

3.12 Reporting

The system should produce reports for State and local agencies to use in managing their systems, as well as for information that has to be submitted to FNS or CDC. While standard reports are necessary, particularly for reports such as the FNS-798, ad hoc reports allow for flexibility in accessing information on an as needed or one-time-only basis.

The reporting function uses data from all of the other functional areas to provide information that can be used for monitoring, management, planning, and evaluation.

Reporting is comprised of the following functions:

- Generate Standard Reports
 - Generate Standard Reports
- Conduct Ad Hoc Queries and Generate Reports
 - Conduct Ad Hoc Queries and Generate Reports
- Maintain Data Warehouse
 - Maintain Data Warehouse

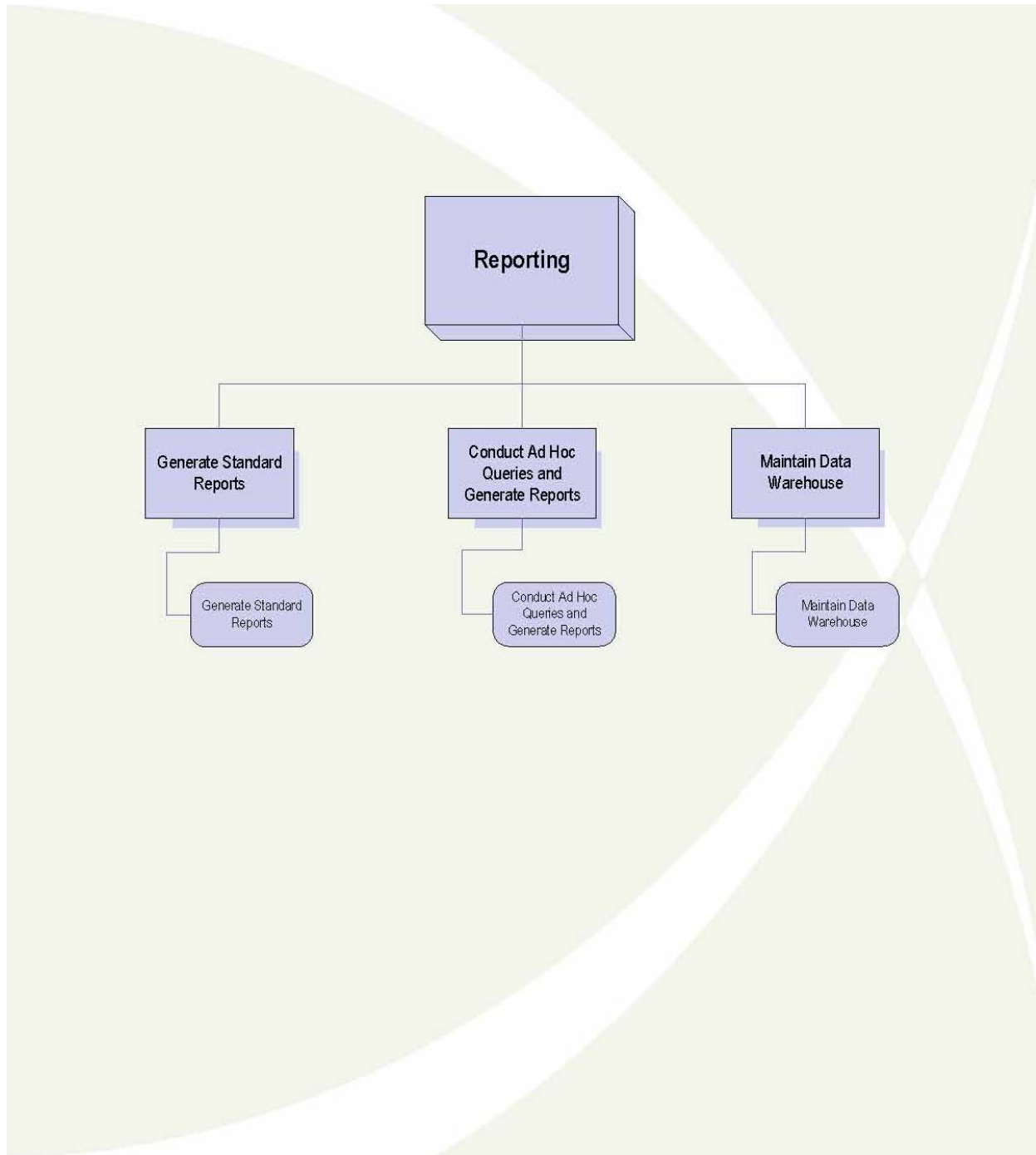


Exhibit 3-12: Functional Decomposition Diagram – Reporting

3.12.1 Generate Standard Reports

3.12.1.1 Generate Standard Reports

Standard reports provide pre-defined data sets in a consistent format. These recurring reports should be able to be displayed on the screen, printed in hard copy, or saved to an electronic file for later printing or import into another software product. To allow for some limited customization of standard reports, the system may allow users to enter data selection or sort parameters to limit the scope of data included in the report or method of presenting the data.

States vary substantially in their reporting capabilities and needs. The following list is a sampling of some standard reports that may be used by States; the ability to produce these reports depends on design decisions, such as data elements capturing data needed for the specific report. The listing of reports has been provided by functional area as well as alphabetical. To assist readers looking for reports related to EBT, a column has been included in the Reports by Functional Area to identify those reports that exist in a system with EBT issuance capabilities.

While the functionality of the reports may be common across States, the specific data elements that would be included in the reports will depend on State needs and system design decisions. This listing is not intended to be exhaustive, but rather to provide ideas for States initiating the report design process; the samples below are primarily to serve as a guide for States wishing to automate their system's reporting functionality.

Inputs:

Inputs vary based on report requested

Processes:

- Accept user input of selected report
- Generate report

Outputs:

