SUPPORTING STATEMENT: PART A

Medication-Assisted Treatment (MAT) for Opioid Use Disorders Study

OMB# 0920-1218

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A. JUSTIFICATION

Summary Table

- Goal of the study:

This is a revision request for the Medication-Assisted Treatment (MAT) for Opioid Use Disorders Study (OMB# 0920-1218). In this request we will continue collecting for this epidemiologic study to assess the real-world client outcomes of three types of Medication-Assisted Treatment (MAT) and counseling without medication for individuals with Opioid Use Disorder (OUD). This revision is only needed for one of the data collection instruments.

- Intended use of the resulting data:

Data collected will be used to assess the impact of MAT or counseling without medication along with the contextual, provider, and individual factors that influence the implementation of four treatments as well as client well-being, across these treatments, over an 18-month period.

- Methods to be used to collect:

This observational study will use longitudinal quantitative surveys and qualitative focus groups to collect data on patients and treatment facility staff.

- The subpopulations to be studied:

Individuals starting a new treatment episode for OUD enrolled in MAT (MMT, BUP, or NTX) or counseling without medication (COUN). Staff at participating treatment facilities such as site administrators, doctors, clinicians, nurses and counselors.

- How data will be analyzed:

The study will use a mixed-methods approach using quantitative methods such as multilevel latent growth models, propensity score matching, latent class analysis and advance mediation analysis and qualitative methods such as interactive coding and analysis for

A.1 Circumstances Making the Collection of Information Necessary

This is a revision request for the currently approved ICR for the Medication-Assisted Treatment (MAT) for Opioid Use Disorders Study (OMB# 0920-1218), expiration date 02/28/2021. With this revision, CDC is requesting OMB approval for an additional 1 year to

continue and finish data collection efforts. Client recruitment for this study was originally scheduled to take place between 5/1/2018 and 8/31/2019, however patient recruitment levels were lower than originally anticipated. The recruitment period was extended to 11/30/2019 to enable to recruit additional patients. Because the follow-up period for this study is 18 months, patients recruited during the extended recruitment period (8/31/2019 to 11/30/2019) will need to complete their final 18-Month Patient Questionnaire between 2/28/2021 and 5/31/2021, which is after the current OMB expiration date. The extended time period is only needed for one of the data collection instruments described in this document: the 18-Month Patient Questionnaire (Att. 4), thus there is a reduction in burden of 2,793 hours.

This data collection effort is authorized under Section 301 of the Public Health Service Act (42 U.S.C. 241) 280-1a (Att. 1). This data collection effort is necessary and unique. To better address the opioid use epidemic and the increasing public health risk due to opioid-related overdoses it is necessary for the CDC to use this data collection to assess MAT treatment and counseling without medication for OUD in real-world settings. The information gained from this data collection will help inform policy makers, communities, and providers on how individual characteristics and contextual factors may impact client outcomes.

The United States is in the midst of a public health emergency, and control of the opioid overdose epidemic is a priority for the White House, the Department of Health and Human Services, and the CDC. On October 26, 2017, President Donald J. Trump instructed the Administration to use all appropriate emergency and other authorities to respond to the crisis caused by the opioid epidemic and the Secretary of HHS declared the opioid crisis a public health emergency. In 2015, there were over 52,000 drug overdose deaths in the United States. Provisional data from CDC's National Center for Health Statistics indicate that deaths will climb to unprecedented levels in 2016 (over 64,000). Opioids are involved in approximately 60% of fatal drug overdoses, and this is a substantial underestimate because the specific drug causing an overdose is not listed on death certificates for 1 in 5 drug overdose deaths (Rudd et al, 2016).

OUD has been identified by DHHS as part of the national opioid overdose crisis (ASPE 2015). OUD is a problematic pattern of opioid use that causes significant impairment or distress characterized by unsuccessful efforts to control use and failure to fulfill family, social, work-related, or school-related obligations. About 2 million people aged 12 or older in the United

States have OUDs related to prescription opioids and almost 600,000 have OUDs related to heroin use (CBHSQ, 2016). Many of these people do not receive OUD treatment (CDC, 2017, CBHSQ, 2016). Further, we know little about the ideal care regimen for various sub-populations (Pacific Northwest Evidence-Based Practice Center, 2016).

The U.S. Food and Drug Administration has approved three classes of medications for the treatment of an OUD: methadone maintenance therapy (MMT), buprenorphine (BUP), and naltrexone (NTX) (Dunlap and Cifu, 2016). Few studies are available to help patients and providers make informed decisions about the risks and benefits associated with the different MATs (Kampman and Jarvis, 2015). Understanding the outcomes associated with different types of MAT is crucial because differences in pharmacological characteristics and routes of administration across medications, patients' physiological responses to medication, patients' underlying or co-occurring conditions, and provider or site characteristics all influence how patients respond to the treatment and, thus, their long-term treatment success.

