# HIV and Methamphetamine in LAC and Nationally: The Crisis Continues

Steve Shoptaw, PhD May 22, 2019







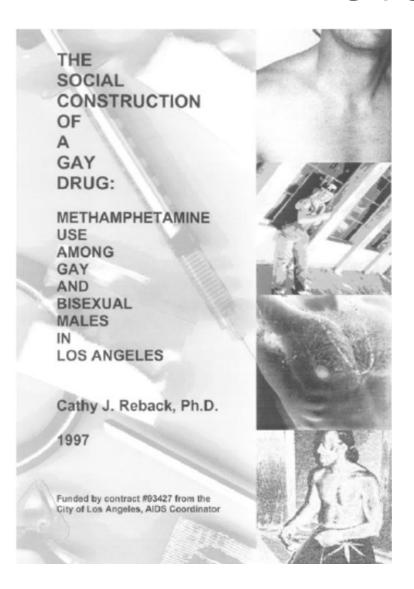


### Acknowledgments

- NIDA Grant
   U01 DA036267
- NIMH Grant
   P30 MH
   058107
- UCLA CTSI
   UL1TR001881



### Overview



- Epidemiology
- Biological links
- Behavioral links
- Policy
- Considerations

### Functions of Meth in MSM

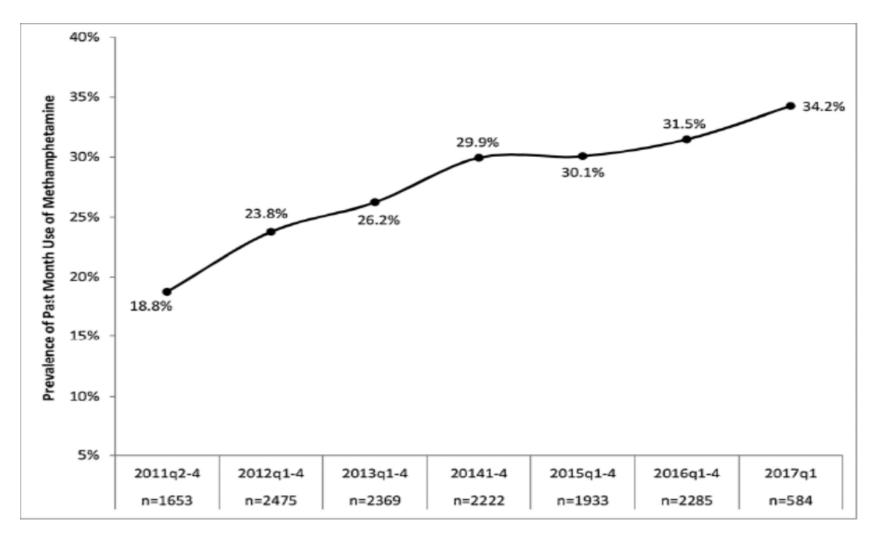
- Issues of identity (gay, drug user, HIV status)<sup>1</sup>
- Enhance sexual functioning <sup>2</sup>
- Boosts self confidence <sup>2</sup>
- Increases productivity <sup>2</sup>
- Weight loss/strong body experiences <sup>2</sup>
- Brightens mood <sup>2</sup>
- Aging/living with AIDS<sup>3</sup>

<sup>&</sup>lt;sup>1</sup>Reback, 1997; <sup>2</sup>Halkitis et al., 2005a, b; <sup>3</sup>Kurtz 2005;

