

**2006 PERFORMANCE MEASURES
COMPANION GUIDANCE**

**COMPREHENSIVE STD PREVENTION SYSTEMS,
PREVENTION OF STD-RELATED INFERTILITY,
AND SYPHILIS ELIMINATION PROGRAM ANNOUNCEMENT**

**DIVISION OF STD PREVENTION
NATIONAL CENTER FOR HIV, STD AND TB PREVENTION
CENTERS FOR DISEASE CONTROL AND PREVENTION**

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I. INTRODUCTION

This guidance provides detailed information about the performance measures described in the 2005 Comprehensive STD Prevention Systems (CSPS), Prevention of STD-Related Infertility (IPP), and Syphilis Elimination (SE) Program Announcement. This guidance includes programmatic rationale, strategic references, specific operational definitions, examples of how to report data, and examples of how the data may be used to improve actual performance for each performance measure.

A. The Importance of Performance Measures

The primary purpose for implementing performance measures is to improve STD prevention in the United States. Performance measures (or indicators) represent quantifiable information that provides insight into the yield or impact of a particular element of an STD prevention program. Performance measures can be important tools for program management. They allow programs to monitor progress toward specified outcomes, they facilitate the comparison of programmatic efforts over time, and they encourage project areas to implement and document “best practices”.

The performance measures selected for program implementation were pilot-tested in selected STD project areas. These twelve sets of measures were selected on the basis of importance (for overall STD prevention) and feasibility (data are available for most project areas). We anticipate that these measures will evolve as we learn more about their feasibility and usefulness.

Current performance measures address STD prevention and control from a community perspective. The community perspective encourages programs to focus on those activities over which they may exert influence (e.g., chlamydia screening at juvenile detention facilities), in contrast to those they can directly control (e.g., partner services). Understanding and embracing the community perspective is critical in the prevention and control of STD.

The implementation and evaluation of performance measures will be a continual, dynamic process. Over time, the systematic evaluation of performance measures will allow for refinement and the establishment of new measures to meet national, state, and local prevention program needs and facilitate program improvement.

B. Performance Measures and Accountability

CDC is committed to the concept of standardized, measurable outcomes of program performance activities. These performance measures are in alignment with the

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following National Center for HIV, STD, and TB Prevention (NCHSTP), Division of STD Prevention (DSTDP) goals, which are also the Government Performance Results Act (GPRA) goals.

1. Reduce STD rates by providing chlamydia and gonorrhea screening, treatment, and partner treatment to 50 percent of women in publicly funded family planning and STD clinics nationally.
2. Reduce the incidence of primary and secondary syphilis per 100,000 population.
3. Reduce the incidence of congenital syphilis per 100,000 live births.

In addition, the Institute of Medicine (IOM) and Healthy People 2010 goals serve as strategic references for the implementation of these measures.

C. Overview of Performance Measure Reporting Requirements

To ensure quality programs and to measure progress, project areas are required to report on a set of performance measures related to specific program components. Each project area will continue to set its own annual target level of performance for each performance measure, with collaborative input from their CDC program consultant. CDC will monitor each project area's progress in meeting these goals. Project areas should also use their performance measure data to help determine progress in program development or enhancement.

In the 2005 CSPPS announcement, project areas were required to report a baseline performance level (using the data period January 1 – June 30, 2004), and one-year and four-year goals for each performance measure. If the data needed to establish baseline performance level(s) were not available, the project area was required to describe what steps or actions would be conducted in Year One (2005) to set the baseline level in Year Two (2006). Project areas that provided baseline data as part of their 2005 CSPPS applications will provide data for the period January 1 – June 30, 2005 in their 2006 CSPPS application.

Project areas are required to provide a Year Two (2006) goal and may opt to update their Year Four (2008) goal for each measure. In addition, project areas must provide a rationale for their proposed or modified goals, describe performance measure data sources, and describe an action plan to reach (or maintain) performance for each measure.

A template for reporting on the performance measures will be provided. Project areas should complete the Performance Measures Report Template and submit as an attachment with the 2006 CSPPS application.

CDC has made every effort to ensure that these performance measures represent and take into account the varying aspects of STD programs, including morbidity, population size, and resources (e.g., data management capabilities). If a project area determines, based on project area baseline data, that a specific performance measure is not applicable, adequate justification for not reporting on the measure in the future must be provided.

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Project areas are responsible for achieving each performance goal established in their grant application. If a project area does not achieve its goal, CDC will work with the project area to determine what steps can be taken to improve performance. The primary point of contact for clarification and technical assistance is the project area's CDC program consultant. The program consultant will facilitate the provision of appropriate technical assistance from within DSTDP or with external partners, contractors, or peers.

D. Format and Content of Guidance Document

Performance measures (PM) are related to the following program announcement categories:

- CSPS Medical and Laboratory Services (CSPS-MLS)
- CSPS Partner Services (CSPS-PS)
- CSPS Surveillance and Data Management (CSPS-SDM)
- IPP Clinical Services (IPP-CS)
- SE Enhanced Surveillance (SE-ES)

For each measure, the following elements are provided:

- Measure
- Rationale
- References
 - Strategic References
 - Reference in Program Announcement
- Reporting Criteria
- How to Calculate Measure
 - Definitions of Key Terms
 - Measurement Specifications
 - How to Collect PM Data (example)
- Possible Data Source(s)
- How to Report Measure (example)
- Using Measure to Improve Performance (example)

The appendix provides the logic algorithm used in creating the reports in STD*MIS for performance measures CSPS PS1-5. This may be useful to programs not using STD*MIS that would like to create similar reports.

II. COMPREHENSIVE STD PREVENTION SYSTEMS (CSPS)

A. Medical and Laboratory Services (MLS)

1. Chlamydia Testing in Juvenile Detention Facilities (CSPS -MLS1)

Measure: Proportion of female admittees to large juvenile detention facilities that were tested for chlamydia.

Rationale:

- Juvenile facilities are considered high priority health provider venues because of the excellent opportunity they provide for accessing high-risk, hard-to-reach adolescent females for chlamydia testing and treatment services.
- In 2003, chlamydia positivity was higher in adolescent women screened in juvenile facilities than in adult facilities. Among adolescent women entering juvenile detention facilities, the median facility positivity for chlamydia was 15.9% (range 2.7% to 33.5%); positivity was greater than 10% in 37 (77%) of 48 facilities reporting data. (CDC, 2003)
- Although STD programs do not have direct control over juvenile detention facilities, programs should be proactively working with the management of these facilities to increase their awareness of chlamydia prevalence in this population and the need for initiating screening programs.

References:

- Strategic References: Corresponds to HP 2010 goals 25-1: “Reduce the proportion of adolescents and young adults with chlamydial (CT) infections”; and 25-6: “Reduce the proportion of females who have ever required treatment for PID”; and IOM goal #3: “Design and implement essential STD-related services in innovative ways for adolescents and under-served populations.”
- Reference in Program Announcement: Corresponds to CSPP, Medical and Laboratory Services.

Reporting Criteria:

- Project areas must report on each county juvenile detention facility which books 500 or more adolescent females annually. Please report on each facility individually. The Performance Measures Report Template will automatically total data for all the facilities in your project area.
- Project areas with no county juvenile detention facilities having booked 500 or more (i.e., having booked fewer than or equal to 499) adolescent females annually must report on one or more county juvenile detention facilities of their choice.

How to Calculate Measure:

Definitions of Key Terms:

Admittees - All females who have been booked into the county juvenile detention facility for any length of time. For the purposes of this performance measure, the unit of measure is the booking of an admittee rather than an admittee. Therefore, count each booking rather than each admittee, or female admittee = booking.

Measurement Specifications:

Numerator: Number of female admittees tested in each county juvenile detention facility.

Denominator: Total number of female admittees, or bookings, in the county juvenile detention facility.

How to Collect PM Data (example):

In establishing baseline data, Project Area T contacted the Department of Youth Services (DYS) in their state and determined that three juvenile detention facilities admitted more than 500 females on an annual basis and therefore qualified for reporting based on the criteria for this performance measure. For the current reporting period, Project Area T contacted all three sites and discovered that they did not know how many females were admitted or tested from January – June, 2005. The state DHS monitored census and the state laboratory processed all chlamydia specimens for all juvenile facilities.

The program manager in Project Area T had delegated the task of reporting on this performance measure to the program's IPPC coordinator (IPPC). The IPPC contacts the DHS and the lab to obtain the census and number of chlamydia tests processed, respectively, during the period January – June, 2005 for each facility, separately.

Possible Data Source(s):

- The numerator may be available from the public or private laboratory that processes the specimens, the facility itself, the local jail prevalence monitoring project or the infertility prevention coordinator.
- The denominator can likely be obtained from the county juvenile detention facility for the appropriate six-month data period.

How to Report Measure (example):

The juvenile detention facility in County A in Project Area T reported 550 bookings of female admittees between January and June, 2005. Of these, 324 were tested for chlamydia.

