

# Statewide Planning and Research Cooperative (SPARCS)

Introduction for Data Users  
(Version 1.1)

December 2014



# Before We Begin

- Have a copy of the following reference material:
  - SPARCS Data Governance Policy and Procedure Manual  
[http://www.health.ny.gov/statistics/sparcs/training/docs/sparcs\\_dgc\\_manual.pdf](http://www.health.ny.gov/statistics/sparcs/training/docs/sparcs_dgc_manual.pdf)
  - SPARCS Limited and Identifiable Data Request Forms and Instructions  
<http://www.health.ny.gov/statistics/sparcs/access/>
- If you are a Department of Health Employee, please e-mail [sparcs.requests@health.ny.gov](mailto:sparcs.requests@health.ny.gov) for more information.

# What Is SPARCS?

- SPARCS is a comprehensive all payer hospital discharge data system established in 1979 as a result of cooperation between the healthcare industry and government.
- SPARCS currently collects claim level detail on patient characteristics, diagnoses and treatments, services, and charges (not costs or payments), for the following:
  - inpatient
  - ambulatory surgery
  - emergency department, and
  - hospital-based outpatient service visits

# Statutory Background

- Article 28 Inpatient & Outpatient
  - Hospitals
  - Hospital extension clinics (only those licensed for ambulatory surgery services)
  - D&TC (only those licensed for ambulatory surgery services)
  - D&TC extension clinics (only those licensed for ambulatory surgery services)
- Enabling legislation and regulations are PHL § 2816 and NYCRR Title 10 § 400.18

# Types of Requestors for SPARCS Data

- Federal, New York State or Local Government Agency
- Student Researchers
- Non Profit Organizations
- Private company/corporations
- Article 28 Health Facilities

# Approved Uses for SPARCS Data

- Epidemiological
- Financial
- Health Planning / Resource Allocation
- Quality of Care Assessment
- Rate Setting
- Research Studies
- Surveillance
- Utilization review of resources

# Access: SPARCS File Types

## Three levels of access by file type:

File type	Contents	Application process
<b>Identifying/ Deniable Data Requests</b>	Contain data elements that if disclosed without any restrictions on use or re-disclosure would constitute an unwarranted invasion of personal privacy	<ul style="list-style-type: none"> <li>• Must submit application</li> <li>• Must be approved by the SPARCS Data Governance Committee and ratified by the Commissioner</li> </ul>
<b>Limited</b>	Data elements not defined as identifying/deniable data elements in SPARCS regulation (NYCRR Title 10 § 400.18)	<ul style="list-style-type: none"> <li>• Must submit application</li> <li>• Must be approved by SPARCS operations staff</li> </ul>
<b>Public Use Files</b>	Contain de-identified data consisting of basic record-level detail. Public use files do not contain protected health information (PHI) under HIPAA	<ul style="list-style-type: none"> <li>• No application required</li> <li>• Available on public websites (Health Data NY, Health Data Query System, Health Commerce System)</li> </ul>

# Identifiable Data Elements

Category	Elements
Dates	Accident Related Date, Admission Date, Discharge Date, Date Alternate Care Required, Date of Service, Date of Visit, Non-Acute Care From Date, Non-Acute Care Through Date, Principal Procedure Date, Other Procedures 1-4, 5, 6-14, Statement Covers From Date, Statement Covers Through Date
Date of Birth	Patient Date of Birth
Address	Address Line 1, Address Line 2, Zip Code, and Zip Code Extension
Numbers	Medical Record Number, Mothers Medical Record Number (for newborn), Patient Control Number, Pre-Hospital Care Report Number
Policy Number	Policy Number
UPI	Unique Personal Identifier

# Identifiable Data Element Descriptions

- Descriptions of the elements in the limited and identifiable data sets are included in the inpatient and outpatient output data dictionaries on the public website:  
<http://www.health.ny.gov/statistics/sparcs/datadic.htm>
- Data dictionaries are all-encompassing, but you can distinguish the identifiable elements from the others by their bolded font.
- Unless approved, those elements are encrypted.

# History and Available Data

- 1979 - SPARCS begins

Data Set	When collection began	Available Years
Inpatient	1982	1982 to Present
Ambulatory Surgery	1983	1983 to Present
Emergency Room	2005	2005 to Present
Outpatient Services	2011	2011 to Present

# Data Sources and Infrastructure

- SPARCS data must be submitted on a monthly basis
- Inpatient and outpatient data must be submitted in a HIPAA standardized format
- Submission requirements:
  - 95% of the facility's SPARCS data must be submitted within 60 days following the end of the month of patient discharge/visit
  - 100% of the facility's SPARCS data is due within 180 days following the end of the month of the patient discharge/visit

# SPARCS Data Completeness

- SPARCS files are dynamic and updated every month.
- Although never truly complete, the proceeding year of data is deemed complete following the end of annual reconciliation process, shortly after the September refresh.

