

WIC EBT SYSTEM IMPLEMENTATION OF WIC CASH VALUE VOUCHER (CVV)

Business Rules, Technical Considerations and Requirements for Retail
Electronic Cash Register and Point of Sale (ECR/POS) Systems

U.S. Department of Agriculture

Food and Nutrition Service

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BACKGROUND

In early December 2007, the U.S. Department of Agriculture, Food and Nutrition Service (FNS) revised its regulations for the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) to better align WIC food packages with the 2005 Dietary Guidelines for Americans and infant feeding practice guidelines of the American Academy of Pediatrics. These revisions largely reflect recommendations made by the Institute of Medicine (IOM) of the National Academies in its report, *WIC Food Packages: Time for a Change*, and cost containment and administrative modifications determined necessary by FNS to ensure cost neutrality.

The interim final rule, *Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions in the WIC Food Package (72 FR 68966)*, was published in the Federal Register on December 6, 2007, and became effective on February 4, 2008. The interim final rule enables FNS to obtain feedback on the major changes recommended by IOM concurrent with WIC agencies' implementation of those changes.

The interim final rule established the deadline for implementing food package revisions as August 5, 2009. FNS extended the implementation deadline to October 1, 2009 in a subsequent announcement in the Federal Register on March 17, 2008.

The deadline for FNS receipt of comments remained unchanged, February 1, 2010, 120 days after the interim final rule implementation deadline.

USDA will issue the final rule after review and analysis of public comments; however, comments are not expected to materially affect requirements for CVV.

PURPOSE

WIC authorities currently operating WIC EBT systems and those in the process of designing and developing WIC EBT systems, online and offline, require well-defined business rules in order to make modifications to WIC food packages in advance of the October 2009 implementation deadline. In addition, written policy guidance and technical specifications for WIC CVV benefits are needed by retail electronic cash register and point of sale (ECR/POS) systems manufacturers, integrators and technicians since retail ECR/POS systems supporting online and offline WIC EBT must be modified and recertified in advance of individual State implementation timelines.

This report responds to the combined needs of WIC authorities and industry representatives and meets the following FNS objectives:

- Clarify FNS policy related to WIC CVV implementation within a WIC EBT systems environment;
- Identify common WIC CVV Business Rules for online and offline WIC EBT systems, as appropriate;
- Define functional requirements and technical guidance for the retail industry's implementation of WIC CVV in commercial ECR/POS systems, integrated and stand-beside;
- Provide a solution that builds upon the existing WIC EBT infrastructure and ECR/POS system functionality supporting the redemption of prescribed WIC benefits; and
- Identify preferred ECR/POS system features and enhanced WIC CVV functionality to maximize efficiency and benefit utilization at the POS.

DEFINITIONS

Glossary of Terms

Term	Definition
American National Standards Institute (ANSI)	Membership organization responsible for overseeing the creation, promulgation and use of U.S. standards and conformity assessment systems impacting all business sectors and for accrediting programs that assess conformance to standards – including globally-recognized cross-sector programs such as the ISO 9000 (quality) and ISO 14000 (environmental) management systems.
Authorized Product List (APL)	Electronic list (file) identifying food items approved by the WIC Authority for purchase with WIC benefits by food category and subcategory and by a unique product identifier, either a Universal Product Code (UPC) or Price Lookup (PLU) code.
Barcode	A machine-readable representation of information, usually dark parallel lines on a white or light background, that is most often used by Auto ID Data Capture (AIDC) systems for inventory management – item identification, tracking, status reporting, etc.
Retail Electronic Cash Register/Point-of-Sale System (ECR/POS)	In a retail store, an all-inclusive term referring to the in-store cash management system, comprised of hardware, software, cash drawer, scanner, scale, monitor, card acceptor devices, receipt and coupon printers, and other peripherals installed and use in the lane or “point-of-sale” (POS); in-store telecommunications network; and in-lane and backroom store servers/controller(s); and more.
Cash Value Voucher (CVV)	A type of WIC benefits issued to some WIC participants for the purchase of fruits and vegetables. Unlike prescribed WIC benefits, the WIC participant may purchase any fresh fruit and vegetable product not specifically excluded and, at the option of the WIC Authority, canned, dried and/or frozen fruits and vegetables meeting WIC nutritional guidelines.
Check Digit	A digit calculated from the other digits of an Element String, used to check that the data has been correctly composed. A GS1 System utilizes an algorithm for the calculation of a Check Digit to verify accuracy of data. (e.g.: Mod 10, Price Check Digit).
Coupon	A voucher redeemable at the point of sale for a cash value or free item. GS1 standards define coupon bar codes as 12 and 13 digits, or with a supplemental bar code, used only in North America, that can be printed on a coupon to provide additional information (i.e., offer codes, expiration dates, and household identification numbers).

Term	Definition
Element String	The combination of a GS1 Application Identifier and GS1 Application Identifier Data Field, where the GS1 Application Identifier is the field of two or more characters at the beginning of an Element String that uniquely defines its format and meaning and the GS1 Application Identifier Data Field is the data used in a business application defined by one application identifier.
Food and Nutrition Service (FNS)	An agency within the U.S. Department of Agriculture responsible for the administration of the Supplemental Nutrition Program for Women, Infants and Children (WIC)
Global Trade Item Number (GTIN)	The GS1 Identification Key used to identify trade items. The GTIN is comprised of a GS1 or UPC Company Prefix followed by an Item Reference Number and a Check Digit.
GS1	A global standards organization. In the United States, the GS1-US, formerly the Uniform Code Council, Inc. (UCC), is the organization responsible for the development of the GS1 System, a series of standards designed to improve supply chain management. The GS1 System is composed of four key product areas, two of which are essential to WIC EBT: 1) Barcodes, used to automatically identify things; and 2) eCom, electronic business messaging to allow automatic electronic transmission of data.
GS1 Databar (formerly RSS)	Family of GS1 bar code symbols. A GS1 Databar can be printed as a stand-alone linear symbol or as a composite symbol with a 2D Composite Component printed directly above the stand-alone linear symbol. The GS1 family encompasses GS1 DataBar Retail POS bar codes symbols designed to be read in segments by omnidirectional scanners at retail POS, including GS1 DataBar Omnidirectional; GS1 DataBar Stacked Omnidirectional; GS1 DataBar Expanded; GS1 DataBar Expanded Stacked.
GS1 UPC2	GS1 symbol used to identify store-assigned random weight items.
International Federation of Produce Standards (IFPS)	GS1 member organization responsible for the promulgation of rules and standards and for the assignment and maintenance of fruits and vegetables global and restricted use Price Look-Up (PLU) codes. PLU codes associate variable weight pricing (\$/lb) with fresh and dried produce items.
Not-to-Exceed (NTE) Price	FNS-approved cost containment methodology whereby WIC authorized vendors are subject to price limitations. For NTE items, payments to vendors are adjusted (reduced) to ensure the price paid for individual food items may be equal to but not in excess of the maximum, not-to-exceed price. In WIC EBT systems, NTE price controls are enforced within the store ECR/POS system, the vendor corporate host system, the WIC EBT host, or the State WIC host, if different than the WIC EBT host.
Point-of-Sale (POS)	The checkout lane; the physical location where a sale occurs.

Term	Definition
Point-of-Sale (POS) System	The system, including hardware, software, card acceptor devices and other devices physically installed and supporting WIC food sales in the store checkout lane.
Price Look-Up (PLU) Code	A 4-5 digit identifier used to identify individual and bulk produce. PLU codes are assigned by the International Federation of Produce Standards (IFPS). A PLU code is commonly printed on a small sticker or 'PLU label' and affixed to the individual produce items by the grower, distributor or by store personnel.
Purchase Receipt	One or more printed documents printed at the POS and provided a WIC EBT cardholder. The purchase receipt identifies the foods purchased with WIC tender.
Retailer Assigned PLU Code	A code assigned by a WIC vendor at the corporate, distributor or outlet level to identify an individual or bulk produce item at the POS. A retailer assigned PLU Code may be either an IFPS compliant PLU code or a non-standard PLU code.
Special Supplemental Nutrition Program for Women, Infants and Children (WIC)	Administered by the U.S. Department of Agriculture, Food and Nutrition Service, the WIC provides Federal grants to States for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.
Universal Product Code (UPC)	A machine-readable barcode symbol used to identify and track products at any point within any supply chain. UPCs are a component of GTINs (Global Trade Item Numbers), which are assigned to manufacturers by the GS1 Organization.
UPC Prefix	A special representation of the GS1 Prefixes '00 – 09' with the leading zero removed. A UPC Prefix is used when representing the GTIN-12, Coupon-12, RCN-12, and VMN-12 in a UPC-A Bar Code symbol.
Variable Measure Number (VMN); VMN-12	A restricted circulation number assigned by the GS1 member organization to identify variable measure products for scanning at Point of Sale within a country. VMN-12 is the 12-digit restricted circulation number encoded in UPC-A Symbols to allow scanning of variable measure products at Point of Sale, which is defined in accordance with UPC Prefix 2 rules.
WIC-allowable, WIC-eligible	An FNS designation. A WIC allowable or WIC eligible food item meets federal WIC dietary and nutritional standards and guidelines.
WIC-approved, WIC-authorized	A WIC Authority designation. A WIC approved or WIC authorized food item is an item identified as WIC allowable or WIC eligible by FNS and approved or authorized by the WIC authority for purchase with WIC benefits.

ACRONYMS

Acronym	Meaning
AIDC	Auto ID Data Capture
ANSI	American National Standards Institute
APL	Authorized Product List
CVV	Cash Value Voucher
FNS	Food and Nutrition Service
ECR	Electronic Cash Register
GS1	Global Standards Organization
GTIN	Global Trade Item Number
IFPS	International Federation of Produce Standards
NTE	Not-to-Exceed
POS	Point-of-Sale
PLU	Price Look-Up
VMN	Variable Measure Number
WIC	Special Supplemental Nutrition Program for Women, Infants and Children
UPC	Universal Product Code

APPROACH

To facilitate the implementation of WIC CVV in all EBT states, FNS involved all WIC EBT key stakeholders – FNS, State WIC Authorities, Indian Tribal Organizations (ITOs), WIC vendors and WIC ECR/POS system manufacturers, developers and integrators – in early WIC CVV planning. Initially, FNS held a series of conference calls with WIC EBT states and Indian Tribal Organizations (ITOs) to confirm and discuss their need for FNS policy and technical guidance. Several operational and technical issues were identified during these calls, some believed to be so challenging they could delay states' full and timely implementation of WIC food package changes and the issuance of WIC CVV benefits.

Next, FNS formed a small technical workgroup of WIC, WIC vendor and WIC EBT industry representatives to define, evaluate and make recommendations for the resolution of these issues.

On April 15-16, 2008, the FNS convened a meeting of all interested parties in Dallas, Texas. The purpose of the meeting was to review draft policy assumptions, business rules and technical guidelines and recommendations WIC CVV implementation, online and offline. During the meeting FNS representatives provided further clarifications about WIC CVV policy standards and expectations, and at the meeting's close, all unresolved issues and questions were assigned to the small technical workgroup for analysis.

This report presents the research and detailed analyses of WIC CVV business process and technical alternatives and the recommendations outlined by the small technical workgroup,¹ the comments provided by the larger group of government and industry representatives, and the cooperative decision-making by government and industry believed to:

- Clarify FNS policy related to WIC CVV implementation within a WIC EBT systems environment;
- Identify common WIC CVV Business Rules for online and offline WIC EBT systems, as appropriate;
- Define functional requirements and technical guidance for the retail industry's implementation of WIC CVV in commercial ECR/POS systems, integrated and stand-beside;
- Provide a solution that builds upon the existing WIC EBT infrastructure and ECR/POS system functionality supporting the redemption of prescribed WIC benefits; and
- Identify preferred ECR/POS system features and enhanced WIC CVV functionality to maximize efficiency and benefit utilization at the POS.

¹ Interim documents prepared by the small workgroup are included as document Appendices.

NEW FOOD RULES – FNS POLICY

Initial WIC CVV policy statements were extracted from the interim final rule promulgated by the FNS. Policy clarifications were provided verbally during the Dallas meeting and in writing, in emails and comments provided during draft document reviews. The policy statements believed to impact retail ECR/POS systems design and functionality are listed below.

NEW FOOD RULES – WIC FOOD PACKAGES (DECEMBER 6, 2007)

- Regulations require that any eligible fresh fruit or vegetable must be available for purchase with WIC CVV benefits. In addition to fresh fruits and vegetables, a State WIC Authority may also authorize the purchase of canned, frozen and/or dried fruits and vegetables with WIC CVV benefits.
- The value of the WIC CVV benefits issued by a WIC Authority varies based on an individual's eligibility category. [EX: Participating women will receive \$8; children will receive \$6; and exclusively breastfeeding women, a small category of participants in WIC, will receive \$10 each month.]
- Some foods are excluded by program regulation. White potatoes are the primary exception; however, there are other exceptions, including but not limited to fruit and vegetable party platters or packaged fruits and vegetables with excess sodium or added sugar. For a complete list of excluded fruits and vegetables, see the FNS Web site at <http://www.fns.usda.gov/wic/benefitsandservices/foodpkg.htm>.

NEW FOOD RULES – CASH VALUE VOUCHER (REVISED 3/5/08)

- A State WIC Authority must allow participants to use their WIC CVV benefits to purchase any fresh fruit or vegetable not specifically excluded by regulations, whether packaged, in bulk or individual. Should a State WIC Authority authorize canned, frozen and/or dried food items for administrative reasons, the participant must be allowed to use their CVV benefits to purchase any fruit or vegetable not specifically excluded by regulations within the additional category(ies).
- When the CVV purchase amount exceeds the amount of CVV benefits available on the card, unless specifically prohibited by the WIC Authority, a retail ECR/POS system must allow the WIC participant to pay the difference with an alternate type of tender. Participants may not be given cash or credit for any unused portion of the voucher.
- Cost containment measures do not apply to WIC CVV. State agencies do not need to track the cash-value voucher redemptions of vendors to apply maximum allowable reimbursement levels per peer group. Thus, claims or purchases submitted will not be subject to edits against either a 'Not-to-Exceed (NTE)' or maximum price value for the price look-up (PLU) code or uniform product code (UPC) of each WIC item purchased.

BUSINESS RULES – GENERAL AND WIC CVV

The WIC CVV Business Rules in this document section were derived from FNS policy. The rules were developed cooperatively by federal and state government and retail industry representatives. They are reflective of the national technology and process standards for WIC EBT, online and offline, and the design and functionality of commercial ECR/POS systems supporting WIC EBT today, integrated and non-integrated (stand-beside) and single and multi-tender.

WIC CVV Business Rules describe generally “what” retail ECR/POS systems must do to support WIC CVV benefit redemptions in the store lane. By agreement, WIC authorized retailers and ECR/POS system manufacturers, developers and/or integrators are responsible for developing detail design requirements and implementation-specific technical specifications that define “how” individual store retail ECR/POS systems will comply with WIC CVV Business Rules and FNS WIC CVV policy.

A shared goal of government and retail industry representatives was that WIC CVV Business Rules would leverage the technical infrastructure currently supporting the issuance and redemption of prescribed WIC foods. As a result, WIC CVV benefits utilize the same WIC EBT food category/subcategory data structure as prescribed WIC food benefits. However, due to the ‘cash value’ nature of WIC CVV benefits, changes and additions to programming logic are needed to successfully transact WIC CVV benefit purchases at the POS, to accurately report WIC CVV redemptions, and to enable timely and accurate WIC vendor payments (settlement).

RETAIL ECR/POS SYSTEMS

- Retail ECR/POS systems must use the current Authorized Products List (APL) issued by the State WIC Authority to identify and approve the purchase of WIC-allowable foods approved by a State WIC Authority for purchase in-lane with WIC CVV benefits.
- Retail ECR/POS systems must only approve the sale of WIC food benefits stored on the card in offline WIC EBT systems or stored at the WIC EBT host in online systems, and available for redemption, i.e., within first and last dates to spend.
- Retail ECR/POS systems must report food items redeemed with WIC benefits.
- Retail ECR/POS systems must produce printed receipts that inform WIC cardholders about WIC benefits available, WIC benefits to be purchased and WIC benefits accepted for purchase (redeemed).
- In the event aggressive redemption of WIC CVV benefits is required by a State WIC Authority and approved by FNS, retail ECR/POS systems must support aggressive redemption for WIC CVV benefits in the same manner as they support the aggressive redemption of WIC prescribed food items.

AUTHORIZED PRODUCTS LIST (APL)

- The APL issued by the WIC Authority lists all food items approved by the WIC Authority for purchase with WIC CVV benefits. The APL identifies food items that can be purchased with WIC CVV benefits by food category and subcategory and also by its unique product identifier, either a Universal Product Code (UPC) or Price Lookup (PLU) code.
- The APL file is a reference data set used by the retail ECR/POS system to identify whether a food item scanned in the lane is approved by the WIC Authority for purchase with WIC CVV benefits. The way in which a retail ECR/POS will utilize the APL to verify WIC items scanned in the lane are eligible for purchase with WIC CVV benefits will vary based on ECR/POS system design and an individual WIC authorized vendor's CVV implementation.
- The APL issued by a State WIC Authority is used by its WIC EBT host, online or offline, to confirm items reported by a WIC authorized vendor as 'sold' were eligible for purchase with WIC CVV benefits. Foods eligible for purchase must be approved by the State WIC Authority and must not be specifically excluded by FNS regulations for purchase with WIC CVV.
- The APL identifies each individual food item by food category and subcategory. No food item may be assigned more than one food category. Within a single food category, however, a food item may be listed at a maximum of two subcategories, one of which must be the broadband (xx.000) subcategory and the second a more specific food subcategory (xx.xxx).
- For WIC CVV, the APL identifies fresh fruits and vegetables and bulk and individual produce by unique product identifiers compliant with the International Fresh Produce Standard (IFPS). The IFPS standard identifies individual food items by PLU codes. The IFPS PLU codes are divided into two groups, 'produce specific' PLU codes and 'generic' PLU codes. An IFPS 'produce specific' PLU code identifies a specific fruit or vegetable by name and type (i.e., bananas, red delicious apples, eggplant, yellow onions, etc.). An IFPS compliant 'generic' PLU code is "retailer assigned", defined in the standard only as "other 'xxxx'" or "FOR USE WITH ALL COMMODITIES". At a corporate chain or store level, a generic PLU code is assigned a fruit or vegetable when no produce specific PLU is available for use. FNS policy will require the APL file issued and maintained by all WIC Authorities to contain the IFPS produce specific PLU codes for only those fruits and vegetables not specifically excluded for purchase with CVV by regulation and the single IFPS generic PLU code (4469), which has been designated by FNS to be a 'WIC CVV fruit or vegetable'. Additionally, the APL will include IFPS qualifying prefix digits to designate whether a fresh fruit or vegetable item is genetically modified (8) or organic (9); the APL will utilize the leading prefix value of "0" for all other produce.
- The APL issued by the WIC Authority must conform to the ANSI X9.93:2008 standard, in which the first digit of the 17-digit product identifier data field denotes whether the item

identifier is a PLU Code or UPC and the last digit is an algorithm-based check digit.² The WIC Authority must calculate the check digit for all PLU codes included in the APL. Neither the IFPS nor the FNS National UPC Database includes check digits for PLU codes.