Methamphetamine, HIV and MSM in Los Angeles

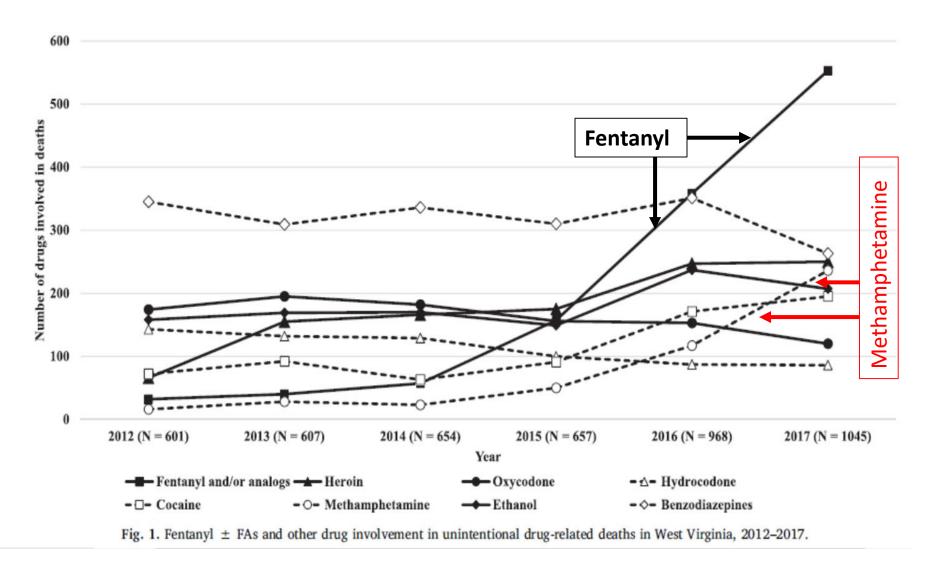
### **EPIDEMIOLOGY**

### News Flash: Meth is Coming to the East Coast

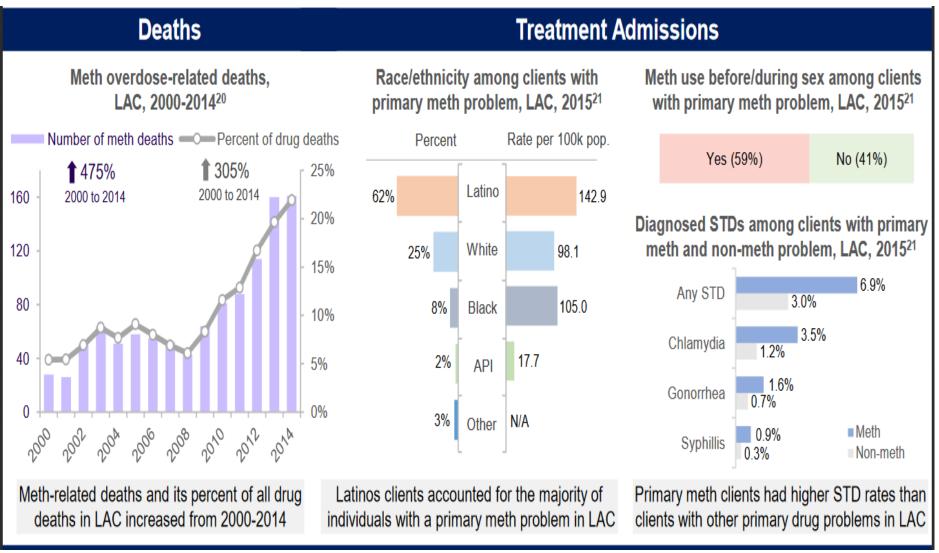


Ellis MS et al., *Drug Alc Depend.* 2018 *193:*14-20

### WV: Markers of a Growing Problem



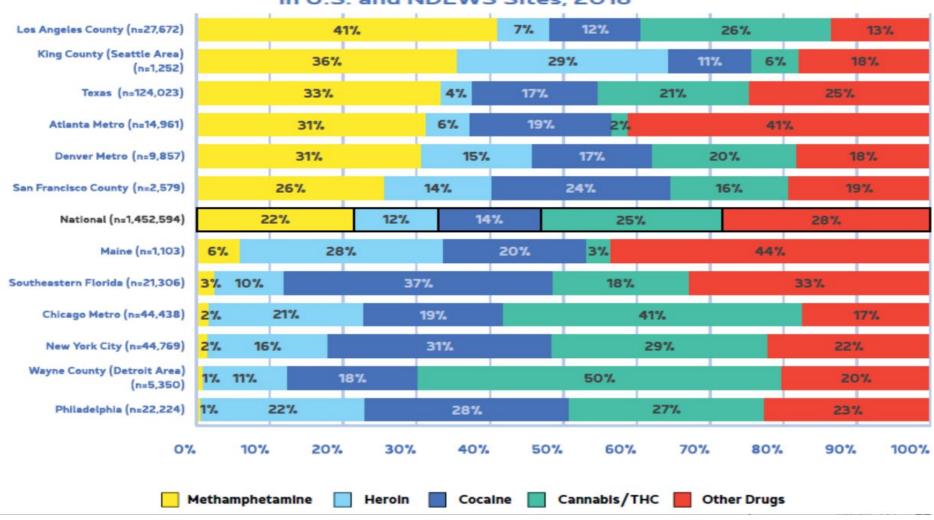
### Los Angeles County



http://publichealth.lacounty.gov/sapc/MDU/MDBrief/MethamphetamineBriefFinal.pdf

### METHAMPHETAMINE A REGIONAL DRUG CRISIS

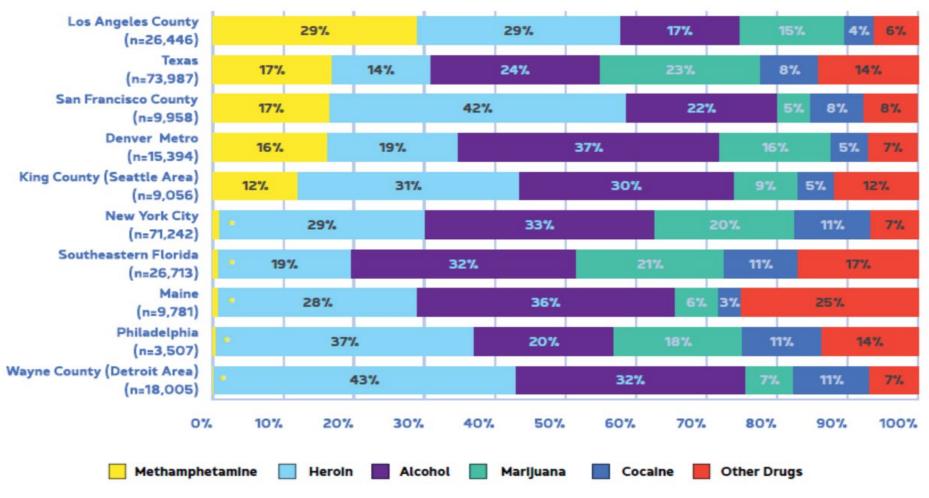
Figure 5: Drug Reports Identified for Items Seized by Law Enforcement in U.S. and NDEWS Sites, 2016



