BACKGROUND

HIV surveillance has expanded from monitoring the prevalence levels, trends, and characteristics of diagnosed persons during the early years of the epidemic to now include monitoring HIV incidence, behaviors among infected and at-risk persons, drug resistance, and HIV-related care. These surveillance methods were added to standard case reporting in response to improvements in laboratory technology and the clinical management of HIV disease. What was once a universally fatal condition has become a chronic disease that can be effectively managed with appropriate care and treatment and the use of prevention services to reduce the risk of co-morbidities that occur in higher rates among HIV-infected than uninfected persons. Since 2007 the Medical Monitoring Project (MMP) has provided important information at the national and local level about HIV-diagnosed persons receiving care. More recently, case surveillance based sampling (CSBS) for MMP has been successfully implemented in five pilot sites, including San Francisco. This approach involves sampling directly from the HIV case registry allowing for the selection of all diagnosed persons regardless of whether or not they are engaged in care and thereby provides a more comprehensive picture of the characteristics and outcomes of all diagnosed persons. Such data are essential at the national and local levels in order to prioritize, target, and apply evidence-based HIV prevention care and treatment responses.

APPROACH

PROBLEM STATEMENT

HIV, once a universally fatal condition, has become a chronic disease that can be effectively managed with appropriate care and treatment and the use of prevention services to reduce the risk of co-morbidities that occur in higher rates among HIV-infected than uninfected persons. Additionally, unequivocal evidence has demonstrated that not only does treatment improve the health of the HIV-infected individual, it also reduces HIV transmission by 96%. Data are needed at the national and local levels in order to prioritize, target, and apply evidence-based HIV prevention, care and treatment responses.

PURPOSE

Since 2007 the Medical Monitoring Project (MMP) has provided important information at the national and local level of HIV-diagnosed persons receiving care. More recently, case surveillance based sampling (CSBS) for MMP has been successfully implemented in five pilot sites, including San Francisco. This approach permits sampling diagnosed persons who are not engaged in care and thereby provides a more comprehensive picture of the characteristics and outcomes of all diagnosed persons. Such data are essential at the national and local levels in order to prioritize, target, and apply evidence-based HIV prevention, care and treatment responses.

OUTCOMES

The two main project outcomes to be achieved by the end of the project period are: 1) to inform local and national HIV prevention and treatment efforts with MMP data, and 2) to ensure that key local and national users have the MMP data they need and are using this data to inform budgeting, planning and service delivery decisions. In order to accomplish these

outcomes, we have created three specific aims: 1) to collect high quality data that is representative of persons infected with HIV in San Francisco, 2) conduct targeted data analysis and dissemination, and 3) collaborate with local and national partners responsible for HIV surveillance, prevention and treatment. Below we have outlined how we will accomplish these specific aims by creating benchmarks for each aim.

Specific Aims:

1. To collect high quality data on clinical and behavioral characteristics that is representative of persons infected with HIV in San Francisco.
   Benchmarks:
   a. Draw patient sample by June 1st of each data collection cycle.
   b. Conduct first interview by July 1 of each data collection cycle.
   c. Conduct first medical record abstraction by September 1 of each data collection cycle year.
   d. Contact 95% of eligible sampled patients by October 1st of each data collection cycle.
   e. Achieve a patient-level response rate of at least 50% and increase patient response rate each cycle.
   f. Securely transmit interview data to CDC according to schedule.
   g. Conduct a medical record abstraction on 100% of the interviewed patients who have an accessible medical record.
   h. Conduct a minimum of 5% Quality Assurance (QA) on interviews and medical record abstractions.
   i. Extract minimum data set (MDS) on 100% of selected patients.
   j. Conduct Facility Attributes survey on 100% of facilities where sampled patients were seen for HIV care.
   k. Conduct provider survey per CDC guidance and achieve a minimum of 50% response rate.
2. Conduct strong data analysis and dissemination targeted to local and national users.
   Benchmarks:
   a. Produce local MMP report published by SFDPH at least annually.
   b. Produce local MMP fact sheet updated annually.
   c. Create MMP data analysis and dissemination plan by June 1st of each cycle which will detail targeted dissemination at the local level. Feedback for this plan, including areas for analyses, will be solicited from individuals at SFDPH, CDC, the SF MMP Provider and Community Advisory Board, the HIV Prevention Planning Council (HPPC) and the HIV Care Council.
   d. Present MMP data annually to the SF HPPC, the HIV Care Council, the SF MMP PAB and CAB and at least one HIV medical care provider/facility. Submit at least one abstract annually to a scientific conference highlighting recent MMP analyses.
3. Collaborate with local and national partners responsible for HIV surveillance, prevention and treatment.
   Benchmarks:

a. Patients identified in MMP as not in HIV care will be referred to the SFDPH Linkage Integration, Navigation, and Comprehensive Services (LINCS) services. MMP will collaborate with core HIV surveillance to evaluate LINCS success in linkage or re-linkage to care for the patients identified through MMP as out of care. A minimum 80% of these patients with previous barriers to consistent care will be re-linked to care within 3 months.
b. Information from MMP such as patient address and phone number, as well as missing opportunistic infection diagnoses and transmission risk will be uploaded into eHARS within two months of the end of each MMP data collection cycle. Information will be imported into eHARS on a minimum of 80% of the eligible patient sample.
c. Maintain Provider and Community Advisory Boards. Meet with advisory boards semi-annually to update on MMP progress and solicit feedback about data collection and analysis.
d. Meet with HIV Prevention and Planning Council and the HIV Care Council at least once annually to discuss how MMP data can be used to inform local HIV prevention, treatment and fiscal planning and incorporate these findings into Data Analysis and Dissemination Plan.
e. Meet with the San Francisco Getting to Zero Coalition (a citywide coalition of representatives from SFDPH, community based organizations, medical providers, community members, the Mayor's office, and the Board of Supervisors working together to get to zero new infections, deaths from HIV and stigma in SF) at least once annually to present stigma information collected in MMP and other relevant MMP data as needed.

STRATEGY AND ACTIVITIES

Preparation

Regulatory Authority

All necessary regulatory approval to conduct MMP under surveillance authority has been obtained by the SFDPH. MMP was previously conducted as research covered by four local IRBs for the 2007 to 2011 data collection cycles. Starting in the 2012 MMP cycle, we applied for and were granted a non-research determination by all four governing IRBs. Since then MMP has operated under surveillance authority and the CSBS demonstration pilot has also been conducted as such in San Francisco (SF). Sampling, contacting, and recruiting participants from eHARS is allowed and has been successfully occurring as part of the CSBS demonstration project conducted in SF. HIV surveillance staff at the SFDPH have access to medical record data at a majority of HIV care facilities for core surveillance activities as well as MMP activities including the ability to look up patient locating information, next appointment time and place and medical record abstraction. In addition, eHARS is currently used to identify HIV-infected persons for partner services and to identify persons in need of linkage or re-linkage to HIV care. These activities are considered to be routine public health services and are not subject to local IRB approval.