Data are reported on the Performance Measures Report Template as follows:

- Numerator = 324, Denominator = 550, Index = .59
Year two (2006) goal = .75, Four-year goal = .85
- Data source used = *Facility booking/census reports*
Action plan = *Resource request or redirection*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Note: Programs should report on this performance measure individually for each eligible county juvenile facility (refer to Reporting Criteria on page 4).

Using Measure to Improve Performance (example):

Project Area X determines that two juvenile detention facilities, A and B, meet the eligibility requirements for reporting on this measure. It contacts both facilities and learns that Facility A screens all females upon booking (unless physical or behavioral problems preclude it) and Facility B only tests females who request it after 14 days of detention, which is 18% of all females admitted or booked into the facility for any length of time.

Project Area X's goal is to improve the proportion of females tested for chlamydia (CT) at Facility B. Project Area X has obligated all IPP funds to CT screening at family planning (FP) and STD sites. Facility B appreciates the importance of providing STD services, but their budget will not allow for expanded CT testing. However, due to salary savings from vacant positions funded by the CSPP grant, Project Area X has an unobligated balance of \$100,000.

Considering a positivity rate of 14% at Facility A and the yield from CT screening well-documented in the literature, Project Area X allocates \$15,000 in unobligated CSPP funds for a three-month pilot project for CT testing at Facility B. The three-month pilot results in 17% positivity for CT.

A meeting with Facility B management reveals that there are currently no funds to increase the proportion of females tested for CT. In a subsequent meeting between the STD program manager and the FP manager, it is decided that IPP resources currently supporting testing at sites with less than 1% positivity will be redirected to support expanded testing at Facility B.

B. Partner Services (PS)

For this set of measures (PS1-PS5), the cases used in the numerator and denominator may not necessarily be the same. It is recognized that cases reported as morbidity may not be assigned for interview during the same period. For example, a case may be reported as morbidity in June, but not assigned for interview until July. However, using a ratio allows comparisons over time as the number of cases fluctuates.

For programs using STD*MIS, reports for PS1-5 are available. For more information on these reports, refer to the Appendix.

1. Timeliness of Primary and Secondary (P&S) Syphilis Interviews (CSPS-PS1)

Measures: Proportion of P&S syphilis cases interviewed within 7, 14, and 30 calendar days from the date of specimen collection.

Rationale:

- Syphilis elimination is a priority. Rapid partner notification can interrupt transmission if infected partners are treated before they transmit infection to others. Rapid diagnosis, reporting, and interviewing are required to reach partners in time to interrupt transmission.
- Using a ratio allows comparisons over time as the number of cases fluctuates. Higher ratios indicate increased timeliness of interviewing which should lead to decreased disease incidence (i.e., quicker access to partners for treatment).
- The measure is divided into time segments to allow project areas to see in what time frame most of their P&S cases are interviewed, and whether improvement is needed.
- The “date of specimen collection” was selected as the starting point for these measures because it represents the time that the health care system first became aware of the case. To effectively interrupt disease transmission, it is important to intervene as early as possible. Dates of specimen collection are also less open to interpretation than other dates. While there may be factors affecting the time between the date of specimen collection and the date the health department becomes aware of the case that are beyond the health department’s direct control, opportunities for intervention (e.g., problems with lab reporting) may also become apparent.

References:

- Strategic References: Corresponds to GPRA performance goal #2: “Reduce the incidence of P&S syphilis per 100,000 population” and #3: “Reduce the incidence of congenital syphilis per 100,000 live births”; HP 2010 goals 25-3: “Eliminate sustained domestic transmission of P&S syphilis,” 25-9: “Reduce congenital syphilis,” and 25-10: “Reduce neonatal consequences from maternal STD.”

- Reference in Program Announcement: Corresponds to CSPS, Partner Services.

How to Calculate Measure:

Definitions of Key Terms:

Interview: The original discussion conducted with an infected patient where the objective is to prevent further spread of disease through the prompt identification and examination of all elicited partners and others at risk for infection. This interview is designed to increase the likelihood that all at-risk partners and suspects are disclosed.

Measurement Specifications:

Numerator: Number of persons with P&S syphilis who are interviewed within 7, 14, and 30 days from the date of specimen collection (based on the number of cases assigned for an interview during the performance measurement period).

Denominator: Total number of P&S syphilis cases reported as morbidity during the performance measurement period, regardless of whether there was an interview.

How to Collect PM Data (example):

Project Areas using STD*MIS may upload a “canned” report that calculates the required index for this measure. A logic algorithm for the canned report is included as an appendix, and project areas should contact their STD*MIS consultant with questions related to the report.

*Project Area Z does not use STD*MIS, but does have a local data management system in which all field and interview records are entered in a timely fashion. Using SAS, programs are written to extract the required data. Project Area Z reports on the measure as required.*

Project Area L does not currently have an electronic data management system, and it will be three years before funds are available to implement one. In order to obtain data for this measure, Project Area L pulls the 26 cases (interview records) that are assigned for interview during the current reporting period. Three of the cases were not interviewed, but interview records were completed and counted in the denominator. The SE Coordinator (SEC) hand counts how many of the 26 cases are interviewed within 7, 14, and 30 days of the date of specimen collection. Project Area Z reports on this measure as required.

Possible Data Sources:

Field records (2936), Interview Record (73.54), STD program database (e.g., STD*MIS), case log book

How to Report Measure (example):

Project Area A reported 72 cases of P&S syphilis between January and June, 2005. The time between the date of specimen collection of the first positive test and the first DIS interview was < 7 days for 21, < 14 days for 39, and < 30 days for 58.

Data are reported on the Performance Measures Report Template as follows:

- 7 days: Numerator = 21 , Denominator = 72, Index = .29,
Year two (2006) goal = .45, Four-year goal = .60
- 14 days: Numerator = 39 , Denominator = 72, Index = .54
Year two (2006) goal = .60, Four-year goal = .75
- 30 days: Numerator = 58 , Denominator = 72, Index = .81
Year two (2006) goal = .88, Four-year goal = .95
- Data source used = *Local software system*
- Action plan = *Conduct training*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (example):

Project Area X finds that the timeliness of syphilis interviews is substantially less than what it expects. Upon evaluating the components of the PM (i.e., specimen date to lab, lab to health department [HD], HD to initiation, initiation to interview), it is discovered that the problem is the time period from when the lab receives the specimen until it is reported to the HD. As part of an action plan, the program seeks technical assistance from peers to develop a lab visitation program to improve early case reporting (P&S) or specimen processing and reporting timeliness.

2. *Timeliness of Treatment for Contacts to P&S Syphilis Cases (CSPS-PS2)*

Measure: Number of contacts prophylactically treated or newly diagnosed and treated within 7, 14, and 30 calendar days from day of interview of index case, per case of (P&S) syphilis.

Rationale:

- Syphilis elimination is a priority. Rapid partner notification can interrupt transmission if infected contacts are treated before they transmit infection to others.
- Using a ratio allows comparisons over time as the number of cases fluctuates. Higher ratios indicate greater success in treating contacts early.
- The measure is divided into time segments to allow project areas to see in what time frame most of the contacts are treated, and whether improvement is needed.

References:

- Strategic References: Corresponds to GPRA performance goals #2: “Reduce the incidence of P&S syphilis per 100,000 population” and #3: “Reduce the incidence of congenital syphilis per 100,000 live births,” HP 2010 goals 25-3: “Eliminate sustained domestic transmission of P&S syphilis,” 25-9: “Reduce congenital syphilis,” and 25-10: “Reduce neonatal consequences from maternal STD.”
- Reference in Program Announcement: Corresponds to CSPP, Partner Services.

How to Calculate Measures:

Definitions of Key Terms:

“**A**” **disposition** indicates the patient’s test was negative and that he or she received adequate preventive treatment.

“**C**” **disposition** indicates the patient was infected and brought to treatment for syphilis due to the program’s efforts. Treatment occurred on the same day or after the field record was initiated for follow-up.

Measurement Specifications:

Numerator: Contacts of persons with P&S syphilis with dispositions of Preventive Treatment (A) or Infected, Brought to Treatment (C), and within 7, 14, and 30 days after the date of the interview of the index case. Contacts named by more than one index case should be counted only once for each time they are treated.

Denominator: All cases of P&S syphilis reported for the same time period regardless of whether or not there was an interview.

How to Collect PM Data (example):

Project Areas using STD*MIS may upload a “canned report” that calculates the required index for this measure. A logic algorithm for the canned report is included as an appendix, and project areas should contact their STD*MIS consultant with questions related to the report.

*Project Area Z does not use STD*MIS, but does have a local data management system in which all field and interview records are entered in a timely fashion. Using SAS, programs are written to extract the required data.*

Project Area L does not currently have an electronic data management system, and it will be three years before funds are available to implement one. In order to obtain data for this measure, Project Area L pulls the interview records for the 26 cases assigned for interview and logs the names of the contacts either prophylactically treated or brought to treatment as a new case of syphilis. Using this list, the field record is pulled for each of the contacts and, using the interview date on the interview record and the date of treatment on the field record, the SE Coordinator counts how many contacts were treated within 7, 14, and 30 days from the date of interview.