- In the APL, all WIC CVV eligible items will be identified as a price type value “03”, which denotes an item not subject to cost containment measures, including ‘maximum price’ and ‘not to exceed (NTE)’ price controls.

WIC CASH VALUE VOUCHER (CVV) BENEFITS - GENERAL

- WIC CVV benefits are separate and distinct from prescribed WIC food benefits. WIC CVV benefits may only be used for the purchase of fruits and vegetables; WIC CVV benefits may not be used to purchase prescribed WIC food benefits or fruits and vegetables specifically excluded by FNS regulations.
- A WIC authorized vendor may not restrict the purchase of WIC CVV benefits. Retail ECR/POS systems must allow a WIC participant to purchase any WIC CVV eligible fruits and vegetables authorized a WIC Authority for purchase with WIC CVV benefits.
- For WIC EBT, WIC CVV benefits have been designated by the FNS as Food Category 19. A WIC Authority may issue WIC CVV benefits at the broadband subcategory only (19.000) or at the broadband and a single specific subcategory within Category 19 (19.xxx).
- WIC CVV benefits are further distinguished from WIC prescribed food benefits by their unit of measure. The unit of measure for WIC CVV benefits is one cent (\$0.01).
- The reporting of WIC CVV redemptions differs from the reporting of prescribed WIC food redemptions. The quantity of a WIC CVV food item redeemed is the number of pennies in the purchase price; the aggregate of WIC CVV food items redeemed is the number of pennies in the total purchase price of Category 19 food items redeemed. For example, if a single 16 ounce bag of carrots is sold for \$1.29, the reported quantity of WIC CVV benefits redeemed is 129 (not 16); if two (2) 16 ounce bags of carrots are sold at the \$1.29 unit price, the reported quantity of WIC CVV benefits redeemed is 258 (not 32).
- The retail ECR/POS system is not required to record, track or report the weight or the number of individual fruit and vegetable items (packaged, bulk or individual) purchased with WIC CVV benefits.

² FNS has approved a phased implementation. It is the responsibility of State WIC Authorities whose vendor ECR/POS systems do not yet comply with ANSI X9.93:2008 to work with ECR/POS system manufacturers and integrators to develop and implement an interim solution for WIC CVV based on the earlier ANSI standard version, ANSI X9.93:2004.

- With WIC CVV, it may be technically possible to allow the purchase of a single WIC CVV eligible food item with one or more types of tender. In retail ECR/POS systems operating online, a WIC CVV food item redeemed may be ‘split’ or redeemed using two or more tender types, unless expressly prohibited by a State WIC Authority by policy. In retail ECR/POS systems operating offline, a retail ECR/POS system must not ‘split’ a food item or allow the purchase of a food item with two or more tender types.
- Where split tender is prohibited, either by policy or by design, commercial ECR/POS manufacturers are encouraged to ‘maximize’ the use of WIC CVV benefits at the POS. For example, a retail ECR/POS system may ‘reorder’ the WIC CVV food items scanned when presenting items purchased against the available balance in a WIC participant’s account. Alternatively, an ECR/POS system may utilize one or more algorithms to maximize the utilization of WIC CVV benefits during a WIC CVV food purchase transaction.³

REQUIRED APL MATCH: AUTHORIZED MAPPING OF PLU CODES AND UPC’S

- FNS has approved retail ECR/POS system ‘mapping’ of food item identifiers (i.e., UPCs, IFPS generic PLU codes) for WIC CVV fruits and vegetables to PLU codes listed within a State WIC Authority’s APL.⁴ Mapping achieves several FNS objectives:
 - Enables WIC participants to redeem all or most of issued WIC CVV benefits;
 - Avoiding the need for a WIC Authority to issue, maintain and support (process and pay claims) store-specific APLs with seasonal and other time-sensitive produce;
 - Retaining the required “positive match” of items scanned at the POS with items listed in the APL; and
 - Simplifying WIC CVV sales reporting, if allowed by a State WIC Authority and at the option of the WIC authorized retailer.
- The FNS has approved the following item-mapping scenarios for WIC CVV:
 - Full Mapping – A WIC Authority may require WIC Authorized Vendors to map generic PLU codes to IFPS ‘product specific’ PLU codes. In this scenario, also referred to as ‘full’ or ‘one-to-one (1:1)’ mapping, the retail ECR/POS system maps each generic PLU code to an IFPS produce specific PLU code for the

³ A number of retail industry algorithms were evaluated by the FNS and considered appropriate for maximizing WIC CVV redemption, including but not limited to a modified ‘first in, first out’ (FIFO), Match Fit/Next Fit/Best Fit and others,

⁴ Examples of how a positive APL match is supported by the mapping of PLU codes and UPCs are included in Appendix D.

same or similar type of fruit or vegetable for purchase approval and also for WIC CVV food sales reporting.

- Partial Mapping – A State WIC Authority may allow WIC Authorized Vendors to map all IFPS PLU codes, produce specific and generic, and UPCs for WIC CVV eligible fruits and vegetables to the single IFPS generic PLU code within the APL designated by FNS to denote “WIC CVV”, PLU Code 4469. This option is referred to as ‘partial’ or ‘many-to-one’ mapping, allows the mapping of all fresh fruits and vegetables and, at a state’s option, frozen, canned and/or dried fruits and vegetables to PLU 4469 for purchase approval and for sales reporting.
- A WIC Authority may, at its option, allow mapping of food items identified by labels with UPC2 and GS1 Databar symbols.
- It is the responsibility of the WIC Authority to define its mapping policy; a vendor’s retail ECR/POS system must map WIC CVV food items in a manner consistent with the prevailing WIC Authority’s mapping policy.

WIC CVV BENEFITS: COUPONS AND DISCOUNTS

- A retail ECR/POS system must apply manufacturer and store coupons and other discounts to WIC CVV food purchases in the same manner as it applies manufacturer and store coupons and discounts to purchases of prescribed WIC food purchases.
- A retail ECR/POS system accepting single tender (WIC only) must be capable of applying manufacturer and store coupons and discounts for WIC CVV purchases at the transaction level, which is consistent with the application of coupons and discounts for prescribed WIC food purchases. At a retailer’s option, a single tender (WIC only) or multi-tender retail ECR/POS system may employ more sophisticated discount matching logic to apply coupons and discounts at an item level.
- For prescribed WIC food purchases, a manufacturer or store coupon or other discount is used to lower the amount paid by WIC; for WIC CVV food purchases, a manufacturer or store coupon or other discount must similarly be used to lower the amount paid by WIC.⁵

⁵ Examples of retail ECR/POS system applications of manufacturer and store coupons and other discounts are included in Appendix C.

WIC CVV BENEFITS: REPORTING

- WIC CVV food items purchased with WIC CVV benefits must be reported to the State WIC Authority by the retail ECR/POS.⁶
- A retail ECR/POS system must report WIC CVV food purchases in accordance with ANSI X9.93:2008.⁷
- A retail ECR/POS system must report the application of manufacturer and store coupons and other discounts to WIC CVV food purchases in the same manner as it reports the application of manufacturer and store coupons and other discounts to prescribed WIC food purchases.

⁶ Examples of FNS approved reporting of WIC CVV redemptions, including the reporting of mapped PLU codes and UPCs are included in Appendix D.

⁷ FNS has approved a phased implementation. It is the responsibility of State WIC Authorities whose vendor ECR/POS systems do not yet comply with ANSI X9.93:2008 to work with ECR/POS system manufacturers and integrators to develop and implement an interim solution for WIC CVV based on the earlier ANSI standard version, ANSI X9.93:2004.

WIC CVV IMPLEMENTATION – TECHNICAL CONSIDERATION

The recommended implementation of CVV benefits utilizes the food category and subcategory structures present today. The food category and subcategory structures support are 'technology neutral'; they support WIC EBT transaction processing in both online and offline WIC EBT systems. This approach utilizes the current method of internal processing whereby retail ECR/POS systems compare the UPCs and PLU codes of items scanned to the UPCs and PLU codes for WIC authorized food items within a State WIC Authority's APL. Finally, use of the current food category and subcategory structures provides a coordinated approach that can be implemented by a retail enterprise and retail outlets participating in multiple WIC programs.

Integrating the CVV program will require modifications to clinic and retail ECR/POS systems; however, system support for the new WIC CVV benefits with EBT technologies is intended to be fairly straightforward.

FIELD USAGE

This section describes the usage of data fields defined in ANSI X9.93:2008 affected by the implementation of WIC CVV.⁸ These data fields can be classified as: general UPC/PLU data information, APL related fields, purchase request information fields, and purchase response information fields. With the exception of the section on general UPC/PLU data information, each subsection is structured as follows:

- First, a table is presented with a brief note description describing the record/data element where the field is used in the two respective parts of the X9.93.
- Second, a table is presented with a general description of each field with a statement on how the field is to be used in the implementation of CVV processing.

GENERAL UPC/PLU DATA INFORMATION

The UPC/PLU Data data element appears in both parts of X9.93 and is used to contain the actual UPC or PLU for an item. It has the following structure:

- 1) *UPC/PLU indicator*, n 1;
- 2) *UPC*, n 16 (right-justified, zero-filled, last digit is a check digit on significant digits) or;
- 3) *PLU*, n 16 (right justified, zero-filled).

[NOTE: Item 3) will be amended to include a note that a check digit is also required for PLU data.]

APL RELATED FIELDS

The following table describes how the subsequent fields are used in each part of X9.93:

Standard	Usage
X9.93-1	These fields appear in the EBT file update response data data element.
X9.93-2	These fields appear in the WIC UPC/PLU detail record as part of the WIC UPC/PLU store file.

The following table describes the fields and their usage with implementation of CVV processing:

⁸ The standard reference for this document is ANSI X9.93:2008. In April 2008 at the meeting in Dallas, WIC agencies currently operating offline WIC EBT systems agreed to support an interim solution based on ANSI X9.93:2004, in addition to ANSI X9.93:2008 on October 1, 2009; WIC agencies operating and/or designing online systems agreed to support ANSI X9.93:2008.

Field Name	Description	CVV Usage
Benefit Quantity	Quantity of benefit units required to redeem this product with this WIC benefit.	"100" (1.00)
Package Size	Measure of package content in specified units of measure.	"100" (1.00)
Price Type	Type of price being sent in the Item price field.	"03" (CVV item: no maximum price)

VERIFICATION OR AUTHENTICATION REQUEST INFORMATION FIELDS

The following table describes how the subsequent fields are used in each part of X9.93:

Standard	Usage
X9.93-1	These fields appear in the Prescription Balance Information Data (dataset identifier EA) used in 1xx messages.
X9.93-2	Not present.

The following table describes the fields and their usage with implementation of CVV processing:

Field Name	Description	CVV Usage
Category	WIC food category.	"19"
Units	Quantity of benefit units available for redemption from account.	The available balance of CVV.

PURCHASE REQUEST INFORMATION FIELDS

The following table describes how the subsequent fields are used in each part of X9.93:

Standard	Usage
X9.93-1	These fields appear in the WIC Prescription Food Item Data data element (dataset identifier PS) used in 2xx messages.
X9.93-2	These fields appear in the WIC claim addenda record as part of the WIC claim file.

The following table describes the fields and their usage with implementation of CVV processing:

Field Name	Description	CVV Usage
Purchase Quantity	Number of instances for this UPC/PLU that are represented in the purchase.	The price of the item up to the available balance (if known).
Units	Quantity of benefit units for redemption from account (optional in X9.93-1).	The price of the item up to the available balance (if known).

PURCHASE RESPONSE INFORMATION FIELDS

The following table describes how the subsequent fields are used in each part of X9.93:

Standard	Usage
X9.93-1	These fields appear in the WIC Prescription Food Item Data data element (dataset identifier PS) used in 2xx messages.
X9.93-2	These fields appear in the WIC auto-reconciliation addenda record 2 as part of the WIC auto-reconciliation file.

The following table describes the fields and their usage with implementation of CVV processing:

Field Name	Description	CVV Usage
Purchase Quantity	Number of instances for this UPC/PLU that are approved in the purchase (not used in X9.93-2).	The approved price of the item.
Units	Quantity of benefit units approved for redemption from account (optional in X9.93-1).	The approved price of the item.

TECHNICAL SPECIFICATIONS – X9.93 IMPLEMENTATION GUIDANCE

This section provides excerpts from X9.93:2008 with annotations indicating the impact of CVV.

X9.93: PART 1 – MESSAGES

Three data elements from X9.93-1 are affected by CVV specific processing: Prescription Balance Information (dataset identifier EA); WIC Prescription Food Item (dataset identifier PS); and EBT File Update Response Data (dataset identifier ED). The Prescription Balance Information data element is used in balance inquiry to determine the available balance of funds for the account. The WIC Prescription Food Item data element is used to convey WIC purchase information for specific items at the UPC/PLU level. The EBT File Update Response Data data element is used for providing APL updates.

EBT BALANCE INFORMATION (DATASET IDENTIFIER EA)

The EBT Balance Information data element is a composite data element that contains the balance of the cardholder’s prescription. The EBT Balance Information data element is present when 1) a cardholder requests the available balance of benefits using PIN, the card and PIN are authenticated and checked against hot card file; and 2) when the POS requests authorization, obtains the available balance of benefits in an account.

The following table lists the sub-elements which may be present in EBT balance information.

Dataset bit 48 or 62	Name	Condition	Representation	Notes
1	Continuation bit			
2	UPC/PLU data		n 17	For CVV, the first digit value of “0” denotes a UPC and “1” denotes a PLU. For a UPC, the last digit is a check digit.⁹
3	Item description		anp 50	
4	Category code	M	n 2	“19” for CVV.
5	Category description		anp 50	
6	Sub-category code	M	n 3	

⁹ A future update to the ANSI X9.93:2008 standard will designate the last digit of a PLU to be a check digit. In the interim, this document serves to clarify the last digit of a PLU is a check digit.

Dataset bit 48 or 62	Name	Condition	Representation	Notes
7	Subcategory description		anp 50	
8	Unit of Measure		an 10	number of benefit units; for CVV items, this is the price of the item in pennies up the available balance (if known)
9	Package size		n 5	For CVV items, the value shall be "00100" (1.00)
10	Item price	M	n 6	The price of one unit of the item indicated by the UPC/PLU data; in the response message contains the approved price.
11	Benefit quantity	M	n 5	The quantity of an item defined in the originator's specified benefit issuance unit of measure.
12	Benefit Unit description action code		ans 50	
13	UPC/PLU data length		n 6	
14-16	Reserved			

WIC PRESCRIPTION FOOD ITEM (DATASET IDENTIFIER PS)

WIC Prescription Food Item is a composite data element preceded by a 3 position length that provides information on a food item. WIC State agencies operating WIC EBT systems have implemented a Category Code and Sub-category Code standard which represents food items as units of a food category and sub-category. The specific codes are assigned by the state and are unique to each state. When items are scanned, the UPC/PLU data is matched to the Category Code and Sub-category Code, which is then compared to the available Category Code and Sub-category Code for the WIC family food prescription. If a valid match occurs, the numbers of units are decremented from the family food prescription. The WIC Prescription Food Item corresponds to the WIC Claim Addenda Record in X9:93-2.

The following table lists the sub-elements which may be present in *WIC prescription food item*.

Dataset bit	Name	Condition	Representation	Notes
1	Continuation bit			

Dataset bit	Name	Condition	Representation	Notes
2	UPC/PLU data	M	n 17	For CVV, the first digit value of “0” denotes a UPC and “1” denotes a PLU. For a UPC, the last digit is a check digit.¹⁰
3	Category code		n 2	“19” for WIC CVV.
4	Sub-category code		n 3	
5	Units		n 5	number of benefit units; for CVV items, this is the price of the item in pennies up the available balance (if known)
6	Item price	M	n 6	The price of one unit of the item indicated by the UPC/PLU data; in the response message contains the approved price.
7	Purchase quantity	C	n 5	the number of this UPC/PLU purchased; for CVV items, this is the price of the item in pennies up the available balance (if known)
8	Item action code		n 2	
9	Original item price		n 6	originally requested item price for the item indicated by the UPC/PLU data
10	Original purchase quantity		n 5	the originally requested quantity of UPC/PLU purchased
11	UPC/PLU data length		n 2	Indicates the length of the UPC or PLU contained in UPC/PLU data.
12-16	reserved			

EBT FILE UPDATE RESPONSE DATA (DATASET IDENTIFIER ED)

The EBT File Update Response Data data element is a composite data element that contains the data for updating the file specified in an EBT file update. It corresponds to the WIC

¹⁰ An update to the ANSI X9.93:2008 standard will be proposed to designate the last digit of a PLU to be a check digit.

UPC/PLU detail record in X9.93-2. The following table lists the sub-elements which may be present in EBT file update response data.

