NEDSS Base System
6.0 Release Notes

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Prepared by:

U.S. Department of Health and Human Services

Version History

Version #	Author	Reviewed By	Revision Date	Revision Notes
1.0	Christi Hildebrandt	Jay Nelson, Akshar Patel, Jennifer Ward	03/08/2019	Release Notes for NBS Release 6.0.

Contents

1 Introduction

This document contains the Release Notes for the 6.0 Release of the NEDSS Base System (NBS). This Release includes the following deliverables requested by NBS end users, the Centers for Disease Control and Prevention (CDC) Program Areas, and the Center for Surveillance, Epidemiology, and Laboratory Services (CSELS).

1.1 Prioritized Enhancements

The following enhancements are included in NBS 6.0. Detailed information about each of the prioritized enhancements called out in the table below can be found in the Enhancements section of this document.

ID	Enhancement	Description
10479	SOE Upgrade: SAS Upgrade	Upgraded to and tested for SAS 9.4 in NBS 6.0 SOE Upgrade. In NBS 6.0, a property was also introduced in the NBS_CONFIGURATION table so that sites can configure whether their site uses SAS 9.3 or SAS 9.4. SAS 9.3 is indicated as the default version in this table 'out-of-the-box'. **NOTE: For NBS 6.0, it is recommended that states continue to use SAS 9.3. SAS 9.4 does not provide any performance improvements or new functionality related to NBS ETL processing or reporting/analysis.**
9773	SOE Upgrade: JDK upgrade to version 8.0_181	Upgraded to and tested for JDK 8.0_181 in NBS 6.0 SOE Upgrade.
10482	SOE Upgrade: Rhapsody Upgrade to version 6.3	Upgraded to and tested for Rhapsody 6.3 in NBS 6.0 SOE Upgrade.
10480	SOE Upgrade: SQL Upgrade to 2017	Upgraded to and tested for SQL 2017 in NBS 6.0 SOE Upgrade.
10844	SOE Upgrade: Disable View Source of HTML output	Disabled View Source of HTML output in NBS 6.0 SOE Upgrade.
10845	SOE Upgrade: Disable HTTP port	Disabled HTTP port in NBS 6.0 SOE Upgrade.
11119	ETL: Performance Tuning on RDB tables to incorporate a large time gap in running MasterETL	The ETL performance was greatly enhanced in NBS 5.4.1 and further so in NBS 6.0, when the Page Case ETL process, which has been determined to be the largest ETL performance bottleneck, was moved to stored procedures/SSIS and made to be an incremental process. With this upgrade, NBS sites should see a significant reduction in their ETL run times.
9597	Implement Workflow to Exchange Data with Immunization Registry	Since the 2016 NBS Consultancy, the NBS community has ranked IIS integration as a key priority. In NBS 6.0, this functionality is implemented into the core NBS product.
10848	Update Partner Services File (PSF) Based on 2018 Changes	Enhancements are implemented to comply with the v3 requirements for Partner Services file (PSF) upload to EvaluationWeb. This includes: • Addition of data elements to the STD/HIV investigation and interview pages • Implementation of site ID as a participation • Design changes to PSF generation process, making it easier for jurisdictions to troubleshoot and confirm with CDC the numbers submitted in the PSF XML. • A utility is also provided to 'bulk load' organizations and providers. More information is available in the Bulk Import of New Organizations and Providers User Guide.

ID	Enhancement	Description
10837	Add Variables to the STD_HIV_DATAMART	In NBS 6.0, the following data elements were added to the STD_HIV_DATAMART: • CASE_RPT_MMWR_WK • CASE_RPT_MMWR_YR • CLN_CARE_STATUS_CLOSE_DT • CLN_PRE_EXP_PROPHY_IND • CLN_PRE_EXP_PROPHY_REFER • COINFECTION_ID • CURR_PROCESS_STATE • DIE_FRM_THIS_ILLNESS_IND • DISEASE_IMPORTED_IND • HSPTLIZD_IND • INIT_FUP_INTERNET_FOLL_UP • INV_ASSIGNED_DT • INV_CASE_STATUS • INV_CLOSE_DT • INV_RPT_DT • INV_START_DT • INVESTIGATION_DEATH_DATE • INVESTIGATION_STATUS • LAB_HIV_SPECIMEN_COLL_DT • LAB_SYPHILIS_TST_PS_IND • LAB_SYPHILIS_TST_RSLT_PS • OUTBREAK_IND • OUTBREAK_NAME • PATIENT_AGE_AT_ONSET • PATIENT_AGE_AT_ONSET_UNITS • PROVIDER_REASON_VISIT_DT • REFERRAL_BASIS
9550	Migrate Lab Module to Page Builder	The NBS legacy (XSP) lab module moved to Page Builder (JSP) technology in NBS 6.0. The following enhancements have also been addressed as a result of moving this module to Page Builder. • **1024:** Allow States the Ability to modify the Text for a Question on a Lab Report • **899:** Add Collector to Participants Table in View Lab • **8117**: Print Lab Report: Add Additional Fields (e.g., Created Date, Created By, Lab Report Date, Date Received by Public Health, Updated Date, Updated By, and the "Submitted by Outside Facility" indicator.) • **4298**: Add Country of Residence to Data Entry Manual Lab Report (Patient tab) • Ability to add/view entity ID data (for a patient) within a page builder page. **NOTE: The changes implemented moving the lab module to Page Builder required a massive overhaul of the module. The workflow and user interface is similar to the legacy lab module, but there are definite differences. It is important that your site first apply this release to your testing environment to review these changes and perform any necessary user communication/training well in advance of implementing NBS 6.0 in your production environment.**

1.2   Prioritized Defects

The following 18 defects are addressed in this release. A detailed list of these prioritized defects can be found in the Resolved Defects section of this document. More information about these defects can also be found on NBS Central in the following location: 6.0 Defects.

