INTERGOVERNMENTAL AGREEMENT BY AND BETWEEN THE COUNTY OF CHAMPAIGN, ILLINOIS AND CHAMPAIGN COUNTY CORONER'S OFFICE REGARDING THE USE OF OPIOID SETTLEMENT FUNDS FOR THE PURCHASE OF A RANDOX ANALYZER

This **AGREEMENT** is entered into by and between the County of Champaign, Illinois ("County"); and Champaign County Coroner's Office ("Coroner's Office'') hereinafter collectively referred to as "the Parties", regarding funding for diagnostic equipment to perform automated biochemical testing effective on the last date signed by a Party hereto.

Witnesseth:

WHEREAS, units of local government have conferred upon them the following powers by Article VII, Section 10, of the 1970 Illinois Constitution:

"(A) Units of local government and school districts may contract or otherwise associate themselves, with the State, with other States and their units of local government and school districts, and with the United States to obtain or share services and to exercise, combine or transfer any power or function, in any manner not prohibited by law or ordinance. Units of local government and school districts may contract and otherwise associate with individuals, associations, and corporations in any manner not prohibited by law or by ordinance. Participating units of government may use their credit, revenues and other resources to pay costs and to service debt related to intergovernmental activities"; and

WHEREAS, the County is a unit of local government within the meaning of Article VII, Section 1 of the Illinois Constitution of 1970 and is authorized to enter into contracts with individuals, associations, and corporations in any manner not prohibited by law or by ordinance; and

WHEREAS, County has received funds form the National Opioid Settlements to be used for opioid remediation purposes; and

WHEREAS, County has established a process to allocate those funds in accordance with applicable settlement requirements and local priorities; and

WHEREAS, Coroner's Office has requested funding to purchase a forensic analyzer to improve detection and analysis of opioids and other substances in post-mortem, but also in ante-mortem, examinations; and

WHEREAS, the use of such equipment aligns with the permissible uses of opioid settlement funds and supports timely, accurate cause-of-death determinations that can guide public health and law enforcement interventions; and

WHEREAS, reduced toxicology results can help to identify potentially bad batches within the County and increase response time to prevent further overdoses; and

WHEREAS, the use of an on-site analyzer is expected to reduce County's reliance on third-party laboratories, decrease turnaround time for results, and potentially lower overall testing costs; and

WHEREAS, timely and reliable toxicology results from Coroner's Office contribute essential data to help the County allocate resources, shape prevention strategies, and monitor the effectiveness of intervention efforts; and

WHEREAS, both Parties agree that this funding will enhance community health outcomes and align with the intended use of Opioid Settlement Funds per Attachments C and D, List of Opioid Remediation Uses and Approved Uses of Opioid Settlement Funds; and

WHEREAS, such provision of Opioid Settlement funding shall be construed as a subaward, with Coroner's Office as the subrecipient, and this Agreement construed as a subrecipient agreement; and

NOW, THEREFORE, in consideration of the premises and the mutual covenants hereafter set forth, the Parties agree as follows:

Section 1. PREAMBLE

The foregoing preambles are hereby incorporated into this Agreement as if fully restated in this Section 1.

Section 2. COUNTY agrees to the following:

a. County shall provide Coroner's Office a one-time payment of $79,244.00 in opioid settlement funding to assist with purchasing a Randox Evidence Multistat Analyzer which will support the County's response to the opioid crisis, particularly as it relates to identifying opioid-related fatalities. Coroner's Office acknowledges that this is a one-time payment and that future funding must be formally requested.

b. County shall provide Coroner's Office a copy of Final Distributor Settlement Agreement (Schedules A and B of Exhibit E of the Opioid Settlement Agreement, attached hereto and) incorporated by reference herein as Attachment B and/or C, and shall provide Coroner's Office with updates as to any additional terms, conditions, or related communications from the Illinois Department of Human Services and by the Illinois Office of Opioid Settlement Administration within.

c. County shall issue a one-time payment in the amount of $79,244.00 to Coroner's Office no later than June 1, 2025, upon execution of this AGREEMENT.

Section 3. Coroner's Office agrees to the following:

a. Coroner's Office agrees to utilize the $79,244.00 in opioid settlement funding from the County to purchase a Randox Evidence Multistat Analyzer device for on-site toxicology testing.

b. Coroner's Office agrees to comply with all applicable federal, state, and local statutes, rules, regulations, and guidelines governing the use, management, and reporting of opioid settlement funds, including all requirements set forth in Attachments C and D by the Illinois Department of Human Services and by the Illinois Office of Opioid Settlement Administration within.

c. Coroner's Office agrees to submit outcome or usage data upon request by the County. This may include the number of opioid-related toxicological screenings performed using the purchased equipment and other relevant programmatic information. Data may be shared in aggregate form and is not required to include personal identifiers. The Champaign County Board or any of its committees may request an in-person review of the equipment and permissible data provided by Coroner's Office at any point during for three years from the date of payment.

d. Coroner's Office certifies that it is not debarred, suspended, proposed for debarment or permanent inclusion on the Illinois Stop Payment List, declared ineligible, or voluntarily excluded from participation in the award as set forth in Attachments C and D or in this Agreement by any federal department or agency, or by the State of Illinois.

Section 4. Terms & Conditions:

a) Compliance

Coroner's Office shall ensure that the equipment purchased under this AGREEMENT is used primarily for opioid-related forensic and toxicological analysis, in alignment with approved opioid abatement strategies.

b) Record-Keeping

Coroner's Office shall maintain record of the purchase made with the provided funds for a minimum of 3 years and shall make such records available to the County upon request. The County may conduct a financial or programmatic review to verify the appropriate use of provided funds.

c) Amendments

This AGREEMENT may be amended only by writing signed by both parties.

d) Duration; Termination

The AGREEMENT shall become effective upon execution by both parties and shall remain in effect until the completion of the equipment purchase and confirmation of payment, unless otherwise terminated in accordance with the terms herein.

e) Repayment and Misuse of Funds

If Coroner's Office is found to have used funds for unauthorized purposes, fails to provide the required requested data for three years from the date of payment, the County reserves the right to request repayment of funds in whole or in part.

SIGNATURE PAGE

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized officers on the date(s) below.

The County of Champaign, Illinois

Approved: Steve Summers _____ Date: 21/07/2025
Steve Summers (Jul 21, 2025 14:36 CDT)

Steve Summers
County Executive
Champaign County

Approved: _____ Date: 21/07/2025
Jennifer Locke (Jul 21, 2025 14:19 CDT)

Jennifer Locke
Board Chair
Champaign County

Champaign County Coroner

Approved: Laurie Brauer _____ Date: 21/07/2025

Laurie Brauer
Coroner
Champaign County

Attachment A: Coroner's Office's Request

From: Laurie A. Brauer <lbrauer@champaigncountyil.gov>
Sent: Tuesday, March 4, 2025 3:55 PM
To: Kaitlyn M. Kuzio <kaitlyn.kuzio@champaigncountyil.gov>
Subject: RE: Follow up about Randox

Hi Kaitlyn,

Thank you so much for meeting with me regarding the Randox Analyzer. The Randox Evidence Multistat Analyzer is $79,244. The invoice includes the analyzer, shipping, accessory package and 12 quantitative kits.

MultiSTAT Benefits to Champaign County Coroner's Office

- **Results in under 30 Minutes** – greatly reduces the wait time for results.
- **Semi-Quantitative Results** – the biochip allows for the identification of substances and metabolites present in a post-mortem sample.
- **Multiplexing Technology** – our test menu can detect over 600 drugs and drug metabolites
- **Reduced False Positives** – specific antibodies on the biochip enable the separation of drugs with the same parent type. Example, Amphetamines, Benzodiazepines, Oxycodone, fentanyl and 6-MAM.

The Savings for Champaign County Coroner's Office

- Champaign County has roughly 205,000 people in population.
- As per the most recent annual report, toxicology was performed on approximately 250 cases in 2023.
- As per the most recent annual report, autopsies were performed in approximately 30% of death investigations.
- The current toxicology process ranges from $300 -$600 for screen and confirmation results.

