



FOOD INSECURITY IN JOHNSON COUNTY, IA

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AGENDA

- Executive Summary
- Problem Statement
- Methodology
- Findings
- Recommendations
- Conclusion



EXECUTIVE SUMMARY





PURPOSE

Introduction

Problem Statement:

- Currently no consistency in data collect for local food pantries. Prevented the creation of a regional data reporting repository.
- Food insecurity rate is increasing. To better meet food insecurity needs a deeper understanding is required.

Measure

- Support food pantry decision making to operationalize intervention programs addressing food insecurity needs. Lead to improving overall health of food insecure families in Johnson County, IA.

Data Sources

- Food pantry survey data (historic) and public data.

Methods and Tools

- Descriptive and diagnostic analytics using Python & Tableau.

Conclusion

- Similarities across the characteristics of those with food insecurity nationally, statewide and for Johnson County. Opportunities identified to better position food pantries now that there will be a greater reliance (demand) on services & higher volumes of guests due to the crises.



BUSINESS PROBLEM

INTRODUCTION



MOTIVATION & CONTEXT



Food insecurity is:

USDA's measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. It may reflect a household's need to make tradeoffs between basic needs & purchasing nutritionally adequate foods.



Why Food Insecurity?

The current 2020 food insecurity rate projections for Johnson County from Feeding America is at 12.8%*, which is a 56% increase compared to 2018. This increase is unprecedented in modern times.

PROBLEM STATEMENT



Current crises have exacerbated existing health inequities driven by social determinants of health



With the increase in those experiencing food insecurity, it has led to increased demand for community support resources such as food banks and pantries.



With a deeper understanding of the needs for this population, more targeted resources can be sought and directed as corrective remedies to protect the health of Johnson County.

ANALYTICS QUESTIONS



Critical Questions

That support a deeper understanding by asking:

What variables that should be monitored that offer insights into possible reasons why there are changes to food insecurity?

Are there differences in key trends at a macro level across national, state and county levels?

What is the severity level that remains for the COVID-19 pandemic?

What food assistance support is being offered during the pandemic?

What are the characteristics of those with food insecurity across each profile - national, state and county?

What challenges exist in Johnson County? What resources can be implemented to address the challenges?

For the new survey, what data points will assist grant funding, program compliance and reporting to other organizations?

ASSUMPTIONS AND CHALLENGES

- Assumptions
 - Project & associated survey not submitted for IRB approval.
 - Public data references to 2020 highlighted with an asterisk are projections.
 - Johnson County references are Johnson County, IA.
- Challenges
 - New survey not deployed - limited 2020 data impacting Johnson County profile & recommendations. Copy of new survey in appendix.
 - Difficult to bring together Coralville Food Pantry and North Liberty Community Pantry 2019 surveys due to different questions.
 - Same public source did not always have all data points nationally, statewide and county for a particular variable.



- Public datasets for national, county and state
 - Feeding America, Map the Meal Gap project
 - U.S. Census Bureau
 - U.S. Bureau of Labor Statistics
 - USDA, Food and Nutrition Service
 - Institute for Health Metrics and Evaluation (IHME)
 - USDA, Economic Research Service
 - U.S. Dept. of Commerce
 - Food Research Action Center
- Food pantry survey responses
 - Historic data (2019)



METHODOLOGY

APPROACH



METHODOLOGY

Descriptive and diagnostic analytics performed. Predictive analytics not possible due to the survey not being deployed and limited person level data. Prescriptive analysis also not possible with data restrictions and timeline.

1. Public datasets were analyzed
 - Cleaning & joining data
 - Data mining, and additional research performed as needed
2. Created 3 food insecurity profiles with a summary of key trends identified and findings from #1
 - Status of macro variables and recent changes – food insecurity rate, unemployment rate, poverty rate
 - Current status of COVID-19 and food assistance support available
 - Characteristics of those with food insecurity
 - Comparisons drawn and highlighted across the three profiles
3. 2019 survey data analyzed to form part of Johnson County profile
 - As above steps #1 and #2



FINDINGS

THREE FOOD INSECURITY PROFILES



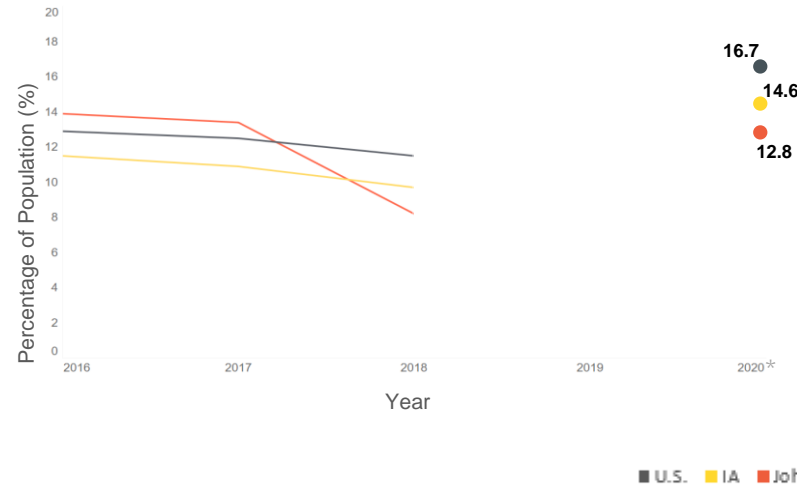
MAJOR MACRO TRENDS

Food insecurity increase across all for 2020 projections, e.g. U.S. at 11.5% to 16.7%.