Development of local standard operating procedures

A standard operating procedure (SOP) was developed for the CSBS pilot demonstration and will be utilized and adapted in the upcoming cycle of MMP. The protocol for recruiting sampled persons includes sending a letter to the sampled person, followed by a phone call, and in-person recruitment either at a medical provider or the person's residence if needed. The SOP includes procedures for conducting telephone interviews. If during recruitment, or an interview, an adverse event takes place, staff will follow our local protocol which includes documentation of the event on forms provided by the CDC, and reporting the event to the CDC within 24 hours. In addition, the SFDPH Health Officer and SFDPH Privacy Officer would be contacted. In order to minimize adverse events during the project, MMP staff will participate in HIV Counseling and Testing trainings including disclosing HIV positive test results to persons previously unaware of their HIV status, core HIV surveillance security and confidentiality training and interviewing, de-escalation and sensitivity trainings. All trainings will take place within 45 days of hire and annually thereafter.

Sampled patients will be assigned a random unique non-identifying identification number for use in data collection and analysis. The SOP includes safeguards to preserve patient confidentiality. MMP and Core HIV Surveillance activities are fully integrated. MMP follows the same security and confidentiality guidelines as core surveillance and staff complete the same trainings. In addition, all HIV surveillance activities in the SFDPH follow additional SFDPH guidelines to protect patient confidentiality. Data collection will be performed on encrypted and password protected electronic devices. Electronic devices will be transported in the field in a locked brief case, and all work will be returned to the office at the end of the work day. Data analysis will be performed using procedures that meet security and confidentiality requirements. Data analysis will be conducted only on-site, in the secure HIV surveillance area using data files without patient name or address.

Since patients who are not in care may be sampled, we have developed protocols to refer them to the SFDPH Linkage Integration, Navigation, and Comprehensive Services (LINCS) program. As with MMP and CSBS in the past, MMP will continue to be closely aligned with the programmatic activities of LINCS to aid in linkage and re-linkage of HIV-infected persons to care. During recruitment and the interview, the MMP staff will identify participants in need of referral to medical services. A protocol for support service referral has been developed based on procedures currently conducted as part of the routine MMP interview process. SF's SOP also follows the guidelines provided by the CDC during the CSBS pilot demonstration pilot to conduct recruitment and data collection on cross-jurisdictional patients. SF's protocol also includes updating eHARS with information provided by other jurisdictions during cross-jurisdictional data collection.

In California, mandatory reporting of confirmed HIV-positive antibody, and all viral load tests has been in effect since July 2002 and CD4 test reporting has been in effect since September 2008. California law mandates that HIV-related laboratory tests be reported to local health officer within 7 days of result. All confirmed HIV-positive antibody, CD4 and viral load test results are reported by laboratories to SFDPH and imported into eHARS on a monthly basis for all persons with these laboratory tests in SF, including both residents of the city and persons

who reside outside of SF but receive care in the city. Approximately 10,000 laboratory reports are processed each month from a total of 29 laboratories, 17 of which report electronically. Laboratory reporting is highly complete in SF. For cases diagnosed with HIV/AIDS in 2012 in SF, 89% had a viral load or CD4 test within three months of diagnosis recorded in eHARS. Completeness and timeliness of laboratory reporting is routinely assessed. In 2011, completeness of electronic laboratory reporting at the public health laboratory was 92% and for one of the laboratories that submits hard copies, completeness was 77%. Among all electronically reported HIV test results from April 1, 2013 through March 31, 2014, the mean time from date of test to reporting to SFDPH was 11 days for HIV labs and 9 days for CD4 labs and 87% of all reportable HIV and CD4 lab tests were reported within 14 days.

Hiring and Training of professional staff

SF will continue to employee existing MMP staff for the next grant cycle. This includes four interviewer/chart abstractors who are also trained to recruit participants over phone, at medical appointments, or at residence. In addition, the current MMP PI, Data Manager and Project Coordinator will continue in their roles. We have also integrated Core surveillance staff with MMP, specifically utilizing the expertise of the HIV surveillance program manager who conducts "CDC checks" with CDC HIV surveillance using soundex, date of birth and gender to find a case in SF who may be reported in another jurisdiction, follow up with other jurisdictions, and Routine Interstate Duplicate Review (RIDR).

Cross jurisdictional data collection

The HIV core surveillance program manager who conducts routine HIV core surveillance activities with other surveillance jurisdictions nationally is part of the MMP team. As part of her core surveillance activities she performs CDC checks, follows up with other jurisdictions regarding case investigation and data sharing, and conducts RIDR. As such, she maintains a close and strong working relationship with other HIV surveillance jurisdictions. She has handled the CSBS cross jurisdictional data collection and makes contact with other jurisdictions regarding SF cases that have moved away into other jurisdictions. This established relationship has facilitated cross jurisdictional data collection and data sharing to the extent allowed by local laws and regulations.

We will closely adhere to each State and Territory Overall Responsible Party's policy on contacting SF participants who have moved out of jurisdiction and now reside in their area. We will update policies on cross jurisdictional data collection from other health departments when CDC informs us of changes in policy as needed. Local SF policy allows data collection on persons sampled in other project areas who have moved to SF. SF supports cross jurisdictional recruitment, interview, and medical record abstraction on all sampled persons who have migrated to SF.

Capacity for telephone interviewing

Telephone interviews will be offered to all participants during recruitment. Our staff has extensive training and experience interviewing by telephone. For example, 26% of interviews for 2013 MMP were conducted via telephone, and 38% of interviewed patients in the 2013 CSBS pilot were telephone interviews. We are also able to offer telephone interviews in Spanish

and English. When scheduling telephone interviews, staff will check to see if the participant has access to the internet during the interview. If so, they will be guided to the interview response cards via the internet. If not, the interview response cards will be mailed and the interview will be scheduled allowing for enough time for delivery of response cards. Protocols are in place for collecting a Release of Information (ROI) for the MRA from telephone respondents (see below in Data Collection) and for sending the stipend via mail. We have a secure and dedicated MMP telephone line in place and a post office box specifically set up for the return of ROI and for medical records that provider sites mail to us.

Operational document input

We will work closely with the CDC and other MMP sites to provide input on operational documents and data collection instruments. Based on our experience conducting MMP since 2007 and being one of the CSBS demonstration sites, we've developed MMP Standard Operating Procedures (SOP) for the 2014 cycle, and will continue working closely with the CDC to maintain and update as needed for the 2015 data collection cycle.

