SECTION 1: INTRODUCTION

1 INTRODUCTION

Information Systems (IS) in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC Program) support a number of program operations and management functions, such as certifying applicants, monitoring food vendors, tracking participation and expenditures, and managing appointments. This Functional Requirements Document (FReD) for a Model WIC Information System provides a comprehensive description of functions that can be automated to support the WIC Program.

1.1 Environment

The WIC Program operates through the coordinated efforts of Federal, State and local organizations. The U.S. Department of Agriculture Food and Nutrition Service (FNS) Supplemental Food Programs Division (SFPD) is responsible for the administration of the WIC Program at the Federal level. There are seven FNS regional offices, which provide oversight, guidance, and technical assistance to individual State agencies within their region. At the State level, the WIC Program is administered by public health departments or Indian Tribal Organizations (ITOs). The WIC Program is operated in all geographic States as well as the District of Columbia, Puerto Rico, Virgin Islands, Guam, American Samoa, Northern Marianas and 34 ITOs. While all State agencies have automated IS capabilities, the level of sophistication varies from State to State. Additionally, the State agencies may contract with private firms for various aspects of the system such as system design, development, operation, and/or maintenance as well as for banking services and EBT processing.

1.2 Background

The FNS contracted with MAXIMUS in 2006 to revise the FReD document that was released in 2002. This document, FReD-2007, updates and consolidates FReD and FReD-E (FReD with EBT functionality), which were originally released in 2002 as two separate documents. It incorporates the policy and regulatory changes that have occurred since the 2002 versions of the FReD and FReD-E were released. It also provides an update of EBT readiness functionality which had been previously documented in both the FNS EBT Readiness Guidance Document and the FReD-E. This version of the FReD also provides a technology neutral solution to EBT.

In the process of updating the FReD, interviews were conducted with FNS subject matter experts regarding policy and regulatory changes affecting the FReD. In order to learn how States are using their systems to implement policy, interviews were conducted with States who recently implemented new systems or are in the process of planning to implement a new system. Those participating in interviews included:

- FNS Subject Matter Experts

- State of Idaho

- State of Iowa

- State of Massachusetts

- State of Michigan

- State of New Mexico

- State of North Carolina

- State of Washington

- State of Wyoming

Based on feedback received through interviews and site visits with key stakeholders, an outline of recommended changes was prepared. In developing these recommendations, the MAXIMUS team considered the benefit of the change on a national level, changes to policy, improvement of document readability, organization, and usability of the document, and the ability to maintain the information as policy and technology change.

1.3 Purpose of this Document

The general concept of a functional requirements document is to describe "what" the system must do without specifying "how" it will be done. The actual system design is what typically addresses the "how" and any other details regarding what software, hardware, or other technical specifications might be required as part of the system. The FReD is not a functional requirements document in the strictest sense because it includes the "what" as well as provides examples of the "how" through the description of potential implementation approaches.

The FReD has been developed to assist State agencies in the process of planning for and implementing or modifying a WIC IS. Using the information provided in the document, State agencies can consider the specific functions and approaches to implementing those functions which will be required for their system. This information can then be

incorporated into the development of the Advance Planning Documents (APDs) and Requests for Proposals (RFPs) and serve as guidance to information technology staff in the development or modification of a WIC IS.

The FReD is also an excellent source of information for State agencies performing business process reengineering (BPR). The document includes a comprehensive listing of functions associated with daily operations performed at the State and local levels along with inputs, outputs, and processes which can be used as the basis of the BPR assessment.

1.4 Changes from the 2002 Version

This updated document includes significant changes from the previous version. The following list summarizes the differences:

- **Addition of a new functional area: Food Management**. The set up of food items and food packages is an important function that was incorporated into the Food Issuance functions. It was identified as an area in the previous version of the FReD that was not adequately addressed. This functional area has been added to describe the functionality needed to perform tasks related to managing WIC foods.

- **Reorganization of existing functions into a new functional area: Reporting**. The previous version included reporting as a function within each functional area. Because the reporting function is system-wide (i.e., reporting functionality does not change based on the function against which the report is run) and some reports cross multiple functions, reporting has been removed from the individual sections and combined into a comprehensive functional area.

- **Addition of an index**. To better help users locate information in the document, an index has been added.

