

# With Great Data Comes Great Responsibility

Today's technology and benefit delivery models allow State Agencies to access more data than ever. The power of data comes from the informed analysis of the facts to draw conclusions and drive action plans.

**Johnny Sena**

Product Director  
CDP

**Mark McNutt**

Data Direct Product Owner  
CDP

**Mary Blocksidge**

Vendor Manager  
Massachusetts WIC

**Susan Sabatier**

Chief  
Data Analysis, Research and Evaluation Section  
California WIC

**Bagya Kodur**

Interim Section Manager  
Data, Research and Technology Section  
Michigan WIC Program

**Julie Scott**

Technology Support Manager Nutrition Services  
The Chickasaw Nation

# The Power of Data Visualization

# Jumble of Data...

Approval	Benefit Month	Benefit Q	Utilization %	Selected Date	Expunge	Benefit Cc	Benefit Cc	Benefit S	Benefit Subcategory	Paid Amount	Requested A	Requeste	Settlemer	Total Exch	Benefit U	Void Flag
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$5.52	\$5.52	6	\$5.52	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	-30		August, 2019	-30	Fish	8	0	Fish - All Authorized						Oz	Yes
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$7.74	\$7.74	6	\$7.68	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$5.34	\$5.34	6	\$5.34	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$5.34	\$5.34	6	\$5.34	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
4	8/1/2019	30	66.67%	August, 2019	10	Fish	8	0	Fish - All Authorized	\$3.68	\$3.68	4	\$3.68	20	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	15		August, 2019	15	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$5.34	\$5.34	6	\$5.34	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	23		August, 2019	23	Fish	8	0	Fish - All Authorized						Oz	No
3	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$5.51	\$5.51	3	\$5.51	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$5.94	\$5.94	6	\$5.94	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$6.00	\$6.00	6	\$6.00	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$8.34	\$8.34	6	\$7.99	30	Oz	No
6	8/1/2019	30	100.00%	August, 2019	0	Fish	8	0	Fish - All Authorized	\$4.74	\$4.74	6	\$4.74	30	Oz	No
	8/1/2019	30		August, 2019	30	Fish	8	0	Fish - All Authorized						Oz	No

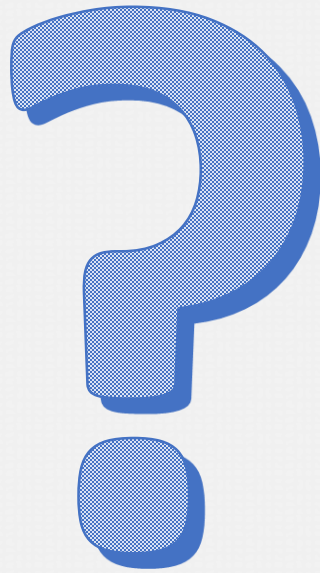
# You have two seconds to find the least utilized category...

Category	
Bread/Whole Grains	45.69%
Breakfast Cereal	49.63%
Cat Food	21.66%
Cheese Or Tofu	65.91%
Eggs	70.60%
Exempt Infant Formula (Exf)	88.51%
Fish	44.22%
Fruit & Vegetables - Cash Value Voucher	66.33%
Infant Cereal	43.11%
Infant Formula (If)	91.76%
Infant Fruits & Vegetables	54.29%
Juice - 48 Oz	39.72%
Juice - 64 Oz	70.82%
Legumes	39.49%
Milk - Whole	74.53%
Milk Fat Reduced	56.96%
Wic Eligible Nutritionals (Wen)	76.95%
Yogurt	54.08%

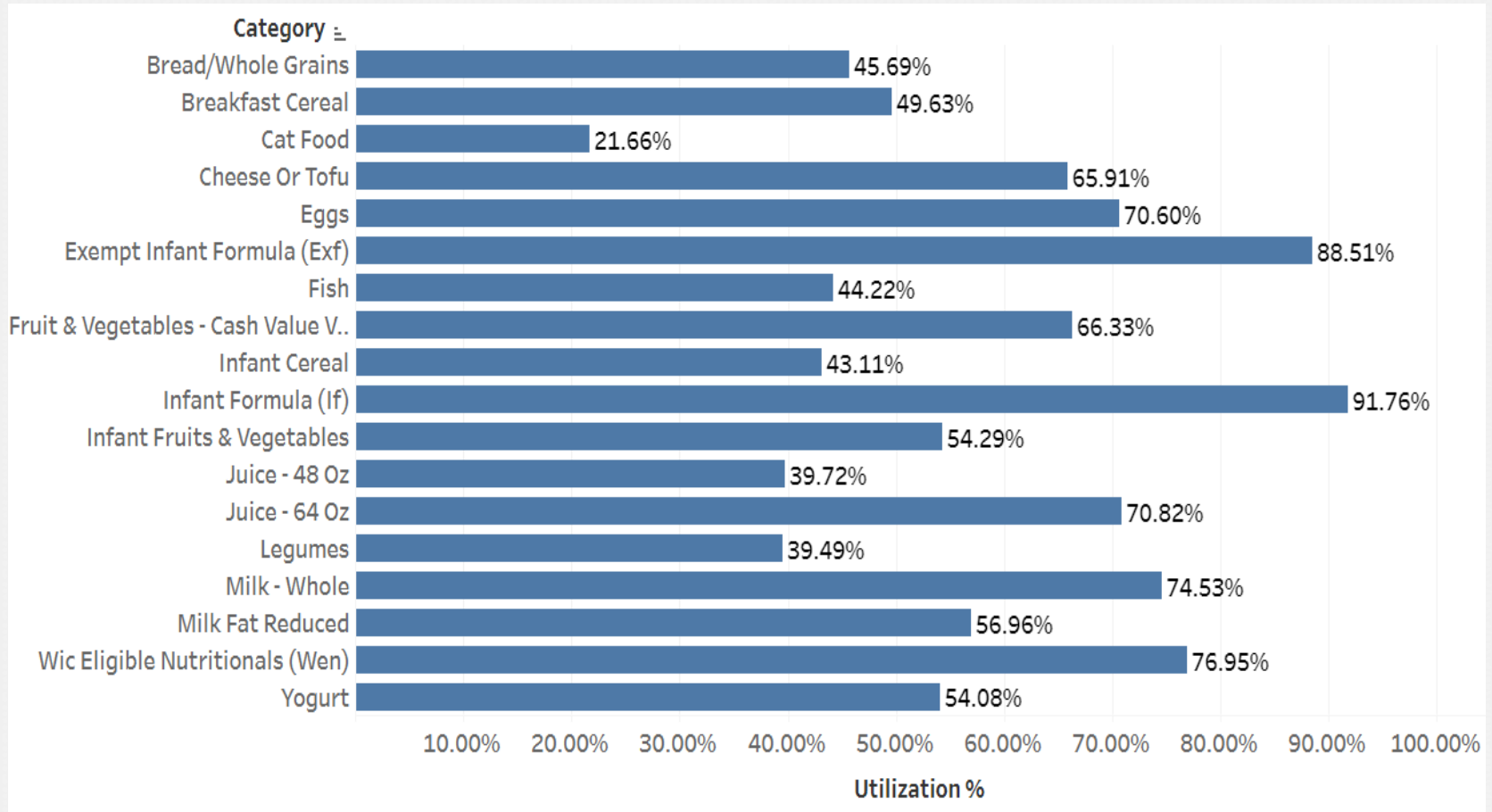


# Two more seconds

Category	
Bread/Whole Grains	45.69%
Breakfast Cereal	49.63%
Cat Food	21.66%
Cheese Or Tofu	65.91%
Eggs	70.60%
Exempt Infant Formula (Exf)	88.51%
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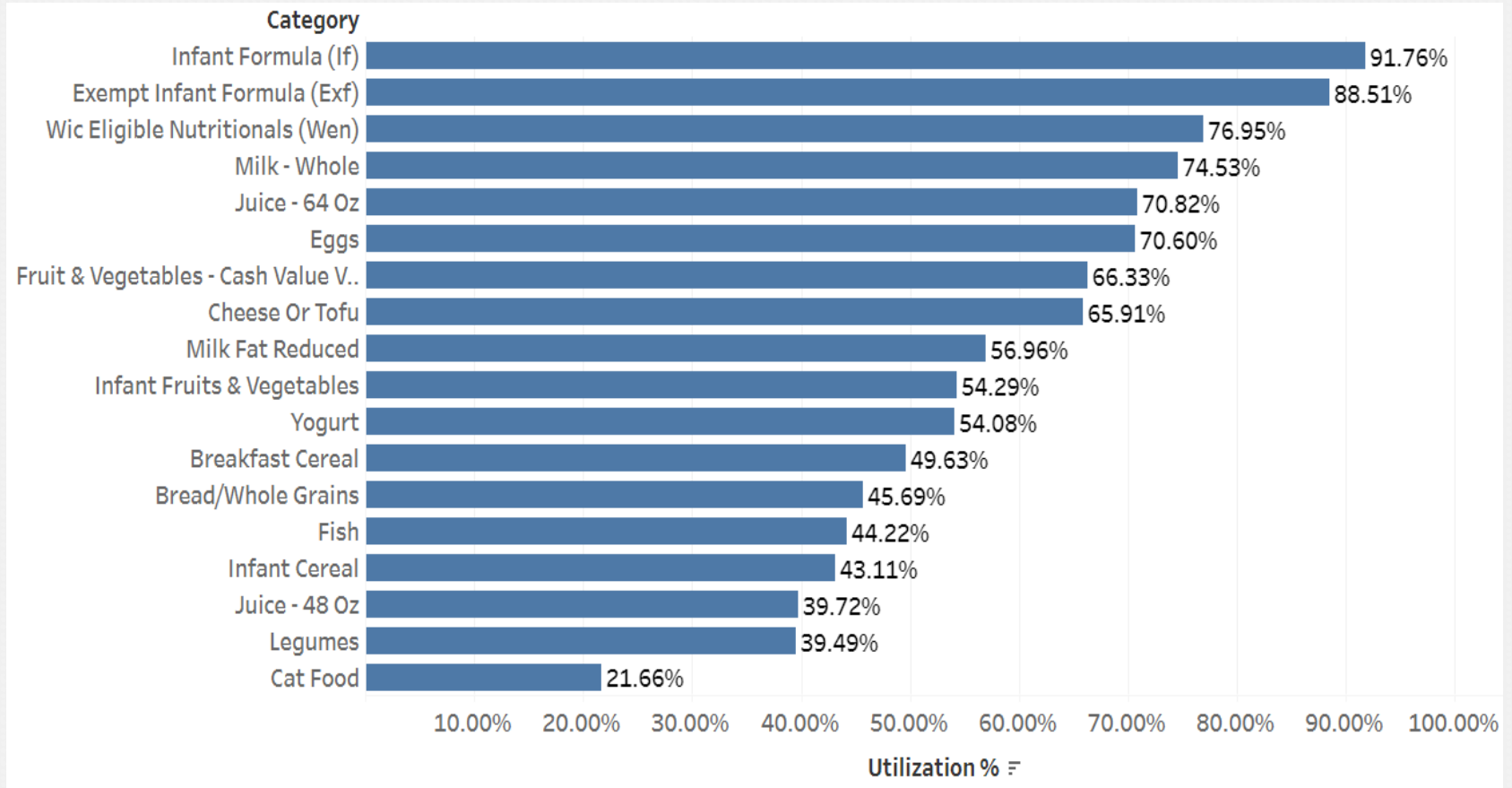
# Two more...



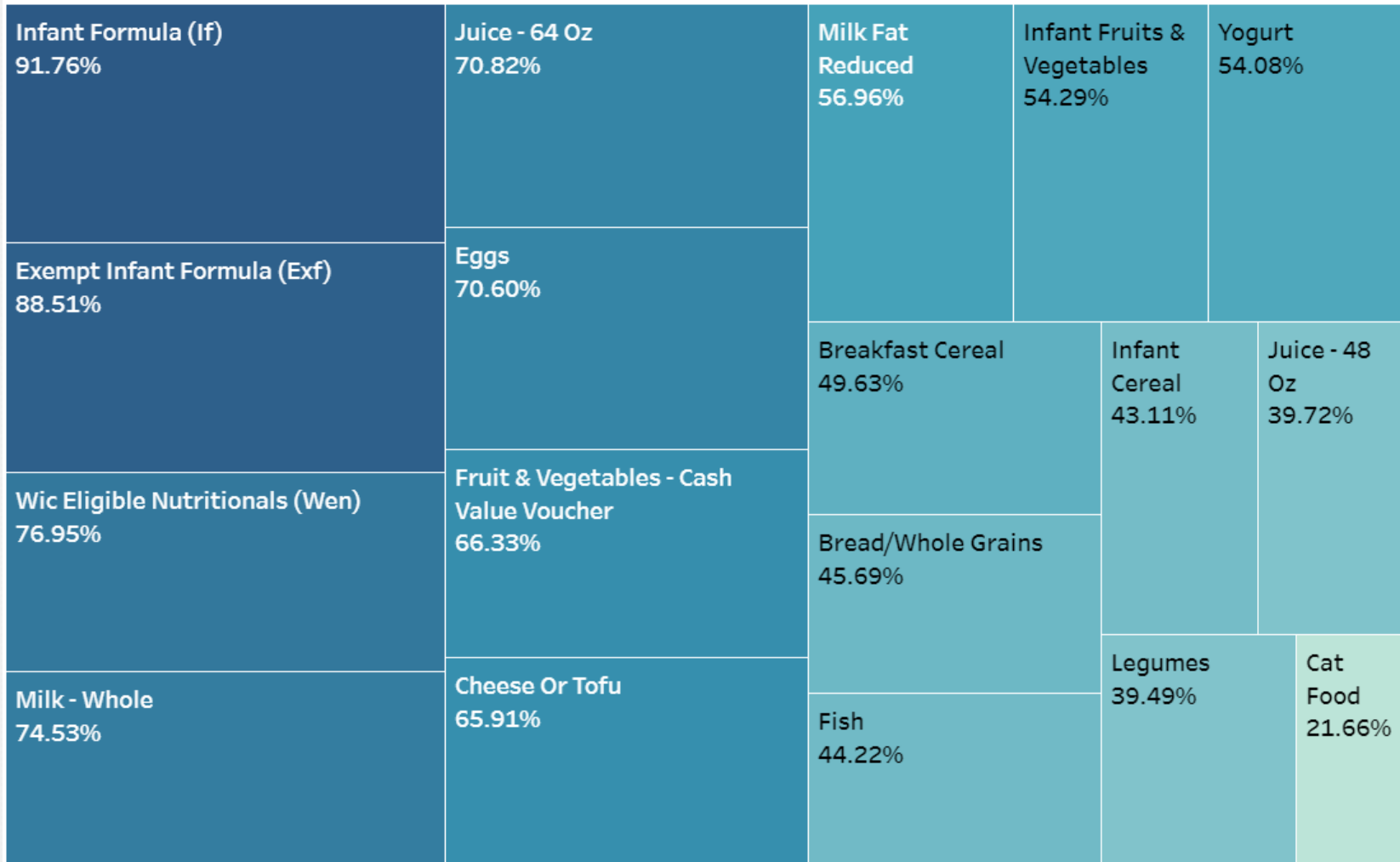




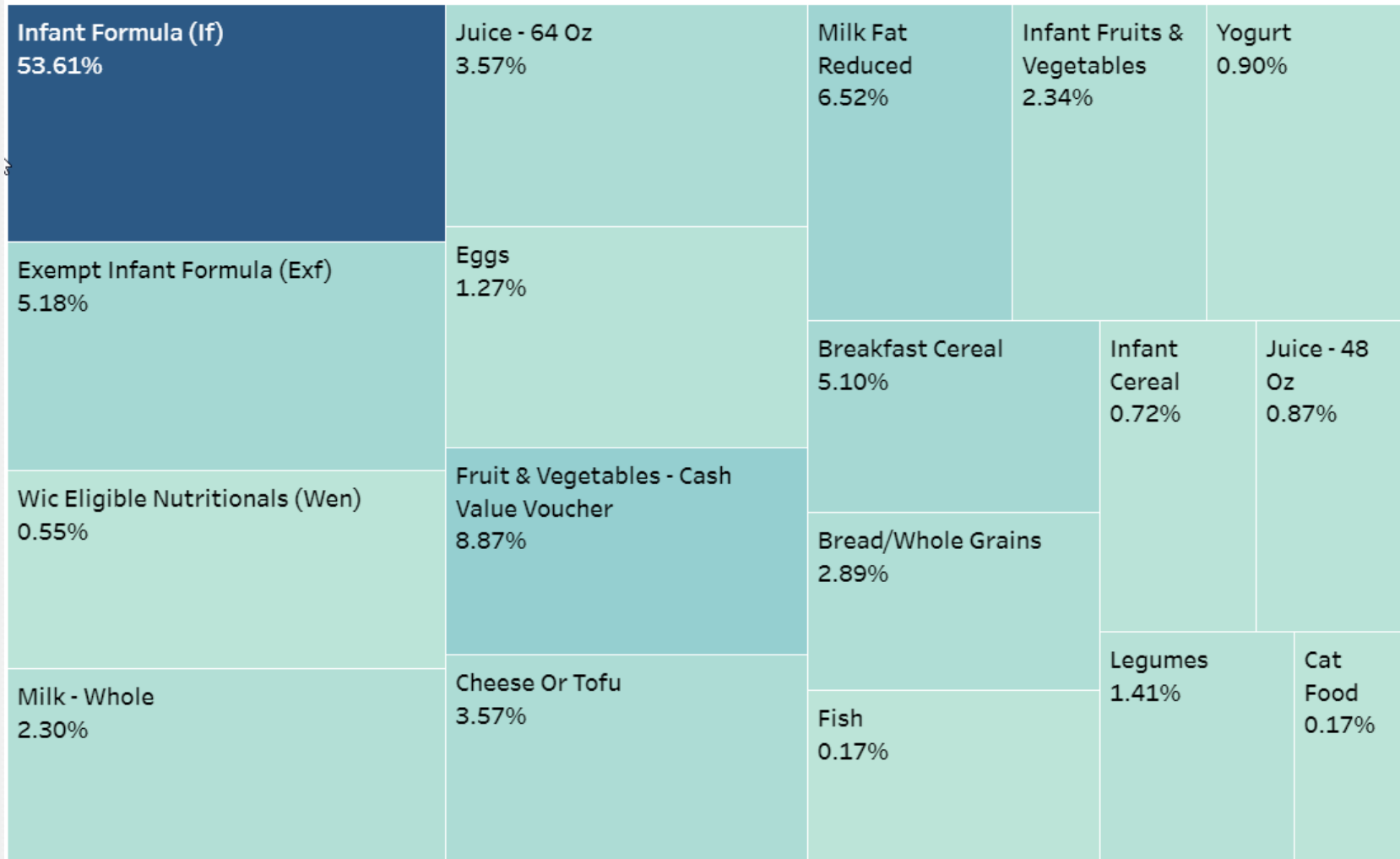
# You got it by now...



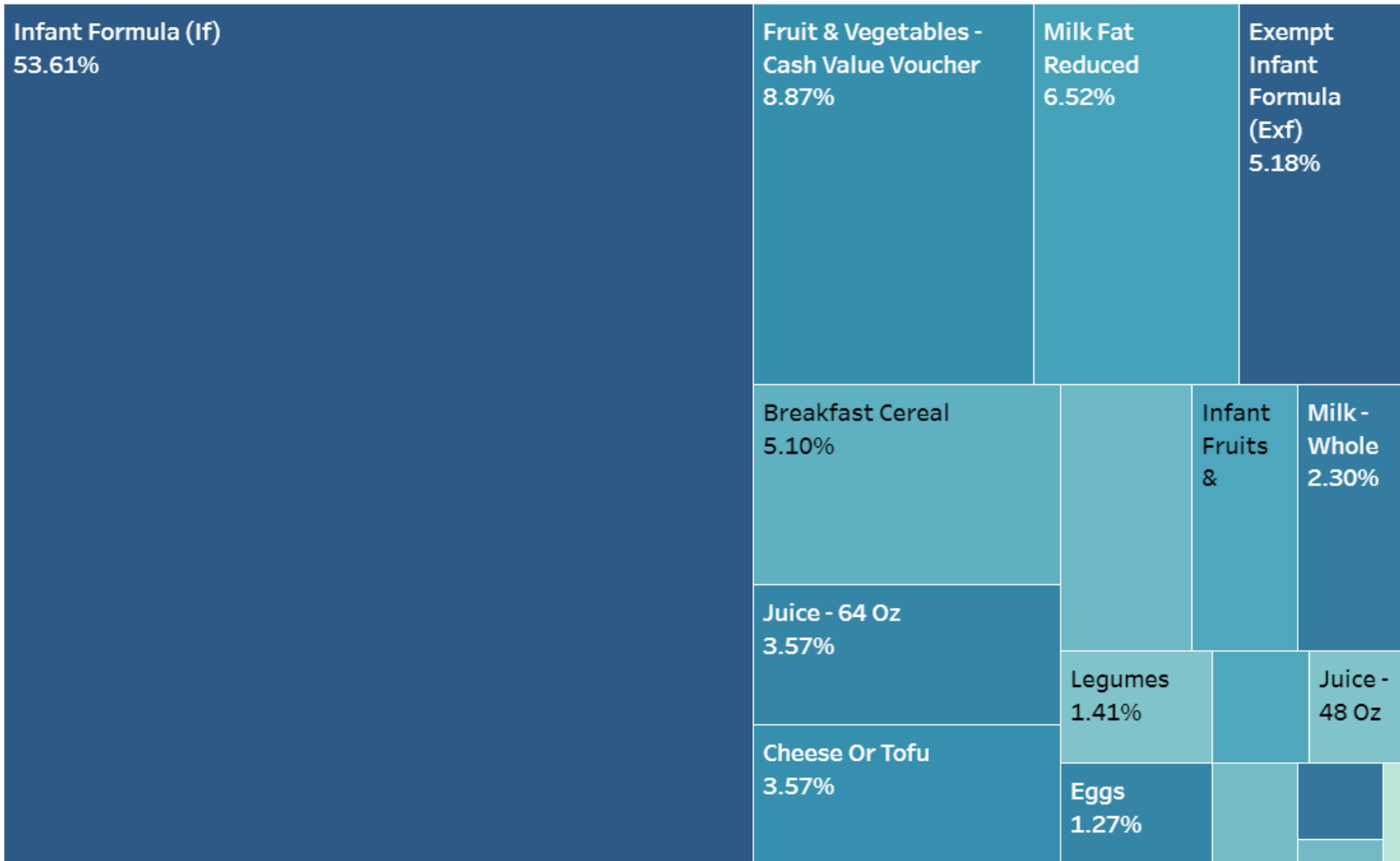
# Another view



# What just happened?



# How about this?

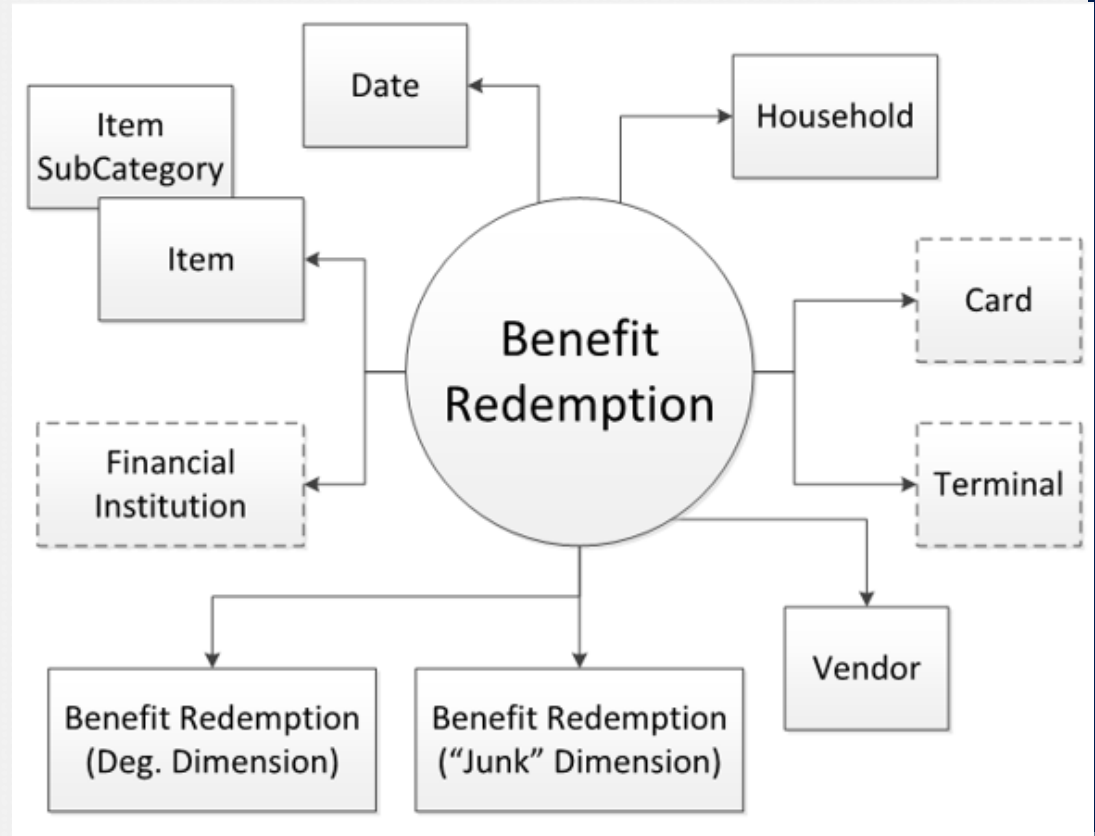


# Let's talk about...

- “Data Marts”
- Asking questions
- Getting Answers
- Using Data Visualizations
- Dashboards
- Examples