Aligned with CDC's role in advancing public health practice, this observational cohort study, will yield important information about MAT implementation and the patient, provider, and site factors that can influence MAT outcomes. The study is heavily informed by and expands upon the MAT randomized controlled trials conducted by the National Institute on Drug Abuse (NIDA), and builds upon the practice-based efforts of the Substance Abuse and Mental Health Services Administration (SAMHSA) to evaluate the impact of their programmatic funding.

To help understand the factors involved in successful treatment, this original study was conducted with 62 OUD treatment facilities located in 14 metropolitan statistical areas (MSAs) across the United States. Data was collected from patients with OUD enrolled in MAT (MMT, BUP, or NTX) or counseling without medication treatment, regardless of retention in treatment. These respondents are referred to as patients throughout this document. Data was also collected from staff at participating treatment facilities such as site administrators, doctors, clinicians, nurses and counselors; treatment facilities selected the type of staff who participated in data collection activities. These respondents are referred to as treatment facility staff throughout this document.

Prior randomized controlled trials have demonstrated that MAT with methadone, buprenorphine, or naltrexone with counseling is the most effective treatment for opioid use

disorder (Weiss et al., 2015). MAT is associated with decreases in withdrawal symptoms, reductions in opioid use, reductions in risk behaviors that can transmit HIV and HCV, reductions in crime and recidivism, and decreases in the likelihood of overdose death (Thomas et al, 2014; Thomas et al, 2014). Despite this effectiveness, MAT remains vastly under-utilized. According to SAMHSA's Treatment Episode Data Set (TEDS), the proportion of heroin admissions with treatment plans that included receiving MAT decreased from 35% in 2002 to 28% in 2010. HHS estimates that in 2014, 1.2 million people eligible to receive MAT for an opioid use disorder did not receive treatment.

Recently, there has been a concerted federal effort to expand use of and access to MAT. This includes expanding the use of MAT within opioid treatment programs, increasing the number of physicians who can prescribe buprenorphine in the office-based setting, and expanding the use of long-acting injectable naltrexone. The MAT Study will extend previous research by 1) assessing the treatment, individual, and contextual factors that influence implementation and outcomes in real-world settings; 2) targeting a larger sample size (n=1,926) than previous studies; and, 3) providing a longer follow-up window (i.e., 18-month follow-up period with patients) than previous studies so that we can collect data on short- and longer-term outcomes and relapses. Outcomes from this study are not designed to identify or guide policy. CDC has collaborated with other relevant federal agencies (See Section A.8) to avoid duplication and maximize efficiencies in data collection.

The data collection that has taken place so far has yielded valuable insights into the patterns of opioid treatment at the study sites. Patient recruitment has differed greatly by geography and treatment type. Patient treatment type varies by geography, age, time in treatment, sex, and race/ethnicity. We anticipate that valuable scientific conclusions will be able to be drawn from the longitudinal data that is currently being collected.

A.2 Purposes and Use of the Information Collection

CDC is requesting OMB approval to continue and finish data collection efforts. Because the follow-up period for this study is 18 months, patients recruited during the extended recruitment period (8/31/2019 to 11/30/2019) will need to complete their final 18-Month Patient Questionnaire between 2/28/2021 and 5/31/2021, which is after the current OMB expiration date.

The extended time period is only needed for one of the data collection instruments described in this document: the 18-Month Patient Questionnaire (Att. 4). The other data collection instruments and strategies discussed in this document are presented as the context of the original submission and explanation of what has already taken place; additional approvals are neither needed nor being requested. More detail about program changes and adjustments is provided in section A.15. The extended time period is only needed for one of the data collections instruments, thus there is a reduction in burden of 2,793 hours.

There have previously been two non-substantial change requests for this project. The focus of both these change requests was to expand clinic recruitment into additional MSAs as a way of recruiting more treatment sites and more patients into the study. More about these change requests is given in section A.15.

Exhibit 1 outlines the evaluation questions that guided the creation of the data collection instruments and will guide the analysis and dissemination that follows.

Exhibit 1. Evaluation Questions

Evaluation Questions
What outcomes are associated with participation in MAT (BUP, MMT, NTX) and COUN?
What are the program factors that are associated with positive MAT outcomes?
What are the characteristics of program participants that are associated with positive MAT outcomes?
Does MAT improve the health-related quality of life of people with an OUD?

BUP = buprenorphine; COUN = counseling without medication; MAT = medication-assisted treatment; MMT = methadone; NTX = naltrexone; OUD = opioid use disorder.