#	Defect
11663	Permission Set: Condition not visible on Morbidity Report
11608	Page Builder: Duplicate Records with Page Metadata Exports
11556	RDB: Incorrect values populated in table D_INV_SYMPTOM in RDB
11551	System Security: Missing HttpOnly in Session Cookie Issue
11541	Morbidity Report: Create STD Investigation: Issue in Chrome Browser
11514	Entity_locator_participation table issue with NULL values
11497	SRTE: NBS UI allows entry of Special Characters in the Value Set Code, Code (for a value in a value set), and Question Identifier in the Value Set/Question Management modules
11488	Page Builder: Unable to Delete Data Mart Column Name for a Question
11436	Debug Options Appearing on Front-End Incorrectly
11357	Rhapsody: Cannot accept certificateURL in Rhapsody for NBS Version 5.3 and Below
11284	Indent Level Number Resetting to 2 when a Condition is Edited in the Condition Library
11278	Observation: ADD_TIME column is null in Observation table for Manual Lab Reports created from a Morbidity Report
11240	Table RDB..LAB100 sometimes has a NULL CONDITION_SHORT_NM even where CONDITION_CD is populated
10195	STD Case Management Notes Repeating Block View Mode Opens as Edit
10049	Lab Report: Dropdown for Ordered Test and Resulted Test is Empty and Search Box not closing after selecting Reporting Facility
9332	STD: OOJ Agency Dates Not Clearing on Page When Source Question Cleared
8705	ELR: Zero and "-" Stripped from Front-End When Displaying Accession Number
4834	WDS: Timeframe Not Working Correctly when Multiple ELRs Are Imported

2   Enhancements

2.1   Standard Operating Environment (SOE) Upgrade

2.1.1   Functionality Overview

In each major release, the NBS Standard Operating Environment (SOE) is evaluated to determine areas that need upgrade/improvement based upon: security, long-term viability, performance, cost to maintain, state-needs, CDC-needs, etc.

There are many benefits to regular SOE upgrades, including but not limited to:

- Enhanced security
- Ensuring long-term viability for the NBS application
- Enhanced performance
- Reduced costs
- Increased scalability and extensibility
- Increased configurability
- Increased functionality
- Better support capabilities

2.1.2   Key Scope Items

In-Scope

- JDK upgrade to version 8.0_181
- Rhapsody Upgrade to 6.3
- SQL Upgrade to 2017
- SAS Upgrade to 9.4
  - *NOTE: For NBS 6.0, it is recommended that states continue to use SAS 9.3. SAS 9.4 does not provide any performance improvements or new functionality related to NBS ETL processing or reporting/analysis.*
- Security Upgrades:
- Disable View Source of HTML output
- Disable HTTP port

Out-of-Scope

All other SOE changes (not called out as 'in scope') are out of scope, including but not limited to:

- Oracle Upgrade*
- Upgrade Wildfly from 10 to 12**
- Ensure use of latest version of JSP**

It is important to note that as of NBS 6.0, Oracle database is NO LONGER SUPPORTED.

** Wildfly and JSP upgrades are dependent on upgrades to EJBs throughout the system; this is a large piece of work that will need to be addressed in a future, major release/NBS SOE upgrade.*

2.1.3   Process Overview and Review of Key Changes

More details about these upgrades and how to implement them can be found in the **NBS 6.0 Installation Guide**.

2.2   Implement ETL Processes for Page Builder Using Stored Procedures/SSIS

2.2.1   Functionality Overview

Prior to Enhancement:

The NBS Extract, Transform, and Load (ETL) process is currently a SAS process that transforms and moves data from the NBS operational data store (ODS) to the NBS reporting database (RDB). It is a key system process that runs nightly in most NBS jurisdictions and provides the data necessary for analysis of the public health surveillance data that is collected in the NBS. The NBS ETL process has been built over many years by different developers/development efforts. It has become a 'sore spot' for many NBS jurisdictions - taking many hours to run each night.

The Page Case process was determined to be a big bottleneck in the ETL process, (which is why this process was selected as the first piece to move from SAS to SSIS). To identify ETL bottlenecks, the following approach was used:

- Tested on the NBS Team Performance Environment (which contains AL de-identified data)
- Compared ETL log files provided by TN, AL, and ID to identify common performance issues across all three states

This process identified that the PAGE_CASE SAS process was a huge bottleneck, accounting for >50% of the ETL run time in each ETL process that was analyzed:

Perform (5 Hours 30 Min)	Alabama (12 Hours 30 Min)	Tennessee (10 Hours 45 Min)	Idaho (5 Hours 20 Min)
Page Case (2 Hour 55 Min) 53%	Page Case (7 Hour 14 Min) 57.9%	Page Case (5 Hour 51 Min) 54.4%	Page Case (3 Hours 46 Min) 67.5%

After Enhancement:

The move from SAS to Stored Procedures/SSIS for the page builder related ETL process has resulted in:

- Reduced ETL times
- Enhanced logging

When testing internally during development, the following run times were captured when running the same data sets through the legacy SAS ETL process and the new SSIS Stored Procedure process:

SAS PROCESS

> Start Time: 11DEC2018:14:56:43
> ****The Start Page_Case_Staging********
> End Time: 11DEC2018:15:49:57
> ****The End Page_Case_Staging********
> :53:14
>
> Start Time: 11DEC2018:15:49:57
> ****The Start Page_Case_Lookup********
> End Time: 11DEC2018:15:59:56
> ****The End Page_Case_Lookup********
> :9:59
>
> Start Time: 11DEC2018:15:59:56
> ****The Start Page_Case_Dimensional********
> End Time: 11DEC2018:16:10:37
> ****The End Page_Case_Dimensional********
> :10:41

> **Total Runtime**: 1:13:14

STORED PROCEDURE PROCESS

> *--Full refresh of data from 2003-2018*
> Start 2018-12-11 18:47:12.207
> End 2018-12-11 18:58:41.603
> **Total Runtime**: 00:11:29
>
> *--Incremental processing (after updating a case)*
> Start 2018-12-11 19:17:34.390
> End 2018-12-11 19:25:49.823

> **Total Runtime**: 00:08:15

Based upon these numbers, the following was observed:

- **Full Refresh of Page Case Data**: 1:13:14 >> 11:29, which indicates a runtime that is **~85% faster**.
- **Incremental Refresh of Page Case Data**: 1:13:14 >> 11:29, which indicates a runtime that is **~90% faster**.