By utilizing the MultiSTAT, we would spend about **$40-50** per decedent. Plus, we would gain the benefit of a greatly reduced result time allowing us to provider faster answers to the families of our decedents and local law enforcement and public health agencies.

How can Champaign County use the MultiSTAT?

- Everyday use for any case where toxicology is warranted.
- Can be used for Drug Court.
- Testing in Blood, Urine, Oral Fluids and, Saliva samples.
- Employment Screening.
- Drug Testing for the Jails.
- Can be used to alert local authorities to the prevalence or rise in dangerous drugs in the community.

- Can decrease the need for full autopsies – saving the county money when performing Randox toxicology only is an alternative.
- Signing of death certificates more expeditiously in toxicology only cases.
- Assisting in expediting arrest warrants (prevention usage).

Having the positive quantitative results that Randox would provide in real time will also benefit the Overdose fatality review board. The overdose fatality review boards are multidisciplinary teams that are established on the state, city, or county level to examine and understand the circumstances surrounding fatal drug overdoses. These teams review fatal drug overdose cases via decedent reviews within their jurisdictions in order to determine what factors and characteristics may lead to a possible overdose, and to identify missed opportunities and system gaps in hopes of preventing future overdose deaths.

Please let me know if you have any other questions.

Laurie Brauer | Coroner
Champaign County Coroner's Office
p. (217) 384-3888 f. (217) 384-1209
lbrauer@champaigncountyil.gov

From: Kaitlyn M. Kuzio <kaitlyn.kuzio@champaigncountyil.gov>
Sent: Wednesday, March 5, 2025 08:23
To: Laurie A. Brauer <lbrauer@champaigncountyil.gov>
Subject: RE: Follow up about Randox

Hi Laurie,

Is this $79,244 is the total you're requesting or are there additional related expenses. For instance, you'd talked about warranty, etc.

Best,
Kait

Good morning,

Yes the $79,244 is the total, the warranty cost will be after the first year and each year after that so I didn't include it.

Laurie Brauer | Coroner
Champaign County Coroner's Office
p. (217) 384-3888 f. (217) 384-1209
lbrauer@champaigncountyil.gov

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RANDOX
TOXICOLOGY

Evidence MULTISTAT proposal
Our Reference: rdxtox/usa-IN10

Dear **Laurie Brauer,**

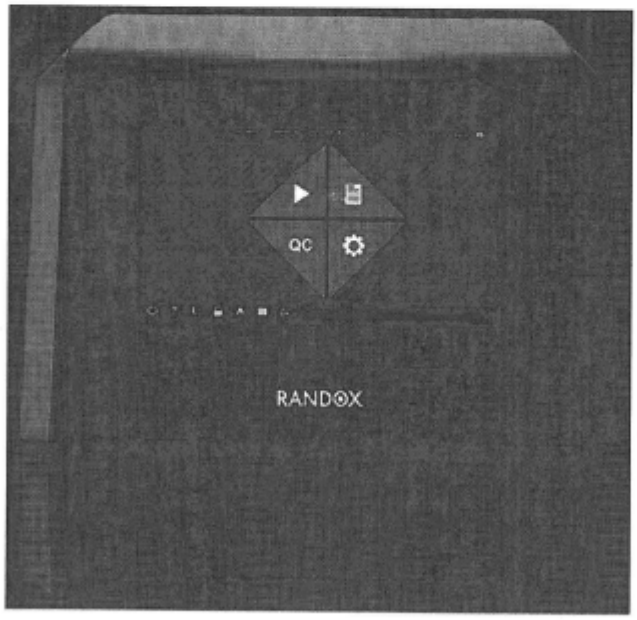
Randox Toxicology is pleased to offer this proposal for the purchase of the Multistat analyzer for toxicology drug screening and testing in the medical examiner's office. This analyzer is an excellent analyzer for fast and accurate screening of drugs in the postmortem workflow process.

The Evidence Multistat analyzer and Biochip Array Technology will allow for reliable analysis of toxicology specimen in blood, urine, or oral fluid.

Fully automated bench top analyzer

- 3 samples per hour
- Results in 17 minutes
- 1,000 patient data storage capability
- LIS compatible
- CV less than 10%
- Touch screen color monitor

We are excited at the possibility of the analyzer being considered for procurement in your lab and we look forward to working with the lab.



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RANDOX TOXICOLOGY

FINANCIAL PROPOSAL

Name	Laurie Brauer
Organization	Champaign County Coroner Office
Address	202 Art Bartell Rd, Urbana, IL 61802

Ref. No. rdxtox/usa- ILCHMS1	**Randox Contact** Curtis Miller	**Date** January 31, 2025
Contract Type Outright Purchase	**Contract Period** **N/A**	**Minimum Purchase** none

Evidence Multistat Analyzer **$60,000.00**
Cat. No. EV4115
Consisting of: Analyzer; Equipment Installation; Training of two operators; Operator's manual; One year's analyzer warranty

Shipping ..... **$ 2,500**

Accessory Package ..... **$ 5,500**
Consisting of: Roller mixer, MicroCentrifuge, 2ml centrifuge tubes, Tube rack, (20), 200ul pipette, (20) 300ul tip reloads, (100) 1000ul pipette, (50) 1250ul tip reloads

Evidence MultiSTAT – ToxPlex Quant Kit *$937/kit*
Cat. No. EV4156 (Blood)
Expected Annual Testing Expense (1 ToxPlex per month) **$11,244/yr**

Consisting of: 24 Biochips x 29 tests per Biochip = 696 tests (two samples per cartridge)
Multi-analyte reagents and consumables.

Total Purchase Order **$79,244**
Order includes; Multistat analyzer, Shipping, Accessory package, 12 ToxPlex Quantitative kits

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ToxPlex Quantitative Drug Panel
Cat. No. EV4156 (Blood)

1. Acetaminophen	16. Meprobamate
2. Amphetamines	17. Methamphetamine
3. Barbiturates	18. Methadone
4. Benzodiazepines I (Oxazepam)	19. Methaqualone
5. Benzodiazepines II(Clonazepam)	20. Opiate
6. Cocaine (Benzoylecgonine)	21. Oxycodone
7. Buprenorphine	22. Phencyclidine (PCP)
8. Cannabinoids (THC)	23. Pregabalin
9. Xylazine	24. Propoxyphene
10. Dextromethorphan	25. Salicylate
11. Ethyl Glucuronide (ETG)	26. Tramadol
12. Fentanyl	27. Tricyclic Antidepressants
13. Haloperidol	28. Zolpidem
14. Ketamine	29. 6-MAM(Heroin)
15. MDMA	

Accessory Package Components

VWR Item #	Item Description
75838-336	CENTRIFUGE MICRO 16100 X G 15000 RF
76462-034	ROLLER-MIXER VACUUM TUBE 36RPM 1
20170-170	TUBE PP CAP NAT 2ML **PK500**
76337-380	RACK 96 PLACE ASSORTED W/O LID **PK5**
76627-798	UHP **1** CHANNEL 20-200 µL
76627-770	UHP **1** CHANNEL 100-1000 µL

RANDOX TOXICOLOGY

QUOTATION TERMS AND CONDITIONS

Delivery
The analyzer and other products delivered within six (6) weeks of receipt of confirmed purchase order.

Installation and Training
Installation will take place at the customer premises as soon as requested after delivery of the analyzer. A technical specialist shall conduct the training course, which will take the form of a three-day course for as three operators.

Payment and Credit Terms
Credit terms of 30 days from product delivery.

Warranty Period and Service
The analyzer will be covered by a comprehensive warranty for the period of 12 months from the date of installation. This warranty covers all costs of parts, travel and labor.

Customer and Technical Support
Immediate technical support provided by telephone, with 48-hour turnaround onsite technical support.

