**Appendix 1. Identification of opioid prescriptions in the past 1 year**

Opioids prescribed in the year prior to index date were identified using the NDC codes compiled by the CDC’s Injury Center in the 2018 oral morphine milligram equivalent (MME) data file.1Additionally, in order to identify opioid prescriptions with missing NDC code information, the SNOMED-CT field of the database’s prescription drug table was searched for the terms ‘opioid’ and ‘opiate’, and the following undesired medications were removed manually: 1) drugs that are not typically used in outpatient settings (Fentanyl in solution, Buprenorphine in solution, Alfentanil, Sufentanil, Opioids in powder, Dezocine, Remifentanil, ApomorphineHCl, Hexafluorenium, AlpharodineHCl, Tincture of opium, Topical tramadol, Midazolam); 2) cough and cold formulations including elixirs and combination products containing antitussives, decongestants, antihistamines, and expectorants; 3) Injectable and IV opioids; 4) Medications used solely for the treatment of opioid use disorder and opioid overdose. Multiple prescriptions recorded for the same medication on the same date were counted as 1 prescription.