



# A Year Later

Health Informatics at LCHD/CHC

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# A Year In Review

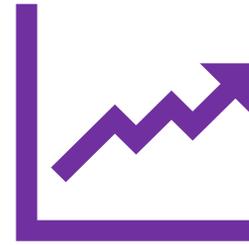
By The Numbers



7  
FTE



473  
Questions

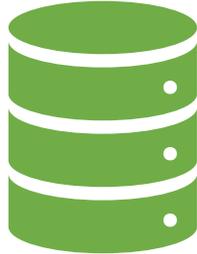


89  
Reports



4  
Data Use  
Agreements

# Data Availability



- Single **source of truth** for Lake County Health Department and Community Health Center (LCHD/CHC) Data
- Provides **minimum necessary** access
- Central part of **future strategy**

- Data use agreement with **State of Illinois** for Births, Deaths, Emergency Department Visits, and Hospital Inpatient Visits
- Memorandum of Understanding with **Northwestern Lake Forrest** and **Advocate Condell**

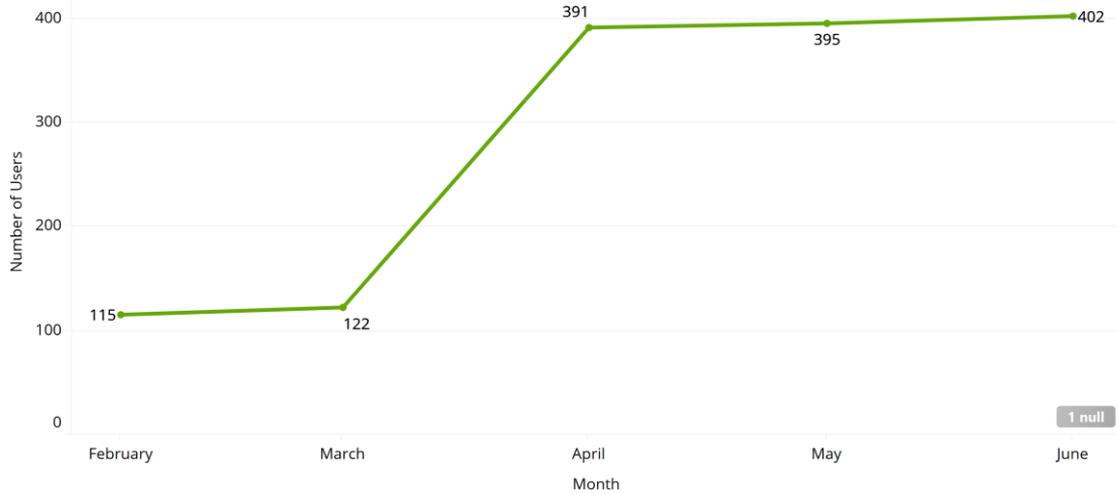
# Information Access



- Single **location** to get any information
- Single platform that is **easy to use**
- Single **workflow** for obtaining and accessing information