# What is a Data Mart?

- Old Approach
- New Approach
- Measures and Dimensions



# Asking Questions of Our Data

- Write out your question in “plain English”
- For example, **“What are the top sales by vendor in peer group one over time?”**
- How can we translate this question into a report?
  - **What is the measure?**
    - *Sales = Settlement Amount*
  - **What are the dimensions? Hint: Look for the word “by”.**
    - *Vendor, Peer Group*
  - **Any filters? Hint: Look for the word “in”.**
    - *Filter on Peer Group for the value “Peer Group 1” only*
  - **How should the report be sorted? Hint: Look for the words top or bottom.**
    - *When displaying Vendor Names, sort by Settlement Amount from largest to smallest (descending)*
  - **What kind of data visualization should we use?**
    - *“Over time” implies a trend or line chart*



# How do we get the Answers?

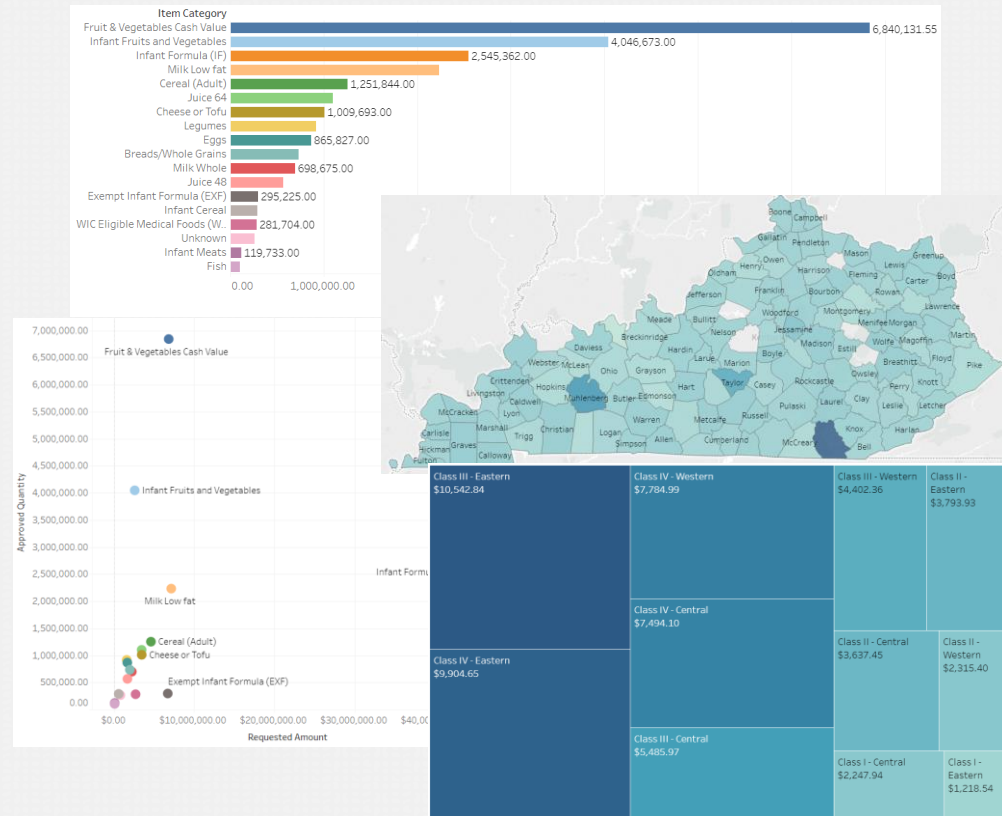
- Sometimes, there can be a lot to unpack in our questions. For example, how do we go about answering “how can we better retain our participants?”
- A lot of the times, there’s no magic bullet report
- Look at things from different angles (over time, geographically, etc.) to gain insight.
- Do we have the data?
- Is there an existing “canned” report we can look at?
- Our modern data analytics tools allow us to get at the data quickly, and work with it using various data visualizations.
- Can create new data elements to help in our analysis.

# Data Visualizations

- Visualizations are tools in your toolbox you can use to help gain insight into your data.

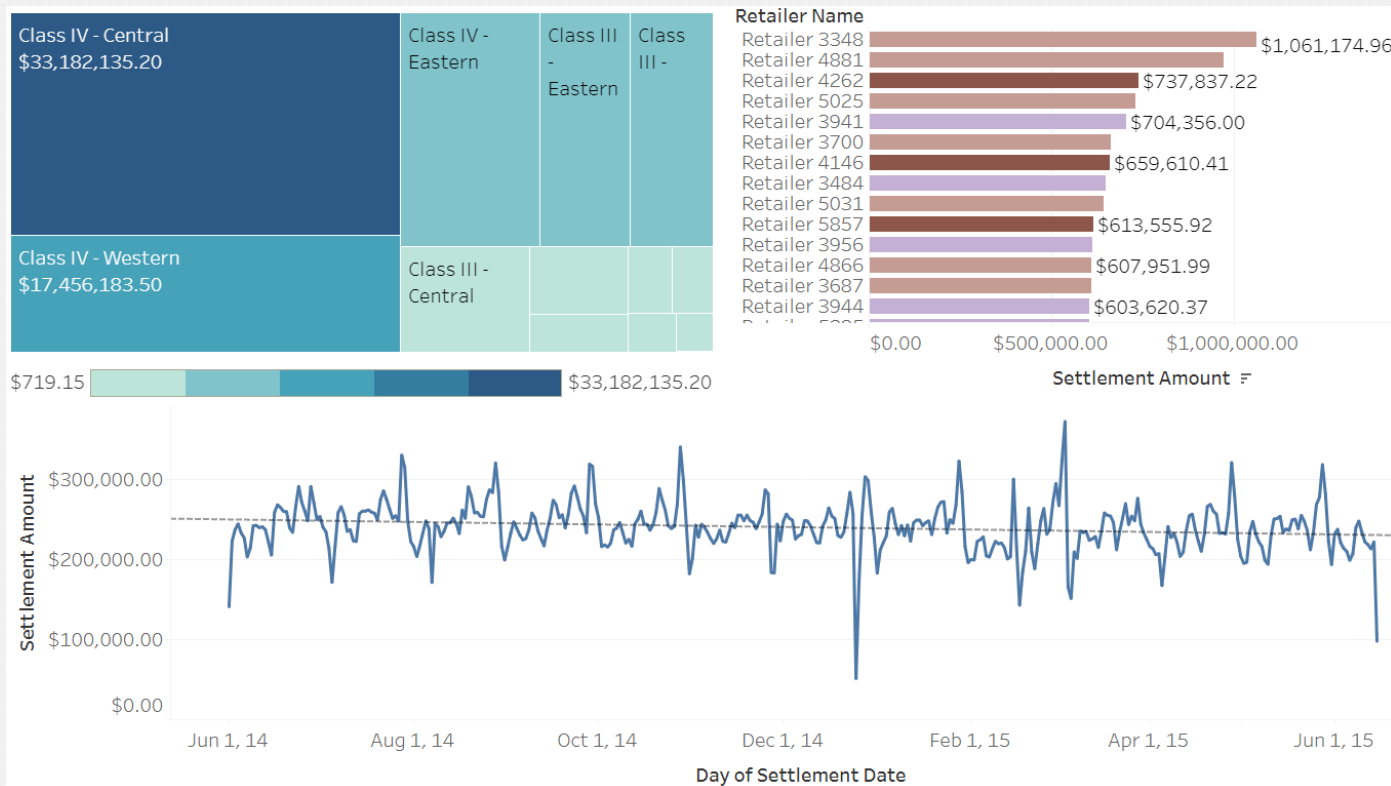
- Some Types:

- Bars
- Trends (line charts)
- Color Coded Tables
- Maps
- Scatter Plots
- Pie Charts
- Word Clouds
- Heat Maps (boxes)



# Dashboards

- A dashboard simply displays two or more reports
- Helps to be able to see data from different angles all on the same screen
- Can make them interactive so that when you click on something, it can update the other report(s).



# Tackling the Question

“Identify families that may not continue to participate after a certain point, and those that may have challenges accessing WIC services.”

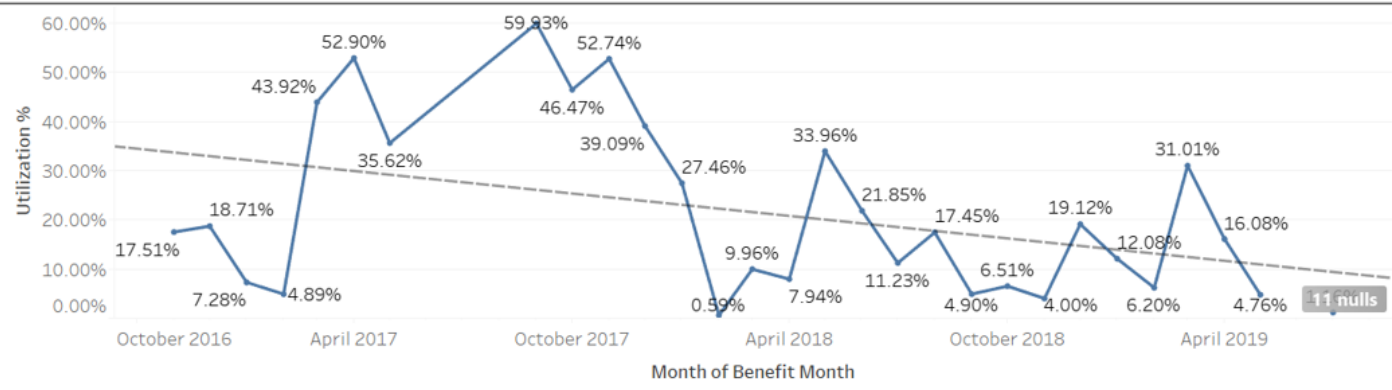
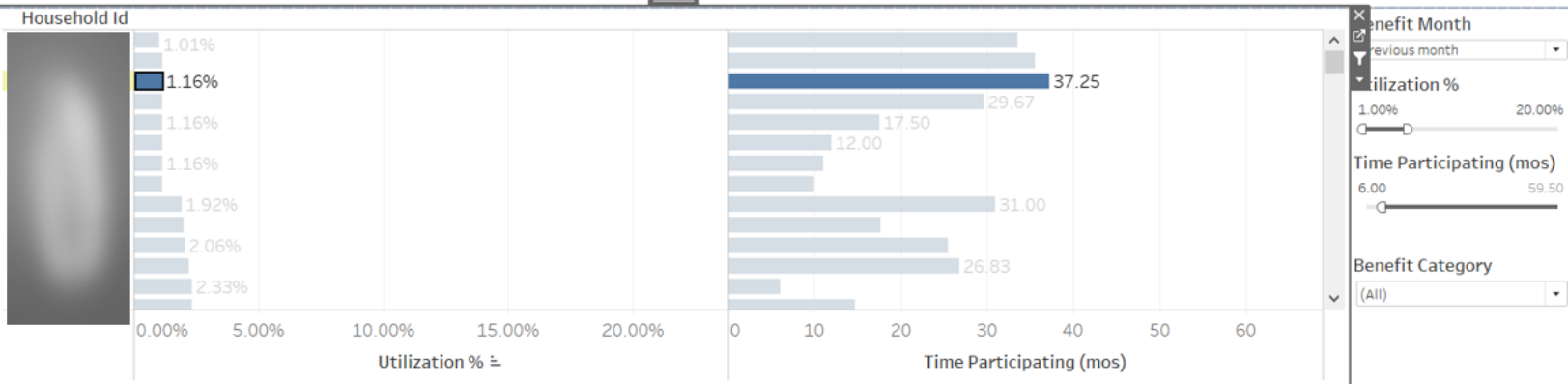
What “angles” could we look at?

- Caseload trends
- Households with low benefit utilization last month
- Identify participants that never recertified, and those that are enrolled but not participating
- Analyze “Time on WIC”
- How close is the nearest clinic and vendor?

# Households with Low Benefit Utilization Last Month

## At Risk Households

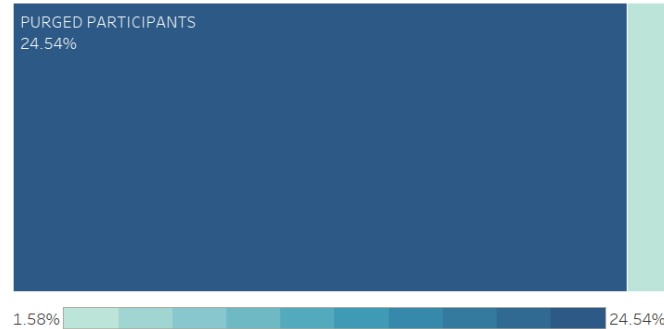
The report on the top shows Households with low benefit utilization last month, and how long they've been on WIC. The target utilization % and time on WIC can be adjusted on the right. Click a household to see their associated benefit utilization below.



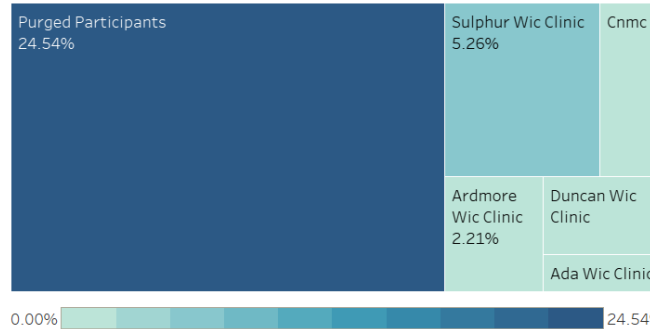
# Identify participants that never recertified, and those that are enrolled but not participating

## Never Recertified Dashboard

Never Recertified % by Local Agency



Never Recertified % by Clinic



Fiscal Year

(Multiple values)

WIC Category Type

- (All)
- Children
- Infants
- Women

WIC Category

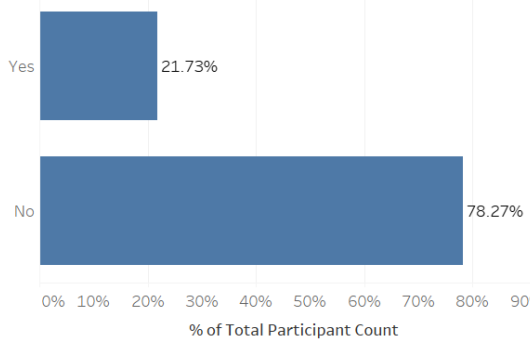
- (All)
- Breastfeeding
- Not Breastfeeding
- Pregnant

Participant Race

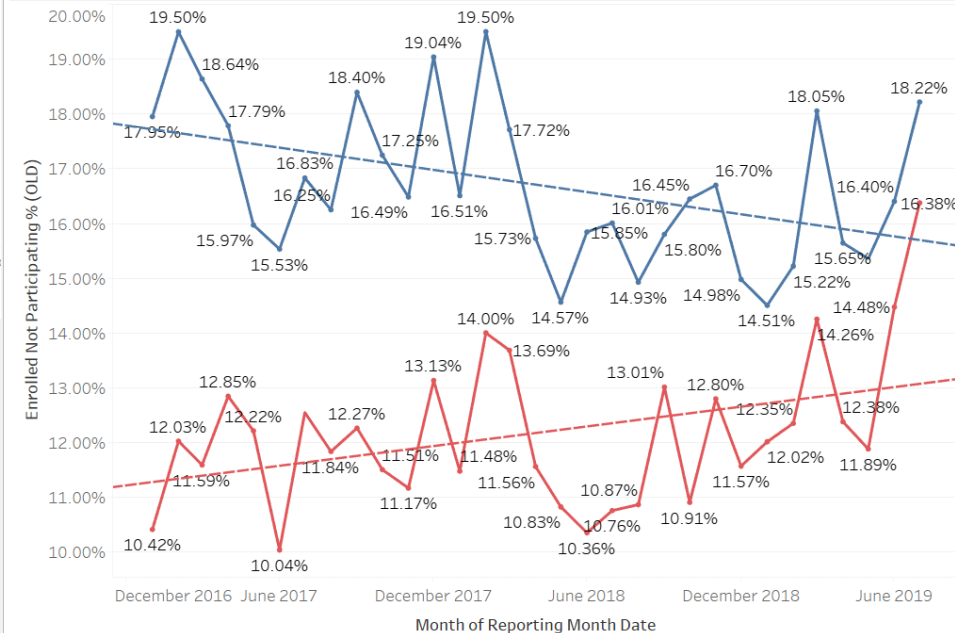
(All)

Primary Language

Never Recertified?



Enrolled Not Participating Trend



Reporting Month Date

Last 3 years

WIC Category Type

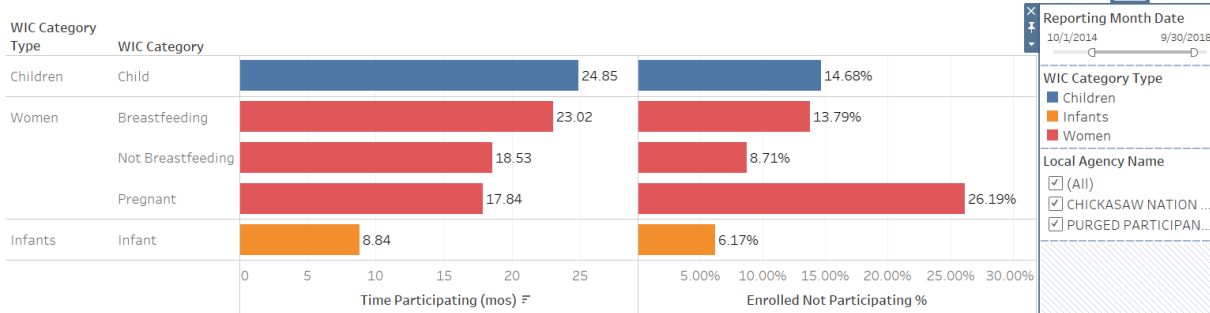
- (All)
- Children
- Infants
- Women

WIC Category Type

- Children
- Women

# “Time on WIC”

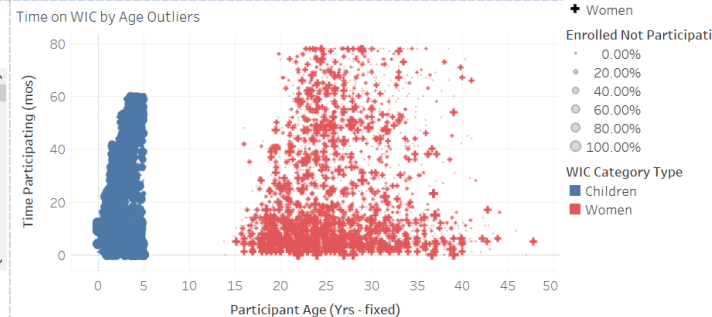
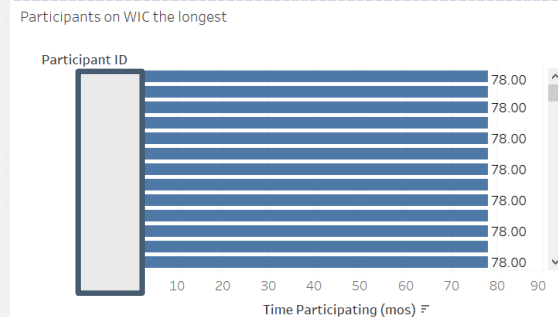
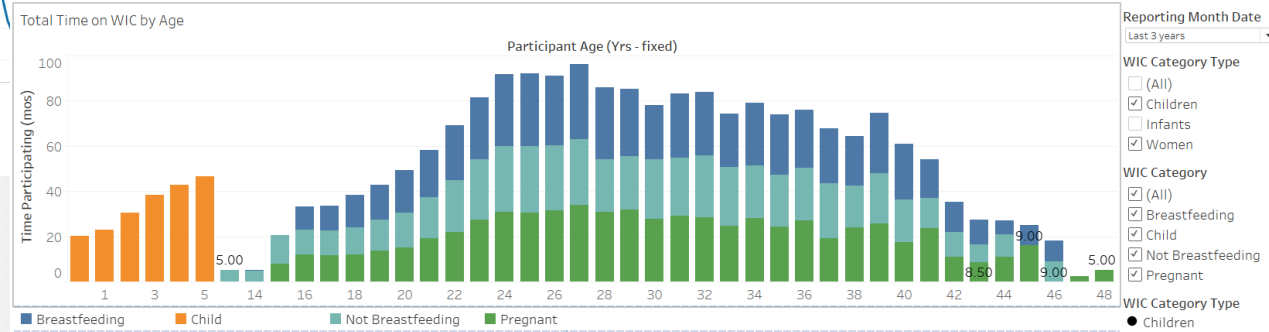
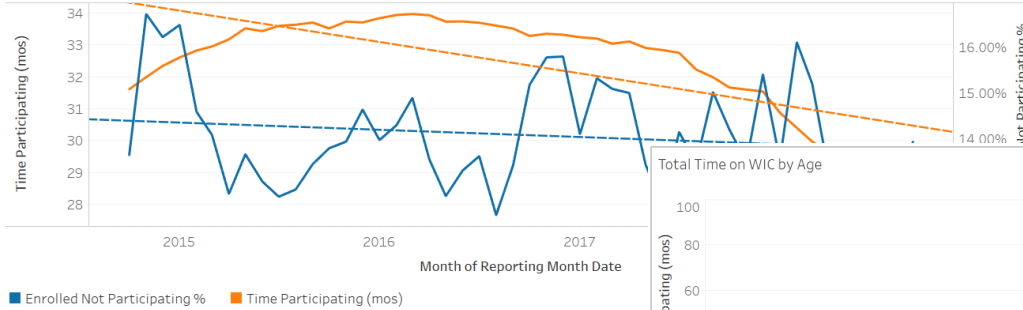
## Time on WIC Dashboard



Reporting Month Date: 10/1/2014 to 9/30/2018

WIC Category Type: Children, Infants, Women

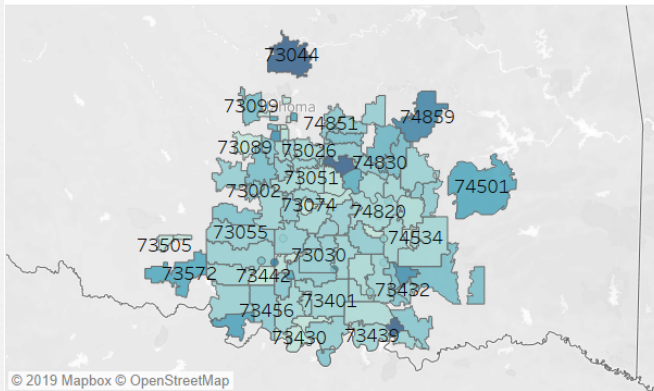
Local Agency Name: (All), CHICKASAW NATION..., PURGED PARTICIPAN...