Possible Data Sources:

STD program database (e.g., STD*MIS), Form 73.54, Form 2936

How to Report Measure (example):

Program C reported 72 cases of P&S syphilis between January and June, 2005. Preventive treatment was provided to 25 (18 within 7 days; 20 within 14 days; and 23 within 30 days). 21 had infections identified and were treated (12 within 7 days; 15 within 14 days; and 17 within 30 days).

Data are reported on the Performance Measures Report Template as follows:

- 7 days: Numerator = 30 (18+12), Denominator = 72, Index = .42
Year two (2006) goal = .45, Four-year goal = .60
- 14 days: Numerator = 35 (20+15), Denominator = 72, Index = .49
Year two (2006) goal = .60, Four-year goal = .75
- 30 days: Numerator = 40 (23+17), Denominator = 72, Index = .56
Year two (2006) goal = .70, Four-year goal = .80
- Data source used = *STD*MIS*
- Action plan = *Hire staff*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (example)

Upon evaluating the components of the PM in its local data management system, Project Area X would like to improve both the number of contacts elicited during the critical period and improve the timeliness of treating these contacts. The evaluation reveals that, for five of the seven DIS on staff, the contact index is low (0.4), source/spread analysis is not being conducted, and the average time from when the case is interviewed until contacts are initiated for investigation is 3 days.

To improve performance, Project Area X contacts its CDC Program Consultant to identify other project areas performing well on this measure. Upon reviewing PM data from other project areas, it is learned that Project Areas L and R, which are of similar population/morbidity size and capacity as Project Area X, are performing exceptionally well on this measure. A conference call is arranged to commence dialogue and collaboration around improving performance in Project Area X. Simultaneously, staff in need of case management-related training are enrolled in Advanced STD Intervention (ASTDI), and quality assurance activities are implemented to ensure protocols are in place and are adhered to.

3. Associates and Suspects Tested (CSPS-PS3)

Measure: Number of associates and suspects tested, per case of P&S syphilis.

Rationale:

- Syphilis elimination is a priority and the socio-sexual networks of persons at risk for, or diagnosed with, syphilis play a critical role in controlling the spread of disease. The ability to elicit and examine associates and suspects is critical to syphilis case management efforts, especially in outbreak situations. (Rothenberg, et al., 2002)
- Using a ratio as the measurement allows comparisons over time as the number of cases fluctuates.

References:

- Strategic References: Corresponds to GPRA performance goals #2: “Reduce the incidence of P&S syphilis per 100,000 population” and #3: “Reduce the incidence of congenital syphilis per 100,000 live births,” HP 2010 goals 25-3: “Eliminate sustained domestic transmission of P&S syphilis” and 25-9: “Reduce congenital syphilis.”
- Reference in Program Announcement: Corresponds to CSPP, Partner Services.

How to Calculate Measure:

Definitions of Key Terms:

Associates: Individuals at risk for syphilis who are identified for field follow-up based on interviews with an *uninfected person*. Associates are at risk for syphilis because they (1) have signs and symptoms indicative of syphilis; (2) are sex partners of someone with syphilis, but were not identified through the interview with the person; or (3) are individuals who could benefit from an exam due to other risk factors.

Suspects: Individuals at risk for syphilis who are identified for field follow-up based on interviews with an *infected person*. Suspects may be non-interview period sex partners of that person. Suspects are at risk for syphilis because they (1) have signs and symptoms indicative of syphilis; (2) are sex partners of someone with syphilis, but were not identified through the interview with the person; or (3) are individuals who could benefit from an exam due to other risk factors.

“A” disposition indicates that the patient’s test was negative and that the patient received adequate preventive treatment.

“B” disposition indicates that the patient’s test was negative and that the patient refused preventive treatment when it was warranted.

“C” disposition indicates that the patient was infected and was brought to treatment for syphilis due to the program’s efforts. Treatment took place on the same day or after the day the field record was initiated for follow-up.

“D” disposition indicates that the patient tested positive for syphilis, but was not treated.

“F” disposition indicates that the patient’s test was negative and that treatment was not warranted.

Measurement Specifications:

Numerator: Number of associates and suspects identified and tested for syphilis via the interview process on P&S cases. This includes disposition codes A, B, C, D, and F.

Denominator: All cases of P&S syphilis reported for the same time period regardless of whether there was an interview.

How to Collect PM Data (example):

Project areas using STD*MIS may upload a “canned” report that calculates the required index for this measure. A logic algorithm for the canned report is included as an appendix, and project areas should contact their STD*MIS consultant with questions related to the report.

*Project Area Z does not use STD*MIS, but does have a local data management system in which all field and interview records are entered in a timely fashion. Using SAS, programs are written to extract the required data. Project Area Z reports on the measure as required.*

Project Area L does not currently have an electronic data management system, and it will be three years before funds are available to implement one. In order to obtain data for this measure, Project Area L pulls the interview records for the 26 cases assigned for interview, counts the number of suspects and associates tested for syphilis, and reports on the measure as required.

Possible Data Sources:

STD program case management database (e.g. STD*MIS), Form 73.54, Form 2936

How to Report Measure (example):

Project Area O reported 70 P&S syphilis cases from January – June, 2005. From those cases, six associates and seven suspects were identified and tested as a result of the interviewing process.

Data are reported on the Performance Measures Report Template as follows:

- Numerator = 13 (6+7), Denominator = 70, Index = .19
Year two (2006) goal = .45, Four-year goal = .60
- Data source used = *Field records (2936)*
- Action plan = *Conduct training*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (example):

Upon review of the PM data and associated indices (cluster index), Project Area Q realizes that cluster interviewing is not as productive as it expects. The cluster index is 0.3, so suspects and associates are not being elicited in the interview, and therefore are not being tested. Analysis of data related to examination reveals that there are no problems getting suspects and associates tested once they are named.

The Program Manager is aware that it is difficult for many DIS to conduct an effective cluster interview, despite the fact that staff know it is a requirement according to protocol. The Program Manager appreciates the value of mentoring, so she contacts a colleague in a program with similar morbidity and DIS workload to identify DIS that have been proficient in cluster interviewing. In

addition, she contacts her Program Consultant to identify DIS in other project areas who have skills in this area. The collaborative effort results in three external DIS spending two weeks in Project Area Q modeling effective cluster interviewing techniques for local DIS. Three months later, data analysis demonstrates a significant improvement in the cluster index, which has led to a significant improvement in the number of suspects and associates tested for syphilis per case of P&S syphilis.

4. Associates or Suspects Treated (CSPS-PS4)

Measure: Number of associates and suspects treated for newly diagnosed syphilis, per case of P&S syphilis.

Rationale:

- Syphilis elimination is a priority and the socio-sexual networks of persons at risk for, or diagnosed with, syphilis play a critical role in controlling the spread of disease. The ability to treat infected associates and suspects is critical to syphilis case management efforts, especially in outbreak situations. (Rothenberg, et al., 2002)
- Using a ratio as the measurement allows comparisons over time as the number of cases fluctuates.

References:

- Strategic References: Corresponds to GPRA performance goals #2: “Reduce the incidence of P&S syphilis per 100,000 population” and #3: “Reduce the incidence of congenital syphilis per 100,000 live births”; HP 2010 goals 25-3: “Eliminate sustained domestic transmission of P&S syphilis”; and 25-9: “Reduce congenital syphilis.”
- Reference in Program Announcement: Corresponds to CSPP, Partner Services

How to Calculate Measure:

Definitions of Key Terms:

Associates: Individuals at risk for syphilis who are identified for field follow-up based on interviews with an *uninfected person*. Associates are at risk for syphilis because they (1) have signs and symptoms indicative of syphilis; (2) are sex partners of someone with syphilis, but were not identified through the interview with the person; or (3) are individuals who could benefit from an exam due to other risk factors.

Suspects: Individuals at risk for syphilis who are identified for field follow-up based on interviews with an *infected person*. Suspects may be non-interview period sex partners of that person. Suspects are at risk for syphilis because they

(1) have signs and symptoms indicative of syphilis; (2) are sex partners of someone with syphilis, but were not identified through the interview with the person; or (3) are individuals who could benefit from an exam due to other risk factors.

“**C**” **disposition** indicates that the patient was infected and was brought to treatment for syphilis due to the program’s efforts. Treatment took place on the same day or after the field record was initiated for follow-up.

Measurement Specifications:

Numerator: Number of associates and suspects treated for newly diagnosed syphilis (disposition code “C”) on P&S cases.

Denominator: All cases of P&S syphilis reported for the same time period regardless of whether there was an interview.

How to Collect PM Data (example):

Project areas using STD*MIS may upload a “canned report” that calculates the required index for this measure. A logic algorithm for the canned report is included as an appendix, and project areas should contact their STD*MIS consultant with questions related to the report.