- **Restructuring of appendices**. Several appendices in the previous version contained outdated technical or policy information. Appendices have been adjusted to refer users to resources for dynamic information as necessary.

- **Reformatting of requirements sections**. The requirements sections have been reformatted to more clearly identify the functional requirement and provide examples of possible implementation approaches.

- **Updated Requirements Traceability Matrix (RTM)**. The requirements traceability matrix was reformatted to allow for easier navigation and flexibility.

- **Inclusion of the Food Package Interim Rule**. Where appropriate, the contents of the food package interim rule (dated December 6, 2007) have been addressed in this version of the FReD.

1.5 Required Functions

This document includes many functions that State agencies and FNS alike would consider important for inclusion in an automated system. State agency discretion is needed in determining which functions to include in their system. For some State agencies, cost will be a primary factor in making this determination. FNS recommends that State agencies weigh the cost of a function against the long-term benefit that automation of the function will bring to their Program.

Not all functionality described in this document necessarily needs to be incorporated into a WIC information system. Some functions, for example, may be automated outside the WIC information system, but use data extracted from the WIC IS database for analysis and processing. Additionally, FNS understands that each State agency has its own unique technology and budgetary constraints which may limit the functions or level of functionality that can be implemented.

The previous FReD identified 30 required functions. Many systems have since been modified to include those functions. FNS will continue to use these basic requirements to measure progress in system development nationwide. In addition, new functions have been identified that FNS believes should be incorporated whenever systems are updated or replaced. These functions are described in *Section 3*, identified in the Requirements Traceability Matrix in *Appendix C*, and are listed in their entirety in *Appendix D: WIC IS Base Functionality*. Incorporation of these functions in State systems now will streamline future EBT implementation.

FNS will review APDs to ensure the base functions are included when systems are being planned and developed. If certain required functions cannot be achieved or are already automated in a separate system, State agencies should document in the APD the reason the function will not be automated. During Management Evaluations, the IS will be reviewed to ensure the base functions are accomplished and FNS will track this activity.

1.6 Implementation Approaches

To assist State agencies in identifying options in the implementation of functions, many functions include information on potential implementation approaches – "how" the function could operate in the system. In some cases implementation approaches describe various levels of automation from least to most automated. Many of the implementation approaches included in the FReD are examples of how a State agency has already implemented the function in an information system.

Implementation approaches are not always mutually exclusive; States can incorporate more than one into their system design. FNS recommends that State agencies work toward achieving the highest level of automation, as funds permit. At a minimum, the base functions should be achieved, where possible.

1.7 Document Layout

The FReD is divided into four main sections and eight appendices. The contents of these sections are outlined below.

- Section 1: Introduction – Provides background information and details the document organization.

- Section 2: Program Overview – Describes the existing WIC business process and summarizes the functionality of the model WIC IS.

- Section 3: WIC Information System Functions – Details the twelve major functional areas of a WIC IS.

- Section 4: Data – Describes the data requirements to support the functions.

- Appendix A: Index – This appendix provides an alphabetical listing of terms/topics discussed in the document and references the page number for each.

- Appendix B: Glossary of Acronyms and Terms – This appendix provides descriptions of WIC Program and system technology acronyms and terms.

- Appendix C: Requirements Traceability Matrix (RTM) – The RTM provides a detailed overview of all of the possible functions and activities related to each functional description. The RTM offers a "baseline" from which State agencies can customize their design to meet their system objectives. Further, the functions can

be "mixed and matched" to better reflect the unique operation and preferences of the State agency.

- Appendix D: WIC IS Base Functionality – This appendix lists the functions that all WIC systems must have.

- Appendix E: EBT Readiness Functionality and Concepts for Implementation – This appendix identifies EBT readiness functions and describes a concept for implementing EBT.

- Appendix F: National UPC Database X9.93 Upload/Download Process – This appendix describes the processes for uploading and downloading UPC/PLU data based on the X9.93-2006 specification.

- Appendix G: Comparison of WIC Information Systems – State agencies considering system transfers can use this appendix to compare and contrast various options. This appendix reviews several alternative systems with differing architectures and features for State agencies to consider.

- Appendix H: Policy/Data Reference Information – This appendix provides references to where specific FNS policy or data requirements related to the FReD, but defined in other documents, can be found.

This document will be posted on the FNS web site (www.fns.usda.gov) with periodic updates posted as needed.