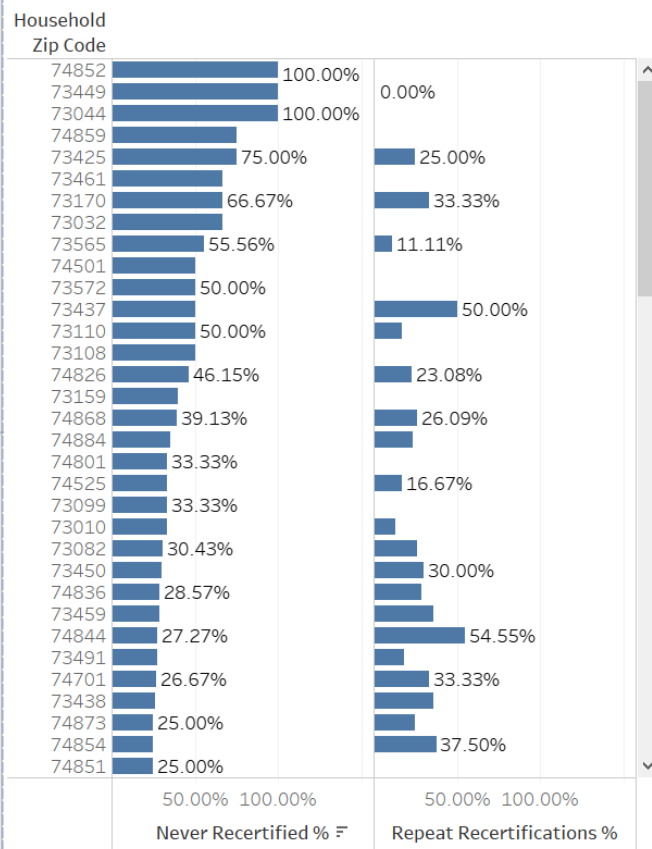
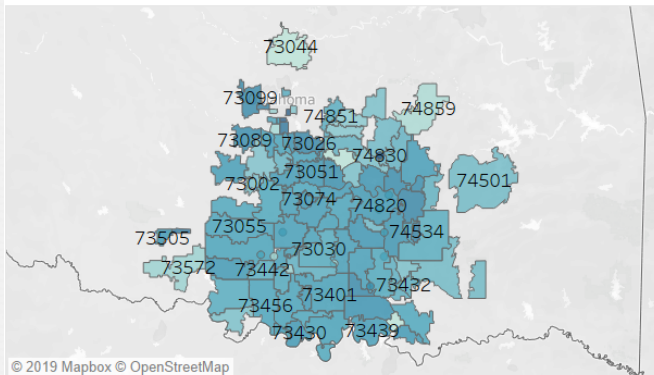
# What geographic areas have the least amount of recertifications, or the most amount of people that never recertify?

## Never Recertified vs Repeat Recertifications

Never Recertified % by Zip



Repeat Recertifications by Zip



Reporting Month, Year

(Multiple values)

Family Count

2 855

WIC Category Type

- (All)
- Children
- Infants
- Women

WIC Category

- (All)
- Breastfeeding
- Child
- Not Breastfeeding
- Pregnant

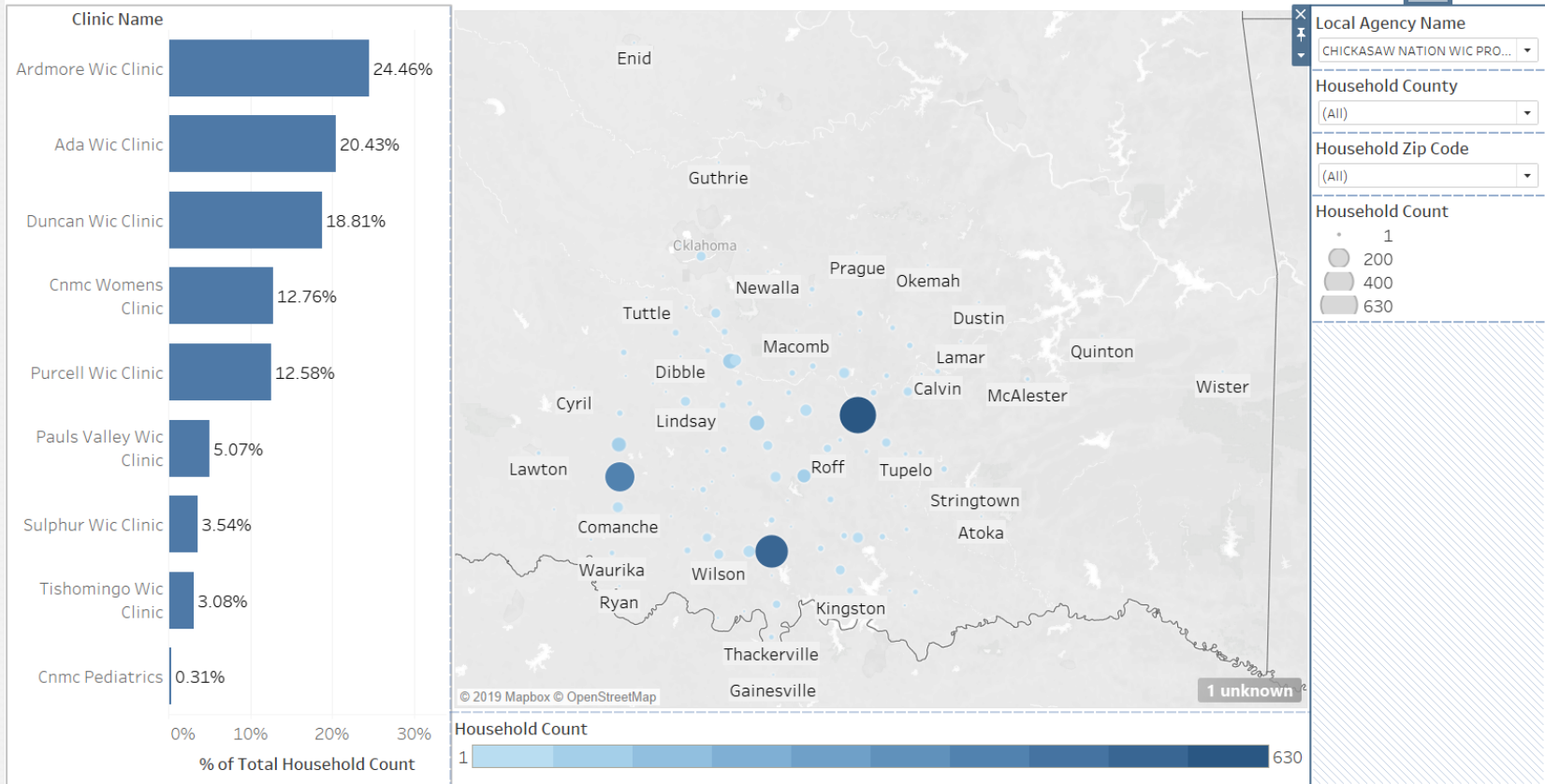
Participant Race

(All)



# Where are our households?

Household Density Dashboard





**With Great Data Comes Great Responsibility**

**2019 Biennial NWA WIC Technology, Program Integrity,  
Vendor Management Education & Networking Conference  
Wednesday, September 18, 2019**

**Mary Blocksidge, Vendor Manager  
Massachusetts WIC Program**



## With Great Data Comes Great Responsibility

- ▶ With the implementation of eWIC, detailed transaction and redemption information is now available in “real time”.
- ▶ This allows WIC Programs increased opportunities for Vendor Management, Nutrition Education and Program Management.

# Massachusetts WIC Program

- ▶ Massachusetts WIC completed statewide eWIC implementation October 2014.
- ▶ Current caseload 107,143
- ▶ 848 Retailers statewide.
  - 167 - Small Independent stores
  - 462 - Chain stores
  - 219 - Pharmacies



# MA WIC Program-Reports

- ▶ With the implementation of eWIC, detailed transaction and redemption information is now available.
- ▶ MA WIC utilizes reports from the WIC Direct System (CDP/FIS) and in-house reports for retailer and program management.
- ▶ Reports include data related to retailer high risk indicators, sales patterns, pricing, redemption transaction details, and information at the UPC item level.

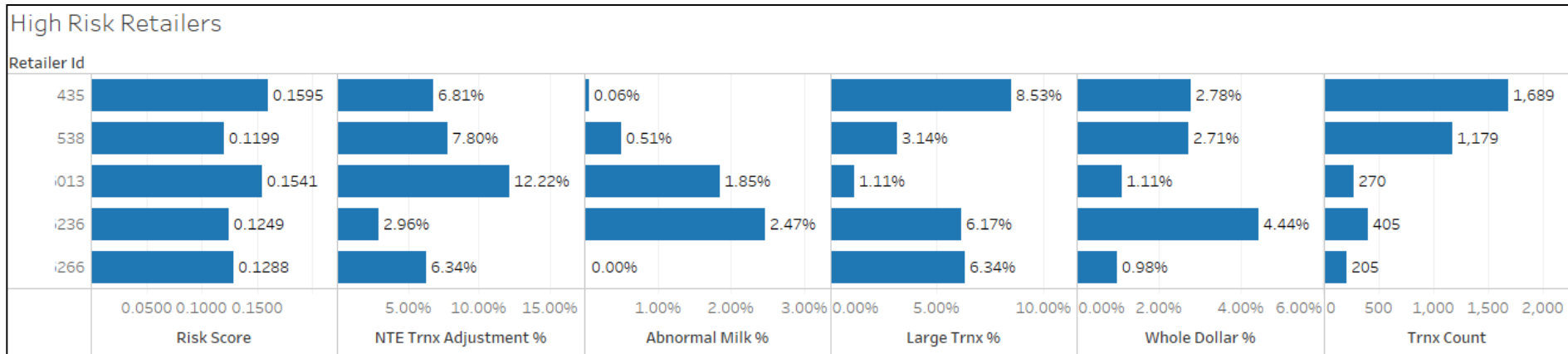


# MA WIC Program-Reports

- ▶ In the WIC Direct reporting system, most reports can be edited. Fields can be added or removed.
- ▶ All reports can be exported into Excel.
- ▶ The ability to edit and export reports is necessary for any reporting system.



# Sample Reports – High Risk Retailers



- This report assigns a risk score using the following indicators:
  - NTE Transaction Adjustments
  - Abnormal Milk Percentage (threshold set at 5 gallons)
  - Large Transactions (threshold set at \$100.00)
  - Whole Dollar Amount percentage
  - Transaction count

# Vendor Management - High Risk Identification

Massachusetts WIC Program  
Report Number: WICVN817

**Stores Full Benefit Redemptions**  
**With First Use Date in the Month of 09/2018**

Run date: 10/06/2018  
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## STATE SUMMARY

<u>Vendor Name</u>	<u>EU Id</u>	<u>Food Cat</u>	<u>Food SubCat</u>	<u>Food Item</u>	<u>UPC</u>	<u>RedemDT</u>
553	Market	097	16 - Bread/Whole Grains	001 -	Holsum 100% WW, 16oz	835841008225 09/25/2018
			52 - Milk Low Fat/Fat Fre	106 - Gal 1%/FatFree Milk	1% Milk	609411000267 09/25/2018
			06 - Legumes	003 - 15.5oz Canned	Goya Low Sodium Pinto	041331123341 09/25/2018
			02 - Cheese or Tofu	001 - 16oz Pkg Cheese	Tropical Queso de Papa C	027568035053 09/25/2018
			19 - Fruits and Vegetable	001 - Fresh	FOR USE WITH ALL	44691 09/25/2018
			54 - Juice 64 oz	002 - 64oz Bottle100%	Passion Dragonfruit	889497000188 09/25/2018
			50 - Yogurt	003 - NonfatYogurt	YogurtNonfatPlain32oz	042187011486 09/25/2018
			05 - Breakfast Cereal	001 - Whole Grain	Cheerios 18oz.	016000275287 09/25/2018
553	Market	0626	06 - Legumes	006 - 18oz	Goya Dry Roman Beans	041331024839 09/06/2018
			19 - Fruits and Vegetable	001 - Fresh	FOR USE WITH ALL	44691 09/06/2018
			16 - Bread/Whole Grains	001 -	Holsum 100% WW, 16oz	835841008225 09/06/2018
			51 - Milk - Whole	001 - Gallon Whole Milk	Farm Fresh Milk	609411000205 09/06/2018
			05 - Breakfast Cereal	002 - Non Whole Grain	Kelloggs Corn Flakes 12o	038000001109 09/06/2018
			03 - Eggs	001 - Dozen Large Eggs	Mitlitsky Large Brown	039222000062 09/06/2018
			02 - Cheese or Tofu	001 - 16oz Pkg Cheese	Tropical Queso de Papa C	027568035053 09/06/2018
			54 - Juice 64 oz	002 - 64oz Bottle100%	Apple 64oz	889497008245 09/06/2018
			51 - Milk - Whole	101 - Quart Whole Milk	Farm Fresh Milk	609411000229 09/06/2018

Report is reviewed for an unusual pattern of this type of transaction to determine if an investigation/inventory audit is necessary. This is an in-house report.



# Vendor Management-Pricing

## 204 - Retailers Generating NTE [April, 2018]

Select a benefit year/month and an NTE adjustment % on the right. The default is "last month".

Retailer Name	Retailer Id	Redemption Transaction Count	Paid Amount	NTE Amount	NTE Adjustment %
Seafood Inc.	539	42	\$1,078.74	\$219.44	16.90%
Shop	1100	6	\$137.47	\$5.57	3.89%
#37364h	43	68	\$718.58	\$27.25	3.65%
Street Market	331	66	\$523.43	\$15.84	2.94%
#37343h	01	5	\$34.00	\$0.90	2.58%

Redemptions (MA) Data Last Refreshed: 5/21/2018 5:55:47 AM

- This report identifies stores that have a high percentage of “Not to Exceed” (NTE) adjustments.
- This may indicate the store is attempting to be reimbursed at the NTE amount and/or trying to determine the NTE amount.
- It could also indicate the cashier made an error using the quantity key.

# Vendor Management – Pricing

Item Description	Requested Amount	Paid Amount	Difference	NTE Adjustment %
Kraft Deli Deluxe American Cheese - 16 oz.	\$8.29	\$6.99	\$1.30	16%
Lactaid Lactose Free 1% - 96oz.	\$7.49	\$6.59	\$0.90	12%
Great Value 1% Lowfat Milk -Gallon	\$3.99	\$2.99	\$1.00	25%
Post Honey Bunches of Oats-Almonds - 18 oz.	\$7.49	\$6.19	\$1.30	17%
Goya Black Beans - 15.5oz Canned Beans	\$2.09	\$1.59	\$0.50	24%

- Stores routinely charging prices over the NTE amount are sent a warning letter and terminated if the pattern of pricing continues after the warning is sent.
- When reviewing NTE adjustments, we also find small stores selling store brand products from major chains. These items typically have NTE adjustments as stores don't realize NTE's are calculated at the UPC level.

# Vendor Management - Inventory Audits

## Vendor # 1234 – ABC Supermarket Redemptions for August 1, 2019 – August 31, 2019

Food Category	Food Subcategory	Redemption Quantity	Redemption Units	Avg. Price Per Unit
Bread/Whole Grains	Whole Wheat/Grain Bread	371	371	\$3.19
Breakfast Cereal	Non Whole Grain	296	5310	\$0.30
Breakfast Cereal	Whole Grain	168	2920.6	\$0.30
Cheese or Tofu	16oz Pkg Cheese	190	190	\$5.30
Eggs	Dozen Large Eggs	230	230	\$2.97
Fruits and Vegetables - Cash Value	Fresh	\$1,377.06	\$1,377.06	\$1.00
Infant Formula	12.4oz Can(s) Similac Advance (Powder)	188	188	\$20.69
Infant Fruits and Vegetables	Infant Fruits	340	340	\$0.99
Infant Fruits and Vegetables	Infant Veg	103	103	\$0.99
Juice 64 oz	64oz Bottle(s) 100% Fruit Juice	325	325	\$4.28
Legumes	15.5oz Canned Beans	330	330	\$1.47
Legumes	18oz Peanut Butter/Dry Beans	209	209	\$2.35
Milk Low Fat/Fat Free	12oz Can Evaporated Lowfat/Fat Free Milk	617	617	\$1.99
Milk Low Fat/Fat Free	Gallon 1% /Fat Free Milk	599	599	\$4.89

Inventory Audits can be conducted on all items, not limited to Infant Formula. The timeframe for the audits is also more flexible.

# Vendor Management – Minimum Inventory

Item Category			Retailer Peer	Approved
Description	Item Description	Retailer Id	Group Description	Quantity
<b>Infant Meats</b>	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0770	Peer Group 1	14
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	5034	Peer Group 1	3
	Beech-Nut Classics Stage 1 Beef & Beef Broth	0770	Peer Group 1	16
	Beech-Nut Classics Stage 1 Beef & Beef Broth	2009	Peer Group 1	43
	Beech-Nut Classics Stage 1 Beef & Beef Broth	5034	Peer Group 1	2
	Beech-Nut Classics Stage 1 Beef & Beef Broth	5538	Peer Group 1	124
	Beech-Nut Classics Stage 1 Turkey & Turkey Broth	3421	Peer Group 1	6
	Beech-Nut Classics Stage 1 Turkey & Turkey Broth	3435	Peer Group 1	21
	Beech-Nut Classics Stage 1 Turkey & Turkey Broth	6236	Peer Group 1	31
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0314	Peer Group 2	6
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0711	Peer Group 2	22
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0714	Peer Group 2	1
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0759	Peer Group 2	93
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0767	Peer Group 2	1
	Beech-Nut Classics Stage 1 Chicken & Chicken Broth	0829	Peer Group 2	23

When reevaluating Minimum Inventory Requirements, detailed purchase data is available by Retailer and Peer Group.

# Vendor Management- Locating Items

## Soy Milk – Last 3 Months of Redemption - Totals

	Item Number	Approved Quantity
Silk Original Soymilk	25293600393	15,027.00
8th Continent Original Soymilk	53859070663	1,344.00

## Soy Milk – Last 3 Months of Redemption- By Location

Item Description	UPC Code	Retailer Id	Retailer Name	Retailer City	Approved Quantity
8th Continent Original Soymilk	53859070663	0321	America's Food Basket	Dorchester Center	27
		0729	Market Basket #32	Chelsea	169
		1901	Price Rite #347	West Springfield	14
		1940	Save-A-Lot #811	Springfield	65
Silk Original Soymilk	25293600393	0308	Super Stop & Shop (F&P) #429	Dorchester	272
		0729	Market Basket #32	Chelsea	330
		1334	Super Stop & Shop (F&P) #020	Quincy	554
		7018	Super Stop & Shop (F&P) #062	Malden	356

Details are available to show which products are more widely available and specifics of where the items are purchased.

# Participant Redemption Information

benefit period <u>06/21/2019 - 07/20/2019</u>				
food category	food subcategory	quantity issued	quantity redeemed	
Cheese or Tofu	16oz Pkg Cheese	2	1	
Eggs	Dozen Large Eggs	2		
Breakfast Cereal	Ounces Cereal	72		
	Non Whole Grain			12
Legumes	18oz Peanut Butter/Dry Beans	3	3	
Bread/Whole Grains	16oz Bread/Whole Grains	3		
	Brown Rice			1
	Whole Wheat Tortillas			1
Fruits and Vegetables - Cash Value	Fruits & Vegetables Cash Value	21		
	Fresh			10.03
Milk Low Fat/Fat Free	Quart 1%/Fat Free Milk	1		
Milk Low Fat/Fat Free	Half-Gal 1%/Fat Free Milk	1	1	
Milk Low Fat/Fat Free	Gallon 1% /Fat Free Milk	7		
Juice 64 oz	64oz Bottle(s) 100% Fruit Juice	4	3	

- The benefit history shows the quantities issued and redeemed, and specifics for Whole Grain and Fruit and Vegetable purchases.
- Local programs routinely review the benefit history and tailor nutrition education and food prescriptions as appropriate.

# Participant Redemption Information

Item Description	Approved Quantity
Wonder 100% Whole Wheat Bread	40,853.00
Sara Lee Classic 100% Whole Wheat Bread	36,300.00
Stop & Shop 100% Whole Wheat	21,075.00
Market Basket 100% Whole Wheat Bread	18,836.00
Arnold Stone Ground 100% Whole Wheat Bread	15,607.00
Bimbo 100% Whole Wheat Bread	14,282.00
Pepperidge Farm WW Cinnamon W/ Raisins Swirl	9,501.00
Pepperidge Farm Light Style Soft Wheat Bread	5,999.00
GOLD MEDAL 100% Whole Wheat	5,977.00
Pepperidge Farm Light Style 100% WW Bread	4,013.00
Big Y 100% Whole Wheat Bread	3,919.00
Holsum 100% Whole Wheat	3,503.00
Signature Kitchens 100% Whole Wheat Bread	3,217.00
Chi-Chi's Whole Wheat Tortillas	2,140.00
McCann's Irish Oatmeal-Quick Cooking	2,120.00

Redemption information is helpful for new participants and retailers with regard to purchasing and/or stocking Whole Grains.

- Bread – 92%
- Tortillas – 3%
- Brown Rice – 2%
- Oatmeal – 1%
- Whole Grain Pasta – 1%

# Participant Redemption Information

Benefit Subcategory Description	Utilization %
12oz Can Evaporated Whole Milk	88.81%
Fruits & Vegetables Cash Value	85.69%
12oz Can Evaporated Lowfat/Fat Free Milk	82.96%
Gallon Whole Milk	81.90%
Dozen Large Eggs	81.53%
64oz Bottle(s) 100% Fruit Juice	77.22%
16oz Pkg Cheese	73.19%
Gallon 2% Milk	72.97%
4oz jar Infant Fruits+Veg	67.37%
(2-Pack) 8oz. Infant Fruits+Veg	66.25%
18oz Peanut Butter/Dry Beans	65.56%
15.5oz Canned Beans	63.58%
Ounces Cereal	61.45%
Ounces Lowfat/Nonfat Yogurt	59.94%
8oz Infant Cereal	59.15%
16oz Bread/Whole Grains	58.90%
16oz Pkg Tofu	51.85%
Ounces Whole Yogurt	47.57%
2.5oz jar Infant Meats	26.92%

- Local WIC program staff utilize redemption information to help increase overall redemption rates.
- New options can be added to the WIC approved food list when feasible, to help with redemption in categories that have lower utilization percentages.
- MA WIC added 5 new items to the Whole Grain category due to low redemption rates



# Participant Redemption Information

Massachusetts WIC Program

Redemptions

Run Date: 05/12/2018

Report Number: WICPR751

March, 2018 Food Category:

Page 5 of 5

Local Program: 2 - Dorchester North/Mattapan

## SUMMARY

Food Category	Quantity Issued	Units Redeemed	Percent of Redemption
16-000 - 16oz Bread/Whole Grains	3687	0	
16-001 - Whole Wheat/Grain Bread	0	2354	96.30%
16-003 - Brown Rice	0	28	1.10%
16-005 - Oatmeal	0	19	0.80%
16-007 - Soft Corn Tortillas	0	3	0.10%
16-008 - Whole Wheat Tortillas	0	14	0.60%
16-100 - 24oz Pkg Whole Wheat/Whole Grain Bread	1	0	
16-101 - Whole Wheat Pasta	0	26	1.10%
Total Issued, Redeemed, and Percent Redeemed of	3688	2444	66.27%

Whole Grain Redemption rates are provided to local WIC programs on a monthly basis to help increase whole grain redemptions.

# Food List Review

## Cereal Redemptions– Past 12 months

Item Description	UPC Code	Approved Quantity
Hannaford Nutty Nuggets 20.5oz	41268209095	4
IGA Corn Flakes 18oz	41270813563	4
Food Club Honey & Oats with Almonds 14.5	36800285965	3
Food Club Bran Flakes 17.3oz	36800558168	3
Food Club Corn Flakes 18oz	36800110175	2
Food Club Honey & Oats 14.5 oz	36800285958	2
IGA Crispy Rice	41270830751	2
Krasdale Creamy Wheat	75130404370	2
Signature Kitchens Toasted Oats 28oz	21130282944	1
IGA Corn Squares 12oz	41270812962	1
Essential Everyday Frosted Shredded Wheat	41303001653	1
Malt-O-Meal Frosted Mini Spooners 36oz	42400925019	1

- Low volume items are routinely removed from the food list and possibly the APL.
- These items may be discontinued or not frequently purchased.

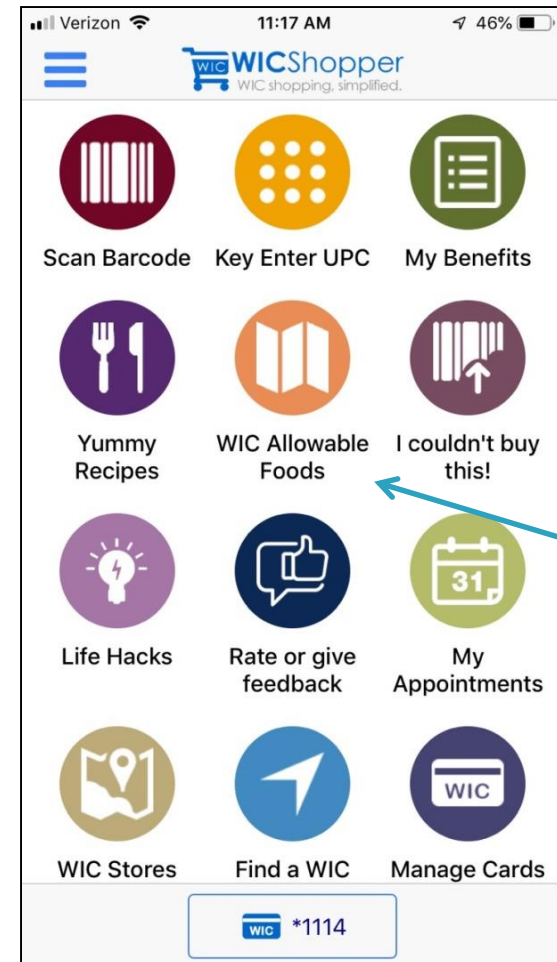
# WIC Approved Food List

- Printing costs are reduced as the WIC Approved Food Guide is available on the WIC Shopper App.
- New items can be added in many cases without printing a new food list, since the item is available in the APL for purchase.