Exhibit 2 provides a summary of the study measures that are being collected in the 18-Month Patient Questionnaire and other longitudinal patient questionnaires (i.e. the Baseline Patient Questionnaire and 12-Month Patient Questionnaire, which will be completed by 2/28/2021).

Exhibit 2. Study Measures

	Domain / Study Measure
	Treatment Intensity
1	Number of days/weeks participating in treatment
2	Number of counseling sessions attended
	Adverse Outcomes from Opioids
3	Number of substance use (and opioid)–related emergency department visits
4	Number of substance use (and opioid)–related hospitalizations
5	Number of non-fatal drug (and opioid) overdoses
	Substance Abuse Outcomes
6	Number of calendar months with at least one negative opioid urine test, and no positive urine tests for other substances (excluding MAT drug)
7	Number of days/weeks abstinent from opioids (excluding MAT drug), self-report
	Social Outcomes
8	Employment status (yes/no and length of employment)
9	Number of diversion incidents
	Health Related Quality of Life
10	Number/rate of QALYs or DALYs
	Adverse Treatment Outcomes
11	Number adverse events associated with medication
	Medical Outcomes
12	Number of positive HIV tests
13	Number of positive HCV tests
14	Number of positive birth outcomes among women who have substance use disorders and are pregnant
15	Number of positive birth outcomes among women who have an opioid use disorder and are pregnant
	Access to Medical Treatment
16	Access to primary care medical treatment (on client roster with a primary care physician, at least one visit in the past year)
	Factors Facilitating Treatment
17	Access to reliable transportation (e.g., car ownership/leasing, monthly public transportation pass)
	Treatment Course
18	Number/rate of subsequent treatment episodes

DALY = disability-adjusted life-year; HCV = hepatitis C virus; MAT = medication-assisted treatment; QALY = quality-adjusted life year.

Patient Questionnaire: 18-Month Follow-Up

Data collection for the 18-Month Patient Questionnaire (Att. 4) will continue until 5/31/2021. The 18-Month Patient Questionnaire is the only data collection currently requiring approval. As of December 31, 2019, the Baseline Patient Questionnaire has completed data collection, with 1,975 completed patient interviews. As of August 31, 2020, the 12-Month Patient Questionnaire is still being administered, with 774 completed patient interviews and an additional 771 targeted for completion by December 31, 2020.

The 18-Month Patient Questionnaire captures detailed information on client characteristics and outcomes which allow the study to comprehensively measure a wide range of client outcomes at the conclusion of an 18-month period. Questions are drawn from established tools used regularly with individuals seeking and obtaining substance use treatment. The majority of the scales and sub-scales included in the questionnaire have demonstrated reliability and validity in prior studies as indicated in ***Exhibit 3***. Patient demographics were only collected at baseline while the remaining measures will be collected at12 and 18 months. Using a web-based tool, a client can complete the questionnaire independently; if needed an RTI FI will be available to assist the client. This repeated collection over time is critical to the data collection's design and will allow the study to more completely answer the evaluations questions. The topic areas and their associated measures listed in Exhibit 3 will be used in two ways: 1) as outcome measures to help understand the positive and negative impacts of treatment or the lack of treatment and 2) as control variables to understand how client characteristics influence client outcomes. The outcome measures listed in Exhibit 2 are necessary to document both the immediate outcomes such as reduced substance use well as longer term outcomes such as employment and quality of life. Collecting the control variables listed in Exhibit 3 is necessary to better understand how client characteristics such as childhood trauma, mental health disorders, and physical health mediate or moderate a client's treatment outcomes.

Exhibit 3. Patient Questionnaire Measures

Topic Area	Measures
Outcome Measures	
Treatment Status	Determines if the respondent is still participating in OUD treatment. Identifies characteristics of the client's index treatment (treatment episode during which they enrolled in the MAT Study) and as well as pre- and post-index treatment received.
Substance Use	Questions on substance use are derived from the 2015 National Survey on Drug Use and