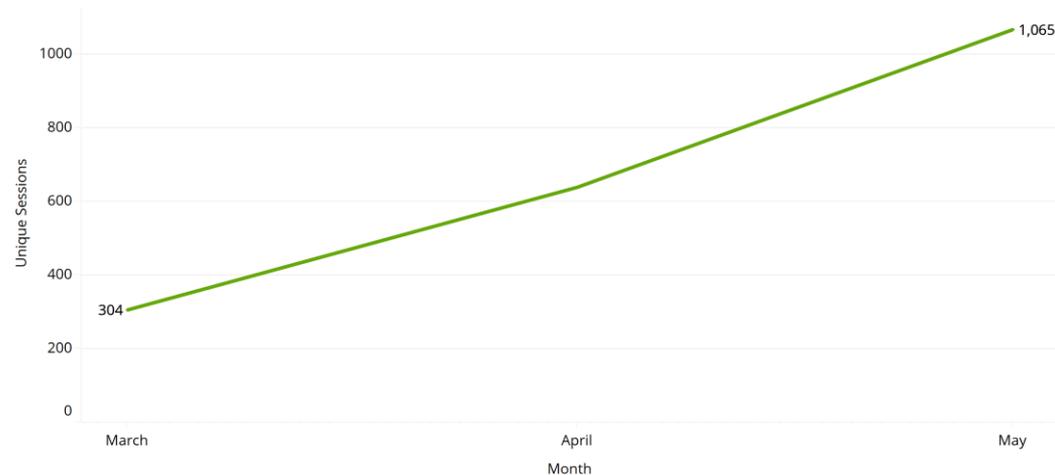
# Information Adoption

Tableau Users at LCHD  
By Month of Creation



From **32 Active** Users in June, 2018 to **402 Active** Users in June, 2019

Visits to Lake County Internal Reporting Site  
Cummulative over Last Complete 90 Days





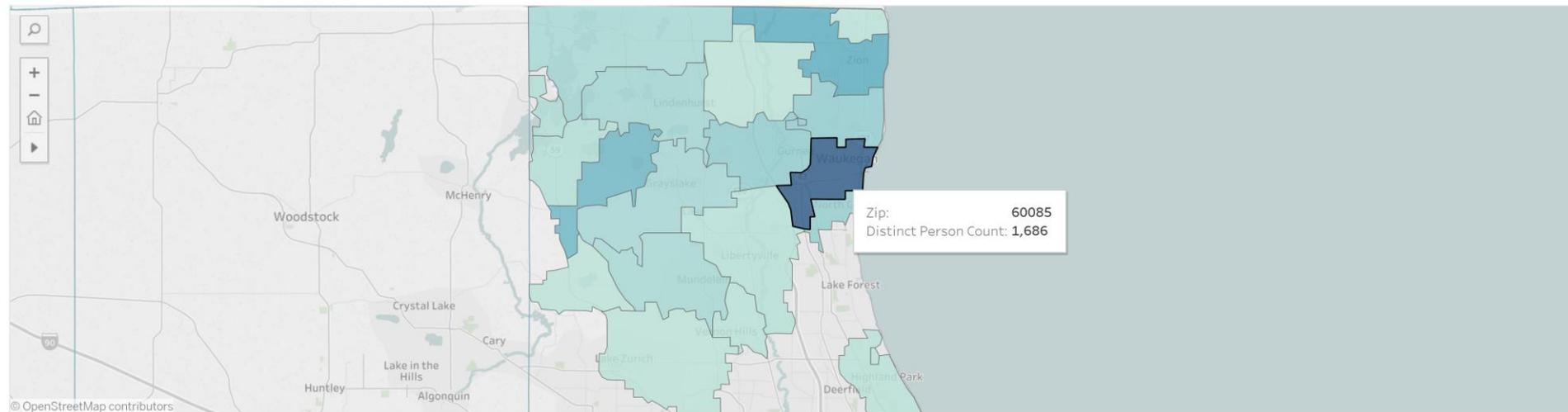
# Questions We Have Answered

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# Where are Services Needed Most?



MAT and Psychiatry Patient Zip Code Distribution



# Are Births in Lake County Changing?

Number of Live Births in Lake County as Reported for 2010-2017



Reported by the Illinois Department of Public Health

Number of Live Births in Lake County by Mother's Residence City as Reported for 2010-2017