Sampling and Data Collection

Sampling and Minimum Dataset

Sample selection will be conducted by receiving a sample of eligible HIV-diagnosed persons from CDC that have been sampled from the National HIV Surveillance System (NHSS). Because personal identifiers are not contained in NHSS, we will run a SAS program developed in collaboration with CDC that will match sampled cases to our local eHARS in order to obtain patient identifiers such as name, address of most current residence, and phone number. This information will be uploaded in the Contacts Attempt Tracking (CAT) database for patient location and recruitment. After the sample has been drawn, we will monitor and track the sample quality. For example, we will identify the number and characteristics of cases that have moved away from SF, who have died or who are otherwise ineligible. Evaluation of the sample quality in this manner may identify possible modifications to future sample draw programs. Copies of local eHARS datasets will be saved in order to run other SAS programs to create a minimum dataset, or assist in weighting and quality assurance. Data extracted from local eHARS for these purposes will be securely transmitted to CDC via the Secure Access Management Services (SAMS) portal as requested.

Location, Contact and Recruitment

Locating patients

The original MMP sampling method only captured patients who were in care in SF, making them relatively easy to locate. Because the new sampling method captures these patients plus those who may be marginally in care, out-of-care, or who may have moved out of jurisdiction, the work of locating patients for the future of MMP will be more challenging. Based on our work during the CSBS pilot demonstration, we have developed a rigorous method for finding patients which we will implement in MMP. Our search algorithm is a 6-step process designed to track down accurate patient leads, such as patient phone number and address, emergency contacts, and medical provider. Each step represents a lead-generating resource (a particular

database or organization with access to a particular database) which helps us gather patient contact leads. Our resources are as follows, listed in the order we will run our sample through to gather contact leads:

1) eHARS: During patient sampling, information such as patient address, telephone and HIV provider will be extracted from eHARS to generate leads.
2) Medical records: Since MMP and core HIV surveillance staff work closely together, MMP staff will have relatively easy access to patient medical records (physical and electronic records) at many medical provider sites around the city.
3) Accurint (Lexis-Nexis): A rich, private repository of information on millions of people around the country. Originally developed for the legal profession, it has since been expanded for use by other organizations, such as businesses, law enforcement and local government.
4) ISHTAR: A database developed by our municipal STD clinic that tracks all STD clinic patients.
5) ARIES: A partner program with access to Ryan White databases.
6) LINCS: A partner program tracking patients accessing SFDPH linkage and navigation services and with access to a homeless patient information database.

Staff will search each resource until a lead is generated, at which point they will attempt to contact the patient (see *Contacting and Recruiting* section below). If the lead is a dead end (a wrong number, or a bad address) the process will continue, with staff running the patient through each subsequent resource until either the patient is recruited, or staff exhausts all leads and resources. One additional step is employed when we find a lead (such as an out of state address) that indicates that the patient has moved out of our jurisdiction. In these cases, leveraging our integration with core HIV surveillance and following cross jurisdictional data collection protocols, we will reach out to the jurisdiction in question for more information.

Contacting and recruiting patients

Contacting a patient will be a two-step process: reaching out to the HIV care provider, and reaching out to the patient. Because the sample drawn from NHSS will also be linked to our local eHARS, we will be able to find information on many patients' most recent HIV healthcare providers. We will contact these providers to verify and update the patient's contact information and to assess any perceived barriers to successfully recruiting the patient that we should be aware of, such as mental instability or a known objection to being interviewed. We will contact providers using a formalized letter that summarizes the study and includes a list of sampled patients believed to still be under their care. The letter will ask providers to respond within two weeks of receipt with any questions, leads, or objections. After the two week response period has elapsed, we will begin contacting the patient. We will contact patients using letters, phone calls, house visits and medical provider visits; contact and recruitment will be conducted in English and Spanish. We will always attempt to send a letter first. Anecdotal reports from patients who have participated in CSBS and MMP who received letters first suggests that receiving a letter lends legitimacy to phone calls received subsequently. Patients will have one week to respond to the letter before staff will follow up with phone calls and other contact methods. We anticipate that staff will make numerous callback attempts before

reaching a patient or determining that the lead is a dead end. Sending letters in advance should help to diminish this number to a degree. Based on prior experience, the bulk of patients will be recruited using phone calls. We will attempt to contact the patient in-person if phone call attempts have failed, either through a medical provider visit or a home visit. We will connect with a patient's medical provider to find out when the next HIV care appointment is, and if the medical provider gives us permission, we will have staff attempt in-person recruitment at the medical visit. A home visit will be attempted last if all other contact attempts have been unsuccessful.

Staff will recruit patients using the local patient-contact protocol, designed to ensure that patient privacy and confidentiality is preserved and informs patients of their rights and responsibilities as a participant in MMP. Staff is trained in cultural sensitivity and procedures that ensure that patient privacy and confidentiality are preserved. Staff will verify the patient's identity in two steps: the patient will confirm spelling of their last name and will verify their date of birth (month and year). The patient must do so with 100% accuracy and without assistance from a third-party. Once the patient's identity has been verified, staff will read them an information form that outlines the following: the purpose of the study; how the patient was selected; the patient's rights and responsibilities as a participant; the steps we take to ensure their privacy and confidentiality; the risks involved in participating; and the benefits of participating. If the patient agrees, an interview will be scheduled or conducted at time of recruitment.

Contact tracking

We will use local and national contact tracking databases that have been developed. The local tracking database (called the CAT Database) captures patient names, contact information, the methods used to contact the patients, the number of attempts to reach the patients, and final outcomes. The national tracking database (called the DCC) captures limited, non-identifying information (such as patient disposition, date of final contact, and date of interview) and includes a direct connection to the CDC, for secure monthly data transmission. The databases will be updated on a weekly basis.

Data Collection: Interview, MRA, Facility Attributes and Provider Survey

Data collection instruments will be designed in collaboration with CDC. Medical record abstraction and interviews will be conducted by SFDPH MMP staff who have completed data collection training from CDC and practiced interviewing and abstracting locally with their peers and supervisor. Data collection devices (laptops) will meet CDC and SFDPH security and confidentiality requirements and all data collection staff will be trained to maintain these standards. Data collected will be maintained in the secure HIV core surveillance section and securely transmitted to CDC on a regular basis.

Interview

After the patient has been successfully recruited, project staff will attempt to schedule an interview either by telephone, at the SFDPH MMP office, an affiliated site or at a place mutually agreed upon where privacy can be assured. Telephone interviews will be offered to everyone however SF is geographically small, facilitating in-person interviews. Telephone interviews are

critical at gaining cooperation with patients who do not reside in SF or patients with time constraints. MMP staff may travel by public transit or car to locations outside of SF provided they are within two hours travel time to conduct an in-person interview. Interviews will be offered throughout the day including early morning, evening and weekends. When necessary, interviewers bilingual in English and Spanish will conduct interviews in Spanish. We anticipate conducting a large proportion of interviews via telephone. For example, 26% of interviews for 2013 MMP were conducted via telephone, and 38% of interviewed patients in the 2013 CSBS pilot were telephone interviews. Because the MMP sampling procedures will be conducted in the same way as the CSBS pilot, we anticipate having a similar sample of patients for future MMP cycles as we did for the CSBS pilot. In the 2013 CSBS cycle we conducted 84 interviews: 32 (38%) were telephone interview, 16 (19%) were participants who resided outside of SF and 6 (7%) were conducted in Spanish.