Topic Area	Measures
	Health (NSDUH) and ask the respondent about their use of substances (i.e., opioids, heroin, illicitly-made fentanyl, stimulants, sedatives, neuropathics, marijuana, cocaine, methamphetamine, krokodil, synthetics, inhalants, alcohol, and tobacco) over the last 12-months, 90 days, 30 days, and while in treatment.
Opioid Quit Attempts	Questions on opioid quit attempts are derived from the Center for Substance Abuse Treatment (CSAT, 2016) measures. These questions address the number of times the client has attempted to quit using opioids, number of times the client quit using opioids for more than five days, and the longest amount of time the client quit using opioids.
Crime and criminal behavior	Questions derived from the CSAT Client Government Performance and Results Act (GPRA) Tool (2016) include items about client's lifetime arrest history, most recent arrest, arrests over the last year, and current legal status.
Drug Overdose	Questions from the Overdose Baseline Questionnaire (Open Health Foundation, 2013) address the number of drug overdoses, the drugs involved, use of ambulance services, and use of naloxone. These are asked for lifetime, past 12 months, and past 90 days.
Health Outcomes and Quality of Life Years (QALYs)	Health outcomes are derived from the CDC Healthy Days measures and the EQ-5D (2016). The Healthy Days measures, found within the Behavioral Risk Factor Surveillance System (BRFSS), provide information on participants' health-related quality of life (HRQOL) through self-reported questions regarding participants' health behaviors, impairments, and symptoms. The EQ-5D™ is a standardized instrument that was designed by the EuroQol Research Foundation and allow development of QALYs.
Substance Use Treatment	Questions derived from the 2016 CSAT GPRA Tool and NSDUH addresses treatment, including detoxification, hospital care, emergency department services, self-help meeting services, alternative care, and primary care services. For MAT, specific sets of questions are based on question phrasing used in NSDUH (NSDUH, 2015).
Labor Market	Questions ask about client's current employment, income level, sources of income, absences from work, and absences from work related to opioid use.
Control Variables	
Demographics (most completed at Baseline only)	The questions include age, sex, ethnicity, race, sexual orientation, marital status, Zip Code, living arrangements, type of residence (independent or controlled), education, and military service. Two questions, derived from the recommendations of The Williams Institute GenIUSS Report (2014), are used to assess gender: the first asks patients for their assigned gender at birth, while the second asks patients for their current gender identity.
Social Support	Social support is measured using the Multi-Dimensional Scale of Perceived Social Support, developed by Zimet, Dahlem, Zimet, and Farley (1988).
Substance Abuse Stigma Perceptions	Questions regarding knowledge, attitudes, and beliefs about substance use come from the Substance Abuse Self-Stigma Scale (SASSS) item pool (Luoma et al., 2013) and include items on self-devaluation, fear of enacted stigma, and stigma avoidance and values disengagement.
Childhood Trauma	Questions from the CDC's BRFSS (CDC, 2015) include questions on potential negative experiences during childhood.
Physical Health	Questions from NSDUH (2015) include questions on lifetime diagnoses, history of HIV/AIDS, and HEP-C testing and outcomes.
Pregnancy	Questions ask about participant's history of pregnancy, participant's opioid use while pregnant, and if the participant's newborn was diagnosed with neonatal abstinence syndrome.
Mental Health Disorders and Mental Health Status	Three scales, the Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983), Patient Health Questionnaire (PHQ-9) (Kroenke, Spitzer, & Williams, 2001), and PC-PTSD scale (Prins et. al., 2015).
Suicidal Ideation and Attempts	Questions from the 2015 NSDUH ask the about the client's suicide ideation and attempts over the past 12 months.

PTSD = posttraumatic stress disorder.

All data collected are designed to be disseminated publicly to practitioners, individuals with OUDs, researchers, and lay audiences. The data collection will inform best practices, build the evidence base, and provide de-identified datasets for additional research. Dissemination activities are discussed fully in Section A.16.

A.3 Use of Improved Information Technology and Burden Reduction

The requested approval time period, for this collection, is only needed for one of the data collection instruments described in this document: the 18-Month Patient Questionnaire (Att. 4). Information technology is used, as appropriate, across all data collection activities. Its use reduces respondent burden, increases privacy, and streamlines data collection and processing across the 62 treatment facilities. The 18-Month Patient Questionnaires is being administered using a secure laptop computer, and the tool is web-based so patients can easily use it, including accessing it from a remote location if the patient's geographic area is impacted by COVID-19. The questionnaire has been programmed with automatic skip patterns, which are critical in allowing patients to quickly answer only the questions that are relevant to their experiences; for example, only answering questions related to the drugs they have used instead of responding to questions on all drug types. The automated questionnaires also allow patients the privacy to complete sensitive questions independent from the FI.

All data are securely transmitted with web-based tools being hosted on secure servers; further, client-identifying information are not collected or stored with client responses. To support patients without access to computers and other devices, staff will provide all the necessary technology to complete the questionnaires via in-person administration whenever possible.