2.2.2   Key Scope Items

In-Scope

- Moving PAGE_CASE SAS (and any related, necessary SAS processes) to Stored Procedures.
- Enhanced logging framework
- Implementing PAGE_CASE as an incremental process
- Implementing in such a way that (eventually) the ETL process can be run 'on demand' (during regular business hours)

Out-of-Scope

- No changes to source and destination tables (i.e., ODS/RDB tables/structure will remain the same)
- No changes to reports and/or data marts
- No support for Oracle in updated ETL (stored procedure/SSIS) solution

2.2.3   Process Overview and Review of Key Changes

The PAGE_CASE ETL (SAS) process has been updated to use this new framework/design in NBS 6.0, which impacts the following tables in the reporting database (RDB) and their related staging and lookup tables:

- D_INV_ADMINISTRATIVE
- D_INV_CLINICAL
- D_INV_COMPLICATION
- D_INV_CONTACT
- D_INV_DEATH
- D_INV_EPIDEMIOLOGY
- D_INV_HIV
- D_INV_ISOLATE_TRACKING
- D_INV_LAB_FINDING

- D_INV_MEDICAL_HISTORY
- D_INV_MOTHER
- D_INV_OTHER
- D_INV_PATIENT_OBS
- D_INV_PREGNANCY_BIRTH
- D_INV_RESIDENCY
- D_INV_RISK_FACTOR
- D_INV_SOCIAL_HISTORY
- D_INV_SYMPTOM

- D_INV_TRAVEL
- D_INV_TREATMENT
- D_INV_UNDER_CONDITION
- D_INV_VACCINATION
- F_PAGE_CASE
- F_S_STD_HIV_CASE

For more information on changes to the RDB resulting from moving the PAGE_CASE SAS process from SAS to stored procedures, please see the **NBS 6.0 RDB Data Dictionary**.

2.3 Immunization Registry Integration

2.3.1 Functionality Overview

Since the 2016 NBS Consultancy, the NBS community has ranked IIS integration as a key priority. In NBS 6.0, this functionality is integrated into the core NBS product, including the following:

- Ability to query an immunization registry for vaccinations for a specific patient, including an initial query, as well as the ability to query for updates (to see if additional vaccinations have been added to the immunization registry and/or to re-import updated vaccination records).
- If multiple patients are identified from the initial query, ability to query the immunization registry for additional information to determine the correct patient.
- Once a patient has been identified, ability to receive vaccination record results back, and to select vaccination records to import into the NBS.
- Ability to import vaccination records into the NBS and associate them to investigation(s) and to the patient's file.
- Ability to prevent duplicate vaccination records for the same patient from the same registry from being imported.

Prior to Enhancement:

Previously, there was not a systematic way to import vaccination data into the NBS while performing a public health investigation. This resulted in manual enter all vaccination data of public health interest, which can result in erroneous data entry, as well as less robust vaccination information due to the competing demands of public health surveillance.

After Enhancement:

Now, when entering a public health investigation, users with the required permission set have the ability to query the state's Immunization Information System (IIS) to find vaccination data for a patient under investigation.

2.3.2 Key Scope Items

In-Scope

The following HL7 profiles, which are called out specifically in the implementation guide referenced below, are used in the NBS implementation:

- PROFILE Z34 – REQUEST A COMPLETE IMMUNIZATION HISTORY (SEND)
- PROFILE Z31 – RETURN A LIST OF CANDIDATES PROFILE (RECEIVE)
- PROFILE Z32 – RETURN COMPLETE IMMUNIZATION HISTORY (RECEIVE)
- PROFILE Z33 – RETURN AN ACKNOWLEDGEMENT WITH NO PERSON RECORDS (RECEIVE)

This functionality is well-defined within Use Case 2 in the HL7 Version 2.5.1 Implementation Guide (IG) for Immunization Messaging, which can be found in the following location on the CDC's IIS site:
https://www.cdc.gov/vaccines/programs/iis/technical-guidance/hl7.html

Out-of-Scope
- All other profiles, including writing (sending) vaccination data FROM the NBS TO an IIS

- Any IIS-specific customizations or restrictions placed on the HL7 Version 2.5.1 IG for Immunization Messaging

2.3.3   Process Overview and Review of Key Changes

Please see the **NBS 6.0 Immunization Information System (IIS) Integration Configuration and Set Up** document for a detailed overview of this functionality, including:

- **IIS Integration Overview**: Provides an overview of the IIS integration functionality implemented in the NBS.
- **IIS Configuration and Set Up**: Provides information on how to set up your NBS system to use the Query Immunization Registry functionality.
- **Using the Query Registry Functionality**: Provides instruction on how to use the Query Registry functionality via the user interface.
- **Imported Vaccination Records Behavior**: Provides information about the behavior of imported vaccinations on the user interface, in the reporting database, and in NND messaging.
- **Activity Logging, Error Messages, and Troubleshooting**: Provides information about the logging process and error message handling implemented for IIS integration, as well as troubleshooting tips for common problems.

2.4   Lab Report Module in Page Builder

2.4.1   Functionality Overview

Migrating the NBS Legacy Lab Module to Page Builder was discussed at the 2016 NBS Consultancy and was ranked #2 for enhancement implementation in the 2018 backlog prioritization completed with the entire NBS community.

This enhancement provides a number of key benefits, including:

- More legacy pages migrated to the newer (JSP) architecture, further paving the way for retirement of legacy architecture components in the NBS, (e.g., Cocoon)
- Metadata-driven approach to implementing lab, which makes further enhancement (e.g., pre-population from lab to investigation for interpretive questions) easier to implement in the future
- More configurability at the state (e.g., ability to hide unimportant data elements, to add new elements, to change data labels, to re-order data elements, etc.)
- Setting the stage for additional enhancement to lab in NBS (e.g., ELR re-design)

Prior to Enhancement:

Previously, lab report data was collected/displayed in the NBS using the legacy NBS architecture (XSP). As a result, making updates to this page required development activity (i.e., a release). Additionally, states could not alter the page in any way, other than adding Locally Defined Fields (LDFs) using the legacy LDF module.