The interview session will begin by greeting the patient and then providing a Patient Information Form, which according to non-research determination procedures serves to inform the patient of study procedures. For telephone interviews, the Patient Information Form and interview response cards will be mailed to the study participant before the interview is conducted. The interviewer will review the information sheet with the participant to ensure that he or she understands the procedures and provides informed consent. Participants will be compensated $50.00 for the interview. A standard local protocol for tracking appointments, scheduling interviews, making appointment reminder phone calls and conducting interviews and interview quality assurance, modeled on our current MMP protocol, will be followed in accordance with SFDPH confidentiality procedures.

Interview staff will complete all CDC interview trainings. Interview data will be collected using QDS software and computer-assisted-personal-interview (CAPI) files created by CDC will be used to collect the national standard interview. The standard interview will take approximately 60 minutes to conduct. A local interview will also be conducted and will be added onto the national standard interview using a separate but linked CAPI QDS file. The local interview will contain questions of local interest that are not administered in the national standard interview such as the Household Food Insecurity Access Scale (HFAIS) and will take approximately 5 minutes to conduct. To ensure that interviews are conducted according to protocol and in a culturally sensitive manner, 5% of interviews of all interview staff will be observed by a supervisor. Results and suggestions from observed interviews will be provided to the interviewer individually and common problem areas will be discussed with all interviewers.

Medical Record Abstraction

A Release of Information (ROI) form will be obtained for all interviewed participants to facilitate MRA for participants who receive care outside of SF or within SF but at one of the few facilities where we do not conduct active HIV core surveillance. For face-to-face interviews, participants will be asked to sign a ROI at the beginning of the interview session. An ROI will be mailed to telephone interview participants before the interview is conducted with a self-addressed-stamped envelope for the participant to sign and return to SFDPH. We will attempt to complete a MRA for all patients who agree to participate in the interview. The online electronic MRA platform provided by CDC will be used to collect MRA data. We will ask the participant for their

usual source of care and to sign a ROI for that site to identify medical charts for MRA. Obtaining an ROI for all patients will ensure that we will be able to procure medical records for patients who receive HIV care outside of SF. If a participant received care outside of SF, we will contact that medical facility, provide the signed ROI, and request that a hard copy of the medical chart be mailed to our MMP office following our Security and Confidentiality (S&C) guidelines for confidential information. If the medical facility is located in an area covered by another MMP site, we will ask MMP staff from that site to conduct the MRA for us.

During the 2013 CSBS cycle, we were able to complete 95 total MRAS: 90 were conducted at SF active surveillance facilities, 1 was conducted at a SF passive surveillance site, and 4 were conducted on medical charts obtained from outside of SF. SF MMP medical record abstractors are integrated with core HIV surveillance activities and have access to the electronic medical record system for all SFDPH clinical sites. As such, staff can complete MRAs from SFDPH clinical sites from our offices. All other sites are easily accessible by public transit or on foot.

A standard local protocol for tracking and scheduling MRAs will be modeled after our current MMP protocol and followed in accordance with SFDPH confidentiality procedures. A senior abstractor will re-abstract a 5% sample of MRAs and compare results to the original data to identify and correct discrepancies. These re-abstractions will occur throughout the data collection period to ensure problems are identified early and corrected and to look for protocol drift later in the data collection period. All staff will be informed of mistakes identified and when needed, additional training will be provided.

Linkage to Care

MMP will be closely aligned with programmatic activities of LINCS to aid in linkage and re-linkage of HIV-infected persons to care. During the interview, the MMP staff will identify participants in need of referral to medical and ancillary services. "Out of care" is defined locally by LINCS as not receiving HIV care for 6 months or more. As has been our experience with MMP and the CSBS pilot, we anticipate that most interviews will be conducted at our office. At the end of the interview, participants in need of HIV medical services will be introduced to a LINCS staff member in person who will assess the patient's needs, make active referrals to HIV care providers, assist with scheduling of care appointments, and direct persons to community agencies that assist in enrollment into public insurance/benefits and support programs. LINCS staff are conveniently located in our building. When needed or requested, LINCS staff will escort participants to appointments. For participants who are not interviewed in our offices, LINCS staff will contact participants and conduct field visits. The services provided by the LINCS staff are the same whether these are offered in our offices or the field. A protocol for support service referral, such as dental care, mental health care, and food assistance, is already in place and currently conducted as part of the routine MMP interview process.

At the end of each cycle, we will measure the success of our linkage efforts by calculating the number of persons successfully linked to care within three months of contact with LINCS staff by reviewing the tracking database, by computer matching the MMP sample with the LINCS database, and reviewing eHARS and LDMS for evidence of laboratory test results.

Facility Attributes and Provider Survey

We maintain an HIV care facility sampling frame and update this frame as new HIV care facilities are identified through routine core HIV surveillance activities, or have been identified during CSBS as sites where patients have received HIV care. Because some sampled patients for MMP will be seen at sites that are outside SF, we also will maintain a list of these out of jurisdiction (OOJ) facilities. If the patient was seen in a state or jurisdiction currently participating in MMP, we will ask the project area if they have a facility code for that particular facility, and this code will be used in the MRA and in the facility sampling frame. We will collect the facility attributes data on facilities where patients in MMP were seen for HIV care, and submit the data electronically to CDC on a secure web portal.

We will support MMP provider survey activities in accordance with CDC guidance. We will create and maintain a provider sampling frame which will be used to randomly sample a selection of MMP providers for the provider survey. We will collect data via a provider survey instrument created by CDC. Due to demanding provider work schedules, we may face barriers with nonresponse of the provider survey. We will leverage our relationships with providers to increase the response rate of the provider survey and will persistently contact MMP providers for participation via telephone, letter and email. Data collected from provider survey will be transmitted to CDC via a secure web portal and will be maintained locally for data analysis and dissemination.

Data Management and Dissemination:

Data Management

Local protocols are in place to extract interview data daily from data collection laptops. Data collected for MMP purposes, such as interview, medical record abstraction, MDS, facility sampling frame, facility attributes and provider survey, will be maintained in the secure HIV surveillance section and securely transmitted to CDC by requested deadlines. Additionally, MMP data from the local questionnaire will not be sent to CDC but will be managed and cleaned locally. When weighted final interview data has been returned from CDC, the local interview questions will be appended to the standard interview datasets.

Routine data cleaning activities will be performed by the Data Manager. This includes running QA SAS programs that match tracking information from local tracking Access databases to tracking information on the Data Coordinating Center (DCC) portal to check and make sure there are no discrepancies. Locally developed interview and MRA data quality SAS programs will be run to periodically check data during the collection cycle, for instance to check "other specify" values in the interview and MRA data. Feedback based on these data quality checks will be shared with data collection staff in real-time so that future data collection activities will improve in quality. Additionally, the Data Manager will reconcile any data errors in a timely manner and work with the Technical Assistance Coordinator from the DCC to review and respond to any error messages on the Data Management Reports which are returned on a monthly basis.

