

Rapid Assessment of Consumer Knowledge Amid an Injection Drug Use-Driven HIV Outbreak in Lowell and Lawrence, Massachusetts: A Case Study

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BACKGROUND

- The ever-present fentanyl supply within drug markets has increased opioid-involved fatalities and other drug-related harms, such as infectious disease outbreaks among people who use drugs (PWUD).
- Massachusetts experienced a surge of HIV infections that began in 2015, largely centered in a few cities and linked to injection drug use.
- Between 2015 and 2017, two clusters of HIV cases emerged in the cities of Lowell and Lawrence, Massachusetts.
- Local jurisdictions desire to better respond in critical moments where substance use and health crises coincide (e.g., HIV outbreaks) but often lack the data and tools necessary to detect and translate such moments into turning points for actionable, effective responses.

CASE STUDY AIM

To highlight the findings from a mixed-methods Rapid Assessment of Consumer Knowledge (RACK) that ensued amid a cluster of HIV outbreaks in Lowell and Lawrence, Massachusetts and the evolution of public health responses and activities that followed suit from the perspective of PWUD in these communities.

METHODS

- **Framework:** Rhodes's Risk Environment
- **Design:** Mixed-methods case study spanning two rapid assessment studies (Study 1, Study 2)
- **Methods:** Study 1 and 2 involved an environmental scan, ethnographic observations, and administration of surveys and interviews
- **Participants (both studies):** PWUD, N = 130 (survey), N = 34 (interview)
- **Location:** Lowell and Lawrence, Massachusetts
- **Context:** Data collected amid an HIV outbreak (2017, Study 1) and following the outbreak (2019, Study 2)
- **Analysis:** Survey data were descriptively analyzed and qualitative interviews were thematically analyzed using both deduction and induction to contextualize survey findings