https://ndews.umd.edu/sites/ndews.umd.edu/files/pubs/ndews-scs-methamphetamine-report-september-2018-final.pdf

### METHAMPHETAMINE A REGIONAL DRUG CRISIS

Figure 4: Percentage of Treatment Admissions in Each NDEWS Sentinel Community Site (SCS)<sup>\*</sup>
Citing Selected Drugs as Primary Substance of Misuse, 2016



https://ndews.umd.edu/sites/ndews.umd.edu/files/pubs/ndews-scs-methamphetamine-report-september-2018-final.pdf

#### **EDITORIAL**

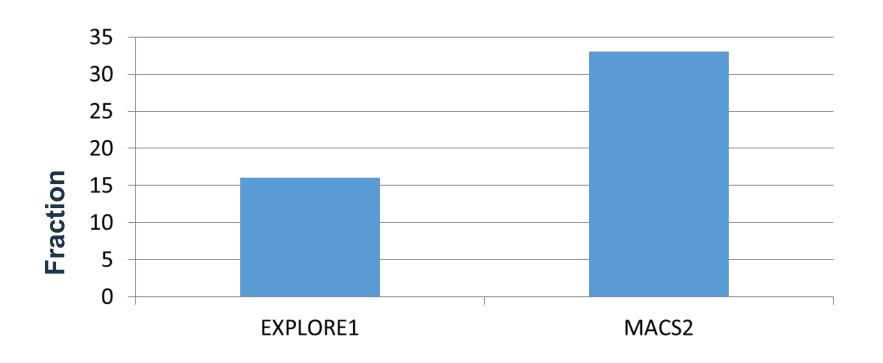
## If a US Drug Abuse Epidemic Fails to Include a Major East Coast City, Can It Be Called an Epidemic?

