



SSuN Best Practice Note

Data Management

PS-24-0082 STI Surveillance Network Cycle 5 (SSuN)

This guidance applies to all SSuN Strategies

This document provides guidance and best practices for SSuN Cycle 5 applicants and recipients for standardizing variables, variable response options, data structures, formats, data quality procedures, and for submitting SAS datasets via CDC's Secure Access Management Service (SAMS).

Key Definitions

SAMS: Secure Access Management Service portal. The SAMS portal is a secure web-based application that provides secure transport of data between jurisdictions and CDC which encrypts data automatically. Only registered users have access to the SAMS portal.

Data Quality Assurance: Interconnected processes and procedures to assure validity of data, fidelity of data collection to pre-defined protocols, and to assure that data outputs are properly formatted, contain the required records, and can be seamlessly integrated into master datasets at the national level.

Edit Checks: SAS code that is used to 'check' the contents, formats, and appropriateness of reported data. Edit check code will be supplied to recipients to run on the data prior to submission to CDC.

Considerations for Implementation

Each Strategy in SSuN Cycle 5 requires several cumulative SAS datasets to be submitted to CDC via SAMS. Data will be submitted monthly to CDC, alternating each month between Strategy A and Strategy B. This will result in Strategy A data being submitted every two months (six times per year) and Strategy B data being submitted every two months (six times per year). Final datasets for both Strategies will also be required to be submitted annually.

Data Submission Requirements for Strategy A

There are five (5) separate datasets required to be submitted to CDC by Strategy A recipients:

- **Every 2 months:**
 1. Sexually transmitted infection (STI) clinic visit records, containing a unique ID for each visit to collaborating STI clinics.
 2. Diagnosis records, including STI-related diagnoses associated with each visit, linked by patient ID, event ID, and visit date.
 3. Laboratory records, including STI-related laboratory records associated with each visit, linked by patient ID, event ID, and visit date.
 4. Treatment records, including STI-related treatments associated with each visit, linked by patient ID, event ID, and visit date.

- **At project start and annually thereafter:**

5. Facility reference file updated annually containing descriptive information about each collaborating STI clinic.

Data Submission Requirements for Strategy B

There are four (4) separate datasets required to be submitted to CDC by Strategy B recipients:

- **Every 2 months:**

1. Case records with imbedded provider and patient investigation data.
2. Laboratory records, containing all laboratory observations for cases linked through event and patient IDs.
3. Treatment records, containing all treatment observations for cases linked through event and patient IDs.

- **At project start and annually thereafter:**

4. Provider reference records, containing information about diagnosing facility or provider linked through case and provider IDs.

Data Submission Requirements for Strategy C

Requirements will vary by specific activity and in some cases may involve aggregate reporting only. Protocols for recipients will be developed post-award for all funded Strategy C Activities.

Data Quality Assurance Requirements

CDC will provide detailed information about data structures with variable names, lengths, and types defined for all requested SAS datasets. SSuN recipients are required to use the correct data structures, validate all data elements, and check for missing values in selected data elements before submitting data to CDC. Specifically, recipients must:

- ❖ Verify all variables are submitted with the proper variable names, data types (character, numeric, date, etc.), and length.
- ❖ Verify all key identifiers in records (e.g., patient, event, provider, and laboratory IDs) are correct and that these match across related datasets; ‘orphan’ records in related datasets must be resolved prior to submitting data to CDC.
- ❖ Duplicate records must be merged or removed to assure uniqueness of visit and case ‘parent’ records.
- ❖ Investigate and fix records that are missing any required data elements.

To aid jurisdictions with the data quality assurance (QA) requirements, CDC will provide recipients with SAS programs to check for correct file structure, data elements, and identify records with missing values. Jurisdictions must run these programs and correct any errors prior to submitting data to CDC. Additionally, each jurisdiction is responsible for conducting their own local data QA checks prior to validating the data for submission to CDC.

Data Submission Schedule

CDC will provide a data submission schedule to SSuN recipients at the beginning of the project period detailing which datasets (with a date range for included records) are required and when they are due to CDC. Data



submission will occur every month, alternating between Strategy A and Strategy B, and including Strategy C activities as required. Clean and final datasets of data from the prior calendar year for each Strategy will be due annually each March; these data will serve as CDC's archive for analytic and reporting purposes. Repeated failure to meet data submission deadlines may impact recipients' funding and could result in remedial action.

Evaluation and Resubmission Activities

CDC will perform edit checks on the SAS datasets received from recipients before creating master files for analyses and reporting. If significant errors are identified through this process, or in subsequent analyses, recipients may be asked to fix and resubmit data. The success of SSuN depends on the quality of its data. The collaborative efforts of all recipients and CDC project staff are critical to assuring that the highest quality of data are available for informing STI prevention and control activities nationally and locally.



SSuN recipients should consider **data quality assurance** as an integral surveillance activity requiring formal planning and adequate staff resources. When developing your project plans, budgets, and staffing plans, be sure to include sufficient resources for data quality assurance activities. Creating a formal 'Data Quality Plan' early in your project cycle and revisiting your plan regularly is a best practice for project management.

CDC's Division of STD Prevention, Enhanced Surveillance and Special Studies Team created this series of documents for CDC staff working on PS24-0082 STI Surveillance Network (SSuN) and for applicants and recipients of that NOFO, to help clarify strategies outlined there and to support project implementation.