*Project Area Z does not use STD*MIS, but does have a local data management system in which all field and interview records are entered in a timely fashion. Using SAS, programs are written to extract the required data. Project Area Z reports on the measure as required.*

Project Area L does not currently have an electronic data management system, and it will be three years before funds are available to implement one. In order to obtain data for this measure, Project Area L pulls the interview records for the 26 cases reported, counts the number of suspects and associates tested for syphilis, and reports on the measure as required.

Possible Data Sources:

STD program case management database (e.g., STD*MIS), Form 73.54, Form 2936

How to Report Measure (example):

Project Area B reported 70 P&S syphilis cases from January – June, 2005. From those cases, six associates and seven suspects were identified and tested as a result of the cluster interviewing process. One associate and one suspect are confirmed new cases of syphilis and have been treated.

Data are reported on the Performance Measures Report Template as follows:

- Numerator = 2, Denominator = 70, Index = .029
Year two (2006) goal = .20, Four-year goal = .45
- Data source used = *Field records (2936)*
- Action plan = *Conduct training*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (example):

As a result of PM data analysis, Project Area E realizes that although it had a high number of suspects and associates tested for syphilis, there were no new infections identified. The program manager realizes immediately that the cluster interview process is not identifying those individuals most at risk.

To address the issue, he conducts a training session for all DIS, FLS (front line supervisor), and the FOM (field operations manager) on the importance of cluster interviewing, and how to properly conduct a cluster interview to maximize the identification of those in the socio-sexual network most at risk. One of the major tenets of the training is that identifying suspects and associates who have symptoms indicative of syphilis or who have had sex with someone with syphilis is much more likely to yield new disease than just identifying those individuals who could benefit from an exam for other reasons.

For three months after the training, FLS conduct weekly interview audits on DIS to ensure that proper interviewing techniques to identify those most at risk are being used. Six months later, Project Area E has maintained the volume of suspects and associates tested and three new cases of early syphilis have been diagnosed and treated.

5. Timeliness of “Priority” Gonorrhea Interviews (CSPS-PS5)

For programs receiving syphilis elimination funding, reporting on this measure is optional. For programs not receiving syphilis elimination funding, reporting on this measure is required. When providing required information for this measure, describe how the data were analyzed to identify the chosen priority population(s).

Measure: Proportion of “priority” gonorrhea cases interviewed within 7, 14, and 30 days from the date of specimen collection. Priority population(s) are determined locally, and should be based on local epidemiology (e.g., pregnant women, women aged 15-19 years, women of child-bearing age, resistant gonorrhea, MSM, etc).

Rationale:

- Rapid interviewing can interrupt transmission of infection if sex partners are identified quickly, evaluated, and appropriately treated.
- The measure is divided into time segments to allow project areas to see in what time frame most of their cases are interviewed, and whether improvement is needed.
- Higher proportions indicate greater success in rapidly interviewing priority cases.
- The “date of specimen collection” was selected as the starting point from which to measure the time interval because it indicates the time at which the patient first became involved with the health care system. While there may be factors affecting the time between the date of specimen collection and the date the health department becomes aware of the case that are beyond the health department’s direct control or influence, opportunities for intervention (e.g., problems with lab reporting, case reporting) may also become apparent.

References:

- Strategic References: Corresponds to HP 2010 goals 25-2: “Reduce gonorrhea,” 25-6: “Reduce the proportion of females who have ever required treatment for PID” and IOM Goal #3: “Design and implement essential STD-related services in innovative ways for adolescents and under served populations.”
- Reference in Program Announcement: Corresponds to CSPP, Partner Services.

How to Calculate Measures:

Measurement Specifications:

Numerator: For each priority population identified, the number of reported priority gonorrhea cases interviewed for partner notification purposes within 7, 14, and 30 calendar days of the date of specimen collection.

Denominator: For each priority population, the total number of reported priority gonorrhea cases.

How to Collect PM Data (example):

Project areas using STD*MIS may upload a “canned” report that calculates the required index for this measure. A logic algorithm for the canned report is included as an appendix, and project areas should contact their STD*MIS consultant with questions related to the report.

*Project Area Y does not use STD*MIS, but does have a local data management system in which all field and interview records are entered in a timely fashion. Using SAS, programs are written to extract the required data. Project Area Y reports on the measure as required.*

Project Area P does not currently have an electronic data management system, and it will be three years before funds are available to implement one. Project Area P maintains a log of the names of individuals with gonorrhea from established “priority” populations (currently MSM and pregnant females). In order to obtain data for this measure, Project Area P pulls the 22 MSM and seven pregnant female cases (interview records) that are interviewed during the current reporting period. Two of the MSM cases were not interviewed, but interview records were completed and counted in the denominator. The program manager hand counts how many of the cases in each population are interviewed within 7, 14, and 30 days of the date of specimen collection. Project Area P reports on this measure as required.

Possible Data Sources:

CDC Interview form 73.54 (9.54), STD Program database (e.g., STD*MIS)

How to Report Measure (example):

Project Area A identified MSM gonorrhea cases as its priority population based on a review of surveillance and program data. The program reported 75 cases of gonorrhea in MSM between January and June, 2005. The time between the date of specimen collection and the first interview was < 7 days for 15, <14 days for 30, and < 30 days for 60.

Data are reported on the Performance Measures Report Template as follows:

- 7 days: Numerator = 15, Denominator = 75, Index = .20
Year two (2006) goal = .40, Four-year goal = .60
- 14 days: Numerator = 30, Denominator = 75, Index = .40
Year two (2006) goal = .60, Four-year goal = .75
- 30 days: Numerator = 60, Denominator = 75, Index = .80
Year two (2006) goal = .88, Four-year goal = .95
- Data source used = *Local software system*
- Action plan = *Conduct training*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Note: If more than one priority populations are selected, programs are required to report each priority population, separately.

Using Measure to Improve Performance (example):

Project Area T is able to interview all GC due to low syphilis morbidity. Upon review of the PM data, it notices that GC interviews are not as timely as expected, with 30% of all interviews conducted within 30 days of the date of specimen collection. The program manager knows that she has lost two DIS positions in the last two years and she believes that an unmanageable workload may be affecting the timeliness of interviews.

A workload assessment is conducted and the program manager concludes that interviewing all GC cases is no longer feasible given the current staff level. To maximize efficiency, the program manager evaluates which GC cases are most productive in terms of generating contacts and identifying and treating new disease. The results indicate that cases involving MSM and pregnant females should be the priorities, and the decision is made to limit GC interviews to these at-risk populations.

Six months later, an analysis of the data reveals that 40%, 55%, and 70% of the MSM GC interviews are within 7, 14, and 30 days, respectively. In addition, 50%, 60%, and 85% of GC interviews for pregnant females are conducted within 7, 14, and 30 days, respectively.

C. Surveillance and Data Management (SDM)

1. Completeness of Data (CSPS-SDM1)

Programs are required to report on this measure once per year in the grant application. In July of each year, CDC will provide each program with a data table with proportions completed for each variable, by disease, for the preceding calendar year (refer to measurement specifications below).
The program will enter the data into the Performance Measures Report Template. The program should review the table, set goals and performance targets for subsequent years, and provide a plan of action for increasing completeness rates, where appropriate.

Measure: Proportion of reported cases of gonorrhea, chlamydia, P&S syphilis, EL syphilis, and congenital syphilis sent to CDC via NETSS that have complete data for age, race, sex, county, and date of specimen collection.

Rationale:

- Complete data describing the characteristics of persons with STDs are critical to effective disease control and intervention at the state, and local levels. Although surveillance records with unknown values are valid codes, they have limited use in analyses.
- Programs should routinely analyze surveillance data to identify populations at risk and to inform the development and implementation of disease intervention strategies. The completeness of surveillance data facilitates this process and provides a richer depiction of disease trends, allowing for better targeting of resources and interventions.

References:

- Reference in Program Announcement: Corresponds to CSPS, Surveillance and Data Management.

How CDC Calculates These Measures:

Proportions do not have to be calculated locally. However, the results provided by DSTDP must be entered into the Performance Measures Report Template.

Measurement Specifications:

Numerators: Total number of cases reported, by disease, where age, race, sex, county of residence, and date of specimen field values are present, valid and not coded as “Unknown”.

Age: values of 0-98 if the age type is years; 0-11 if the age type is months; 0-52 if the age type is weeks; 0-28 if the age type is days. Ages 99-120 are compared

to the date of birth to make sure they are valid. Age=999 is considered unknown and not included in the numerator.

Race: If Hispanic=1 (yes), the RACE value is changed to 4 (Hispanic). Values of 1-5 or 8 are valid. If Race=9 (unknown) is unknown and Hispanic variable=2, then Race = 9 (unknown) and the record is in the numerator.

Sex: values of 1-2. Sex=9 is unknown and not included in the numerator.

County: a valid three-digit county FIPS code ranging from 001-507 or independent city code (Maryland, Missouri, Nevada and Virginia only) ranging from 510-840. County=999 is considered unknown and not included in the numerator.