Requested standard report

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Certification	Bloodwork Needed	Lists individuals who need a follow-up appointment for a blood test.	
Certification	Disqualified Participants Report	Provides information needed to prevent re-enrollment and for sharing with other WIC agencies during sanction period.	
Certification	How Participant Heard About WIC Local Agency and State Summary Reports	Lists how participants found out about the WIC Program. The report is to be used by agency staff to evaluate outreach efforts.	
Certification	Ineligibility Summary Reports for Local Agency and State	Reports applicants deemed ineligible.	
Certification	Migrant Participation Report	Provides the average annual migrant participation (from July to June) for use on the FNS-798 form submitted in July.	
Certification	Nutrition Risk Assessment Needed	Lists individuals who need an appointment for nutrition risk assessment.	
Certification	Outstanding Delayed Blood Work Report	Lists outstanding blood tests for reference by local staff. Staff members can then schedule the required bloodwork or remind the participant to bring in referral data by the specific due date.	
Certification	Participant Local WIC Agency and State Summary Reports	Various participant summary reports at State and local levels.	
Certification	Participant Services Summary Report	Summarizes WIC services provided to a participant.	
Certification	Participant Source of Health Care Report	Reports the providers where the participant receives health/prenatal care.	
Certification	Participant Summary Document	Summarizes case information for a participant for reference by local staff. May include Current or current and historical case information.	
Certification	Participants by County and Municipality Local Agency and State Summary Reports	Lists participants by geographical grouping as specified (i.e. county, state, etc).	
Certification	Pending Applications	Reports the applications that are not yet completed, certified, or determined ineligible.	
Certification	Referrals from WIC to External Agencies Summary Report	Lists all referrals from a WIC agency to any external agency.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Certification	Referrals from WIC to Outside Agencies Local Agency and State Reports	Lists referrals of WIC participants to specific outside agencies.	
Certification	Subsequent Certifications Due Summary Report	Reports participants in need of next certification visit.	
Certification	Termination Report	Reports all participants terminated from the program or found ineligible.	
Certification	Waiting List Local Agency Report and State Summary Reports	Reports the number of applicants on the waiting list and their priorities.	
Certification	WIC Priority Participation Report	Provides monthly participation by priority level. Categories include pregnant women, breastfeeding women, postpartum women, infants, and children. This information is part of the Minimum Data Set for the PC Report.	
Certification	Special Formula/Medical Foods Received	Lists participants who are receiving special formula/medical foods and the reason.	
Certification, Financial Management	WIC Program State Agency Participation and Expenditure Report (FNS-798)	Provides monthly participation data, sorted by category and expenditure data, sorted by food and administration. This report also reflects monthly food and NSA funds and costs, as well as the status of food and NSA grants as State agencies exercise spending options. The closeout FNS-798 records the final status of the State agency's WIC grant and costs for the report year.	
Nutrition Education, Health Surveillance, & Referrals	Aggregate Health and Social Service Program Referrals Report	Displays frequency of referrals made and outcomes and referrals from other programs.	
Nutrition Education, Health Surveillance, & Referrals	High Risk Participants Report	Lists high risk participants and should include high risk indicators to aid in follow up.	
Nutrition Education, Health Surveillance, & Referrals	Participant Care Plan	This report is a plan that maintains the progress toward attaining nutrition and health goals over time. It tracks various aspects of a participant's case history including nutrition education provided and referrals to other programs.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Nutrition Education, Health Surveillance, & Referrals	Participant Percentile Change Report	Displays participant growth over time in tabular format.	
Nutrition Education, Health Surveillance, & Referrals	Participant Referral Report	Lists participants referred and agency or program to which they were referred.	
Nutrition Education, Health Surveillance, & Referrals	Referrals to/from WIC By Program/Agency Report	Supports the analysis of referral program effectiveness by identifying those external health and social service agencies that refer Participants to WIC or receive referrals from WIC.	
Nutrition Education, Health Surveillance, & Referrals	Voter Registration Report	Reports participants assisted in voter registration.	
Nutrition Education, Health Surveillance, & Referrals	WIC Program Participant Characteristics Minimum and Supplemental Data sets for FNS (PC Report)	Data file for FNS.	
Nutrition Education, Health Surveillance, & Referrals	Report for Centers for Disease Control and Prevention – PedNSS ⁶⁰	Pediatric Nutrition Surveillance Set data file for CDC.	
Nutrition Education, Health Surveillance, & Referrals	Report for Centers for Disease Control and Prevention – PNSS ⁶¹	Pregnancy Nutrition Surveillance Set data file for CDC.	
Food Management	Approved Foods	Lists and describes all foods authorized for use in the State agency's WIC Program. This will include approved infant formulas.	
Food Management	Approved Food Packages	Lists and describes the food packages for each category of participant.	

⁶⁰ Readers should refer to CDC documentation for ideal features and data elements as preferred by the CDC for PedNSS reporting. Links to the CDC website and reference information can be found in Appendix F: Policy and Data References.

⁶¹ Readers should refer to CDC documentation for ideal features and data elements as preferred by the CDC for PNSS reporting. Links to the CDC website and reference information can be found in Appendix F: Policy and Data References.