Once final weighted data is returned to SF for analysis, the Data Manager will prepare the

various data files for analysis. This involves running SAS code that will substitute key variables in the dataset from complementary datasets. For instance, if the birth sex was not reported in the interview, this variable can be substituted from the Minimum Dataset (MDS). Next, the Data Manger will run a series of modification SAS programs that corrects errors to the QDS skip patterns in interview data and cleans data on HIV viral laboratory results from the MRA. Finally, the Data Manager will run a series of programs on the data that result in a set of "calculated variables" which are useful variables for analysis that are created by re-coding multiple variables from the interview and MRA datasets. An example of a calculated variable would be "most recent viral load test result" which is calculated by taking all viral load test results in the MRA and choosing the most recent value. Finally, when creating multi-cycle datasets for analysis, the Data Manager will re-calculate person weights. Copies of the original datasets and augmented data will be managed by the Data Manager and will be securely stored in the HIV surveillance registry on external hard-drives.

Data Analysis and Dissemination

We will continue our tradition of prioritizing analysis and dissemination of MMP data for local use and we will form a data dissemination plan each year and report to CDC on the dissemination events that have occurred. Information from MMP will augment data collected through core surveillance, incidence surveillance and behavioral surveillance and prior MMP cycles which did not include HIV-infected persons who were out-of-care. The new MMP sampling methodology has the potential to include persons who have never received care or who have fallen out of care. With the emphasis on diagnosing and treating all HIV-infected persons as a way to both reduce morbidity and mortality and to prevent transmission, linkage to and retention in care is essential. By accessing barriers to receiving HIV care, treatment and adherence, MMP has the ability to target interventions to increase uptake along the continuum of care to improve health outcomes and reduce transmission.

One major advantage of MMP data is the fact that the data are weighted to represent all diagnosed HIV infected persons in SF, and person weights can be applied to obtain population estimates. Data analyzed in this manner can be used to inform key decisions locally for budgeting, planning and service delivery. For example, using MMP data, population estimates for met and unmet needs for HIV ancillary services will be reported in an annual SF MMP Report, and can be utilized by health services to calculate how much funding should be allocated for each ancillary service. Results from this type of analysis would also fuel the importance of advocating for further expansion and funding for services with the greatest unmet need.

Local MMP data will be analyzed and presented to the provider and community advisory boards, local HIV care providers and community organizations, included in our HIV/AIDS Epidemiology Annual Report, presented at scientific conferences and peer-reviewed manuscripts. We are currently in the process of creating our first local SF MMP Report, which will be published by SFDPH annually and will include prevalence estimates of socio-demographic, behavioral and clinical factors. To date, we have two MMP manuscripts published in peer-reviewed journals, have had seven abstracts presented at scientific conferences and four of the annual SFDPH HIV Epidemiology Reports have highlighted information from MMP

[1-13].

Quality Assurance and Evaluation

Data security and confidentiality

All MMP data will continue to be maintained and handled using the same standards used for HIV core surveillance data as outlined in the CDC Program Collaboration and Service Integration (PCSI) Data Security Guidelines. MMP staff will complete all security and confidentiality training as required by the SFDPH, the California Department of Public Health and the CDC for both MMP and core HIV surveillance activities annually. In terms of physical security, our workspace is within a secure area that only persons working on MMP and/or core HIV surveillance have access to with a unique door code. Paper forms (such as contact and recruitment tracking forms, MRA assignments or signed Patient Information Forms and ROIs) are kept in a locked cabinet in a locked dedicated MMP room within this secure workspace. Additional MMP data is stored in the "HIV surveillance registry" which is another secure room within the workspace of HIV core surveillance. The HIV surveillance registry room is outfitted with a security alarm and motion detectors which staff must first disarm to gain access. A safe, accessible to only limited MMP and core surveillance staff, holds the keys to the double-locked filing cabinets where MMP materials are stored. Once a final disposition has been reached for a MMP patient, or at the end of the cycle for all patients, all paperwork is moved into a permanent secure location in the HIV surveillance registry. We also store MMP data collection laptops and external hard-drives containing MMP data in the HIV surveillance registry when they are not being using by staff. All laptops used for data collection will have PGP whole disk encryption in addition to a Windows logon and password. Likewise, external hard-drives containing MMP data are whole disk encrypted with PGP whole disk encryption. Data transferred from SF to CDC will be encrypted using PGP software and transmitted via a secure web portal such as the Data Coordination Center (DCC) or Secure Access Management Services (SAMS).

Data Quality Assurance and Evaluation

Training and meetings are imperative in order to maintain data quality. SF staff will participate in all required trainings, meetings, site visits, webinars and conference calls, including the MMP annual meeting as appropriate for their project roles.

Before beginning the MMP data collection cycle, interviewers will go through three training exercises, two as a team and one individually. For the first team exercise, interviewers and the project coordinator will meet together and read the interview guidelines out loud. This gives interviewers a chance to thoroughly review the guidelines and ask questions, and ensures that all staff have a full understanding of the guidelines. For the second team exercise, the project coordinator will interview one staff member while the group watches and codes the answers. Coding will be reviewed as a group and discrepancies in how interviewers coded responses will be discussed. This collaborative mock interview will give interviewers a sense of how to identify ambiguous responses and how to code them. For the individual exercise, each staff member will conduct at least one practice interview with a co-worker and will have a chance to review their responses with the project coordinator and their co-worker and discuss coding decisions.

To ensure that interviews are conducted according to protocol and in a culturally sensitive manner, 5% of interviews conducted by all interview staff will be observed by a supervisor. Results and comments from these observations will be provided to the interviewer individually and common problem areas will be discussed as a group with all interviewers.

To prepare abstractors for MRAs, the abstractors will conduct mock "dual-abstractions": one abstractor codes the answers on the paper MRA form, and a different abstractor enters the paper copy codes into the MRA database, checking for coding errors and discrepancies as they go. Discrepancies will be reviewed as a group among all abstractors. Additionally, a senior abstractor will re-abstract a 5% sample of MRAs and compare results to the original data to identify and correct discrepancies. Staff will be informed of mistakes and when needed, additional training will be provided.

The MMP Data Manager will perform evaluation of data quality on a monthly basis to ensure high data integrity. The Data Manager will work with DCC staff to reconcile monthly interview and MRA data management reports and will run local SAS programs to improve data quality. As an example, local SAS programs are run on a monthly basis to check for discrepancies in tracking data between the local Access database and the DCC tracking data and to check returned interview and MRA data files for responses to the "other specify" fields. Any errors made by MMP staff will be communicated back to them to avoid future mistakes in data collection and errors will be corrected either by updating databases or by entering information into the DCC data error logs. Other evaluations of data quality will be conducted as requested by CDC, such as performing enhanced data collection on deaths among sampled HIV-infected individuals, new data collection techniques such as qualitative interviews or web-based data collection instruments, different sampling techniques or methods, and process or data quality surveys.