Specimen date: Specimen date is the NETSS extended record as columns 87-94 for all diseases except CS and in columns 183-190 of the extended congenital syphilis record. The child's first reactive serologic test date is used for CS cases. Both dates must be in YYYYMMDD format. A date=99999999 or a partial date is not included in the numerator. It is realized that stillbirths that aren't going to have a date of specimen collection, which affects the numerator.

Denominators: Total number of cases reported, by disease, during the NETSS year. The NETSS year usually does not coincide exactly with the calendar year. All congenital syphilis cases received during the NETSS year are used, even if the child's date of birth is in a preceding year.

How to Collect PM Data (example):

Data for these measures are provided to Project Areas by CDC. If you have questions concerning these data, please contact the DSTDP, Statistics and Data Management Branch.

Data Sources:

Data will be provided to the program by CDC once a year (July) based on reports from the NETSS database from the previous calendar year. (e.g., 2004 data will be provided to the program in July 2005)

How to Report Measure (example):

Program F reported 5,545 gonorrhea cases for the period January – December, last year. Analysis of NETSS data reveals that 4,366 (.79) of the reports had the age completed; 3,687 (.67) of the reports had race completed; 4,998 (.90) of the reports had sex completed; 5,204 (.94) had county of residence completed; and 4,754 (.86) had date of specimen collection completed.

Sample Data Table Provided By CDC

Disease	Demographic Variable				
	Age	Race	Sex	County of Residence	Date of Specimen
Gonorrhea	.79	.67	.90	.94	.86
Chlamydia					
P&S Syphilis					
EL Syphilis					
Congenital Syphilis					

Data are reported on the Performance Measures Report Template as follows:

The program enters the data into its Performance Measures Report Template.

For each disease, the program reviews the table and reports the following:

- 2006 goal and revised Year Four goal (if desired)
- Plan of action for increasing completeness rates (e.g., *conduct training*)

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (example):

Project Area F receives its performance levels for this PM from CDC for the previous year and notices that the “Race” variable for GC and CT is lower than expected. The program manager knows that improving the reporting of “Race” is a challenging task considering some medical providers no longer collect it, but she realizes that race data are important in terms of data analysis, targeting interventions, and overall strategic planning.

The program’s goal is 85% completeness for race data, so in order to address the issue, the program manager has the surveillance unit run additional reports to determine which providers have a rate of completeness for the “Race” variable below 85%, paying particular attention to the volume of morbidity generated by identified providers. Once this list is established, the task of educating and improving the performance of the providers is delegated to staff in the Provider Visitation program. Prior to setting up actual visits, the program manager sends a personalized letter to each provider on the list stating what the problem is, offering solutions to increase the completeness, and giving advance notice that the issue will be discussed on the next visit. Provider visits are prioritized based on volume of morbidity and rate of incompleteness.

Analysis of the data six months after the visits reveals that completeness on the “Race” variable is now at 88%.

2. Timeliness of Data (CSPS-SDM2)

Programs are required to report on this measure once per year in the grant application.

- In July of each year, CDC will provide each program with a data table with proportions completed for each variable, by disease, for the preceding calendar year (refer to measurement specifications below).
- The program will enter the data into the Performance Measures Report Template.
- The program should review the table, set goals and performance targets for subsequent years, and provide a plan of action for increasing completeness rates, where appropriate.

Measure: Proportion of reported cases of gonorrhea, chlamydia, P&S syphilis, EL syphilis, and congenital syphilis sent to CDC via NETSS within 30 and 60 days from the date of specimen collection.

Rationale:

- The timely submission of data is critical to effective disease intervention at the national, state, and local levels.
- Programs should routinely analyze surveillance data to identify populations at risk and to inform the development and implementation of disease intervention strategies. The timeliness of data submission facilitates this process and provides a more rapid response, which is essential to intervening in transmission and disease progression.
- The “date of specimen collection” was selected as the starting point for these measures because it represents the time that the health care system first became aware of the case. To effectively interrupt disease transmission, it is important to intervene as early as possible. While there may be factors affecting the time between the date of specimen collection and the date the health department becomes aware of the case that are beyond the health department’s direct control, opportunities for intervention (e.g., problems with lab reporting) may also become apparent.

References:

- Reference in Program Announcement: Corresponds to CSPS, Surveillance and Data Management.

How CDC Calculates These Measures:

Proportions do not have to be calculated locally. However, the data must be entered into the Performance Measures Report Template.

Measurement Specifications:

Numerators: Total number of reported cases, by disease, submitted to CDC via NETSS within 30 and 60 days (cumulative) from the date of specimen collection. Time is measured in days as Initial CDC date minus the specimen date. Both dates must be present in order to compute the proportion.

Note: Date of first report of an STD case report to DSTDP/CDC is defined as the date of first report to CDC's NNDSS database (i.e., CDC initial date). This date is automatically assigned based upon the case report's unique identifier -- in any year, when the unique identifier is reported to the data base for the first time, NNDSS data managers assign a 'CDC initial date' to the record. Subsequent updates of that record with the unique identifier are not supposed to modify the CDC initial date. However, occasionally data management errors may allow states to re-use a case report identifier or the CDC to overwrite a CDC initial date -- leading to errors in the assignment of the CDC initial date and to errors associated with the calculation of timeliness of reporting to CDC.

The **initial CDC date** is assigned by CDC when the case is accepted as a valid record in NETSS. This date is not available locally but can be approximated as the date when submitted to NETSS. This date is not changed when a case is modified, unless the case is deleted and re-assigned a new CaseID number.

The **date of specimen collection** is part of the extended NETSS record in columns 87-94 for non-congenital syphilis cases or columns 183-190 for congenital syphilis cases. It is realized that stillbirths that aren't going to have a date of specimen collection, which affects the numerator.

Denominators: Total number of reported cases in the NETSS year, by diseases. The denominator is not adjusted if the specimen date is missing or the CDC initial date has been modified.

How to Collect PM Data (example):

Data for these measures are provided to Project Areas by CDC. If you have questions concerning these data, please contact the DSTDP, Statistics and Data Management Branch.

Data Source(s):

Data will be provided to the program by CDC once a year (July) based on reports from the NETSS database from the previous calendar year (e.g., 2004 data will be provided to the program in July 2005).

How to Report Measure (example):

Program F reported 5,545 gonorrhea cases for the period January – December, last year. Analysis of NETSS data reveals that 3,488 (.63) were submitted to CDC within 30 days of the date of specimen, and 5,312 (.96) within 60 days.

Sample Data Table Provided By CDC

Disease	Time frame	
	30 Days	60 Days
Gonorrhea	.63	.96
Chlamydia		
P&S Syphilis		
EL Syphilis		
Congenital Syphilis		

Data are reported on the Performance Measures Report Template as follows:

The program enters the data into the Performance Measures Report Template.

For each disease, the program reviews the table and reports the following:

- 2006 goal and revised Year Four goal (if desired)
- Plan of action for increasing timeliness rates (e.g., *conduct training*)

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (examples):

Example 1. Project Area O receives data from CDC that demonstrates lower than expected performance on reporting morbidity to CDC within 30 and 60 days of the date of specimen collection. The program manager assesses what’s causing the delay and finds that the local surveillance and data management staff are “batching” cases and only transmitting cases via NETSS once a month. Since there are so few cases of congenital syphilis, they’re batched and transmitted every six months. The program manager institutes a new protocol stating that cases are transmitted via NETSS every two weeks. Three months after implementing the protocol, analysis reveals that the timeliness of reporting cases via NETSS has improved dramatically.

Example 2. The timeliness proportions are 0.00 for all STDs for both 30 and 60 days in Project Area J. Reports run locally show that a high proportion of cases were submitted to CDC within these time frames, but review of the actual data sent to CDC revealed that no specimen dates were included in the transmission files. Project Area J modified their local STD surveillance information system to submit the date of specimen collection allowing the timeliness measure to be computed.

III. INFERTILITY PREVENTION PROGRAM (IPP)

A. Clinical Services (CS)

1. Timely Treatment of Women with Chlamydia at Family Planning Sites (IPP-CS1)

Measure: Among clients of IPP family planning clinics, the proportion of women with positive CT tests that are treated within 14 and 30 days of the date of specimen collection.

Rationale:

- Rapid follow-up and treatment of persons infected with STDs can prevent progression of disease (e.g., PID following CT infection) and interrupt transmission of infection.
- Although STD programs do not have direct control over IPP family planning clinics, programs should be working with the clinics or their family planning partners in efforts to provide timely treatment once an infection is identified.
- The measure is divided into time segments to allow project areas and family planning clinics to see in what time frame most of the women with positive CT tests are treated, and whether improvement is needed.
- The “date of specimen collection” was selected as the starting point from which to measure the time interval because it indicates the time at which the patient first became involved with the health care system. While there may be factors affecting the time between the date of specimen collection and the date the health department becomes aware of the case that are beyond the health department’s direct control or influence, opportunities for intervention (e.g., problems with lab reporting) may become apparent.