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Food Management	Food Category/Subcategory Table	List of all food categories and subcategories.	
Food Management	Food Price List	Lists foods at the Category/Subcategory level and their maximum prices allowed by peer group.	✓
Food Management	Estimated Food Redemption Values	Provides data at the Category/Subcategory level on the estimated value for each food type by peer group.	✓
Food Management	List of State Approved Food Instrument Types	Lists all food instrument types.	
Food Management	Estimated Food Instrument and Maximum Values	Provides data on the estimated value for each food instrument type and the maximum value for that food instrument by peer group.	
Food Management	Estimated Redemption Value for Food Instruments Issued	Lists by month of issue, all food instruments issued and their estimated redemption value by peer group. The system should array the data by local agency and total for the State agency.	
Food Management	UPC Database for WIC Authorized Foods	Lists and describes all foods with their UPCs that are authorized for issuance according to the standard category/subcategories. The system should provide a hard copy and electronic file.	✓
Food Management	Food Item List with Maximum Allowed Amounts	Lists all approved foods maintained in the UPC database and their maximum prices allowed by peer group.	✓
Food Benefit Issuance	Participants to Date by Local Agency	Lists all participants issued food benefits for the month to date.	
Food Benefit Issuance	Lost And Stolen Food Instruments By Local Agency	Provides a list of food instruments that have been reported as lost or stolen.	
Food Benefit Issuance	Food Instruments Issued (Monthly)	A list of food instruments issued during a month period for use in reconciliation.	
Food Benefit Issuance	Electronic Benefits Issued (Monthly)	A list of benefits via EBT issued during a month period for use in reconciliation.	✓
Food Benefit Payment, Settlement & Reconciliation	Rebate Report	Lists all redeemed foods that are eligible for a rebate (e.g., infant formula or infant cereal).	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Food Benefit Payment, Settlement & Reconciliation	Infant Formula Purchases	Totals the amount and value of all redeemed infant formula food instruments by type and form.	
Food Benefit Payment, Settlement & Reconciliation	Food Instrument Reconciliation Report	Lists the disposition of all food instruments issued and final redeemed value or designation as void – unissued, void-expired, or void-unclaimed.	
Food Benefit Payment, Settlement & Reconciliation	Food Instrument Rejection Reports by Vendor	Provides a listing of specific food instruments that the system has rejected for payment and the reason for each rejection. The report would include all rejections for both pre-payment and/or post-payment screens.	
Food Benefit Payment, Settlement & Reconciliation	Redeemed But Not Issued	Lists all food instruments without an issuance record by local agency for use in locating a certification record for investigation.	
Food Benefit Payment, Settlement & Reconciliation	Redemption Value by Issue Month	Provides the actual redemption value by month of issuance for all food instruments.	
Food Benefit Payment, Settlement & Reconciliation	Summary Food Instrument Redemptions by Vendor	Provides the value of food instrument redemption broken out by vendor.	
Food Benefit Payment, Settlement & Reconciliation	Redemption Value by Issue Month	Provides the outstanding estimated redemption values and actual redemption value by month of issuance for all household food benefits.	
Food Benefit Payment, Settlement & Reconciliation	EBT Reconciliation Report	Lists the issued food benefits (by food category/subcategory) versus the redeemed food benefits (by food category/subcategory) by month.	✓
Food Benefit Payment, Settlement & Reconciliation	Monthly Food Obligations and Redemption Report	Lists monthly food obligations (by food category/subcategory) versus monthly food redemptions (by food category/subcategory) by local agency.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Financial Management, Certification	WIC Program State Agency Participation and Expenditure Report (FNS-798)	Provides monthly participation data, sorted by category and expenditure data, sorted by food and administration. This report reflects monthly food and NSA funds and costs, as well as the status of food and NSA grants as State agencies exercise spending options. The closeout FNS-798 records the final status of the State agency's WIC grant and costs for the report year.	
Financial Management	Addendum to WIC Financial Management and Participation Report (FNS-798A)	Provides a breakout of total fiscal year NSA expenditures by category— Nutrition Education, Breastfeeding, Client Services and Program Administration.	
Financial Management	WIC Local Agency Directory Report (FNS-648)	Provides the name and address of each local agency funded by the State agency or Indian Tribal Organization.	
Financial Management	Breast Pump Budget and Expenditures	Provides data on each local agency's breast pump expenditures and compare expenditures to their budget.	
Financial Management	Cash Flow	Shows cash inflows and outflows on a daily basis.	
Financial Management	Local Agency NSA Expenditures	Provides data on each local agency's expenditures and compare expenditures to their budget.	
Financial Management	NSA Budget by Local Agency	Provides the local level NSA budgets by function and line item.	
Financial Management	Rebate Status	Provides data on rebate estimates, rebates billed and rebates collected. Rebate billing invoices should include: month/date that the food instrument was issued to the participant, date the food instrument was transacted by the participant, redeemed dollar amount, number of cans listed on the food instrument, WIC food instrument number, and the infant formula type/form.	
Financial Management	State Agency NSA Budget	Provides the State level NSA budget by function and line item.	
Financial Management	Summary of Food Expenditures	Provides data on total obligations and outlays for the year to date.	
Financial Management	Summary of Funds Receipts	Provides data on the receipt and use of program income, vendor and participant collections, and any other funds that increase the grant or reduce expenditures.	
Financial Management	Summary of Grants	Provides data on the Federal (and State if applicable) grants received for the year to date as well as spendforward or backspend funds applied to the grant.	
Caseload Management	Caseload by Local Agency	Shows caseload by local agency.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Caseload Management	Local Agency Caseload Utilization	Shows caseload, participation, and percent of caseload reached. This report could include a graphical component.	
Caseload Management	Local Agency Participation Profile	Shows each local agency's participation characteristics.	
Caseload Management	Monthly State Caseload Target	Shows the caseload target and the assumptions used to arrive at the caseload level.	
Caseload Management	No-Show Report	Shows rates and performance statistics by local agency or clinic for missed appointments.	
Caseload Management	Potential Eligibles Data	Displays the potential eligibles for the State agency and by local agency.	
Operations Management	Clinic/Patient Flow Report	Provides a summary of factors studied in clinic or patient flow analysis.	
Operations Management	Complaints About Participants Report	List of participants for which complaints are filed and nature of complaint.	
Operations Management	Customer Service Calls and Outcomes Report	Provides a log of type of calls received and their disposition. Customer Service reports generated by an ARU can provide the number of calls handled by type (i.e., by provider, Participant, and vendor), average time to handle call, reason for call, number of automated versus operator assisted calls, and time to answer calls.	
Operations Management	Dual Enrollment/Dual Participation Report	Lists matches of demographic information (i.e. name, address, sex, start/end dates of certification) that could potentially show dual enrollment or dual participation.	
Operations Management	Inventory Status Report-Non-Serialized Item Stock	Provides the status of non-serialized items in storage and shipped to local agencies.	
Operations Management	Inventory Status Report- Serialized Item Stock	Provides status of serialized items in storage and shipped to local agencies.	
Operations Management	Local Agency Food Instrument Inventory Status	Provides data on the food instrument serial numbers assigned to each local agency. It would also identify the status of each food instrument as unissued, redeemed, or void.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Operations Management	Local Agency Card Inventory Status	Provides data on the card serial numbers assigned to each local agency. It would also identify the status of each card as unissued or void.	
Operations Management	Local Agency/Clinic Participant To Staff/Facility Statistics Report	Provides an analysis of ratio of local agency/clinic participant to staff type and square foot of space to enable State and local agencies to monitor and assess the workload of the Local Agency.	
Operations Management	Local Agency/Clinic Profile Data Report	Provides a snapshot of local agency or clinic operations for review by State agency or preparation for site visitation. Profile will include information that reflects the size, capacity, productivity, and operating costs of the local agency or clinic.	
Operations Management	NSA Cost Per Participant By Local Agency/Clinic Report	Provides a summary comparison of the NSA cost per participant among local agencies.	
Operations Management	Outreach Organizations Report	Enables local agencies to review outreach organization information and provide mailing labels in order to increase participation levels when additional caseload is assigned by the State agency.	
