OD in tapering of those on long-term opioids without OUD | 12/1/22 | ”Discontinuing prescribed opioids was associated with increased overdose risk, particularly among people with OUD. Prescribed opioid tapering was associated with reduced overdose risk among people with OUD not receiving OAT. These findings highlight the need to avoid abrupt discontinuation of opioids for pain. Enhanced guidance is needed to support prescribers in implementing opioid therapy tapering strategies with consideration of OUD and OAT status.” | “Discontinuation and tapering of prescribed opioids and risk of overdose among people on long-term opioid therapy for pain with and without OUD in British Columbia, Canada: A retrospective cohort study”<https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1004123> |
| 3 | Opioid tapering/abrupt cessation vs no dosage change and risk of suicide in patients stable on LTOT | 8/12/22 |  “This study identified a small absolute increase in risk of harms associated with opioid tapering compared with a stable opioid dosage. These results do not suggest that policies of mandatory dosage tapering for individuals receiving a stable long-term opioid dosage without evidence of opioid misuse will reduce short-term harm via suicide and overdose” | Comparative Effectiveness of Opioid Tapering or Abrupt Discontinuation vs No Dosage Change for Opioid Overdose or Suicide for Patients Receiving Stable Long-term Opioid Therapy<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795159> |
| 4 | Patient outcomes after opioid dose reduction among patients with chronic opioid therapy | 6/2022 | discontinuation (abrupt or gradual) increased the risk of suicide four-fold among high-dose opioid recipients | Patient outcomes after opioid dose reduction among patients with chronic opioid therapy<https://journals.lww.com/pain/Abstract/2022/01000/Patient_outcomes_after_opioid_dose_reduction_among.10.aspx> |
| 5 | Association of Opioid dose reduction with OD and OUD in patients on “high dose” LTOT in NC | 4/27/22 | “In this cohort study, rapid dose reduction or discontinuation was associated with increased risk of opioid overdose and OUD during long-term follow-up. These findings reinforce prior concerns about safety of rapid dose reductions for patients receiving HDLTOT and highlight the need for caution when reducing opioid doses.” | Association of Opioid Dose Reduction With Opioid Overdose and Opioid Use Disorder Among Patients Receiving High-Dose, Long-term Opioid Therapy in North Carolina<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2791566> |
| 6 | Associations between stopping prescriptions for opioids, length of opioid treatment, and OD or suicide deaths in US veterans | 3/4/2020 | “Patients were at greater risk of death from overdose or suicide after stopping opioid treatment, with an increase in the risk the longer patients had been treated before stopping.” | Associations between stopping prescriptions for opioids, length of opioid treatment, and overdose or suicide deaths in US veterans: observational evaluation<https://www.bmj.com/content/368/bmj.m283> |
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| 7 | Association of Dose Tapering With Overdose or Mental Health Crisis Among Patients Prescribed Long-term Opioids | 8/3/2021 | “Among patients prescribed stable, long-term, higher-dose opioid therapy, tapering events were significantly associated with increased risk of overdose and mental health crisis.”  | Association of Dose Tapering With Overdose or Mental Health Crisis Among Patients Prescribed Long-term Opioids<https://jamanetwork.com/journals/jama/fullarticle/2782643> |
| 8 | Illicit opioid use following changes in opioids prescribed for chronic non-cancer pain | 3/4/2020 | “Discontinuation of prescribed opioid pain relievers was associated with more frequent non-prescribed opioid pain reliever and heroin use” | Illicit opioid use following changes in opioids prescribed for chronic non-cancer pain<https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0232538> |
| 9 | The Association between Opioid Discontinuation and Heroin Use | 8/27/20 | “Among patients prescribed chronic opioid therapy, the observed increased risk for heroin use associated with opioid discontinuation should be balanced with potential benefits.” | The Association between Opioid Discontinuation and Heroin Use: A Nested Case-Control Study<https://pubmed.ncbi.nlm.nih.gov/32927194/> |
