**STUDY FLOW CHART**

**Database 2 (Vital statistics)**

Date of death (up to December 31, 2014)

n=20,088 unique patients

Matched by postal code, birthdate and sex

**Database 1 (NACRS)**

N=81,392 ED visits & n=20,088 unique patients for ICD-10 F10-F19 & T36-T50 codes

Patients’ first visit for substance abuse during index year Apr 1, 2012-Mar 31, 2013

*and*

Visits made by these patients in the 12 months prior to the index visit

**Survival Analysis**

N=81,291 visits & n=20,074 unique patients

for ICD-10 F10-F19 & T36-T50 codes

(N=24,880 visits & n=16,389 patients for primary substance use definition, F10-F19 codes;

N=2,241 visits & n=1,787 patients for primary opioid use definition, F11+T40 codes)

Log-Rank & Cox Mortality Analysis for 90d, 30d, 365d and 2-year mortality for frequent users vs. non-frequent users (primary and sensitivity definitions)

**Negative time to death**

N=101 visits & n=14 unique patients

-presumed erroneous entries; eliminated from analysis

**Merged Database**

N=81,392 visits & n=20,088 unique patients