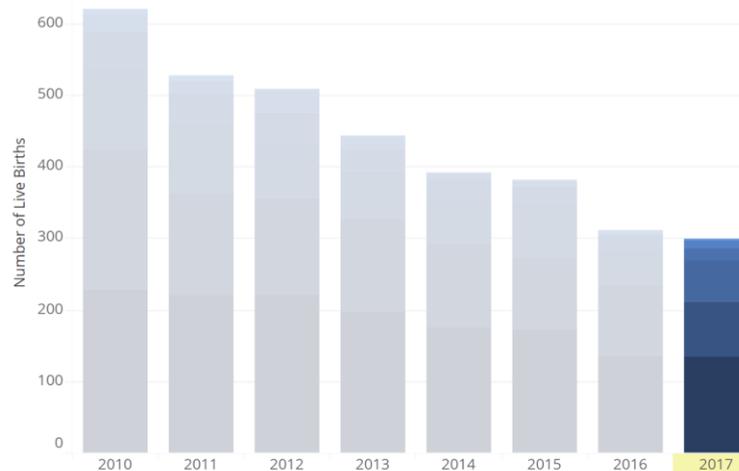
\*To visualize by city click on the desired year on the "Number of Live Births in Lake County as Reported for 2010-2017" line.

Mother Residence City	2017
ANTIOCH	255
ARLINGTON HEIGHTS	1
BANNOCKBURN	3
BARRINGTON	80
BEACH PARK	170
BUFFALO GROVE	239
CARY	5
DEER PARK	24
DEERFIELD	198
FOREST LAKE	1
FOX LAKE	72
FOX RIVER GROVE	2
GAGES LAKE	2
GRAYSLAKE	343
GREAT LAKES	98
GREEN OAKS	5
GURNEE	376
HAINESVILLE	46
HAWTHORN WOODS	72
HIGHLAND PARK	235
HIGHWOOD	53
INDIAN CREEK	5
INGLESIDE	96
ISLAND LAKE	34
IVANHOE	1
KILDEER	17
LAKE BARRINGTON	18
LAKE BLUFF	104
LAKE FOREST	123
LAKE VILLA	196
LAKE ZURICH	241
LAKEMOOR	46
LIBERTYVILLE	222
LINCOLN SQUARE	22

Mother's Age at Time of Live Birth in Lake County as Reported for 2010-2017

Year	Mean Mother Age	Median Mother Age	Minimum Mother Age	Maximum Mother Age
2010	29.14	30.0	13.0	56.0
2011	29.18	30.0	13.0	49.0
2012	29.32	30.0	14.0	49.0
2013	29.48	30.0	14.0	50.0
2014	29.67	30.0	14.0	50.0
2015	29.75	30.0	14.0	59.0
2016	29.95	30.0	14.0	54.0
2017	30.15	31.0	14.0	52.0

