



# Identifying High Risk Vendors Using ARVA

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## What is ARVA?

ARVA stands for Applied Research on Vendor Abuse (originally developed by the Massachusetts Department of Public Health in 1985).

ARVA uses statistical analysis of WIC vendor redemption patterns to identify vendors that with potentially abusive practices.

The Model consists of high risk “indicators,” each of which describes a suspect food instrument redemption pattern often related to abuse.

## How Does It Work?

Food instruments that are potential risk indicators are selected.

The ARVA Model analyzes data from all food instruments redeemed within a specified timeframe in order to find patterns in an individual vendor's food instrument redemptions.

The Model compares the food instrument redemption patterns of similar vendors (e.g. size, type, and peer group).

## ARVA Indicators

Extremely high average food instrument prices.

Extremely high percentage of high priced food instruments.

Extremely small amount of variation in food instrument prices.

Extremely large percentage of food instruments redeemed at the same price.

Extremely large increase in the dollar volume of food instruments redeemed over time.

WIC sales as an extremely large percentage of total sales.

## Other Indicators

Violation history.

Complaints.

Geographic location.

Store size.

SNAP High Risk.

# ARVA Reports



Maryland WIC Program

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## ARVA High Risk Vendor Report

Report Date: 03/21/2013

Arva Query Extremely Small Amount of Variation in Food Instrument Prices

Peer Group	ID	Vendor Name	FI Type	Total Count	Coefficient of Variation	FI Type	
1	All		003981SS	95	.0000	003981SS	13-32 SNAP
2	All		012028SS	81	.0000	012028SS	13-33
3	All		006391SS	79	.0000	006391SS	13-33
4	All		012028SS	64	.0000	012028SS	13-33
5	All		012028SS	50	.0000	012028SS	ALREADY INVESTIGATED
6	All		003981SS	49	.0000	003981SS	SNAP INVESTIGATION
7	All		003981SS	49	.0000	003981SS	SNAP INVESTIGATION
8	All		012028SS	47	.0000	012028SS	13-34
9	All		003981SS	45	.0000	003981SS	SNAP INVESTIGATION
10	All		012522SS	43	.0000	012522SS	OPEN
11	All		006391SS	40	.0000	006391SS	13-35
12	All		011914SS	37	.0000	011914SS	OPEN
13	All		012028SS	35	.0000	012028SS	13-36
14	All		012028SS	35	.0000	012028SS	13-36
15	All		012028SS	34	.0000	012028SS	13-38

## ARVA Results

Reports are generated monthly .

Vendors reflected on the reports are selected for investigation.

Indicators that have been found to be the most helpful are:

- ✓ Extremely small amount of variation in Food Instrument prices
- ✓ WIC sales as an extremely high percentage of total sales

## ARVA Works!

Reports generated in March, 2013 were used to select vendors for compliance investigation.

The first compliance buy resulted in 3 positive trafficking buys.

The vendors that trafficked appeared on two ARVA reports (Low Variance & High % of WIC Sales).



## Points To Remember

Risk reports are tool to add to your arsenal of risk detection.

There may be legitimate reasons a vendor is reflected on a risk report.

The results of your reports are validated through the compliance investigation process.

USDA STARS should also be a component of your risk detection system.

Questions?