**July 2019**

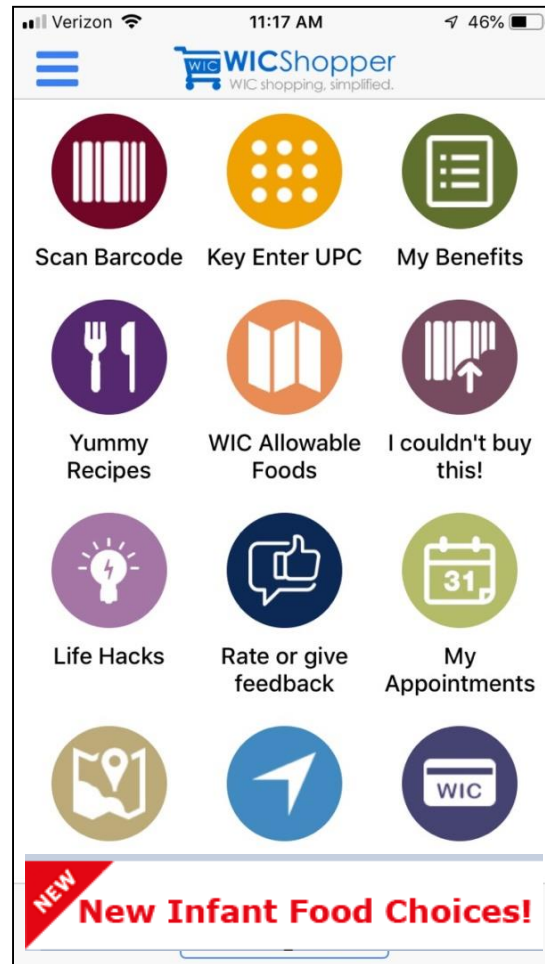
23,672 views – English

426 views - Spanish



# WIC Approved Food List

- For significant changes to the WIC approved food list, participants are notified of the updates on the WIC Shopper App.
- This saves time at local WIC programs and reduces the cost of printed notices.



In one month - 37,995 views of the page, and an increase of about 50% in food guide views

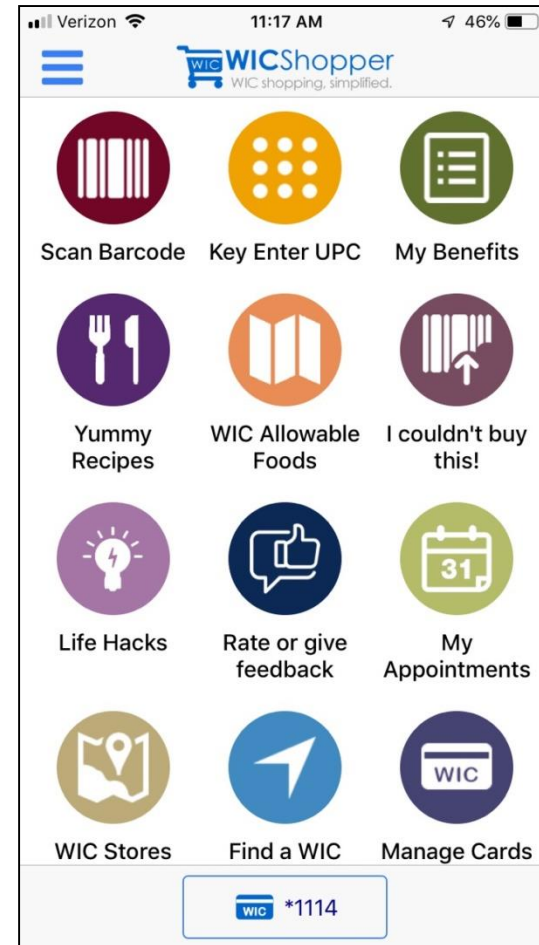
# WICShopper App

As of February 2019, MA WIC began utilizing the **“I couldn’t buy this!”** icon.

Inquiries from this icon are emailed to the state WIC Vendor Unit.

This feature can be used by WIC participants, WIC staff, and store staff.

The intent of this icon is to capture items that are not in the APL that should be.



# WICShopper App

*However... in reviewing inquiries to this icon we have noticed the following frequent issues:*

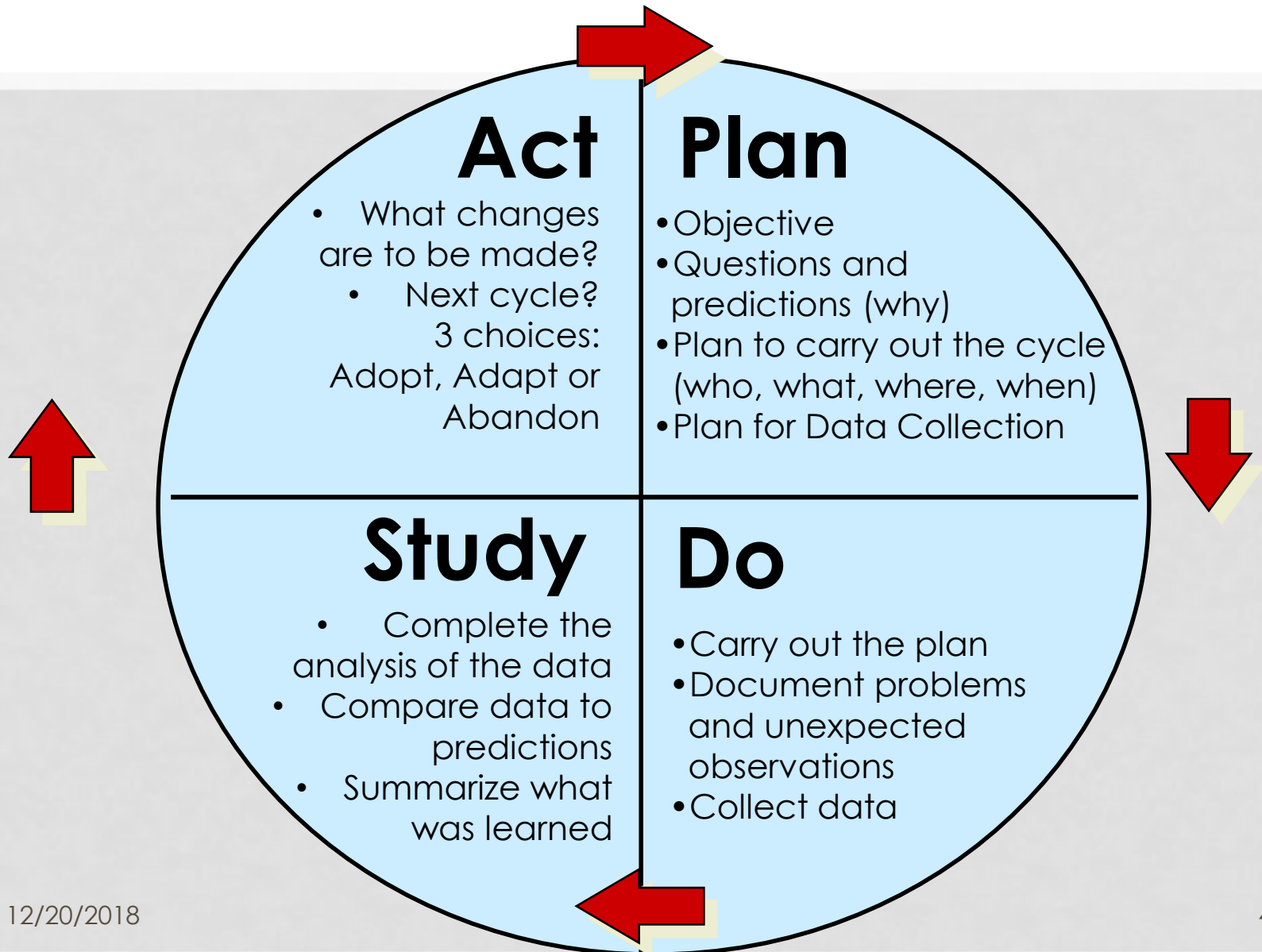
- Yogurt –The customer has benefits for “Whole Yogurt” and is trying to purchase “Lowfat/Nonfat Yogurt”.
- Infant Foods - The WIC customer is trying to purchase infant foods that are not authorized. For example: *Beech-Nut Stage 1* instead of the authorized *Stage 2* products.
- APL issues – stores that do not have a current APL file. In some cases the store had not downloaded a new file for approximately 6 months. This became apparent when participants were not able to purchase new infant foods added in February.
- Participants not properly trained to redeem benefits and/or not utilizing the Shopper app correctly. Participants are routinely using shelf labels to identify WIC items and attempt to purchase foods they do not have in their available benefits.

We routinely share this information with our local program staff and Vendor Advisory Council members.

# Performance Management at MA WIC

- Local WIC programs are contractually obligated to participate in some form of Performance Management to demonstrate that the MA Department of Public Health is improving the quality of services offered to the citizens of the Commonwealth.
- Performance Management ensures that the services delivered are high quality and consistently improving.
- Metrics are determined by local program staff and state staff and are tracked at the state level on a monthly basis.

# PDSA Overview





# Performance Management at MA WIC


- State office staff are assigned two Local Agencies to provide continual support on PDSA cycles
- Quarterly
  - Top Five data provided by state office
- Monthly
  - State staff provides guidance to individual Local Agencies.
    - ✓ 1 state staff is assigned to a Local Agency based on the selected Top Five measure
    - ✓ Gather PDSA plans at beginning of fiscal year
    - ✓ Follow up conference calls
    - ✓ Guidance on data collection methods and documentation

# Performance Management at MA WIC

## Guidance provided to Local Agencies includes:

- Involve all staff in testing and evaluating the change
- Pick easy changes to make test feasible
- Collect useful data during each test and reflect on the results of every change
- Be prepared to end the test of change and try something new
- Learning what does not work can almost be as important as learning what does
- If successful, determine how to implement the change program wide or expand to more participants/staff

# FY'2019 PERFORMANCE MANAGEMENT METRICS AND Q2 RESULTS

Top Five Measure	Baseline	State Target	Q1 Results	Q2 Results
Active Caseload	92.5%	98.0%	90.8%	92.3%
New Certifications	11,686	12,500	11,610	11,720
 Zero Redemption	6.4%	5.0%	6.5%	6.4%
Children at Healthy Weight	70.7%	72.0%	70.6%	70.6%
Breastfeeding at 3 Months	43.1%	45.0%	43.7%	41.7%

# Performance Management- Zero Redemptions

<b>Massachusetts WIC Program</b>		<b>Expired Benefit Period with No Redemptions State</b>		<b>Run date:06/10/2019</b>
<b>Report Number: WICPR760SUM</b>		<b>First Use Dates In: April, 2019</b>		<b>Page 1 of 1</b>
<b><u>LP Name - Number</u></b>	<b><u>Active HH Count</u></b>	<b><u>HH w/ Unused Benefits</u></b>	<b><u>% Of Unused Benefits</u></b>	
Berkshire North - 59	1,163	59	5.07	
Berkshire South - 52	274	17	6.20	
Brockton - 65	3,598	118	3.28	
Cambridge/Somerville - 21	2,065	147	7.12	
Cape Cod - 71	1,603	94	5.86	
Chelsea/Revere - 7	2,860	122	4.27	
Dorchester North/Mattapan - 2	2,075	88	4.24	
Dorchester South/South Boston - 3	2,671	172	6.44	
East Boston - 8	2,863	123	4.30	
Fall River - 58	2,169	92	4.24	

Local program staff receive a detailed report on the specific households with no redemptions to determine the reason benefits were not redeemed.

# Performance Management- Zero Redemptions

Most common reasons benefits were not redeemed are:

- Forgot to shop
- Lost card
- Too busy to shop
- Forgot PIN
- Transportation issues
- Difficulty shopping for WIC foods

# Performance Management- Zero Redemptions

## Common strategies to address “Zero Redemption” include:

- Using Teletask for a reminder calls and text messages.  
*"Someone in your household has WIC benefits that were not used last month. WIC provides \$60 or more worth of nutritious foods every month. Please be sure to use your benefits this month to stay active in the WIC program. If you have questions or lost your WIC card, please call (local WIC office)."*
- Using Expired Benefits report, nutritionists call participants to inquire why they did not use benefits, and identify and address any barriers or challenges participant encountered.
- Informing and educating participants about the WICShopper App.

# Participant Retention

MA WIC Retention Reports	
<b>Weekly:</b>	
Scheduled Terminations with No Appointment Date*	
No benefits Used*	
<b>Monthly:</b>	
Reinstated Participants	
Expired Benefit Period with No Redemptions*	
Recently Terminated Participants Who May Be Eligible By Household And Participants	
LLUD With No Appointment Date	
Infants Six Week Prior First Birthday*	
<b>Daily:</b>	
Participant Termination Report	
*Most frequently used	

Massachusetts WIC Program

## Scheduled Terminations With No Appointment Date

Report Number: WICPR720

From: 08/25/2019 To 09/14/2019

Page 1 of 4

Local Program: 3 - Dorchester South/South Boston WIC Program

Site: 7 - Codman Square WIC

<u>HH ID/ Member ID</u>	<u>Guardian Name/ Participant Name</u>	<u>EDD/ADD/DOB/ Cat</u>	<u>CED/ LLUD</u>	<u>CEED</u>	<u>Address</u>	<u>Phone/ Email</u>	<u>Spoken</u>	<u>Written</u>
		04/16/2016 C	09/12/2019 09/05/2019	04/16/2021	BOSTON, MA 02119		EN	EN

# Participant Retention

Massachusetts WIC Program		No Benefits Used					Page 1 of 6	
Report Number: WICPR748		FirstUseDate Between 07-14-2019 and 07-20-2019						
Local Program: 2 - Dorchester North/Mattapan WIC Program								
Site: 5 - Uphams Corner HC								
<u>HH ID</u>	<u>Guardian Name</u>	<u>FUD</u>	<u>LUD</u>	<u>Address</u>	<u>Phone/ Email</u>	<u>Spoken</u>	<u>Written</u>	
		07/14/2019	08/13/2019	DORCHESTER MA 02125		EN	EN	

This report is similar to the Expired Benefits report, however it is meant to be proactive to prevent participants from appearing on the “Zero Redemptions” report.

Massachusetts WIC Program		Infants Six Weeks Prior to their First Birthday					
Report Number: WICPR763							
Local Program: 2 - Dorchester North/Mattapan							
Site: 5 - Uphams Corner HC							
<u>HH ID/</u> <u>Member ID</u>	<u>Guardian Name/</u> <u>Participant Name</u>	<u>DOB/</u> <u>Catg</u>	<u>Status</u> <u>/ LLUD</u>	<u>CED/</u> <u>CEED</u>	<u>Address</u>	<u>Phone/</u> <u>eMail</u>	<u>Spoken</u> <u>Written</u>
6732		09/21/2018	T	09/21/2019			EN EN
10366		I	05/20/2019	09/21/2019	DORCHESTER, MA 02124		



## Collaboration with Harvard School of Public Health (HSPH)

- ▶ Working with HSPH to explore the barriers to redemption and determine the characteristics of households who redeem/don't redeem their WIC benefits.
- ▶ HSPH team led by Eric Rimm, HSPH epidemiologist and nutrition professor, who has previously studied SNAP utilization patterns.

## Collaboration with Harvard School of Public Health (HSPH)

- ▶ HSPH team will analyze data from 2015 forward, utilizing MA WIC's participant data system and vendor management system.
- ▶ HSPH team will also be conducting focus groups with current and former participants to better understand WIC redemption and retention patterns.
- ▶ Enable us to target and tailor our participant education efforts and make necessary changes at the vendor level.

Mary Blocksidge  
Vendor Manager  
Massachusetts WIC Nutrition Program  
250 Washington Street, 6th floor  
Boston, MA 02108  
Phone (617)624-6112  
Email - [mary.blocksidge@state.ma.us](mailto:mary.blocksidge@state.ma.us)



# How to Unleash the Power of Tableau to Local Agencies while Maintaining Data Confidentiality: California Solution

Susan Sabatier

California WIC Program

[Susan.Sabatier@cdph.ca.gov](mailto:Susan.Sabatier@cdph.ca.gov)

September 18, 2019

2019 WIC Program Integrity, Technology & Vendor Management Conference

wicworks.ca.gov



# Outline

- **California WIC Basics**
- **California eWIC Basics**
- **California Data Warehouse: WRAD**
- **Solutions to Maintain Confidentiality**
  - Projects, Starter Reports, Data Marts and User Groups
- **Training Local Agency Staff**



# California WIC Basics

- **One State Agency, over 200 staff**
- **83 Local Agencies and 500+ sites**
  - 42 are Local County Health Departments
  - 41 are Non-Profit Organizations
- **June 2019 participation 912,000**
  - August 2012 was highest with almost 1.5 million
- **Participant Demographics**
  - 75% Hispanic      • 22% Infants
  - 56% Children      • 22% Women
- **Program Coverage Rate, 65.6% (USDA/FNS, 2016)**
- **~4,000 Authorized Vendors (including A50s)**



# California eWIC Basics

- **MIS replaced same time as EBT implementation**
- **EBT Contractor: FIS/CDP**
- **MIS Contractor: 3Sigma**
  - Transfer New York's MIS to CA
  - 3Sigma subcontracted with CDP to build the CA Data Warehouse
- **eWIC Pilot June 3, 2019 (2 local agencies)**
- **Statewide EBT rollout started September 3, 2019 with completion scheduled for March 30, 2020**
  - 10 rollout waves based on geography



# California WIC Card and WIC WISE Implementation Rollout Waves





# California Data Warehouse

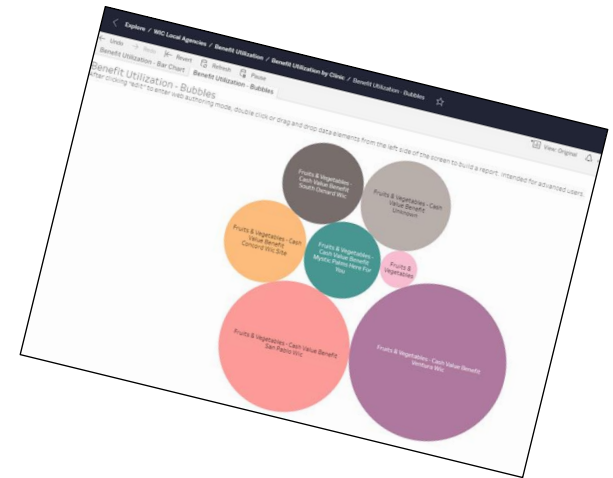
- Data warehouse required from both EBT and MIS contractor
- Quickly realized 1 data warehouse is best
- FIS/CDP provides a data warehouse to their state WIC customers:
  - Data Direct
  - Integrates MIS data for some State Agencies
  - Currently only State Agency staff have access (no Local Agencies)
- CA also wanted MIS data available in the data warehouse
- CDP developed a custom data warehouse for CA, modeled on Data Direct and its Tableau platform

**WRAD: WIC Reporting, Analytics and Data**



# Additional WRAD Functionality

- Include both EBT and MIS data in the data warehouse
- Multiple data marts
- More comprehensive analyses
  - Participant demographics, risks, education, benefit issuance, redemption behavior
  - Vendor demographics, submitted and reimbursed prices, redemption behavior
  - Local Agency characteristics, staff information, appointments
  - CA WIC App data
  - Call Center data (both participants and vendors)





## Vision: Share Power of Tableau Analytics to More Staff

- **WRAD replacing custom reporting tool for both Local Agency and State staffs**
  - WIX: Business Objects platform
  - Difficult to use

### ➤ **Dilemma:**

**How to structure WRAD to share the interactive, analytical power of Tableau with staff while applying confidentiality and security requirements**

- Data Direct not currently accessible to Local Agencies, just State Agencies

# Issue: Maintain Confidentiality

- **Local Agencies only see data on participants they serve**
- **Vendor confidential information screened from local agencies (e.g., peer group, submission and reimbursement prices, as well as where participants redeemed benefits)**
- **At State Agency, apply minimum necessary rule**
  - State Vendor staff don't see participant PII
  - State Local Agency staff don't see Vendor confidential data
  - Allow some State staff to see data across some or all of the WRAD data

# Solution: Projects, Starter Reports, Data Marts, and User Groups

- Design required lots of thinking and various levels of expertise, including Tableau; developed use cases
- **3 Main Projects:**
  - State WIC
  - WIC Local Agencies
  - WIC Local Agencies Custom Reports
- **Starter Reports built with access to designated Data Marts (different starter reports for Tableau Viewer and Explorer roles)**
- **User Groups based on job function; assigned to Projects and Starter Reports**

# 3 Main Projects

Explore Top-level Projects ▾

Create

Select All

	Type	↑ Name		Projects	Workbooks	Views
☆	Folder	State WIC	...	11	6	17
☆	Folder	WIC Local Agencies	...	5	0	0
☆	Folder	WIC Local Agencies Custom Reports	...	76	1	4





# State WIC



Owner **bgulledge**

Reporting Related to State WIC Program

Create

Select All

	Type	Name
<input type="checkbox"/>	☆	📁 <b>Audits</b>
<input type="checkbox"/>	☆	📁 Data Analysis, Research, and Evaluation
<input type="checkbox"/>	☆	📁 Financial Management
<input type="checkbox"/>	☆	📁 <b>Food Package</b>
<input type="checkbox"/>	☆	📁 Local Policy
<input type="checkbox"/>	☆	📁 Local Services
<input type="checkbox"/>	☆	📁 Planning and Development
<input type="checkbox"/>	☆	📁 Program Integrity

<input type="checkbox"/>	☆	📁 Program Integrity
<input type="checkbox"/>	☆	📁 Vendor Management
<input type="checkbox"/>	☆	📁 Vendor Monitoring
<input type="checkbox"/>	☆	📁 Vendor Policy
<input type="checkbox"/>	☆	📊 Create Your Own Report
<input type="checkbox"/>	☆	📊 <b>Create Your Own Report - Benefit Issuance and Redemption</b>
<input type="checkbox"/>	☆	📊 Create Your Own Report - Call Center
<input type="checkbox"/>	☆	📊 Create Your Own Report - Stand Besides
<input type="checkbox"/>	☆	📊 Create Your Own Report - WIC WISE
<input type="checkbox"/>	☆	📊 <b>Report Builder - Redemptions</b>



## Data Mart Permissions

Available Groups	Starter Report	Data Marts	Groups with Access
TAB-StateWICAudits TAB-StateWICCreator TAB-StateWICDARE TAB-StateWICExplorer TAB-StateWICFinancialMgmt TAB-StateWICFoodPackage TAB-StateWICITSD TAB-StateWICLocalPolicy TAB-StateWICLocalServices TAB-StateWICPlanningDevelopment TAB-StateWICProgramIntegrity TAB-StateWICVendorMgmt TAB-StateWICVendorMonitoring TAB-StateWICVendorPolicy	Create Your Own Report	Redemptions WIC CSR Calls WIC Equipment Actions WIC Inquiry Actions Participant Monthly Snapshot WIC Merchant Actions WIC SIVR Calls Issuance Participant Risks Participant Activity Reconciliation	TAB-StateWICCreator, TAB-StateWICExplorer
	Create Your Own Report - Benefit Issuance and Redemption	Redemptions Issuance Reconciliation	TAB-StateWICCreator, TAB-StateWICExplorer
	Create Your Own Report - Call Center	WIC CSR Calls WIC SIVR Calls	TAB-StateWICCreator, TAB-StateWICExplorer
	Create Your Own Report - Stand Besides	WIC SIVR Calls WIC Merchant Actions WIC Inquiry Actions WIC Equipment Actions	TAB-StateWICCreator, TAB-StateWICExplorer
	Create Your Own Report - WIC WISE	Participant Activity Participant Monthly Snapshot Participant Risks	TAB-StateWICCreator, TAB-StateWICExplorer
	Report Builder - Redemptions	Redemptions	TAB-StateWICCreator, TAB-StateWICExplorer