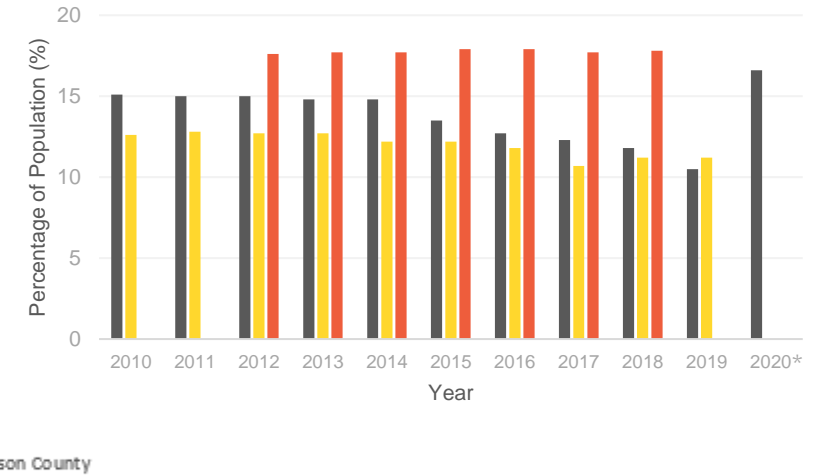
As national projections show poverty rate 2020 increase from 10% (2019) to 16.6% (2020), expect others to follow.

Steady unemployment decline for last decade however, with the recent crises, can see the impact on Johnson County

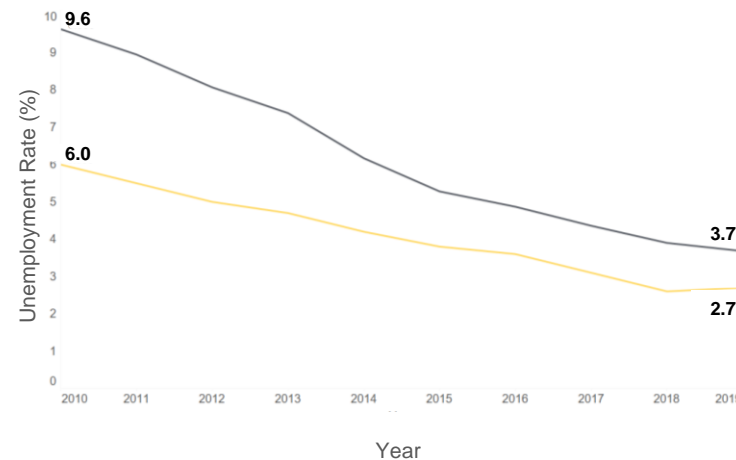
Food Insecurity Rate Across U.S., IA and Johnson County



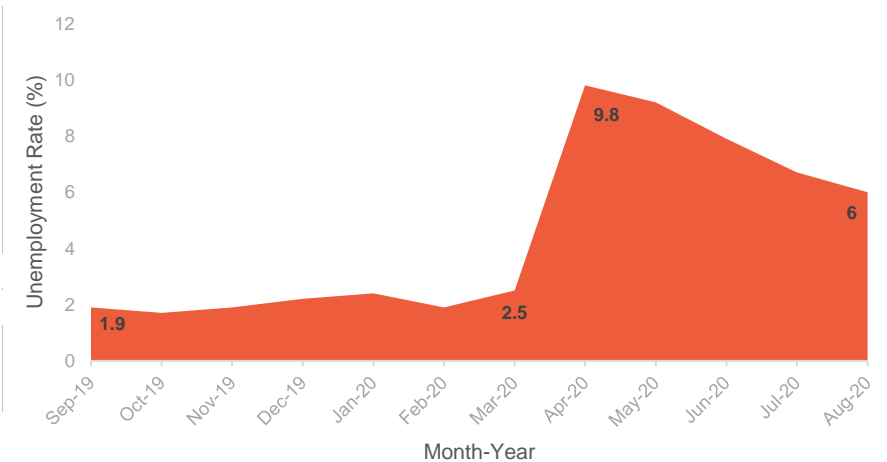
Poverty Rate Across U.S., IA and Johnson County



Unemployment Rate Across U.S. and IA



Johnson County Unemployment Rate For The Past Year



* Feeding America 2020 Projections

Food Insecurity Source: Feeding America, Map the Meal Gap project. Poverty Rate Source: U.S. Census Bureau, Percent of Population Below the Poverty Level. Unemployment Rate Source: U.S. Bureau of Labor Statistics

NATIONAL PROFILE SUMMARY

- Recent crises created unprecedented increase in food insecurity. 2020 projections show 45% increase from 2020.
- COVID-19 impacts here to stay and continue to impact food insecurity.
- Urgency for a greater understanding of those with food insecurity as there will be greater reliance on food assistance & greater volumes of this population in 2020.
- Characteristics include single households, non-Caucasian, and living outside of a metropolitan area