Dataset bit	Name	Condition	Representation	Notes
1	Continuation bit		b	
2	UPC/PLU data		n17	For CVV, the first digit value of “0” denotes a UPC and “1” denotes a PLU. For a UPC, the last digit is a check digit.¹¹
3	Item description		ans 50	
		M	n 2	“19” for WIC CVV.
5	Category description		ans 50	
6	Sub-category code	M	n 3	
7	Sub-category description		ans 50	
8	Unit of measure		an 10	
9	Package size		n 5	For CVV items, the value shall be “00100” (1.00)
10	Benefit quantity		n 5	For CVV items, the value shall be “00100” (1.00)
11	Benefit unit description		ans 50	
12	Item price		n6	
13	Price type		an2	For WIC CVV item “03”, no maximum price)
14	Date, effective		n 8	
15	Date, end		n8	
16	Continuation bit		b	
17	Purchase indicator		n 1	
18	Weighted product indicator		n 1	

¹¹ An update to the ANSI X9.93:2008 standard will be proposed to designate the last digit of a PLU to be a check digit.

Dataset bit	Name	Condition	Representation	Notes
19	Manual voucher indicator		n 1	
20	Item action code	M	n 2	
21	UPC/PLU data length		n 2	

X9.93: PART 2 – FILES

Three files and record types from X9.93-2 are affected by CVV processing: WIC UPC/PLU Store File (WIC UPC/PLU Detail Record), WIC Claim File (WIC Claim Addenda Record), and WIC Auto-reconciliation File (WIC Auto-reconciliation Addenda Record 2).

WIC UPC/PLU DETAIL RECORD

The WIC UPC/PLU detail record is based on the messages used in X9.93. The following table lists the data elements used in the WIC UPC/PLU detail record.

Data element	Format	Position	Condition	Notes
Standard detail:				
Record identification code	PIC X(2)	1-2	M	“D4”
Standard detail:				
Record identification code	PIC X(2)	1-2	M	“4”
Record sequence number	PIC 9(6)	3-8	M	
message type	PIC 9(4)	9-12	M	“1344”
Additional data elements:				
UPC/PLU data	PIC 9(17)	13-29	M	For CVV, the first digit value of “0” denotes a UPC and “1” denotes a PLU. For a UPC, the last digit is a check digit.¹²

¹² An update to the ANSI X9.93:2008 standard will be proposed to designate the last digit of a PLU to be a check digit.

Data element	Format	Position	Condition	Notes
Item description	PIC X(50)	30-79	M	
Category code	PIC 9(2)	80-81	M	“19” for WIC CVV
Category description	PIC X(50)	82-131	M	
Sub-category code	PIC 9(3)	132-1 34	M	
Sub-category description	PIC X(50)	135-184	M	
Unit of measure	PIC X(10)	185-194	M	
Package size	PIC 9(3)v99	195-199	M	For CVV items, the value shall be “00100” (1.00)
Benefit quantity	PIC 9(3)v99	200-204	M	For CVV items, the value shall be “00100” (1.00)
Benefit unit description	PIC X(50)	205-254	M	
Item price	PIC 9(4)v99	255-260	M	Mandatory if Price type indicates a price is provided, otherwise zero-filled.
Price type	PIC X(2)	261-262	M	For WIC CVV item “03”, no maximum price
Card acceptor identification code	PIC X(15)	263-277	M	
Date, effective	PIC 9(8)	278-285	M	if no date is entered, effective upon receipt
Date, end	PIC 9(8)	286-293	M	if no date is entered, authorization continues
UPC/PLU data length	PIC 9(2)	294-295		

WIC CLAIM ADDENDA RECORD

The following table lists the data elements used in the WIC claim addenda record. The WIC claim addenda record follows the WIC claim detail record and may occur multiple times for each associated detail record.

Data element name	Format	Position	Condition	Notes
Standard addenda:				
Record identification code	PIC X(2)	1-2	M	value = 'E3', see A.7

WIC Fruits and Vegetables Cash Value Voucher (CVV)

Data element name	Format	Position	Condition	Notes
Record sequence number	PIC 9(6)	3-8	M	see 8.2.3
Addenda sequence number	PIC 9(3)	9-11	M	see 8.2.3
Additional data elements:				
Category code	PIC 9(2)	12-13	M	"19 for WIC CVV
Sub-category code	PIC 9(3)	14-16	M	
Units	PIC 9(3)v99	17-21	M	quantity for this UPC/PLU; for CVV items, this is the price of the item in pennies, less than or equal to the available balance
UPC/PLU data	PIC 9(17)	22-38	M	For CVV, the first digit value of "0" denotes a UPC and "1" denotes a PLU. For a UPC, the last digit is a check digit. ¹³
Purchase quantity	PIC 9(3)v99	39-43	M	Number of this UPC/PLU purchased; for CVV items, this is the price of the item in pennies, less than or equal to the available balance
Claim price	PIC 9(7)v99	44-52	M	total cost of all units of this UPC/PLU purchased
UPC/PLU data length	PIC 9(2)	53-54		

¹³ An update to the ANSI X9.93:2008 standard will be proposed to designate the last digit of a PLU to be a check digit.

WIC AUTO-RECONCILIATION ADDENDA RECORD 2

The following table lists the data elements used in the WIC auto-reconciliation addenda record 2

Data element	Format	Position	Condition	Notes
Standard addenda:				
Record identification code	PIC X(2)	1-2	M	"E2"
Record sequence number	PIC 9(6)	3-8	M	
Addenda sequence number	PIC 9(3)	9-11	M	
Additional data elements:				
Category code	PIC 9(2)	12-13	M	"00" – not used for online
Sub-category code	PIC 9(3)	14-16	M	"000" – not used for online
Units	PIC 9(3)v99	17-21	M	for CVV items, this is the claimed price of the item in pennies, less than or equal to the available balance
UPC/PLU data	PIC 9(17)	22-38	M	For CVV, the first digit value of "0" denotes a UPC and "1" denotes a PLU. For a UPC, the last digit is a check digit.¹⁴
Amount claimed	PIC 9(7)v99	39-47	M	
Amount paid	PIC 9(10)v99	48-59	M	
Message reason code	PIC 9(4)	60-63	M	reason for an adjustment; see ISO 8583 for values
Original record sequence number	PIC 9(6)	64-69	M	
Original addenda sequence number	PIC 9(3)	70-72	M	
Amount item discount	PIC 9(10)v99	73-84	M	
UPC/PLU data length	PIC 9(2)	85-86	M	

¹⁴ An update to the ANSI X9.93:2008 standard will be proposed to designate the last digit of a PLU to be a check digit.

APPENDICES

A. DISCUSSION PAPER: POSITIVE APL MATCH AND UPC/PLU MAPPING



DISCUSSION PAPER

POSITIVE APL MATCH AND UPC/PLU CODE MAPPING

MAY 9, 2008

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BACKGROUND

In ECR/POS systems operating online and offline and certified by the USDA/FNS, the ECR/POS system verifies a food item presented at the POS for purchase with WIC benefits must be verified as 'WIC eligible' prior to benefits being decremented from an authorized WIC EBT cardholder's WIC account. This verification occurs at the POS.

It is the responsibility of the WIC authority to notify each WIC authorized vendor of eligible WIC foods and of requirements for WIC food eligibility. Today, in both online and offline WIC EBT systems, the WIC authority creates an APL and provides access to the current APL by WIC authorized retailers. The APL may differ for each WIC authority; the ECR/POS system for a store location (outlet) authorized by more than one WIC authority must maintain current APL information for each WIC authority.

For prescribed WIC benefits, ANSI X9.93:2008¹ defines the content and format of the APL. The APL contains the unique food identifier (UPC or PLU) for each WIC eligible food item authorized by a WIC authority for purchase with regular WIC benefits. WIC authorized retailers use the APL to determine which food items within a store are WIC approved. Retail ECR/POS systems identify WIC authorized food items at the POS upon scan or manual entry of the UPC for regular WIC food items. The ECR/POS system performs a 1:1, positive match of scanned or manually entered UPC data against the APL to ensure only WIC authorized foods are redeemed with WIC benefits (tender). A successful positive match is one of several required conditions for the sale of a regular WIC food item and redemption of regular WIC benefits. UPC data for regular WIC items redeemed at the POS are transmitted by the retail ECR/POS system to the WIC EBT host. This transmission also occurs in accordance with the national standard, ANSI X9.93 (2008), Part 1 for online WIC EBT systems and Part 2 for offline WIC EBT systems.

¹ The standard reference for this document is ANSI X9.93:2008. In April 2008 at the meeting in Dallas, WIC agencies currently operating offline WIC EBT systems agreed to support an interim solution based on ANSI X9.93:2004, in addition to ANSI X9.93:2008 on October 1, 2009; WIC agencies operating and/or designing online systems agreed to support ANSI X9.93:2008.

ISSUE DESCRIPTION

Proposed Business Rule: A 'positive match' of universal product code (UPC) and Price Look-Up (PLU) code data scanned at the POS and of food identifier data stored in the Authorized Products List (APL) is required as a condition for 1) WIC EBT system transaction approval in-lane by the ECR/POS system; 2) decrement of WIC benefits from a WIC account, online or offline; and 3) financial settlement by a WIC authority to a WIC authorized vendor for WIC benefits redeemed in-lane, at the POS.

In Dallas, an approach that would apply the current business rule to WIC CVV benefits raised concerns among meeting participants about the level of effort required of the WIC Authority and of WIC Vendors to maintain positive APL matching for CVV benefits. Specifically, their concerns included:

- There is a large number of complex, store assigned random weight and non-standard PLU codes for WIC CVV fresh produce;
- There is a large number of UPCs for fresh packaged fruits and vegetables;
- There is considerable variability in how WIC vendors assign store-level PLU codes, consistent with International Fresh Produce Standards (IFPS) guidelines, to fresh and dried fruits and vegetables;
- A significant number and percentage of frozen, canned and dried fruits and vegetables do not meet FNS guidelines for WIC eligibility;
- With the introduction of GS-1 databar for encoding produce items, the number of eligible item codes would also increase significantly for fresh fruits and vegetables which would normally be sold by PLU.

Meeting attendees asked FNS to define 1) the required conditions for WIC CVV food sales at the POS; and 2) the requirements for reporting WIC CVV items sold. In response, FNS officials confirmed there was no specific requirement that retail ECR/POS systems verify through UPC or PLU matching the eligibility of fruits and vegetables as 'WIC CVV' prior to their sale at the POS. Also, FNS officials confirmed the interim final rule did not require WIC agencies to report the actual fruits and vegetables purchased with WIC CVV benefit

After considerable discussion, all agreed the approved sale of a food item bearing a UPC as 'WIC CVV' should be based on the current business rule, which requires a 'positive match' of a scanned or key-entered UPC with a UPC in the current APL. The group did not agree, however, that the business rule should apply to fresh fruits and vegetables, normally sold by PLU code. There was also no consensus about the level of detail that should be reported to the WIC agency, specifically, whether the ECR/POS system should report the UPC or PLU code for each WIC CVV food item sold; whether the system should report the UPC for each WIC CVV food item sold but only a single PLU for WIC CVV fresh fruits and vegetables; or whether a single UPC or PLU code for all WIC CVV food items would suffice.

For analysis and discussion, the WIC CVV purchase transaction was divided into three (3) separate business processes:

- Positive Match. A food item's scanned or key-entered UPC or PLU code is matched (verified) against UPCs and PLU codes stored within the ECR/POS to determine whether it is on the current APL issued by the WIC Authority and "WIC Authorized, WIC CVV".
- UPC/PLU Code Mapping. In the event a food item's scanned or key-entered UPC or PLU code is not matched (verified) within the ECR/POS and cannot be determined as "WIC Authorized, WIC CVV", if the food item is known to be "WIC Authorized, WIC CVV" the ECR/POS system must support 'mapping' the item's UPC or PLU code to a UPC or PLU code that can be matched (verified) as being on the current APL issued by the WIC Authority and "WIC Authorized, WIC CVV".
- UPC/PLU Code Reporting. The retail ECR/POS system must report WIC CVV redemptions to the WIC EBT host.

ASSUMPTIONS

It was assumed that each State WIC Authority would be required to comply with FNS policy, as defined in the interim final rule and by FNS policy experts present at the Dallas meeting.

- Positive Match. FNS encourages but does not require ECR/POS systems perform a positive match (1:1) as a condition for purchase transaction approval as “WIC Authorized, WIC CVV”. A WIC Authority may require ECR/POS systems perform a positive match for all WIC CVV foods; however, a positive match will only be required by FNS for all non-fresh WIC CVV items, i.e., fruits and vegetables with UPC codes. WIC Authorities must ensure WIC CVV benefits are used only to purchase foods that are “WIC Authorized, WIC CVV.”
- UPC/PLU Code Mapping. FNS encourages but does not require ECR/POS systems map a scanned or key-entered UPC or PLU code not matched (verified) within the ECR/POS system as “WIC Authorized, WIC CVV” to a UPC or PLU code that can be matched (verified) within the ECR/POS as on the current APL issued by the WIC Authority and “WIC Authorized, WIC CVV”. In the event a WIC Authority requires a positive match for all or some WIC CVV authorized foods, the WIC Authority may require the ECR/POS perform mapping. The WIC Authority must ensure WIC CVV benefits are used only to purchase foods that are “WIC Authorized, WIC CVV.”
- UPC/PLU Code Reporting. FNS encourages but does not require ECR/POS systems report to the WIC Authority each UPC and PLU code of food items purchased with WIC CVV benefits. A WIC Authority may designate a single UPC or PLU code as “WIC Authorized, WIC CVV” and allow ECR/POS systems to use that identifier to report all foods purchased with WIC CVV benefits. When a fresh fruit or vegetable item is mapped, it is assumed the PLU reported will be one known to WIC. Finally, WIC Authorities must ensure WIC CVV benefits are used only to purchase foods that are “WIC Authorized, WIC CVV.”

ANALYSIS OF ALTERNATIVES

APL MATCH

1. FULL APL MATCH (X = 100%).

A WIC authority may require a 1:1, positive match of the UPC or PLU code scanned or key-entered at the POS and a WIC CVV UPC or PLU code in the current APL as a condition for purchase transaction approval for all WIC CVV food items (100%).

Example #1: Bananas – IFPS PLU #4011. Bananas are assigned the IFPS PLU #4011 by the store produce manager, which is recognized in the retail ECR/POS system as bananas. PLU #4011 is in the current APL as bananas, WIC CVV. When scanned or key-entered, the sale is approved as WIC CVV.

Example #2: Bananas, Locally Grown – Store Assigned PLU Code. Locally grown bananas are assigned an IFPS general fruit commodity PLU code by the store produce manager, which is recognized in the retail ECR/POS system as bananas. The store-assigned PLU code is not in the current APL. When scanned or key-entered, the system will not approve the sale to WIC. The store manager will:

- Perform a PLU code look-up and manually enter the product as 4011 or other PLU code for 'bananas' that is in the APL, WIC authorized as WIC CVV; or
- Re-weigh the product, manually enter the PLU code for 'bananas' (4011), reprint a store-assigned GS1 compliant barcode with random weight and price, and scan the new barcode, recognized by the retail ECR/POS system as 'bananas'; or
- Refuse to sell the fresh produce to the WIC participant, even though it is WIC allowable, which is not in compliance with WIC regulations and policy.

Advantages

- Consistency in security and integrity for regular WIC and WIC CVV benefits
- No increased time in lane for WIC participant; maintains WIC EBT ROI for WIC vendor
- ECR/POS system determines if food item is WIC CVV; store clerk does not need to police at POS

Disadvantages

- Increased level of effort and costs to WIC Authority to ID/add large numbers of additional UPCs and PLU codes, particularly for pre-packaged fresh fruits and vegetables that come in/out of season;
- The increased size of the APL file may impact downloads to small stores dependent on dialup systems for file download;
- Mapping of store-assigned and non-standard PLU codes to a WIC CVV PLU code in the APL for sale approval is required, at added WIC vendor cost;

- A 100% match requires either an exception process to allow WIC participants to purchase WIC CVV items not identified in the APL or WIC vendors accepting customer and/or revenue loss resulting from food sales disapproved at the POS.

2. PARTIAL APL MATCH (X < 100%).

A WIC authority will require a 1:1, positive match of each UPC code scanned or key-entered at the POS for frozen, canned and dried fruits and vegetables but not require a positive 1:1 match for fresh fruits and vegetables.

Example #1: Bananas, Locally Grown – Store Assigned PLU code. Locally grown bananas are assigned an IFPS general fruit commodity PLU code by the store produce manager, which is recognized in the retail ECR/POS system as bananas. The store-assigned PLU code is not in the current APL, however, the WIC Authority has excluded fresh fruits and vegetables from a 1:1 positive match between scanned PLU codes and PLU codes in the APL. Therefore, no positive match is required. The retail ECR/POS system recognizes the store assigned PLU code as ‘bananas’ and the ‘WIC Flag’ set to “WIC CVV”. The store ECR/POS approves the sale of the bananas with no positive match to a WIC CVV PLU code in the APL.

Example #2: Bananas, pre-packaged – UPC. Pre-packaged bananas are assigned a UPC by the grower/distributor. The UPC is not in the current APL. The WIC Authority has excluded fresh fruits and vegetables from a 1:1 positive match between scanned or key-entered UPCs and UPCs in the current APL. Therefore, no positive match is required. The retail ECR/POS system recognizes the UPC ‘bananas’ and the ‘WIC Flag’ set to “WIC CVV”. The store ECR/POS approves the sale of the bananas with no positive match to a WIC CVV UPC in the APL.

Example #3: Yams, Canned – UPC. The WIC Authority allows the sale of canned fruits and vegetables to WIC participants as WIC CVV, but requires a positive match of a scanned or key-entered UPC to a WIC-authorized UPC in the current APL as a condition for the sale of the canned product as WIC CVV. The UPC is in the current APL. When the UPC is scanned the ECR/POS approves the sale after the UPC scanned is matched to the UPC within the APL.