Richard A. Rawson PhD, Sara L. Simon PhD & Walter Ling MD

To cite this article: Richard A. Rawson PhD, Sara L. Simon PhD & Walter Ling MD (2001) If a US Drug Abuse Epidemic Fails to Include a Major East Coast City, Can It Be Called an Epidemic?, Journal of Addictive Diseases, 21:1, 1-4, DOI: 10.1300/J069v21n01\_01

To link to this article: https://doi.org/10.1300/J069v21n01\_01

### Methamphetamine Use, HIV Incidence in MSM: Attributable Fraction





<sup>&</sup>lt;sup>1</sup> Koblin et al., 2006, AIDS, 20: 731-739

<sup>&</sup>lt;sup>2</sup> Ostrow et al., 2009, JAIDS, 51: 349-355



MMSM And Substances Cohort at UCLA Linking Infections Noting Effects

Pamina Gorbach, DrPH & Steven Shoptaw, PhD - Pls **Grace Aldrovandi, Ronald Brookmeyer** Jennifer Fulcher, Marjan Javanbakht Nina Harawa, Amy Ragsdale

NIDA U01DA036267 9/30/13-4/30/23



#### mSTUDY: Cohort Overview

### Men of Color who Have Sex With Men

- 514 retained at 4 years
   08/2014-02/2018
- Retention: 93%

#### As of October 25, 2018:

Currently enrolled

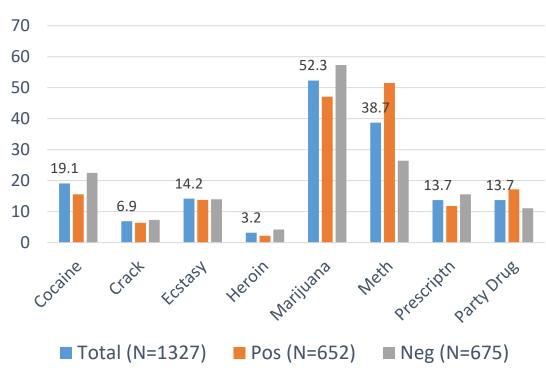
• 268 HIV +

10 seroconverters

*Incidence 2.5%* 

8 deaths

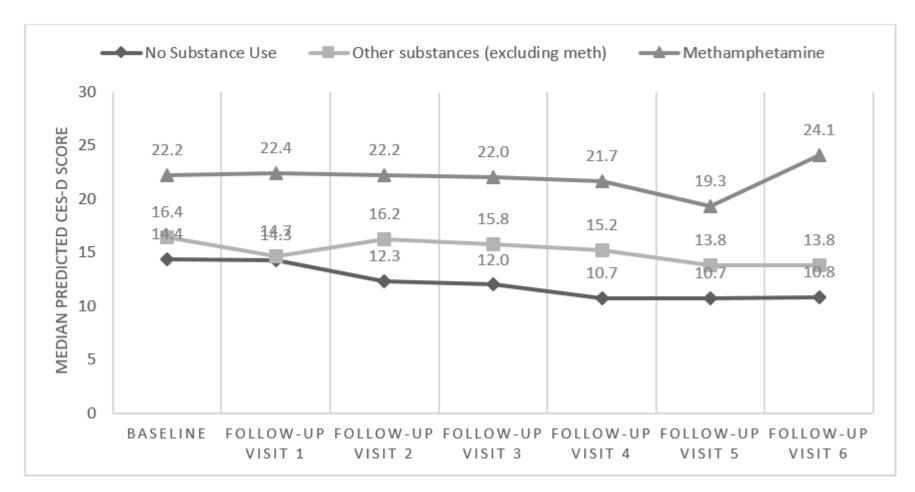




 $<sup>\</sup>ensuremath{^{*}}$  Retention calculated by anyone with a follow-up visit plus those not due.

### Meth Increases Depression Symptoms in Both HIV+ and HIV-

Figure 2. Predicted CES-D<sub>20</sub> scores across study visit, by substance use status among mSTUDY participants (8/2014-6/2018)



Javanbakht M et al., in review

### Methamphetamine Phenotypes & Syndemics

Amount of Methamphetamine Past 6 Months (n=1,798 visits)