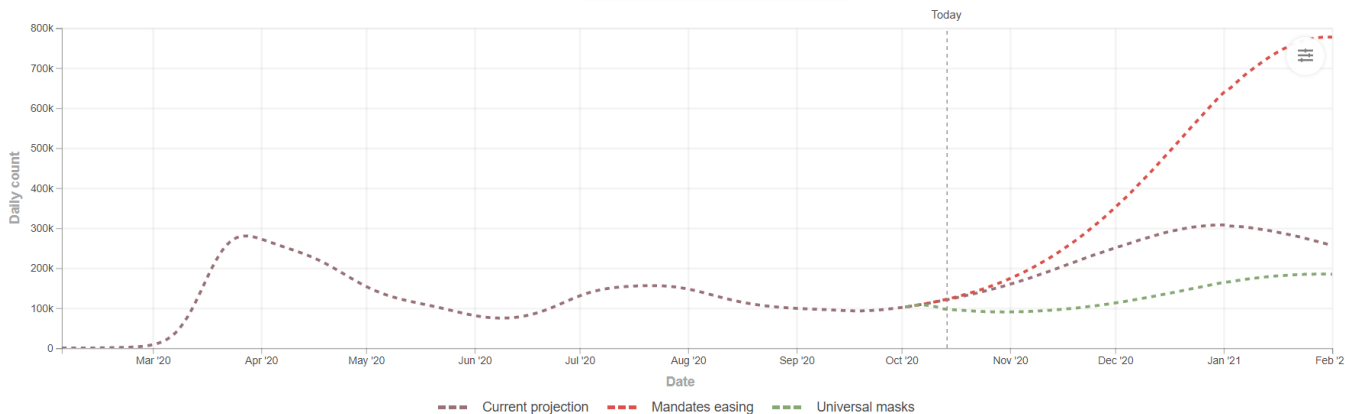
* Feeding America 2020 Projections, Map the Meal Gap project

** Feeding America, The Impact of the Coronavirus on Food Insecurity

NATIONAL STATUS DUE TO COVID-19

Daily infections and testing

Estimated infections are the number of people we estimate are infected with COVID-19 each day, including those not tested.

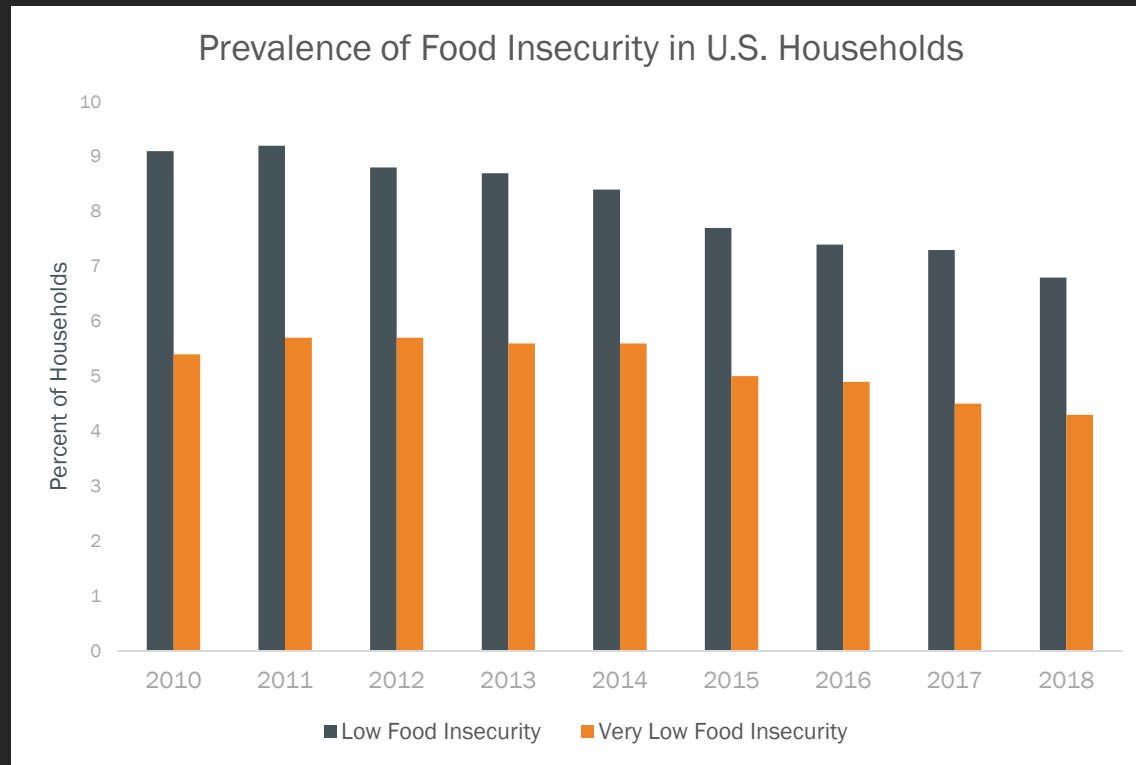


- COVID-19 is here to stay and its wider impacts.
- Federal government enacted enhanced Supplemental Nutrition Assistance Program (SNAP, or “food stamps”):
 - States provide all SNAP recipients the maximum monthly payment for their family size.
 - Extensions month to month and now 6-month automatic extensions.
 - New maximum benefit – or allotment – from October 2020, for a household of four will be \$680*
- P-EBT is a one-time benefit for families who have lost access to free or reduced-price meals because of closures related to COVID-19.

* Source: USDA, Food and Nutrition Service

Line Graph Source: Institute for Health Metrics and Evaluation (IHME), <https://covid19.healthdata.org/united-states-of-america?view=infections-testing&tab=trend&test=infections>

HOUSEHOLD FOOD INSECURITY, 2018



- 2018 has most data available for food insecurity
- Low food security = households obtained enough food to avoid substantially disrupting their eating patterns or reducing food intake by using a variety of coping strategies, such as participating in Federal food assistance programs, or getting food from community food pantries.
- Very low food security = households were food insecure to the extent that eating patterns of one or more household members were disrupted and their food intake reduced, at least some time during the year, because they could not afford enough food.
 - In 2018, this was 4.3 percent (5.6 million households)

Food Insecure People in the U.S*.
37,227,000

Average Meal Cost*
\$3.09

Annual Food Budget Shortfall*
\$19,467,736,000

* Source: Feeding America

Bar Chart Source: USDA, Economic Research Service using data from U.S. Dept. of Commerce, U.S. Census Bureau, 2018 Current Population Survey Food Security Supplement

CHARACTERISTICS OF THOSE WHO NEED THE MOST SUPPORT IN U.S.