Example #4: Yams, Canned – UPC. The WIC Authority allows the sale of canned fruits and vegetables to WIC participants as WIC CVV, but requires a positive match of a scanned or key-entered UPC to a WIC-authorized UPC in the current APL as a condition for the sale of the canned product as WIC CVV. The UPC is not in the current APL. When scanned or key-entered, the system does not recognize the item as WIC-approved. The store manager will:

- Notify the WIC authority of the new UPC while the customer is in the lane, wait for the current APL file upload, then complete the WIC sale with WIC CVV benefits; or
- Perform a UPC code look-up and manually enter an alternate UPC, recognized as WIC-approved in the APL; or
- Refuse to sell the fresh produce to the WIC participant, even though it is WIC allowable, which is not in compliance with WIC regulations and policy.

Example #5: Apples, Dried – UPC. The WIC Authority has elected to allow the sale of dried fruits and vegetables to WIC participants as WIC CVV. A Store has in its inventory dried apple slices meeting WIC product eligibility requirements, and the WIC Authority requires a positive match of scanned or key-entered UPC to a WIC-authorized UPC in the current APL as a condition for the sale of the dried product as WIC CVV and the subsequent decrement from a WIC benefit account. The UPC for the dried apples is in the current APL. When the UPC is scanned or key entered, the system recognizes the item as WIC CVV based on the APL match and approves the sale.

Example #6: Apples, Dried – UPC. The WIC Authority has elected to allow the sale of dried fruits and vegetables to WIC participants as WIC CVV. A Store has in its inventory dried apple slices meeting WIC product eligibility requirements, and the WIC Authority requires a positive match of scanned or key-entered UPC to a WIC-authorized UPC in the current APL as a condition for the sale of the dried product as WIC CVV and the subsequent decrement from a WIC benefit account.

The UPC for the dried apples is not in the current APL. When scanned or key-entered, the system does not recognize the item as WIC-approved. The store manager will:

- Notify the WIC authority of the new UPC while the customer is in the lane, wait for the current APL file upload, then complete the WIC sale with WIC CVV benefits; or
- Perform a UPC code look-up and manually enter an alternate UPC, recognized as WIC-approved in the APL; or
- Refuse to sell the fresh produce to the WIC participant, even though it is WIC allowable, which is not in compliance with WIC regulations and policy.

Advantages

- Maintains 'regular WIC benefits' integrity for items with required positive APL match
- Enables WIC Authority to require positive match for optional WIC CVV food group(s) with high number (%) of food items not WIC CVV eligible (frozen, canned, dried).
- Potentially avoids costs associated with mapping store assigned and non-standard PLU codes within retailer ECR/POS systems.
- Potential for reduced level of effort required for both the WIC Authority and for some WIC vendors when compared to the level of effort required for full positive APL matching.

Disadvantages

- Reduced integrity for some, but not all WIC CVV items.
- The WIC Authority must rely on compliance purchases to identify store sales of non-WIC CVV items as WIC EVV.
- Places the burden on store produce manager or other store personnel to identify which WIC CVV items are fresh, not requiring PLU code or UPC match.
- Both the WIC Authority and WIC vendor must maintain UPC data in the APL for pre-packaged items – frozen, canned and dried – that meet FNS requirements for WIC CVV.

C. UPC/PLU CODE MAPPING – PURCHASE TRANSACTION APPROVAL

A WIC authority may require the WIC vendor to map a UPC or PLU code not within the APL to an identical food commodity prior to performing the required match for purchase transaction approval, a one-to-one (1:1) positive match. As an alternative, a WIC authority may require the WIC vendor to map a UPC or PLU code not within the APL to a single, designated UPC or PLU code value prior to performing the required match for purchase transaction approval., a ‘many-to-one’ (x > 1) positive match.

1. ONE-TO-ONE (1:1) MAPPING TO IDENTICAL FOOD CATEGORY

Require the retail ECR/POS system to map a scanned or key-entered WIC CVV UPC or PLU code not within the current APL to a WIC CVV UPC or PLU code for an identical food category in the APL.

Example: Locally grown bananas are assigned an IFPS standard PLU code for ‘any fruit’ by the store produce manager, which is recognized in the retail ECR/POS system as bananas. The store assigned PLU code for ‘any fruit’ is not in the APL. The WIC authority requires the WIC vendor to map a WIC CVV PLU code not found in the APL to a PLU code for an identical food commodity found in the current APL. The ECR/POS system ‘maps’ the store assigned PLU code to the IFPS PLU code in the APL for bananas, 4011. The ECR/POS system approves the purchase with WIC CVV benefits.

Advantages

- Highest level of accuracy and integrity in reported WIC CVV redemption data

Disadvantages

- Increased level of effort and costs to WIC vendors; WIC vendors must reprogram ECR/POS systems to map a store assigned and non-standard PLU code to a GS1/IFPS standards compliant PLU code for a like or similar WIC authorized WIC CVV food item (1:1), then report the mapped PLU code to the WIC authority.

2. MANY-TO-ONE (X>1) MAPPING TO DESIGNATED “WIC CVV AUTHORIZED” IDENTIFIER

Require the retail ECR/POS system to map a scanned or key-entered WIC CVV UPC or PLU code not within the current APL to map a scanned or key-entered UPC or PLU code to the WIC CVV food identifier designated by the WIC Authority for “WIC CVV Authorized” foods.

Example: Locally grown bananas are assigned an IFPS standard PLU code for ‘any fruit’ by the store produce manager, which is recognized in the retail ECR/POS system as bananas. The store assigned PLU code for ‘any fruit’ is not in the APL. The WIC authority requires the WIC vendor to map a WIC CVV PLU code not found in the APL to a specific identifier, which denotes “WIC Authorized, WIC CVV”. The ECR/POS system ‘maps’ the store assigned PLU code to the “WIC Autho-

alized, WIC CVV” identifier, and the ECR/POS system approves the purchase with WIC CVV benefits.

Advantages

- Reduces the level of effort and costs to WIC vendors, compared to the reporting PLU codes mapped 1:1 to a like or similar WIC authorized WIC CVV food item.
- Reduces the level of effort for the State WIC authority to compile and maintain all PLU codes within the APL.

Disadvantages

- Reduced accuracy and integrity of WIC redemption data.

B. UPC/PLU CODE MAPPING – REPORTING

Store ECR/POS systems operating within an online WIC EBT environment are required to report redemptions to the EBT host in conformance with X9.93 (2004), Part 1 for online systems and Part 2 for offline systems. Presented below are the two (2) alternatives discussed in Dallas for ECR/POS systems reporting of WIC CVV food redemptions.

1. ONE-TO-ONE (1:1) WIC CVV FOOD ITEM REDEMPTIONS – REPORTING

This alternative represents no change to the level of redemption data reported to the WIC host; the WIC authority would require the ECR/POS system to report the individual food item UPC or PLU code scanned, key entered or mapped and approved to the WIC EBT host.

Example #1: Locally grown bananas are assigned an IFPS “any fruit” commodity PLU code by the store produce manager, which is recognized in the retail ECR/POS system as bananas and mapped to PLU code #4011 for WIC CVV purchase approval. The State WIC Authority requires ECR/POS systems report the sale of WIC CVV food items as matched in the APL and approved for purchase. The retail ECR/POS should report the redeemed WIC CVV food benefits as PLU code #4011.

Example #2: A WIC vendor peels and slices bananas, offering slices at the salad bar for purchase. In the store ECR/POS system, the sliced banana is identified by a store-assigned PLU code. The State WIC Authority requires the ECR/POS system to map the store-assigned PLU code to a PLU code in the APL for purchase approval; the WIC Authority also requires the ECR/POS system report to include the same ‘mapped’ PLU code as the WIC CVV food item redeemed. The ECR/POS system must map the sliced bananas to the IFPS PLU code #4011 for item approval and identify PLU #4011 when reporting WIC CVV food items redeemed to the WIC Authority.

Advantages

- Highest level of accuracy and integrity in WIC CVV food item APL match and redemption data

Disadvantages

- Increased level of effort and costs to WIC vendors: 1) WIC vendors must reprogram ECR/POS systems to map a store assigned and non-standard PLU code to a GS1/IFPS standards compliant PLU code for a like or similar WIC authorized WIC CVV food item (1:1); and 2) a store employee(s) must manually enter data for the system to map a store-assigned identifier to a WIC designated identifier in the APL.

2. MANY-TO-ONE (X>1) WIC CVV FOOD ITEM REDEMPTIONS – REPORTING

This alternative allows a WIC authority to not require a one-to-one reporting of WIC CVV benefits redeemed at the POS. Instead, the WIC Authority may designate a single food item identifier as “WIC Authorized, WIC CVV” and report all WIC CVV items redeemed as “WIC Authorized, WIC CVV”.

Example #1: A WIC vendor sells 15 different varieties of bananas. Among them are 1) organic bananas designated by the store-assigned IFPS compliant PLU code # 94011, 2) locally grown bananas marked by the grower with a non-standard PLU code, and 3) pre-packaged bananas (2 lb.) with a grower/distributor assigned UPC. The WIC Authority allows WIC vendors to report all WIC CVV purchases as a single code. The ECR/POS reports all WIC CVV food items as “WIC Authorized, WIC CVV”.

Example #2: Similar to #1, above, but the WIC authority requires the reporting of actual UPCs and PLU codes for all WIC CVV fruits and vegetables other than fresh; the single WIC CVV identifier is designated for fresh fruits and vegetables. If a WIC authority allows the purchase of frozen and fresh fruits and vegetables with WIC CVV benefits and a WIC participant purchases a package of frozen strawberries and quart of fresh strawberries, the ECR/POS system will report the UPC scanned for the frozen strawberries, if WIC CVV eligible, and the “WIC Authorized, WIC CVV” identifier for the fresh strawberries.

Advantages

- Reduces the level of effort and costs to WIC vendors, compared to 1:1 matching to a like or similar WIC authorized WIC CVV food item.

Disadvantages

- Reduced accuracy and integrity of WIC match.

CONCLUSION

After considerable discussion of the advantages and disadvantages of requiring a positive match of scanned UPCs and PLU codes with UPCs and PLU codes within the current APL as a condition for WIC EBT transaction (redemption) approval, the outcomes of the workgroup's efforts are presented below.

FNS POLICY CLARIFICATIONS

FNS agreed to require all WIC agencies to maintain and support an APL with all non-generic (i.e., any fruit) IFPS standard PLU codes, yet allow each WIC Authority the flexibility to define its policy related to 1) requiring a positive APL match for fresh fruits and vegetable purchase approvals; 2) mapping of generic and store-assigned PLU codes only or mapping of all PLU codes; and 3) reporting all WIC CVV foods redeemed by unique UPCs and PLU codes or reporting all non-fresh fruits and vegetables purchased by UPCs and reporting all fresh fruits and vegetables as a single, designated PLU code.

- A State WIC Authority may require a positive match, 1:1, of the scanned UPC or PLU code for a food item with a UPC or PLU code value in the current APL occur within the retail ECR/POS system as a condition for WIC EBT purchase transaction approval and redemption with WIC CVV benefits.
- A State WIC Authority may require a positive match occur for all WIC CVV food items; for some but not all WIC CVV food items; or for no WIC CVV food items.
- A WIC Authority may require WIC authorized stores to adhere to International Federation for Produce Standards (IFPS) for store-assigned PLU codes.
- A WIC Authority may allow the use of all IFPS PLU codes, of some IFPS PLU codes or designate a single IFPS PLU code.
- A WIC Authority may require a store that assigns store-level PLU codes, IFPS compliant and non-standard, to one or more types of WIC authorized WIC CVV foods to map a scanned PLU code not found in the APL to a PLU code found in the APL.
- It is the responsibility of the WIC Authority to inform WIC authorized retailers of the types of WIC CVV fruits and vegetables – frozen, canned, dried – will be authorized, in addition to fresh fruits and vegetables.
- If positive matching is not required, it is responsibility of the retailer to accurately identify a WIC authorized WIC CVV food item and allow its purchase with available WIC CVV benefits in a cardholder's account.

REQUIRED ECR/POS SYSTEM DESIGN AND FUNCTIONALITY

In order for a WIC Authority to have maximum flexibility, commercial and corporate retail ECR/POS systems must be capable of initiating and processing WIC EBT purchase transactions of WIC CVV benefits under all policy scenarios, the most prescriptive, the least prescriptive and each possible alternative in-between. At the highest level, each retail ECR/POS system must support:

- Required match of scanned UPC or PLU code with UPC or PLU code in the current APL as a condition for purchase approval with WIC CVV benefits ($x \leq 100\%$); and
- Required mapping of scanned UPC or PLU code not found in the APL to a WIC CVV UPC or PLU code in the APL as a condition for purchase approval with WIC CVV benefits ($x \leq 100\%$); and
- Required reporting of actual WIC CVV food items approved for purchase ($x < 100\%$).

The matrix below describes the six (6) possible WIC CVV matching, mapping and reporting scenarios which will be supported by retail ECR/POS systems:

	Required APL Match	Required Mapping	Reporting
1	Yes, 100%.	Yes, 100%.	Actual/approved, 100%
2	Yes, 100%	Yes, 100%	Category only for fresh; Actual/approved for non-fresh
3	Yes, 100%	Yes, 100% but for fresh, only to State-designated PLU codes representing only major commodity types (i.e., #4011 for all bananas)	Actual/approved major commodity type for fresh; actual/approved for non-fresh
4	Yes, WIC CVV with UPCs	Yes, WIC CVV with UPCs	Actual/approved for WIC CVV with UPCs; Category for PLU codes
5	No for fresh; Yes for non-fresh	No for fresh, Yes for non-fresh	Category for fresh; actual/approved for non-fresh
6	No, 100%	No, 100%	Category for all WIC CVV

B. DISCUSSION PAPER: WIC CVV SPLIT TENDER

Smart Card EBT WIC Transaction Flows With CVV

Document File name ("Smart Card WIC EBT Transaction Flows With CVV.doc")

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 5. CVV Transaction Flow – Insufficient benefits, Split Tender Allowed; Other tender available 10

 6. CVV Transaction Flow – Insufficient benefits, Split Tender Allowed, No other tender available,
 Scenario 1: Customer takes Split Item 11

 7. CVV Transaction Flow – Insufficient benefits, Split Tender Allowed, No other tender available,
 Scenario 2: Customer leaves Split Item 12

INTRODUCTION

This document is provided in order to describe the various processing flows which are possible when using the smart card WIC EBT system in conjunction with CVV processing.

The Smart Card based program has a requirement that only benefit redemptions may be made to a card. Voids, refunds, or cancellations of tenders are not allowed. In addition, an item may not be partially paid for by WIC and partially paid for by the participant. This works relatively well when all items represent discrete units (i.e., milk) which are sold by benefit units (i.e., quarts). When a participant does not have enough units to cover the purchase of an item, the whole item is not allowed for WIC transactions.

With the introduction of cash value vouchers for fresh fruits and vegetables (WIC Interim Food Package Rule), the benefit quantity is issued in dollars. There is a desire to allow a customer to use all of their benefits, but because the unit can be thought of as monetary in nature, there is a desire to view it as a “cash” tender rather than following the normal processing rules of WIC.

This works well in the offline (Smart Card) WIC programs when the customer has enough funds to cover the purchase of the item which straddles the WIC and non-WIC payment, but is problematic for the scenario where the participant does not have funds to pay for the balance of the item. An item which is partially paid for by WIC and partially paid for by the participant is referred to as a “Split Item”.

In an on-line WIC environment, this is not an issue as the tender may be reversed in transaction, adjustments to the transaction may be made, and then the tender re-presented.

Because of the potential for one of the participants in the process (WIC Agency, Retailer, WIC Participant) to lose benefits/dollars in the non-sufficient funds scenario, this document was prepared to articulate the issues via flow diagrams such that the conditions could be evaluated.

TRANSACTION FLOWS

The following transaction flows have been prepared which outline the use cases given the various paths which may be taken in each scenario. The CVV transaction flows described assume ONLY CVV benefits being deducted from the participant's balance. Note that in practice, the participant will most likely be attempting to redeem benefits for both CVV and non-CVV items, which can increase the complexity of the exchange between the cashier and the participant when dealing with an error scenario.

Here is a summary of the charts:

1. Normal Transaction Flow – Non-CVV

Describes the normal transaction flow for non-CVV items; applies to both offline (smart card) and online (magnetic stripe) WIC EBT processing.

2. CVV Transaction Flow – Sufficient Benefits

Describes the normal transaction flow for CVV items where the participant has plenty of benefits available to cover the cost of the CVV items in the transaction. Applies to both the offline and online systems.

3. CVV Transaction Flow – Insufficient Benefits, customer declines update

Describes the path where the customer has declined the update of the card for their CVV purchase. Applies to both the offline and online systems.

4. CVV Transaction Flow – Insufficient Benefits, Split Tender Not Allowed

Describes a CVV rule which is similar to the current processing rules for WIC where an item may not be a Split Item. 100% utilization of benefits is difficult when split tender is not allowed.

5. CVV Transaction Flow – Insufficient Benefits, Split Tender Allowed; Other tender available

Describes the scenario where split tendering is allowed, and the customer can pay for the balance of the split item with another form of payment. 100% utilization of benefits is possible when the customer has additional funds.

6. CVV Transaction Flow – Insufficient Benefits, Split Tender Allowed, No other tender available, Scenario 1: Customer Takes Split Item

Describes the scenario where the customer cannot pay for the balance of the split item, and the customer is allowed to take the item. Represents loss to the retailer and effectively provides the customer with “more” benefits than what was issued by the WIC

agency.