ALL PRICES QUOTED ARE EXCLUSIVE OF TAX AND FREIGHT.
F.O.B. Kearneysville, WV

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Evaluation of "Real-Time" Fatal Drug Overdose Surveillance by King County Medical Examiner's Office, Seattle, Washington

Richard Harruff, MD, PhD, Celia M. Simpson, BS, Amy L. Gifford, BS, Nicole Yarid, MD, William L. Barbour, BS, and Catherine Heidere, MSW

Abstract: To address the challenges in monitoring the continuously accelerating drug overdose epidemic, the King County Medical Examiner's Office in Seattle, Washington, instituted a "real-time" fatal drug overdose surveillance project, depending on scene investigations, autopsy findings, and in-house testing of blood, urine, and drug evidence collected from death scenes. Validation of the project's rapid death certification methodology from 2019 through 2021 was performed at the following 3 levels: blood testing, urine testing, and death certification, and for the following 4 drugs: fentanyl, opiate, methamphetamine, and cocaine. For blood testing, sensitivity ranged from 90% to 99%, and specificity ranged from 86% to 97%. For urine testing, sensitivity ranged from 91% to 92%, and specificity ranged from 87% to 97%. The positive predictive value for cocaine was poor for both blood testing (57%) and urine testing (72%). Of 1034 deaths, 807 were certified as overdose by rapid methodology, and 803 (99.5%) were confirmed by formal toxicology results. Manners of death were changed from accident to natural in 3 of 1034 cases (0.29%). Results of this study indicate that the rapid overdose surveillance methodology described in this study offers benefits to families and provides useful, timely information for responding law enforcement and public health agencies.

Key Words: forensic pathology, drug overdose surveillance, toxicology, drug evidence testing, validation

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As the overdose epidemic continues to accelerate throughout the United States,[1–4] the goal of achieving an effective surveillance strategy by rapidly identifying the appearance and identity of specific drugs has become increasingly important.[5–12] National, regional, and local trends are all important for monitoring the impact on our communities as manifestations of the epidemic vary temporally and regionally, especially with respect to the appearance of novel synthetic drugs and seemingly limitless supplies of fentanyl and inexpensive methamphetamine.[13–20] The COVID-19 pandemic superimposed further complications that remain largely uncharted.[21,22] Monitoring the drug overdose epidemic is crucial to informing public health and criminal justice responses and guiding rational drug policies. Chief among the metrics for monitoring the crisis are mortality data derived from death certificates generated by medical examiner and coroner offices relying on analyses from toxicology laboratories. Because of the burgeoning caseload of overdose deaths relative to limited resources, crucial death investigation systems have been overwhelmed, resulting in long delays in completing death certificates.[5–7,12,16,19,21]

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From the King County Medical Examiner's Office, Seattle, WA.
The authors report no conflict of interest.
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E-mail: richard.harruff@kingcounty.gov.

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As the escalating overdose epidemic overwhelmed resources in the Pacific Northwest, the King County Medical Examiner's Office (KCMEO) in Seattle, Washington, an agency of Public Health–Seattle and King County, created a rapid fatal overdose surveillance system with the goal of rapidly certifying drug overdose deaths and identifying the specific drugs involved.[11,12] This project involved dedicated personnel, specialized testing instruments, development of methodologies, and multiagency collaborations. In many instances, rapid death certification (RDC) reduced delays in death certification from weeks or months to hours or days and provided information critical for timely law enforcement and public health responses. The purposes of this report are to evaluate RDC and to validate the methods employed.

METHODS AND MATERIALS

The KCMEO serves a population of approximately 2.3 million in a mixed urban and rural population in a geographic area of 2307 square miles. Seattle is the largest city with population of approximately 0.74 million. During the 3 years of this study, the KCMEO had from 10 to 12 medicolegal death investigators who responded to death scenes, gathered information, examined decedents for evidence relative to cause and manner of death, and collected items of suspicious drugs and paraphernalia. Items of drug evidence were transported along with decedents to the KCMEO facility. In-house testing was performed on deaths due to probable overdose, identified using an algorithm described, and validated previously.[11] This study found the algorithm alone to be accurate in identifying probable overdose deaths, with a sensitivity of 83% and a positive predictive value (PPV) of 89%. The median time between death and identification as a probable overdose was 1 day, and the interquartile range was 1 to 2 days.[11]

In-house testing for RDC comprised the following 3 parts: (1) testing of urine collected at autopsy using BTNX Rapid Response fentanyl-specific dipsticks and 1-Step Detect MultiDrug Rapid Test Cups, which hold an array of 14 different drug test strips (Table 1); (2) testing of autopsy blood using Randox Evidence MultiSTAT chemiluminescence immunoanalyzer with an array of 20 different drugs (Table 1); and (3) testing of drug evidence collected at scenes such as pills, powders, crystals, pipes, straws, syringes, scorched foil, and other paraphernalia, using 2 Raman spectrometers (ThermoFisher TruNarc and Rigaku ResQ), MX908 high-pressure mass spectrometer, and BTNX Rapid Response fentanyl-specific urine dipsticks on evidence samples appropriately diluted into water. Blood samples were submitted to the Washington State Patrol (WSP) Toxicology Laboratory for comprehensive testing. The WSP Toxicology Laboratory, in turn, used NMS Labs (Horsham, Pa) to manage backlogged cases. Both toxicology laboratories used immunoassay screening for the common drug categories, gas chromatography–mass spectrometry for confirmation and quantitation of cocaine, and liquid chromatography–tandem mass spectrometry for confirmation and quantitation of fentanyl, methamphetamine, and opiate. After in-house testing

TABLE 1. Analytes in Blood and Urine Testing Used for Rapid Death Certification

Analytes in Blood and Urine Screening Methods	
Randox Evidence MultiSTAT	**1-Step Detect MultiDrug Rapid Test Cups**
ABCHMINACA	Amphetamine
ABPINACA	Benzodiazepine
ALPHAPVP	Buprenorphine
Amphetamine	Carfentanyl
Barbiturate	Cocaine
Benzodiazepine	Ethyl glucuronide
Benzoylecgonine	Fentanyl
Buprenorphine	Methadone
Ethyl glucuronide	Methamphetamine
Fentanyl	Morphine
Methadone	Oxycodone
Methamphetamine	Synthetic marijuana
6-Monoacetylmorphine	Tetrahydrocannabinol
Opiate	Tramadol
Oxycodone	
PCP	
Pregabalin	
Tetrahydrocannabinol	
Tramadol	
Tricyclic antidepressants	

of drug evidence collected at scenes, using the instruments described previously, these items were submitted to the WSP Crime Laboratory, Materials Analysis Section, for confirmatory testing by gas chromatography–mass spectrometry and infrared spectroscopy.

Rapid death certification for individual deaths was based on concurrence of scene investigations, autopsy findings, and in-house testing. A specific drug was listed on the death certificate if at least 2 independent tests of the 3 (blood testing, urine testing, and drug evidence testing) were positive for the same drug. By these combined methodologies, overdose deaths were certified within hours or few days. For those certified by RDC, the cause of death used the wording, "Acute (combination) drug intoxication including <specific drug(s) identified>"; this wording carries the implication that additional drugs may be added to the death certificate after receiving results of formal toxicology analysis. At the time of certification, to indicate specific cases in which RDC methodology was used to certify the death, whether as an overdose or to exclude overdose, the certifying pathologist would "flag" the case in a special database field. After results from the WSP Toxicology Laboratory were received, the results were used to confirm the initial death certificates based on RDC methodology or to amend them by affidavit, if necessary, adding drugs that were not identified by in-house testing or removing drugs that were not identified by WSP results.

The KCMEO developed and maintains a surveillance database structure specific for the in-house testing and other activities generating data related to fatal overdose surveillance. The surveillance database is linked by case number to KCMEO's case management system (CME Case Management Software; VertiQ Software LLC, Morgan Hill, Calif). CME is likewise linked to the Washington Department of Health Electronic Death Registration System (EDRS). After the death certificate is filed with the Washington Department of Health, the EDRS record is permanent and remains unchanged, while the CME record is updated with results from the WSP Toxicology Laboratory.