References:

- Strategic References: Corresponds to GPRA performance goal #1: “Reduce STD rates by providing chlamydia and gonorrhea screening, treatment, and partner treatment to 50% of women in publicly funded family planning and STD clinics nationally”; HP 2010 goals 25-1: “Reduce the proportion of adolescents and young adults with CT infections,” 25-6: “Reduce the proportion of females who have ever required treatment for PID”; and IOM goal #3: “Design and implement essential STD-related services in innovative ways for adolescents and underserved populations.”
- Reference in Program Announcement: Corresponds to IPP Clinical Services

How to Calculate Measures:

*The measure should include all cases from all IPP clinics. However, if this is not currently possible, project areas may use sampling to report on both of the IPP measures. If sampling is used, a detailed description of the methodology used must be described, including the proportion of sites sampled and proportion of patients sampled at each site. The timeframe for the sample must be the required PM reporting period (i.e., January – June, 2005).

Definition of Key Terms:

IPP Family Planning Clinics: All family planning clinics that report data as part of the Chlamydia Prevalence Monitoring Project, regardless of whether they are integrated clinics or not. Ideally, all women testing positive at integrated clinics should be counted regardless of the type of patient (STD or FP) and source of payment (STD or FP).

Measurement Specifications:

Numerator: Number of women treated for chlamydia within 14 and 30 days of the date of specimen collection.

Denominator: Total number of women who tested positive for chlamydia.

How to Collect PM Data (example):

Project Area N has 33 family planning sites that are part of the IPP Prevalence Monitoring Project. Nine of these are deemed sentinel sites, where there is close monitoring and data are most complete. In establishing baseline performance levels for these measures, Project Area N limited its focus to the nine sentinel sites. In the next twelve months, it plans to expand the treatment verification to all 33 sites.

Project Area N uses a four-part Confidential Morbidity Report (CMR) at all clinics for STD reporting. The sites are required to submit a CMR, complete with demographics, lab test information, and treatment, within seven days of diagnosis. If treatment information is not known within seven days of diagnosis, the case is still reported and treatment information is reported later on one of the remaining CMR forms. Data on the CMR are entered into the local database within 48 hours of receipt. Using SAS, programs are written to extract the data and Project Area N reports on the measures as required.

Project Area N conducts quality assurance visits at all 33 sites twice a year. A random sample of charts is reviewed at each site for accuracy, completeness, and timely reporting. In addition, Project Area N is exploring the purchase of electronic scanning equipment to expedite the data entry process, which will make the process more efficient.

Possible Data Sources:

IPP family planning clinical and laboratory records database or similar data management system, STD*MIS (morbidity and treatment records), treatment log-books, chart reviews, Title X site visits/chart audits.

How to Report Measure (example):

Infertility Prevention Program Clinical Services

Program E has two IPP family planning clinics. The two clinics report that 756 women tested positive for chlamydia during the period from January- June, 2005. The time between the date of specimen collection and treatment was < 14 days for 345 and < 30 days for 448 cases, respectively.

Data are reported on the Performance Measures Report Template as follows:

- 14 days: Numerator = 345, Denominator = 756, Index = .46
Year two (2006) goal = .60, Four-year goal = .75
- 30 days: Numerator = 448, Denominator = 756, Index = .59
Year two (2006) goal = .70, Four-year goal = .90
- Data source used = IPP data
- Action plan = Conduct training

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Note: If sampling is used, include a detailed description of any sampling methodology, including the proportion of sites sampled and proportion of patients sampled at each site. The timeframe for the sample must be the required PM reporting period (i.e., January – June, 2005).

Using Measure to Improve Performance (example):

Upon reviewing the PM data, the program manager for Project Area W sees that, overall, IPP prevalence monitoring sites provide timely treatment to women with CT. However, there are three clinics with high positivity rates that have lower than expected rates of providing treatment within 14 days. Upon conferring with the local FP representative, it is learned that those three sites are using an out of state lab and the turnaround time for receipt of test results averages 14 days. The contract with the out of state lab expires in three months, and arrangements are made to process all specimens at the state lab, which has a turnaround time of 3 days. Six months after the switch to the state lab, the number of females with CT treated within 14 days of specimen increased markedly.

2. Timely Treatment of Women with Gonorrhea at Family Planning Sites (IPP-CS2)

Measure: Among clients of IPP family planning clinics, the proportion of women with positive GC tests that are treated within 14 and 30 days of the date of specimen collection.

Rationale:

Infertility Prevention Program Clinical Services

- Rapid follow-up and treatment can prevent progression of disease (i.e., sequelae such as PID, ectopic pregnancy) and interrupt transmission of infection.
- The measure is divided into time segments to allow project areas and family planning clinics to see in what time frame most of the women with positive GC tests are treated, and whether improvement is needed.
- Although STD programs do not have direct control over IPP family planning clinics, programs should be working with the clinics in efforts to reduce gonorrhea prevalence.
- The “date of specimen collection” was selected as the starting point from which to measure the time interval because it indicates the time at which the patient first became involved with the health care system. While there may be factors affecting the time between the date of specimen collection and the date the health department becomes aware of the case that are beyond the health department’s direct control or influence, opportunities for intervention (e.g., problems with lab reporting) may also become apparent.

References:

- Strategic References: Corresponds to GPRA performance goal #1: “Reduce STD rates by providing chlamydia and gonorrhea screening, treatment, and partner treatment to 50% of women in publicly funded family planning and STD clinics nationally”; HP 2010 goals 25-1: “Reduce the proportion of adolescents and young adults with CT infections” and 25-6: “Reduce the proportion of females who have ever required treatment for PID”; and IOM goal #3: “Design and implement essential STD-related services in innovative ways for adolescents and under served populations.”
- Reference in Program Announcement: Corresponds to IPP Clinical Services.

How to Calculate Measure:

*The measures should include all cases from all IPP clinics. However, if this is not possible, project areas may use sampling to report on both of the IPP measures. If sampling is used, a detailed description of the methodology used must be described, including the proportion of sites sampled and proportion of patients sampled at each site. The timeframe for the sample must be the required PM reporting period (i.e., January – June, 2005).

Definition of Key Terms:

IPP Family Planning Clinics: All family planning clinics that report data as part of the DSTDP Chlamydia Prevalence Monitoring Project, regardless of whether they are integrated clinics or not. All women testing positive at integrated clinics should be counted regardless of the type of patient (STD or FP) and source of payment (STD or FP).

Measurement Specifications:

Numerator: Number of women treated for gonorrhea within 14 and 30 days of the date of specimen collection.

Denominator: Total number of women who tested positive for gonorrhea.

How to Collect PM Data (example):

Project Area S has never formally analyzed timeliness of treatment rates at its IPP FP Prevalence Monitoring sites. IPP protocols and state law require timely and complete reporting of STD, but treatment verification hasn't been the primary focus of data collection efforts.

*In its initial efforts to establish baseline data, Project Area S uses Epi Info 6 to determine the completeness of treatment information for females testing positive for gonorrhea and chlamydia at its 28 IPP FP Prevalence Monitoring sites. It discovers that only 44% of all females testing positive at these sites have treatment information in STD*MIS. In the next 12 months, the primary focus of Project Area S is to develop and implement a methodology for collecting complete and timely treatment information on positives from all 28 sites.*

Project Area S revises its protocol for the screening and treatment of chlamydia and gonorrhea used by IPP FP sites to emphasize the importance of complete and timely reporting of treatment information. It requires reporting line-listed treatment information on a monthly basis for each site. A formal letter announcing the emphasis of treatment information is attached to the revised protocol upon distribution, and the topic is the focus of quarterly site visits.

*Internally, Project Area S runs line-listed reports 30 days after the close of the month for each site to identify those clients with treatment information missing. The IPP coordinator calls each site and sends the report to the site to obtain the treatment information. The onus of responsibility for obtaining the treatment information is on each individual site. Project Area S updates the client's record in STD*MIS upon receipt of the treatment information.*

Six months after implementation, the completeness of treatment rate information is at 87%. Project Area S will continue to work on increasing this rate, but it now feels confident in its data and, using Epi Info 6, is able to run the reports that establish treatment rates within 14 and 30 days of the date of specimen collection. After one year, Project Area S reports on these two measures.

Possible Data Sources:

IPP family planning clinical and laboratory records database or similar data management system, STD*MIS (morbidity and treatment records), treatment log-books, chart reviews, Title X site visits/chart audits.

How to Report Measure (example):

Program D has two IPP family planning clinics. The two clinics report that 952 women tested positive for gonorrhea between January and June, 2005. 435 of the women were treated in < 14 days of the date of the specimen collection, and an additional 265 were treated in < 30 days of the date of the specimen collection.

Data are reported on the Performance Measures Report Template as follows:

- 14 days: Numerator = 435, Denominator = 952, Index = .46
Year two (2006) goal = .60, Four-year goal = .75
- 30 days: Numerator = 700, Denominator = 952, Index = .74
Year two (2006) goal = .85, Four-year goal = .95
- Data source used = *Local area data management system*
- Action plan = *Resource request or redirection*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Note: If sampling is used, include a detailed description of any sampling methodology, including the proportion of sites sampled and proportion of patients sampled at each site. The timeframe for the sample must be the required PM reporting period (i.e., January – June, 2005).