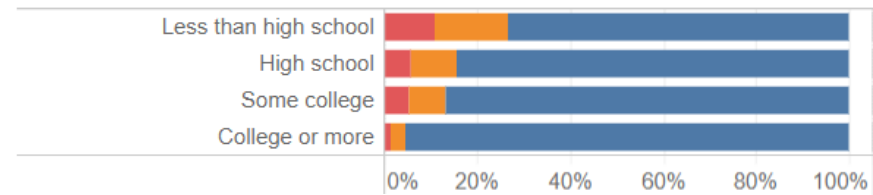


PREVALENCE OF FOOD SECURITY, 2019

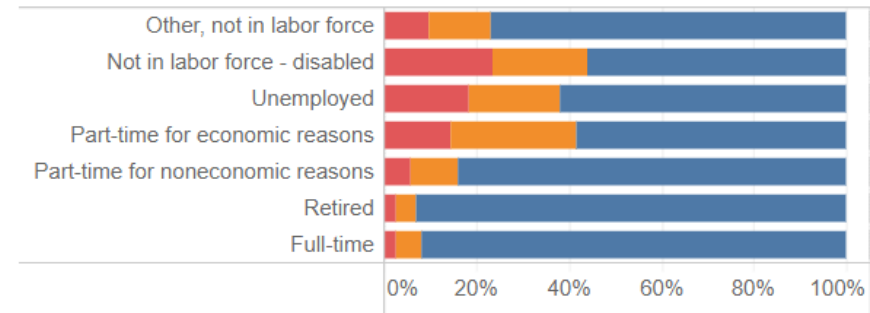
Very low food secure Low food secure Food secure

Education status

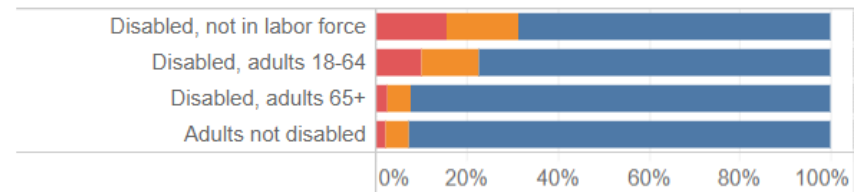
Percent of households



Employment status



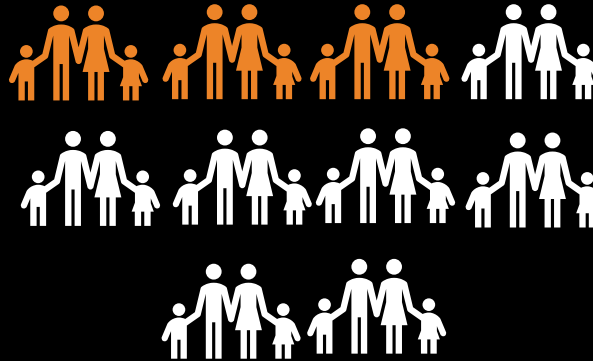
Disability status



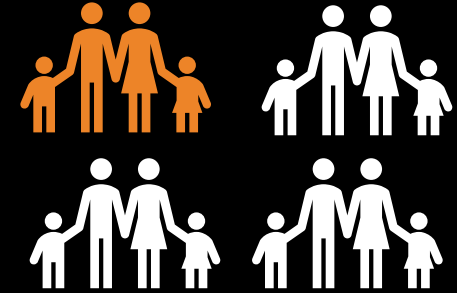
FOOD INSECURITY 2020 DURING COVID-19 PANDEMIC



**3 in 10 households with
children are experiencing food
insecurity**



**3 in 10 Black parents likelier to
experience food insecurity**



**1 in 4 Hispanics did not have
sufficient food for their children
due to lack of resources**



IOWA STATE PROFILE SUMMARY

- Prevalence of food insecurity is affected by state-level characteristics* which is considered throughout the analysis.
- 2020 food insecurity rate projections are at 14.6%** - lower than national rate. However, the increase from 2018 to 2020 projections is a 50% increase which is steeper than nationally.
 - Rural communities
- Similar characteristics exist to what was identified nationally - highest education is high school diploma, income below the federal poverty line (higher % in IA), and minorities are food insecure however in IA this also includes Caucasians.

