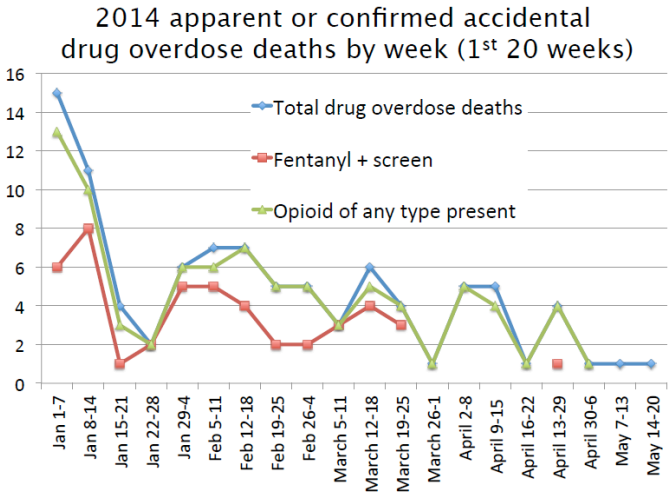
Enhanced Surveillance for Opioid Overdose in Rhode Island

[REPORTED BY STAFF OF THE RHODE ISLAND DEPARTMENT OF HEALTH]

Currently, Rhode Island is experiencing an epidemic of opioid overdosing. As with any complex social phenomenon, the epidemic has multiple causes, some known and some unknown. Clearly, opioids from multiple sources are plentiful. Clearly, recreational opioid use has become popular across social strata. And clearly, today's common street mixes, such as heroin and fentanyl, are very powerful and have contributed to overdose deaths. Far less clear is what drives these trends. Nonetheless, Public Health must respond, and response begins with comprehensive assessment of the problem. Therefore, the Rhode Island Department of Health (HEALTH) has enhanced its real-time surveillance of opioid overdosing in three ways.

DEATH INVESTIGATIONS

The Rhode Island Office of the State Medical Examiners is paying particularly close attention to all deaths caused by apparent overdoses, focusing on *motive* (intentional or unintentional), *type and combination of drugs* (prescription drugs vs. street drugs), *source of manufacture* (licit vs. illicit, as in the case of fentanyl), *social characteristics of the victim* (gender, age, race, ethnicity, etc.), and *comorbidities* (pain, mental problems, health problems). After careful evaluation, data thus developed are plotted to monitor trends in overdose deaths by type, as illustrated by the following example.



Since January 1, 2014 the Rhode Island Office of the State Medical Examiners has investigated 94 apparent accidental drug overdose deaths (74 confirmed, 20 under investigation). Most of the deceased were men (68/94 or 72%) and most were white (85/94 or 90%). Of the 74 *confirmed* accidental overdose deaths, the following drug involvement has been established:

- 13/74 (18%) only pharmaceutical drugs
- 43/74 (58%) only illicit drugs
- 18/74 (24%) both pharmaceutical and illicit drugs
- 68/74 (92%) some opiate or opioid
- 41/74 (55%) fentanyl

EMERGENCY DEPARTMENT VISITS

Second, HEALTH has asked hospital-based emergency departments in the state to report all overdose events (daily), using a newly developed "Opioid Overdose Case Report Form for Poisoning or Suspected Poisoning by Opioids" which collects information on the *patient* (gender, age, ethnicity, race, municipality of residence), the *event* (location, single or multiple overdose incidents at the scene of the poisoning), the *response* (Naxolone (opioid antagonist) given? where? by whom?), the *principal diagnosis*, and the *outcome* (recovery or death). In the first month of reporting (April 2014), about 50 episodes of opioid poisoning or suspected poisoning were reported. The ages of victims ranged from 19 to 72 years with a mean of 37 years. Most of the victims (69%) were men. Naxolone was administered in 85% of the episodes.

AMBULANCE RUNS

Third, HEALTH has added four questions about Naxolone use to its "Emergency Medical Service Ambulance Run Report," as follows:

- Was Naxolone (Narcan) administered *prior to the arrival* of EMS?
- If yes, who administered Naxolone (Narcan)?
- How was it administered?
- What was the dosage administered?

These questions have been incorporated in the Run Report form for about one month at the time of this writing. Thus far, no reports of Naxolone administration *prior to the arrival* of EMS have been received.

These three enhancements in public health surveillance will increase our understanding of the deadly opioid abuse problem in Rhode Island. Based on coordinated, comprehensive, and carefully monitored data from autopsies, emergency department visits, and ambulance runs – in addition to data extracted from an array of standard surveillance systems – HEALTH is well-equipped to formulate public health policies for the prevention and control of opioid abuse and its sequelae.