Operations Management	Participant Hearing Status Report	Provides a summary of participant hearings status.	
Operations Management	Participants Shopping Outside Their Neighborhoods Report	Lists participants that are shopping at vendors outside the normal geographic boundary of their addresses.	
Operations Management	Participant Violations, Sanctions, and Claims Report	Provides reports on participant violations, sanction imposed and any claims collected.	
Operations Management	Potential Clinic Abuse Indicators Report	Provides data on patterns that may indicate clinic abuse.	
Operations Management	Potential Participant Dual Participation Matches Report	Lists participants that may be participating in another local agency within the State or in other State agencies or CSFP.	
Vendor Management	Compliance Summary Report	Lists the vendors scheduled for compliance buys with data on the vendor's name, address, history of past violations, high risk indicators, past routine monitoring visits and date planned investigation and assigned investigator.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Vendor Management	List of Authorized Vendors By Identification Number	Lists all vendors authorized by the program with key information (e.g. name, address, type, date authorized, etc.).	
Vendor Management	List of Authorized Vendors By Peer Group	Lists all vendors authorized by the program with key information (e.g. name, address, type, date authorized, etc.) grouped by peer group.	
Vendor Management	List of WIC A50 Vendors	List of all vendors will WIC sales equal to or in excess of 50 percent of their food sales.	
Vendor Management	Average Food Instrument Redemption Values Excluding WIC A50 Vendors	Provides data on the average redemption value of food instruments for all authorized vendors excluding WIC A50 vendors.	
Vendor Management	Average Food Instrument Redemption Values WIC A50 Vendors Only	Provides data on the average redemption value of food instruments for all authorized WIC A50 vendors.	
Vendor Management	Average Food Instrument Redemption Values Comparison of WIC A50 Vendors to the All Vendor Average Excluding the WIC A50 Vendors	Provides data on the average redemption value of food instruments for all authorized vendors excluding WIC A50 vendors compared to all authorized WIC A50 vendors.	
Vendor Management	Average Food Item Redemption Values Excluding WIC A50 Vendors	Provides data on the average redemption value of UPCs for all authorized vendors excluding WIC A50 vendors.	✓
Vendor Management	Average Food Item Redemption Values WIC A50 Vendors Only	Provides data on the average redemption value of UPCs for all authorized WIC A50 vendors.	✓
Vendor Management	Average Food Item Redemption Values Comparison of WIC A50 Vendors to the All Vendor Average Excluding the WIC A50 Vendors	Provides data on the average redemption value of food items for all authorized vendors excluding WIC A50 vendors compared to all authorized WIC A50 vendors.	
Vendor Management	Listing of WIC/Food Stamp Program Dual Disqualification Report	Lists all vendors that FSP has disqualified and sent to WIC and the action taken by WIC. It would also list the vendors WIC disqualified and sent to FSP.	
Vendor Management	High Risk Vendors and Their Risk Scores Report	Lists all vendors designated as high risk, the reason for high risk identification, their respective risk scores and the factors that support the risk scores. The report should array the vendors by location to facilitate the scheduling of compliance investigations.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Vendor Management	Routine Monitoring Schedule Report	Lists the vendors scheduled for monitoring visits with data on the vendor's name, address, history of past violations, high risk indicators, past routine monitoring visits and date planned for the visit.	
Vendor Management	Summary of CMPs Due and Paid to Date	Tracks all vendors that were issued CMPs, the date of the CMP, the reason for the CMP in lieu of another sanction, and the amount collected from the vendor.	
Vendor Management	The Integrity Profile (TIP) Report	Provides required data for annual TIP report. FNS requires that all State agencies submit an annual TIP report, which provides vendor characteristics, training, compliance activities, and sanctions.	
Vendor Management	Vendor Applications Report	Lists all vendors that have applied for and are under consideration for WIC authorization. This report would display the basic vendor characteristics provided on the vendor application.	
Vendor Management, Scheduling	Vendor Attendance at Training Sessions	Provides a listing of vendor training activities and the vendors that attended as well as those that did not and need to reschedule training.	
Vendor Management	Vendor Authorizations Actions Scheduled and Completed	Outlines the steps needed to complete vendor authorization and whether each step has been completed for each applicant vendor.	
Vendor Management	Vendor Complaint Log	Logs all complaints received about vendors, date received, complainant information and action taken.	
Vendor Management	Vendor Compliance History	Consolidates all education, monitoring, and compliance activities for each vendor.	
Vendor Management	Vendor Sales Analysis Report	Summarizes the data from a record audit. It would list the foods audited, the vendor food purchase invoices for those foods, and the total WIC redemptions for those foods.	
Vendor Management	Vendor Sanction and Appeal Summary Report	Lists all vendors that the State agency has sanctioned and the vendor has appealed. It would have the date of appeal, status of appeal, hearing date, and outcome of the hearing.	
Vendor Management	Vendor Sanction Summary Report	Lists all vendors with sanctions and describe the violation, the sanction imposed (warning, disqualification, CMP) and date the vendor was advised of the sanction.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Vendor Management	Vendor Selection Assessment	Lists all applicant vendors and the selection factors used to determine authorization, including shelf/bid prices of supplemental foods.	
Vendor Management, Scheduling	Vendor Training Schedule	Provides a calendar of upcoming vendor training activities and the vendors scheduled to attend.	
Vendor Management	Vendors By Peer Groups	Lists all vendors according to their peer group assignment.	
Scheduling	Appointment Listing by Date Report	Lists appointments scheduled for a certain date for use by local staff in managing resources.	
Scheduling	Appointments Kept vs. Missed Summary Report	Tracks incidences of missed appointments.	
Scheduling	Appointment Schedule	Although appointment scheduling is anticipated to be performed online, there may be some instances in which a report of available appointments would be helpful. This report is used to display the appointment schedule for a particular day to aid WIC staff in confirming the availability of a requested appointment slot. Could be provided by appointment type or other parameters.	
Scheduling	Clinic Calendar Report	Provides a report or the clinic calendar, showing appointments, availability, and staff commitment.	
Scheduling	Individual/Family Appointment Schedule	Provides a listing of appointments by person (applicant/participant) or family. This report can be used to aid WIC staff in confirming the person's appointment schedule. By printing out the participant's appointment schedule, the WIC staff can give the participant a hard copy to take home as a reminder.	
Scheduling	Missed Appointments- Pregnant	Reports pregnant women who miss their first certification appointment. Should include contact information so that staff can try to reschedule/make contact.	
Scheduling	Missed Appointment Report	Lists the participants who missed an appointment and can be used for follow-up. Can be individual or aggregate.	
Scheduling	Nutrition Education Class Attendance Report	Reports attendance at specific nutrition education class.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
Scheduling	Nutrition Education Class Report	Reports information about a specific class, related to certification period and as a percent of caseload, by group or individual contacts. Provides detail and summary information.	
Scheduling	Upcoming Appointments Report	Lists upcoming clinic appointments for use by WIC staff in order to schedule resources appropriately.	
Scheduling	Upcoming High Risk Appointments Report	Lists upcoming high risk appointments for the use of WIC staff in order to schedule resources appropriately.	
System Administration	Authorized User Report	Provides a list of all authorized users at a specified site to assist the system administrator.	
System Administration	Code Table Change Report	Allows users to identify when changes have been made to the content of data tables and who has made these changes.	
System Administration	Code Table Report	Allows users to verify the current content of data tables to be used in preparing inputs to the system and in reading output reports. The Code Table Report is generally requested by the System Administrator as needed to verify code table updates.	
System Administration	Communications Exception Report	Provides detailed information about transactions that were not completed satisfactorily. It can identify sources of transmission errors or patterns of transmission problems.	
System Administration	Modified Data Element Report	Provides detailed audit information about changes to the system data. It can be used to report information to identify any fraudulent patterns of system usage by entering a particular location, period of time, or user to show types of changes made.	
System Administration	New User ID Report	Confirms the establishment of new users in the system and provides the new ID and temporary password to that user.	
System Administration	System Access Log Listing Report	Lists who has logged into the system during a specified period.	
System Administration	System Back-up/Restoration Report	Provides detailed information about files that were backed-up or restored at a local clinic.	