Evaluation and validation of RDC were performed for the following 4 major drugs: opiate, fentanyl, methamphetamine, and cocaine. As described earlier[23] and used in this report, "opiate" in contrast to the general drug category, "opioid," refers to heroin or probable heroin because morphine, with or without 6-monoacetylmorphine, is reported in toxicology analyses. With in-house urine and blood testing, "cocaine" refers to cocaine or benzoylecgonine. Validation was performed at the following 3 levels: blood testing, urine testing, and death certification. The WSP Toxicology Laboratory results served as the "criterion standard" for validation at all levels. Validation at the death certificate level was accomplished by comparing the initial death certificates filed in EDRS with the final death certificate in CME, identified by the RDC flag described previously. Data queries using tools of Microsoft SQL Server Management Studio, Visual Studio, Access, and Excel generated the tables for this report. Sensitivity, specificity, PPV and negative predictive value (NPV), and accuracy were computed using standard methods.[24] The Venn diagram in the Figure 1 was constructed using R/RStudio with the *VennDiagram* package. Because this study used only deidentified, aggregate data from decedents, institutional review by University of Washington, Human Subjects Division, were not required.

RESULTS

Over the 3 years of this study, 2019 through 2021, there were a total of 47,778 deaths in King County, of which KCMEO took jurisdiction in 11,080. A total of 1797 deaths (3.8% of all King County deaths and 16% of KCMEO jurisdictional cases) were certified as overdose deaths; 1710 were certified as overdose as a primary cause, and the others listed overdose as other significant condition (OSC). The RDC methods allowed rapid certification of 1005 overdose deaths (56% of all overdose deaths in the same period). In these 3 years, blood testing was performed on 1915 decedents, urine testing was performed in 1992, and drug evidence testing was done on 6047 items collected from 1213

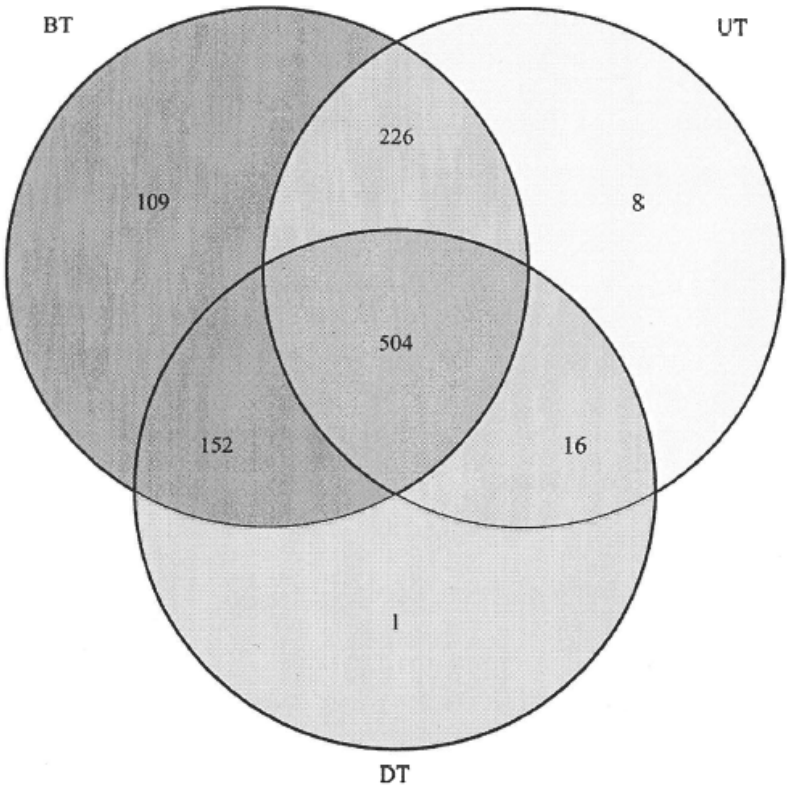

FIGURE 1. Diagram showing extent of in-house testing. BT, blood testing; UT, urine testing; DT, drug evidence testing.

death scenes. A subset of these were used to calculate performance metrics of 1507 in-house blood testing results (Table 2) and 1172 in-house urine testing results (Table 3).

There were 1034 death certificate records that were initially certified by RDC methodology, flagged as described earlier, with which to compare the final death certificates completed after receiving WSP toxicology results. Table 4A shows that of the 1034 initial deaths certificates based on RDC methodology, 807 had overdose as the primary cause of death, 19 listed overdose as a contributing condition, 10 were certified with causes other than overdose, and 198 certificates remained pending, awaiting toxicology results from WSP. After the toxicology results were received, the pending cases were updated. In the final death certificates, shown in Table 4B, overdose as a primary cause accounted for 989; of these 652 (66%) were due to a combination of drugs. Of the 807 overdose deaths initially certified as the primary cause by RDC testing, 803 (99.5%) were confirmed as overdose after obtaining formal toxicology results. Table 5 compares initial death certification, based on RDC methodology, with final certification, based on WSP toxicology results, and the agreement between the two, for each of the 4 drugs independently. In this analysis, the false-negative rates ranged from 2.9% for cocaine to 15% for methamphetamine, and the false-positive rates ranged from 0.29% for methamphetamine to 1.6% for cocaine. Death certificates were amended accordingly; that is, drugs were added to the amended death certificates for the false negatives and removed from the false positives. Tables 6 to 9 provide more extensive performance metrics of RDC relative to the extent of the individual in-house testing modalities: 991 cases of blood testing only, 730 cases of blood and urine testing, 656 cases of blood and drug evidence testing, and 504 cases having all 3 in-house testing modalities—blood, urine, and drug evidence. Overall, blood testing was most important, with 991 of the 1034 cases certified using blood testing in concurrence with urine and/or drug testing. The Venn diagram in the Figure 1 further illustrates the relative extent of testing among the 3 modalities. As expected, as the extent of testing increased, fewer cases were in each category.

TABLE 2. Sensitivity, PPV, Specificity, NPV, and Accuracy for In-House Blood Testing of 1507 Decedent Samples Compared With WSP Toxicology Results of Blood Testing

Drug	Sensitivity, %	PPV, %	Specificity, %	NPV, %	Accuracy, %
Fentanyl	97	90	94	98	95
Methamphetamine	90	95	97	93	94
Opiate/morphine	92	89	95	97	95
Cocaine	99	57	86	100	88

TABLE 3. Sensitivity, PPV, Specificity, NPV, and Accuracy for In-House Urine Testing of 1172 Decedent Samples Compared With WSP Toxicology Results of Blood Testing

Drug	Sensitivity, %	PPV, %	Specificity, %	NPV, %	Accuracy, %
Fentanyl	92	79	87	95	88
Methamphetamine	91	94	97	95	94
Opiate/morphine	91	75	92	97	92
Cocaine	92	72	95	99	94

In addition, specificity increased with the extent of testing while sensitivity decreased. With respect to manner of death, of the 813 deaths initially certified accident by RDC methodology (Table 4A), 5 were amended otherwise: 3 deaths initially certified accident (overdose) were amended to natural (2 heart disease and 1 alcoholic liver disease with an OSC of chronic drug use), one was amended to suicide (overdose), and one was amended to undetermined (overdose). Taking amendment from an unnatural manner to a natural manner as the most serious false positive, the overall error rate in manner certification was 0.29% (3/1034).

DISCUSSION

Guidelines for certification of overdose deaths published by the National Association of Medical Examiners[25] recommend against using screening methods to certify deaths because of the inherent false-positive rates of these tests.[26,27] While this study certainly supports this recommendation, the results also indicate that RDC can be achieved in many cases by the RDC methodology described herein, adhering to a strict protocol relying on concurrence of information gathered from scene investigation, autopsy findings, screening autopsy blood and urine, and testing drug evidence collected from scenes. Over the 3-year period KCMEO certified 56% of 1797 overdose deaths within 1 to 3 days. Using formal toxicology testing as the "criterion standard" for comparison, both the sensitivities and negative predictive values of blood and urine screenings were greater than 90% for all 4 drugs, indicating that these screening tests were fairly good in detecting the presence or absence of drugs. The specificities and PPVs for 3 of the 4 were 89% or greater, indicating that the blood and urine screening tests were also fairly good in excluding the presence or absence of drugs. The exception was for cocaine because of a high false-positive rate; only 57% of positive blood screening tests were correct, and only 72% of urine screening tests were correct. Accuracy, the overall probability that the screening test gave a correct result, positive or negative, ranged from 88% to 95% for the 4 drugs evaluated.