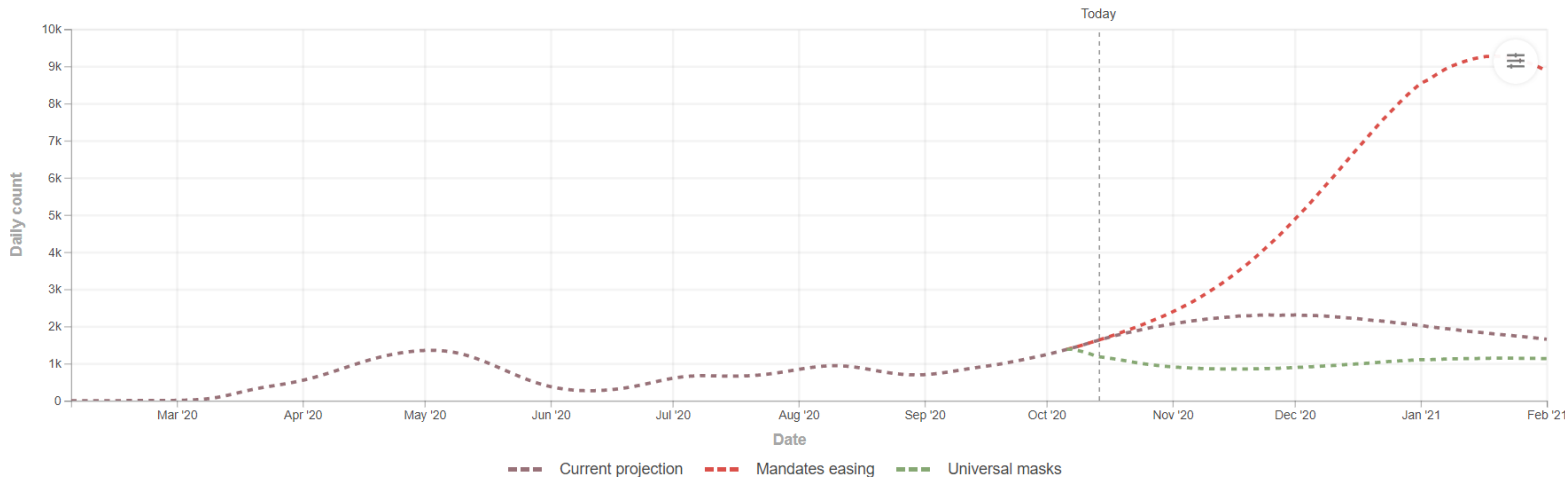
* Bartfeld et al., 2006; Bartfeld and Men, 2017

** source: Feeding America

STATE LEVEL STATUS DUE TO COVID-19

Daily infections and testing

Estimated infections are the number of people we estimate are infected with COVID-19 each day, including those not tested.



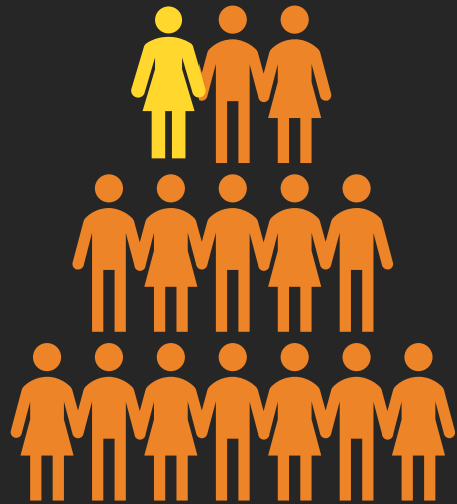
- The fall/winter COVID-19 peak is going to be higher than the initial peak & for a longer duration.
- Food assistance support during the pandemic has been similar to what was described nationally.
- The Emergency Food Assistance Program (TEFAP) with pantries open and food banks have increased mobile opportunities*.

* Source: USDA, Food and Nutrition Service

Line Graph Source: Institute for Health Metrics and Evaluation (IHME), <https://covid19.healthdata.org/united-states-of-america?view=infections-testing&tab=trend&test=infections>

FOOD INSECURITY IOWA, 2018

1 in 10 people



Struggle with hunger *

Food Insecure People in IA*
305,100

1 in 7
Children
struggle with hunger*

Average Meal Cost*
\$2.79

Annual Food Budget Shortfall*
\$144.058,000

- Food insecurity from 2018 to 2020 projections is set to increase by 50% to 14.6%*.
- In IA 40.7%* of households receiving SNAP benefits have children.

CHARACTERISTICS OF THOSE WHO NEED THE MOST SUPPORT IN IA

Feeding America surveyed 2,300 Iowan food pantry clients for the Iowa report of the 2014 Hunger in America Study

7% are Latino, 17% are African American, 60% are Caucasian

65% have incomes below the federal poverty line



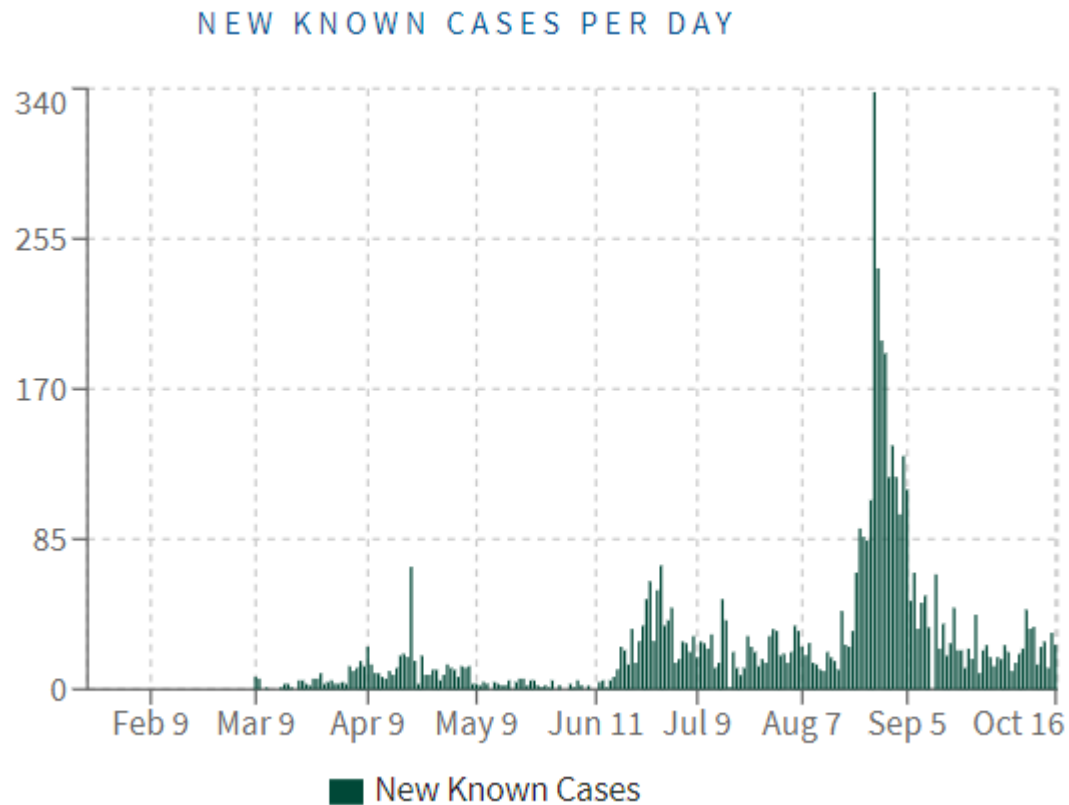
31% are under 18 years old, 58% aged 18 to 60, 11% are over 60 years old