Exhibit 3-13: Standard Reports (By Functional Area)

<i>Functional Area</i>	<i>Report Name</i>	<i>Description</i>	<i>EBT</i>
System Administration	Transaction Processing Report	Provides detailed information about batch transmissions sent to the host. It shows the last upload by terminal, number of transactions in a batch, and counts of transactions by type. This would be applicable if there is a disconnected component to the online system.	
System Administration	Unauthorized Access Report	Provides detailed information about attempts to gain access to the system (invalid entry of PIN/password) or to specific functions for which a user is not authorized. It is used by State or local agencies to verify a specific user's unauthorized access and help detects user fraud.	
System Administration	User Profile Report	Provides a listing of the functional capabilities for a user in the system. It is used on demand by State and local agencies to verify user privileges.	

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Addendum to WIC Financial Management and Participation Report (FNS-798A)	Financial Management	Provides a breakout of total fiscal year NSA expenditures by category—Nutrition Education, Breastfeeding, Client Services and Program Administration.
Aggregate Health and Social Service Program Referrals Report	Nutrition Education, Health Surveillance, & Referrals	Displays frequency of referrals made and outcomes and referrals from other programs.
Appointment Listing by Date Report	Scheduling	Lists appointments scheduled for a certain date for use by local staff in managing resources.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Appointment Schedule	Scheduling	Although appointment scheduling is anticipated to be performed online, there may be some instances in which a report of available appointments would be helpful. This report is used to display the appointment schedule for a particular day to aid WIC staff in confirming the availability of a requested appointment slot. Could be provided by appointment type or other parameters.
Appointments Kept vs. Missed Summary Report	Scheduling	Tracks incidences of missed appointments.
Approved Food Packages	Food Management	Lists and describes the food packages for each category of participant.
Approved Foods	Food Management	Lists and describes all foods authorized for use in the State agency's WIC Program. This will include approved infant formulas.
Authorized User Report	System Administration	Provides a list of all authorized users at a specified site to assist the system administrator.
Average Food Instrument Redemption Values Comparison of WIC A50 Vendors to the All Vendor Average Excluding the WIC A50 Vendors	Vendor Management	Provides data on the average redemption value of food instruments for all authorized vendors excluding WIC A50 vendors compared to all authorized WIC A50 vendors.
Average Food Instrument Redemption Values WIC A50 Vendors Only	Vendor Management	Provides data on the average redemption value of food instruments for all authorized WIC A50 vendors.
Average Food Instrument Redemption Values Excluding WIC A50 Vendors	Vendor Management	Provides data on the average redemption value of food instruments for all authorized vendors excluding WIC A50 vendors.
Average Food Item Redemption Values Comparison of WIC A50 Vendors to the All Vendor Average Excluding the WIC A50 Vendors	Vendor Management	Provides data on the average redemption value of food items for all authorized vendors excluding WIC A50 vendors compared to all authorized WIC A50 vendors.
Average Food Item Redemption Values Excluding WIC A50 Vendors	Vendor Management	Provides data on the average redemption value of UPCs for all authorized vendors excluding WIC A50 vendors.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Average Food Item Redemption Values WIC A50 Vendors Only	Vendor Management	Provides data on the average redemption value of UPCs for all authorized WIC A50 vendors.
Bloodwork Needed	Certification	Lists individuals who need a follow-up appointment for a blood test.
Breast Pump Budget and Expenditures	Financial Management	Provides data on each local agency's breast pump expenditures and compare expenditures to their budget.
Caseload by Local Agency	Caseload Management	Shows caseload by local agency.
Cash Flow	Financial Management	Shows cash inflows and outflows on a daily basis.
Clinic Calendar Report	Scheduling	Provides a report of the clinic calendar, showing appointments, availability, and staff commitment.
Clinic/Patient Flow Report	Operations Management	Provides a summary of factors studied in clinic or patient flow analysis.
Code Table Change Report	System Administration	Allows users to identify when changes have been made to the content of data tables and who has made these changes.
Code Table Report	System Administration	Allows users to verify the current content of data tables to be used in preparing inputs to the system and in reading output reports. The Code Table Report is generally requested by the System Administrator as needed to verify code table updates.
Communications Exception Report	System Administration	Provides detailed information about transactions that were not completed satisfactorily. It can identify sources of transmission errors or patterns of transmission problems.
Complaints About Participants Report	Operations Management	List of participants for which complaints are filed and nature of complaint.
Compliance Summary Report	Vendor Management	Lists the vendors scheduled for compliance buys with data on the vendor's name, address, history of past violations, high risk indicators, past routine monitoring visits and date planned investigation and assigned investigator.
Customer Service Calls and Outcomes Report	Operations Management	Provides a log of type of calls received and their disposition. Customer Service reports generated by an ARU can provide the number of calls handled by type (i.e., by provider, Participant, and vendor), average time to handle call, reason for call, number of automated versus operator assisted calls, and time to answer calls.
Disqualified Participants Report	Certification	Provides information needed to prevent re-enrollment and for sharing with other WIC agencies during sanction period.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Dual Enrollment/Dual Participation Report	Operations Management	Lists matches of demographic information (i.e. name, address, sex, start/end dates of certification) that could potentially show dual enrollment or dual participation.
EBT Reconciliation Report	Food Benefit Payment, Settlement & Reconciliation	Lists the issued food benefits (by food category/subcategory) versus the redeemed food benefits (by food category/subcategory) by month.
Electronic Benefits Issued (Monthly)	Food Benefit Issuance	A list of benefits via EBT issued during a month period for use in reconciliation.
Estimated Food Instrument and Maximum Values	Food Management	Provides data on the estimated value for each food instrument type and the maximum value for that food instrument by peer group.
Estimated Food Redemption Values	Food Management	Provides data at the Category/Subcategory level on the estimated value for each food type by peer group.
Estimated Redemption Value for Food Instruments Issued	Food Management	Lists by month of issue, all food instruments issued and their estimated redemption value by peer group. The system should array the data by local agency and total for the State agency.
Food Category/Subcategory Table	Food Management	List of all food categories and subcategories.
Food Instrument Reconciliation Report	Food Benefit Payment, Settlement & Reconciliation	Lists the disposition of all food instruments issued and final redeemed value or designation as void – unissued, void-expired, or void-unclaimed.
Food Instrument Rejection Reports by Vendor	Food Benefit Payment, Settlement & Reconciliation	Provides a listing of specific food instruments that the system has rejected for payment and the reason for each rejection. The report would include all rejections for both pre-payment and/or post-payment screens.
Food Instruments Issued (Monthly)	Food Benefit Issuance	A list of food instruments issued during a month period for use in reconciliation.
Food Item List with Maximum Allowed Amounts	Food Management	Lists all approved foods maintained in the UPC database and their maximum prices allowed by peer group.
Food Price List	Food Management	Lists foods at the Category/Subcategory level and their maximum prices allowed by peer group.
High Risk Participants Report	Nutrition Education, Health Surveillance, & Referrals	Lists high risk participants and should include high risk indicators to aid in follow up.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
High Risk Vendors and Their Risk Scores Report	Vendor Management	Lists all vendors designated as high risk, the reason for high risk identification, their respective risk scores and the factors that support the risk scores. The report should array the vendors by location to facilitate the scheduling of compliance investigations.
How Participant Heard About WIC Local Agency and State Summary Reports	Certification	Lists how participants found out about the WIC Program. The report is to be used by agency staff to evaluate outreach efforts.
Individual/Family Appointment Schedule	Scheduling	Provides a listing of appointments by person (applicant/participant) or family. This report can be used to aid WIC staff in confirming the person's appointment schedule. By printing out the participant's appointment schedule, the WIC staff can give the participant a hard copy to take home as a reminder.
Ineligibility Summary Reports for Local Agency and State	Certification	Report s applicants deemed ineligible.
Infant Formula Purchases	Food Benefit Payment, Settlement & Reconciliation	Totals the amount and value of all redeemed infant formula food instruments by type and form.
Inventory Status Report- Serialized Item Stock	Operations Management	Provides status of serialized items in storage and shipped to local agencies.
Inventory Status Report-Non-Serialized Item Stock	Operations Management	Provides the status of non-serialized items in storage and shipped to local agencies.
List of Authorized Vendors By Identification Number	Vendor Management	Lists all vendors authorized by the program with key information (e.g. name, address, type, date authorized, etc.).
List of Authorized Vendors By Peer Group	Vendor Management	Lists all vendors authorized by the program with key information (e.g. name, address, type, date authorized, etc.) grouped by peer group.
List of State Approved Food Instrument Types	Food Management	Lists all food instrument types.
List of WIC A50 Vendors	Vendor Management	List of all vendors will WIC sales equal to or in excess of 50 percent of their food sales.
Listing of WIC/Food Stamp Program Dual Disqualification Report	Vendor Management	Lists all vendors that FSP has disqualified and sent to WIC and the action taken by WIC. It would also list the vendors WIC disqualified and sent to FSP.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Local Agency Card Inventory Status	Operations Management	Provides data on the card serial numbers assigned to each local agency. It would also identify the status of each card as unissued or void.
Local Agency Caseload Utilization	Caseload Management	Shows caseload, participation, and percent of caseload reached. This report could include a graphical component.
Local Agency Food Instrument Inventory Status	Operations Management	Provides data on the food instrument serial numbers assigned to each local agency. It would also identify the status of each food instrument as unissued, redeemed, or void.
Local Agency NSA Expenditures	Financial Management	Provides data on each local agency's expenditures and compare expenditures to their budget.
Local Agency Participation Profile	Caseload Management	Shows each local agency's participation characteristics.
Local Agency/Clinic Participant To Staff/Facility Statistics Report	Operations Management	Provides an analysis of ratio of local agency/clinic participant to staff type and square foot of space to enable State and local agencies to monitor and assess the workload of the Local Agency.
Local Agency/Clinic Profile Data Report	Operations Management	Provides a snapshot of local agency or clinic operations for review by State agency or preparation for site visitation. Profile will include information that reflects the size, capacity, productivity, and operating costs of the local agency or clinic.
Lost And Stolen Food Instruments By Local Agency	Food Benefit Issuance	Provides a list of food instruments that have been reported as lost or stolen.
Migrant Participation Report	Certification	Provides the average annual migrant participation (from July to June) for use on the FNS-798 form submitted in July.
Missed Appointment Report	Scheduling	Lists the participants who missed an appointment and can be used for follow-up. Can be individual or aggregate.
Missed Appointments- Pregnant	Scheduling	Reports pregnant women who miss their first certification appointment. Should include contact information so that staff can try to reschedule/make contact.
Modified Data Element Report	System Administration	Provides detailed audit information about changes to the system data. It can be used to report information to identify any fraudulent patterns of system usage by entering a particular location, period of time, or user to show types of changes made.
Monthly Food Obligations and Redemption Report	Food Benefit Payment, Settlement & Reconciliation	Lists monthly food obligations (by food category/subcategory) versus monthly food redemptions (by food category/subcategory) by local agency.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Monthly State Caseload Target	Caseload Management	Shows the caseload target and the assumptions used to arrive at the caseload level.
New User ID Report	System Administration	Confirms the establishment of new users in the system and provides the new ID and temporary password to that user.
No-Show Report	Caseload Management	Shows rates and performance statistics by local agency or clinic for missed appointments.
NSA Budget by Local Agency	Financial Management	Provides the local level NSA budgets by function and line item.
NSA Cost Per Participant By Local Agency/Clinic Report	Operations Management	Provides a summary comparison of the NSA cost per participant among local agencies.
Nutrition Education Class Attendance Report	Scheduling	Reports attendance at specific nutrition education class.
Nutrition Education Class Report	Scheduling	Reports information about a specific class, related to certification period and as a percent of caseload, by group or individual contacts. Provides detail and summary information.
Nutrition Risk Assessment Needed	Certification	Lists individuals who need an appointment for nutrition risk assessment.
Outreach Organizations Report	Operations Management	Enables local agencies to review outreach organization information and provide mailing labels in order to increase participation levels when additional caseload is assigned by the State agency.
Outstanding Delayed Blood Work Report	Certification	Lists outstanding blood tests for reference by local staff. Staff members can then schedule the required bloodwork or remind the participant to bring in referral data by the specific due date.
Participant Care Plan	Nutrition Education, Health Surveillance, & Referrals	This report is a plan that maintains the progress toward attaining nutrition and health goals over time. It tracks various aspects of a participant's case history including nutrition education provided and referrals to other programs.
Participant Hearing Status Report	Operations Management	Provides a summary of participant hearings status.
Participant Local WIC Agency and State Summary Reports	Certification	Various participant summary reports at State and local levels.
Participant Percentile Change Report	Nutrition Education, Health Surveillance, & Referrals	Displays participant growth over time in tabular format.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Participant Referral Report	Nutrition Education, Health Surveillance, & Referrals	Lists participants referred and agency or program to which they were referred.
Participant Services Summary Report	Certification	Summarizes WIC services provided to a participant.
Participant Source of Health Care Report	Certification	Reports the providers where the participant receives health/prenatal care.
Participant Summary Document	Certification	Summarizes case information for a participant for reference by local staff.
Participant Violations, Sanctions, and Claims Report	Operations Management	Provides reports on participant violations, sanction imposed and any claims collected.
Participants by County and Municipality Local Agency and State Summary Reports	Certification	Lists participants by geographical grouping as specified (i.e. county, state, etc).
Participants Shopping Outside Their Neighborhoods Report	Operations Management	Lists participants that are shopping at vendors outside the normal geographic boundary of their addresses.
Participants to Date by Local Agency	Food Benefit Issuance	Lists all participants issued food benefits for the month to date.
Pending Applications	Certification	Reports the applications that are not yet completed, certified, or determined ineligible.
Potential Clinic Abuse Indicators Report	Operations Management	Provides data on patterns that may indicate clinic abuse.
Potential Eligibles Data	Caseload Management	Displays the potential eligibles for the State agency and by local agency.
Potential Participant Dual Participation Matches Report	Operations Management	Lists participants that may be participating in another local agency within the State or in other State agencies or CSFP.
Rebate Report	Food Benefit Payment, Settlement & Reconciliation	Lists all redeemed foods that are eligible for a rebate (e.g., infant formula or infant cereal).