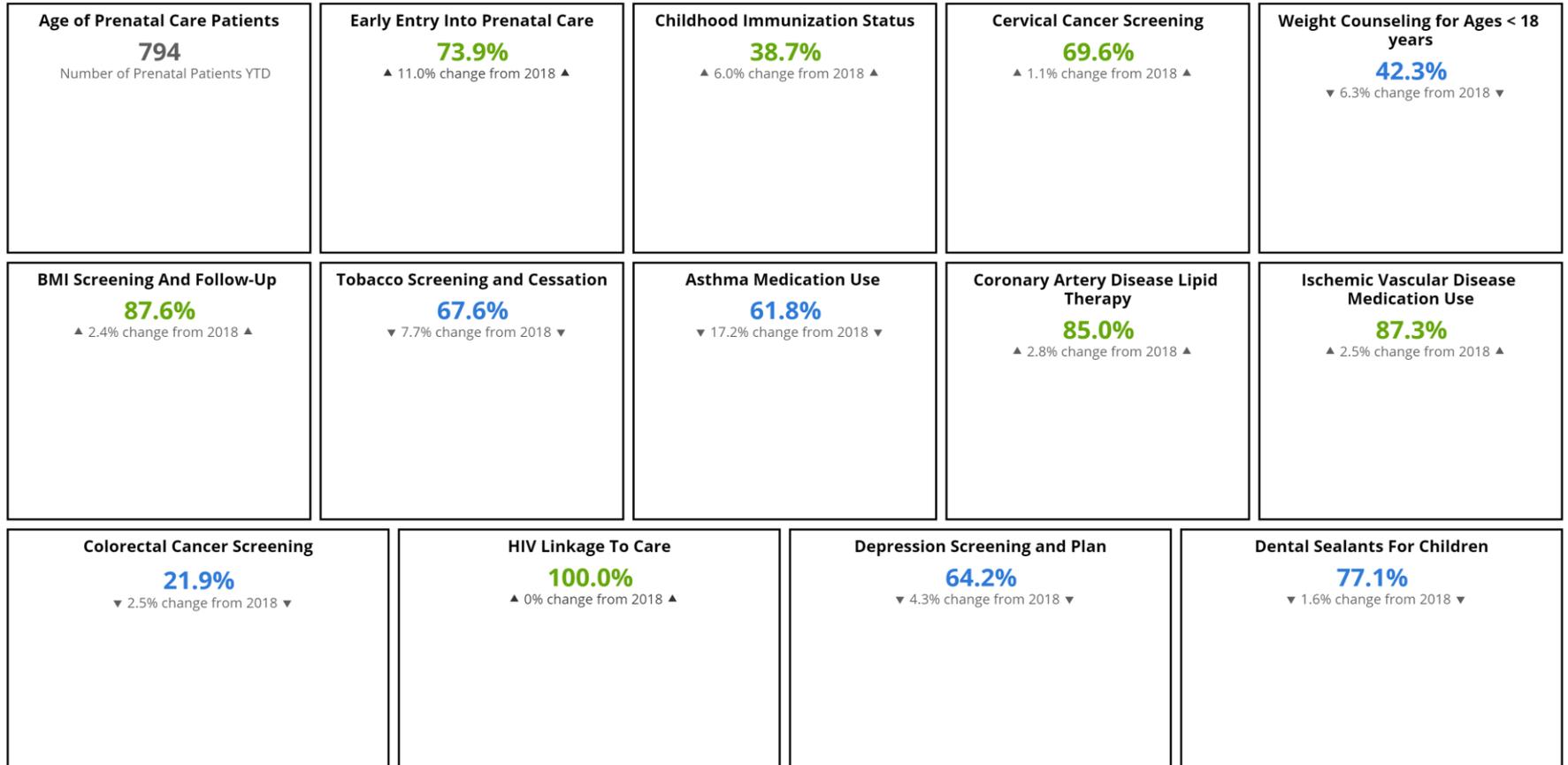
Live Births with Mothers Aged 19 Years and Under in Lake County as Reported for 2010-2017



# What is the Quality of Care We Provide to Out Patients?

## UDS Quality Of Care Measures

Colored year-to-date measures are compared to the submitted 2018 UDS data (Green = increase; Blue = decrease)