Using Measure to Improve Performance (example):

Project Area G reviews their internal report on this PM and notices that timely treatment for GC at IPP FP sites is occurring at an acceptable level. More in-depth analysis reveals that the three largest clinics in terms of positivity have lower treatment rates. So, the STD program manager and FP manager visit all three sites and discover that positive lab results aren't acted upon until an average of eight days after the clinic receives the results from the lab. This delay is affecting the timely treatment of GC.

The managers work with the sites to modify the protocol so that the Treatment Nurses at the sites are reviewing lab slips and charts, and making calls to those in need of treatment within 24 hours of receiving the lab slip. Six months after changing the protocol, the three sites improved the treatment of GC within 14 days by an average of 15%.

IV. SYPHILIS ELIMINATION (SE)

A. Enhanced Surveillance (ES)

1. Select HIV Care Providers with a Written Syphilis Screening Protocol (SE-ES1)

Measure: Proportion of providers or partnerships delivering continuing care for >50 HIV+ individuals who have written protocols for screening those clients for syphilis.

Rationale:

- Nearly half of reported syphilis cases in many large cities are co-infected with HIV. Most of these cases are being reported by HIV care providers.
- HIV care facilities provide a unique opportunity for STD programs to gain access to a very high-risk population who are often difficult to reach.
- Clients attending HIV care facilities often view these venues as their provider of choice instead of using STD clinics or other health care providers.
- Providing protocols for continuing STD counseling, testing, or treatment services in priority HIV care facilities should favorably effect efforts to reduce or eliminate syphilis.
- Although most HIV care facilities screen for syphilis at the patient's initial visit, syphilis screening recommendations for MSM in the 2002 CDC STD Treatment Guidelines (MMWR 2002), as well as recommendations made by the Advisory Committee for HIV and STD prevention (MMWR, 1998), are supportive of providing continual testing for high-risk individuals (MMWR 2003).
- In 2002, the overall estimated rate of P&S syphilis in persons with HIV (164 per 100,000) is considerably higher than that of the general population (2.4 cases per 100,000) (Chesson, et al., 2005).

References:

- Strategic References: Corresponds to GPRA performance goals #2: "Reduce the incidence of P&S syphilis per 100,000 population" and #3: "Reduce the incidence of congenital syphilis per 100,000 live births;" and HP 2010 goal 25-18: "Increase the proportion of primary care providers who treat patients with STD and who manage cases according to recognized standards."
- Program Announcement: Corresponds to CSPA, Syphilis Elimination.

How to Calculate Measure:

Definition of Key Terms:

Providers: Individual practitioners or multiple health care provider partnerships. Each partnership should be counted only once, regardless of the number of persons or health care delivery sites.

Syphilis Elimination Enhanced Surveillance

Continuing Care: The continuing medical care of persons living with HIV. Individuals seen more than one time in a 12-month period are considered as receiving continuing care.

Measurement Specifications:

Numerator: The number of providers delivering continuing care for >50 HIV+ clients who have written protocols for screening those clients for syphilis.

Denominator: The total number of providers delivering continuing care for >50 HIV+ clients.

How to Collect PM Data (example):

In an effort to establish baseline, Project Area R realizes it must determine how many HIV care providers meet the established criteria for inclusion for this measure. Due to a high syphilis and HIV co-infection rate, it starts by running a report for the number of HIV and syphilis cases by provider type. This SAS report identifies five providers statewide with more than 10 cases of each infection reported in the previous year. Anecdotally, Project Area R figured that these five physicians or group practices were likely to provide care to more than 50 HIV + clients, so this step was a good starting point.

In order to ensure that all eligible providers were being accounted for, Project Area R consulted with the HIV Program in its state. A query of the HARS database and discussions with the Ryan White representative resulted in the identification of three new providers previously unknown to the STD Program. Lastly, the program manager, through the program medical director, contacted the state's chapter of the American Academy of HIV Medicine.

After several discussions, the program medical director was able to identify one additional HIV care provider who was new to the state. In total, nine HIV care providers likely to see more than 50 HIV+ clients were identified.

The program manager decided to utilize staff associated with the program's provider visitation program to pursue the information required for this measure. Project Area R had worked with five of the providers following up on reactors, so it made the most sense to utilize the established relationships. New relationships would be established with the other four. A standard set of questions was developed for staff to use. In addition to ascertaining whether a protocol or standard operating procedures (SOP) for syphilis testing existed, staff asked what the frequency of testing was, and how many syphilis tests were done and what the yield, in terms of new syphilis cases diagnosed, was for the reporting period.

In 30 days, all nine providers had been contacted and four had SOP for syphilis testing. Project Area R reported on this measure as required. In addition, useful

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information beyond what was required for the measure was obtained. Two of the providers had SOP to test annually and were able to identify how many tests were done and how many new cases of syphilis were diagnosed. The new case rate between these two providers was 7%, which is quite high. Project Area R worked with these providers to increase the frequency of testing based upon established behavioral risk criteria.

Possible Data Sources (for identifying HIV care providers):

The American Academy of HIV Medicine (www.aahivm.org), the HIV Medical Association (www.hivma.org), STD Program's data management system (e.g., STD*MIS), HARS data elements, or the state or local Ryan White Program representative.

How to Report Measure (example):

Program O identified 100 providers delivering medical care for HIV+ clients. Seventy (70) providers provide continuing care for more than 50 HIV+ clients; 50 of those 70 providers have written syphilis screening protocols.

Data are reported on the Performance Measures Report Template as follows:

- Numerator = 50 , Denominator = 70, Index = .71
Year two (2006) goal = .75, Four-year goal = .85
- Data source used = *Field records (2936)*
- Action plan = *Conduct training*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

Using Measure to Improve Performance (example):

Project Area E has seen steady increases in syphilis in MSM over the last three years, and such cases now constitute 60% of the morbidity. In establishing baseline data, Project Area E identifies six HIV care providers statewide who see 50 or more HIV+ clients, but none of them have a protocol or standing practice for syphilis screening. All six providers are included in the Project Area's provider visitation program.

The program manager convenes staff conducting the visits and reminds them to specifically recommend annual syphilis screening of HIV infected patients to these providers, per the CDC Treatment Guidelines. More frequent screening may be necessary based on clinical signs and symptoms or identification of sexual risk.. It takes two months to arrange and visit all six providers.

The four smallest providers agree to the screening recommendations. The two largest providers are not willing to implement screening without some evidence

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that it would benefit the patient or community. So, the program manager implements a six-month pilot project (using carryover funds) with the two largest HIV care providers to screen all patients for syphilis. The state lab will process specimens at no cost to the provider, and bicillin is provided by the STD program.

After six months, the two largest providers have screened all patients for syphilis and the new case rate is 4%. The results from the pilot are used to support the screening recommendations at all six HIV care providers, and the two that had doubts now screen per CDC recommendations.

2. Syphilis Testing of Women at Adult Jails (SE-ES2)

Measure: Proportion of female admittees entering selected project area adult city and county jails that were tested for syphilis (refer to list of selected jails on page 31).

Rationale:

- From 1999 to 2002, there were 25,274 cases of early syphilis among women reported to CDC, of these, 2,974 (12%) were identified in a corrections facility (Kahn et al., 2004).
- By identifying and treating hard-to-reach, at-risk females, programs will reduce the costly late complications of syphilis and congenital syphilis.
- Screening and treatment programs in jails offer a unique opportunity to interrupt community transmission by facilitating treatment of high-risk women, before their release, who might not receive healthcare services in traditional venues.

References:

- Strategic References: Corresponds to GPRA performance goal # 2: “Reduce the incidence of primary and secondary syphilis per 100,000”; HP 2010 goals 25-3: “Eliminate sustained domestic transmission of P&S syphilis” and 25-9: “Reduce congenital syphilis”; and IOM goal #3: “Design and implement essential STD related services in innovative ways for adolescents and under served populations.”
- Reference in Program Announcement: Corresponds to Syphilis Elimination, Enhanced Surveillance.

How to Calculate Measure:

Definition of Key Terms:

Admittees: All females who have been booked into the city and county adult jails for any length of time. For the purposes of this performance measure, the unit of measure is the booking of the admittee rather than the admittee. Therefore, count each booking rather than each admittee, or female admittee = booking.

Measurement Specifications:

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Numerator: Number of female admittees tested for syphilis.

Denominator: Total number of female admittees.

How to Collect PM Data (example):

Project Area E has two adult jails that qualify for reporting on this measure based on the CDC Syphilis Jail Index. In establishing baseline data, Project Area E contacted the two jails and discovered that they knew how many females were admitted, but did not know how many syphilis tests were done from January – June, 2005. Two private laboratories process all syphilis specimens for both facilities.

The program manager in Project Area E had delegated the task of reporting on this performance measure to the program's SE coordinator (SEC). With assistance from the program's Lab Director, the SEC contacts the labs to obtain the number of syphilis tests processed during the period January – June, 2005. Project Area T reports on each facility as required.