TABLE 5. Drugs Present in 1034 Death Certificates Based on RDC Methodology (Initial DC) Compared With Certification Following WSP Results (Final DC) and Agreement Between the Initial and Final Certification (Both) Along With Calculated FN and FP Rates

Drug	Initial DC, n	Final DC, n	Both, n	FN, %	FP, %
Fentanyl	406	493	393	8.4	1.3
Methamphetamine	363	514	360	15	0.29
Opiate/morphine	254	341	240	8.4	1.4
Cocaine	187	217	170	2.9	1.6

FN, false negative; FP, false positive.

For death certification, the most important considerations are correctly classifying overdose as the cause of death and, even more importantly, correctly classifying the manner of death. By RDC methodology, certification relied on a combination of the following 3 independent means: blood testing, urine testing, and drug evidence testing. The probability of error in certification was reduced by adhering to the "2-test" rule: a drug was listed on the death certificate only if 2 independent tests found the same drug. Comparing initial death certificates based on RDC methodology with final death certificates based on WSP toxicology results and taking the latter as the "criterion standard" for comparison found that adding an additional test to blood screening, although reducing sensitivity, substantially enhanced the specificity of certification for all drugs, even for cocaine; specificities ranged from 98% to 100% if all 3 tests were employed. Although certain death certificates were amended after receiving WSP results, either adding or removing drugs, as indicated in Table 5, this was considered a relatively minor error because the cause of death remained overdose and the manner remained accident. Because most overdose deaths (66%) in this study were due to a combination of drugs, the probability of

TABLE 4. (A) Death Certification Based on Rapid Death Certification Compared With (B) Certification Completed After Receiving WSP Toxicology Results

	Manner of Death					
A. Death Certified by RDC Methodology	**Accident**	**Suicide**	**Natural**	**Undetermined**	**Pending/Blank**	**Total**
Drug OD primary	791	10	0	6	0	807
Drug OD (OSC)*	19	0	0	0	0	19
Not drug OD	3	1	6	0	NA	10
Total	813	11	6	6	198	1034

	Manner of Death					
B. Death Certified After WSP Results	**Accident**	**Suicide**	**Natural**	**Undetermined**	**Homicide**	**Total**
Drug OD primary	965	14	0	9	1	989
Drug OD (OSC)*	21	0	0	0	0	21
Not drug OD	4	0	19	1	0	24
Total	990	14	19	10	1	1034

*Other significant conditions.

TABLE 6. Sensitivity, PPV, Specificity, NPV, and Accuracy of In-House Blood Testing of 991 Cases Compared With Final Death Certification

Drug	Sensitivity, %	PPV, %	Specificity, %	NPV, %	Accuracy, %
Fentanyl	99	93	93	99	96
Methamphetamine	92	98	98	92	95
Opiate/morphine	96	90	94	98	95
Cocaine	100	70	87	100	90

correctly classifying an overdose death was very high (essentially 100%) even if some of the drugs listed on the initial death certificate were not confirmed by the toxicology laboratory results. On the other hand, changing the manner of death from accident to natural constituted a major error; this occurred in 3 of 1034 cases. Nevertheless, the overall probability of correctly classifying the manner of death was very high (99.7%).

There are definite reasons to certify overdose deaths rapidly: to benefit families who want to understand the reason for their loved ones' deaths and need death certificates for settling insurance and other business matters; to facilitate timely responses by law enforcement and public health agencies; to quickly identify emergence of novel drugs in a community; and to expedite collection of mortality data. Testing of drug evidence offers another dimension of surveillance. Although testing of drug evidence is rarely performed by medical examiner and coroner offices, this added dimension of overdose surveillance allows rapid identification of novel drugs, formulations, and routes of administrations occurring in the local community.[28,29] Furthermore, the collaboration in this project, between KCMEO and the WSP Crime Laboratory, represents a notable example of uniting resources of public health and criminal justice agencies in surveillance of illicit drugs.

There are disadvantages in RDC. It is resource intensive, requiring personnel, equipment, and funding not usually part of a medical examiner or coroner office. To deploy RDC methodology, the KCMEO made use of federal grants for purchase of instruments and supplies and to fund key positions; student interns from local colleges were found to be reliable and cost-effective. Data management was especially challenging in maintaining consistency and updating death certificates after receiving WSP toxicology results. Affidavits were often required to amend the official Certification of Death. However, another challenge was discovered when the Washington Department of Health compared data for entry into the State Unintentional Drug Overdose Reporting System; the death certificate affidavits were not making their way into the data stream for State Unintentional Drug Overdose Reporting System entry. This problem is currently being resolved and represents a growing need for data science in exploiting the valuable information collected by medical examiners and coroners.[30]

TABLE 7. Sensitivity, PPV, Specificity, NPV, and Accuracy for In-House Blood Testing Combined With Urine Testing of 730 Cases, Compared With Final Death Certification

Drug	Sensitivity, %	PPV, %	Specificity, %	NPV, %	Accuracy, %
Fentanyl	93	97	97	92	95
Methamphetamine	88	99	99	90	94
Opiate/morphine	93	93	97	97	96
Cocaine	94	89	97	98	96

TABLE 8. Sensitivity, PPV, Specificity, NPV, and Accuracy for In-House Blood Testing Combined With Drug Evidence Testing of 656 Cases, Compared With Final Death Certification

Drug	Sensitivity, %	PPV, %	Specificity, %	NPV, %	Accuracy, %
Fentanyl	73	99	99	78	86
Methamphetamine	75	100	100	78	86
Opiate/morphine	75	95	98	97	89
Cocaine	58	82	96	88	87

Limitations of this study and RDC methodology were largely due to the separation of KCMEO from the testing laboratories and the length of time between postmortem examination and final certification. Although excellent collaboration existed between KCMEO and WSP for the period of study, the WSP toxicology laboratory depended heavily on NMS Labs to manage their backlog. Thus, there were long delays, weeks to months, between specimen collection and receipt of final toxicology results. Furthermore, discrepancies between RDC testing and final toxicology results were difficult to resolve, requiring communications with 2 different laboratories, both external to KCMEO. This limitation was especially challenging in resolving discrepancies in results for cocaine. Part of cocaine's discrepancy seemed to be due to higher levels of reporting positive results by the toxicology laboratories compared with in-house blood testing for RDC; the higher threshold of the toxicology laboratory may have resulted in false-negative results. For example, in certain cases, scene investigation, blood testing, urine testing, and drug evidence testing all indicated cocaine's involvement in the overdose in the absence of a positive toxicology laboratory result; communicating directly with the toxicology laboratory analysts confirmed the presence of cocaine or benzoylecgonine but at levels below their reporting limit. On the other hand, relying on RDC data in the face of conflicting toxicology laboratory results jeopardized the concept of the "criterion standard." This problem deserves further study. Another limitation was due to the way death certificates were identified for analysis in this study; this depended on the certifying pathologist remembering to flag the case as described earlier. Thus, some cases initially certified by RDC may have been missed in the present analysis. On the other hand, over the course of the 3 years encompassed by this study, KCMEO pathologists became more familiar and confident with the processes, leading to a gradual maturation in using RDC methodology.

