

NEDSS Base System (NBS) Overview

NBS Functional Capability Overview

The following table provides an overview of the components, sub-components, and functional capabilities provided within the NBS Product.

NBS Component	NBS Sub-Component	NBS Functional Capability Summary
NBS Entity Management	Patient Registry Management	Add, Edit, View, Delete Patient Revision and Master Patient Record (MPR)
		Find Patient by Demographics
		Find Patient by Event ID
		Merge Patient Search & Side-By-Side Compare
		View Partial Match Merge Candidates
		Manual Patient Merge
		Add Patient Basic
		Add Patient Extended
	Patient File	View, Edit Master Patient Record (MPR)
		Patient Events Summary – view all active events for a patient
		Manage Events – view all events associated to patient
	Patient Point-In-Time (PIT) Demographics	Complete, Independent Patient Demographics Per Event, also called a Patient Revision
		Independent Master Patient Record (MPR) derived from all Patient Revisions
		Pre-populate Event Demographics from MPR
		Propagate Demographics to MPR from Event based on effective dates and business rules
	Provider	Add, Edit, View, Delete, Find Provider
		Quick Code Look-Up for Provider
	Organization	Add, Edit, View, Delete, Find Organization
		Quick Code Look-Up for Organization
	Place	Add, Edit, View, Delete, Find Place
Quick Code Look-Up for Place		
NBS Event Management	Manual Lab for Internal Public Health User	Add, Edit, View, Inactivate Manual Lab
		Ordered Test Identification
		Resulted Test Identification
		Isolate / Organism identification
		Ordered Test & Resulted Test File Filtered by Program Area AND Reporting Facility
		Test Results configurable by Resulted Test
		Ability to track one or more susceptibility test by Resulted Tests
		Tests searchable by Local Codes or Standard LOINC/SNOMED codes
		Isolate Tracking per Resulted Test
		Ordered & Resulted Test Filtering by Condition when launched from Case Investigation
		Mark As Reviewed
		Provider & Organization Search
		Program Area & Jurisdiction Derivation

	Auto populate fields when create Case Investigation
	Heads-Down Data Entry Workflow Mode
	PIT Demographics – separate Patient Revision for event specific demographics tied the Master Patient Record
Manual Lab for External Non-Public Health User	Non-Public Health User Mode as a variation to the normal Manual Lab data entry to enable remote users to directly enter Lab Reports and limit access to other data.
	Add Comments to Manual Lab
Electronic Lab Report (ELR) User Interface	View, Delete, Mark As Reviewed ELR
	Add Comments to ELR
	Auto populate fields upon Create Case Investigation
Morbidity Report	Provider & Organization Search
	Auto populate field on Case Investigation
	External non-PH User Mode
	Heads-Down Data Entry Workflow Mode
	Enter Lab Reports and Treatment secondary objects directly from Morbidity Report
Treatment	Add, Edit, View Treatment
	Provider & Organization Search
Vaccination	Provider & Organization Search
	PIT Demographics – separate Patient Revision for event specific demographics tied the Master Patient Record
Contact Record	Add, Edit, View Contact Record
Interview	Add, Edit, View Interview
Summary Reports	Add, Edit, View Summary Report
	Send Summary Notification to CDC
Case Investigation – General	PIT Demographics – separate Patient Revision for event specific demographics tied the Master Patient Record
	Associate Events (Lab Report, Morbidity Report, Treatment, Vaccination)
	View Associated Events
	Select Condition for secured access to PAM specific investigation forms
	Send Case Notification to CDC
	Auto-Resend Case Notification
	View Case Notification Status / History
	Condition specific case notification de-identification and investigation form question filtering rules provide only appropriate data to CDC
	Derived fields are calculated by the system
	PAM Specific Dynamic Field Display facilitates efficient data entry for specific conditions
	PAM Specific Change Condition Capability allows certain conditions to be changed during an open investigation
	Site Specific Configurable PAM Parameters
Case Investigation – Generic Investigation Form	Generic case investigation form capability provides support for over 85 conditions, including General Communicable Diseases (GCD). Based on CDC and/or State surveillance recommendations and policies, certain conditions may not be recommended for management within the NBS

		State reportable conditions supports customization to enable state to extend the supported conditions to include state reportable conditions with data captured in the generic case investigation form
	PAM Case Investigation – VPD	Vaccine Preventable Diseases (VPD) PAM includes condition specific support for 7 conditions.
	PAM Case Investigation – BMIRD	Bacterial Meningitis and Invasive Respiratory Diseases (BMIRD) PAM includes condition specific support for 9 conditions.
	PAM Case Investigation – Hepatitis	Hepatitis PAM includes condition specific support for 9 conditions.
	PAM Case Investigation – FDD	Foodborne and Diarrheal Diseases (FDD) PAM includes condition specific support for 35 conditions
	PAM Case Investigation – Animal Rabies & Lyme	Animal Rabies and Lyme are supported with condition specific investigation questions added to the generic investigation form.
	PAM Case Investigation - Tuberculosis	Tuberculosis module includes condition specific investigation questions
	PAM Case Investigation – STD/HIV	STD/HIV PAM includes condition specific support for 21 conditions
NBS Worker Queues for workflow management	Open Investigations	Shows all open investigations accessible by a specific user to facilitate case investigation workflow management
	Approval Queue for Initial Notifications	Shows all initial case notifications that require approval
	Rejected Notifications Queue	Shows all the user’s notifications that have been rejected by supervisors
	Updated Notification Queue	Shows all previously approved and submitted case notifications that were automatically resent to CDC due to an update.
	Observations Needing Review	Shows all Lab Reports (electronic or manual) and Morbidity Reports which have entered the NBS and need to be reviewed
		Supports ‘Mark As Reviewed’ per Observation
	Observations Needing Program Area and/or Jurisdiction Assignment	Shows all Lab Reports (electronic or manual) and Morbidity Reports which have entered the NBS which could not be automatically assigned a Program Area and/or Jurisdiction.
	Pending Congenital Reports	Assists tracking of the Congenital Syphilis Report in the system with infant status as pending
	Messages Queue	Shows all STD/HIV activity related to the user
	Supervisor Review Queue	Approve the closing of investigations
Congenital Review Queue	Shows all instances of the Congenital Syphilis Report in the system awaiting approval	
NBS System Administration	Custom Field Administration	
	LDF	Locally Defined Field (LDF) Support
	CDF	Collaboratively Defined Field (CDF) Support with Import Versioning
	Custom Subform	Custom Subform (CSF) Support with Import Versioning
	DMDF	Data Migration Defined Field (DMDF) Support