77% have a high school diploma or equivalent

JOHNSON COUNTY PROFILE SUMMARY

- Poverty rate is much higher than nationally & in IA.
- With unemployment since March 2020 being high, the trend is not showing any signs of getting to pre-pandemic.
- 2020 projections for food insecurity in Johnson County are at 12.8% (Feeding America), a 56% increase compared to 2018 – highest increase of the profiles.
- Similar characteristics to others - highest education is high school diploma, income below the federal poverty line, minorities (higher than IA) as well as Caucasians, however predominantly female and 51.4%* receive no other food resources support than food pantries.

JOHNSON COUNTY, IA COVID-19 TREND



- While there are limited projections available, we can see previous peaks to date and with fall/winter on the approach and projections seen at other levels, the next peak could be in line or greater than the last.
- Food assistance support during the pandemic has been what was described nationally and available statewide. Multiple options being offered - “drive-thru”, walk-up, or delivery.

FOOD INSECURITY JOHNSON COUNTY, 2018

70%

below

SNAP Poverty
Threshold*

56%

increase

for Food Insecurity rate
for 2020 from 2018

- Food insecurity from 8.2% in 2018 to 2020 projections at 12.8%*.
- Of those with food insecurity, 70%* are below SNAP threshold 160% poverty, & 30%* are between 160-185% poverty
- Although the cost of living is lower compared to nationally, it is not reflected in the average meal cost at \$3.10 which is higher than the national at \$3.09