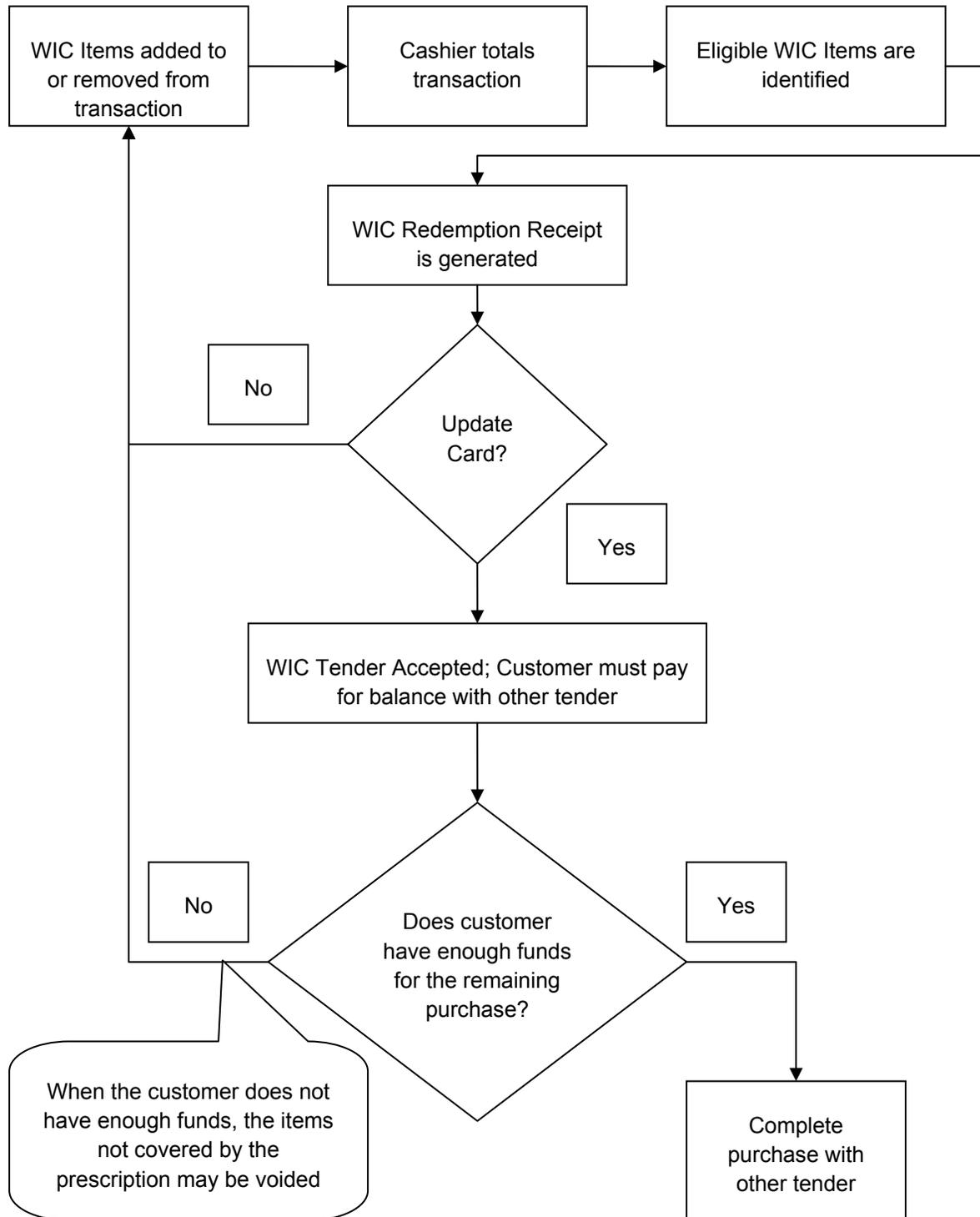
7. CVV Transaction Flow – Insufficient Benefits, Split Tender Allowed, No other tender available, Scenario 2: Customer leaves Split Item

Describes the scenario where the customer cannot pay for the balance of the split item, and the customer must leave the item. “Lose-Lose” scenario – the WIC agency pays for items not purchased, and the customer loses their benefit.

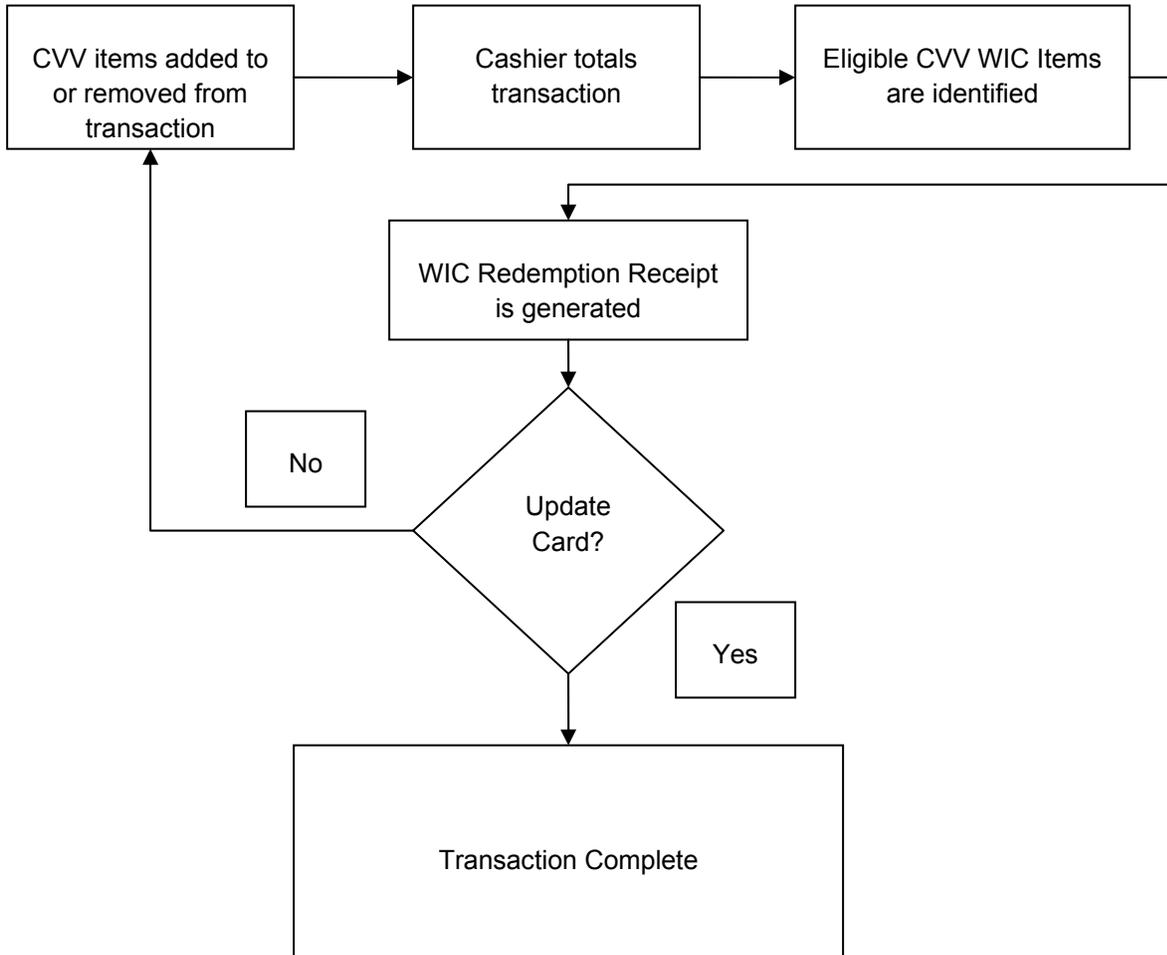
Charts 4 – 7 describe the scenarios which are unique to CVV when the participant does not have sufficient benefits to cover all of the CVV purchases.

- Scenario 4 (Split Tender Not Allowed) treats all CVV items like non-CVV items from a redemption perspective.
- Scenarios 5-7 (Split Tender Allowed) introduce a new way to handle benefits, such that a customer must understand that their benefit for canned formula is different than the benefit for canned peas and fresh fruit.
- Scenarios 6 & 7 describe the problem scenarios where the customer does not have funding to pay for the balance of the CVV items. These scenarios are especially problematic due to the fact that there is no process or mechanism to either correct the entry or give back the benefit once the card is updated.
- Scenario 7 is particularly troublesome when the customer made a mistake when performing the update and now is in a situation where their benefit is exhausted, yet they might have chosen to use the benefit for a different, lesser priced item.