## Project Permissions

Available Groups	Projects	Groups with Access
TAB-StateWICAudits TAB-StateWICCreator TAB-StateWICDARE TAB-StateWICExplorer TAB-StateWICFinancialMgmt TAB-StateWICFoodPackage TAB-StateWICITSD TAB-StateWICLocalPolicy TAB-StateWICLocalServices TAB-StateWICPlanningDevelopment TAB-StateWICProgramIntegrity TAB-StateWICVendorMgmt TAB-StateWICVendorMonitoring TAB-StateWICVendorPolicy	Audits	TAB-StateWICAudits, TAB-StateWICCreator, TAB-StateWICExplorer
	Data Analysis, Research, and Evaluation	TAB-StateWICDARE, TAB-StateWICCreator, TAB-StateWICExplorer
	Financial Management	TAB-StateWICFinancialMgmt, TAB-StateWICCreator, TAB-StateWICExplorer
	Food Package	TAB-StateWICFoodPackage, TAB-StateWICCreator, TAB-StateWICExplorer
	Local Policy	TAB-StateWICLocalPolicy, TAB-StateWICCreator, TAB-StateWICExplorer
	Local Services	TAB-StateWICLocalServices, TAB-StateWICCreator, TAB-StateWICExplorer
	Planning and Development	TAB-StateWICPlanningDevelopment, TAB-StateWICCreator, TAB-StateWICExplorer
	Program Integrity	TAB-StateWICProgramIntegrity, TAB-StateWICCreator, TAB-StateWICExplorer
	Vendor Management	TAB-StateWICVendorMgmt, TAB-StateWICCreator, TAB-StateWICExplorer
	Vendor Monitoring	TAB-StateWICVendorMonitoring, TAB-StateWICCreator, TAB-StateWICExplorer
	Vendor Policy	TAB-StateWICVendorPolicy, TAB-StateWICCreator, TAB-StateWICExplorer





# 3 Main Projects

Explore Top-level Projects ▾

Create

Select All

	Type	↑ Name		Projects	Workbooks	Views
☆	Folder	State WIC	...	11	6	17
☆	Folder	WIC Local Agencies	...	5	0	0
☆	Folder	WIC Local Agencies Custom Reports	...	76	1	4



# WRAD: Viewers, Explorers & Creators Roles

- **Viewers:** These users have the ability to access and interact with existing reports and dashboards, can manipulate existing reports but can't save them (using the Report Builder).
  - ✓ Most LA and State staff with access to WRAD will be assigned the Viewer role
- **Explorers:** These users have the same rights as the Viewer users, plus they can edit and create reports, and save reports they create to their specific LA Custom Reports folder. These are the “**super users**”.
  - ✓ Approach: look for Viewers with aptitude and interest and then request Explorer role
- **Creators:** Only a handful of State staff

# WRAD Project Folders: “Pre-Built” vs Custom

WIC Local Agencies (“Pre-Built”)	WIC Local Agencies Custom Reports
Workbooks created by CDPH; user has access to the “Report Builder” starter report for limited customization, but can’t save	New workbooks created by LA super users; can also edit “pre-built” workbooks and save the changes to create a new one
Workbooks fixed to one or more data marts as well as specific (usually limited) dimensions and measures	Super users can build new workbooks using the “Create Your Own Report” starter report; has access to <b>all</b> of the dimensions and measures in the data mart(s) included in that CYOR builder
LAs all see the same subfolders and workbooks within the folders	Super user can share a custom report with staff from the same LA
User groups ensure LA users only see data for their own LA	LA users can’t see custom reports made by super users from other LAs
CDPH can continue to add new workbooks, including “promoting” useful workbooks created by LA super users	LA super users can continue to create new workbooks; will need to manage its folder (purge old/no longer useful workbooks)



# 3 Main Projects

Explore Top-level Projects ▾

Create

Select All

	Type	↑ Name		Projects	Workbooks	Views
☆	Folder	State WIC	...	11	6	17
☆	Folder	WIC Local Agencies	...	5	0	0
☆	Folder	WIC Local Agencies Custom Reports	...	76	1	4





# WIC Local Agencies



Owner **bgulledge**

Reporting Related to Local Agencies

Create

Select All

		Type	Name
<input type="checkbox"/>	☆	Folder	Appointments
<input type="checkbox"/>	☆	Folder	Benefit Utilization
<input type="checkbox"/>	☆	Folder	Breastfeeding Data
<input type="checkbox"/>	☆	Folder	Participation
<input type="checkbox"/>	☆	Folder	Staff Related





# Participation



Owner [bgulledge](#)

Create

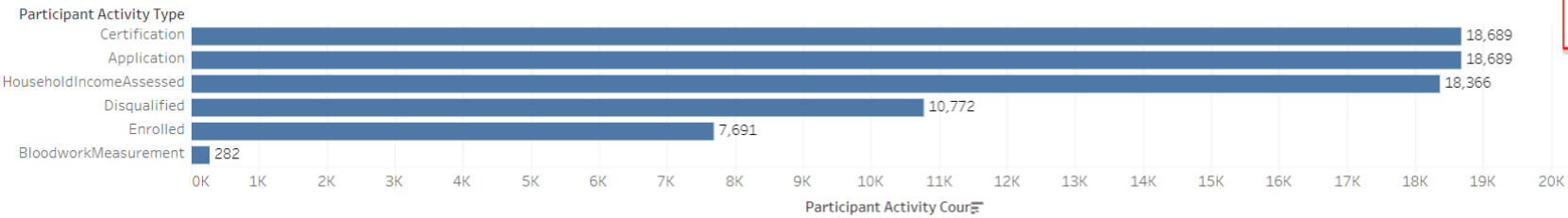
Select All

	Type	Name
<input type="checkbox"/>		<b>Participant Activity Types</b>
<input type="checkbox"/>		Participant Risks
<input type="checkbox"/>		Report Builder - Participant Activity
<input type="checkbox"/>		Report Builder - Participant Monthly Snapshot
<input type="checkbox"/>		Report Builder - Participant Risks



### Participant Activity

After clicking "edit" to enter web authoring mode, double click or drag and drop data elements from the left side of the screen to build a report. Intended for advanced users.



Participant Activity - 7/19/2019 5:11:20 PM

Participant Activity Month  
(All)

- Clinic Name
- (All)
  - Boonville
  - Closed - Do Not Use
  - Fort Bragg
  - Gualala
  - Long Valley Health Center
  - Point Arena
  - Round Valley Public Library
  - Ukiah
  - Willits

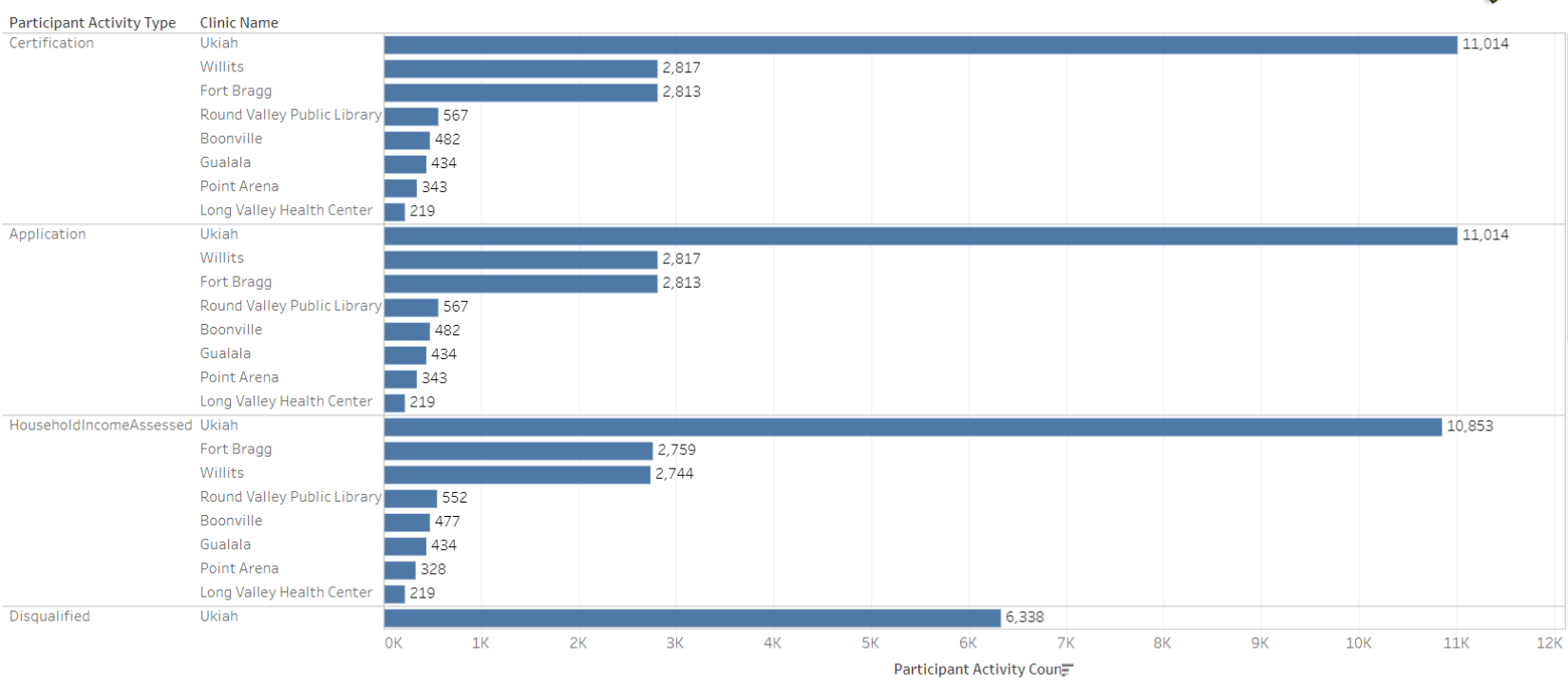
- Participant Activity Desc
- (All)
  - Application
  - BloodworkMeasurement
  - Certification
  - Disqualified
  - Enrolled
  - HouseholdIncomeAssessed





### Activity Clinic Comparisons

After clicking "edit" to enter web authoring mode, double click or drag and drop data elements from the left side of the screen to build a report. Intended for advanced users.



Participant Activity Month  
(All)

- Clinic Name
- (All)
  - Boonville
  - Closed - Do Not Use
  - Fort Bragg
  - Gualala
  - Long Valley Health Center
  - Point Arena
  - Round Valley Public Library
  - Ukiah
  - Willits

- Participant Activity Desc
- (All)
  - Application
  - BloodworkMeasurement
  - Certification
  - Disqualified
  - Enrolled
  - HouseholdIncomeAssessed





## Download

Select your file format.

Image

Data

Crosstab

PDF

PowerPoint

Tableau Workbook

Cancel





# WIC Local Agencies



Owner **bgulledge**

Reporting Related to Local Agencies

Create

Select All

		Type	Name
<input type="checkbox"/>	☆	Folder	Appointments
<input type="checkbox"/>	☆	Folder	Benefit Utilization
<input type="checkbox"/>	☆	Folder	Breastfeeding Data
<input type="checkbox"/>	☆	Folder	Participation
<input type="checkbox"/>	☆	Folder	Staff Related





# Participation



Owner [bgulledge](#)

Create

Select All

	Type	Name
<input type="checkbox"/>		Participant Activity Types
<input type="checkbox"/>		Participant Risks
<input type="checkbox"/>		Report Builder - Participant Activity
<input type="checkbox"/>		Report Builder - Participant Monthly Snapshot
<input type="checkbox"/>		Report Builder - Participant Risks





# Report Builder - Participant Risks



Owner **nkongara** Modified Aug 6, 2019, 9:02 AM

Edit Workbook

Views 5 Data Sources 1 Subscriptions 0

Select All

		Type	Name
<input type="checkbox"/>	☆		Bars
<input type="checkbox"/>	☆		Trend
<input type="checkbox"/>	☆		Bars With Trend
<input type="checkbox"/>	☆		Scatter Plot
<input type="checkbox"/>	☆		Map Dashboard



# Report Builder - Bars

On the right, select the dimensions and measures you want to include in your report. You can toggle between sum (total) or average. By default, the report is sorted from the largest value of Measure 1 to the smallest for Dimension 1.

Dimension 1	Dimension 2	Dimension 3	Measure 1	Measure 2
			0.00	0.00

**Reporting Month**

**Dimension 1**

**Dimension 2**

**Dimension 3**

**Sum or Avg?**

**Measure 1**

**Measure 2**



# Report Builder - Bars

On the right, select the dimensions and measures you want to include in your report. You can toggle between sum (total) or average. By default, the report is sorted from the largest value of Measure 1 to the smallest for Dimension 1.

Clinic Name	Foster Care Flag	Dimension 3	Individual Count	Measure 2
Fairfield Wic Office	N		2,816.00	
	Y		40.00	
Vallejo Wic Office	N		2,732.00	
	Y		32.00	
Napa Clinic	N		1,570.00	
	Y		13.00	
Vacaville Wic Office	N		1,205.00	
	Y		25.00	
Dixon Family Services	N		463.00	
	Y		5.00	
American Canyon City Hall	N		186.00	
	Y		1.00	
Calistoga Upvalley Family Ctr	N		120.00	

**Reporting Month**  
June 2019 ▼

**Dimension 1**  
Clinic Name ▼

**Dimension 2**  
Foster Care Flag ▼

**Dimension 3**  
None ▼

**Sum or Avg?**  
Sum ▼

**Measure 1**  
Individual Count ▼

**Measure 2**  
None ▼



Search

# Explore

Top-level Projects ▾

Create

Select All

Type	↑ Name		Projects	Workbooks	Views	
☆	Folder	State WIC	...	11	6	17
☆	Folder	WIC Local Agencies	...	5	0	0
☆	Folder	WIC Local Agencies Custom Reports	...	76	1	4





# WIC Local Agencies Custom Reports

Owner **bgulledge**

Custom Reporting Related to Local Agencies

Create

Select All

**State View**

		Type	Name
<input type="checkbox"/>	☆	Folder	Alameda County Healthcare Service
<input type="checkbox"/>	☆	Folder	Alliance Medical Center
<input type="checkbox"/>	☆	Folder	American Red Cross
<input type="checkbox"/>	☆	Folder	Ampla Health
<input type="checkbox"/>	☆	Folder	Antelope Valley Hospital WIC
<input type="checkbox"/>	☆	Folder	Axis Community Health
<input type="checkbox"/>	☆	Folder	Butte Co Dept Of Public Health
<input type="checkbox"/>	☆	Folder	Camino Health Center
<input type="checkbox"/>	☆	Folder	Central Valley Indian Health
<input type="checkbox"/>	☆	Folder	City Of Berkeley
<input type="checkbox"/>	☆	Folder	City Of Long Beach Dhhs







# WIC Local Agencies Custom Reports



Owner **bgulledge**

Custom Reporting Related to Local Agencies

Create

Select All

Type

Name



Create Your Own Report





# Create Your Own Report



Owner [nkongara](#)

Modified Jul 22, 2019, 4:02 PM

Edit Workbook

Views 4

Data Sources 4

Subscriptions 0

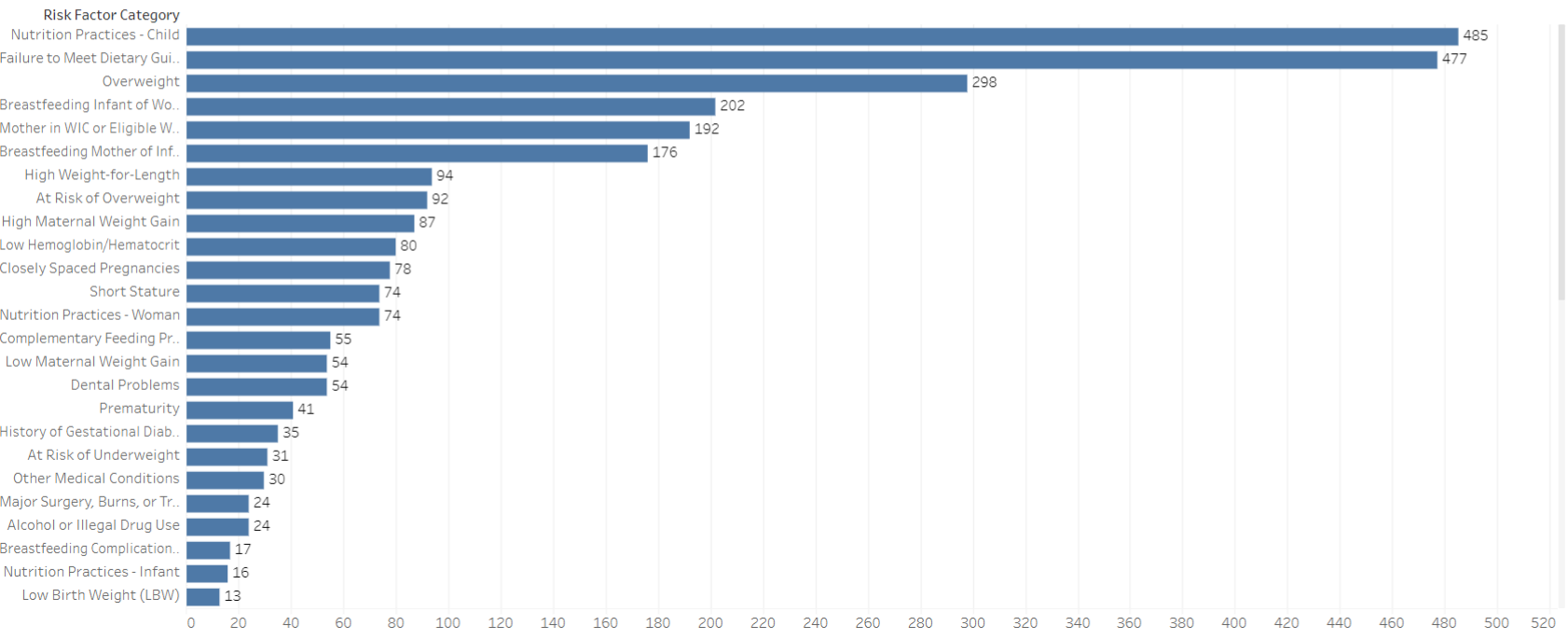
Select All

		Type	Name
<input type="checkbox"/>	☆		My Report - Participant Activity
<input type="checkbox"/>	☆		My Report - Participant Monthly Snapshot
<input type="checkbox"/>	☆		My Report - Participant Risks
<input type="checkbox"/>	☆		My Report - Benefit Utilization



## My Report - Participant Risks

After clicking "edit" to enter web authoring mode, double click or drag and drop data elements from the left side of the screen to build a report. Intended for advanced users.



Create Your Own Report

**Data**

Analytics < Pages

Benefit Utilization  
Participant Activity  
Participant Monthly ...

**Dimensions**

- Clinic
- Family
- Individual
- Participant Risks Info
- Risk Factor
- WIC Category
- WIC Priority
- Local Agency Filter
- System Last Updated
- Measure Names

MY(Reporting Month Dat...

Filters

Marks

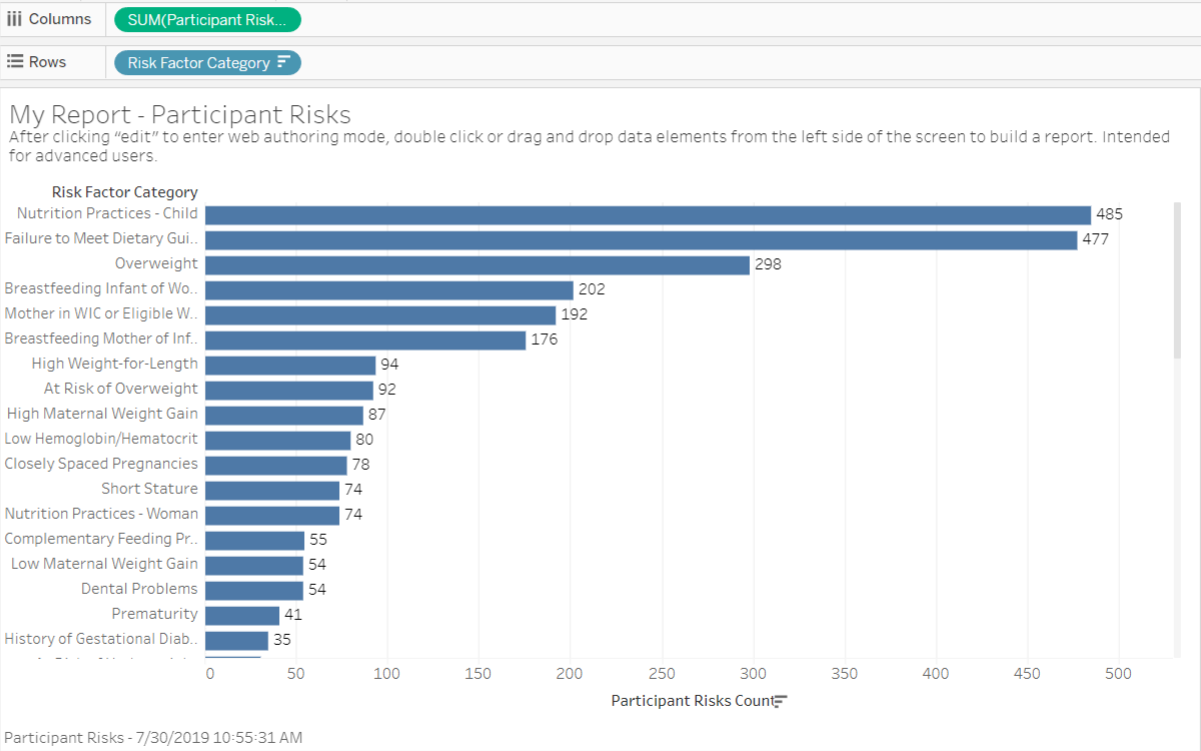
Automatic

Color Size Label

Detail Tooltip

**Measures**

- Clinic Count
- Family Count
- Individual Age (Yrs)
- Individual Age (Yrs)
- Individual Count
- Participant Risks Count
- Latitude (generated)
- Longitude (generated)
- Measure Values



Reporting Month  
May 2019



# WRAD Training Plan for Local Agencies

- **Allow LAs at least one month to focus on WIC WISE and EBT**
- **WebEx trainings for the Viewer role**
- **Provide a WRAD Users Guide and practice scenarios**
- **Share list of wonderful publicly available Tableau resources, such as:**
  - Tableau Quick Start Guides, free On-Demand training videos, Tableau Knowledge Base with more than 500 articles, etc.
- **Solidify Viewer expertise, then determine best approach for providing Explorer training**