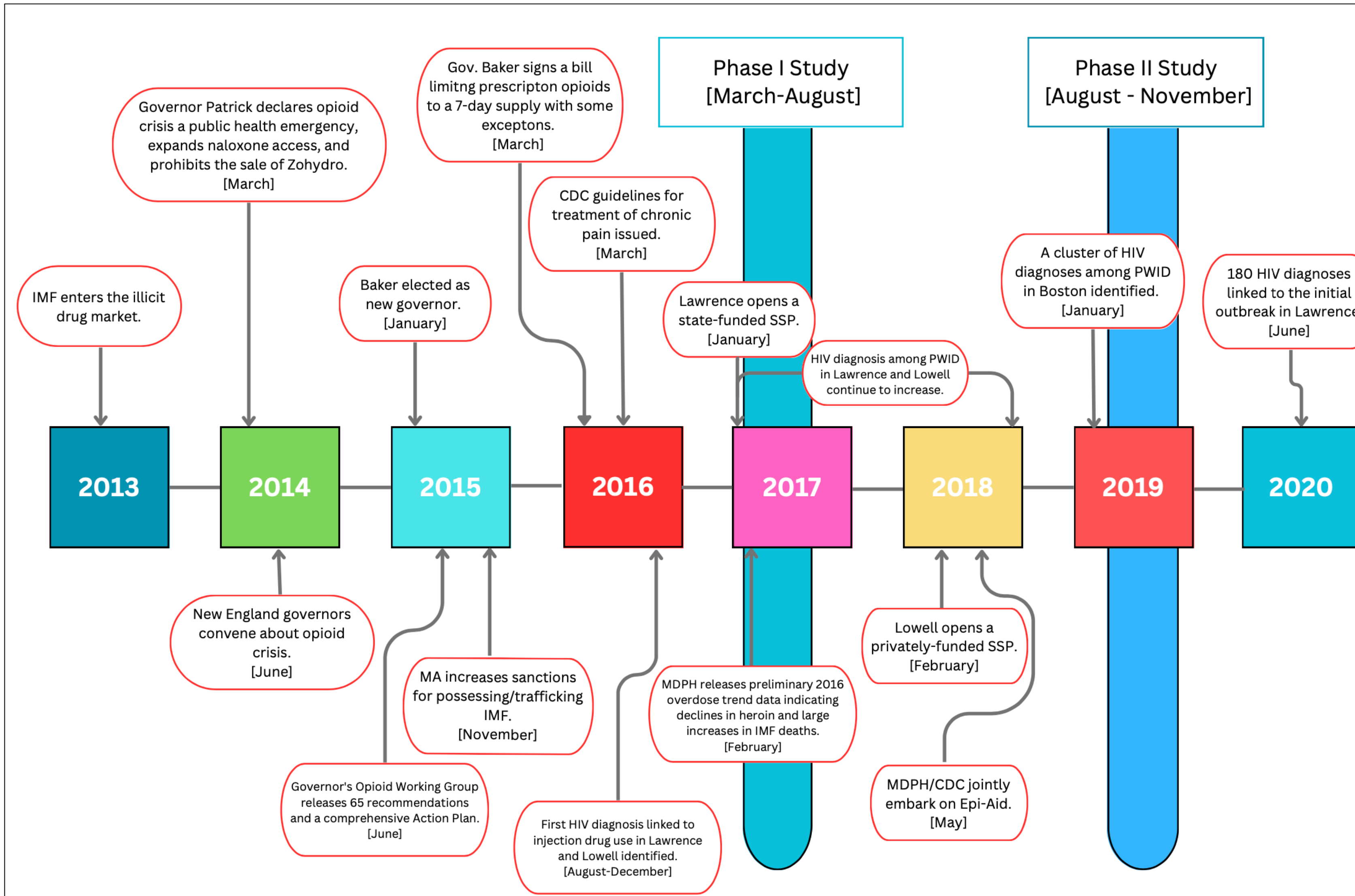


Figure 1—Timeline of Events Surrounding HIV Outbreak in Lawrence and Lowell, Massachusetts, 2013- 2020
IMF=illicitly manufactured fentanyl

RESULTS: SURVEY

Characteristics, drug use risk factors, & engagement with harm reduction supplies and services of PWUD surveyed in Study 1 and 2

	Study 1 (2017) N=50	Study 2 (2019) N=80
Gender	64% male 36% female	62.5% male 37.5% female
Age	34% 18-30 46% 31-45 20% 46+	26.3% 18-30 51.3% 31-45 22.5% 46+
Race	18% nonwhite 82% white	27.5% nonwhite 72.5% white
Ethnicity	16% Hispanic	22.5% Hispanic
Housed	56%	30%
Any opioid use (past 30 days)	94%	81.3%
Injected a drug (past 30 days)	68%	71.3%
≥ daily injection drug use	71.9%	82.1%
Syringe service program (SSP) as main source of syringes	70.6%; SSP open <5 hours/week	73.7%; SSP open 5 days/week
Easy/extremely easy access to sterile syringes and other materials	85.3%	94.8%
Reported difficulty/unaware of how to access naloxone	36.7%	8.8%
Any methadone/buprenorphine treatment use (past 30 days)	Methadone: 14% Buprenorphine: 10%	Methadone: 25% Buprenorphine: 15%
Ever use of methadone /buprenorphine treatment	--	Methadone: 65% Buprenorphine: 61%

RESULTS: QUALITATIVE THEMES

- Injection drug use and access (e.g., syringes, naloxone, methadone)
- HIV and other bloodborne infections
- Infectious disease transmission, testing, & treatment
- Social, cultural and political challenges of mobilizing harm reduction infrastructure

"Like they **need an exchange**. Like if they want to make the city cleaner, they need to figure out a way to get an exchange going...Like fast [...] Like a stationary spot where people know that they can go and get them [syringes] from would be best. Mobile, people just never figure out where the hell it was. It would be like a hit or miss type of thing." – Lowell, Study 1

"I exchange every day. I'll probably use, like, 30 or 40, well, between me and my boyfriend...**This [SSP] is, like, the best place to go.** Like, I come here, there are, like, counselors there that, like, they...I just have a good relationship with everybody here. They all understand...I love them all, yeah. Yeah, it's amazing here, yeah...There's more. Like, there's not, like, counseling here, but they have, like, if you're looking for, like, say you feel sick one day, like, they'll **have the little health clinic** thing outside that's like a mobile health clinic. Yeah. If you need **help with your MassHealth or insurance**, like, somebody will help you with that. If you **want to be tested, Narcan, needles, like, everything is here.**" – Lawrence, Study 2

"So, when I was on the streets still working, I was taking PrEP [from] a hospital in Boston gave it to me... And **they told me all about PrEP and what it does and how it's supposed to help you stay safe if you're in dangerous situations**, you know, or if you choose to not use condoms. And, you know, **so, that's what I did. I took my PrEP everyday** and... [Are you still taking it?] No. **I think it was actually just like I ran out of refills** and I just didn't go and get another refill. It wasn't that like I just decided to stop taking it. **I just ran out and never went back...**" – Lowell, Study 2

"There's no methadone in Lowell anymore. It's in Chelmsford [next town over], so you literally have to **walk 3 or 4 miles to the methadone clinic** to even get there..." – Lowell, Study 1

CONCLUSION

- Findings suggest overall positive changes within the communities of Lowell and Lawrence following the establishment of formal SSPs as a touch point for service connection and harm reduction supplies and services.
- Social and political risk factors such as housing instability and difficulty accessing MOUD persist and may partially negate harm reduction mobilization efforts to mitigate health crises like HIV outbreaks.