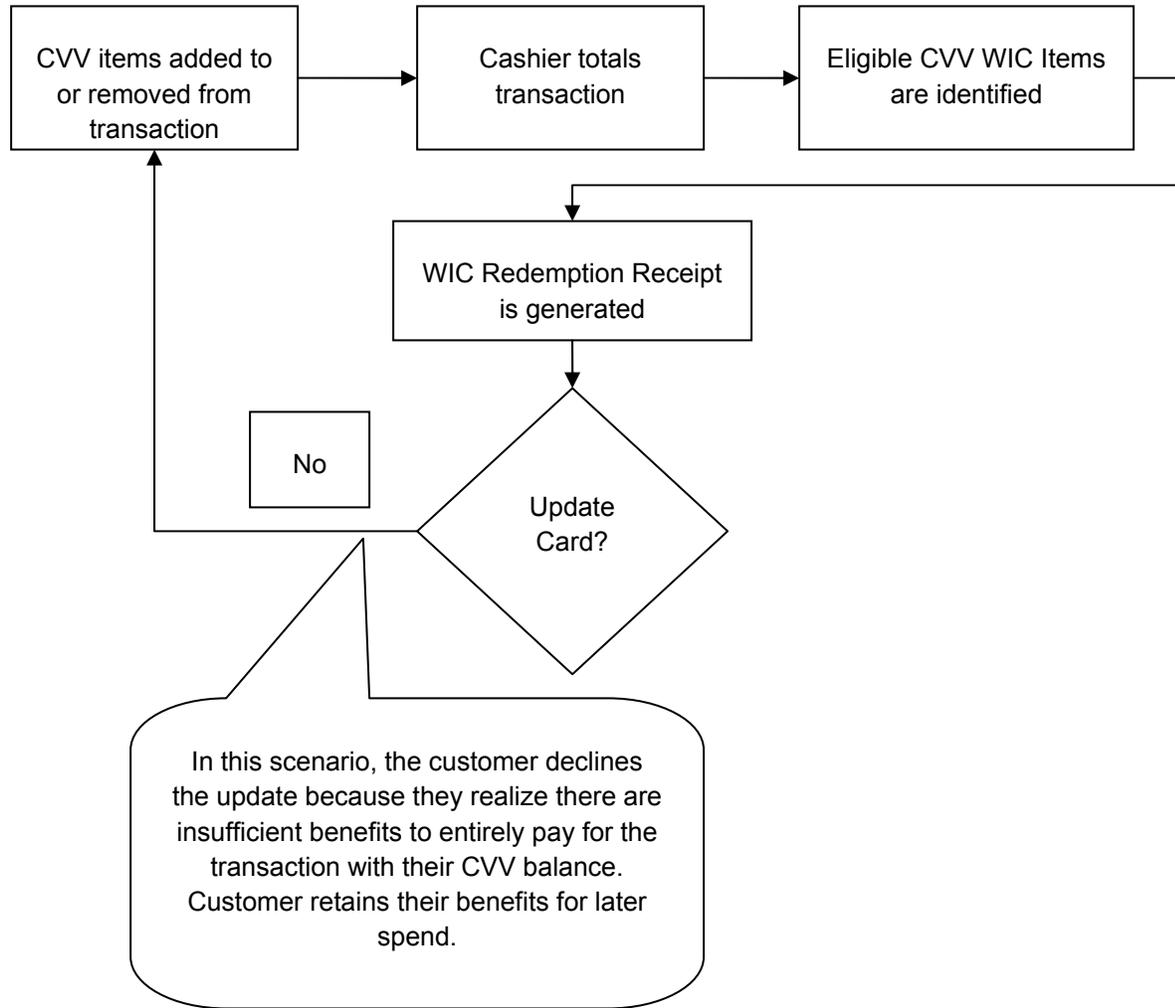
1. NORMAL TRANSACTION FLOW – NON-CVV



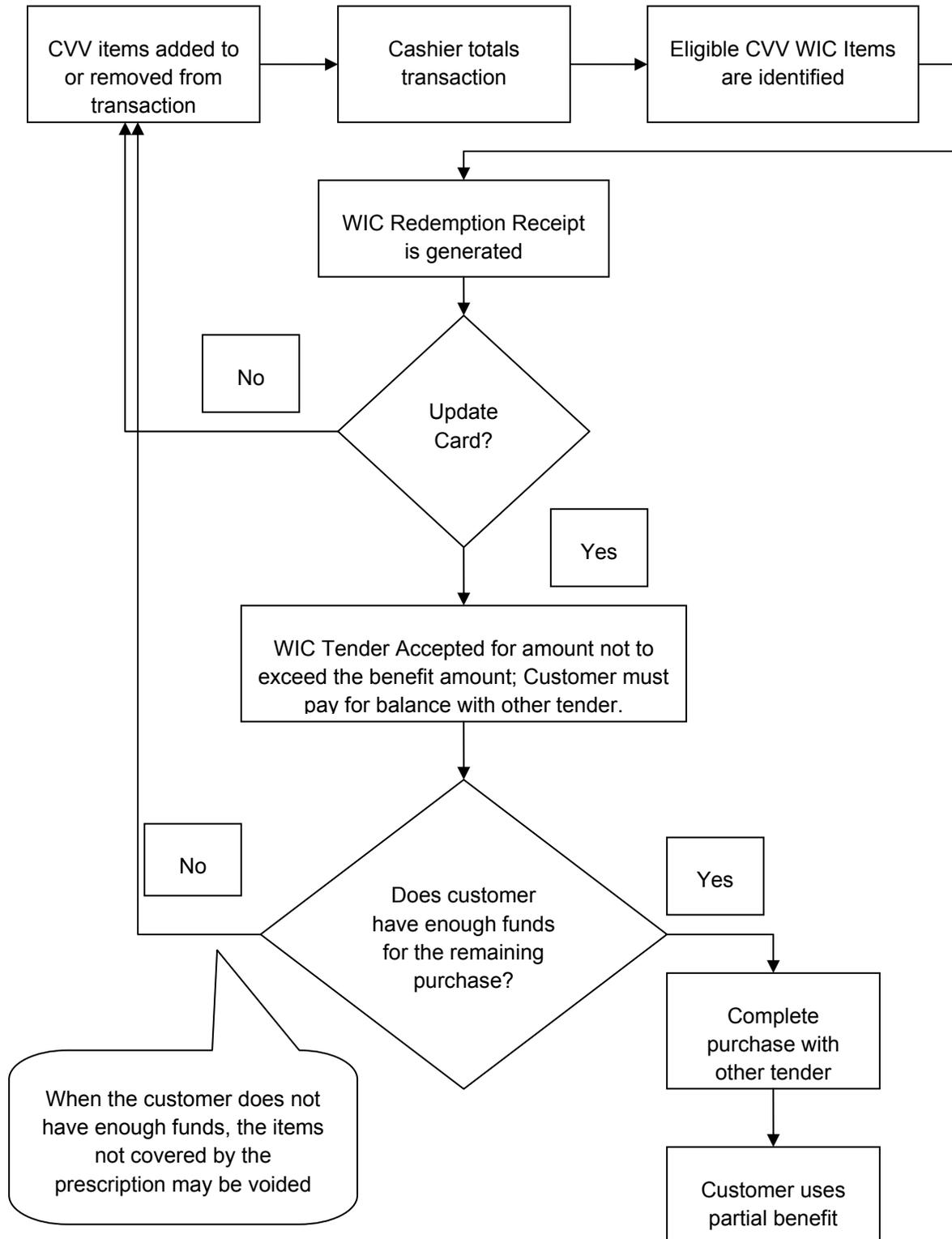
2. CVV TRANSACTION FLOW – SUFFICIENT BENEFITS



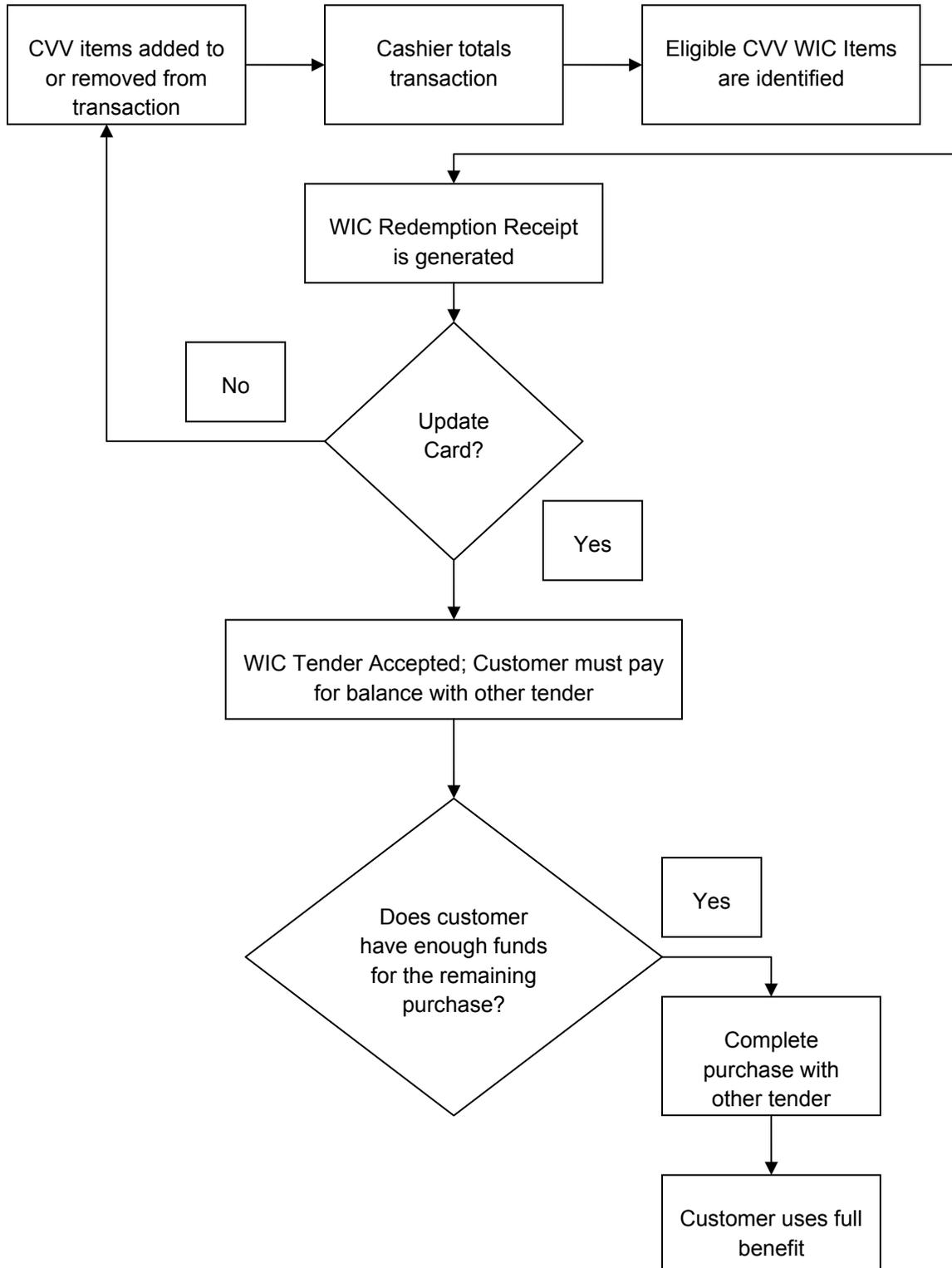
3. CVV TRANSACTION FLOW – INSUFFICIENT BENEFITS, CUSTOMER DECLINES UPDATE



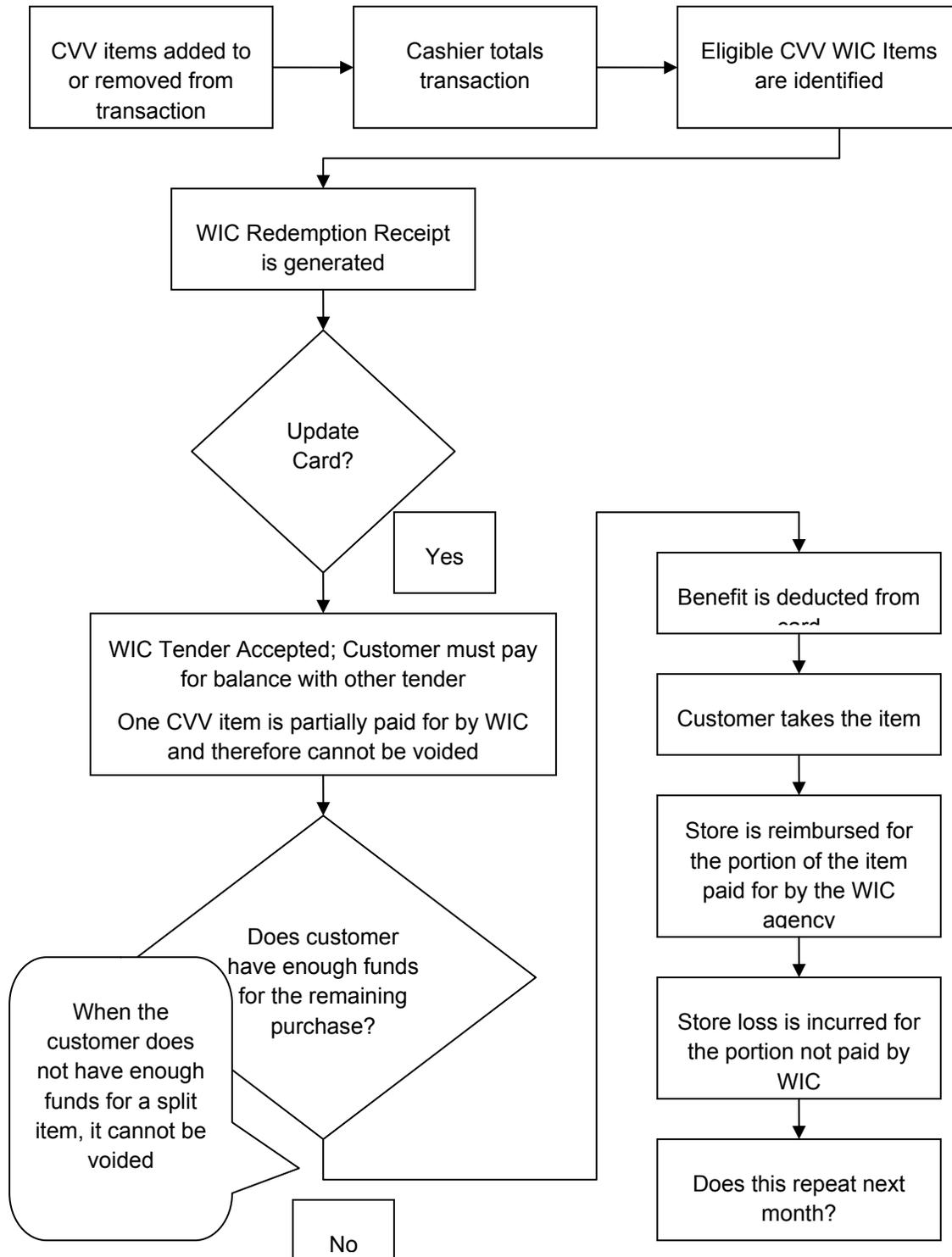
4. CVV TRANSACTION FLOW – INSUFFICIENT BENEFITS, SPLIT TENDER NOT ALLOWED



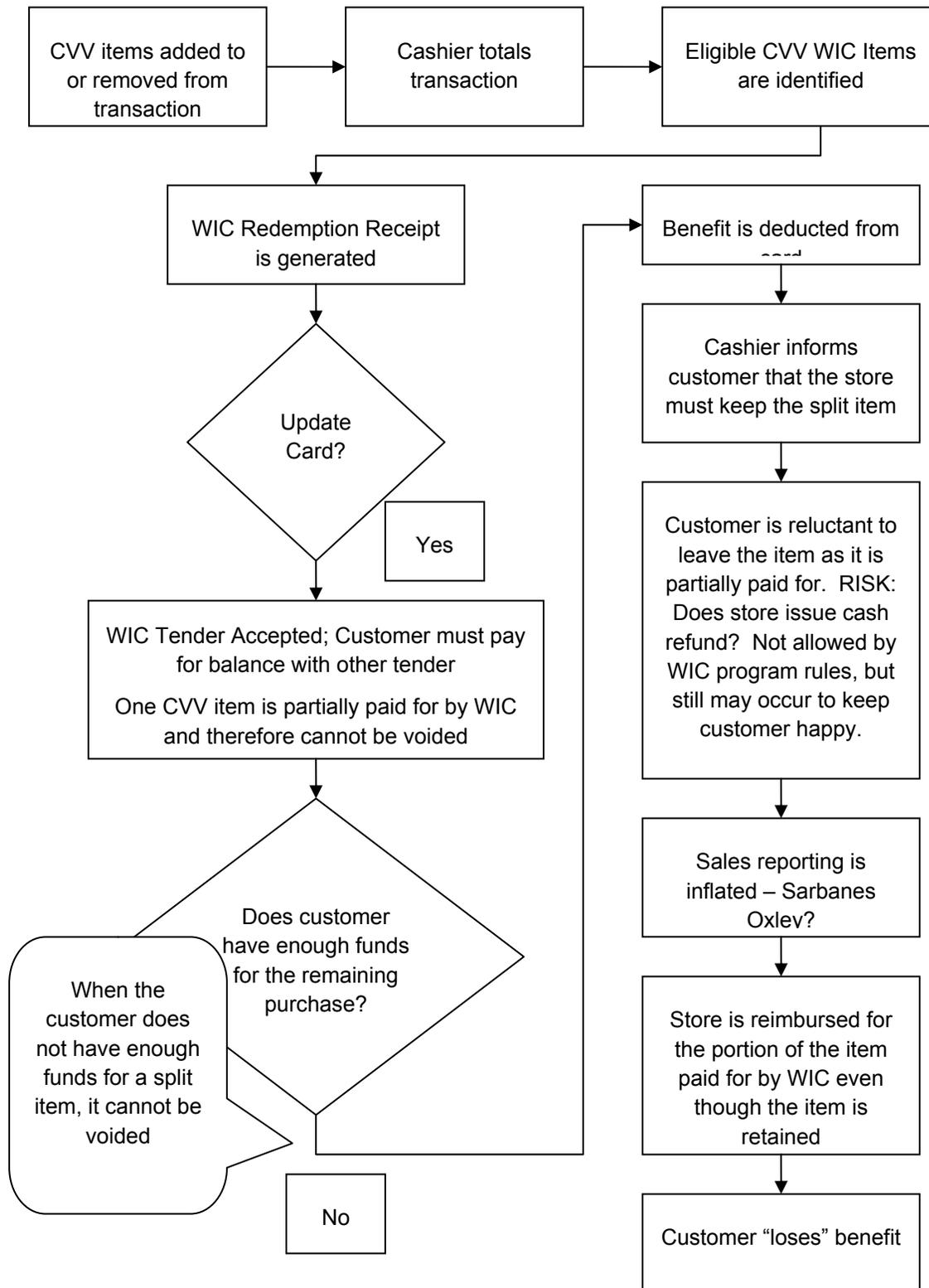
5. CVV TRANSACTION FLOW – INSUFFICIENT BENEFITS, SPLIT TENDER ALLOWED; OTHER TENDER AVAILABLE



6. CVV TRANSACTION FLOW – INSUFFICIENT BENEFITS, SPLIT TENDER ALLOWED, NO OTHER TENDER AVAILABLE, SCENARIO 1: CUSTOMER TAKES SPLIT ITEM



7. CVV TRANSACTION FLOW – INSUFFICIENT BENEFITS, SPLIT TENDER ALLOWED, NO OTHER TENDER AVAILABLE, SCENARIO 2: CUSTOMER LEAVES SPLIT ITEM



C. COUPONS AND DISCOUNTS

Alternatives Analysis

Coupons and Discounts for Cash Value Voucher (CVV)

June 27, 2008

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INTRODUCTION

Following its issuance of new dietary guidelines for the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), the Food and Nutrition Service (FNS) committed to providing state WIC Authorities and food retail industry representatives federal policy and business rules for their implementation of changes to WIC food packages at the point-of-sale. During early planning, industry representatives identified the application of coupons and discounts as a 'challenge'. Retail electronic cash register and point-of-sale (ECR/POS) systems manufacturers, integrators and retail information technology (IT) managers voiced concerns about the complexity, the required level of effort, and the fixed timeline (deadline) for modified ECR/POS system design, development, implementation and recertification. This report identifies the alternatives considered, the advantages and disadvantages of each, and the recommended approach for the application of coupons and discounts in retail ECR/POS systems modified and recertified to initiate WIC CVV purchase requests and WIC CVV purchase transaction processing on or before October 1, 2009.

ALTERNATIVES CONSIDERED

The following three (3) alternatives were considered by the FNS, by State WIC Authorities, and by WIC authorized vendors and their retail ECR/POS systems manufacturers, integrators and managers related to WIC CVV item purchase price and claim amounts

1. FULL PRICE APPLIED/DEDUCTED.

Current policy requires coupons and discounts be applied at the item level and, if not at the item level, at the transaction level. Free items are not deducted from a participant's benefit account, nor are the reported as part of the WIC sale. Business rules and technical specifications require the retail ECR/POS system, as part of WIC EBT purchase transaction processing, to transmit both non-discounted (shelf) pricing and the discount applied to food items and a WIC EBT purchase transaction to the WIC EBT host. In offline systems, the WIC EBT host uses item level prices, total claim price, and the reported discount amount to perform selected security and integrity checks as a condition for claim processing and payment. Effectively, this approach does not reduce the amount of benefits deducted from the WIC participant's account; it does, however, reduce the amount paid by WIC to the vendor.

2. DISCOUNT (NET) PRICE APPLIED/DEDUCTED.

For this alternative, the current policy would continue that requires coupons and discounts be applied at the item level and, if not at the item level, at the transaction level. Free items would also not be deducted from a participant's benefit account nor reported as part of the WIC sale. For the implementation of WIC CVV, instead of reporting non-discounted item pricing, the retail ECR/POS would calculate the discount, apply the discount, and report only the "net value" or "net price" of the item and of the sale. Consistent with non-discounted CVV food items, the quantity and price fields would be identical. Effectively, this approach reduces the amount of WIC CVV benefits deducted from the WIC participant's account and also reduces the amount paid by WIC to the vendor.

3. VENDOR CHOICE: FULL OR DISCOUNT.

This alternative allows WIC vendors, at their option, to design, develop and implement WIC CVV transaction processing in a way that maximizes a WIC participant's access and use of WIC CVV benefits, beyond a minimum standard.

ADVANTAGES/DISADVANTAGES

The table below identifies the advantages and disadvantages identified for each of the above-described alternatives.

Description	√ Yes	√- Possible	No
	Alternative #1	Alternative #2	Alternative #3
A. WIC Program Realizes Discount	√	√	√
B. WIC Participant Realizes Discount		√	√
C. Ensures Timely WIC CVV Implementation (October 1, 2009)	√	√-	√-
D. Maintains Return on Investment (ROI)	√-	√-	√-
E. Maintains EBT Efficiency: Reduced "Time In-Lane"	√-	√-	√-

A. WIC PROGRAM REALIZES DISCOUNT

In each of the three alternatives, the WIC Program payment to the vendor is reduced by the amount of the applied coupons and discounts. There is an equal advantage offered by each alternative to the WIC Program.

Alternative #1: A WIC participant purchases a cello bag of fresh lettuce for \$1.25/bag from the produce department. A store coupon (\$.50) is presented. The WIC purchase amount reported is \$1.25; the discount amount reported to WIC is \$.50. The value of WIC CVV benefits decremented from the WIC participant's account is the full price, \$1.25; WIC pays the vendor \$.75.

Alternative #2: A WIC participant purchases a cello bag of fresh lettuce for \$1.25/bag from the produce department. A store coupon (\$.50) is presented. The WIC purchase amount reported

is \$.75; the discount amount reported to WIC is \$.00. The value of WIC CVV benefits decremented from the WIC participant's account is the discount (net) price, \$.75; WIC pays the vendor \$.75.

B. WIC PARTICIPANT REALIZES DISCOUNT

In Alternative #1, the full price of the lettuce is decremented from the WIC participant's account. In Alternative #2, the discount (net) amount is decremented from the WIC participant's account; in Alternative #2, \$.50 remains available in the CVV account.

C. ENSURES TIMELY WIC CVV IMPLEMENTATION

A major concern of all involved is whether defined policy and business rules for WIC CVV will adversely impact a WIC vendor's ability to implement, test and be recertified in advance of the FNS deadline, October 1, 2009.

Only the selection of Alternative #1 affords WIC vendors and WIC Authorities some level of assurance that the required changes to retail ECR/POS systems can be completed and tested and systems can be recertified timely. Alternative #1 enables retail ECR/POS system developers and integrators to utilize existing logic and code in their design and programming of changes required for the implementation of WIC CVV. Both Alternative #2 and Alternative #3 require considerable planning, design and definition of new systems logic and code. Currently, retail ECR/POS systems neither calculate nor report "net" quantity or price for either a WIC food item or a WIC purchase. Furthermore, additional in-depth study and analyses are necessary to define "how" transaction level discounts should be applied to WIC CVV item purchases, specifically to avoid any rounding errors and, for offline systems, to avoid any errors in calculating the electronic signature, since WIC CVV 'quantity' and WIC CVV 'price' are essentially the same. Alternatives #2 and #3 were believed to be 'high risk' for WIC vendors committed to meeting the federal deadline.

D. MAINTAINS RETURN ON INVESTMENT (ROI)

Regardless of the alternative selected, additional effort will be required of the WIC Authority and WIC vendors to implement changes to WIC food packages, including WIC CVV benefits. The negative impact on their return on investment (ROI) in WIC EBT will be shared, one-time and non-recurring; any long-term impact(s) can be managed (avoided) by planning, developing and implementing an effective training/retraining program for key WIC EBT stakeholders: State WIC Authority and clinic personnel; WIC participants; and WIC vendor personnel – store, produce and customer service managers and clerks. For each stakeholder group, the more effective the training program, the higher the ROI.

E. MAINTAINS EBT EFFICIENCY: REDUCED TIME IN-LANE

The popularity of WIC EBT is largely based in the cost and other efficiencies realized by each stakeholder group after their conversion from paper-based WIC benefits issuance and WIC food delivery. During their consideration of WIC CVV system design alternatives, WIC vendors and those who manufacture, implement and support retail ECR/POS systems operations voiced their concern that

the implementation of WIC CVV not reduce or eliminate gained cost and operational efficiencies realized following the implementation of WIC EBT. WIC vendors were particularly concerned about the potential for customer confusion, confrontations with store clerks and loss of customer loyalty and sales. WIC Authorities shared vendors' concerns about customer confusion and in lane confrontations, but also voiced concerns about participants' loss of interest in purchasing fruits and vegetables and a possible reduction in WIC participation. Finally, retail ECR/POS industry representatives urged FNS and State WIC Authorities to standardize in lane processes to the degree possible, to minimize differences across systems while taking into consideration the variance in technological and processing capabilities.

Each alternative poses one or more unique challenges to the implementers of WIC CVV – WIC Authority, WIC vendors and retail ECR/POS systems industry. However, the planning, development and implementation of an effective training program by each stakeholder group was identified as the single most effective means of avoiding lost efficiencies and any increase in the 'time in lane' for WIC CVV fruit or vegetable purchases. In summary, the selection of Alternative #1 was believed to minimize the training needs for WIC Authority personnel, but increase the training needs of WIC participants and WIC vendor (clerk) personnel. In comparison, the selection of Alternative #2 was believed to increase the specialized training of WIC Authority personnel (i.e., retail ECR/POS system certification) while minimizing the training needs of WIC participants and WIC vendor clerks, possibly since it may 'normalize' the WIC CVV purchase as one occurring with Food Stamps or cash. Finally, as an offset to possible competitive advantages offered by Alternative #3, there was a general concern that the selection of Alternative #3 could add to client confusion, creating the need for training performed in a WIC clinic to address the differences among WIC vendor retail ECR/POS systems.