In summary, this study shows that the methods described offer a reasonable means of rapidly issuing death certificates, for the benefit of families and facilitating responses by agencies of law enforcement and public health. Because of concerted efforts in "real-time" fatal drug overdose surveillance, the KCMEO has become the center of overdose information collection and dissemination

TABLE 9. Sensitivity, PPV, Specificity, NPV, and Accuracy for In-House Blood Testing Combined With Urine and Drug Evidence Testing of 504 Cases, Compared With Final Death Certification

Drug	Sensitivity, %	PPV, %	Specificity, %	NPV, %	Accuracy, %
Fentanyl	68	100	100	69	82
Methamphetamine	71	99	100	77	85
Opiate/morphine	70	97	99	87	89
Cocaine	52	91	98	87	88

Attachment B: List of Opioid Remediation Uses

Final Distributor Settlement Agreement – Exhibit E

Schedule A Core Strategies

Settling States and Exhibit G Participants may choose from among the abatement strategies listed in Schedule B. However, priority may be given to the following core abatement strategies ("*Core Strategies*").[1]

[1] As used in this Schedule A, words like "expand," "fund," "provide" or the like shall not indicate a preference for new or existing programs.

NALOXONE OR OTHER FDA-APPROVED DRUG TO REVERSE OPIOID OVERDOSES

Expand training for first responders, schools, community support groups and families; and

Increase distribution to individuals who are uninsured or whose insurance does not cover the needed service.

MEDICATION-ASSISTED TREATMENT ("*MAT*") DISTRIBUTION AND OTHER OPIOID-RELATED TREATMENT

Increase distribution of MAT to individuals who are uninsured or whose insurance does not cover the needed service;

Provide education to school-based and youth-focused programs that discourage or prevent misuse;

Provide MAT education and awareness training to healthcare providers, EMTs, law enforcement, and other first responders; and

Provide treatment and recovery support services such as residential and inpatient treatment, intensive outpatient treatment, outpatient therapy or counseling, and recovery housing that allow or integrate medication and with other support services.

PREGNANT & POSTPARTUM WOMEN

Expand Screening, Brief Intervention, and Referral to Treatment ("*SBIRT*") services to non-Medicaid eligible or uninsured pregnant women;

Expand comprehensive evidence-based treatment and recovery services, including MAT, for women with co- occurring Opioid Use Disorder ("*OUD*") and other

Substance Use Disorder ("*SUD*")/Mental Health disorders for uninsured individuals for up to 12 months postpartum; and

Provide comprehensive wrap-around services to individuals with OUD, including housing, transportation, job placement/training, and childcare.

EXPANDING TREATMENT FOR NEONATAL ABSTINENCE SYNDROME (“*NAS*”)

Expand comprehensive evidence-based and recovery support for NAS babies;

Expand services for better continuum of care with infant- need dyad; and

Expand long-term treatment and services for medical monitoring of NAS babies and their families.

EXPANSION OF WARM HAND-OFF PROGRAMS AND RECOVERY SERVICES

Expand services such as navigators and on-call teams to begin MAT in hospital emergency departments;

Expand warm hand-off services to transition to recovery services;

Broaden scope of recovery services to include co-occurring SUD or mental health conditions;

Provide comprehensive wrap-around services to individuals in recovery, including housing, transportation, job placement/training, and childcare; and

Hire additional social workers or other behavioral health workers to facilitate expansions above.

TREATMENT FOR INCARCERATED POPULATION

Provide evidence-based treatment and recovery support, including MAT for persons with OUD and co-occurring SUD/MH disorders within and transitioning out of the criminal justice system; and

Increase funding for jails to provide treatment to inmates with OUD.

PREVENTION PROGRAMS

Funding for media campaigns to prevent opioid use (similar to the FDA’s “Real Cost” campaign to prevent youth from misusing tobacco);

Funding for evidence-based prevention programs in schools;

Funding for medical provider education and outreach regarding best prescribing practices for opioids consistent with CDC guidelines, including providers at hospitals (academic detailing);

Funding for community drug disposal programs; and

Funding and training for first responders to participate in pre- arrest diversion programs, post-overdose response teams, or similar strategies that connect at-risk individuals to behavioral health services and supports.

EXPANDING SYRINGE SERVICE PROGRAMS

Provide comprehensive syringe services programs with more wrap-around services, including linkage to OUD treatment, access to sterile syringes and linkage to care and treatment of infectious diseases.

EVIDENCE-BASED DATA COLLECTION AND RESEARCH ANALYZING THE EFFECTIVENESS OF THE ABATEMENT STRATEGIES WITHIN THE STATE

Attachment C: Approved Uses of Opioid Settlement Funds

Final Distributor Settlement Agreement – Exhibit E

Schedule B Approved Uses

[2] As used in this Schedule B, words like "expand," "fund," "provide" or the like shall not indicate a preference for new or existing programs.

Support treatment of Opioid Use Disorder (OUD) and any co-occurring Substance Use Disorder or Mental Health (SUD/MH) conditions through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, the following:

TREAT OPIOID USE DISORDER (OUD)

Support treatment of Opioid Use Disorder ("*OUD*") and any co-occurring Substance Use Disorder or Mental Health ("*SUD/MH*") conditions through evidence-based or evidence- informed programs or strategies that may include, but are not limited to, those that:[2]

Expand availability of treatment for OUD and any co-occurring SUD/MH conditions, including all forms of Medication-Assisted Treatment ("*MAT*") approved by the U.S. Food and Drug Administration.

Support and reimburse evidence-based services that adhere to the American Society of Addiction Medicine ("*ASAM*") continuum of care for OUD and any co-occurring SUD/MH conditions.

Expand telehealth to increase access to treatment for OUD and any co-occurring SUD/MH conditions, including MAT, as well as counseling, psychiatric support, and other treatment and recovery support services.

Improve oversight of Opioid Treatment Programs ("*OTPs*") to assure evidence-based or evidence-informed practices such as adequate methadone dosing and low threshold approaches to treatment.

Support mobile intervention, treatment, and recovery services, offered by qualified professionals and service providers, such as peer recovery coaches, for persons with OUD and any co-occurring SUD/MH conditions and for persons who have experienced an opioid overdose.

Provide treatment of trauma for individuals with OUD (*e.g.*, violence, sexual assault, human trafficking, or adverse childhood experiences) and family members (*e.g.*, surviving family members after an overdose or overdose fatality), and training of health care personnel to identify and address such trauma.

Support evidence-based withdrawal management services for people with OUD and any co-occurring mental health conditions.

Provide training on MAT for health care providers, first responders, students, or other supporting professionals, such as peer recovery coaches or recovery outreach specialists, including telementoring to assist community-based providers in rural or underserved areas.

Support workforce development for addiction professionals who work with persons with OUD and any co-occurring SUD/MH conditions.

Offer fellowships for addiction medicine specialists for direct patient care, instructors, and clinical research for treatments.

Offer scholarships and supports for behavioral health practitioners or workers involved in addressing OUD and any co-occurring SUD/MH or mental health conditions, including, but not limited to, training, scholarships, fellowships, loan repayment programs, or other incentives for providers to work in rural or underserved areas.

Provide funding and training for clinicians to obtain a waiver under the federal Drug Addiction Treatment Act of 2000 ("*DATA 2000*") to prescribe MAT for OUD, and provide technical assistance and professional support to clinicians who have obtained a DATA 2000 waiver.

Disseminate web-based training curricula, such as the American Academy of Addiction Psychiatry's Provider Clinical Support Service–Opioids web-based training curriculum and motivational interviewing.

Develop and disseminate new curricula, such as the American Academy of Addiction Psychiatry's Provider Clinical Support Service for Medication–Assisted Treatment.

SUPPORT PEOPLE IN TREATMENT AND RECOVERY

Support people in recovery from OUD and any co-occurring SUD/MH conditions through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, the programs or strategies that:

Provide comprehensive wrap-around services to individuals with OUD and any co- occurring SUD/MH conditions, including housing, transportation, education, job placement, job training, or childcare.

Provide the full continuum of care of treatment and recovery services for OUD and any co-occurring SUD/MH conditions, including supportive housing, peer support services and counseling, community navigators, case management, and connections to community-based services.

Provide counseling, peer-support, recovery case management and residential treatment with access to medications for those who need it to persons with OUD and any co-occurring SUD/MH conditions.

Provide access to housing for people with OUD and any co-occurring SUD/MH conditions, including supportive housing, recovery housing, housing assistance programs, training for housing providers, or recovery housing programs that allow or integrate FDA-approved mediation with other support services.