# Michigan WIC Data: Everyday Uses and Beyond

**BAGYA KODUR, MS**

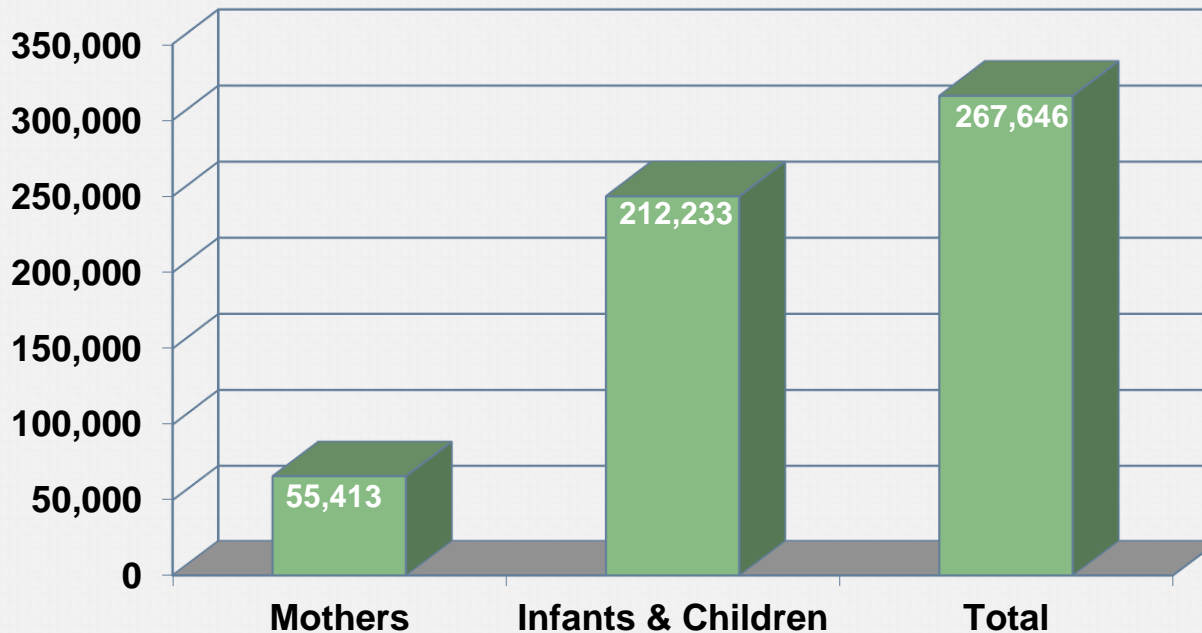
**MICHIGAN WIC PROGRAM**

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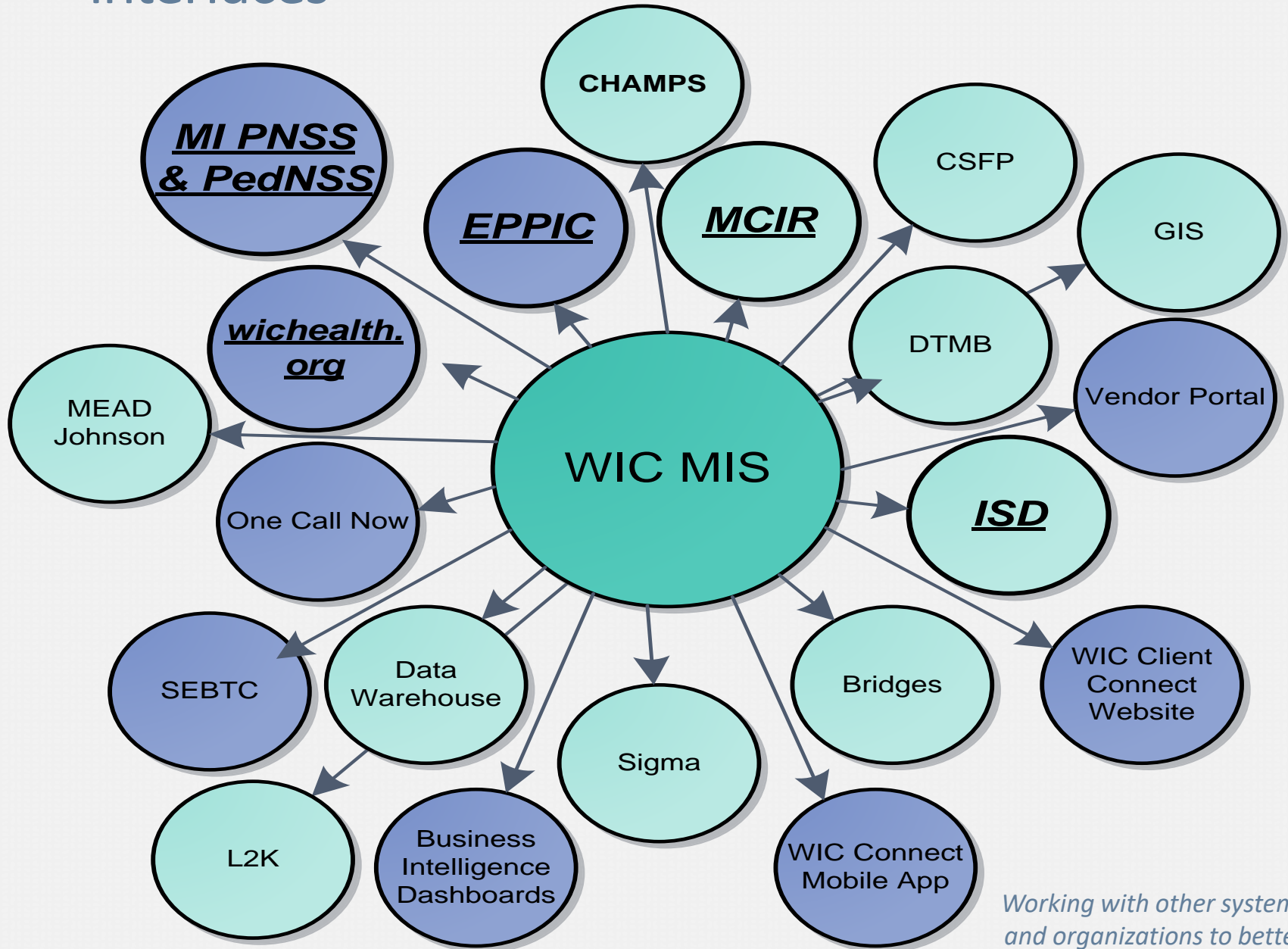
2019 BIENNIAL NWA WIC TECHNOLOGY CONFERENCE, OKLAHOMA CITY

# A look at Michigan WIC

- **MIS / EBT implementation completed - May 2009**
- **Local Agencies – 47**
- **Clinics – 232**
- **July 2019 participation - 205,877**



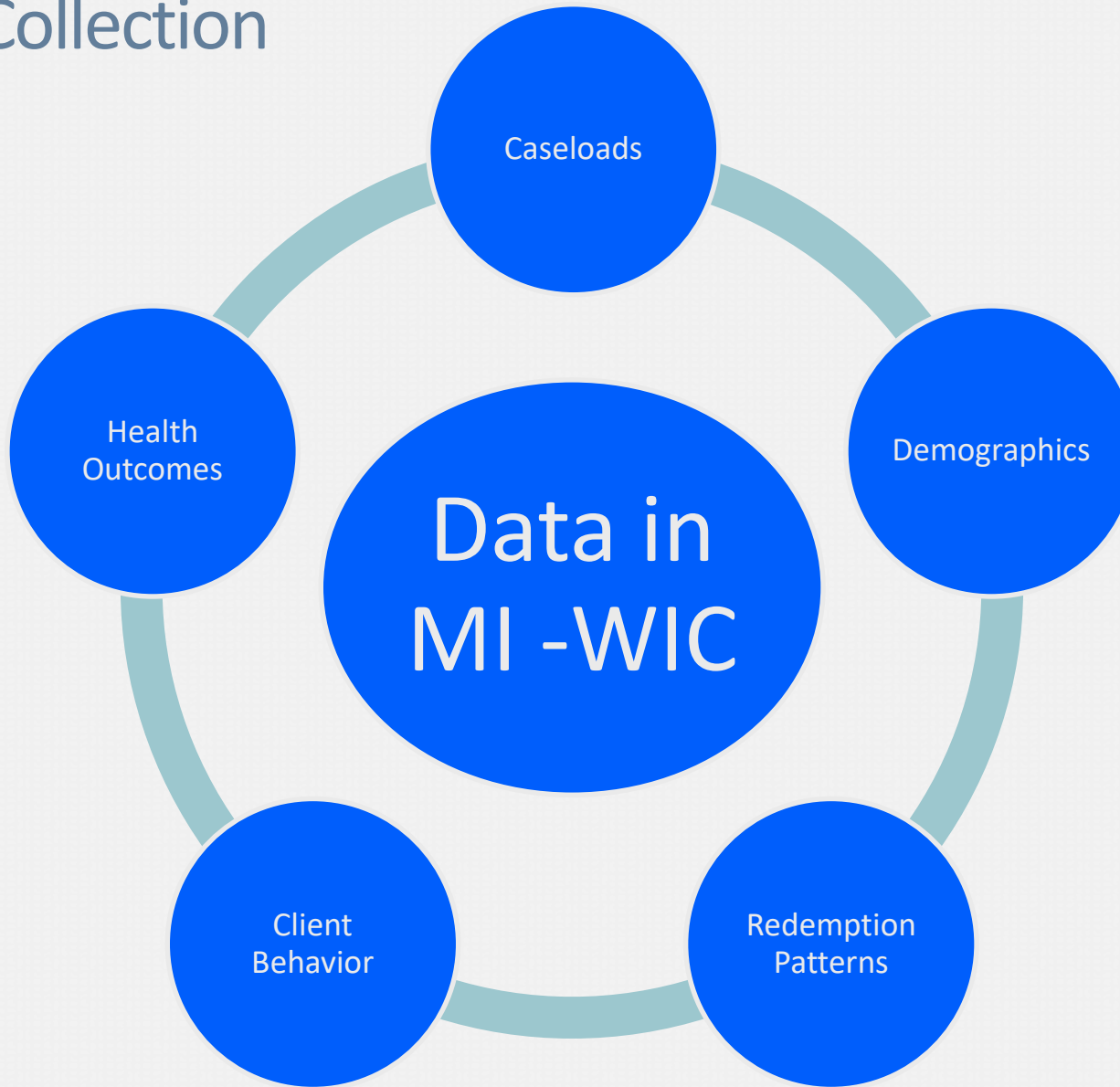
# Interfaces



*Working with other systems and organizations to better serve families.*



# Data Collection



# Top Data Uses in Michigan WIC

1. Caseload & EBT
2. Health Outcomes
3. Program Management
4. Program Integrity
5. Vendor Management

## Data Mining

- Michigan data collects several aspects of the WIC program.
- The collection process begins in one of over 200 WIC clinics, and continues with over 1500 WIC authorized vendors statewide.
- **What can we do with all this data?**

*Transactions*  
**Redemption**  
*Nutrition*

*Demographic Info*  
**Real-Time**  
*Nutrition Ed*

*Vendors*  
**Client Retention**  
*EBT Account*

**Cost Containment**  
*Eligibility*

*Health Outcomes*  
**Program Integrity**  
*Breastfeeding Data*

*Medical History*  
*Food Prescriptions*  
*Risks*  
*Benefit Data*

# MI-WIC Reports



**❑ Production: Most production reports are available to all users with access to the module.**

- Standard MIS reports for program management, caseload, nutrition education needs, high risk clients, scheduling, client retention

**❑ Pre-defined: These reports are available to staff with designated roles.**

- Provides flexibility by allowing various filters and indicators

**❑ Ad hoc: These reports are available upon request to the State**

- Used/requested to fulfill specific needs

# Beyond Everyday Uses

- Studying Client Behavior
- Detailed Analysis for Program Management
- Research and Analysis
- Monitoring Health Outcomes
- Collaboration for Better Client Services
- Program Evaluation

# Client Behavior

## Category Level Redemption – EBT data

Top 6 Redeemed

CatCode	Sub CatCode	Description	PKG CODE	Pct_Rdmd (%)
19	001	WIC Fresh Fruit and Vegetables	\$\$\$	71.7
01	001	Whole - gallon only	GAL	68.7
01	003	2% Milk - gallon only	GAL	65.1
03	000	Eggs	DOZ	64.8
54	000	Juice 64 oz	BTL	63.8
02	000	Cheese - all authorized types	LB	57.6

50.5 % of Yogurt redeemed

49.4% of Low-fat (Skim, 1/2%, 1%) Gallon only redeemed

47.2 % of Cereal redeemed

Least 5 Redeemed

CatCode	Sub CatCode	Description	PKG CODE	Pct_Rdmd (%)
001	103	2% - half gallon only	HGL	35.8
16	003	2% Milk	QT	33.9
15	15	2% Evaporated Milk, 12 oz	CAN	28.1
001	102	Low-fat (Skim, 1/2%, 1%)-half gallon only	HGL	25.4
13	000	2.5 oz Infant Meats	JAR	22.1

\*May – Jul 2019, excludes formula

# Amount of Benefits Redeemed, June 2019

% Redeemed in Food benefits Issued	Number	Statewide
0.1 - 25%	38124	20.7
25.1 - 50%	22031	12.0
50.1 - 75%	30587	16.6
75.1 - 99.9%	47511	25.8
100%	45915	24.9
Benefits Redeemed >50%	124013	67.3

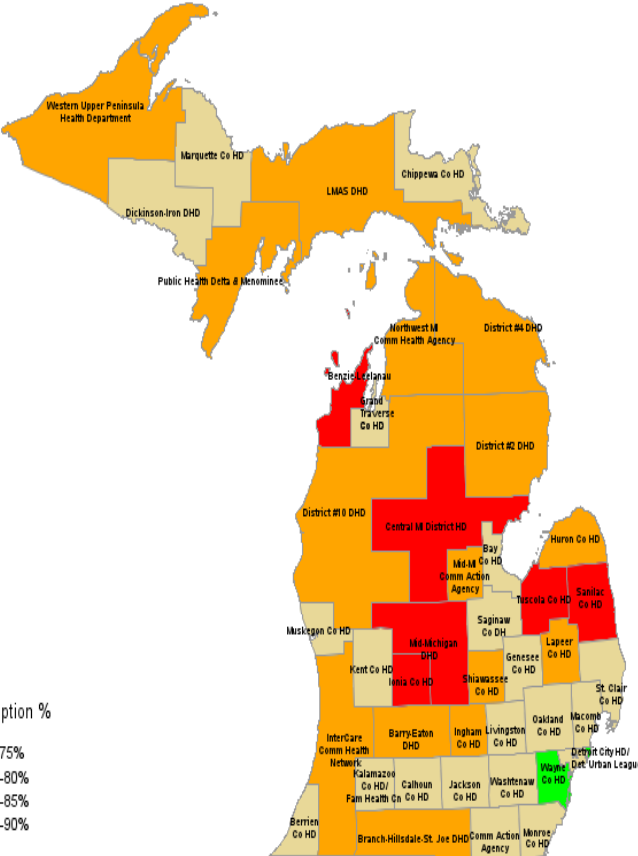
Family Count	127130
Total No. of Benefits Redeemed	184219
Total number of benefits issued	226914

\* For each benefit that was issued in Jun 2019, the table shows the % of benefits that was redeemed

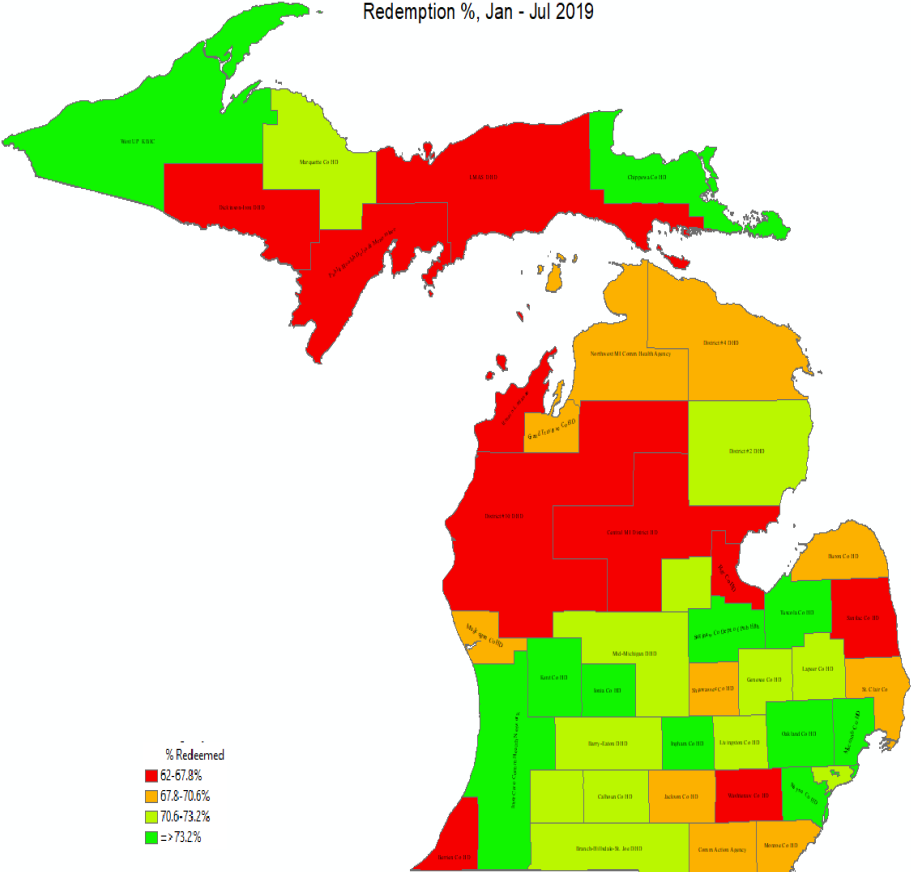


# Fresh Fruit and Vegetable Redemption Comparison 2012 - 2019

Redemption %, 2012



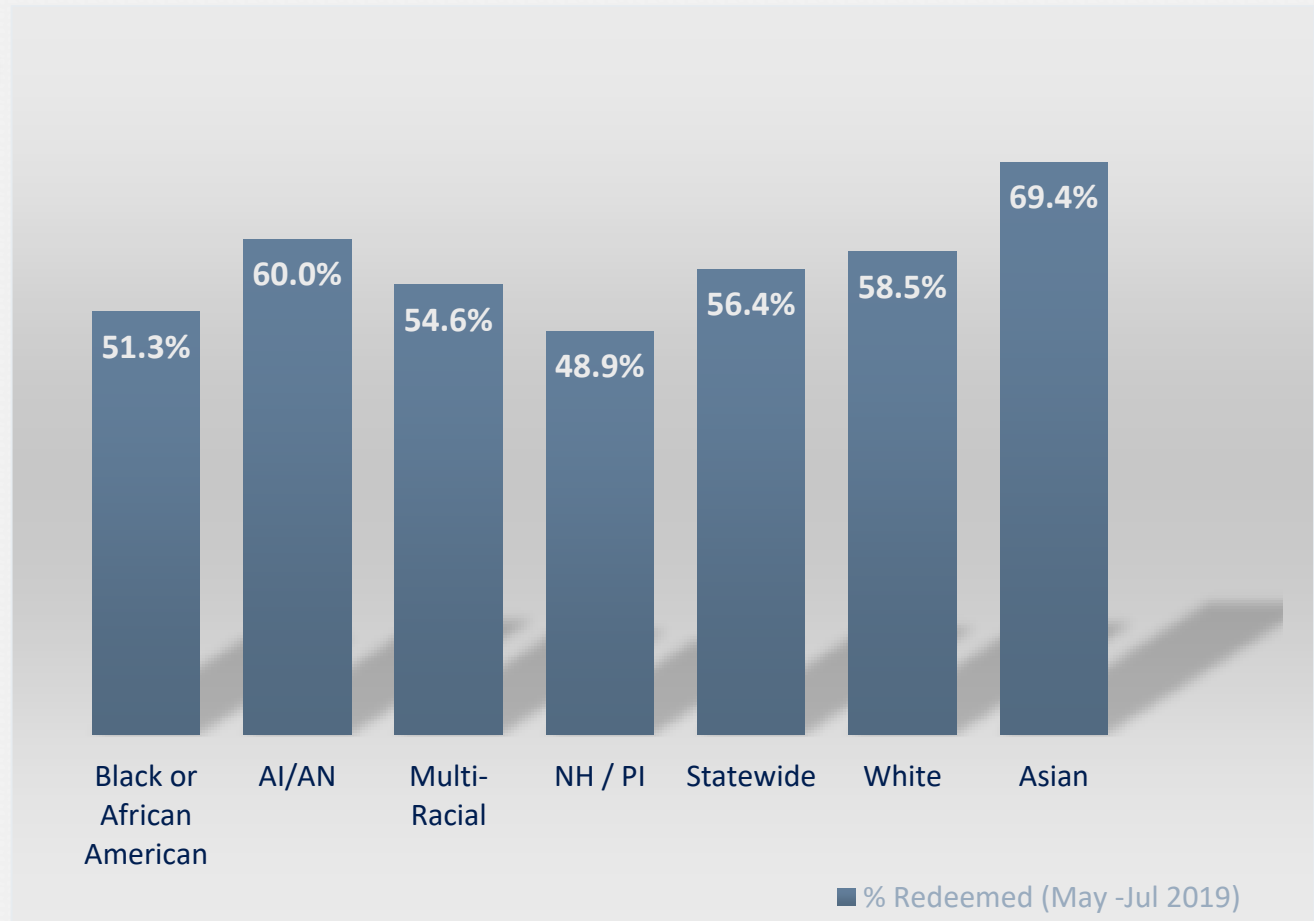
Redemption %, Jan - Jul 2019



# Redemption Rates by Race

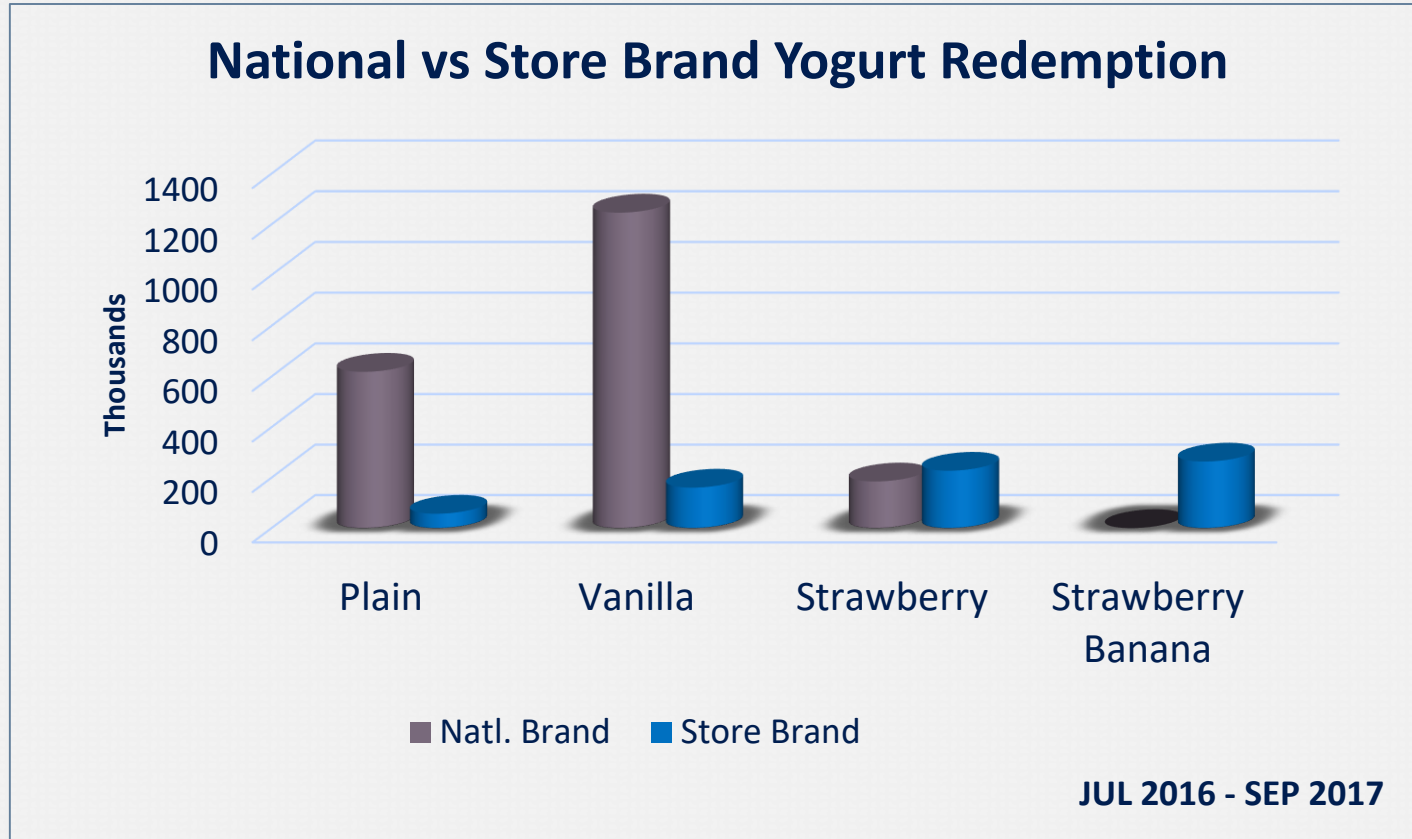


78.3 % of WIC families are at or below 130% Poverty level.