A.4 Efforts to Identify Duplication and Use of Similar Information

The MAT Study design and protocols have been reviewed and shared with colleagues from the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institute on Drug Abuse (NIDA) to help ensure the data collected by the MAT Study avoids duplication. CDC has collaborated across federal agencies through a federal panel (see ***Section A.8)*** and other communications with federal staff, including Dr. Jones at the Office of

the Assistant Secretary for Planning and Evaluation, Dr. Campopiano at SAMHSA, and Dr. Tai at NIDA**.** SAMHSA's Opioid State Targeted Response (STR) Evaluation ((OMB#: 0930-0379) will be collecting data from opioid treatment facilities and their patients receiving Opioid STR funding or funded treatment services. The Opioid STR evaluation will focus data collection on better understanding the treatment services provided by treatment facilities before and after Opioid STR funding is received. Patients receiving Opioid STR funded services will be asked to complete the SAMHSA CSAT's GPRA tool which collects information on substance use, treatment services and general demographic information at baseline, discharge and 6-month post baseline.

While both the Opioid STR evaluation and the MAT Study examine similar populations and topics, the data collected differ significantly. The Opioid STR evaluation and the data collected for it are focused on assessing the impacts of the Opioid STR funding while the MAT Study collects data on the current implementation of OUD treatment across the United States. For client level measures, the MAT Study plans to collect data measures specific to patients obtaining OUD treatment at 12- and 18-month follow-up periods which will help capture longer term outcomes not covered by the GPRA data used in the Opioid STR evaluation. The MAT Study continues to track patients for 18 months, regardless of whether or not they are retained in MAT or counseling without medication to better understand the trajectory of and recovery from OUD.

Other studies of people with OUD include Novak et al., 2015 which estimated overall prevalence of misuse and abuse and examined psychosocial characteristics of individuals who inject drugs, including differences among methadone and buprenorphine. However, less than half of the study's sample were in treatment at baseline and the study was limited to the San Francisco area. Furthermore, the study did not provide extended follow-up of patients and it did not include other OUD treatment options (e.g., NTX, COUN). Novak et al., 2009 examined the link between physical pain and non-prescription analgesic use. This study relied on data from National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) sample which is a nationally representative sample including individuals within and without treatment. Although the study examined some of the same factors as in the MAT study, this study was not an examination of OUD treatment.

A.5 Impact on Small Businesses or Other Small Entities

Data will not be collected from small entities.

A.6 Consequences of Collecting the Information Less Frequently

The requested approval time period, for this collection, is only needed for one of the data collection instruments described in this document: the 18-Month Patient Questionnaire (Att. 4). The 18-month questionnaire is designed to provide data for a longer follow-up window than the current literature on MAT and counseling without medication and is especially needed to better understand the longer-term impacts of these treatments and the client characteristics that may influence outcomes. The current expiration of 2/28/2021 would result in approximately 400 of the targeted 987 clients being unable to complete the 18-month questionnaires, which would significantly reduce the patient population size, therefore reducing the statistical power for the main outcome analysis and reducing the overall scientific value of the project.

A.7 Special Circumstances Relating to the Guidelines of 5 CFR1320.5

This request fully complies with all guidelines of 5 CFR 1320.5. No special circumstances are required.

A.8 Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A.8.a) Federal Register Notice

A 60-day Federal Register Notice was published in the Federal Register on August 28, 2020, vol. 85, No. 168, pp. 53376 (Att. 2). CDC received 2 anonymous comments to the notice (Att.3). No changes were made to the data collection instruments based on public comments.

A.8.b) Efforts to Consult Outside the Agency

The study has convened three federal panels between January 9, 2017 and September 18, 2019. A fourth and final federal panel is planned for September 17, 2020. These panels have each included representatives from eight relevant federal agencies from outside CDC; ***Exhibit 4*** lists the panel's participants. The prior panels reviewed and provided comment on all the data

collection measures and the overall approach to the study. The final panel in 2021 will provide input and suggestions on analysis and dissemination of data collected.

Exhibit 4. Federal Panel Members

Melinda Campopiano, MD Chief Medical Officer Substance Abuse and Mental Health Services Administration	**Peter Lurie, MD, MPD** Associate Commissioner for Public Health Strategy and Analysis Food and Drug Administration
Sarah Q. Duffy, PhD Associate Director for Economic Research National Institute on Drug Abuse	**Richard Ricciardi, PhD, NP** Director, Division of Practice Improvement Agency for Healthcare Research and Quality
Kimberly Johnson, PhD, MBA, MA Director, Center for Substance Abuse Treatment Substance Abuse and Mental Health Services Administration	**Christopher Jones, PharmD, MPH** Director, National Mental Health and Substance Use Laboratory Department of Health and Human Services
Alexander Ross, ScD Senior Advisor on Behavioral Health Health Resources and Services Administration	**Carmen Rosa, MS** Regulatory Affairs Specialist National Institute on Drug Abuse
Betty Tai, PhD Director, Center for the Clinical Trials Network National Institute on Drug Abuse	**Mitra Ahadpour, MD, DABAM** Deputy Director, Office of Translational Services Food and Drug Administration
Crystal L. Barksdale, PhD, MPH Statistician Substance Abuse and Mental Health Services Administration	**Joel Dubenitz, PhD** Analyst Department of Health and Human Services
Wilson Compton, MD, MPE Deputy Director National Institute on Drug Abuse	**David Meyers, MD** Chief Medical Officer Agency for Healthcare Research and Quality
Kirsten Beronito, JD Senior Policy Advisor for Behavioral Health Center for Medicare and Medicaid Services	**Christopher Bersani, Psy.D, ABPP** Deputy Regional Administrator Health Resources Services Administration
Michael McNeely, MBA, MPH, CPHIMS Team Lead Health Resources and Services Administration	