Variable	Weekly + (n=330 visits)		< Monthly (n=352 visits)		None (n=1,116 visits)	P value
Age	34.3		33.4		31.7	<.01
Unemployed	73.2%	<b>&gt;</b>	57.2%	<b>&gt;</b>	29.75	<.01
<b>Unstable House</b>	49.4%	<b>&gt;</b>	35.5%		18.7%	<.01
Ever Jail?	61.8%	<b>&gt;</b>	44.6%	>	28.5%	<.01
Smoker	51.5%	<b>&gt;</b>	40.4%		23.6%	<.01
Binge drink 6 mo	35.2%		61.2%		50.5%	<.01
Cocaine 6 mo	23.3%		26.7%		15.6%	0.02
Heroin 6 mo	9.4%	<b>&gt;</b>	4.6%	<b>&gt;</b>	0.8%	<.01
Poppers 6 mo	50.6%	<b>&gt;</b>	38.6%		24.6%	<.01
<b>Concurrent Partnr</b>	60.4%	<b>&gt;</b>	42.3%	<b>&gt;</b>	37.8%	<.01
HIV Positive	68.8%		66.2%	<b>&gt;</b>	41.0%	<.01
<b>Syphilis Positive</b>	26.2%	<b>&gt;</b>	19.4%	>	15.1%	<.01

Drug-Sex Links in Treatment and Prevention Mechanisms for Behavior Change Cross-Cultural Outcomes

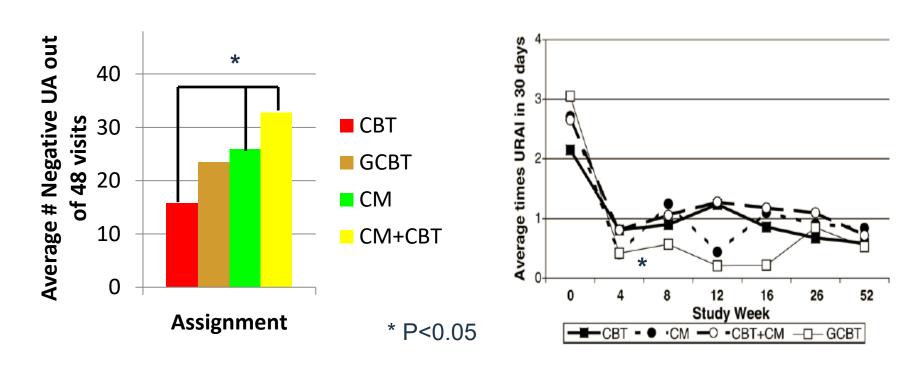
### METHAMPHETAMINE AND BEHAVIOR

### **Behavior Change Tools**



Shoptaw et al., 2005 Drug Alc Dep. 78:125-134

### Behavioral Drug Abuse Treatment Links to HIV Risk Reduction in MSM



Shoptaw Reback et al. Drug Alc Dep, 2005. 78: 125-34

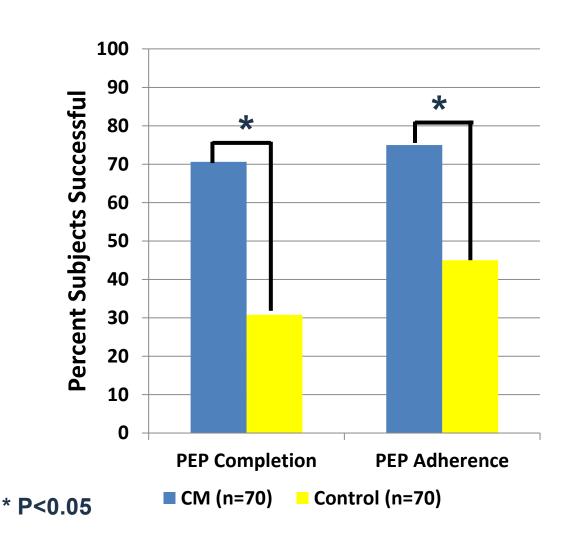
### Contingency Management (CM) Boosts nPEP Outcomes in at-risk Stimulant Using MSM

#### Design:

- Escalating 8-week CM schedule with thriceweekly visits based on drug-free urine samples
- \$430 maximum
- n=140

### Methamphetamine Outcomes:

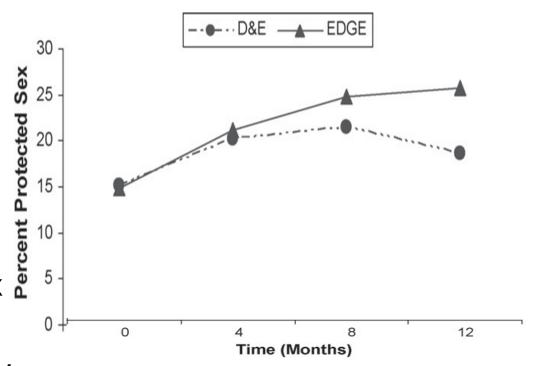
- CM = 8.9 (SD=9)
- Control = 6.1 (SD=6) \*



