

Supplementary Material

TABLE 1 Opioid-involved historical data series used in model development and calibration.

Model variable	Data sources	Years Utilized
Annual overdose deaths	Connecticut Office of the Chief Medical Examiner	2009-2024
Annual overdoses resulting in ED visit or hospitalization	NEMSIS Annual Reporting (provided in aggregate by Connecticut Department of Public Health)	2014-2024
Annual naloxone administrations by Community Overdose Prevention Programs	Connecticut Department of Public Health CT Syringe Services Program, Connecticut Department of Consumer Protection, Connecticut Department of Correction	2016-2024 (not available in 2019)
Annual naloxone administrations by EMS and law enforcement	NEMSIS Annual Reporting (provided in aggregate by Connecticut Department of Public Health)	2014-2024
Annual naloxone administrations by bystanders	NEMSIS Annual Reporting (provided in aggregate by Connecticut Department of Public Health)	2020-2024
Suspected opioid overdoses responded to by EMS and transported to hospital	NEMSIS Annual Reporting (provided in aggregate by Connecticut Department of Public Health)	2020-2024
Annual number of naloxone kits distributed at pharmacies or drug treatment centers	IQVIA Xponent Longitudinal Prescription Transaction Data for Opioid, Medications for Opioid Use Disorder, and Naloxone; Prescription Data Monitoring System, CT Department of Mental Health and Addiction Services	2009-2024
Total patients receiving MOUD at Opioid Treatment Programs (OTPs)	SAMHSA N-SSATS; Prescription Data Monitoring System, CT Department of Mental Health and Addiction Services	2009-2024 (not available in 2014 and 2018)
Patients receiving ≥ 1 buprenorphine prescription for OUD	IQVIA Xponent Longitudinal Prescription Transaction Data for Opioid, Medications for Opioid Use Disorder, and Naloxone; Prescription Data Monitoring System, CT Department of Mental Health and Addiction Services	2009-2024
Annual discharge episodes from MOUD, behavioral treatment, and detoxification treatment	CT Department of Mental Health and Addiction Services	2009-2023

Annual number of individuals exposed to prescription opioids	IQVIA Xponent Longitudinal Prescription Transaction Data for Opioid, Medications for Opioid Use Disorder, and Naloxone; SAMHSA NSDUH	2015-2024 (not available in 2020)
Annual number of individuals exposed to illicit opioids	IQVIA Xponent Longitudinal Prescription Transaction Data for Opioid, Medications for Opioid Use Disorder, and Naloxone; SAMHSA NSDUH; NFLIS-Drug Public Data Query System US DEA	2015-2024 (not available in 2020)
Annual number of individuals incidentally exposed to opioids	SAMHSA NSDUH and NFLIS (Northeast Region, and Connecticut State)	2015-2024 (not available in 2020)
Annual rate of sporadic use among individuals initially exposed to opioids	SAMHSA NSDUH (National)	2015-2024 (not available in 2020)
Annual rate of regular opioid use among individuals already using opioids sporadically	SAMHSA NSDUH (National)	2015-2024 (not available in 2020)
Total population	US Census Bureau	2009-2025

TABLE 2 Comparison of Overdose Death Burden in all Scenarios to Base Run 2014-2034

Year	2014	2019	2024	2029	2034
Total Annual Overdose Deaths Base Run	559	1052	890	301	87
Percent Increase of Overdose Deaths in Scenario 1 Compared to Base Run	0.00%	0.00%	81.47%	97.66%	95.45%
Percent Increase of Overdose Deaths in Scenario 2 Compared to Base Run	0.00%	0.00%	0.16%	0.62%	1.27%
Percent Increase of Overdose Deaths in Scenario 3 Compared to Base Run	0.00%	0.00%	6.81%	7.40%	4.32%