A.9. Explanation of Any Payment or Gift to Respondents

Consistent with approved language included in previous and current versions of the patient consent, an incentive will be offered to patients completing the 18-Month Patient Questionnaire. The incentive consists of a physical or digital gift card to a local or national store

(e.g., Wal-Mart, Target, Amazon) in the amount of $30. We have constructed this study's incentive structure to be in line with incentives previously approved by the OMB for this collection as well as for similar surveys and supported by the literature.

Given the 18-month follow-up window and the desired 80 percent response rate, offering incentives is essential to the data collection and the overall study's success. In general, studies have shown that response rates have decreased over time (Brick & Williams 2013; Curtin, Presser, & Singer 2000). The offering of incentives for these data collection tools is comparable to incentives offered on similar data collections including the National Survey on Drug Use and Health (OMB No. 0930-0110), the National Intimate Partner and Sexual Violence Survey (NISVS) (OMB No. 0920-0822), and the Services Accountability Improvement System (OMB No. 0930-0208). This study faces three additional challenges in achieving the needed response rate. First, patients receiving OUD treatment are often hard to find and recruit; only a portion of individuals with OUD seek treatment and many may not want to identify as receiving treatment because of stigma, legal, and social concerns. Second, longitudinal surveys are valuable in tracking client outcomes over time but present challenges in data collection as individuals must be followed over time and encouraged to participate in the survey multiple times. Third, asking sensitive questions on drug use, criminal justice involvement, pregnancy and childhood trauma is burdensome on respondents but necessary to determine the effectiveness of treatment options for OUDs (James 1997).

A recent study of four alcohol and tobacco use studies showed that offering incentives increased on-time survey completion from 18% to 68% and using incentives achieved overall response rates of over 90% (Smith et. al., 2017). A longitudinal health study of individuals impacted by the 9/11 terrorist attacks in New York City found that offering a $10 incentive increased survey returns by 30% and increased the overall response rate by 18% (Yu et. al., 2017).

A.10 Protection of the Privacy and Confidentiality of Information Provided by Respondents

This submission has been reviewed by the NCIPC's Information Systems Security Officer, who has determined that the Privacy Act does apply because the study collects personal identifiable information (PII) which is protected by the Privacy Act (1974 and 1988). The

original Privacy Impact Assessment (PIA) is attached (Att. 5), and the original PIA is being updated to reflect that SSN and other PII is no longer being collected. The applicable System of Records Notice (SORN) was 09-20-0136, "Epidemiologic Studies and Surveillance of Disease Problems." See Federal Register: December 31, 1992 (Volume 57, Number 252), Pages 62812–62813.

Concern for privacy and protection of respondents' rights will play a central part in the implementation of all study components. Client responses are only identified by a random ID, and the dataset linking a client's responses with the identifying information is only accessible by the contractor's study director and managers. Additional details on how data security will be maintained is explained in SSB - Section B.2. Contractor staff have extensive experience protecting and maintaining the privacy of respondent data. All data are securely stored on a protected server to safeguard all project directories and analysis files containing completed survey data to ensure that no study data is inadvertently disclosed. In keeping with 45 CFR 46, Protection of Human Subjects, the procedures for data collection, consent, and data maintenance are formulated to protect respondents' rights and the privacy of information collected. Identifying information collection is used to track patients throughout the study.

Further, to help ensure and guarantee the privacy of people enrolled in sensitive, health-related research, the study's contractor has obtained a Certificate of Confidentiality from the CDC (Att.8). The Certificate of Confidentiality issued by the CDC protects identifiable research information from forced disclosure. It allows those on the research team who have access to the data to refuse to disclose identifying information on study participant in any civil, criminal, administrative, legislative or other proceeding. Through informed consent process participants are informed of the Certificate's protection of the privacy of people enrolled in the study (Att. 8). The CoC is in the process of being updated to reflect that SSN and other PII are no longer being collected.