# Authorized Yogurt Brands



# Cost Analysis of Yogurt Redemption

Yogurt Flavor	NB unit price	SB unit Price	NB est. cost*	SB est. Cost*
Plain	\$ 3.03	\$ 2.16	\$ 151,729.47	\$ 108,168.88
Vanilla	\$ 2.91	\$ 2.04	\$ 145,711.44	\$ 101,920.29
Strawberry	\$ 2.90	\$ 2.13	\$ 144,784.22	\$ 106,572.04
Strawberry Banana	\$ 3.37	\$ 2.13	\$ 168,632.55	\$ 106,684.41
Total			\$ 610,857.68	\$ 423,345.61
Cost difference			\$ 187,512.07	

\* If 50,000 items were redeemed for all flavors over a 6 month period

NB: National Brand, SB: Store Brand

# Actual Cost Based on Redemptions

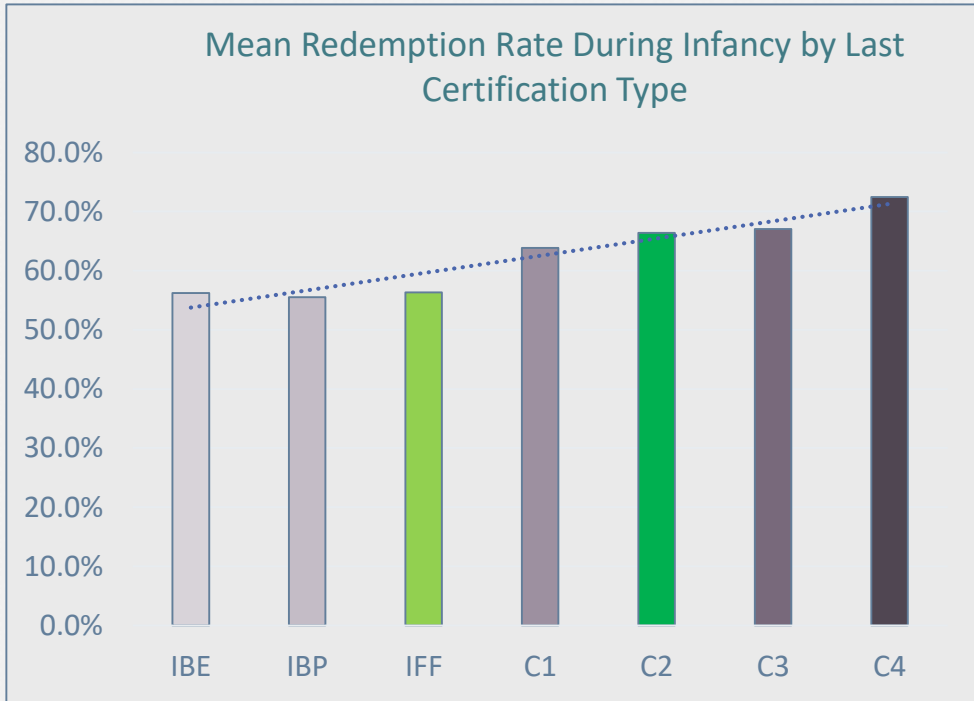
Yogurt Flavor	NB unit price	SB unit Price	NB Cost	SB Cost
Plain	\$ 3.03	\$ 2.16	\$ 1,876,383.75	\$ 123,230.32
Vanilla	\$ 2.91	\$ 2.04	\$ 3,631,467.15	\$ 326,787.01
Strawberry	\$ 2.90	\$ 2.13	\$ 534,879.23	\$ 484,472.22
Strawberry Banana	\$ 3.37	\$ 2.13	\$ 1,005.05	\$ 562,623.69
Total			\$ 6,043,735.18	\$ 1,497,113.24
Cost of NB - SB			\$ 4,546,621.94	

NB: National Brand, SB: Store Brand

## Program Retention and Analysis of Redemption Rate

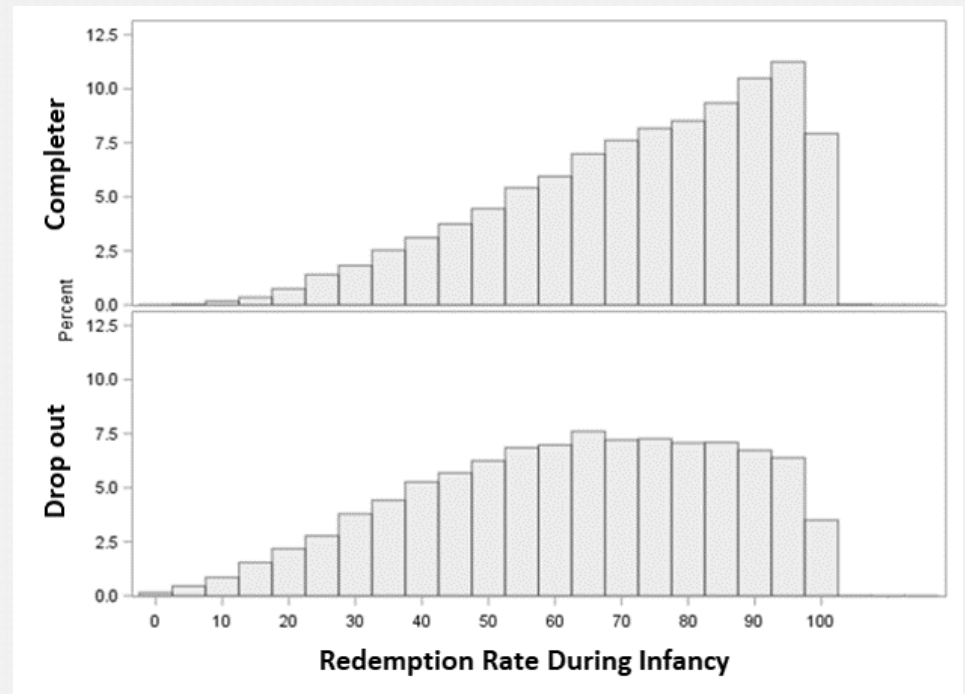
### Redemption Rate During Infancy By Last Certification Type

Last Certification	N	Mean
IBE	882	56.24
IBP	568	55.51
IFF	8745	56.35
C1	9785	63.84
C2	6058	66.40
C3	6897	67.03
C4	26968	72.48



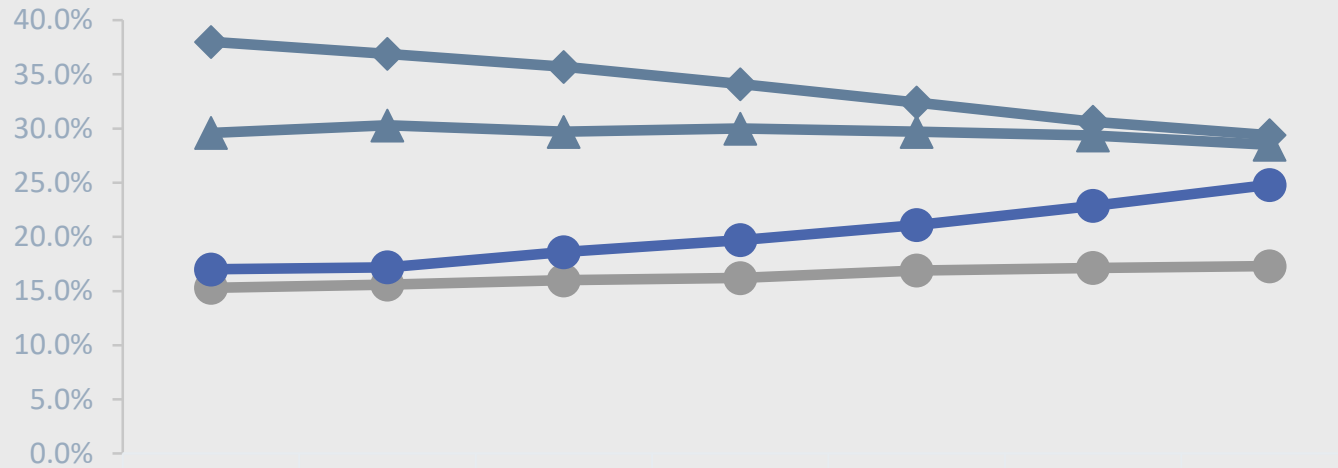
# Redemption Rate During Infancy By Drop Out Status

Statistics	Completer	Drop out
N	26968	32935
Mean	72.48	62.64
Std Deviation	20.48	22.93
Min	2	0
Max	100	100



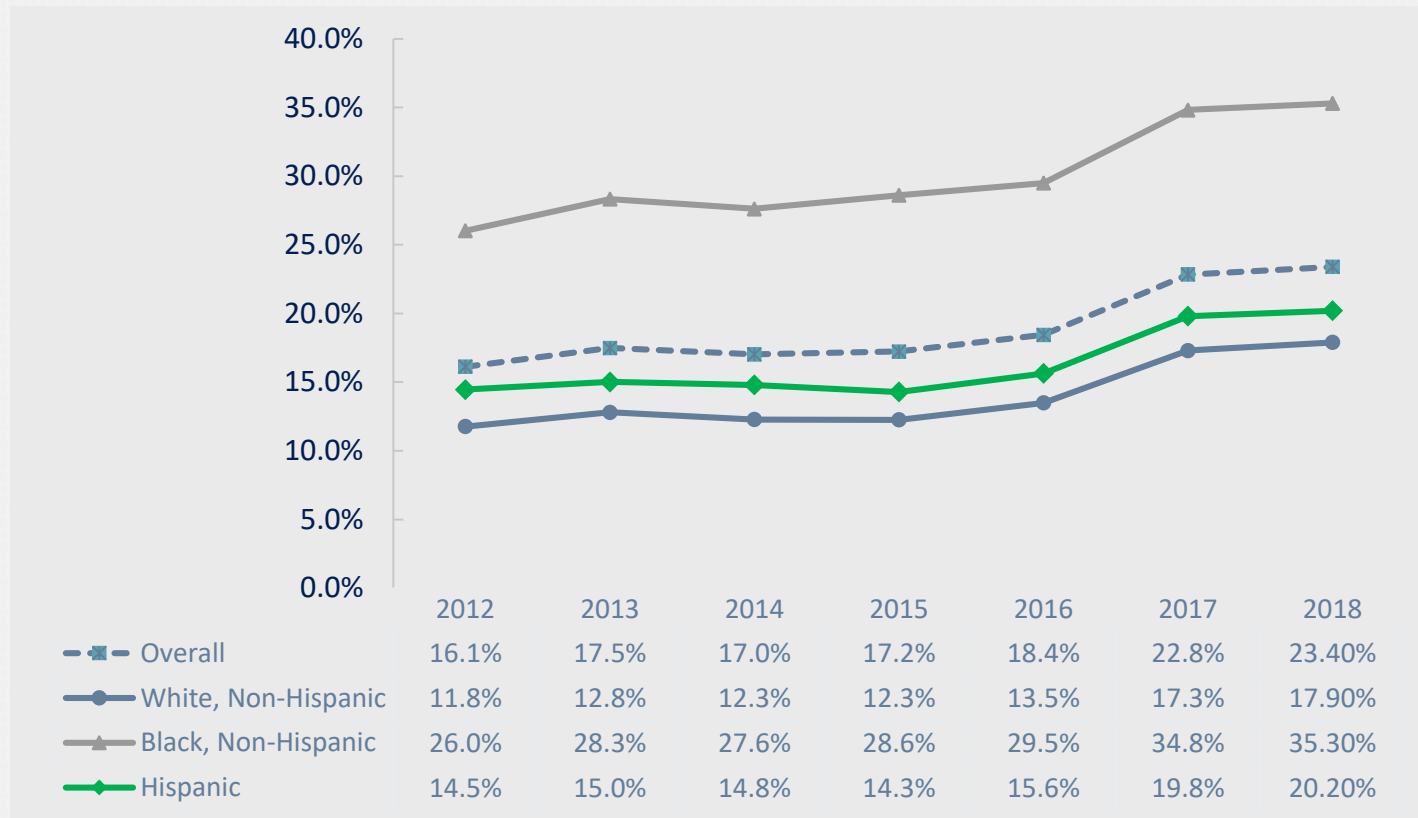
# Trends in Health Outcomes

## Maternal WIC Enrollment by Trimester

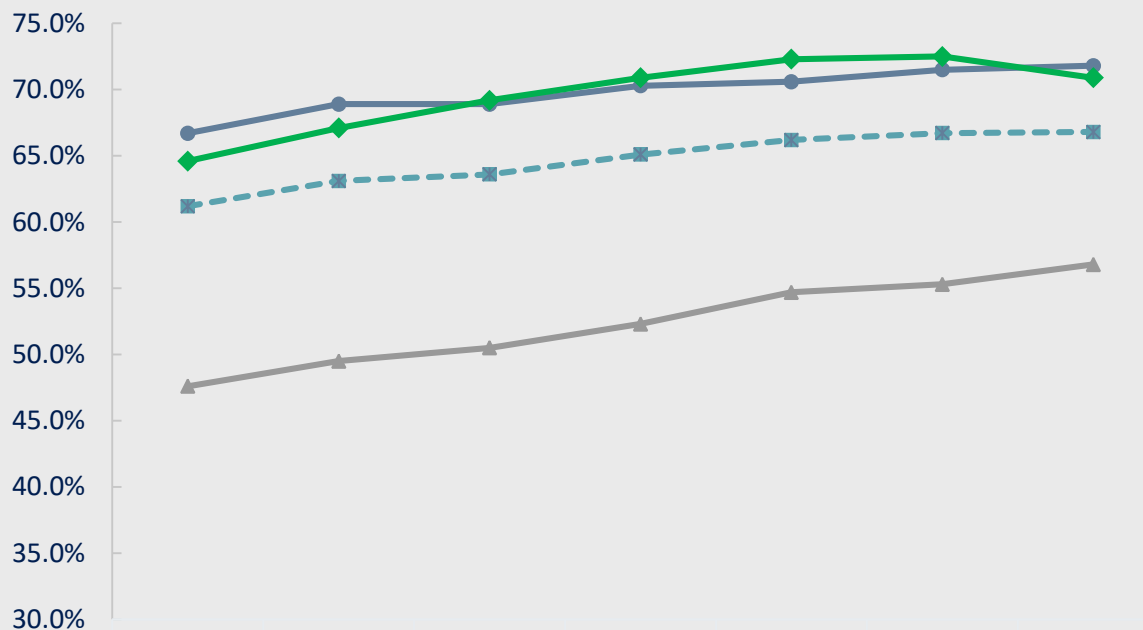


	2012	2013	2014	2015	2016	2017	2018
◆ 1st Trimester	38.0%	36.9%	35.7%	34.1%	32.4%	30.6%	29.4%
▲ 2nd Trimester	29.6%	30.3%	29.7%	30.0%	29.7%	29.4%	28.5%
● 3rd Trimester	15.3%	15.6%	16.0%	16.2%	16.9%	17.1%	17.3%
● Postpartum	17.0%	17.2%	18.6%	19.7%	21.1%	22.9%	24.8%

# Child Anemia < 5 yrs























# Breastfeeding Initiation, 2012 - 2018



	2012	2013	2014	2015	2016	2017	2018
Overall	61.2%	63.1%	63.6%	65.1%	66.2%	66.7%	66.8%
White, Non-Hispanic	66.7%	68.9%	68.9%	70.3%	70.6%	71.5%	71.8%
Black, Non-Hispanic	47.6%	49.5%	50.5%	52.3%	54.7%	55.3%	56.8%
Hispanic	64.6%	67.1%	69.2%	70.9%	72.3%	72.5%	70.9%



Michigan WIC Top Ten List	Indicators	2008	2018	Progress Direction
	First Trimester Entry into WIC	32.0	29.4	
	Birth weight: <ul style="list-style-type: none"> <li>• LBW &lt;2500 g</li> <li>• Full Term LBW</li> <li>• HBW &gt;4000 g</li> <li>• % Preterm Infants</li> </ul>	8.2 6.5 7.5 4.7	8.8 4.5 6.7 12.5	   
	Breastfeeding: <ul style="list-style-type: none"> <li>• Initiation</li> <li>• 6 Months Duration</li> </ul>	54.7 15.8	67.7 31.4	 
	Prenatal Weight Gain: <ul style="list-style-type: none"> <li>• &lt;Ideal</li> <li>• &gt;Ideal</li> </ul>	30.9 41.8	19.1 51.0	 
	Body weight: <ul style="list-style-type: none"> <li>• 85th-&lt;95th%, ≥2yrs</li> <li>• ≥95th%, ≥2yrs</li> </ul>	16.6 13.9	16.3 13.5	 
	Anemia, Low Hg, 3 <sup>rd</sup> Trimester	33.4	49.4	
	Anemia, Low Hg, 6 months - 5 yrs.	15.4	23.4	
	Prenatal Smoking, Last Trimester	22.8	13.9	
	First Trimester Prenatal Care	79.4	84.3	
	Prepregnancy: <ul style="list-style-type: none"> <li>• Overweight/Obese</li> <li>• Underweight</li> </ul>	47.1 10.3	59.5 4.3	 

# An Average Day in the Michigan WIC Program



2018

**52.9%** of babies born in Michigan enroll in WIC.

WIC families purchase over

**\$428,523**

in healthy foods.

**89.5%** of WIC families live below 150% of poverty.

**30.6%** of pregnant mothers enroll in WIC during their first trimester.

**10,187** Clients are served.

WIC Families redeem **85.7%** of their fresh fruits and vegetables benefits.

**58.7%**

of WIC mothers are overweight or obese pre-conception.

**16.2%** of children are overweight and **13.2%** are obese.

**10.2 %** of infants are born at a low birth weight.

**66.7%** of infants are breastfed.

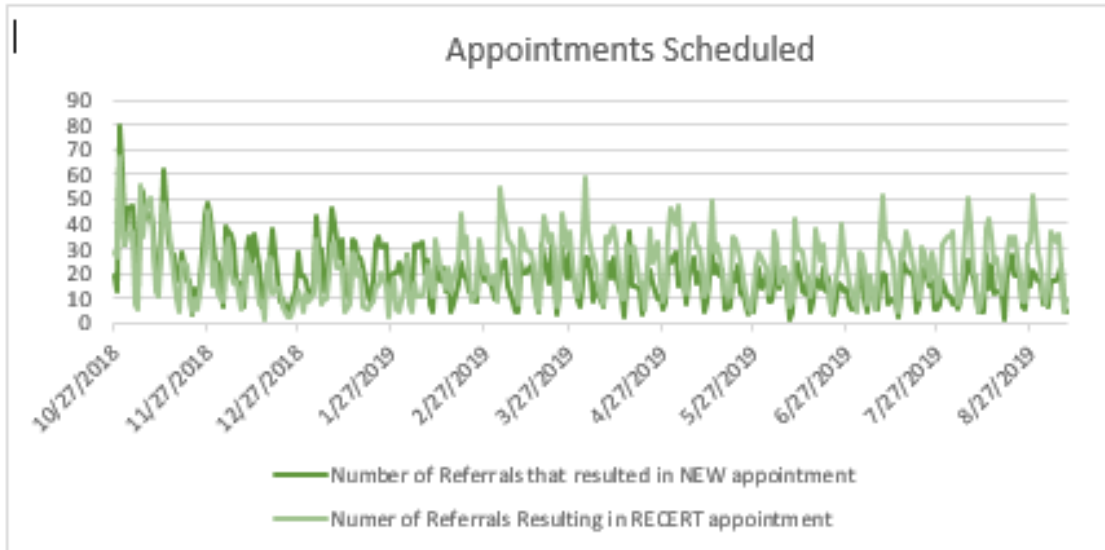
# Program Collaboration and Evaluation

## Integrated Services Delivery Project (ISD)

- A comprehensive, transformative effort in Michigan to better integrate programs and improve customer service and health outcomes
- Michigan WIC has partnered with ISD to identify potential WIC clients and connect them directly to WIC clinics nearby through the self-guided service portal (MI Bridges)
- The portal is able to identify potential WIC clients and present an option to send their information to WIC. If they choose, this information will be sent directly to the MI-WIC system for our staff to view and respond to
- This initiative was implemented in Oct 2018

# Referrals Received

Period: October 27, 2018 – September 8, 2019



At least 5,920  
New Families  
have scheduled  
their first WIC  
Appointment

At least 7,121  
existing WIC  
Families have  
scheduled a  
return  
appointment

A total of more than **13,041 families** have scheduled WIC appointments as a result of the ISD Project.

Total Referrals  
received:  
90,924

# Thank you !

Contact Information:

Bagya Kodur

[KodurB@Michigan.gov](mailto:KodurB@Michigan.gov)



*the  
Chickasaw  
Nation*

# With Great Data Comes Great Responsibility

Julie Scott, the Chickasaw Nation

## **Prior to Intervention:**

Average of 86% of whole grain benefits redeemed each month

Almost exclusively redeemed whole wheat and whole grain breads (about 83% of all whole grains purchased)

## **Intervention:**

Nutrition Education classes on Whole Grain benefits

## **Goals :**

Increase redemption rates of Whole Grain benefits

Increase redemption of whole grain products other than whole wheat/whole grain bread

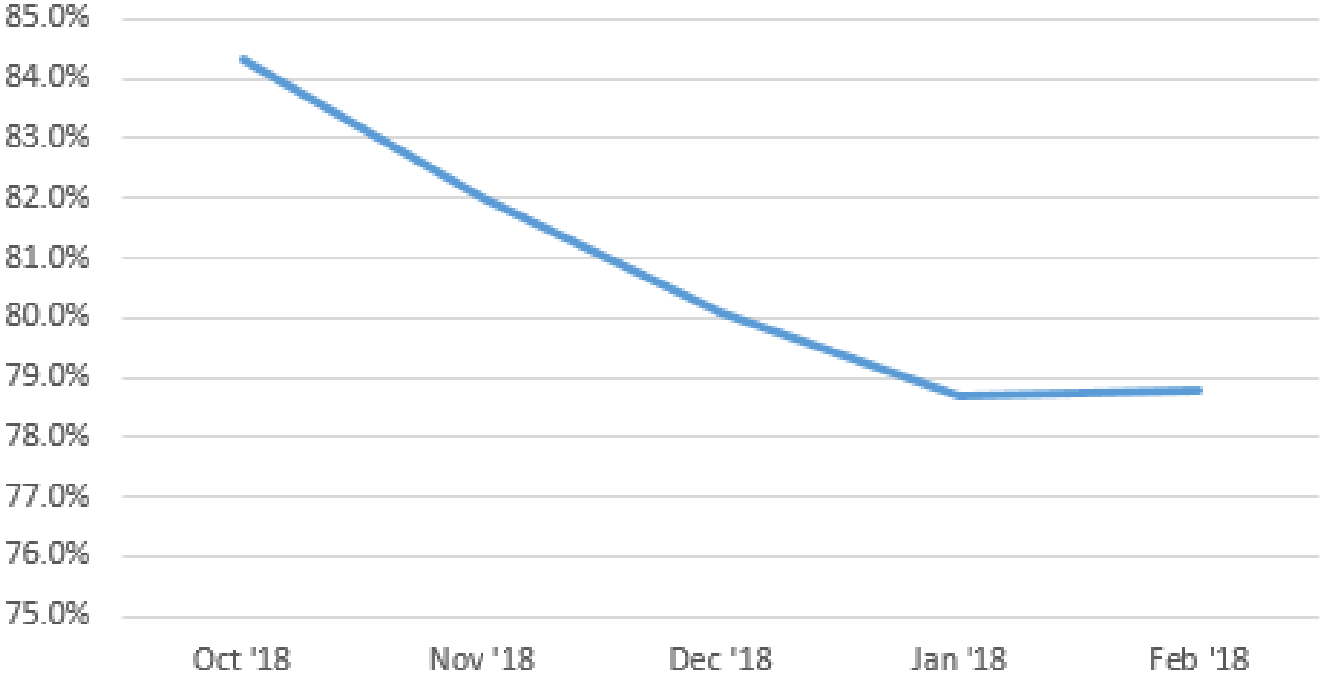


	Oct '18	%	Nov '18	%	Dec '18	%	Jan '18	%	Feb '18	%
Bread - 100% Whole Grain	1,808	6.5%	1,584	6.1%	1,696	6.1%	1,800	6.2%	1,712	6.1%
Bread - 100% Whole Wheat	21,768	77.8%	19,864	75.9%	20,416	74.0%	21,128	72.5%	20,360	72.7%
Brown Rice	714	2.6%	716	2.7%	1,098	4.0%	1,138	3.9%	1,060	3.8%
Bulgur	-	0.0%	-	0.0%	-	0.0%	-	0.0%	32	0.1%
Oatmeal	176	0.6%	304	1.2%	304	1.1%	320	1.1%	496	1.8%
Soft Corn Tortilla	1,104	3.9%	1,296	5.0%	1,376	5.0%	1,648	5.7%	1,408	5.0%
Whole Wheat Pasta	336	1.2%	376	1.4%	496	1.8%	608	2.1%	616	2.2%
Whole Wheat Tortilla	2,072	7.4%	2,024	7.7%	2,208	8.0%	2,480	8.5%	2,328	8.3%