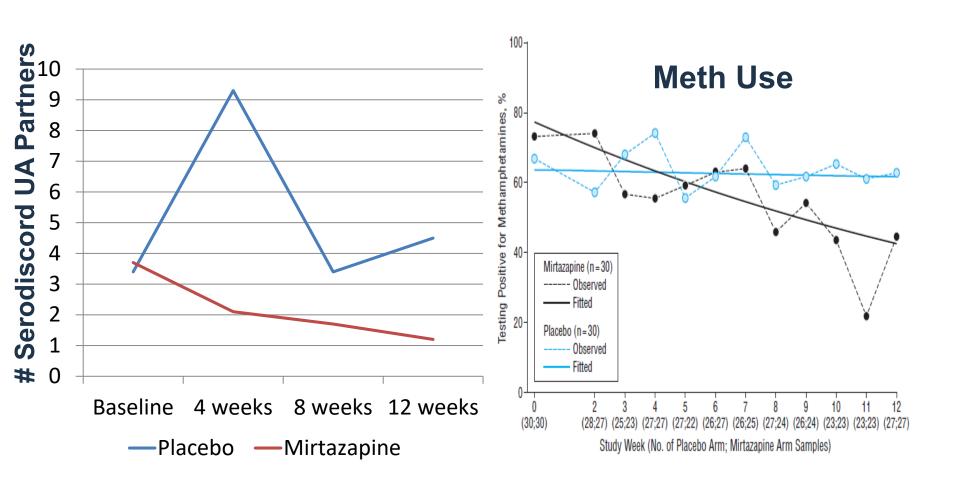
### Motivational Interviewing Reduces Risk Behaviors in Active MA-users

EDGE (HIV+ MSM)
Fast Lane (HIV- Hetero)

- 1. Context of Unsafe Sex
- 2. Condom Use
- 3. Negotiation of Safer Sex
- 4. Social Support
- 5. EDGE: Disclosure of HIV status to sex partners