# SPARCS Data Fees

## Costs

- Please call for current prices for limited and identifiable data.

## Exempt from Payment

- SPARCS facilities
- State or city universities
- Federal, New York State, county, or local government agency for healthcare-related purposes

## Discounts

- Student - 50%
- Nonprofit - 50% (combined for a max discount of 75% only)

## Payment

- Payments are only accepted by check.
- All fees must be paid prior to the release of SPARCS data.

# SPARCS File Size (Approximations)

<b>Inpatient</b>	<b>Non-encrypted</b>	<b>Encrypted</b>
Length	2,500	5,076
Record Size	4.1 Million	4.1 Million
Discharges	2.6 Million	2.6 Million
Storage Size	7 GB	14 GB

<b>Outpatient</b>	<b>Non-encrypted</b>	<b>Encrypted</b>
Length	3,000	4,234
Record Size	24 Million	24 Million
Discharges	19.3 Million	19.3 Million
Storage Size	45 GB	102 GB

# SPARCS File Formats

- ASCII text, flat files, no delimitations
- DVDs are encrypted and zipped
- Password directions on letter included with disk
- WinZip 12.0 or newer
- Data can be loaded into SAS or SPSS
- SAS programs to read-in data are available online at:  
<http://www.health.ny.gov/statistics/sparcs/access/>

# How to Request Data

We now have one application for both data types, DOH-5132. Follow the link below for the new combined form and answer the questions applicable to the data type requested.

- Download the SPARCS Data Request Application (DOH-5132) for either limited or identifiable Data:  
<http://www.health.ny.gov/statistics/sparcs/forms/>
- E-mail completed form to: [sparcs.requests@health.ny.gov](mailto:sparcs.requests@health.ny.gov)

# Security Considerations

- Affidavits are needed from all data users
- Data must be stored on a network share
  - password protected
  - behind a firewall
  - running encryption software
- Security, acquisition, use, and disposal of the data must be approved

# Application Process

- Follow the instruction found on the public webpage at: <http://www.health.ny.gov/statistics/sparcs/access/>
- Complete the contact and organizational information
- Describe your project and data needed to complete it, including: Project title, primary purpose, type of request, data requested
- Describe security measures
- Two signatures are needed on the application
- Affidavits are mandatory

# Application Process: Getting Started

- Anyone can complete an application; however, a researcher experienced in analyzing large datasets must be a member of the team.
- The primary investigator is also known as the Project Director (PD).

# Application Process: Contact Information

- Organizational contact information for the Project Director
- Organizational e-mail address
- The contact person should be the one we most frequently speak to about your application.
- If not you, include their contact information
- The type of requestor you are will determine if any discounts apply.

# Application Process: Project Information

- The title and the type of study (some types, like financial and rate setting, do not require IRB approval).
- If your study requires IRB approval, you can obtain it from any Board authorized to approve your request.

# Application Process: Data Requested

- Researchers should consider the size of the files and their available resources.
- Data can be requested 3 years into the future.
- Data refreshes: Discounts will not apply to data refreshes. The full cost of the data is billed (does not apply to exempt organizations).

# Application Process: HIV/AIDS (identifiable only)

- Follows HIPAA Safe Harbor Policy
- Many fields on these records have been redacted.
- However, with patient consent or committee approval, you can receive the following elements:

City
County
Region
5-digit Zip Code
Month and Day Portions of all Dates

# Application Process: Abortion (identifiable only)

- Follows HIPAA Safe Harbor Policy
- Many fields on these records have been redacted.
- However, if your request is accompanied by an approval letter from the Commissioner or patient consent forms, you can receive the following elements:

City
County
Region
5-digit Zip Code
Month and Day Portions of all Dates

# Application Process: Summary of Proposal

- Reason and purpose of project
- Project partners (requires separate organizational affidavit)
- Methodology
- Linkages: if you are linking the identifiable data, SPARCS requires approvals from all other data sources, other than publically available, aggregated, de-identified sources

# Application Process: Linkages to Vital Statistics (identifiable only)

- If linking to New York State Vital Statistics for deaths, contact [bio-info@health.ny.gov](mailto:bio-info@health.ny.gov) for an application.
- If linking to New York City Vital Statistics for either deaths or births, you can find the application on their public webpage at:  
<http://www.nyc.gov/html/doh/downloads/pdf/vs/data-request.pdf>
- Approvals do not need to be completed in order to proceed with your SPARCS request, but they must be in process, and they must be approved prior to the release of linked data.