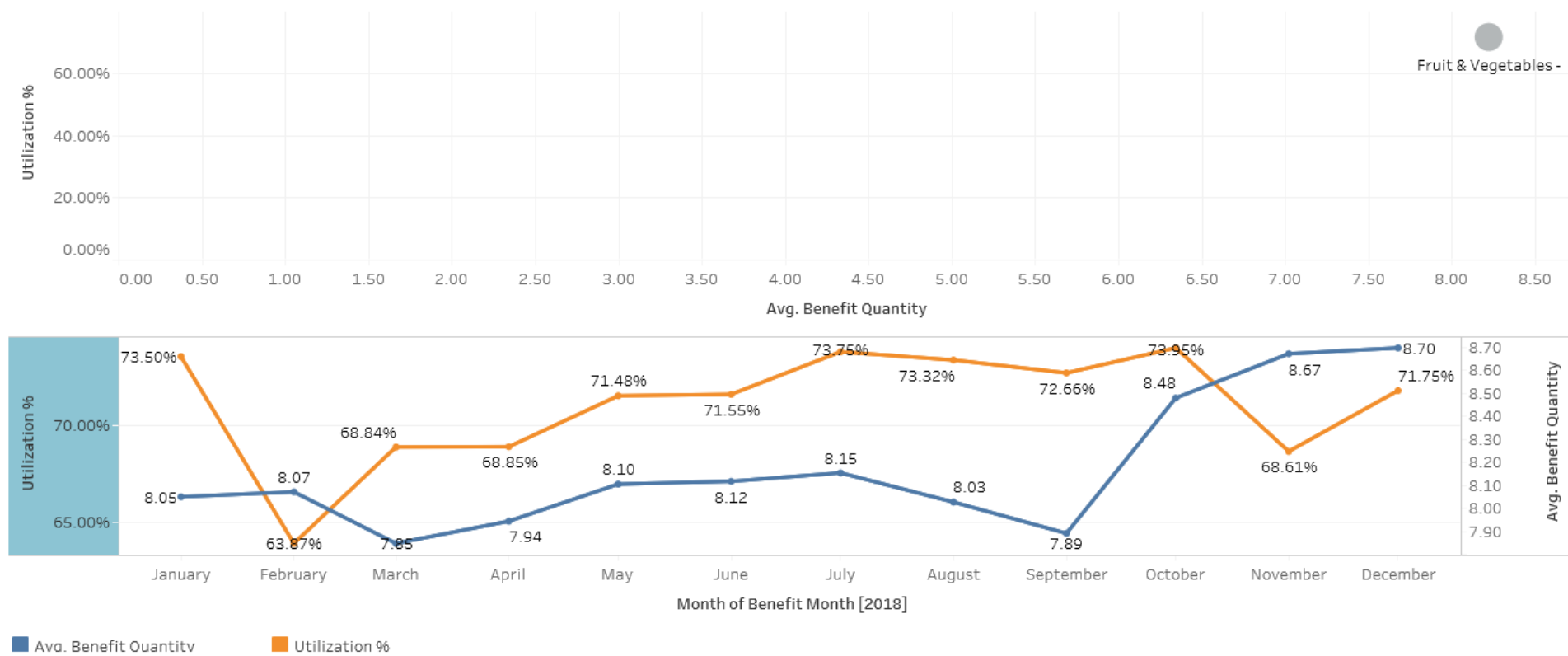


# Total WG Bread



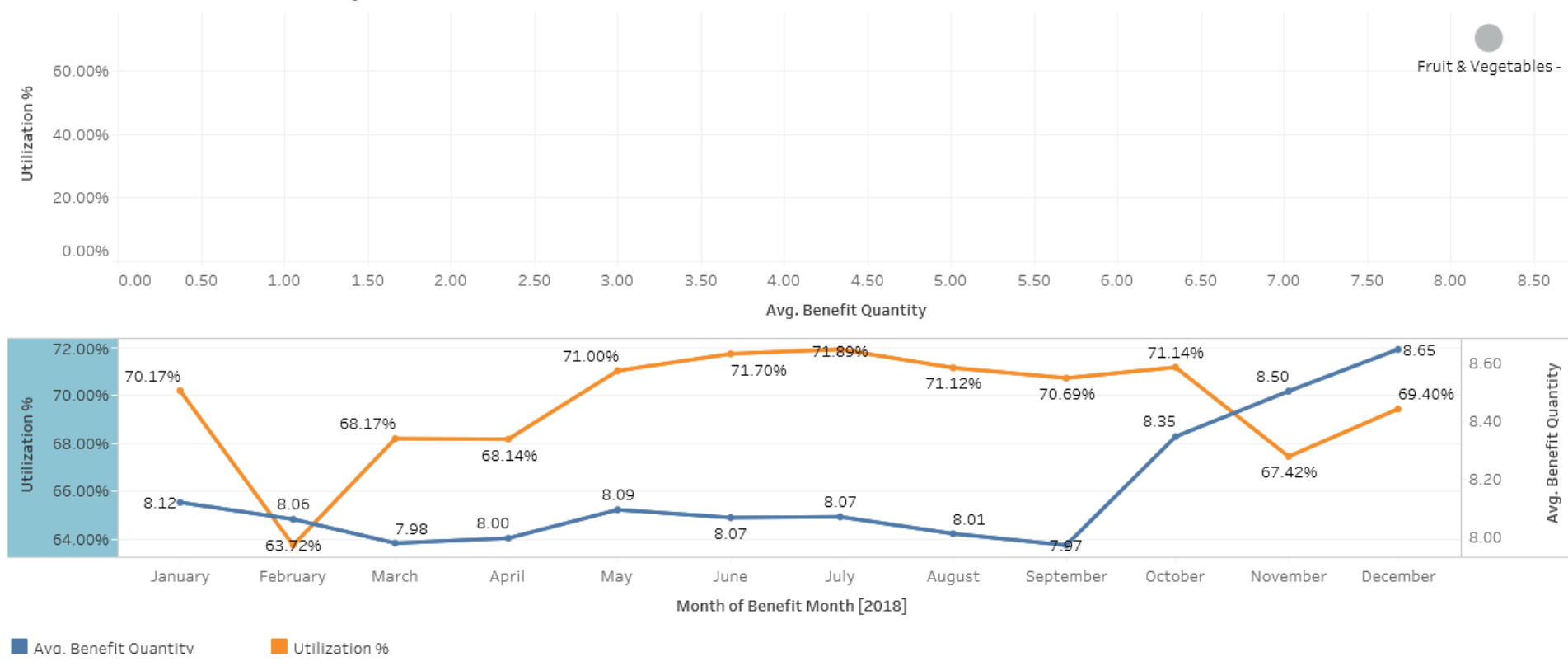
# Utilization of Fruits and Vegetables for Households with Children having RFs 113, 114, 115

Utilization and Issuance by Risk Dashboard

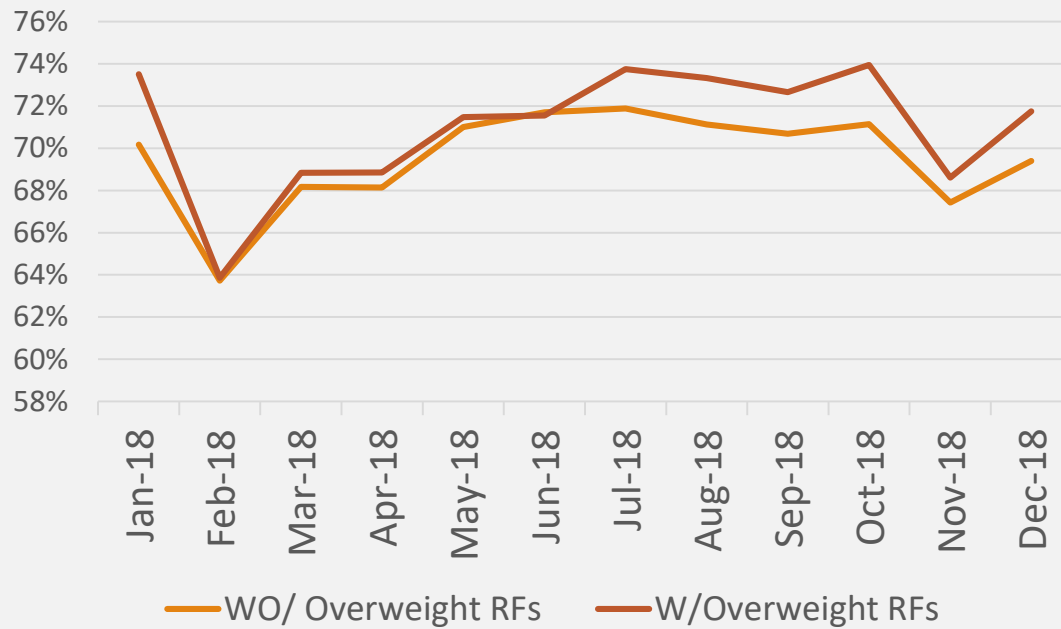


# Utilization of Fruits and Vegetables for Households with Children without RFs 113, 114, 115

Utilization and Issuance by Risk Dashboard

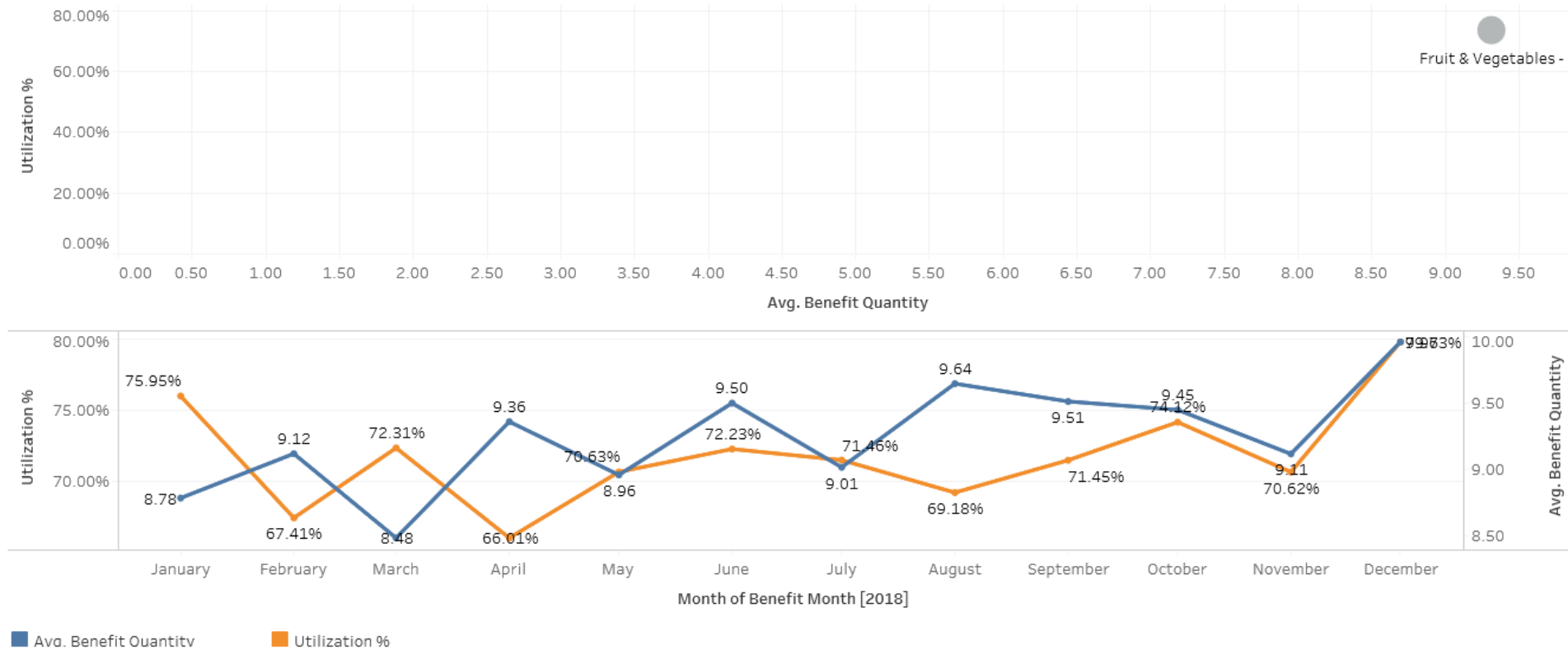


## Comparison of CVB Utilization % of HHs



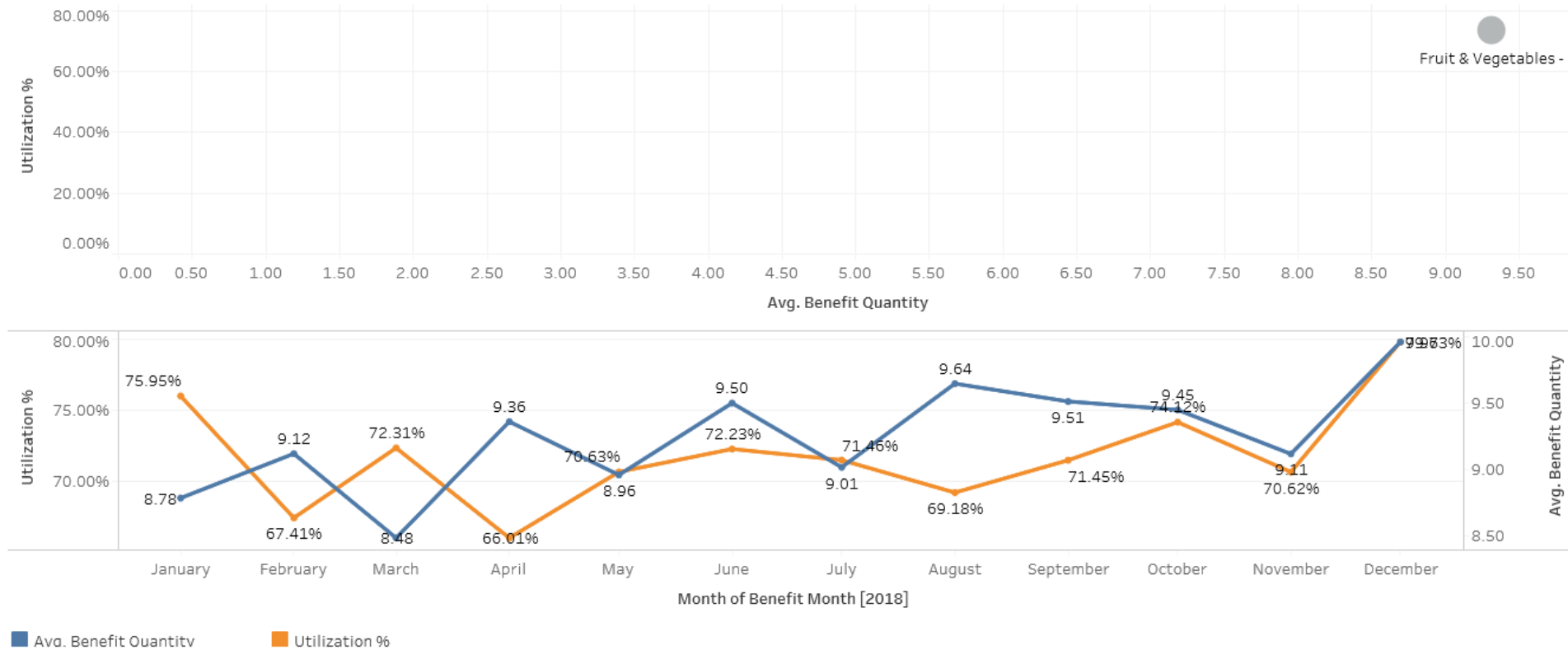
# Utilization of Fruits and Vegetables for Households with Women who have had Gestational Diabetes

Utilization and Issuance by Risk Dashboard

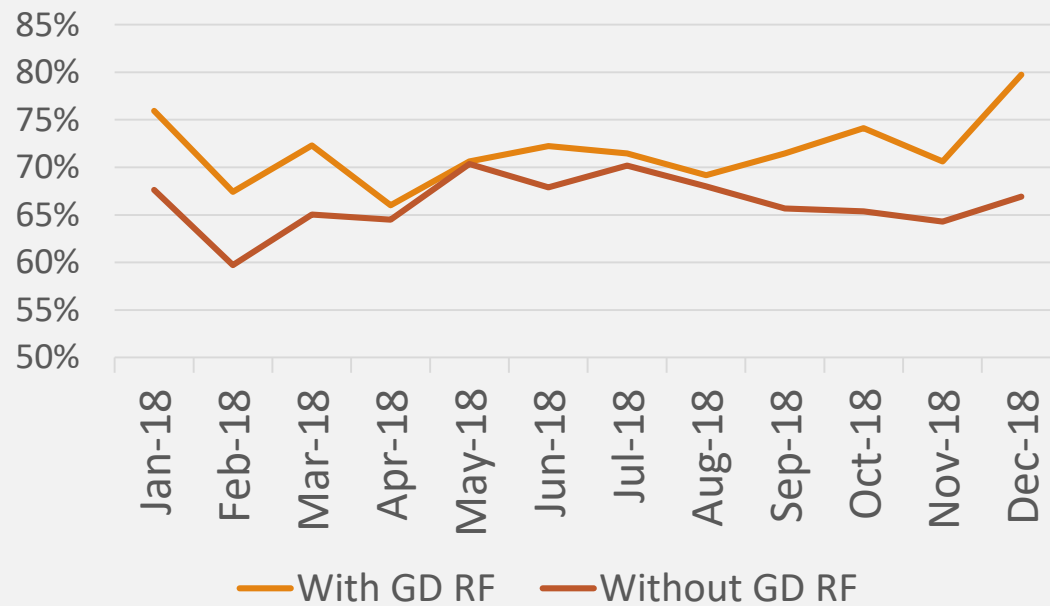


# Utilization of Fruits and Vegetables for Households with Women who have not had Gestational Diabetes

Utilization and Issuance by Risk Dashboard

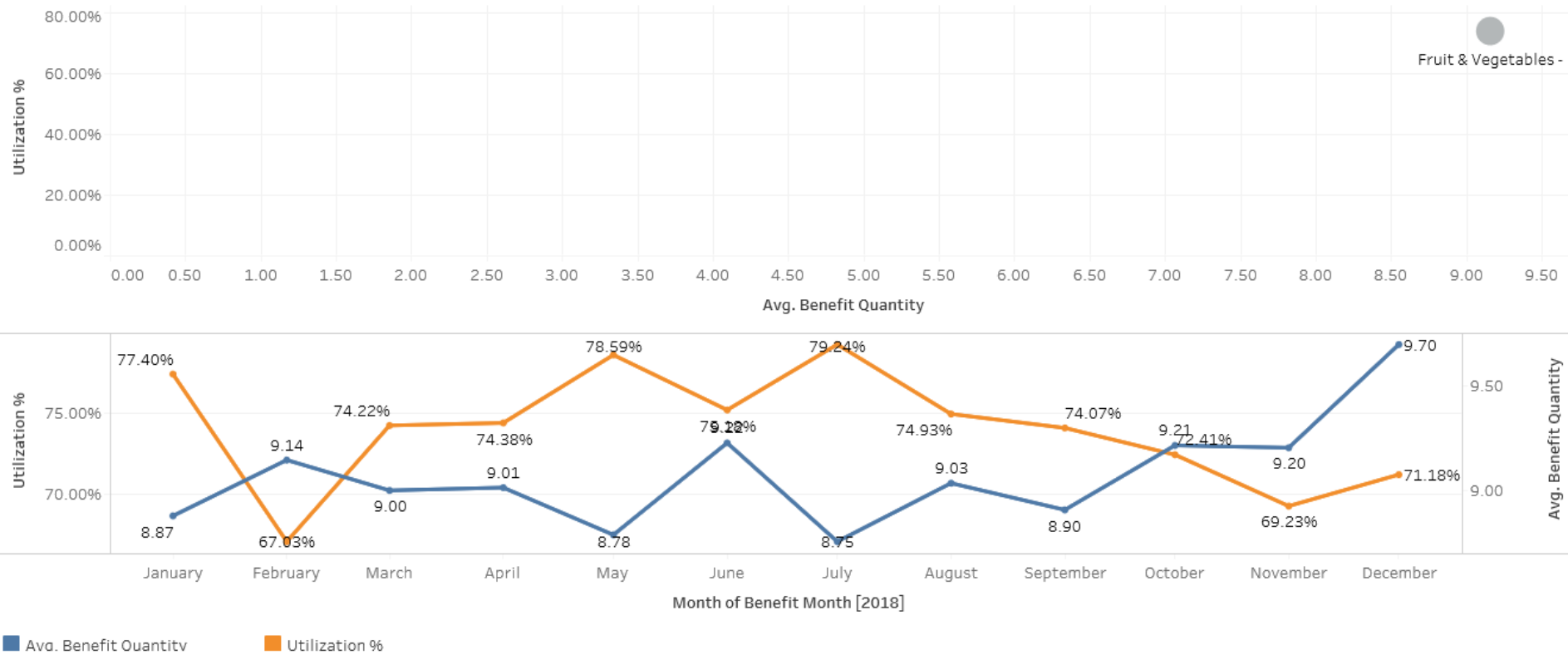


### Comparison of CVB Utilization % of HHs



# Utilization of Fruits and Vegetables for Households with Women are Breastfeeding

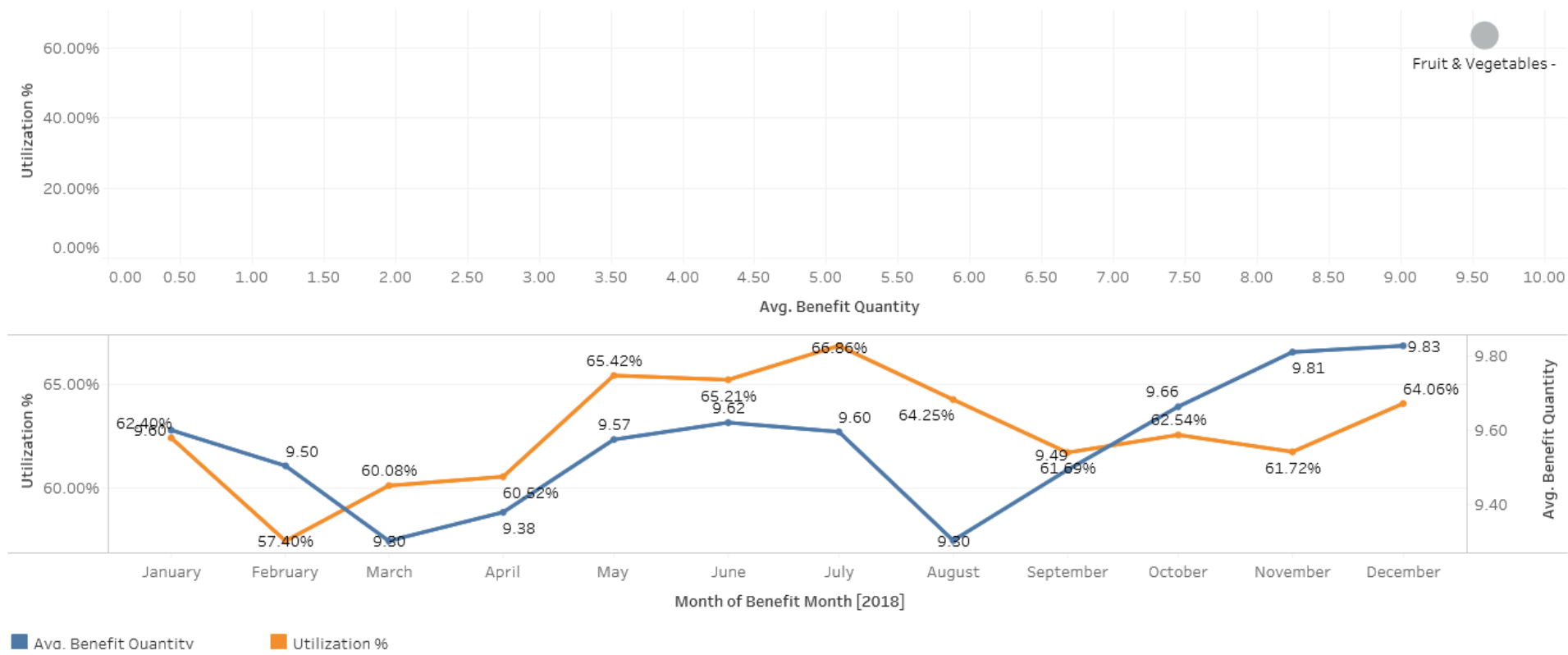
Utilization and Issuance by Risk Dashboard



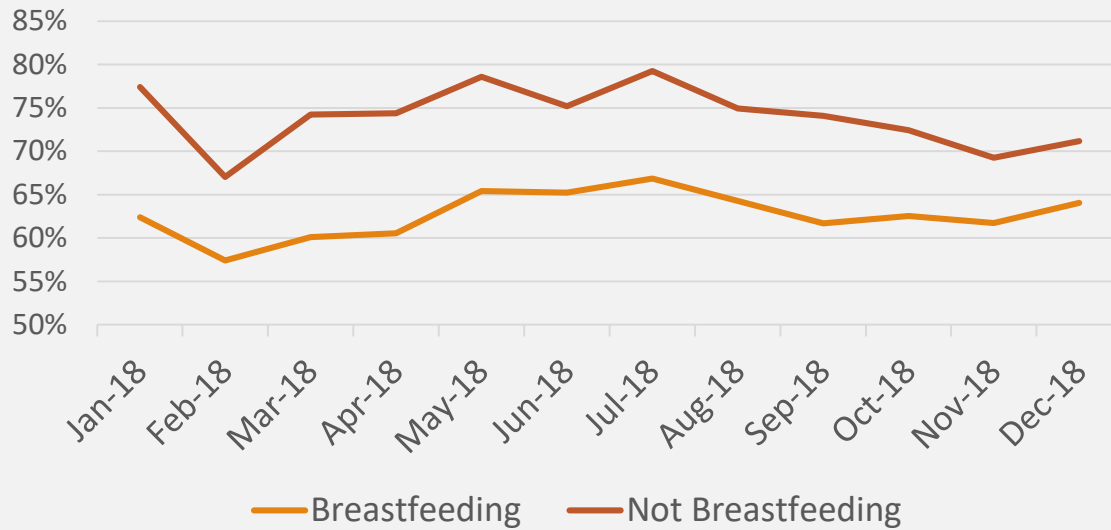


# Utilization of Fruits and Vegetables for Households with Women who are not Breastfeeding

Utilization and Issuance by Risk Dashboard



## Utilization of CVB in Households with and without BF Women



## Other Fun Things to do with data:

- Automatic text messages (in addition to upcoming and missed appointments) each day to all:
  - Households which have 'significant' benefits remaining that are about to expire
  - Participants in a valid cert whose last set of benefits expired recently
  - Prenatal women who have missed appointments, reminders sent at 4 days past appointment and 7 days past appointment if they haven't rescheduled
  - Prenatal women whose final appointment of their prenatal cert is approaching, a reminder that if their "little blessing" has arrived, to call and schedule the baby's first appointment





*the  
Chickasaw  
Nation*

Contact:

Julie Scott

[julie.scott@chickasaw.net](mailto:julie.scott@chickasaw.net)

# Q&A