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Rebate Status	Financial Management	Provides data on rebate estimates, rebates billed and rebates collected. Rebate billing invoices should include: month/date that the food instrument was issued to the participant, date the food instrument was transacted by the participant, redeemed dollar amount, number of cans listed on the food instrument, WIC food instrument number, and the infant formula type/form.
Redeemed But Not Issued	Food Benefit Payment, Settlement & Reconciliation	Lists all food instruments without an issuance record by local agency for use in locating a certification record for investigation.
Redemption Value by Issue Month	Food Benefit Payment, Settlement & Reconciliation	Provides the actual redemption value by month of issuance for all food instruments.
Redemption Value by Issue Month	Food Benefit Payment, Settlement & Reconciliation	Provides the outstanding estimated redemption values and actual redemption value by month of issuance for all household food benefits.
Referrals from WIC to External Agencies Summary Report	Certification	Lists all referrals from a WIC agency to any external agency.
Referrals from WIC to Outside Agencies Local Agency and State Reports	Certification	Lists referrals of WIC participants to specific outside agencies.
Referrals to/from WIC By Program/Agency Report	Nutrition Education, Health Surveillance, & Referrals	Supports the analysis of referral program effectiveness by identifying those external health and social service agencies that refer Participants to WIC or receive referrals from WIC.
Report for Centers for Disease Control and Prevention – PedNSS ⁶²	Nutrition Education, Health Surveillance, & Referrals	Pediatric Nutrition Surveillance Set data file for CDC.