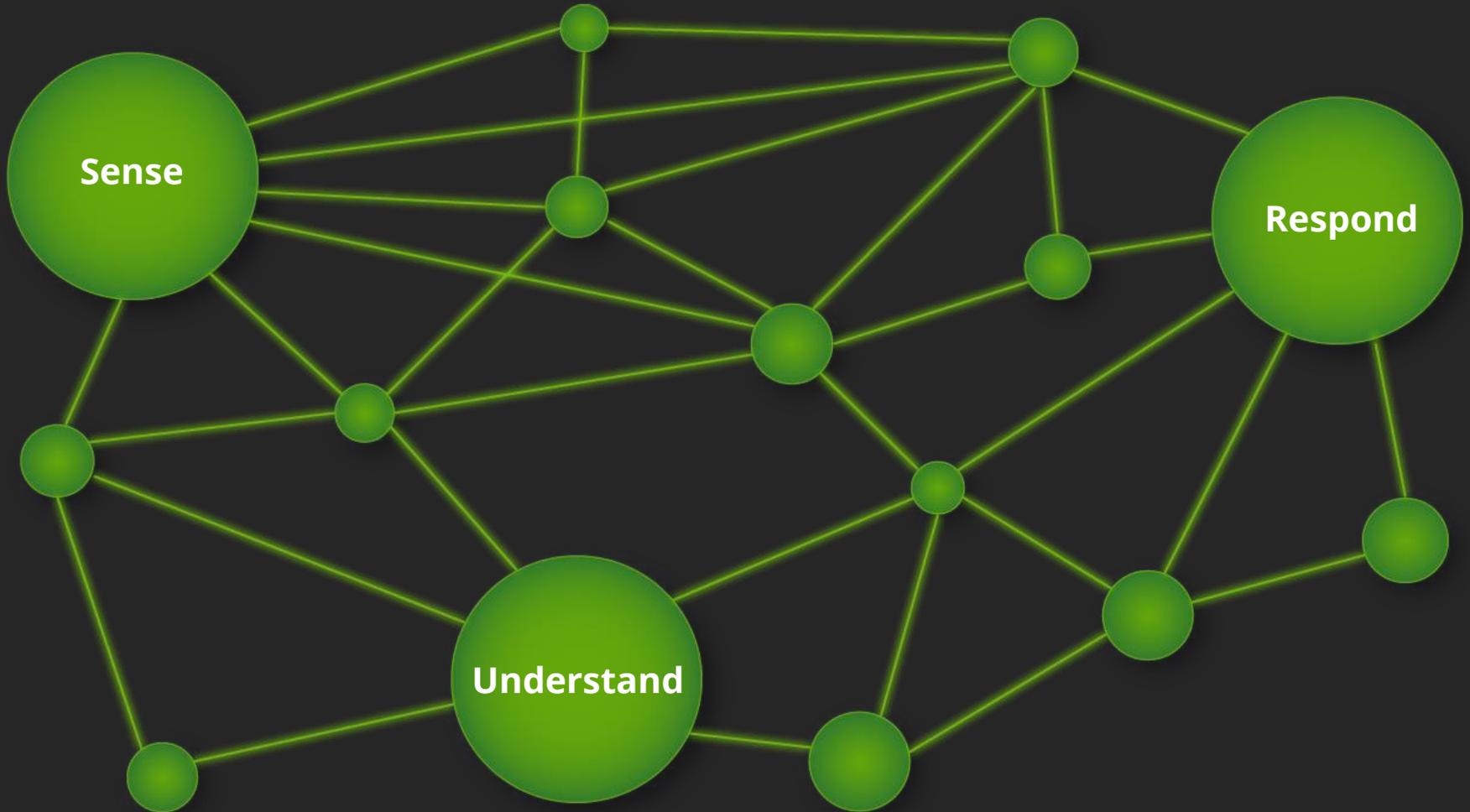


# Where We Are Going

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# Health Nervous System

# Health Nervous System



# Health Nervous System

## Sense

### Systems of Record

Electronic Health Record  
EnerGov  
Chameleon  
BOSS/UltiPro  
SharePoint  
Microsoft Forms  
Adobe

Local Health Systems  
State Government  
Partners  
Community Members

## Understand

### Systems of Analytics

Tableau  
R  
ArcGIS  
SQL Server  
Microsoft Azure

## Respond

### Systems of Engagement

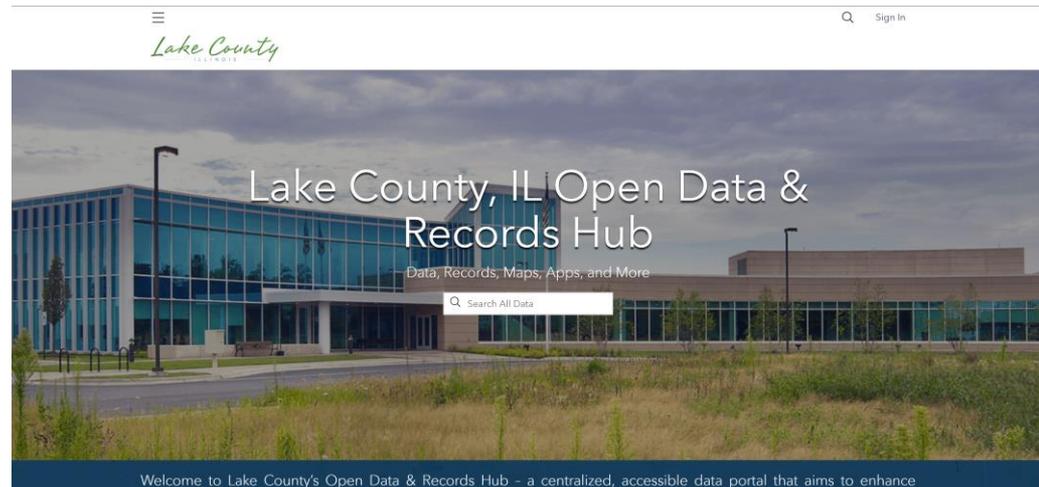
Decision Support  
Trigger and Alert  
Machine Learning/AI  
Community Hub