After Enhancement:

Now, lab report data is collected/displayed in the NBS using the newer architecture (JSP) – using Page Builder technology. States will be able to have more control over how their lab report page is configured in the NBS, since with NBS 6.0, staff with the proper permissions can use Page Builder to alter the lab report page, as needed, to support state needs.

2.4.2 Key Scope Items

In-Scope

- Moving the current **manual lab** report entry page over to Page Builder Technology
- Creating the related metadata needed to support Lab Report in Page Builder
- Reviewing and updating value sets, as needed
- Implementing support for existing pre-population of data elements from lab reports to investigations created from a Lab Report page builder page
- Implementing all existing business rules, which ensure lab report data quality (using/expanding the existing Business Rules Engine whenever possible)
- Implementing the existing lab hierarchy (Ordered Test, Resulted Test, Results, Susceptibilities)
- Including support for Isolate Tracking

Out-of-Scope

- Any ELR-specific enhancements (e.g., re-designing ELR processing, implementing a standard ELR Splitter, identifying updates to incoming lab reports)
- Implementing wholesale changes to the underlying table structure in the ODS
    - *NOTE: Changing the ODS structure for storage of lab data would impact ELR, ETL, and NND messaging.*
- Implementing support for lab event in PHDC/eICR import (lab event creation from ECR)
- Creation of a dimension (D_LAB_TEST/D_LAB_TEST_REPEAT) in the reporting database (RDB) for lab locally defined fields (LDFs)/questions added to a page builder page; this scope item was de-scoped due to time limitations but will be considered for inclusion in a future release.

2.4.3 Process Overview and Review of Key Changes

Moving the legacy lab report module to Page Builder required accounting for many different contexts and the implementation of varying business rules/logic based on user permissions and context. The new lab report module can be accessed from all previous access points, including:

- From the top navigation bar > Data Entry workflow
- From the Documents Requiring Review Queue
- From the Documents Requiring Security Assignment Queue
- From an Event Search (Home Page > Advanced Search > Event Search)
- From a Patient's File
- From within an Investigation (Supplemental Info)
- From Manage Associations (called from within an Investigation)

All functionality that existed previously in the NBS lab report module has been migrated over to the new technology. In support of this migration, there are a number of Page Builder enhancements that are implemented in NBS 6.0, including:

- Addition of Entity ID Information block, as well as SSN Information, to the Patient Tab
  - NOTE: This enhancement is available for ALL page builder pages.

SSN As Of Date::			
SSN:			

☐ Entity ID Information

	As Of	Type	Authority	Value
📄	04/06/2018	Medical record number	2.16.840.1.113883.19.3.2.1	52530277610

As Of:	
* Type:	
Other Type:	
Authority:	
* Value:	

- Addition of 'sub-form' technology in page builder (to support susceptibilities and isolate tracking data)
  - NOTE: This is not available as a generic solution in NBS Page Builder in NBS 6.0, however, the solution implemented for lab is designed with a long-term goal of exposing this via Page Builder so that this can be used for other use cases.

- Implementation of a 'running user comments' concept on page builder pages in View mode
  - NOTE: Long-term, this enhancement can be made available for ALL page builder pages; however, in NBS 6.0 this functionality is only available for view electronic lab reports.

- Addition of a read-only table of ALL associated participants for the event record.
  - NOTE: This enhancement is available for ALL page builder pages.

- Implementation of more robust header information for lab reports and more standardized 'action' buttons.

The **NBS 6.0 Installation Guide** provides information on how to import the necessary page templates and how to set-up/implement these pages using NBS Page Builder.

IT IS IMPORTANT TO NOTE THAT THE CHANGES IMPLEMENTED MOVING THE LAB MODULE TO PAGE BUILDER REQUIRED A MASSIVE OVERHAUL OF THE MODULE – THE WORKFLOW AND USER INTERFACE IS SIMILAR TO THE LEGACY LAB MODULE, BUT THERE ARE DEFINITE DIFFERENCES. IT IS IMPORTANT THAT YOUR SITE FIRST APPLY THIS RELEASE TO YOUR TESTING ENVIRONMENT TO REVIEW THESE CHANGES AND PERFORM ANY NECESSARY USER COMMUNICATION/TRAINING WELL IN ADVANCE OF IMPLEMENTING NBS 6.0 IN YOUR PRODUCTION ENVIRONMENT.

2.5   Partner Services File Upgrade

2.5.1   Functionality Overview

The Partner Services File (PSF), which was first introduced in NBS in 4.5, is an XML file that pulls data from the NBS for a six month period of January 1st to June 30 or July 1st to December 31. The file is typically pulled in March or September, once all the changes have come in for the previous time period, and then uploaded to the Luther Consulting EvaluationWeb client. In late 2018, new requirements were provided for implementing a v3.0 of the PSF XML file.

Prior to Enhancement:

Previously, this process was implemented within the code with very little transparency into which data are being pulled, and transformations being made to generate the PSF file. Additionally, there were a number of defects reported against the original PSF file, which were difficult to address previously due to the way the file creation was originally implemented.

After Enhancement:

In NBS 6.0, the requirements and design for PSF creation out of the NBS are clearly documented. A transparent process has also been implemented that includes a set of staging data tables, making it much easier to understand the data being included in the file. Further functionality includes:

- Logging has been implemented for the PSF process to better understand record counts and run times
- New data elements requested by CDC for partner services are added to the pages for investigation and interview record
- Value sets for existing questions are updated to include new choice options
- A lookup table now exists to map between value set concepts in NBS with what is sent in the partner services file, which allows jurisdictions to add/modify values and still comply with CDC's requirements.

A detailed description of the new PSF process can be found in the document **NBS 6.0 Partner Services File Design Overview**.

2.5.2   Key Scope Items

In-Scope

- Updating/Better documenting the PSF requirements
- Reviewing the current design of PSF creation from NBS to determine a better long-term solution (e.g., creating an XML file vs. an XLS file, creating a table(s) or view(s) used to 'feed' the file, etc.)
- Implementing the updates to PSF for the 2018 reporting year (i.e., adding/removing/updating elements in the PSF to align with the latest requirements provided by Luther Consulting for the v.3.0 PSF XML file)
- Making minor updates to the HIV investigation and interview record templates
- Testing the updated PSF with Luther Consulting.