Collaboration

San Francisco will continue to maintain a Community Advisory Board (CAB) representative and a Provider Advisory Board (PAB) representative to support and inform MMP. Both the current PAB and CAB representatives have agreed to continue in their roles and support the MMP project staff as needed. The CAB representative is a staff member at the Native American Health Center and is experienced with working with patients and clients from under-represented minorities. He has had helpful suggestions on how best to present data to these groups and has suggested particular data analyses that the community is interested in. The PAB representative is the Director of Magnet, the largest organization offering sexual health services including HIV and STD testing for MSM in SF. He works closely with other local HIV medical providers and will continue to represent MMP as needed in these professional groups and answer questions and address concerns. Both advisory board members sit on the HIV Prevention Planning Council (HPPC), and give constructive input to MMP on data collection and data dissemination needs and are able to provide information to the HPPC about MMP.

MMP and Core HIV surveillance are in the same branch at SFDPH, ARCHES (Applied Research, Community Health Epidemiology, and Surveillance), and some staff have shared job responsibilities. For example, some core HIV surveillance staff work part-time on MMP

conducting MRAs in medical facilities where they have access to medical record systems for core surveillance and gathering additional locating information on sampled patients. Other core HIV surveillance work in-kind on MMP on these activities as needed. For example, core surveillance staff will assist by completing a MRA if the medical chart needs to be reviewed at a facility where they are routinely assigned.

We have created protocols, SAS code and data systems to update eHARS with data obtained through MMP. Information from MMP such as patient address and phone number, as well as missing clinical information like opportunistic infection diagnosis and missing information on transmission risk and race/ethnicity will be uploaded into eHARS at the end of each MMP cycle thereby strengthening NHSS.

MMP has an existing close partnership with the SFDPH LINCS program. Patients from MMP who are in need of assistance linking or re-linking to HIV care or changing medical providers are referred to LINCS services at the time of their interview. Data from core HIV surveillance are also routinely used by LINCS for routine data-to-care activities and to evaluate linkage success. Patients recruited in previous MMP and CSBS cycles have appreciated and responded positively to LINCS referrals and services. MMP staff are also trained to provide referral for local supportive services such as dental care, mental health care and food assistance when these needs are identified.

Additionally, SF collaborates with other MMP sites and CDC to improve and supplement data collection, analysis and dissemination efforts. For example, both CDC and other MMP sites have helped us develop our local-use interview modules. These modules collect data of interest locally and to other collaborators (for example medical marijuana use data is being collected by three MMP sites) to be collectively shared and analyzed. To date, SF MMP has participated in three conference presentations and two published manuscripts with other MMP sites and CDC collaborators and we are currently working on a third manuscript with MMP staff from Los Angeles, Chicago, Philadelphia and CDC [7,8,9].

EVALUATION AND PERFORMANCE MEASUREMENT PLAN

The Evaluation and Performance Measurement Plan (hereafter referred to as the 'Plan') will serve two primary purposes: it will be used to outline how we will monitor our MMP performance indicators (i.e. the quality of our work and benchmarks) and used to identify priority outcome questions from MMP that can be used to measure the effectiveness of national and local prevention, care, and treatment strategies and initiatives. To a large extent, the components of the Plan that evaluate the conduct of MMP including achievement of benchmarks, quality assessments, and continuing quality improvement activities will be determined collaboratively between SFDPH and CDC with input from partners solicited. For the overarching evaluation questions that we hope to answer using MMP data, we will solicit extensive input from stakeholders (the MMP/CSBS CAB, the Ryan White Care council, the HIV Prevention Planning Council, and providers in large HIV care practices). Using the benchmarks listed in the FOA and our proposed effectiveness outcome questions, we developed an evaluation plan that can be discussed and built upon through input from local, state, and national stakeholders. This can be found in the **Appendix**.

We will provide a number of mechanisms whereby stakeholders can participate in developing evaluation questions; their input can be provided by attending meetings, by completing surveys that will be sent via postal service and e-mail, and by participating in an interview. Stakeholder input will be obtained at the start of the project period and be updated when additional performance indicators are developed SFDPH or by CDC. In collaboration with stakeholders and the CDC we will agree upon the evaluation questions, type (process or outcome), measures (both local and national as determined by CDC), data sources (and methods and feasibility of collection), time lines and responsible party for the evaluation and analysis plan, the frequency and methods of reporting and disseminating findings to stakeholders, the CDC and the broader scientific and public health community. The evaluation questions and measures will include those that can provide evidence of effective prevention, care, or treatment strategies particularly in areas where high quality effectiveness data is limited such as outcomes of outreach programs for engaging or re-engaging patients in care.

Specific MMP outcome measures will be used by the MMP/CSBS team to continually track how well we achieve the benchmarks outlined in the FOA, additional benchmarks identified by CDC, and those developed to meet local needs. Through the Plan we will identify areas in need of quality improvement including ongoing monitoring of patient participation rates, quality of interviews and medical record abstractions, and linkage to and re-engagement in care activities with corrective action taken as needed as part of continuous quality improvement.

As part of our efforts to provide evidence for effective prevention care and treatment strategies we will conduct robust analysis of MMP data. SFDPH has a strong history of analysis and dissemination of HIV surveillance data including over 13 specific analysis using MMP/CSBS data that have been disseminated through scientific and public health meetings, the SFDPH HIV Epidemiology Annual Report, and publications in peer-reviewed scientific journals. Our data analysis portion of the Plan calls for continuing these robust analyses and widespread dissemination.

ORGANIZATIONAL CAPACITY

Ten staff members will make up the Medical Monitoring Project 2015 team. All of these staff currently work on MMP and/or the CSBS pilot study and have been trained in their respective current roles including extracting data from eHARS (the CSBS co-Principal Investigator (PI) and MMP data manager), interviewing (the four research associates), conducting MRAs (the four research associates) and recruiting from eHARS (the four research associates and the MMP project coordinator). They include the following staff listed here with the role they will perform in MMP: Dr. Susan Scheer (.25 FTE) MMP co-PI; Alison Hughes (1.0 FTE) co-PI and MMP data manager; Maree Kay Parisi (.50 FTE) MMP Project Coordinator; four Research Associates Zachary Matheson (1.0 FTE), Amadeia Rector (1.0 FTE), Maya Yoshida-Cervantes (1.0 FTE) and Veronica Jimenez (1.0 FTE) conducting interviews and MRA. Two of the Research Associates are bilingual in Spanish and English. Three additional staff from HIV core surveillance will be funded part time to assist with MMP project recruitment, eHARS data abstraction and data management (Viva Delgado, Jennie Chin and Anne Hirozawa respectively). As core HIV surveillance staff, they have extensive knowledge of eHARS and experience recruiting from and

extracting information from eHARS. We will also leverage the integration of MMP with core HIV surveillance and have three additional research associates from HIV core surveillance work in-kind to conduct MRA at their active surveillance sites. Dr. Scheer, Alison Hughes and Maree Kay Parisi will serve as key staff on the project.

