



Smart Choices • Healthy Families

WIC DATA MINING – BACKGROUND

- Texas WIC has been conducting EBT transactions since beginning its pilot operations in June 2004.
- Texas completed state-wide rollout of its EBT system in 254 counties August 2009.
- Texas operates an off-line smartcard system and serves as its own processor.

Scope of the Texas WIC EBT System

- The program contracts with 2,180 vendor outlets.
- EBT system processed over \$47 million in claims in June 2013.
- Participants averaged 3.53 trips through the lane in that month.
- Those claims contained over 1.9 million purchase transactions using 549,719 smartcards.
- WIC participation for June 2013 was 943,760.
- There were 24,562 new EBT cards issued in June.
- The average post rebate food cost per person in June was \$25.88.

System Warrants Sophisticated Data Mining Approach

- The magnitude of the data available for review is overwhelming.
- However, Texas WIC has not yet made great strides in data mining.
- When the state's EBT system was built, the reports and queries developed were adequate for state and federal reporting and remain so.
- Management of vendor operations to include competitive pricing; not-to-exceed; maximum allowable reimbursement; and least expensive brands works well.
- Yet Texas lacks a good data mining system.

Texas Exploration Into Data Mining

- About a year ago Texas worked with Information Builders, a company represented at the NWA conference this week.
 - Texas tested the application of Info Builder's approach to mining claim data for two south Texas counties for two months using parameters supplied by the program.
 - The resulting demonstration was impressive but the program decided to focus its efforts on building data mining into its TXIN Project currently under development.
- Texas is currently participating in a USDA/FNS High Risk Detection Study being conducted by a contractor called T3 Tiger Tech.
 - Texas joins Michigan, Wyoming, and Kentucky in participating with the hope that study results will assist in the construction of meaningful data mining approaches.
- Texas WIC has just been approved to hire two statisticians for its vendor operations to work specifically on WIC EBT data mining efforts including the building of sophisticated query routines to identify potentially fraudulent activities by vendors and/or clients.



Additional Coordination Efforts With USDA

- Texas WIC staff were recently approached by the USDA-FNS Southwest Regional Office about jointly working toward data mining efforts.
- With the addition of the two statisticians mentioned earlier, Texas will investigate the viability of data mining approaches to be discussed with regional staff.

Scenarios Designed To Identify Abusive Vendors

- ❑ Identify vendor outlets that have transactions where multiple PANS/cards are redeemed in rapid succession within a short time interval (configurable 3, 5, 10 minutes) in a single lane.
- ❑ Identify situations where WIC clients are travelling inordinate distances to reach a retail outlet when other authorized WIC outlets are closer to where they live. One way to approach this is to see if the client shopped in a zip code other than the one where their benefits were issued. An issuing clinic identifier is embedded in transactions submitted to the state. Look for situations where multiple PANs fall into this scenario for a vendor.
- ❑ Identify vendor outlets that have sales of WIC foods that have a disproportionate number of sales of items with the same UPC code when variability in sales should be expected. In example, sales of cereal should show variability.

Scenarios Continued

- As a result of our Program's calendar month issuance of benefits, we recognize that a disproportionate percentage of WIC sales occur the first 3 calendar days each month.
- Based on the total dollar amount paid to all vendors within a county for a month, display the percentage of dollar redemptions by day for the month. Based on the total dollar amount paid to each vendor for the month, calculate the percentage of dollar redemptions by day for the month for that vendor. Compare the county-wide daily redemption percentages with each vendor's daily redemption percentages.

Scenarios Continued

- Display the total number of consecutive WIC transactions above a configurable sales amount after the third of each month. An occurrence of a large number of consecutive high dollar redemptions may indicate someone trafficking cards rather than being bonafide sales.

In The Interim

- ❑ In the absence of sophisticated data mining queries, Texas WIC vendor operations staff have used their years of experience to identify anomalies.
- ❑ A recent situation identified a vendor whose prices charged were very competitive for their peer group. However, staff noticed that the vendor had an inordinately high level of buttermilk sales. Specifically, 70% of its milk sales were butter milk when the statewide average is around a quarter of a percent. This was a red flag.
 - The vendor had an invoice audit conducted and it had a disallowance of \$76,482.89 cited and was disqualified.

Staff Observations Continued

- A second situation involved 13 PWIC stores owned by related individuals that consistently charged prices below the statewide average prices, by food type, paid to Traditional Grocers. That was an extremely unique pricing pattern that led the Program to perform an invoice audit. Those stores had \$568,579.79 in unsubstantiated WIC sales. They were disqualified and monies collected. Further investigation of potential money laundering is being conducted by the Texas State Attorney General's Office.