The informed consent meets all federal requirements and details the additional protections provided by the certificate (Att. 8). Additionally, several procedures have been implemented to help ensure privacy and confidentiality. First, all study staff participate in initial confidentiality training and ongoing monitoring and supervision. Second, study staff collect and store client-identifying information separately from other data; study staff review data collection forms and remove any identifying information. Client-identifying information are stored in

password-protected files on secure servers to which only select study staff have access. Identifying information are not stored with study data, and all analysis datasets use a randomly generated client identifier. Third, all data are transmitted and stored securely. All sensitive and identifying information are stored on secure servers. The study team only have access to data as needed through password-protected, encrypted computers.

A.11 Institutional Review Board (IRB) and Justification for Sensitive Questions

IRB Approval

CDC has received IRB approval for this activity involving human subjects where CDC is not engaged through RTI's independent IRB, Advarra (Att. 6). Advarra meets all the Federal requirements as specified in 45 CFR 46, it is registered with the Office for Human Research Protections and with Federal Wide Assurance (FWA00023875). This ensures that this project involving human subjects comply with Federal regulations.

Sensitive Questions

While patients are asked about their drug use history, they are only asked general questions to characterize whether a client has ever used a particular type of drug in their lifetime, in the last year, and in the last month. As such, a client's responses to questions do not link them to any specific crime. Similarly, questions on mental and general health focus on how the client has felt in the last year and the last month. If these questions cause any distress for the client, the RTI FI provide a telephone number for a toll-free counseling hotline (1-800-273-TALK). If a RTI FI becomes aware of an emergency with the client, the RTI staff will call 911. Depending on the assessment of the situation, they may suggest that the client take a break or offer to come back later.

A full Informed Client Consent (Att. 7) was provided to each client prior to formally enrolling in the study and completing the Baseline Client Questionnaire. The informed consent form clearly outlines all risks and benefits to the client and explain what information they will be asked to provide and how that information may be used. The 18-Month Patient Questionnaire includes an electronic prompt that outlines risks and benefits for the patient and prompts them to indicate that they understand and consent to participate. To help maintain client privacy, all

Client Check-Ins and Client Questionnaires are conducted in a private space, and when possible, the space will be of the client's choosing. Patients are assured that they may stop the interview at any time without forfeiting the incentive and without penalty from the treatment facility. Staff collecting data are able to assist patients in answering questions as needed. Patients are given contact information for the study's principal investigator and the study's IRB (Advarra) should they have any questions or concerns with the study.

A.12 Estimates of Annualized Burden Hours and Costs to Respondents

A.12.1 Estimated Annualized Burden Hours

For patients, burden estimates are based on real-world implementation of the data collection tools and questionnaires of similar length, topic, and respondents. Specifically, similar versions of the Patient Check-In and Patient Questionnaires have been completed with 400 OUD patients in a private project conducted by RTI. The 18-Month Patient Questionnaire takes an average response time of 45 minutes.

Exhibit 5 reports the average number of respondents per year of data collection and requested OMB approval. Four hundred patients are expected to complete the 18-Month Patient Questionnaire.

Type of Respondents	Form Name	Number of Respondents	Number of Responses per Respondent	Total Number of Responses	Average Burden per Response (hours)	Total Burden (hours)
Patients	Client Questionnaire 18-Month Follow-up (Att. 4)	400	1	400	45/60	300
Total						300

Exhibit 5. Estimated Annualized Burden Hours

A.12.2 Estimated Annualized Cost to Respondents

Costs are estimated using Bureau of Labor Statistics mean hourly wages for substance abuse and mental health counselors, physicians and social service managers and the federal

minimum wage. These hourly wages are presented in ***Exhibit 6***, along with the annualized costs to respondents.

Exhibit 6. Estimated Annualized Cost to Respondents

Type of Respondents	Form Name	Total Burden Hours	Average Hourly Wage*	Total Respondent Cost ($)
Patient	Client Questionnaire 18-Month Follow-up (Att. 4)	300	$7.25	$2,175

* Client respondent hourly wages uses the current Federal minimum wage.

A.13 Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

The requested data collection does not impose a financial burden on respondents, nor will respondents incur any expense other than the time spent completing the surveys.

A.14 Annualized Cost to the Federal Government

The government annualized costs include personnel costs for federal staff involved in project oversight and development of this Information Collection Request; these efforts involve approximately 10% of a GS-13 Step 3 ($49.13 hourly rate) behavioral scientist, 10% of a GS-13 Step 8 ($56.80 hourly rate) program analyst, and 20% of a GS 11's step 1 ($32.31 hourly rate). The total annualized cost to the federal government for federal staff for the duration of this data collection is $35,593.