Out-of-Scope

- Major changes to the STD/HIV templates

2.5.3 Process Overview and Review of Key Changes

2.5.3.1 PSF Staging Tables

In NBS 6.0, the PSF process was evaluated to determine a better way to create this file and include more transparency into how the file is created and what data is pulled from the NBS to populate the PSF file. As a result, a set of PSF staging tables were created in the NBS MSGOUT database, including:

- PSF_CLIENT
- PSF_INDEX
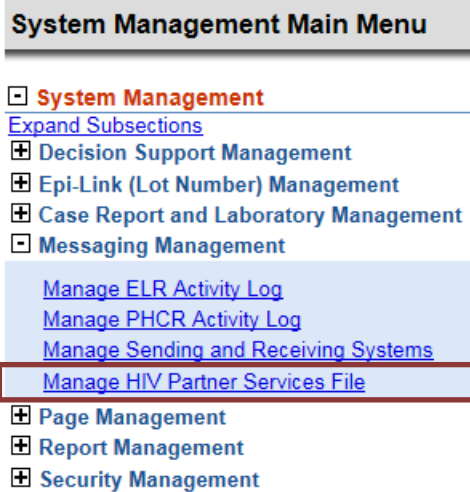- PSF_PARTNER
- PSF_SESSION
- PSF_RISK

These tables are populated via a batch process called populatePSFTables. This process can be run to update the tables in one of two ways:

- Incrementally – to append/update data that has changed since the batch process was last run
- Full – to fully refresh all tables

It is recommended that this process be set up to run weekly in incremental mode.

2.5.3.2 PSF XML Creation

The process to create the XML file (from a user perspective) has not changed in NBS 6.0. Users will continue to access this functionality via: System Management → Messaging Management → Manage HIV Partner Services File.

However, this process was greatly enhanced 'behind the scenes' to:

- Create the XML file from the PSF staging tables.
- Align the PSF XML file with the latest v.3.0 format.

2.5.3.3   PSF Logging

Additionally, in the NBS 6.0, logging processes were included to track both the PSF staging table population and the XML creation processes. This logging can be found in the MSGOUT database in the ACTIVITY_LOGGING table, which can be exposed as a data source (if desired) and used to create reports to track this process.

2.5.3.4   Changes to the NBS UI to Support PSF Data Entry

2.5.3.4.1   Site Information

In NBS 6.0, the PSF Site information has been migrated from text collection to a participant in the NBS. This was implemented to better track site information (including address and other contact information). A process has been provided to help states bulk load the existing site data as organization data in the NBS. This process is called out more specifically in the **NBS Bulk Import of New Organizations and Providers User Guide**. Note that additional documentation will be provided to help states bulk load their PS Sites as Organizations in the NBS (using Rhapsody).

2.5.3.4.2   New Questions

Multiple new questions are added to the HIV Investigation template to support the latest requirements for PSF. These include the questions highlighted below in yellow:

Also, 'Case Status at Interview' is added to the HIV Interview page in NBS.

A stored procedure is provided with NBS 6.0 to insert these questions. This process is called out more specifically in the **NBS 6.0 Partner Services Installation Guide**. This stored procedure will update the value sets associated with the existing questions on the NBS HIV investigation page. Please note that the updates should be run on the STD and HIV investigation pages to support co-infection functionality, even though these data may not be entered for non-HIV investigations.

3   Resolved Defects

The following 18 defects are addressed in this release. More information about these defects can be found on NBS Central in the following location: 6.0 Defects.

Component	#	Subject	Issue	Resolution
Database	11497	SRTE: NBS UI allows entry of Special Characters in the Value Set Code, Code (for a value in a value set), and Question Identifier in the Value Set/Question Management modules	The NBS UI allows users to enter special characters such as a blank space, parenthesis, etc. in the Value Set Code field in the Manage Value Set module. No special characters (except for an underscore '_') should be allowed as part of the value set code while creating new value sets from the User Interface.	Implemented a check (on the UI) that allows for only alphanumeric and _ values.
Organization	11514	Entity_locator_participation table issue with NULL values	*NBS_ODSE..Entity_locator_participation.status_time* allows NULL values *NBS_ODSE..Entity_loc_participation_hist.status_time* does *NOT* allow NULL values Having loaded Organizations via a Rhapsody import route (where status_time=NULL), Indiana is now not able to edit Organizations because the related history table does NOT allow NULL values.	Updated process to populate status_time so that bulk loaded orgs and providers can be edited after import via the UI.
Logging	11436	Debug Options Appearing on Front-End Incorrectly	When NBS times out the system displays a form with a debug button. Using the debug button brings up the debug console which is most probable not appropriate. This does not appear to happen in NBS 5.4. NOTE: It will appear only if the server and client IPs are same.*	Updated timeout.xsp to remove debug button on session timeout.
MasterETL	11240	Table RDB..LAB100 sometimes has a NULL CONDITION_SHORT_NM even where CONDITION_CD is populated	Running the following script, it was identified that in table *RDB..LAB100*, column CONDITION_SHORT_NM is sometimes NULL even when column CONDITION_CD is populated: > SELECT LAB_RPT_LOCAL_ID,RESULTED_LAB_TEST_CD ,RESULTED_LAB_TEST_CD_DESC,CONDITION_ CD,CONDITION_SHORT_NM FROM *RDB..LAB100* WHERE CONDITION_CD *IS NOT NULL* and CONDITION_SHORT_NM *IS NULL*	The SAS code that derived condition code from SNOMED CD is updated to write condition short name. Also, a script is provided to fix any existing date for LAB100 table.
STD/HIV Investigation	9332	STD: OOJ Agency Dates Not Clearing on Page When Source Question Cleared	Initiating Agency is a source question. When it is populated, the following fields are enabled: Date Received from Init. Agency, Date OOJ Due to Init. Agency, Date OOJ Info Sent. Once you enter data into these fields and submit the investigation, if you delete the information, when you are on investigation,	This is fixed in the code so that when this information is deleted, this is properly reflected on the View Investigation screen.