⁶² Readers should refer to CDC documentation for ideal features and data elements as preferred by the CDC for PedNSS reporting. Links to the CDC website and reference information can be found in Appendix F: Policy and Data References.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Report for Centers for Disease Control and Prevention – PNSS ⁶³	Nutrition Education, Health Surveillance, & Referrals	Pregnancy Nutrition Surveillance Set data file for CDC.
Routine Monitoring Schedule Report	Vendor Management	Lists the vendors scheduled for monitoring visits with data on the vendor's name, address, history of past violations, high risk indicators, past routine monitoring visits and date planned for the visit.
Special Formula/Medical Foods Received	Certification	Lists participants who are receiving special formula/medical foods and the reason.
State Agency NSA Budget	Financial Management	Provides the State level NSA budget by function and line item.
Subsequent Certifications Due Summary Report	Certification	Reports participants in need of next certification visit.
Summary Food Instrument Redemptions by Vendor	Food Benefit Payment, Settlement & Reconciliation	Provides the value of food instrument redemption broken out by vendor.
Summary of CMPs Due and Paid to Date	Vendor Management	Tracks all vendors that were issued CMPs, the date of the CMP, the reason for the CMP in lieu of another sanction, and the amount collected from the vendor.
Summary of Food Expenditures	Financial Management	Provides data on total obligations and outlays for the year to date.
Summary of Funds Receipts	Financial Management	Provides data on the receipt and use of program income, vendor and participant collections, and any other funds that increase the grant or reduce expenditures.
Summary of Grants	Financial Management	Provides data on the Federal (and State if applicable) grants received for the year to date as well as spendforward or backspend funds applied to the grant.
System Access Log Listing Report	System Administration	Lists who has logged into the system during a specified period.
System Back-up/Restoration Report	System Administration	Provides detailed information about files that were backed-up or restored at a local clinic.
Termination Report	Certification	Reports all participants terminated from the program or found ineligible.

⁶³ Readers should refer to CDC documentation for ideal features and data elements as preferred by the CDC for PNSS reporting. Links to the CDC website and reference information can be found in Appendix F: Policy and Data References.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
The Integrity Profile (TIP) Report	Vendor Management	Provides required data for annual TIP report. FNS requires that all State agencies submit an annual TIP report, which provides vendor characteristics, training, compliance activities, and sanctions.
Transaction Processing Report	System Administration	Provides detailed information about batch transmissions sent to the host. It shows the last upload by terminal, number of transactions in a batch, and counts of transactions by type. This would be applicable if there is a disconnected component to the online system.
Unauthorized Access Report	System Administration	Provides detailed information about attempts to gain access to the system (invalid entry of PIN/password) or to specific functions for which a user is not authorized. It is used by State or local agencies to verify a specific user's unauthorized access and help detects user fraud.
UPC Database for WIC Authorized Foods	Food Management	Lists and describes all foods with their UPCs that are authorized for issuance according to the standard category/subcategories. The system should provide a hard copy and electronic file.
Upcoming Appointments Report	Scheduling	Lists upcoming clinic appointments for use by WIC staff in order to schedule resources appropriately.
Upcoming High Risk Appointments Report	Scheduling	Lists upcoming high risk appointments for the use of WIC staff in order to schedule resources appropriately.
User Profile Report	System Administration	Provides a listing of the functional capabilities for a user in the system. It is used on demand by State and local agencies to verify user privileges.
Vendor Applications Report	Vendor Management	Lists all vendors that have applied for and are under consideration for WIC authorization. This report would display the basic vendor characteristics provided on the vendor application.
Vendor Attendance at Training Sessions	Vendor Management, Scheduling	Provides a listing of vendor training activities and the vendors that attended as well as those that did not and need to reschedule training.
Vendor Authorizations Actions Scheduled and Completed	Vendor Management	Outlines the steps needed to complete vendor authorization and whether each step has been completed for each applicant vendor.
Vendor Complaint Log	Vendor Management	Logs all complaints received about vendors, date received, complainant information and action taken.
Vendor Compliance History	Vendor Management	Consolidates all education, monitoring, and compliance activities for each vendor.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
Vendor Sales Analysis Report	Vendor Management	Summarizes the data from a record audit. It would list the foods audited, the vendor food purchase invoices for those foods, and the total WIC redemptions for those foods.
Vendor Sanction and Appeal Summary Report	Vendor Management	Lists all vendors that the State agency has sanctioned and the vendor has appealed. It would have the date of appeal, status of appeal, hearing date, and outcome of the hearing.
Vendor Sanction Summary Report	Vendor Management	Lists all vendors with sanctions and describe the violation, the sanction imposed (warning, disqualification, CMP) and date the vendor was advised of the sanction.
Vendor Selection Assessment	Vendor Management	Lists all applicant vendors and the selection factors used to determine authorization, including shelf/bid prices of supplemental foods.
Vendor Training Schedule	Vendor Management, Scheduling	Provides a calendar of upcoming vendor training activities and the vendors scheduled to attend.
Vendors By Peer Groups	Vendor Management	Lists all vendors according to their peer group assignment.
Voter Registration Report	Nutrition Education, Health Surveillance, & Referrals	Reports participants assisted in voter registration.
Waiting List Local Agency Report and State Summary Reports	Certification	Reports the number of applicants on the waiting list and their priorities.
WIC Local Agency Directory Report (FNS-648)	Financial Management	Provides the name and address of each local agency funded by the State agency or Indian Tribal Organization.
WIC Priority Participation Report	Certification	Provides monthly participation by priority level. Categories include pregnant women, breastfeeding women, postpartum women, infants, and children. This information is part of the Minimum Data Set for the PC Report.
WIC Program Participant Characteristics Minimum and Supplemental Data sets for FNS (PC Report)	Nutrition Education, Health Surveillance, & Referrals	Data file for FNS.