# Community Information Hubs

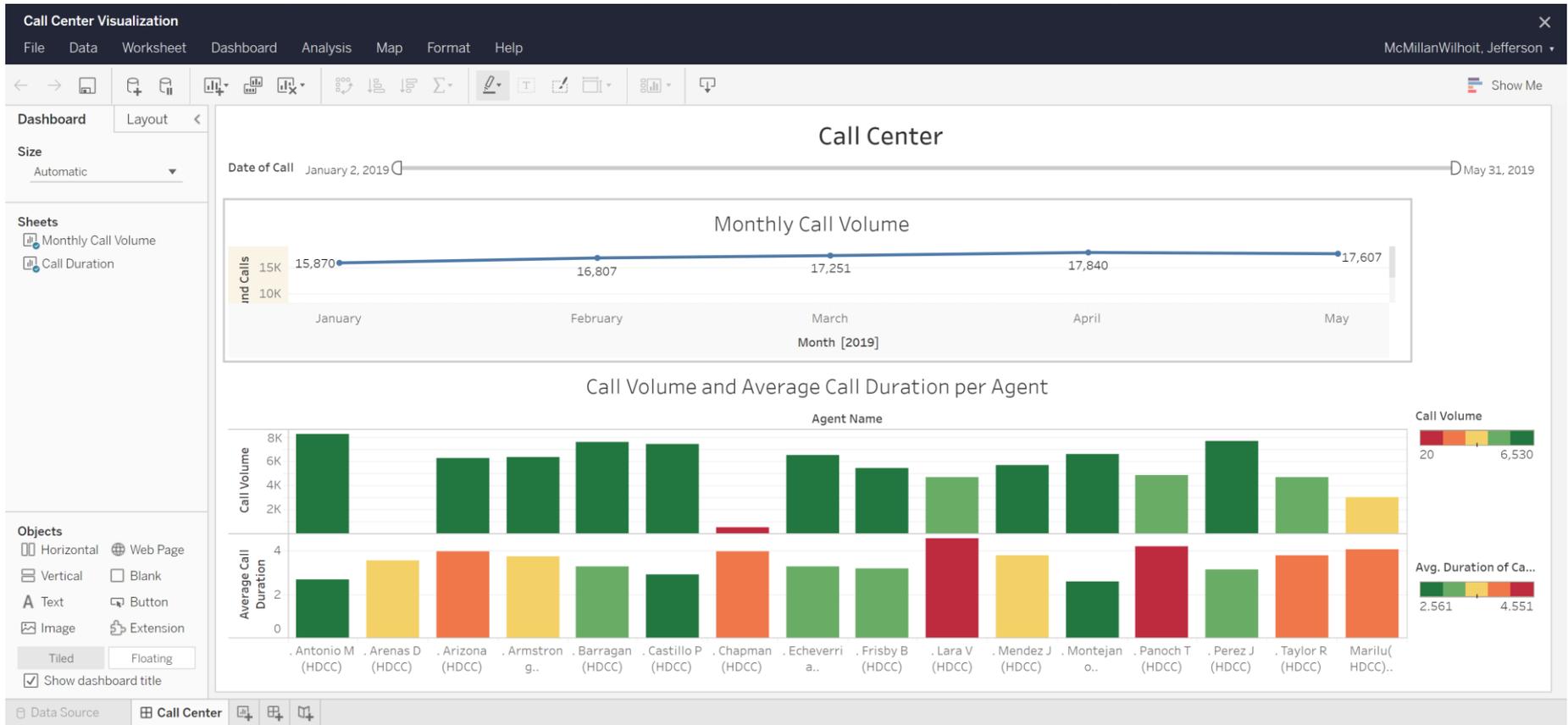


- Central place for community to **understand the health** of the County
- Updated regularly to instill **trust**