	Permission Set Administration	Ability to create new permission sets based on templates
	User Administration	Add, Edit, View User
		Configure user as External and associate a Facility
		Configure 'Realized Role' with User, Permission Set, Jurisdiction, and Program Area
	Ability to delegate User Administration to Program Area Administrators	Master System Administrator (MSA) versus Program Area Administrator (PAA)
	ELR Activity Log View	Provides search features based on ELR attributes
NBS System Management	Decision Support Management	Manage alerts, user email, and workflow decision support
	Epi-Link (Lot Number) Management	Manage Epi-Link IDs and activity log
	Laboratory Management	Manage laboratories, lab results, and lab tests; reset lab mapping cache
	Messaging Management	Manage electronic laboratory report (ELR) activity log, public health case reporting (PHCR) activity log, sending and receiving systems, HIV Partner Services File
	Page Management	Manage Page Builder conditions, pages, questions, page templates, and value sets
	Report Management	Manage data sources, report sections, and reports
	Security Management	Manage permission sets and users
NBS Analysis, Visualization, and Reporting (AVR)	Reporting User Interface to manage and launch reports	My Reports View
		Standard Reports
		Report Templates
		Public vs Private Reports
	New Report instances configured from Standard or Custom Report Templates	Basic Filters: Condition, State, County, Date
		Advanced Filters: Custom Field-by-Field criteria
		Column Selection & Ordering
	Run Report	Output to HTML or CSV
Custom integration with SAS Programs		
Reporting Database (RDB) Services	Reporting Metadata Extensibility Framework	
	RDB with de-normalized view of all operational data	
	RDB Datamarts with Tabular Report Templates	
NBS System Services	Authorization - Object Level Security	All Events Secured by Program Area & Jurisdiction
		Patient Revision Secured but not MPR
		Authorization Credentials stored in LDAP
		Guest and Shared Capability
	Transfer Ownership	For all events secured by Program Area and Jurisdiction
	Multiple Sub-Record Entry Capability	Patient, Provider, Organization support multiple Names, Addresses, Phones, ID, etc..
		Lab Report support Multiple Result Tests
		Morbidity Report support Multiple Tests, Multiple Treatments
		Case Investigations support Multiple Contacts, Multiple Treatments
	Dynamic field display	User interface dynamically displays additional data entry fields based on data entry rules
	All Components	Audit Trail fields on all records
	Data Concurrency	Optimistic Locking design
	Session Management	Configurable Timeout

	Integrated Authentication Capability	SSO, Custom Authentication, and Encryption support
	Configuration Parameters	Extensive configuration through configuration file.
	Print Forms for all Events	Printing in same format as NBS User Interface
	Context & State Management	Retains session data throughout user session using Business Object State Model
	SRT Caching	Performance aided by caching of System Reference Table (SRT) data
	SRT Driven Functionality	Extensible SRTs used to control business rules and system functions
	Program Area Derivation	State Configurable, Multi-Tiered Process
	Jurisdiction Derivation	State Configurable, Multi-Tiered Process
	Error Message Framework	Provides consistent error messages
	Online Help	Provides page specific end-user help
NBS System Service Batch Processes	Patient De-duplication Process	Static Matching Rules determine what is considered a match
		Exact Match = Auto Merge
		Similar Match = Merge Candidate
		Deduplication Activity Log capability
	ELR Migration Process	ELR Ordered Test Matching
		Provider Matching
		Organization Matching
		Patient Matching
		Program Area Derivation
		Jurisdiction Derivation
	NND Case Notification Service	Create NND Case Notifications
		Case Notification Activity log
		Propagate Message Status Codes to Activity Log
		PAM Specific Field Level Filtering
		Includes both questions and answers in the message
		Integration with PHIN MS to securely transfer case to CDC
	LDF Metadata Message Service	Updates central CDC LDF Metadata Repository with LDF field definitions from each state.
	RDB Population Process ETL	Extraction, Transformation, and Load (ETL) process copies the latest version of all operation data into the Reporting Database for analysis
	RDB - Public Health Case Mart ETL Service	ETL process to populate the simplified datamarts used for analysis
	User Profile cross reference table ETL Service	Creates a reference table which User Name and system generated User ID to facilitate analysis and reporting
Data Migration Utilities	Entity Migration	Create Provider, including internal De-Duplication
		Create Organization
	Event Migration	Create Patient Revision & MPR
		Create Provider, including internal De-Duplication
		Create Vaccination Record
		Create Case Investigation
		Create Case Notification
Legacy System Mapping & Conversion Tool		