Food Insecure People in Johnson County*
12,110

Average Meal Cost*
\$3.10

Annual Food Budget Shortfall*
\$6,353,000

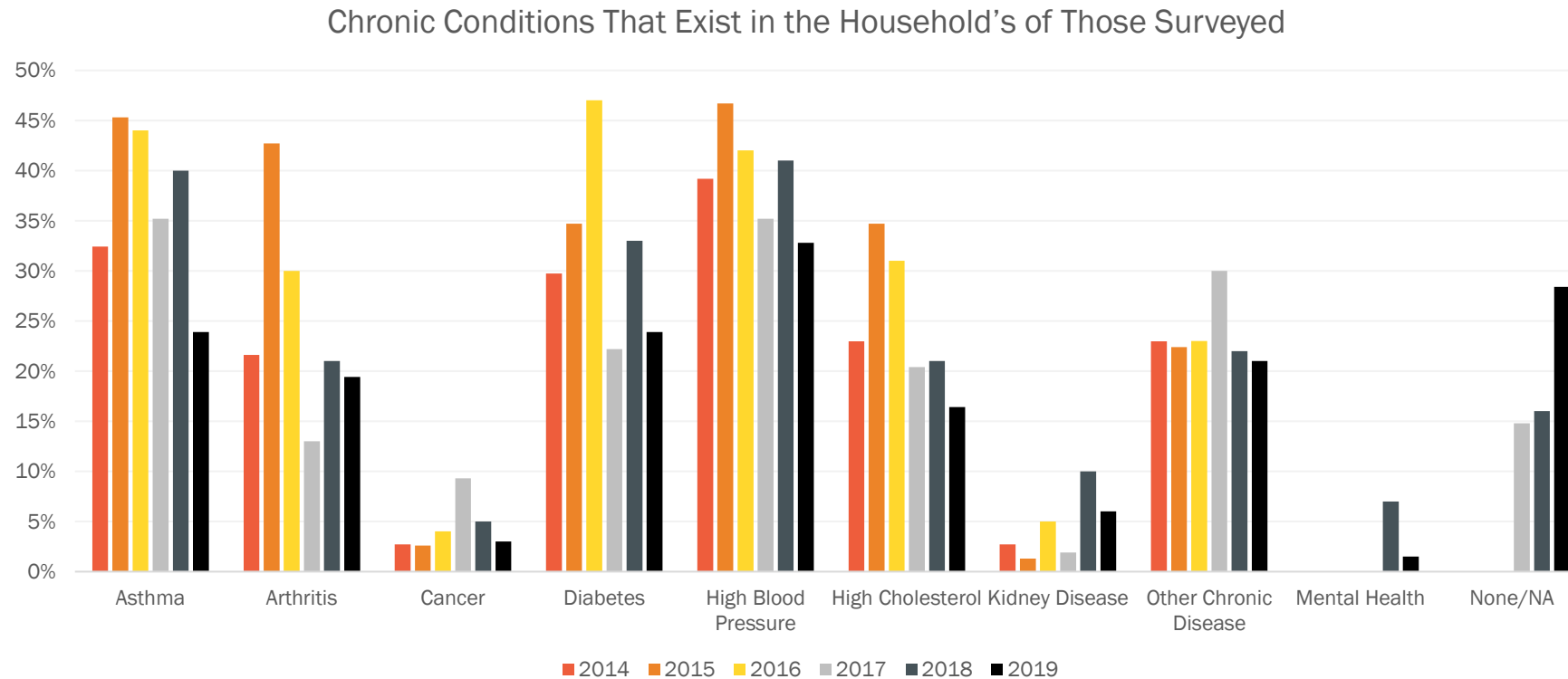
CHARACTERISTICS OF THOSE WHO NEED THE MOST SUPPORT

JOHNSON COUNTY, IA

Based on 2019 survey data from food pantries

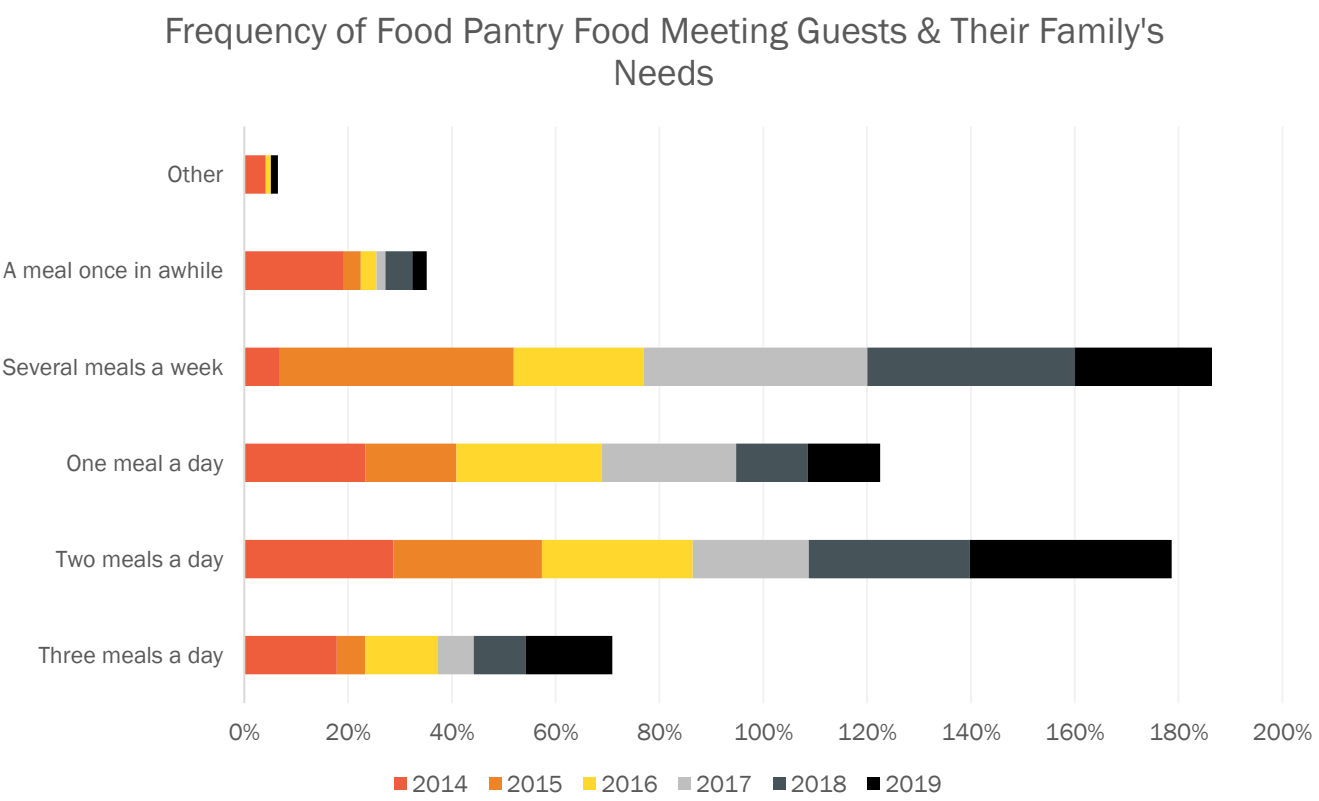
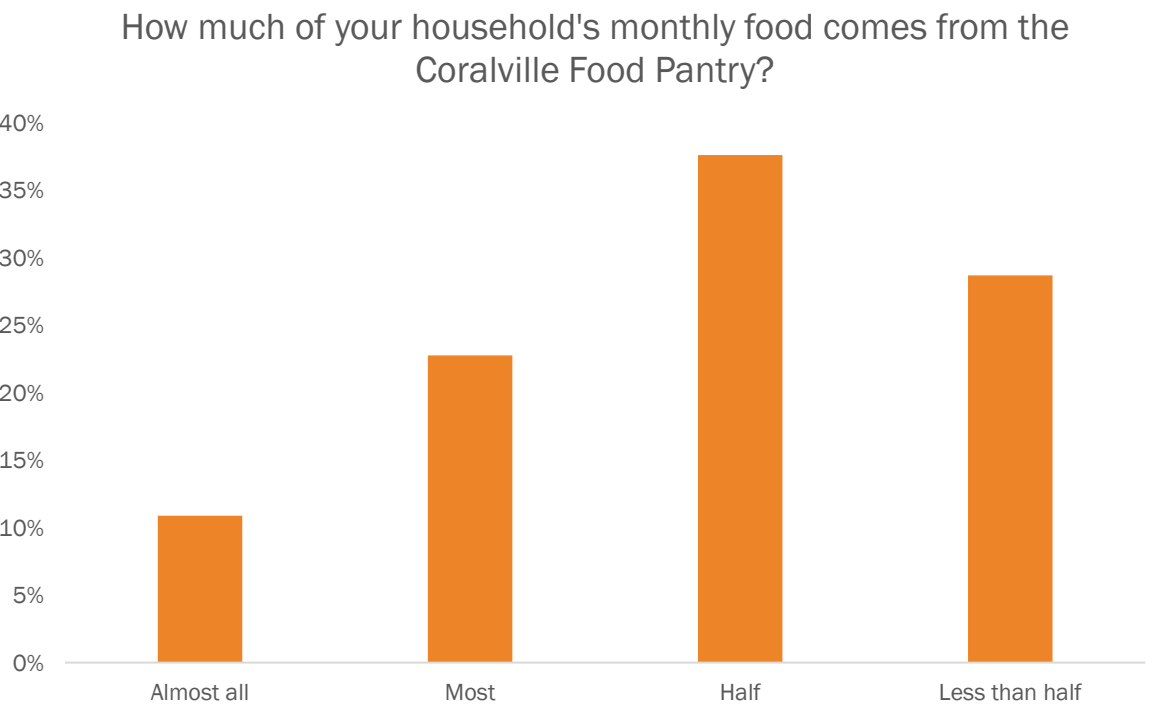