Provide community support services, including social and legal services, to assist in deinstitutionalizing persons with OUD and any co-occurring SUD/MH conditions.

Support or expand peer-recovery centers, which may include support groups, social events, computer access, or other services for persons with OUD and any co- occurring SUD/MH conditions.

Provide or support transportation to treatment or recovery programs or services for persons with OUD and any co-occurring SUD/MH conditions.

Provide employment training or educational services for persons in treatment for or recovery from OUD and any co-occurring SUD/MH conditions.

Identify successful recovery programs such as physician, pilot, and college recovery programs, and provide support and technical assistance to increase the number and capacity of high-quality programs to help those in recovery.

Engage non-profits, faith-based communities, and community coalitions to support people in treatment and recovery and to support family members in their efforts to support the person with OUD in the family.

Provide training and development of procedures for government staff to appropriately interact and provide social and other services to individuals with or in recovery from OUD, including reducing stigma.

Support stigma reduction efforts regarding treatment and support for persons with OUD, including reducing the stigma on effective treatment.

Create or support culturally appropriate services and programs for persons with OUD and any co-occurring SUD/MH conditions, including new Americans.

Create and/or support recovery high schools.

Hire or train behavioral health workers to provide or expand any of the services or supports listed above.

CONNECT PEOPLE WHO NEED HELP TO THE HELP THEY NEED (CONNECTIONS TO CARE)

Provide connections to care for people who have—or are at risk of developing—OUD and any co-occurring SUD/MH conditions through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, those that:

Ensure that health care providers are screening for OUD and other risk factors and know how to appropriately counsel and treat (or refer if necessary) a patient for OUD treatment.

Fund SBIRT programs to reduce the transition from use to disorders, including SBIRT services to pregnant women who are uninsured or not eligible for Medicaid.

Provide training and long-term implementation of SBIRT in key systems (health, schools, colleges, criminal justice, and probation), with a focus on youth and young adults when transition from misuse to opioid disorder is common.

Purchase automated versions of SBIRT and support ongoing costs of the technology.

Expand services such as navigators and on-call teams to begin MAT in hospital emergency departments.

Provide training for emergency room personnel treating opioid overdose patients on post-discharge planning, including community referrals for MAT, recovery case management or support services.

Support hospital programs that transition persons with OUD and any co-occurring SUD/MH conditions, or persons who have experienced an opioid overdose, into clinically appropriate follow-up care through a bridge clinic or similar approach.

Support crisis stabilization centers that serve as an alternative to hospital emergency departments for persons with OUD and any co-occurring SUD/MH conditions or persons that have experienced an opioid overdose.

Support the work of Emergency Medical Systems, including peer support specialists, to connect individuals to treatment or other appropriate services following an opioid overdose or other opioid-related adverse event.

Provide funding for peer support specialists or recovery coaches in emergency departments, detox facilities, recovery centers, recovery housing, or similar settings; offer services, supports, or connections to care to persons with OUD and any co- occurring SUD/MH conditions or to persons who have experienced an opioid overdose.

Expand warm hand-off services to transition to recovery services.

Create or support school-based contacts that parents can engage with to seek immediate treatment services for their child; and support prevention, intervention, treatment, and recovery programs focused on young people.

Develop and support best practices on addressing OUD in the workplace.

Support assistance programs for health care providers with OUD.

Engage non-profits and the faith community as a system to support outreach for treatment.

Support centralized call centers that provide information and connections to appropriate services and supports for persons with OUD and any co-occurring SUD/MH conditions.

ADDRESS THE NEEDS OF CRIMINAL JUSTICE-INVOLVED PERSONS

Address the needs of persons with OUD and any co-occurring SUD/MH conditions who are involved in, are at risk of becoming involved in, or are transitioning out of the criminal justice system through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, those that:

Support pre-arrest or pre-arraignment diversion and deflection strategies for persons with OUD and any co-occurring SUD/MH conditions, including established strategies such as:

Self-referral strategies such as the Angel Programs or the Police Assisted Addiction Recovery Initiative ("*PAARI*");

Active outreach strategies such as the Drug Abuse Response Team ("*DART*") model;

"Naloxone Plus" strategies, which work to ensure that individuals who have received naloxone to reverse the effects of an overdose are then linked to treatment programs or other appropriate services;

Officer prevention strategies, such as the Law Enforcement Assisted Diversion ("*LEAD*") model;

Officer intervention strategies such as the Leon County, Florida Adult Civil Citation Network or the Chicago Westside Narcotics Diversion to Treatment Initiative; or

Co-responder and/or alternative responder models to address OUD-related 911 calls with greater SUD expertise.

Support pre-trial services that connect individuals with OUD and any co-occurring SUD/MH conditions to evidence-informed treatment, including MAT, and related services.

Support treatment and recovery courts that provide evidence-based options for persons with OUD and any co-occurring SUD/MH conditions.

Provide evidence-informed treatment, including MAT, recovery support, harm reduction, or other appropriate services to individuals with OUD and any co- occurring SUD/MH conditions who are incarcerated in jail or prison.

Provide evidence-informed treatment, including MAT, recovery support, harm reduction, or other appropriate services to individuals with OUD and any co- occurring SUD/MH conditions who are leaving jail or prison or have recently left jail or prison, are on probation or parole, are under community corrections supervision, or are in re-entry programs or facilities.

Support critical time interventions ("*CTI*"), particularly for individuals living with dual-diagnosis OUD/serious mental illness, and services for individuals who face immediate risks and service needs and risks upon release from correctional settings.

Provide training on best practices for addressing the needs of criminal justice- involved persons with OUD and any co-occurring SUD/MH conditions to law enforcement, correctional, or judicial personnel or to providers of treatment, recovery, harm reduction, case management, or other services offered in connection with any of the strategies described in this section.

ADDRESS THE NEEDS OF PREGNANT OR PARENTING WOMEN AND THEIR FAMILIES, INCLUDING BABIES WITH NEONATAL ABSTINENCE SYNDROME

Address the needs of pregnant or parenting women with OUD and any co-occurring SUD/MH conditions, and the needs of their families, including babies with neonatal

abstinence syndrome ("*NAS*"), through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, those that:

Support evidence-based or evidence-informed treatment, including MAT, recovery services and supports, and prevention services for pregnant women—or women who could become pregnant—who have OUD and any co-occurring SUD/MH conditions, and other measures to educate and provide support to families affected by Neonatal Abstinence Syndrome.

Expand comprehensive evidence-based treatment and recovery services, including MAT, for uninsured women with OUD and any co-occurring SUD/MH conditions for up to 12 months postpartum.

Provide training for obstetricians or other healthcare personnel who work with pregnant women and their families regarding treatment of OUD and any co-occurring SUD/MH conditions.

Expand comprehensive evidence-based treatment and recovery support for NAS babies; expand services for better continuum of care with infant-need dyad; and expand long-term treatment and services for medical monitoring of NAS babies and their families.

Provide training to health care providers who work with pregnant or parenting women on best practices for compliance with federal requirements that children born with NAS get referred to appropriate services and receive a plan of safe care.

Provide child and family supports for parenting women with OUD and any co- occurring SUD/MH conditions.

Provide enhanced family support and childcare services for parents with OUD and any co-occurring SUD/MH conditions.

Provide enhanced support for children and family members suffering trauma as a result of addiction in the family; and offer trauma-informed behavioral health treatment for adverse childhood events.

Offer home-based wrap-around services to persons with OUD and any co-occurring SUD/MH conditions, including, but not limited to, parent skills training.

Provide support for Children's Services—Fund additional positions and services, including supportive housing and other residential services, relating to children being removed from the home and/or placed in foster care due to custodial opioid use.

PREVENT OVER-PRESCRIBING AND ENSURE APPROPRIATE PRESCRIBING AND DISPENSING OF OPIOIDS

Support efforts to prevent over-prescribing and ensure appropriate prescribing and dispensing of opioids through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, the following:

Funding medical provider education and outreach regarding best prescribing practices for opioids consistent with the Guidelines for Prescribing Opioids for Chronic Pain from the U.S. Centers for Disease Control and Prevention, including providers at hospitals (academic detailing).