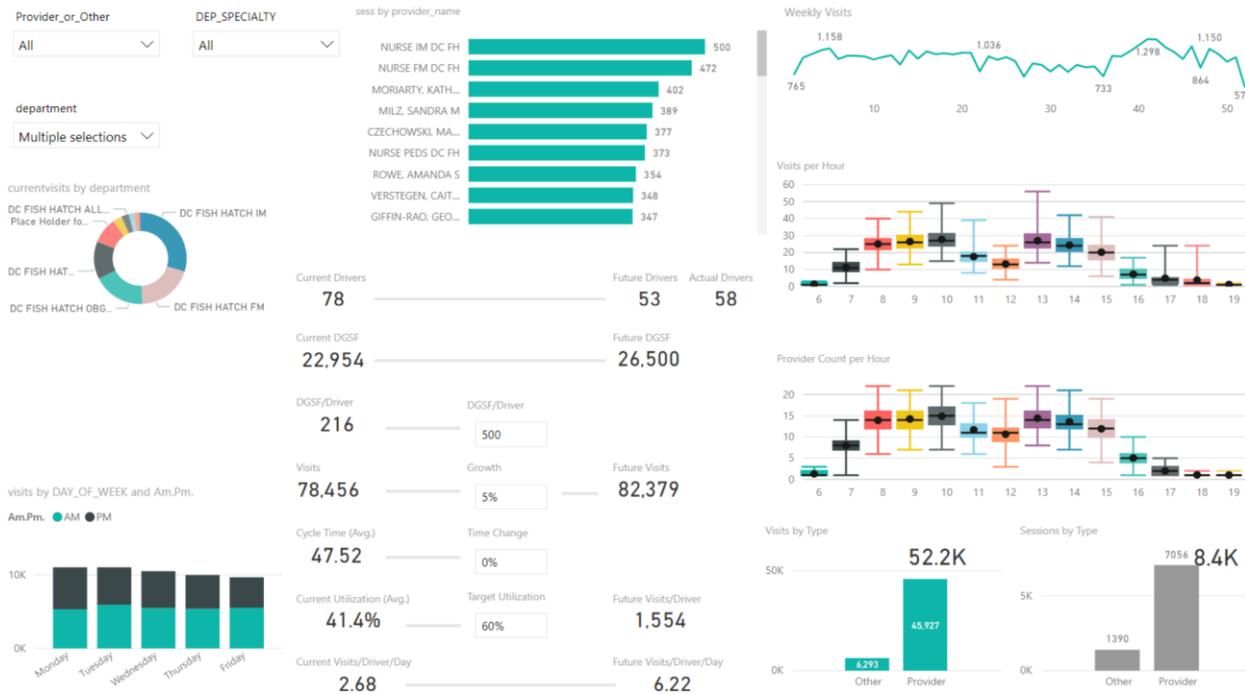
- Enhance **transparency** and **accountability**
- Drive us to greater **effectiveness** and efficiency



# Information Self-Service



# Predictive Decision Support and Artificial Intelligence



- Quality Outcomes
- Disease Incidence (Both Communicable and Chronic)
- Revenue and Expense
- Population Shifts
- Healthcare Access
- Healthcare Costs
- Resident Specific Care Advice
- Professional Availability
- So much more...

Transform from **reactive** to **proactive**



# LakeCounty

Health Department and  
Community Health Center



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HealthDepartment



@LakeCoHealth



HealthDepartment