USE CASE SCENARIOS

The following are a representative sample of WIC CVV 'use case' scenarios in which WIC participants use WIC CVV benefits, WIC prescribed benefits and other tender to purchase WIC CVV food items. In each, 'item specific' manufacturer and store coupons and discounts are applied first; store discounts applied next, at the transaction level, with percentage and fixed discounts prorated across and applied to each payment source (i.e., WIC CVV, prescribed WIC, and non-WIC). To facilitate discussion and analysis of WIC CVV coupon and discount policy alternatives, each transaction is viewed as having taken place in an Alternative #1 and Alternative #2 WIC EBT store host-to-WIC host processing involvement

A. SINGLE ITEM PURCHASE; ITEM-SPECIFIC MANUFACTURER OR STORE COUPON

THE WIC CVV ITEM PRICE WITHOUT A COUPON IS EQUAL TO OR LESS THAN AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents a single WIC CVV item for purchase. The available WIC CVV balance is \$3.00. The price of the item is \$1.00, and the participant has a store coupon for \$.50 off the WIC CVV item price.

Alternative #1. The WIC purchase amount reported is \$1.00; the discount amount reported is \$.50. The value of WIC CVV benefits decremented from the WIC participant's account is \$1.00; WIC pays the vendor \$.50.

Alternative #2. The WIC purchase amount reported is \$.50; no discount amount is reported. The value of WIC CVV benefits decremented from the WIC participant's account is \$.50; WIC pays the vendor \$.50.

THE WIC CVV ITEM PRICE WITHOUT A COUPON IS MORE THAN AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE COUPON, THE WIC CVV ITEM PRICE IS EQUAL TO OR LESS THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents a single WIC CVV item for purchase. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$3.25, and the participant has a store coupon for \$.25 off the WIC CVV item price.

Alternative #1. In an offline system, the sale is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without

split tender capability, the sale of the WIC CVV item is denied for the same reason. In an online system with split tender capability, the sale is approved. The WIC purchase amount reported is \$3.00; the discount amount reported is \$.25. A total of \$3.00 in WIC CVV benefits is decremented from the WIC participant's account. WIC pays the vendor \$3.00. The participant pays the vendor nothing

Alternative #2. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same reason. In an online system with split tender capability, the sale is approved. The WIC purchase amount reported is \$3.00; the discount amount reported is \$.00. A total of \$3.00 in WIC CVV benefits is decremented from the WIC participant's account. WIC pays the vendor \$3.00. The participant pays the vendor nothing.

THE WIC CVV ITEM PRICE WITHOUT A COUPON IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE COUPON, THE WIC CVV ITEM PRICE REMAINS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents a single WIC CVV item for purchase. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$3.50, and the participant has a store coupon for \$.25 off the WIC CVV item price.

Alternative #1. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same reason. In an online system with split tender capability, the sale is approved. The WIC purchase amount reported is \$3.00; the discount amount is \$.25. A total of \$3.00 in WIC CVV benefits is decremented from the participant's account. The participant pays \$.25 in cash. WIC pays the vendor \$3.25.

Alternative #2. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same reason. In an online system with split tender capability, the sale is approved. The WIC purchase amount reported is \$3.00; no discount amount is reported. A total of \$3.00 in WIC CVV benefits is decremented from the participant's account. The participant pays \$.25 in cash. WIC pays the vendor \$3.00.

B. SINGLE ITEM PURCHASE; TRANSACTION-LEVEL DISCOUNT

THE WIC CVV ITEM PRICE WITHOUT A TRANSACTION-LEVEL DISCOUNT IS EQUAL TO OR LESS THAN AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents a single WIC CVV item for purchase. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$1.00, and the Store Loyalty Program discount is ten percent (10%) off the WIC CVV item price.

Alternative #1. The WIC purchase reported is \$1.00; the discount amount reported is \$.10. A total of \$1.00 in WIC CVV benefits is decremented from the WIC participant's account. WIC pays the vendor \$.90.

Alternative #2. The WIC purchase reported is \$.90; no discount amount is reported. A total of \$.90 in WIC CVV benefits is decremented from the participant's account. WIC pays the vendor \$.90.

THE WIC CVV ITEM PRICE WITHOUT A TRANSACTION-LEVEL DISCOUNT IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE TRANSACTION-LEVEL DISCOUNT, THE WIC CVV ITEM PRICE IS EQUAL TO OR LESS THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents a single WIC CVV item for purchase. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$3.25. The participant has a manufacturer coupon for \$.25 off the WIC CVV item price, and the Store Loyalty Program discount is ten percent (10%) off the WIC CVV item price.

*Alternative #1. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same reason. In online systems with split tender capability, the sale is approved. In a system that applies manufacturer coupons first and store coupons or discounts second, the WIC purchase price reported is \$3.00. The WIC discount amount reported is \$.30. [$\$3.25 - .25 = \3.00 ; $\$3.00 * .90 = \2.70 ; and $\$3.00 - \$2.70 = \$.30$]. A total of \$3.00 in WIC CVV benefits are deducted from the participant's account. WIC pays the vendor \$2.70*

Alternative #2. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same rea-

son. In an online system with split tender capability, the sale is approved. In a system that applies manufacturer coupons first and store coupons or discounts second, the WIC purchase price reported is \$2.70. No discount is reported. A total of \$2.70 in WIC CVV benefits is decremented from the WIC participant's account. WIC pays the vendor \$2.70.

THE WIC CVV ITEM PRICE WITHOUT A TRANSACTION-LEVEL DISCOUNT IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE TRANSACTION-LEVEL DISCOUNT, THE WIC CVV ITEM PRICE REMAINS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents a single WIC CVV item for purchase. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$3.50, and the Store Loyalty Program discount is ten percent (10%) off the WIC CVV item price.

Alternative #1. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same reason. In an online system with split tender capability, the sale is approved. The WIC purchase is reported as \$3.00. No discount is reported. The Loyalty Program discount is \$.35 ($\$3.50 \times .90$). A total of \$3.00 in WIC CVV benefits is decremented from the WIC participant's account. WIC pays the vendor \$3.00. The WIC participant pays \$.15 in cash.

Alternative #2. In an offline system, the sale of the WIC CVV item is denied because the WIC CVV item price exceeds the benefit balance in the participant's WIC CVV account. In an online system without split tender capability, the sale of the WIC CVV item is denied for the same reason. In an online system with split tender capability, the sale is approved. The WIC purchase is reported as \$3.00. A total of \$3.00 in WIC CVV is decremented from the WIC participant's account. No discount is reported. WIC pays the vendor \$3.00. The WIC participant pays the clerk \$.15 cash

C. MULTIPLE ITEM PURCHASE; ITEM-SPECIFIC MANUFACTURER OR STORE COUPON FOR WIC CVV ITEM

THE WIC CVV ITEM PRICE WITHOUT A COUPON IS EQUAL TO OR LESS THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents 3 items for purchase: a WIC prescribed item, a WIC CVV item, and a non-WIC item. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$1.00. A

manufacturer coupon is presented for \$.25 off the WIC CVV item price. The WIC prescribed item price is \$1.00. The non-WIC item price is \$1.00.

Alternative #1. A total of \$1.00 WIC CVV is decremented from the participant's WIC CVV account, and \$.25 is entered into the discount field. The WIC purchase reported is \$2.00, which is the sum of the WIC CVV item full price (\$1.00) and the WIC prescribed item full price (\$1.00). The participant pays \$1.00 for the non-WIC item (\$1.00) with cash. WIC pays the vendor \$1.75

Alternative #2. A total of \$.75 WIC CVV is decremented from the participant's WIC account, which is \$1.00 - \$.25 coupon. The WIC purchase amount reported is \$1.75, which is the total of the WIC CVV purchase and the WIC prescribed purchase. No discount amount is reported. The WIC participant pays \$1.00 for the non-WIC item with cash. WIC pays the vendor \$1.75.

THE WIC CVV ITEM PRICE WITHOUT A COUPON IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE COUPON, THE WIC CVV ITEM PRICE IS EQUAL TO OR LESS THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents 3 items for purchase: a WIC prescribed item, a WIC CVV item, and a non-WIC item. The WIC CVV balance is \$3.00. The WIC CVV item price is \$3.25. A manufacturer coupon is \$.25 off the WIC CVV item price. The WIC prescribed item price is \$1.00. The non-WIC item price is \$1.00. The WIC participant does not elect to pay for the WIC CVV item with alternate tender (cash).

Alternative #1. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender capability, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. A total of \$3.00 is decremented from the participant's WIC CVV account. The WIC purchase reported is \$4.00, which is the sum of the WIC CVV (\$3.00) and the WIC prescribed purchase (\$1.00). No discount amount is reported. The discount amount reported is \$.25 is entered into the discount field. WIC pays the vendor \$4.00. The participant pays \$1.00 for the non-WIC item with cash.

Alternative #2. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. A total of \$3.00 is decremented from the participant's WIC CVV account. The WIC purchase amount reported is \$4.00, the sum of the WIC CVV item (\$3.00) and the WIC prescribed item (\$1.00). No discount is reported. WIC pays the vendor \$4.00. The participant pays \$1.00 for the non-WIC item with cash.

THE WIC CVV ITEM PRICE WITHOUT A COUPON IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE COUPON, THE WIC CVV ITEM PRICE REMAINS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents 3 items for purchase: a WIC prescribed item, a WIC CVV item, and a non-WIC item. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$3.50. A manufacturer coupon is presented for \$.25 off the WIC CVV item price. The WIC prescribed item price is \$1.00. The non-WIC item price is \$1.00.

Alternative #1. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. The WIC CVV item price is reduced by the amount of the manufacturer coupon (\$.25), from \$3.50 to \$3.25. A total of \$3.00 in WIC CVV benefits is decremented from the participant's WIC CVV account balance. The WIC purchase reported is \$4.00, which is the sum of the WIC CVV item and the WIC prescribed item. There is no discount amount reported to WIC. WIC pays the vendor \$4.00. The participant pays the clerk \$1.25 in cash, \$1.00 for the non-WIC item and \$.25 for the balance owed for the WIC CVV item.

Alternative #2. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. The WIC CVV item price is reduced by the amount of the manufacturer coupon (\$.25), from \$3.25 to \$3.00. A total of \$3.00 in WIC CVV benefits is decremented from the participant's WIC account. The WIC purchase reported is \$4.00, which is the sum of the WIC CVV item and the WIC prescribed item. There is no discount amount reported to WIC. WIC pays the vendor \$4.00. The participant pays the clerk \$1.25 in cash, \$1.00 for the non-WIC item and \$.25 for the balance owed for the WIC CVV item.

D. MULTIPLE ITEM PURCHASE, TRANSACTION-LEVEL DISCOUNT

THE WIC CVV ITEM PRICE WITHOUT A TRANSACTION-LEVEL DISCOUNT IS EQUAL TO OR LESS THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents 3 items for purchase: a WIC prescribed item, a WIC CVV item, and a non-WIC item. The participant's WIC CVV balance is \$3.00. The WIC CVV item price is \$1.00; the WIC prescribed item price is \$1.00; the non-WIC item price is \$1.00. The Store Loyalty Program discount is ten percent (10%).

Alternative #1. Each of the 3 items is discounted by 10%: the WIC CVV item reduced price is \$.90; the WIC prescribed item reduced price is \$.90; and the non-WIC item reduced price is \$.90. The WIC purchase reported is \$2.00, which is the sum of the non-reduced prices of the WIC CVV item and the WIC prescribed items. The discount amount reported is \$.20, the sum of the discounts for the WIC CVV item and the WIC prescribed item. A total of \$1.00 is decremented from the WIC CVV benefits balance. WIC pays the vendor \$1.80. The participant pays the clerk \$.90 cash, which is the reduced price of the non-WIC item.

Alternative #2. The WIC reported price is \$1.80, which is the sum of the reduced price WIC CVV item and the reduced price WIC prescribed item. No discount is reported. WIC pays the vendor \$1.80. The participant pays the clerk \$.90 cash for the non-WIC item.

THE WIC CVV ITEM PRICE WITHOUT A TRANSACTION-LEVEL DISCOUNT IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE TRANSACTION-LEVEL DISCOUNT, THE WIC CVV ITEM PRICE IS EQUAL TO OR LESS THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents 3 items for purchase: a WIC prescribed item, a WIC CVV item, and a non-WIC item. The WIC CVV balance is \$3.00. The WIC CVV item price is \$3.30; the WIC prescribed item price is \$1.00; the non-WIC item price is \$1.00. The Store Loyalty Program discount is ten percent (10%).

Alternative #1. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. The WIC purchase reported is \$4.00, which is the sum of the WIC CVV item (\$3.00) and the WIC prescribed item (\$1.00). The discount reported is \$.13, which is the sum of the \$.10 for the WIC prescribed item and \$.03 [$\$3.00 - (\$3.30 \cdot 10 = \$.33)$]. WIC pays \$3.87. The WIC participant pays \$.90 for the non-WIC item.

Alternative #2. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. The WIC purchase reported is \$3.87. No discount is reported. WIC pays the vendor \$3.87, and the WIC participant pays \$.90 cash for the non-WIC item.

THE WIC CVV ITEM PRICE WITHOUT A TRANSACTION-LEVEL DISCOUNT IS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE; WITH THE TRANSACTION-

LEVEL DISCOUNT, THE WIC CVV ITEM PRICE REMAINS MORE THAN THE AVAILABLE WIC CVV BENEFITS BALANCE.

A WIC participant presents 3 items for purchase: a WIC prescribed item, a WIC CVV item, and a non-WIC item. The WIC CVV balance is \$3.00. The WIC CVV item price is \$3.50; the WIC prescribed item price is \$1.00; the non-WIC item price is \$1.00. The Store Loyalty Program discount is ten percent (10%).

Alternative #1. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. The WIC purchase reported is \$4.00, the sum of the WIC CVV item (\$3.00) and the WIC prescribed item (\$1.00). The discount reported to WIC is \$.40, which is 10% of the sum of the WIC items. WIC pays the vendor \$3.60. The WIC participant pays \$1.35 in cash, which is the sum of the unpaid balance for the WIC CVV item (\$.45) and the discounted price for the non-WIC item (\$.90). The store value of the transaction is \$4.95.

Alternative #2. In an offline system, the sale of the WIC CVV item is denied. In an online system without split tender functionality, the sale of the WIC CVV item is denied. In an online system with split tender functionality, the sale is approved. A total of \$2.70 in WIC CVV benefits is decremented from the WIC participant's account. The WIC purchase reported is \$3.60, the sum of the reduced WIC CVV item price (\$2.70) and the reduced WIC prescribed item price (\$.90). No discount amount is reported. The WIC participant pays \$1.35 in cash, which is the sum of the unpaid balance for the WIC CVV item (\$.45) and the discounted price for the non-WIC item (\$.90). The store value of the transaction is \$4.95.

RECOMMENDATION

The recommended approach is Alternative #1, to adopt the current FNS policy, business rules and retail ECR/POS system functionality for the application of coupons and discounts to prescribed WIC food purchases and apply it to WIC food purchases with WIC CVV benefits.

D. WIC CVV IMPLEMENTATION CONSIDERATIONS/RECOMMENDATIONS

WIC CVV Implementation Considerations/Recommendations

There are several administrative and operational issues to be considered when planning for the implementation of changes to WIC Food Rules, including the introduction of WIC Cash Value Voucher (CVV) benefits, on or before October 1, 2009, the deadline established by the U.S. Department of Agriculture, Food and Nutrition Service, in the Interim Final Rule.

The introduction of WIC CVV benefits poses several challenges, many of which are addressed by programming changes within WIC vendors' commercial electronic cash register/point-of-sale (ECR/POS) systems, which will necessitate the scheduling and conduct of Level 2 (lab) and Level 3 (store level) recertification tests. However, there are other activities that must occur that are not system related, such as modifications to store policy, changes in store operations, and re-training of store personnel.

The purpose of this document is to identify and discuss WIC vendor considerations and recommendations for minimizing the risks related to WIC CVV implementation:

- WIC authorized vendors will not be "WIC CVV Ready" and capable of redeeming WIC CVV benefits in advance of the date WIC clinics will begin issuing WIC CVV benefits;
- In-store operations support for WIC CVV will conflict with operations support for non-WIC sales, resulting in increased time in-lane and other lost WIC EBT efficiencies; and
- Retail ECR/POS system "mapping" could increase vendor risk of WIC program violations, resulting in monetary penalties or other sanctions.

Store Department Management/Operations

- Vendors Currently Using IFPS PLU Codes. It is recommended that WIC Vendors currently utilizing IFPS compliant PLU Codes within their produce and grocery departments:
 - Identify which IFPS codes are used and not in use within a store;
 - Determine which IFPS codes in use identify products not WIC CVV approved, based on a review of the Interim Final Rule and/or a comparison of PLUs assigned in the ECR/POS system and PLUs in the WIC APL;
 - Reserve within the ECR/POS system PLU #4469, the PLU code designated by the FNS to be WIC CVV and, if currently grocer assigned (in use), assign the produce item a new PLU code value and reassign PLU #4469 as WIC CVV.
- WIC Vendors Not Currently Using IFPS PLU Codes. It is recommended for WIC Vendors not currently utilizing IFPS compliant PLU codes within their produce department to convert, at least for WIC CVV fruits and vegetables. The deadline for conversion will vary by state; a store's

ECR/POS system must confirm fresh fruits and vegetables redeemed with WIC CVV benefits are those within a State WIC Authority's APL in order to successfully complete Level 2 and/or Level 3 recertification testing. WIC authorized stores will be Level 3 certified prior to the issuance of WIC CVV benefits in WIC clinics. It is recommended a store be Level 3 certified as WIC CVV Ready no less than sixty (60) days in advance of the WIC agency conversion in states issuing single month WIC EBT benefits and no less than 120 days in advance of the WIC agency conversion in states issuing multiple months WIC EBT benefits. It is recommended WIC vendors not familiar with use of IFPS PLU codes consult the "Produce PLU User's Guide – 2006" document found on the internet at: http://www.plucodes.com/docs/IFPS-plu_codes_users_guide.pdf.