Dr. Scheer, the co-MMP Principal Investigator, is also the Acting Director of the SFDPH Applied Research, Community Health Epidemiology and Surveillance (ARCHES) Branch. Both core HIV surveillance activities and MMP are conducted within the ARCHES Branch. Dr. Scheer, as ARCHES Director, can ensure core surveillance staff and resources are available to assist MMP, that MMP has full access to eHARS and that project activities are coordinated and integrated as needed. As MMP co-PI, she will be responsible for ensuring that all MMP protocols are followed, that the necessary security and confidentiality standards are met, and for monitoring these throughout the project period. She will be responsible for all correspondence with CDC and for developing the budget. She will oversee data collection, analysis interpretation, and dissemination. She has over 20 years experience conducting and overseeing epidemiologic studies, the majority of which have focused on HIV/AIDS research and surveillance. (see Dr. Scheer's CV in CV attachment).

Alison Hughes, the MMP co-Principal Investigator, is also an Epidemiologist for the ARCHES Branch. Alison has worked on MMP as Data Manager since 2010 and also currently serves as the CSBS Co-Principal Investigator and Data Manager. She has over 7 years of experience collecting, managing and analyzing data for HIV research, including international HIV behavioral research for the Ministry of Health in Cambodia, HIV microbicide research at UCLA, National HIV Behavioral Surveillance at Los Angeles County Department of Public Health, and core HIV surveillance and MMP at SFDPH. As part of her work with core HIV surveillance, Alison has access to eHARS and has extensive experience extracting data from eHARS. Alison worked closely with CDC in developing the SAS programs for CSBS sampling from eHARS and performed test runs of CDC CSBS pilot study sampling programs on SF eHARS before CDC finalized the SAS programs for release to other CSBS pilot sites. Her suggestions and edits were incorporated in those final sampling programs. Alison is also currently a PhD student in Epidemiology at UC Berkeley. She will oversee MMP sampling from eHARS, data management, databases for tracking information and systems to maintain collected MMP data (interviews, MRA, facility attributes, MDS and provider survey). She will be responsible for leading data analysis and dissemination. She will solicit feedback from stakeholders for data dissemination and will conceptualize and lead data analyses that will be used to inform HIV treatment and prevention as well as budgeting, planning and service delivery at a local and national level. To date, Alison has lead seven MMP related conference abstracts or manuscripts, including one national manuscript with co-authors from CDC. (see Alison Hughes' CV in CV attachment).

The current MMP Project Coordinator, Maree Kay Parisi, will continue to coordinate MMP activities including developing, monitoring and overseeing MMP protocols. Ms. Parisi will also work closely with Dr. Scheer and the SFDPH Contracts and Grants Branch to develop a budget that covers all MMP activities including in- and out-of-state travel, incentives for participants, costs of copying and sending medical records from out of jurisdiction if needed, and all other necessary equipment and software needed to conduct MMP. Ms. Parisi has over 20 years

experience preparing and monitoring project budgets. In addition, she has worked in some capacity on MMP since 2007 and for the last three years has served as the MMP Project Coordinator. She has worked in HIV surveillance for twenty five years, and has served as the HIV Surveillance Program Director for ten years giving her extensive expertise in HIV core surveillance including extensive experience with and knowledge of eHARS, working with other HIV surveillance jurisdictions including sharing cross-jurisdictional information and with negotiating and setting up MMP MRA access with SF medical providers. She works closely with the SFDPH LINCS program in data-to-care activities and has successfully integrated core HIV surveillance activities with MMP activities. Integrated activities involve sharing recruiting, locating and scheduling MMP participants and leveraging core surveillance staff with access to provider/facilities' medical record systems to assist with MMP medical record abstraction. As MMP Project Coordinator, she will work with sampled patients and their medical providers as needed if concerns or questions arise particularly around collecting patient locating information and medical record abstraction and access. She will supervise the Research Associates who conduct medical record abstraction and interviews and the core HIV surveillance field staff who also conduct medical record abstractions for MMP. She will present data to stakeholders and answers questions from medical care providers, facilities and participants regarding MMP procedures and findings. (see Ms. Parisi's CV in CV attachment).

The four Research Associates who will be conducting interviews and medical record abstractions have been working on MMP between one to three years. They are expert at participant recruitment, interviewing both in-person and by telephone and conducting medical chart abstractions. They have experience conducting home visits to locate participants and have conducted interviews on the spot if the participant is home and willing. Two are bilingual in Spanish and English. They will participate in CDC bi-monthly interviewer and abstractor conference calls, CDC trainings, and all local trainings provided to SF MMP staff. The Research Associates are trained in HIV core surveillance security and confidentiality procedures and core surveillance activities including use of eHARS and the local laboratory tracking database.

We will leverage additional assistance from core HIV surveillance staff to assist with MMP activities such as contacting and coordinating cross jurisdictional data exchange, locating, recruiting and scheduling participants, and data management. The core surveillance staff currently assigned as the lead liaison between local, state and national surveillance for case de-duplication (RIDR) will manage sampled MMP patients who have moved outside of SF and will be the lead contact with other health departments to determine their policies around contacting, interviewing and conducting a medical record abstraction in their area. Her familiarity of key staff in other health jurisdictions has facilitated smooth data sharing across jurisdictions during the CSBS pilot project as local laws and policies allowed.

In addition, the core HIV surveillance Data Manager will provide back-up and coverage for the MMP Data Manager. She will assist with processing and managing the MMP sample, interview and abstraction data, patient and facility tracking systems, minimum dataset and SAS coding for analyses. She will serve as a back-up for the MMP Data Manager for securely transmitting data to the CDC and for communication with CDC regarding data management issues. She has over 14 years experience in HIV surveillance and is an experienced SAS programmer and an expert in

navigating eHARS. She has written SAS programs, developed procedures for processing electronic laboratory data and for updating eHARS cases and performs quality assurance and data cleanup on our local case registry and laboratory database.

We have a current representative for the CDC MMP Provider Advisory Board and a representative on the Community Advisory Board. These representatives have committed to staying on the Boards. No funding is needed to support these activities; if needed in-kind support will be obtained.

WORKPLAN

The following chart provides a detailed work plan for the first year of activities. Details on how the activities will be implemented are discussed in the Strategies and Activities Section above.