| 10 | Association Between Opioid Dose Variability and Opioid Overdose Among Adults Prescribed Long-term Opioid Therapy | 4/19/19 | “Variability in opioid dose may be a risk factor for opioid overdose, suggesting that practitioners should seek to minimize dose variability when managing long-term opioid therapy.” | Association Between Opioid Dose Variability and Opioid Overdose Among Adults Prescribed Long-term Opioid Therapy<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2730786> |
| 11 | Mortality After Discontinuation of Primary Care-Based Chronic Opioid Therapy for Pain: a Retrospective Cohort Study | 3/29/19 | “In this cohort of patients prescribed COT for chronic pain, mortality was high. Discontinuation of COT did not reduce risk of death and was associated with increased risk of OD death.” | Mortality After Discontinuation of Primary Care-Based Chronic Opioid Therapy for Pain: a Retrospective Cohort Study<https://pubmed.ncbi.nlm.nih.gov/31468341/> |
| 12 | Opioid medication discontinuation and risk of adverse opioid-related health care events | 8/2019 | “Faster rates of opioid tapering were associated with a greater probability of adverse events and many patients discontinued opioids suddenly, with no dose reduction. Additional clinical guidance, research, and interventions are needed to ensure that patients' opioid prescriptions are discontinued safely.” | Opioid medication discontinuation and risk of adverse opioid-related health care events<https://pubmed.ncbi.nlm.nih.gov/31079950/> |
| 13 | Association between discontinuing chronic opioid therapy and newly diagnosed SUD, accidents, self-inflicted injuries and drug OD’s within the prescribers' health care system | 4/1/22 | 11% of Veterans developed suicidal ideation or self-directed action after prescription opioid stoppage | Association between discontinuing chronic opioid therapy and newly diagnosed substance use disorders, accidents, self-inflicted injuries and drug overdoses within the prescribers' health care system: a retrospective cohort study<https://www.hsrd.research.va.gov/research/citations/abstract.cfm?Identifier=154059> |
| 14 | Association Between Opioid Tapering and Subsequent Health Care Use, Medication Adherence, and Chronic Condition Control | 2/7/23 | Summary - “In this cohort study of patients prescribed LTOT, opioid tapering was associated with more emergency department visits and hospitalizations, fewer primary care visits, and reduced antihypertensive and antidiabetic medication adherence. These outcomes may represent unintended negative consequences of opioid tapering for policy makers and clinicians to consider” | “Association Between Opioid Tapering and Subsequent Health Care Use, Medication Adherence, and Chronic Condition Control”<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2801014?utm_source=For_The_Media&utm_medium=referral&utm_campaign=ftm_links&utm_term=020723> |
| 15 | Impact of 30‑day prescribed opioid dose trajectory on fatal overdose risk: A population‑based, statewide cohort study | 10/4/23 | “Large (≥2 categories) 30-day dose increases and decreases were both associated with increased risk of fatal opioid overdose, particularly for patients taking ≥90 MME whose opioids were abruptly stopped. Results align with 2022 CDC guidelines that urge caution when reducing opioid doses for patients taking long-term opioid for chronic pain.” | Impact of 30‑day prescribed opioid dose trajectory on fatal overdose risk: A population‑based, statewide cohort study<https://link.springer.com/article/10.1007/s11606-023-08419-6> |
| 16 | Mortality risk associated with dose tapering among patients prescribed long-term opioid therapy | 11/2023 | **“We assessed outcomes among 107,931 patients after periods of stable opioid dosing (mean follow-up = 9.11 months). 1,078 deaths occurred across 755,733 person-months of follow-up among non-tapered patients (1.70 deaths/100 person-years). 509 deaths occurred across 250,114 person-months of follow-up after tapering (2.41 deaths/100 person-years). In adjusted models, tapering (as compared to unchanged dose) had aIRR of 1.45 (95% CI: 1.30-1.62) for death.”** **“Conclusions:** Among patients prescribed stable, long-term, high-dose opioid therapy, tapering events were significantly associated with increased risk of death. More rapid dose reduction correlated with greater mortality risk. This raises additional concern for potential unintended harms associated with tapering previously stable opioid therapy.” | Mortality risk associated with dose tapering among patients prescribed long-term opioid therapy<https://www.annfammed.org/content/21/Supplement_3/5300> |

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**Created: December 4, 2021**

**Last Updated: November 19, 2024**