Training for health care providers regarding safe and responsible opioid prescribing, dosing, and tapering patients off opioids.

Continuing Medical Education (CME) on appropriate prescribing of opioids.

Providing Support for non-opioid pain treatment alternatives, including training providers to offer or refer to multi-modal, evidence-informed treatment of pain.

Supporting enhancements or improvements to Prescription Drug Monitoring Programs ("*PDMPs*"), including, but not limited to, improvements that:

Increase the number of prescribers using PDMPs;

Improve point-of-care decision-making by increasing the quantity, quality, or format of data available to prescribers using PDMPs, by improving the interface that prescribers use to access PDMP data, or both; or

Enable states to use PDMP data in support of surveillance or intervention strategies, including MAT referrals and follow-up for individuals identified within PDMP data as likely to experience OUD in a manner that complies with all relevant privacy and security laws and rules.

Ensuring PDMPs incorporate available overdose/naloxone deployment data, including the United States Department of Transportation's Emergency Medical Technician overdose database in a manner that complies with all relevant privacy and security laws and rules.

Increasing electronic prescribing to prevent diversion or forgery.

Educating dispensers on appropriate opioid dispensing.

PREVENT MISUSE OF OPIOIDS

Support efforts to discourage or prevent misuse of opioids through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, the following:

Funding media campaigns to prevent opioid misuse.

Corrective advertising or affirmative public education campaigns based on evidence.

Public education relating to drug disposal.

Drug take-back disposal or destruction programs.

Funding community anti-drug coalitions that engage in drug prevention efforts.

Supporting community coalitions in implementing evidence-informed prevention, such as reduced social access and physical access, stigma reduction—including staffing, educational campaigns, support for people in treatment or recovery, or training of coalitions in evidence-informed implementation, including the Strategic Prevention Framework developed by the U.S. Substance Abuse and Mental Health Services Administration ("*SAMHSA*").

Engaging non-profits and faith-based communities as systems to support prevention.

Funding evidence-based prevention programs in schools or evidence-informed school and community education programs and campaigns for students, families, school employees, school athletic programs, parent-teacher and student associations, and others.

School-based or youth-focused programs or strategies that have demonstrated effectiveness in preventing drug misuse and seem likely to be effective in preventing the uptake and use of opioids.

Create or support community-based education or intervention services for families, youth, and adolescents at risk for OUD and any co-occurring SUD/MH conditions.

Support evidence-informed programs or curricula to address mental health needs of young people who may be at risk of misusing opioids or other drugs, including emotional modulation and resilience skills.

Support greater access to mental health services and supports for young people, including services and supports provided by school nurses, behavioral health workers or other school staff, to address mental health needs in young people that (when not properly addressed) increase the risk of opioid or another drug misuse.

PREVENT OVERDOSE DEATHS AND OTHER HARMS (HARM REDUCTION)

Support efforts to prevent or reduce overdose deaths or other opioid-related harms through evidence-based or evidence-informed programs or strategies that may include, but are not limited to, the following:

Increased availability and distribution of naloxone and other drugs that treat overdoses for first responders, overdose patients, individuals with OUD and their friends and family members, schools, community navigators and outreach workers, persons being released from jail or prison, or other members of the general public.

Public health entities providing free naloxone to anyone in the community.

Training and education regarding naloxone and other drugs that treat overdoses for first responders, overdose patients, patients taking opioids, families, schools, community support groups, and other members of the general public.

Enabling school nurses and other school staff to respond to opioid overdoses, and provide them with naloxone, training, and support.

Expanding, improving, or developing data tracking software and applications for overdoses/naloxone revivals.

Public education relating to emergency responses to overdoses.

Public education relating to immunity and Good Samaritan laws.

Educating first responders regarding the existence and operation of immunity and Good Samaritan laws.

Syringe service programs and other evidence-informed programs to reduce harms associated with intravenous drug use, including supplies, staffing, space, peer support services, referrals to treatment, fentanyl checking, connections to care, and the full range of harm reduction and treatment services provided by these programs.

Expanding access to testing and treatment for infectious diseases such as HIV and Hepatitis C resulting from intravenous opioid use.

Supporting mobile units that offer or provide referrals to harm reduction services, treatment, recovery supports, health care, or other appropriate services to persons that use opioids or persons with OUD and any co-occurring SUD/MH conditions.

Providing training in harm reduction strategies to health care providers, students, peer recovery coaches, recovery outreach specialists, or other professionals that provide care to persons who use opioids or persons with OUD and any co-occurring SUD/MH conditions.

Supporting screening for fentanyl in routine clinical toxicology testing.

FIRST RESPONDERS

In addition to items in section C, D and H relating to first responders, support the following:

Education of law enforcement or other first responders regarding appropriate practices and precautions when dealing with fentanyl or other drugs.

Provision of wellness and support services for first responders and others who experience secondary trauma associated with opioid-related emergency events.

LEADERSHIP, PLANNING AND COORDINATION

Support efforts to provide leadership, planning, coordination, facilitations, training and technical assistance to abate the opioid epidemic through activities, programs, or strategies that may include, but are not limited to, the following:

Statewide, regional, local or community regional planning to identify root causes of addiction and overdose, goals for reducing harms related to the opioid epidemic, and areas and populations with the greatest needs for treatment intervention services, and to support training and technical assistance and other strategies to abate the opioid epidemic described in this opioid abatement strategy list.

A dashboard to (a) share reports, recommendations, or plans to spend opioid settlement funds; (b) to show how opioid settlement funds have been spent; (c) to report program or strategy outcomes; or (d) to track, share or visualize key opioid- or health-related indicators and supports as identified through collaborative statewide, regional, local or community processes.

Invest in infrastructure or staffing at government or not-for-profit agencies to support collaborative, cross-system coordination with the purpose of preventing overprescribing, opioid misuse, or opioid overdoses, treating those with OUD and any co-occurring SUD/MH conditions, supporting them in treatment or recovery, connecting them to care, or implementing other strategies to abate the opioid epidemic described in this opioid abatement strategy list.

Provide resources to staff government oversight and management of opioid abatement programs.

TRAINING

In addition to the training referred to throughout this document, support training to abate the opioid epidemic through activities, programs, or strategies that may include, but are not limited to, those that:

Provide funding for staff training or networking programs and services to improve the capability of government, community, and not-for-profit entities to abate the opioid crisis.

Support infrastructure and staffing for collaborative cross-system coordination to prevent opioid misuse, prevent overdoses, and treat those with OUD and any co- occurring SUD/MH conditions, or implement other strategies to abate the opioid epidemic described in this opioid abatement strategy list (*e.g.*, health care, primary care, pharmacies, PDMPs, etc.).

RESEARCH

Support opioid abatement research that may include, but is not limited to, the following:

Monitoring, surveillance, data collection and evaluation of programs and strategies described in this opioid abatement strategy list.

Research non-opioid treatment of chronic pain.

Research on improved service delivery for modalities such as SBIRT that demonstrate promising but mixed results in populations vulnerable to opioid use disorders.

Research on novel harm reduction and prevention efforts such as the provision of fentanyl test strips.

Research on innovative supply-side enforcement efforts such as improved detection of mail-based delivery of synthetic opioids.

Expanded research on swift/certain/fair models to reduce and deter opioid misuse within criminal justice populations that build upon promising approaches used to address other substances (*e.g.*, Hawaii HOPE and Dakota 24/7).

Epidemiological surveillance of OUD-related behaviors in critical populations, including individuals entering the criminal justice system, including, but not limited to approaches modeled on the Arrestee Drug Abuse Monitoring ("ADAM") system.

Qualitative and quantitative research regarding public health risks and harm reduction opportunities within illicit drug markets, including surveys of market participants who sell or distribute illicit opioids.

Geospatial analysis of access barriers to MAT and their association with treatment engagement and treatment outcomes

Coroner Agreement - Randox Final

Final Audit Report 2025-07-21

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