- **Purchase Authorization – APL 'Mapping'**. Mapping enables State WIC Authorities and WIC vendors to maintain APL matching as the basis for ECR/POS system approval of WIC food purchases with WIC CVV benefits. Mapping allows WIC vendors to map or associate WIC CVV eligible PLUs and UPCs within their ECR/POS systems with one or more PLUs within the APL issued by a State WIC Authority as eligible for purchase with WIC CVV benefits, thus avoiding the need to standardize PLUs designated as 'grocer-assigned' nationwide. This specification allows a State WIC Authority to require mapping of grocer assigned PLU codes 1) to an IFPS 'produce specific' PLU code for the same or similar type of produce, referred to as 'full mapping'; or 2) to allow vendors to map grocer-assigned PLUs to a single PLU identifier designated by the FNS to be 'WIC CVV', referred to as 'partial mapping'. Additionally, a WIC Authority may allow mapping of UPCs for pre-packaged fresh fruits and vegetables and for frozen, canned and dried fruits and vegetables. Finally, the specification requires all State WIC Authorities to issue and maintain a standard APL with IFPS produce-specific PLU codes.¹⁶
 - *Full Mapping*. For full mapping, it is recommended WIC vendors 1) identify the grocer assigned PLUs for not WIC authorized and ensure no grocer assigned PLU for a non-WIC CVV fruit or vegetable is mapped to a PLU that is WIC CVV; 2) identify the grocer assigned PLUs used to identify WIC CVV authorized produce and 'map' the grocer assigned PLU to a produce-specific PLU present within the APL for produce of the same or a similar type; and 3) confirm by testing that fruits and vegetables excluded by FNS for purchase with WIC CVV benefits do not scan at the POS as WIC CVV.

¹⁶ The National UPC Database under construction by FNS will provide the UPC and IFPS produce-specific PLUs for both WIC prescribed and WIC CVV products.

The table below illustrates the methodology for full mapping within a retail ECR/POS system.

Item	Scanned Item Description	Full, One-to-One (1:1) Mapping - Option #1		
		IFPS PLU Code	Mapped PLU	Reported PLU
1	Banana	4011	4011	4011
2	Banana - Retailer Assigned	4237	4011	4011
3	Broccoflower [For Use With All Commodities]	4464	4567	4567

- o *Partial Mapping.* For partial mapping, it is recommended WIC vendors 1) identify all grocer assigned PLUs not WIC authorized and ensure no grocer assigned PLU for a non-WIC CVV fruit or vegetable is mapped within the ECR/POS system to PLU #4469; 2) identify the grocer assigned PLUs used to identify WIC CVV authorized produce, IFPS compliant or non-compliant, and ensure each is mapped to PLU #4469; 3) identify UPCs for fresh fruits and vegetables and map each to PLU #4469; and, if further authorized by the State WIC Authority, 4) identify UPCs for frozen, canned and dried fruits and vegetables and map each to PLU #4469; and 5) confirm by testing that fruits and vegetables excluded by WIC regulations for purchase with WIC CVV benefits do not scan at the POS as WIC CVV.

Below are examples of two (2) options available to WIC authorized retailers when the prevailing WIC authority allows partial mapping. In the first option, the retail ECR/POS approves the WIC CVV product sale based on the produce specific PLU code, when available, and reports the same. In the second option, the retail ECR/POS system approves and reports the WIC CVV food sale based on the generic PLU code designated by FNS to be a WIC CVV eligible food item, PLU Code #4469. In either option #1 or option #2, the prevailing WIC authority may allow similar mapping of WIC CVV food items with UPC and/or GS2 databar identifiers.

Item	Scanned Item Description	Partial, Many-to-One Mapping - Option #1		
		IFPS PLU Code	Mapped PLU	Reported PLU
1	Banana	4011	4011	4011
2	Banana - Retailer Assigned	4237	4469	4469
3	Broccoflower [For Use With All Commodities]	4464	4469	4469

Ideally, mapping capability within an ECR/POS system for either full or partial mapping should be completed and confirmed ready for Level 2 testing no less than 30 days in advance of scheduled Level 3 testing. For Level 3 testing, stores should be ready no less than 30 days in ad-

vance of WIC agency conversion in states issuing single month WIC EBT benefits and 120 days in advance of WIC agency conversion in states issuing multiple month WIC EBT benefits.

- WIC CVV Training. It is important that store management and in-lane personnel know WIC benefits may now be used to purchase fresh fruits and vegetables. If store personnel are unaware of the changes in the WIC food package, stores may experience an increase in in-lane confrontations and loss of sales. It is recommended that WIC vendors evaluate the actual and potential impact(s) of introducing WIC cash value redemptions in the lane on in-store operations and customer relations and consider ‘as needed’ training for store personnel.
 - *Store owners/managers*. Store owners and managers are ultimately responsible for WIC program compliance in accordance with vendor agreements with each State WIC authority. It is a store manager’s responsibility to ensure all CVV fruits and vegetables authorized by a State WIC authority and scanned at the POS are recognized by the store ECR/POS system as CVV and can be purchased with WIC CVV benefits on a participant’s WIC EBT card, if adequate WIC CVV benefits are available. In response to guidance provided by the State WIC Authority, it is highly recommended store management identify all WIC CVV food items (fresh, frozen, canned and dried) and ensure their UPCs and PLUs are ‘flagged’ within the ECR/POS system as WIC CVV. If items are not identified within the ECR/POS system as WIC CVV, the ECR/POS system should not allow their purchase with WIC CVV benefits.
 - *Produce department managers/supervisors*. In medium-to-large size stores, the responsibility for identifying WIC CVV fresh fruits and vegetables as WIC CVV and the responsibility for ‘mapping’ retailer assigned PLUs and UPCs for fresh fruits and vegetables will rest with the produce department manager or supervisor. To facilitate WIC CVV implementation, the State WIC Authority will provide information and assistance to store personnel. It is highly recommended that the produce manager/supervisor receive ‘as needed’ training in what ‘is’ and ‘is not’ WIC CVV since the failure of a store to allow a WIC recipient to purchase WIC CVV fresh fruits and vegetables with WIC CVV benefits is an incident of non-compliance, subject to enforcement by the State WIC Authority.
 - *Grocery department managers/supervisors*. Similarly, in medium-to-large size stores, the responsibility for identifying frozen, canned and dried fruits and vegetables that are WIC CVV will rest with the grocery department manager or supervisor. Once a State WIC Authority determines what other WIC CVV fruits and vegetables (frozen, canned, dried), if any, it will authorize for redemption with WIC CVV benefits, it is the responsibility of the grocer department manager/supervisor to provide the UPCs for all WIC CVV food items to the State WIC Authority. To facilitate this review and reporting process, the State WIC Authority will provide information and assistance to store personnel. It is highly recommended that the grocery department manager/supervisor receive ‘as needed’ training in what ‘is’ and ‘is not’ WIC CVV, since a store’s failure to allow a WIC recipient to purchase authorized WIC CVV fruits and vegetables is an incident of non-compliance, subject to enforcement by the State WIC Authority.

- *Customer service.* The Customer Service (Front End) Manager is often the first line supervisor called upon to answer customer questions and resolve conflicts in-lane between customers and cashiers. WIC participants will receive training in the redemption of WIC EBT benefits for the purchase of fresh fruits and vegetables and, if authorized, frozen, canned and dried fruits and vegetables authorized by the State WIC Authority as WIC CVV. It is highly recommended that customer service personnel receive 'as needed' training in what 'is' and 'is not' WIC CVV and in the store policy and procedures for initiating a store-level requests to the State WIC Authority for the addition of UPCs to the APL. It is also recommended they receive training in basic WIC CVV business rules for the purchase of fruits and vegetables with WIC CVV benefits (i.e., split tender, coupons and discounts, etc.).
- *Cashiers/In-lane personnel.* WIC EBT is credited with significantly the responsibility of the cashier to 'police' WIC purchase transactions; in WIC EBT systems the ECR/POS system is the decision-maker of whether an item is or is not WIC. The same will be true for WIC CVV purchases. However, until WIC participants become accustomed to selecting WIC CVV items for purchase, it is likely the cashier will be challenged by WIC participants if an item selected is not recognized and approved for purchase with WIC CVV benefits. For this reason, it is recommended cashiers receive 'as needed' training in WIC CVV, not only what generally may be purchased with WIC CVV benefits but the store policy and procedures to follow when WIC participants question whether the ECR/POS system has correctly approved or denied a WIC CVV purchase. For offline WIC EBT systems, the cashier should be aware of the business rule prohibiting 'split tender' purchases and the implications of the 'no split tender' rule in a multi-tender store system environment.
- ECR/POS Reports - WIC Cost Containment and WIC Food Sales. WIC CVV implementation guidelines require WIC CVV be designated as a separate WIC food category, Category 19. Since WIC CVV purchases are not subject to cost containment measures such as 'not to exceed' item and peer group pricing controls, ECR/POS system reports related to cost containment may need to be revised to exclude WIC CVV pricing and redemptions data. Reports of store and department sales of WIC foods overall and by WIC food category will not be impacted, unless a revision is needed to add sales data for the produce department.

WIC EBT Host Interface/Processing Considerations

- **WIC EBT Host/WIC Vendor Interface.** The X9.93 standard defines the interface between the WIC EBT Host and WIC authorized vendors for both online and offline systems. Implementation guidance is based on the X9.93:2008 version standard, although FNS agreed to require State WIC Authorities to also support an interim solution based on X9.93:2004, until commercial ECR/POS developers and WIC authorized vendors could migrate to the current ANSI standard. The changes to file formats outlined in the X9.93:2008 version standard does require modifications to both the WIC EBT host and the WIC vendor host systems and the supporting interface. It is recommended WIC vendors contact their ECR/POS system support organization (manufacturer, integrator or technician) to discuss new system design and performance requirements and to establish a schedule for the development, testing and integration of system changes. It is also recommended WIC vendors share the outcome of that meeting, particularly the schedule for integrating WIC CVV upgrades into their stores' existing WIC EBT environment. Listed below are some of the changes that will require changes to one or both hosts and the WIC EBT Host/WIC Vendor Host Interface and that should be discussed with ECR/POS support representatives:
 - **UPC/PLU Data.** UPC/PLU Data exists today, a 17 digit field. The X9.93:2008 standard establishes the first digit as UPC=0 or PLU=1 and the last digit as a check digit for UPCs. FNS implementation guidance clarifies the last digit is also a check digit for PLUs.
 - **UPC/PLU Data Length (New Field).** UPC/PLU data is left-padded with zeros within the UPC/PLU Data field. UPC/PLU Data Length identifies the significant digits within the field, from R to L, after the check digit.
 - **Price Type.** Price type is an existing field, but a new price type value of '03' denotes WIC CVV.
 - **WIC CVV.** FNS has designated Category 19 as WIC CVV. The UPC/PLU data for all foods eligible for purchase with WIC CVV benefits will be within Category 19; WIC CVV benefits cannot be used to purchase WIC prescribed benefits, any category other than Category 19.
 - **Mapping.** The ability to 'map' an existing PLU to a WIC CVV PLU for purchase approval is a new ECR/POS system functionality. Also, the ability to report items scanned (UPC, PLU) as a single PLU is new functionality for the ECR, as well. Mapping does not impact the WIC EBT host or the WIC EBT Host/WIC Vendor Host interface.
 - **APL.** The APL size will increase with the addition of WIC CVV benefits, which may impact system storage and performance.

Other Considerations

- **Implementation Schedule.** Federal regulations require full implementation of the Interim Final Rule and food package changes (WIC CVV) on or before October 1, 2009. The actual date for WIC CVV implementation will vary by state, so WIC vendors are encouraged to contact their State WIC Authority(ies) to determine 'when' the following major tasks/milestones must be completed in order to be certified as 'WIC CVV Ready' at least thirty (30) days in advance of a WIC clinic issuing WIC CVV benefits to clients:
 - Step #1: Store management trained;
 - Step #2: System Upgrade Level 2 Certified (if applicable);
 - Step #3: System installed and Level 3 Certified (outlet recertification);
 - Step #4: In-lane personnel trained; then
 - Step #5: WIC vendor certified as 'WIC CVV Ready'.

- **WIC EBT System Certification – Level 2 and Level 3.** FNS currently requires recertification of vendor ECR/POS systems when changes in configuration or software could potentially impact the integrity and accuracy of WIC food sales. The scope of changes required to implement WIC CVV may require system retest at both Level 2 and Level 3. A WIC vendors should contact its WIC Authority(ies) to establish a tentative schedule for recertification testing, since stores will need to be recertified and WIC staff resources are limited.
 - **Level 2.** Generally, all systems required to undergo Level 2 (lab) certification testing prior to in-store installation will be required to under Level 2 certification testing prior to in-store upgrade.
 - **Level 3.** Current FNS policy requires all store outlets undergo Level 3 testing (recertification) prior to accepting WIC CVV benefits in-lane. Once a vendor's ECR/POS system has successfully completed Level 2 testing, it must successfully complete Level 3 (outlet level) testing. Vendors should plan for all (100%) store outlets to undergo Level 3 testing.

E. REFERENCE DOCUMENTS

Reference Documents

“Fruits and Vegetables Cash Value Voucher” Kentucky Online WIC EBT Project.

“Produce PLU, A Users’ Guide – 2006,” International Federation for Produce Standards. (2006)

“Proposed Texas Fruits and Vegetables Cash Value Business Rules,” Texas Department of State Health Services. (2/2008)

“State of New Mexico Draft Fruits & Vegetables Methods Document” New Mexico WIC.

“WIC Food Packages....Time for a Change, Frequently Asked Questions,” Food and Nutrition Service. (1/31/2008; revised 3/5/2008)

F. MEETING ATTENDEES – DALLAS, TEXAS (APRIL 14-5, 2008)

Meeting Attendees – Dallas, Texas (April 14-15, 2008)

The persons listed below attended the Dallas meeting:

Name	Organization
Dawn Cooley	ACS
Jeff Kohlmeyer	ACS
Joe Froderman	ACS
Ricky Aviles	ACS
Joy Endres	Chickasaw Nation
Julie Scott	Chickasaw Nation
Melinda Newport	Chickasaw Nation
Darwin Loyd	Cash Register Services, Inc.
Glen Glasscock	Cash Register Services, Inc.
Len Fuller	Cash Register Services, Inc.
Diane Wing	Fifth Third
George Gogon	First Data
Catalina Luna	FNS/MWRO
Debbie Whitford	FNS
Erin McBride	FNS
Gail Johnson	FNS
Hitesh Bakshi	FNS
JoEllen Collin	FNS/SWRO
Kelly Yee	FNS/SWRO
Michelle Stewart	FNS/MRO
Nora Campbell	FNS
Norene Vert-Brown	FNS/SWRO
Phil Swain	FNS/SWRO

Name	Organization
Gregg Proctor	Kroger
Toni Craig	Kroger
Dennis Hill	KY WIC
Ellen Simon	MAXIMUS
Peter Relich	MAXIMUS
Gail VanNoller	Meijer
John Carroll	Michigan
John Weathersby	NM WIC
Sid Golden	NM WIC
Yvette Quintana	NM WIC
Paul Jaeger	Paul Jaeger & Associates
Joe VanSickle	Retailer Owned Research Co
Joe Jurich	RORC
Diana Wolcott	Safeway
Dave Prus	Spartan
Donna Ustynik	TPG/Best Quality Services
Penny Tisdale	TPG/Etegrity, L.L.C.
Joe Williams	TX Retailers Association
Brian Whitfield	TX WIC
Cindy Spink	TX WIC
Joe Baiocchi	TX WIC
John Hannemann	TX WIC
Karen Clements	TX WIC

WIC Fruits and Vegetables Cash Value Voucher (CVV)

Name	Organization
Sondra Ralph	FNS/SWRO
Susan Mayer	FNS/SWRO
Vanessa Head	FNS/MPRO
Bob Hoblit	IBM
Bonnie Wright	JP Morgan
Louise Meyer	JP Morgan
Jim Magee	JPMA
John Giametti	JPMA
Johnny Sena	Sena Consulting, L.L.C.

Name	Organization
Kay Kirby	TX WIC
Merritt Schroeder	TX WIC
Mike Montgomery	TX WIC
Ray Krzesniak	TX WIC
Shey Williams	TX WIC
Charlie Berry	Wal-Mart
Chris Ferguson	Wal-Mart
David Kruger	Wal-Mart
Sharon Pitt	Wal-Mart

G. WIC EBT CASH VALUE VOUCHER (CVV) WORKGROUPS

WIC EBT Cash Value Voucher (CVV) Workgroups

The U.S. Department of Agriculture, Food and Nutrition Service (FNS) assembled two workgroups for the preparation of this document. The names of persons participating in each are listed below.

WIC CVV Issues (Large) Workgroup

Workgroup Lead: Erin McBride, FNS

Name	Organization	Name	Organization
Ricky Aviles	ACS	Bob Hoblit	IBM
Stan Bien	Michigan	Catalina Luna	FNS/MWRO
Brian Buszko	FNS/MARO	Roseanne Luvisi	FNS/NERO
John Carroll	Creative Strategies	Mike Montgomery	Texas
David Crockett	Nevada	Janet Moran	Wyoming
Patty Davis	FNS	Yvette Quintana	New Mexico
Mike Drew	FNS/WRO	Sondra Ralph	FNS/SWRO
Johanna Eckley	FNS	Johnny Sena	Sena Consulting, L.L.C.
Karen Elliott	FNS/SERO	Ellen Simon	MAXIMUS, Inc.
Joy Endres	Chickasaw Nation	Cindy Spinks	Texas
Tina Fearneyhough	Wyoming	Michelle Stewart	FNS/MRO
Denise Fedewa	Michigan	Phil Swain	FNS/SWRO
Len Fuller	Cash Register Services, Inc.	Penny Tisdale	The Peachtree Group/ Etegrity, L.L.C
Sid Golden	New Mexico	John Weathersby	New Mexico
Fran Hawkins	Kentucky	Brian Whitfield	Texas
Vanessa Head	FNS/MPRO	Debbie Whitford	FNS
Laurie Hickerson	FNS	Joe Williams	Texas Retailers Association
Dennis Hill	Kentucky	Shey Williams	Texas

WIC CVV Technical (Small) Workgroup

Workgroup Lead: Erin McBride, FNS

Name	Organization
Stan Bien	Michigan
John Carroll	Creative Strategies
Len Fuller	Cash Register Services, Inc.
Bob Hoblit	IBM
Johnny Sena	Sena Consulting, L.L.C.
Penny Tisdale	The Peachtree Group/Etegrity, L.L.C.