Exhibit 3-14: Standard Reports (Alphabetical)

<i>Report Name</i>	<i>Functional Area</i>	<i>Description</i>
WIC Program State Agency Participation and Expenditure Report (FNS-798)	Certification,	Provides monthly participation data, sorted by category and expenditure data, sorted by food and administration. This report also reflects monthly food and NSA funds and costs, as well as the status of food and NSA grants as State agencies exercise spending options. The closeout FNS-798 records the final status of the State agency's WIC grant and costs for the report year.
WIC Program State Agency Participation and Expenditure Report (FNS-798)	Financial Management, Certification	Provides monthly participation data, sorted by category and expenditure data, sorted by food and administration. This report reflects monthly food and NSA funds and costs, as well as the status of food and NSA grants as State agencies exercise spending options. The closeout FNS-798 records the final status of the State agency's WIC grant and costs for the report year.

3.12.2 Conduct Ad Hoc Queries and Generate Reports

3.12.2.1 Conduct Ad Hoc Queries and Generate Reports

Sometimes WIC Program staff members need specific information that does not exist in a usable format in any standard report. The analysis required to generate such information may entail the synthesis of data elements that are not typically associated with each other. Such information gathering often must be customized to the needs of a particular individual or organization at a specific point in time. Such requests generally are needed only once and usually do not recur over time. The most effective approach to meeting these “on demand” reporting requirements is through an ad hoc reporting tool. Therefore, the system should enable the user to perform ad hoc reporting.

An ad hoc reporting capability allows the requestor to enter query parameters, which are then used to select and retrieve only the data that meet the specified criteria. Usually, the user can also enter parameters to control the formatting of the data on the resulting report. Typically, an ad hoc query capability is provided through a commercial software package that is able to work with the existing database product. Most commercial ad hoc reporting tools provide menu driven search queries that enable the requestor to formulate a search strategy by selecting criteria from a pre-defined search screen. Depending on the architecture, technical environment, and characteristics of the system, the ad hoc reporting tool may be used either with the production database of the WIC transaction processing system or with a separate reporting database that presents an extract of the data in the transaction processing system.

The ad hoc reporting tool should provide the capability for the user to enter selection parameters that would be used to retrieve data that meets the entered criteria. The ad hoc tool then should display the results to the screen, generate a hard copy report, or create a data extract file.

Generally, if the tools are to be used by non-technical employees with only minimal training, then menu driven ad hoc query tools are preferable to those tools requiring structured query commands. However, they are more limited in capability to produce more complex reports. Many tools have at least some capability to operate in either mode. Most of these tools are intended to enable relatively inexperienced and non-technical users to quickly produce simple, relational reports. More complex reports require more complex understanding and training, regardless of the tool.

If possible, it is often useful to defer selection of an ad hoc reporting tool until after the new database is constructed and in prototype or pilot use.

The various tool vendors can then provide blind test the product to demonstrate how well and how quickly their tools can produce actual, user-desired reports. In this case, it is absolutely essential that users, and not vendors' personnel, execute these tests.

Inputs:

Inputs vary based on query/report requested

Processes:

- Accept user input of selection parameters and query system
- Display results and generate reports

Outputs:

Requested ad hoc report

3.12.3 Maintain Data Warehouse

3.12.3.1 Maintain Data Warehouse

The most complex level of reporting requires synthesis of data from multiple systems over extended periods of time. The requestor is often attempting sophisticated research to identify trends in data over historical periods. For this type of multifaceted data analysis, a data warehouse may be the most effective tool. A data warehouse is a collection of data in support of management's decision-making process that is subject-oriented, integrated, time-variant, and non-volatile. The data warehouse is focused on a business concept (for example, claims statements) rather than a business process (for example, paying claims), and contains all the relevant information on the concept gathered from multiple processing systems. This information is collected and represented at consistent periods of time, and is not changing rapidly. Thus, a data warehouse generally includes data extracted periodically from multiple legacy systems, combined in a single, separate reporting database.

The fundamental basis of any useful data warehouse is that it retains similar data from many sources, over a long period of time, in a single format that is effective when used in their intended manner. However, a data warehouse can be burdensome and inefficient if misused as a general purpose tool.

Building the data warehouse requires a set of tools for describing the logical and physical design of the data sources and their destinations in the

data warehouse. Operational data must pass through a cleansing and transformation stage before being placed into the data warehouse in order to conform to the definitions laid out during the design stage. End user tools, including desktop productivity products, specialized analysis products, and custom programs are used to gain access to the information in the data warehouse. Ideally, user access is through a directory facility that enables the user to search for appropriate and relevant data to resolve business questions, and provides a layer of security between the users and the back-end systems. The structure of the database for the data warehouse is quite different from the structure for a transaction management system. The data warehouse utilizes Online Analytical Processing (OLAP) technologies that allow the user to construct queries “on-the-fly” that build upon preceding queries and are modified in real time depending on the results of the previous analysis.

Inputs:

Inputs vary based on information requested

Processes:

- Transmit and store appropriate information in the data warehouse
- Accept user input of data selection parameters and query system
- Display results and generate report

Outputs:

Requested information