Component	#	Subject	Issue	Resolution
			the information is deleted. But on view investigation, you can still see the dates.	
STD/HIV Investigation	10195	STD Case Management Notes Repeating Block View Mode Opens as Edit	When a note entered into one of the below repeating block questions is opened using the View Icon, the note is displayed in the field as if it is in edit mode. The expectation is that when the View Button is used to view the answers within a repeating block, the answer fields should be disabled so that the answer cannot be edited. Instead, the answer fields are enabled allowing users to overwrite the data. While the batch entry block also has an option to "Add New", clicking on this button does not result in a new row of data being created. Blocks covered by this defect: • Surveillance Notes • Field Follow-Up Notes • Field Supervisory Review and Comments • Interview/Investigation Notes • Supervisory Review/Comments	This is fixed in the code so that 'notes blocks' of show as 'read-only' in view mode.
Morbidity Reports	11278	Observation: ADD_TIME column is null in Observation table for Manual Lab Reports created from a Morbidity Report	When a Lab Report is created from a Morbidity Report, the 'add_time' column is blank in the Observation table in ODSE. This subsequently causes the LAB_RPT_CREATED_DT column to be NULL in the LAB100 RDB table.	New RDB script is added to set add_time to same morbidity add time for each lab created from a morbidity report.
Page Builder	11284	Indent Level Number Resetting to 2 when a Condition is Edited in the Condition Library	Indiana reported this issue when trying to set up their QA environment for CRE surveillance. They created new conditions for the new CRE condition codes and assigned them to a condition family. They were not able to see the conditions in the dropdown to create an investigation. On a support call, we determined that the system had set the indent level number in the condition code table to 2, which it should not do. We corrected it with a script to update it to 1. The conditions then showed up in the dropdown to be selected to create an investigation. Indiana then edited the condition to add it to a condition family and the system reset the indent level number to 2 again. This should not happen.	Code is updated so that indentLevelNbr is no longer updated to 2 if parentIsCd is = NULL or Empty, (which is what was previously happening prior to this fix).
ELR	8705	ELR: Zero and "-" Stripped from Front-End When Displaying Accession Number	When displaying an Accession Number in the View Lab Report front-end, any Zeros, "_", and "." are being stripped out. For example, X10217755.301.0290 shows as X12177553129.	Resolved when lab moved to page builder in NBS 6.0.
Lab Reports	10049	Lab Report: Dropdown for Ordered Test and	On a Lab Report page the dropdown for Ordered Test and Resulted Test is empty for	Resolved when lab moved to page builder in NBS 6.0.

Component	#	Subject	Issue	Resolution
		Resulted Test is Empty and Search Box not closing after selecting Reporting Facility	manually entered labs. In addition, the Search Box does not automatically close once a Reporting Facility is selected.	
RDB Reporting	11556	RDB: Incorrect values populated in table D_INV_SYMPTOM in RDB	When the multi-select question 'Signs and Symptoms' (INV272) is answered through the User Interface, some of the values are populated in the RDB table D_INV_SYMPTOM in column 'SYM_SingnsSymptoms' as value set codes instead of the expected descriptions.	This issue no longer exists in NBS 6.0 with implementation of PAGE_CASE ETL process using stored procedures.
Decision Support Management	4834	WDS: Timeframe Not Working Correctly when Multiple ELRs Are Imported	1) Create Algorithm that has Timeframe > 30 days and Create Investigation w/Notification 2) Process ELR that has Specimen Collection Date = 10/01/2013 3) Process ELR that has Specimen Collectino Date = 10/01/2014 (or anything past 30 days) Expected Result: 1) The first Process ELR creates a Patient, an Investigation and a Notification --> THIS WORKS FINE 2) The second Process ELR creates another Investigation and a Notifation --> THIS DOES NOT WORK....A matching algorithm was not found. The Lab Report is logged in Documents Requiring Review queue.	The ability to check for data filled out in existing investigations was added, and timeframe logic was moved into that specific subsection. With the criteria listed when the original ticket was created (Specimen Collection Date > 30 days) -- the expected action in NBS 5.4+ is that the document is sent to the DRRQ and NOT that an investigation is created with notification. Please reference the ticket in NBS Central to view an attached workflow diagram that further explains (visually) this workflow.
Security	11551	System Security: Missing HttpOnly in Session Cookie Issue	Maine was working on the deployment for 5.4 and the security scan came back with one high priority issue that they couldn't resolve. The issue is the missing HttpOnly in Session Cookie problem starting on page 44 of the attached report. They tried to resolve it on their side but haven't been able to do so.	NBS is now securing cookies for all HTTP calls, except for dwr ajax calls.
Rhapsody	11357	Rhapsody: Cannot accept certificateURL in Rhapsody for NBS Version 5.3 and Below	For NBS Releases below Release 5.3, the code uses Rhapsody custom filter that was written in Java. This filter does not allow certificateURL to be inserted and hence states on NBS Version below 5.3 are unable to configure certificateURL in their Rhapsody route. NBS Release 5.3 and above, however, uses Rhapsody Database Lookup filter that can be updated with a script to incorporate certificateURL. Although the code currently exists in Rhapsody to handle certificateURL, this needs to be thoroughly tested and a Deployment documentation written up as to assist jurisdictions to implement the same in their Rhapsody environments.	Rhapsody updated in NBS 6.0. Fix includes: 1. New Rhapsody variable: NBS_CERTIFICATE_URL: This value is currently set to TestUrl. Please change this value according to state specific need. 2. Update to PHIN Properties JavaScript filter 3. Update in InsertIntoTranportQOut filter to store value accordingly. **NOTE: Some states may have added a trigger to TransportQ_out table to insert the certificateURL. After implementing this change they will need to remove this trigger.**
Security	11663	Permission Set: Condition not visible	1. Create a Morbidity Report in the UI with a user having 'Add' morbidity report permission	Code updated so that now, when a user is set up to have 'Edit' and 'View' permissions for