Possible Data Sources:

- The denominator should be available from the city or county jail.
- The numerator might be available from the public or private laboratory that processes the specimens or from the local jail prevalence monitoring coordinator.

How to Report Measure (example):

Project Area X booked 10,000 admittees between January and June, 2005. Of these, 2,560 were female admittees. Of these, 1,247 were tested for syphilis.

Data are reported on the Performance Measures Report Template as follows*:

- Numerator = 1,247, Denominator = 2,560, Index = .49
Year two (2006) goal = .60, Four-year goal = .75
- Data source used = *Facility booking/census reports*
- Action plan = *Resource request or redirection*

Relevant comments, including a description of how the data were obtained and specifics of the action plan, are included.

*Note: Programs should report on this performance measure separately for each eligible county and city adult jail facility.

Selected Adult City and County Jails

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County jails were selected based on the Syphilis Jail Index [(Total female syphilis cases (all stages) \div the county/Total female population for the county) x (the inmate census of the county jail facility)]. A cutoff was set at values greater than or equal to .04. The city jails were selected from those counties, boroughs, or parishes with a .04 or greater value on the Syphilis Jail Index where city jails also provide central intake and detainment services.

The following city and county jails met these criteria and programs are required to report on the facilities listed. Reporting by project areas not listed is optional.

Arizona	Maricopa County
Baltimore	Baltimore City Booking and Intake Center
Chicago	Cook County
Florida	Dade County, Broward County, Duval County, Orange County, Hillsborough County
Georgia	Fulton County, Atlanta City
Louisiana	Orleans Parish, East Baton Rouge Parish,
Los Angeles	Los Angeles County, Los Angeles City (Van Nuys, 77th Street, and Parker Center facilities)
Michigan	Wayne County, Detroit City
Nevada	Clark County
New Jersey	Essex County
New York	*New York (all five boroughs), New York City Jail (Manhattan)
Ohio	Franklin County
Pennsylvania	Philadelphia County, Philadelphia City
Puerto Rico	Vega Alta Municipality
Tennessee	Davidson County, Shelby County
Texas	Bexar County, Dallas County, Harris County, McLennan County, Tarrant County, Houston City
Washington, D.C.	Central Intake Center, District of Columbia

*The Rikers Island, Rosa M. Singer Corrections facility serves the five boroughs that comprise NYC. This facility is equivalent to a county jail.

Using Measure to Improve Performance (example):

Project Area I is in the midst of a syphilis outbreak involving female commercial sex workers (CSW) and it is required to report on this performance measure for the Holdem County Jail. At baseline, only 5% of the females admitted to the jail were tested for syphilis. Detainees may request testing after 14 days, but testing is at the sole discretion of the nurse and is usually based upon symptoms.

In an effort to increase testing services at the jail, the program manager convenes a meeting with the Sheriff's office, the private contractor providing medical services, and the STD program's medical director. It is clear that the contract for medical services currently in place does not allow for expanded testing, but the contract is up for renewal in three months. The Sheriff's office sees the value in

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providing syphilis testing, but needs evidence that it's productive before it can earmark funds to support it.

The program manager implements a three-month pilot project at the jail in an attempt to demonstrate the need for timely testing and treatment. All supplies, including lab processing and bicillin, are provided by the STD Program. Contract medical staff currently tend to each person as they are booked into the jail, so the pilot is set up in the booking area and screening of females is conducted during the 3rd shift when the majority of CSW are booked. This is ideal because many of those at-risk for syphilis will be released within 24 – 48 hours.

The results of the three- month pilot reveal a 4% new case rate for early syphilis. This supporting evidence is enough to convince the Sheriff's office to continue 3rd shift screening in the booking area, as long as the STD program continues to provide lab processing and medication for treatment. Over the next 12 months, the jail screening constitutes 25% of all early syphilis cases diagnosed in Project Area I, and syphilis morbidity has declined 20% compared to the same period the year before.

V. REFERENCES

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VI. APPENDIX: STD*MIS REPORT LOGIC

STD*MIS language

On August 4, 2004, the DSTDP, Surveillance and Data Management Branch released a new report called the “PM Report” that calculated CSPS PS 1-5 performance measures. This report can be uploaded by those project areas using STD*MIS. For questions or assistance related to this “canned report”, please contact your STD*MIS support person.

CSPS PARTNER SERVICES MEASURES

Denominator – Total P & S Cases

1. All morbidity records where Report Date falls into the selected date range and diagnosis = 710 or 720.

Numerators - Syphilis Interviewing

1. Locate an interview record where the Assign Date falls into the selected date range, where the diagnosis = 710 or 720, and where Case Interviewed (Ix'd) equals C (Clinic), F (Field) or O (Other). Cases where Case Ix'd equals Other must have at least one linked partner, cluster, or NCI (no contacts/clusters initiated) record entered in order to be included. Since Other by itself does not indicate whether an interview occurred or not, locating a linked partner/cluster/NCI ensures that only interviewed cases are included in the report.
2. Look at all lab tests linked to that interview. Find all lab tests where the test type is a syphilis test (based on information entered into the test type reference file), the test result is positive, and the specimen collection date is within 60 days of the interview Assign Date. Select the earliest specimen collection date. If no lab tests are found that match the above criteria, the interview will be flagged as missing a specimen collection date.
3. Create a list of all partner and cluster records that are linked to this interview. Look through the list and find the first record where the Interview Type equals Original. Use the Date Initiated from this record as the Original Interview date for the case. If none of the linked partner/cluster records have an Interview Type of Original, flag this interview record as missing the Original Interview date.
4. If both the specimen collection date and the original interview date are available, compute the interview timeliness by subtracting the specimen collection date from the original interview date and increment the appropriate interval category according to the result. If either date is missing, flag this as a problem record.

Numerators - Partner Rx, Cluster Test, Cluster Rx Measures

1. Locate an interview record where the Assign Date falls into the selected date range, where the diagnosis = 710 or 720, and where Case Ix'd equals C (Clinic), F (Field) or O (Other). Cases where Case Ix'd equals Other must have at least one linked partner, cluster, or NCI record entered in order to be included. Since Other by itself does not indicate whether an interview occurred or not, locating a linked partner/cluster/NCI ensures that only interviewed cases are included in the report.
2. Create a list of all partner and cluster records that are linked to this interview. Look through the list and find the first record where the Interview Type equals Original. Use the Date Initiated from this record as the Original Interview date for the case. If none of the linked partner/cluster records have an Interview Type of Original, flag this interview record as missing the Original Interview date.
3. Read through the related partner/cluster records and compute the measures as follows:
 - If the record is for a partner (P1, P2, P3) and the disposition is either A or C:

If both an original interview date and a disposition date are available, compute the treatment timeliness by subtracting the original interview date from the disposition date and increment the appropriate interval category according to the result. If either date is missing, flag this as a problem record.
 - If the record is for a suspect or associate (S1-3, A1-3):

If the disposition is A, B, C, D, F, count as a cluster tested.
If the disposition is C, count as a cluster identified as a new case.

Denominator – Total Priority GC Cases

1. Locate morbidity record where Report Date falls into selected date range and diagnosis = 300.
2. Look at all lab tests linked to that morbidity. Find a lab test where the test type is a GC test (based on the information in the test type reference file), the test result is positive, and the test was entered for surveillance tracking.
3. Look at the surveillance tracking record for that test and if the priority matches the one of the priorities selected for the report, include it in the denominator.

Numerators - GC Interview Measure

1. Locate an interview record where the Assign Date falls into the selected date range, where the diagnosis = 300, and where Case Ix'd equals C (Clinic), F (Field) or O (Other). Cases where Case Ix'd equals Other must have at least one linked partner, cluster, or NCI record entered in order to be included. Since Other by itself does not indicate whether an interview occurred or not, locating a linked partner/cluster/NCI ensures that only interviewed cases are included in the report.
2. Look at all lab tests linked to that morbidity. Find a lab test where the test type is a GC test (based on the information in the test type reference file), the test result is positive, and the test was entered for surveillance tracking.
3. Look at the surveillance tracking record for that test and if the priority matches the one of the priorities selected for the report, include it in the denominator.
4. Look at all lab tests linked to that interview. Find all lab tests where the test type is a GC test (based on information entered into the test type reference file), the test result is positive and the specimen collection date is within 60 days of the interview Assign Date. Select the earliest specimen collection date. If no lab tests are found that match the above criteria, the interview will be flagged as missing a specimen collection date.
5. Create a list of all partner and cluster records that are linked to this interview. Look through the list and find the first record where the Interview Type equals Original. Use the Date Initiated from this record as the Original Interview date for the case. If none of the linked partner/cluster records have an Interview Type of Original, flag this interview record as missing the Original Interview date.
6. If both the specimen collection date and the original interview date are available, compute the interview timeliness by subtracting the specimen collection date from the original interview date and increment the appropriate interval category according to the result. If either date is missing, flag this as a problem record.