Exhibit 7 presents the two types of costs to the government that will be incurred: (1) external contracted data collection and analyses and (2) labor for government personnel.

Exhibit 7. Estimated Annualized Federal Government Cost Distribution

Type of Government Cost	Annualized Cost
Data Contractor	$1,940,535
Federal Staff	
GS-13 behavioral scientist at 10% FTE	$10,252
GS-13 program analyst at 10% FTE	$11,854
GS-11 fellow at 20% FTE	$13,487

Total	$1,976,128

FTE = full time equivalent

A.15 Explanation for Program Changes or Adjustments

Clinic and patient recruitment for this project went at a slower pace than anticipated despite the best efforts of the contractor. When the project team determined that recruitment was not occurring quickly enough, several steps were taken: the study protocol was changed to add more geographic locations; the inclusion criteria was revised to allow patients age 65 years and older to participate; patients who had previously been excluded from the study because they had initiated their OUD treatment at a different site were allowed to participate; the power calculations were revised to account for better-than-anticipated site recruitment (the original power calculation was made based on an assumption of 37 sites) please see attachment 9.

It was internally determined that there would be no change in burden to expand the inclusion criteria to allow patients ages 65 and older, and to allow the enrollment of patients who had initiated their OUD treatment at a different site. It was also determined that there was no clinical or scientific reason to exclude these individuals from the study. After making these changes to the study protocol, 27 patients ages 65 and older were enrolled, and 41 patients were enrolled who had initiated their OUD treatment at a different study site.

The original OMB request and study protocol was for 11 MSAs, however two subsequent non-substantial change requests were approved which increased the study area to 15 MSAs. This was done to increase the recruitment of study sites and participants. One of the original MSAs (Oklahoma City, OK) was later removed because no treatment sites were recruited in that MSA, resulting in the current 14 MSAs. The increase from 11 to 14 MSAs resulted in the recruitment of 13 additional treatment sites and 667 additional patients.

By the end of the recruitment period, 62 sites had been recruited and the contractor was given a 12-month no-cost extension to allow more time for data collection. The revised power calculations were approached in a less conservative, more clinically-appropriate manner, and led us to adopt a target of 594 patients at baseline per treatment group (2,376 patients total), a reduction from the previous target of 890 patients per treatment group (3,560 patients total).

CDC statisticians determined that any subgroup with 594 participants at baseline and experiencing 50% patient retention will be sufficient for a 10% detectable difference with at least 90% power. Retention among patients who enrolled in the study prior to January 2019 (18 months before present) currently stands at 61.6%. Due to challenges with recruitment discussed in the SSB, section B.1.2, two of the four treatment groups (NTX and COUN) failed to reach the target of 594 patients, therefore comparisons will primarily be made between the two groups that exceeded the recruiting target (BUP and MMT).

One of the consequences of the changes made was that the follow-up data collection period had to be reduced from the original protocol of 24 months to 18 months. Even with this reduced follow-up period, patient recruitment continued until 11/30/2019, meaning that for complete data to be collected on all patients, the 18-month follow-up period needs to continue until 18 months later, or 5/31/2019. Therefore, it is being requested that OMB approval for this project be extended from 2/28/2021 until 5/31/2021 in order for this project to collect data on patients for the full 18-month follow-up period and meet its scientific objectives. The extended time period is only needed for one of the data collections instruments, thus there is a reduction in burden of 2,793 hours.

A.16 Plans for Tabulation and Publication and Project Time Schedule

CDC expects an assortment of reporting and dissemination deliverables under the MAT Study fixed-price contract. These include contractually required deliverables such as annual and final merged databases, annual site reports, and annual CDC reports. In addition, the contractor is expected to assist CDC with specified reporting needs that may arise, including short and long analytic reports, peer-reviewed journal articles, congressional briefings, annual evaluation reports, research and policy briefs, ad hoc analytic reports, best practices summaries, user guides, data and analysis documentation, and conferences or other presentations. All materials prepared for dissemination will obtain CDC scientific and policy clearance before distribution.

The expected time schedule for project activities is presented in ***Exhibit 8***. All data collection activities are subject to OMB approval.

Exhibit 8. Estimated Time Schedule for Project Activities, Pending Approval of OMB Extension

Activity	Expected Timeline
Current OMB approval	December 2017–February 2021
Current treatment facility and client data collection	December 2017–February 2021
Extended treatment facility and client data collection (pending OMB approval)	March 2021 onwards
Data cleaning, preparation and analysis	January 2018–July 2021
Reporting and dissemination	January 2018–March 2022

OMB = Office of Management and Budget

A.17 Reason(s) Display of OMB Expiration Date Is Inappropriate

No request for an exemption from displaying the expiration date for OMB approval is being sought.

A.18 Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

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