Component	#	Subject	Issue	Resolution
		on Morbidity Report	2. Log in to NBS as another user with only 'Edit' and 'View' Morbidity Report permissions. 3. Navigate to the created Morbidity Report. Expected Results: The user is able to view the condition associated with the Morbidity Report	Morbidity Report but does not have 'Add' permission to add a new Morbidity Report, the system **DOES display** the Condition on the User Interface for the Morbidity reports existing in the system.
Page Builder	11488	Page Builder: Unable to Delete Data Mart Column Name for a Question	After a page is published the user is not able to delete the Data Mart Column Name for a question.	Code updated so that now a user can remove a data mart column name to remove (exclude) the data element from the dynamic data mart (to reduce columns/exclude data that is not needed for analysis). PLEASE NOTE: If the ETL is not run after updating this metadata to remove previously-defined data mart column names – errors may be encountered in the reporting module (if a user selects a 'removed' data element that was previously available in a data source); this will resolve on the next ETL run.
Page Builder	11608	Page Builder: Duplicate Records with Page Metadata Exports	When performing an export of Page Metadata, the result set has two rows for each question where the question_oid_system_txt value is either "L" or "Local".	Code updated so that now there is a single row for each element in the metadata download. This was caused by duplicate code of 'L' in the NBS_CODE_SYSTEM value set.
STD/HIV Investigation	11541	Morbidity Report: Create STD Investigation: Issue in Chrome Browser	When creating an STD Morbidity Report and clicking the "Submit and Create Investigation" button, a pop-up window opens up to select an STD processing decision from the drop-down. Once the drop-down value is selected and the user hits the "Submit" button, nothing happens and no case is created in the patient's profile. NOTE: This is only ONLY happening in Chrome and not in Firefox or IE.	Code updated so that the window closes properly regardless of browser.

4   Known Issues

The table below provides a list of 'known issues' in the 6.0 Release that were discovered during release testing, but time did not allow for the issues to be addressed prior to this release.

Component	Known Issue	Notes
Lab in Page Builder	ND-14750: Blank rows can be added into Lab Report Comments	For Lab Report Comments, if "view" is clicked for of comment, and the Add New button is clicked and then clicked again without entering any comments, the system will add a blank row in the repeating block. **Expected Behavior:** If a user clicks on the "Add" button without any comment text entered, the system should give a validation error message. (At least one field must be entered when adding a repeating block.)
Lab in Page Builder	ND-14748: Incorrect Validation Error When A Result Associated with a Resulted Test on updating the record	If a lab has multiple resulted tests with a combination of both organism and non-organism resulted tests, and a user updates a non-organism type resulted test that has a coded result associated with it, the system sometimes gives a validation error message saying no results are associated with the resulted test. **Expected Behavior:** A validation error message should NOT show for a result not being associated when resulted test DOES have a result associated with it.
Lab in Page Builder	ND-14747: Caching Issue for Drop-Downs with Search Option	If a user selects an Organism Name from the Coded Result drop-down and then selects a value via a search, then after adding that record, on edit/view the system is showing the value that was selected from the drop down and NOT the value selected via the search. The field is caching the value of the drop-down vs the value selected via the search. This issue is occurring for all code lookup questions (if a value is selected from the drop-down PRIOR TO submitting a search). Impacts: Ordered Test, Resulted Test. Coded Result, Drug Name. NOTE: The actual value stored (and viewable in the batch table) is the value selected from the Search. Also, if a user submits the lab and returns to the page, there is no issue. **Expected Behavior:** Value selected from the search should be retained for any code lookup questions in Edit/View mode of Resulted Test block.
Lab in Page Builder	ND-14683: Validation Error Message Showing for "Resulted Test is Required" Sometimes Displays Even when Resulted Test Batch Entry Fields are Populated	If a lab is edited and then submitted without touching the resulted test block, then the system sometimes shows a validation message that "Resulted Test is required". **Expected Behavior:** No validation message should appear in this data scenario/business flow. **Workaround:** Clicking "Submit" a second time submits the page.
Lab in Page Builder	ND-14677: The Expected Reship Date cannot be before Expected Ship Date or Actual ship Date for Isolate Tracking page	The Expected Reship Date cannot be before Expected Ship Date or Actual ship Date. This is a business rule for the Isolate Tracking page that is not implemented in NBS 6.0. **Expected Behavior:**

Component	Known Issue	Notes
		Business rule should work for Track Isolate page as per the legacy lab screen.
Lab in Page Builder	ND-14670: Awkward Alignment in Header Bar for ELRs	The Yellow Header Bar has a distorted row when the electronic indicator is displayed for ELRs (3rd row). When the indicator is displayed, the cell it is in (Lab ID) is aligned to the lower-left, however the two other cells (Created and By) are aligned Left-Center. **Expected Behavior:** All cells should have same alignment. If Left-Center is used, then the indicator should also be centered.
Lab in Page Builder	ND-14649: CD_SYSTEM_CD and CD_SYSTEM_DESC_TXT Stored Inconsistently in Releases Prior to NBS 6.0	In NBS 6.0, the code was updated for how CD_SYSTEM_CD and CD_SYSTEM_DESC_TXT are stored into OBSERVATION tables for lab data. In NBS 6.0, the system populates CD_SYSTEM_DESC_TXT based on a lookup using CD_SYSTEM_CD. For example, if CD_SYSTEM_CD= DEFAULT, then CD_SYSETM_DESC_TXT= Default Manual Lab. Prior to NBS 6.0, the CD_SYSETM_DESC_TXT was set in the code (e.g., when CD_SYSTEM_CD= DEFAULT, the CD_SYSETM_DESC_TXT was set to NEDSS Base System). **Expected Behavior:** This data should be stored consistently (as in done in NBS 6.0). In a future release, this data should be made consistent for labs created before NBS 6.0 (via a script or stored procedure).
Lab in Page Builder	ND-14584: Lab Page Republish Sometimes Requires App Server Restart to See Changes	When re-publishing lab pages, the system sometimes requires a Wildfly restart. **Expected Behavior:** Like all other page builder pages, when re-publishing, an application restart SHOULD NOT be required.
Lab in Page Builder	ND-14404: Chrome Only - Add Susceptibility Popup Does Not Prevent The User From Interacting With The Parent Window	In Chrome browser only, the Add Susceptibility Popup Does Not Prevent The User From Interacting With The Parent Window. Because of this, the user can open multiple add susceptibility popup windows. **Expected Behavior:** The user is not able to interact with the parent window until the add susceptibility popup window is closed.
Lab in Page Builder	ND-14184: HTML title not showing correct value in browser tab	Value shown in the browser tab is not correct/user-friendly for Lab pages; It is showing long URL path of the page. **Expected Behavior:** The title in the bowser tab should be: NBS Page Management.
Lab in Page Builder	ND-14117: Add Comments Is Available On Print Lab Popup Window	When viewing the print lab screen from an ELR, the user is able to add notes to a Print popup window. **Expected Behavior:** The user is not able to add notes (or take any action) on the Print popup window.
Lab in Page Builder	ND-14072: Manage Association of Administrative Closed STD investigation Leaves Checkbox Enabled	If an STD investigation is created from a Lab, and the Processing Decision is selected as Administrative Closure, then that lab should be associated to that case and the checkbox in the Manage Association screen should be disabled. In NBS 6.0, the lab IS associated (per design), but the checkbox is NOT disabled. **Expected Behavior:** The Manage Associations check-box is disabled in this scenario.
Lab in Page	ND-14593: Users Without Permission to Add	If a user DOES NOT have permissions to add/view/edit Provider and/or