### Pharmacotherapy for Stimulant Use in MSM: Mirtazapine 30 mg/day

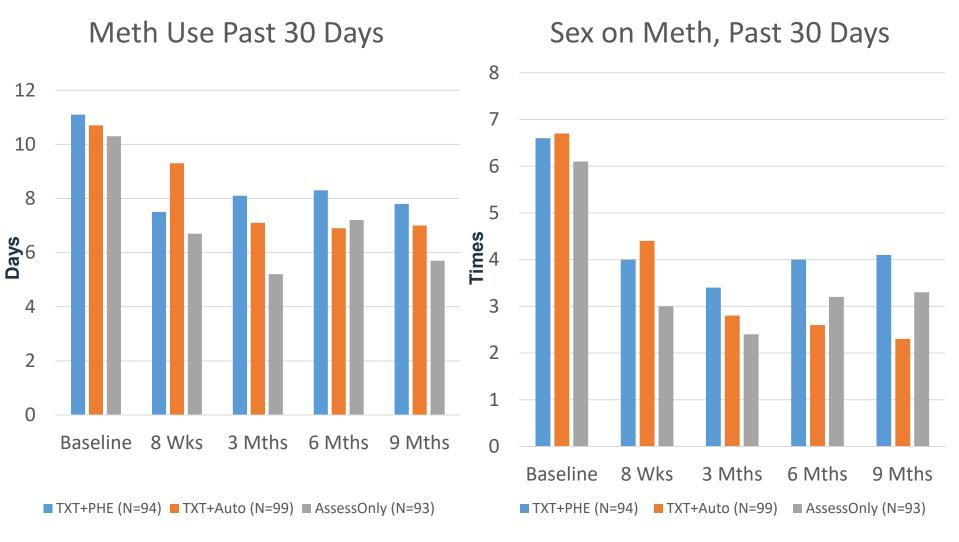


### **Theory-based Text Msgs for Stimulant Use**

Informational Support  Emotional Support  Instrumental Support	Informational	"Did he give you a bug? Here's where to go."			
	Support	"Take care of your body, get vaccinated for hep A and B."			
	Emotional Support	"Screw your partner, not your life."			
	Emotional Support	"You're worth a new needle."			
		"Meth brings you down, meds bring you up."			
		"Pack your socks with condoms and lube."			
Health Be Health Be Redu Aware	Health Threat	"Is that precum or do you have a STD drip?"			
	Health Threat	"Meth can take your teeth."			
	Health Behaviors to Reduce Risk	"Dip it, don't stick it."			
		"Inject clean, an abscess is a hot mess."			
	Awareness of Health Risks	"50% of men with Chlamydia have no symptoms."			
		"Using meth in public can be risky."			
Social Cognition	Solf regulation Skills	"Weekends getting longer and longer?"			
	Self-regulation Skills	"Don't have an open sores relationship."			
	Self-Efficacy	"Say 1st thing your poz, like you did last time. You can do it."			
		"You can take your meds, even when you party."			

Reback et al., (2010). Open AIDS Journal. 4: 116-122

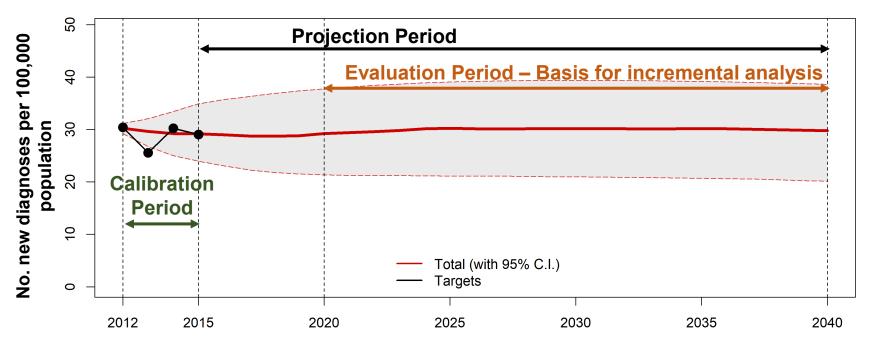
### **Text Message Outcomes: Meth and Sex**



Reback CJ et al., AIDS Behav. 2019, 23:37-47

### What Happens If We Do Nothing More

#### Los Angeles



- The rate of new diagnoses remains stable over the evaluation period.
- Results with 95% credible intervals (95% C.I.) shown are derived from 10 parameter sets; actual
  analyses will be conducted using the 2,000 best fitting parameter sets selected from 10,000 calibrated
  parameter sets.

Localized Economic Modeling Project, Bohdan Nosyk, UBC

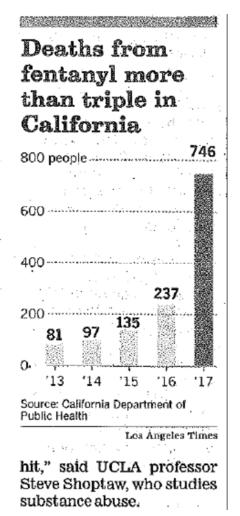
### Watchful Waiting: Fentanyl in LA

Rising fatalities from fentanyl-laced drugs spark fears of a worse epidemic to come.

#### By Soumya Karlamangla

Fentanyl, a potent opioid already responsible for thousands of deaths nationwide, is increasingly showing up in drugs like cocaine and methamphetamine in California, officials say.

The white powder, a lethal substance 50 times stronger than heroin, is sometimes mixed into other opioids to produce a stronger high. Now its presence in non-opioids has public health experts worried that California may be staring down a new dimension of the deadly epidemic.



May 15, 2018, Times Los Angeles

# NYC: Fentanyl detected in 37% of cocaine OD Deaths in 2016, up 11% over 2015



### The Next 15 Years In Los Angeles

- Getting smart with our investments and monitoring outcomes.
  - Disaggregate investments for general HIV prevention from investments for those who face additional challenges to HIV care and prevention, esp. methamphetamine using MSM
- Ramp up simultaneous involvement of existing levels of public health, addiction and primary care systems at current levels after Medicaid expansion
- Recognize unique status of methamphetamine in promoting HIV incidence in MSM
  - Biological effects
  - Behavioral disinhibition
  - Cognitive effects