Project Year 1 (June 1, 2015 – May 31, 2016) Workplan:

Preparation Activities	Dates of Activity	Persons Responsible
Obtain regulatory approvals	Completed by June 15, 2015	Co-PI Susan Scheer
Develop local standard operating procedures (includes linkage to care plans and referrals)	Completed by June 15, 2015	Co-PI Susan Scheer Co-PI Alison Hughes
Hire and train professional staff to recruit participants and collect data	Completed by June 15, 2015	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi
Facilitate cross jurisdictional data collection	Complete by June 15, 2015 a plan to allow data collection on persons moving **into** SF project area By May 1, 2015 complete all requests for interview or MRA of all sampled persons who have moved to another jurisdiction in order to meet interview completion date of May 31 and MRA completion date of June 30, 2015.	Co-PI Susan Scheer PC Maree Kay Parisi Health Coordinator Viva Delgado
Develop capacity for telephone interviewing; develop plan and protocol	Complete development by June 15, 2015;	PC Maree Kay Parisi Research Associates*
Maintain capacity for telephone interviewing; quality assurance activities and on-going training	Maintain capacity ongoing June 2015-May 2016	PC Maree Kay Parisi Research Associates
Provide input on operational documents and data collection instruments	Ongoing as needed and requested June 2015-May 2016	All MMP staff as role requires

*Research Associates conduct the interviews and the medical record abstractions.

Sampling and Data Collection	Dates of Activity	Persons Responsible
Conduct Sampling	Complete by June 1, 2015	Co-PI Alison Hughes Data Management Assistant

		Jennie Chin
Locate, contact, and recruit sampled persons	Complete contact attempts on 95% of sample by October 1, 2015	Research Associates PC Maree Kay Parisi Health Coordinator Viva Delgado
Manage and report contact tracking data	Report up-to-date contact attempt data biweekly to CDC Report de-identified recruitment summary to CDC twice per data collection cycle (1st report by Nov 30, 2015; 2nd report by April 30, 2016)	Co-PI Alison Hughes Data Management Assistant Jennie Chin
Interview sampled persons	Complete first interview by July 1, 2015 Complete an interview on at least 50% of sample by April 30, 2016	Research Associates Research Associates
Conduct medical record abstraction (MRA) on sampled persons	Compete first MRA by September 1, 2015 Complete MRAs for all interviewed persons by June 30, 2016	Research Associates Assistance as needed by HIV core surveillance Research Associates (in-kind) Research Associates Assistance as needed by HIV core surveillance Research Associates (in-kind)
Facilitate access to HIV care linkage and retention services for participants	Submit plan to refer out of care participants to SFDPH LINCS program to CDC prior to June 1, 2015 and receive their approval	Co-PI Susan Scheer
Extract NHSS data	Complete and send to CDC by May 31, 2016	Co-PI Alison Hughes
Collect HIV care facility data	Complete and send to CDC by May 31, 2016	Co-PI Alison Hughes
Support and conduct MMP provider survey activities	Complete as requested through the data collection cycle as requested by CDC	Co-PI Susan Scheer PC Maree Kay Parisi

Data Management and Dissemination	**Dates of Activity**	**Persons Responsible**
Manage and transmit data	Submit all required data to CDC via DCC portal or the Secure Access Management Services (SAMS) monthly or as required per protocols by CDC	Co-PI/Data Manager Alison Hughes Data Management Assistant Jennie Chin
Analyze and disseminate data	By June 1, 2015, submit data analysis plan to CDC. Respond to requests for data and/or data presentations throughout the data collection cycle as needed.	Co-Pi Susan Scheer (design plan, analyze and disseminate data) Co-PI Alison Hughes (design plan, analyze and disseminate data) Epidemiologist Anne Hirozawa PC Maree Kay Parisi

	Complete at least one surveillance summary report each data collection cycle and publish in the SFDPH Epidemiology annual report Annually, provide an MMP update to the SF HIV Prevention Planning Council and HIV Care Council By June 1, 2016, submit a report to CDC of all data dissemination activities conducted during the data collection cycle.	(disseminate data) Research Associates (disseminate data) PC Maree Kay Parisi Co-PI Alison Hughes (summarize and submit report)

Quality Assurance and Evaluation	Dates of Activity	Persons Responsible
Maintain HIV data security and confidentiality	Throughout data collection cycle, maintain HIV data security and confidentiality Annually, ensure and document that all MMP staff complete data security and confidentiality training	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi All MMP Staff PC Maree Kay Parisi Health Coordinator Viva Delgado
Attend trainings and other meetings	Throughout data collection cycle, attend all trainings and meetings as required	All MMP Staff as roles require
Conduct quality assurance activities	Throughout data collection cycle, conduct and participate in quality assurance	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi All MMP staff participation as required
Conduct evaluation activities	Annually, conduct evaluation of MMP procedures and activities	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi

Collaboration	Dates of Activity	Persons Responsible
Maintain advisory boards	Identify representatives to serve of Community Advisory Board (CAB) and Provider Advisory Board (PAB) by June 15, 2015 Maintain representation on both CAB and PAB throughout data collection cycle	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi
Strengthen NHSS	Within two months of the end of data collection, input residency, laboratory test results, transmission risk and other data collected during MMP into eHARS Annually, provide status report on laboratory completeness in eHARS to	Assistant Data Manager, Jennie Chin Epidemiologist Anne Hirozawa

	CDC	Assistant Data Manager, Jennie Chin Epidemiologist Anne Hirozawa
Strengthen local collaborations including HIV core surveillance staff, other SFDPH surveillance and prevention staff (including those funded by CDC and other sources) and other local HIV prevention programs, health care facilities and others	Throughout data collection cycle, initiate, maintain and strengthen collaborations as needed.	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi

Outcomes	Dates of Activity	Persons Responsible
Inform local HIV prevention and treatment efforts	Annually, provide an update of MMP data to date to local prevention and treatment programs and include MMP data summaries and analyses in the SFDPH HIV Epidemiology Annual Report for their use.	Co-PI Susan Scheer Co-PI Alison Hughes PC Maree Kay Parisi
Document how MMP data are used to inform local HIV prevention and treatment efforts	Annually, document data dissemination efforts to HIV prevention and treatment programs	Co-PI Alison Hughes PC Maree Kay Parisi

Subsequent Project Cycle Cycle Workplans: 2016-2017; 2017-2018; 2018-2019; 2019-2020

June

- Refine development of protocol and data collection instruments, including telephone interviews, and HIV care linkage and retention service referrals for participants.
- Obtain local regulatory approval
- Facilitate cross jurisdictional data sharing
- Hire and train staff
- Draw a sample of eligible persons from eHARS
- Begin locating, contacting and recruiting sampled persons

July

- First interview conducted on sampled person; continue interviewing through May 31 following year
- Facilitate access to HIV care linkage and retention services for participants out of care throughout data collection cycle

September

- First medical record abstraction conducted on interviewed person; continue medical record abstractions through June 30 following year

October

- Attempt contact recruitment on 95% of sampled persons completed in October

May

- NHSS data extracted and submitted to CDC
- HIV facility data collected and submitted to CDC

- Facilitate cross jurisdictional data collection on all sampled persons identified as migrating out of jurisdiction

June

- Submit data analysis plan to CDC
- Respond to requests for data presentations throughout data collection cycle as needed
- Complete MMP data summary report the SFDPH HIV Epidemiology report
- Present MMP data to HIV Prevention Planning Council and HIV Care Council

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