Component	Known Issue	Notes
Builder	Provide/Organization can see and use the Add Buttons	Organization and, while entering a lab report in page builder, indicates the desire to search for an org or provider, they still have the 'Add' option after completing a search. If the user clicks on the add button and tries to submit a new org or provider, a java error is received when user submits the new entity information. NOTE: This functionality works correctly if the user DOES have the correct permissions. **Expected Behavior:** The Add button should not appear since the user does not have permissions for this action.
Lab in Page Builder	ND-14624: ELR: Result Comment within Resulted Test block is not showing the whole value (when sent as multiple NTEs)	Result Comment within the Resulted Test block is not showing the whole value stored in the database when the comment is received in multiple NTE segments. **Expected Behavior:** ALL NTEs are concatenated into a single comment that is displayed.
Lab in Page Builder	ND-14687: In ELR, SSN value is not showing in the SSN field when Assinging Auth is SSA vs. Social Security Administration	In legacy lab module, a patient ID with an assigning authority of SSA (with an OID of 2.16.840.113883.4.1) would populate in the SSN field on View ELR. In the Page Builder lab page, this same ID value with SSA assigning auth is NOT populating in the SSN field on View ELR. **Expected Behavior:** An incoming patient ID with this assigning auth indicated should display as SSN on View ELR.
Lab in Page Builder	ND-14819: Pop-Up Error Received when Selecting State in Add Org (From Search/Add within Lab Report Context)	When entering a lab report, when a user opts to search for/add a new organization to the system 'on-the-fly', after selecting a value from the State drop-down, an error pop-up is received. NOTE: If the user clicks OK to the error message – they are able to continue with the process of entering/adding an organization with no issue. **Expected Behavior:** No error popup is received when selecting a state in this workflow.
Lab in Page Builder	When a resulted Test is deleted , clicking on View/Edit icon of Organism Resulted Test is not showing Susceptibilities/Track Isolate Buttons and a Java Script error is displayed (during edit)	When editing a lab report, when a resulted Test is deleted , clicking on the View/Edit icon of Organism Resulted Test is not showing Susceptibilities/Track Isolate Buttons. **Workaround**: After deleting the Resulted Test, submit the lab report, then Edit functionality works without any issues. **Expected Behavior:** The Susceptibilities/Track Isolate Buttons are available.
Lab in Page Builder	Submit button is not getting enabled when we change the Event Type from one Lab Event type to another Lab event type in Manage Pages: Add Page	Submit button is not getting enabled when a user changes the Event Type from one Lab Event type(which has a page created) to another Lab Event Type (which doesn't have a page created). **Workaround**: Go back to manage page and then add the next 'type' of lab event page (e.g., Susceptibility, Lab Report, Track Isolates). **Expected Behavior:** The submit button becomes enabled without having to go back to the Page Management library.
STD/HIV Investigation	ND-14834: System doesn't show Processing Decision screen on first time for an STD	When trying to select an STD condition via Submit and Create Investigation button (from a lab report), on the first attempt the system does not show

Component	Known Issue	Notes
	condition	the Processing Decision screen. If a user navigates back from Investigation to the Select Condition screen and then again selects the same condition, then the system prompts for Processing Decision. NOTE: This issue existed prior to NBS 6.0 (in NBS 5.4/5.4.1), but it is being called out in these release notes, since it was not indicated as a known issues in prior release notes. **Expected Behavior:** Users are prompted to enter a processing decision when selecting an STD/HIV condition from ANY workflow in the system.
SOE Upgrade	**ND-14094: Error Page For SR10, SR7, and SR9 on SAS 9.4**	ONLY OCCURS WITH SAS 9.4. • Reports SR7 - Case Lab Line Listing • SR9 Bar Graph of Selected Disease by Month • SR10: Multi-Year Line Graph of Disease Cases Due to the SAS 9.4 upgrade, reports that are using 'proc gchart' and 'proc gplot' are not currently working in SAS9.4. **Expected Behavior:** ALL SR reports should display without issue in SAS 9.4.
ETL/RDB	**ND-14837: RDB.ACTIVITY_LOG_MASTER Start_Date Issue**	In the job batch log, the system is setting the start date as the end date of the previous run (so that the process picks up everything in between the two dates); these dates are what is used to get the incremental data updates. The system is ALSO writing this same date (end date/time of the last ETL run) to the log, which is confusing to end users looking at the log. **Expected Behavior:** In the RDB.ACTIVITY_LOG.START_DATE, the date/time logged should be the actual start date/time of this ETL run – NOT the end time of the last ETL run time.