PREVALENCE OF CHRONIC CONDITIONS, 2019



Number of survey participants with chronic conditions may have declined due to number reasons, e.g. enter food insecurity as healthy, or those with chronic conditions leaving food insecurity.

RELIANCE ON FOOD PANTRIES, 2019



RECOMMENDATIONS

MOVING FORWARD





2020 and 2021 will bring greater reliance on food pantries and greater volumes of pantry guests. In order to offer support the below should be considered:

- High stock levels for food types that guests find most important
 - Frozen meat (46%)
 - Fresh vegetables (32.4%)
 - Fresh fruit (18.3%)
- High stock levels for toiletries that guests find most important
 - Toilet paper (72%)
 - Detergent (27%)
 - Shampoo/conditioner (24%)

ACCESSIBILITY & VARIETY



- Expand accessibility by extending opening hours*
 - Weekday morning (34%)
 - Weekday evening (31%)
 - Weekends (22.7%)
- Increase variety to improve the pantry's ability to better meet needs*:
 - More Hispanic food
 - More vegetables
 - Less expired foods
 - More household products

WIDER SUPPORT

- Consider ways in which other wider needs can be met, the top needs included:
 - Rent/housing (28.2%)
 - Utility assistance (25.4%)



AMPLIFY SERVICES & AWARENESS



- Service priorities to reduce food insecurity

- Grants to go after given population



- Outreach priorities

- Continue to use website as main communication channel and social media to create awareness of the food pantry



- Promote events
 - Promote programs



- Community awareness programs



CONCLUSION

SUMMARY



CONCLUSION



- Development of a standardized survey to support regional reporting repository.
- Achieved goals to gain a deeper understanding of those with food insecurity offering comparisons across national, state and county.
- Next steps to extend this study to incorporate 2020 survey & refine recommendations for 2021.
- Continue working with food pantries to understand local communities needs.

THANK YOU



- Questions ?

STANDARDIZED SURVEY 2020



Coralville Community Food Pantry Member Survey (2020)

We would like your help in assisting us to better serve our Pantry members. This approximately 10-15 minute survey is completely voluntary and none of the information you might provide will be used in any way which identifies you personally.

Your participation will guide us to continue to improve services and resources to best meet the needs of all of our Pantry members.

Questions about health issues are important to us because some foods can improve or worsen health conditions.

Thank you for your help in completing this survey.

Member Number:

Your answer

1. How often do you visit the Pantry ? (Select one answer)

- ☐ Every week
- ☐ Every other week
- ☐ Three weeks a month
- ☐ Once a month

North Liberty Community Pantry Family Survey (2020)

We would like your help in assisting us to better serve our Pantry clients. This approximately 10-15 minute survey is completely voluntary and none of the information you might provide will be used in any way which identifies you personally.

Your participation will guide us to continue to improve services and resources to best meet the needs of all of our Pantry clients and their families.

Questions about health issues are important to us because some foods can improve or worsen health conditions.

Thank you for your help in completing this survey.

Pantry Number:

Your answer

1. How often do you visit the Pantry ? (Select one answer)

- ☐ Every week
- ☐ Every other week
- ☐ Three weeks a month
- ☐ Once a month
- ☐ Other: _____

STANDARDIZED SURVEY 2020

Standardized survey:

North Liberty Community Pantry branded:

https://docs.google.com/forms/d/e/1FAIpQLScSD2NHhu_ewiJtlbBvo1WasZxE_0UBSMTxFLSnZFzzgC5eMA/viewform

Coralville Food Pantry:

https://docs.google.com/forms/d/e/1FAIpQLScc41235XLHB6e09_2E6Vwt0gmScMDpGjMj9cQKL1fLW_yMrA/viewform