# Application Process: Confidentiality and Small Cell Size

- Describe how and where the data will be stored and accessed
- Small cell size (identifiable only): Regulations allow us to review each policy to determine if the data is sufficiently de-identified. You can either suppress all cells less than 6, or include your small size policy for review

# Application Process: Retention and Destruction

- The use of SPARCS data expires 3 years after the last year of data is shipped. At that time, you must destroy and/or return all identifiable data and associated media.
- The data on your platform (e.g. disks, servers) must be destroyed and forensically wiped.
- CDs and DVDs are forensically wiped, shredded, or returned.
- Sign and submit the Certification of Destruction letter

# Application Process: Affidavits

- The Project Director must counter-sign each individual affidavit.
- The Organizational Representative that signs the affidavit must be able to legally sign on behalf of the organization.

# Application Process: Releasing Data

- The dissemination of your results is expected; however, researchers must communicate to the SPARCS program where findings will be published and who you will share your results with.
- Re-releasing or sharing data to anyone not approved is forbidden. This will be considered a breach of security, and all SPARCS data within the organization could be withdrawn.

# Application Process: Signatures

- The Project Director must sign the application.
- The Organizational Representative must sign the application. This should be the same person that signed the affidavit.

# Application Process: Data Elements (identifiable only)

- Include a brief description explaining why your project requires the use of a particular element.
- Certain studies require specific elements. Review the following slide to verify if all required elements are being requested.
- Please note that the UPI (Unique Personal Identifier, required for many types of studies), is not available prior to 1995. If you wish to do readmissions prior to that time, you will need to create your own unique identifier.

# Specific Studies: Identifiable Data

Type of Study	Elements Needed
Readmissions	Admit, discharge, UPI, DOB
Following children from birth	Admit, discharge, UPI, DOB, medrec, policy #, address
Following children from birth and linking to NYC birth record	Admit, discharge, UPI, DOB, medrec #, mother's medrec # for newborn child, policy #, address
Count of people utilizing services	UPI, DOB
Geocoding	Address

# Application Checklist

<b>Signatures</b>	Application is signed by Project Director and the Organizational Representative
<b>Affidavits</b>	Organizational affidavit is notarized, and all users have signed individual affidavits
<b>Linkages</b>	If you're linking identifiable data, approval is necessary(cannot link limited)
<b>Institutional Review Board</b>	Identifiable data requests need IRB approval
<b>Small Cell Size</b>	If you're publishing, don't forget to suppress, or submit your policy along with your application

# Application Process: Where to Send Your Request

## Mailing Address

SPARCS Operations  
Bureau of Health Informatics  
Office of Quality and Patient Safety  
NYS Department of Health  
Corning Tower, Room 1970  
Empire State Plaza  
Albany, New York 12237

## E-mail Address

[sparcs.requests@health.ny.gov](mailto:sparcs.requests@health.ny.gov)

# Application Process: SPARCS Program Review

- Requests for limited data are reviewed by SPARCS whenever an application is received.
- Requests for identifiable data are reviewed approximately every six weeks by the Data Governance Committee, during which time it is recommended that the applicant (or designee), be available to answer any questions they may have.

# Application Process: Approval

- If approved, you will be sent an invoice (if applicable). Upon payment, and at your request, you will be placed in the queue to receive the data.
- The wait time in the queue varies depending on the number of requesters and the complexity of the data cut. Our goal is to complete each request within 30 days.
- Data for limited requests can ship within two business days of receiving payment, or of approving an application.

# Receiving the Data

- Instructions will be sent explaining how to obtain the password for the encrypted disks.
- Programs to read-in the data are available online.
- You must use WinZip 12.0 or above to unzip the data.
- You cannot load the data using Excel.

# Available Resources for Users

<b>SPARCS Public Website</b>	<a href="http://www.health.ny.gov/statistics/sparcs/">http://www.health.ny.gov/statistics/sparcs/</a>
<b>SPARCS Monthly Newsletter</b>	<a href="http://www.health.ny.gov/statistics/sparcs/newsletters/">http://www.health.ny.gov/statistics/sparcs/newsletters/</a>
<b>SPARCS Data Governance Policy and Procedures Manual</b>	<a href="http://www.health.ny.gov/statistics/sparcs/training/docs/sparcs_dgc_manual.pdf">http://www.health.ny.gov/statistics/sparcs/training/docs/sparcs_dgc_manual.pdf</a>
<b>SPARCS Operations Guide</b>	<a href="http://www.health.ny.gov/statistics/sparcs/training/docs/sparcs_operations_guide.pdf">http://www.health.ny.gov/statistics/sparcs/training/docs/sparcs_operations_guide.pdf</a>
<b>Data Dictionaries</b>	<a href="http://www.health.ny.gov/statistics/sparcs/access/">http://www.health.ny.gov/statistics/sparcs/access/</a>
<b>Training Materials</b>	<a href="http://www.health.ny.gov/statistics/sparcs/training/">http://www.health.ny.gov/statistics/sparcs/training/</a>