



NATIONAL ASSOCIATION OF
Community Health Centers®

Harnessing the Power of Data Dashboards for the Future: Lessons Learned from the COVID-19 Pandemic

Sunday, October 30 | 11:00am – 12:15pm

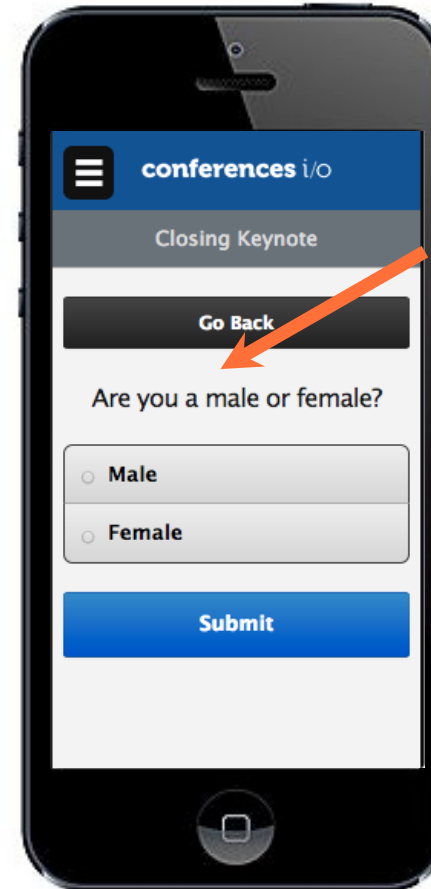
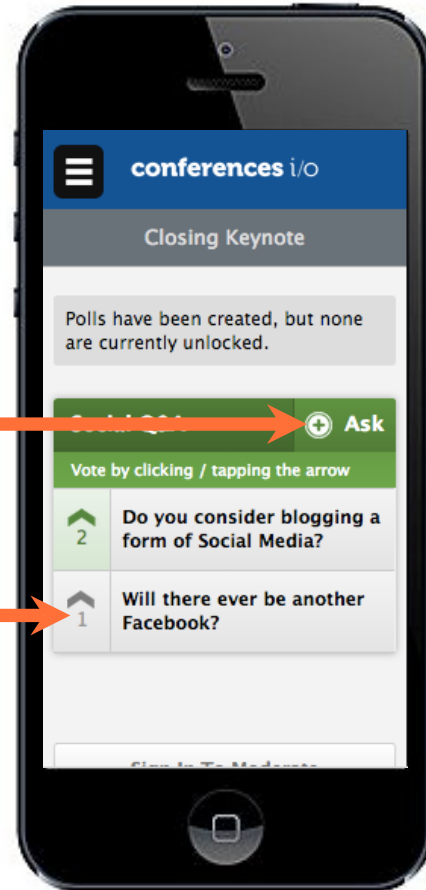
Augustus 5-6, Caesars Palace
Las Vegas, NV



In-Person Participants

**Give us
Feedback**

**Up-Vote a
Comment**



**Click on
question and
then
Respond to
Polls when
they appear**

Vote / Give Feedback/ Respond to Polls

Virtual Participants

Chat

(use to talk with peers)



Polling/Q&A

(participate in polls, ask questions to faculty)



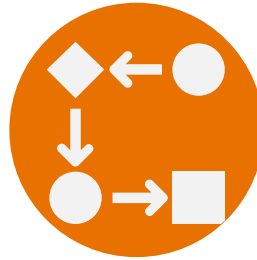
The screenshot displays a virtual meeting interface with several components:

- Chat Window:** Located on the left, it shows a list of participants and their messages. The messages include: "Brian Long", "Hey James H, III", "James Hecker", "Diana!!! Hey Buddy!!!", "Laura Wiggins:!!", "Confirming - the 'Workbook' is under the Resources tab, titled 'Alcon Precision, Inc_WER100321_Workbook'", "CMT Greenberg", "Start at the end: identify the goal, then the key winning points, outline & drink more coffee", and "Laura Wiggins:!!", "word vomit!! ...writing stream of consciousness then editing it down. Or start with a bullet list of thoughts then expand it to sentences."
- Polling Window:** Below the chat, it displays a poll titled "#1.) What is your biggest business writing challenge? (NO RIGHT ANSWER - OPEN QUESTION)". The results are shown as a bar chart: "Concision" (45%), "Grammar and/or Types" (20%), "Content Structure" (16%), "Tone" (16%), and "Other" (0%).
- Video Feed:** A large window on the right shows a video of a man in a suit, identified as James Hecker.
- Slide:** The background of the video feed shows a slide titled "UDS Reporting: Preparing, Doing, and Utilizing" with the subtitle "Cultivating Health Center Operations". The slide features a colorful graphic of a heart and the CURIS logo.
- Footer:** The bottom of the interface includes a "Request Support" button, the time "12:09pm Eastern", and navigation links for "Session", "Support", "Profile", "Options", and "Windows".

IMPACT/LESSONS LEARNED



Consider what dashboards are available to the care team and which are needed



Evaluate the use of dashboards and their incorporation into the clinical workflow



Understand approaches to validate and extend the data most accurately to reflect measures and care gaps

Clinical Dashboards Should Lead the Way

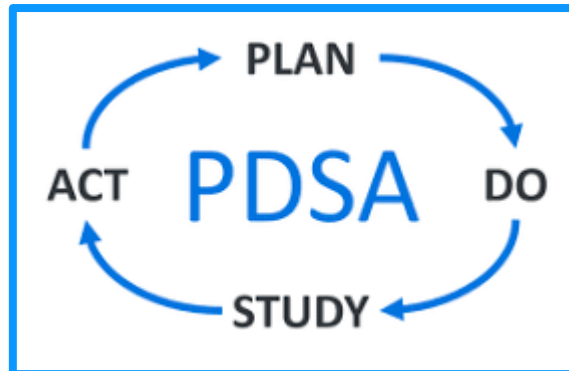
You Can't Improve What You Can't See

- Panel management is a critical component of primary care
- Most EHRs do not or poorly support panel management and care gap closure
- Without formal support to find and close care gaps and identify missed opportunities, PCPs are reliant on patients to know about follow up and show up

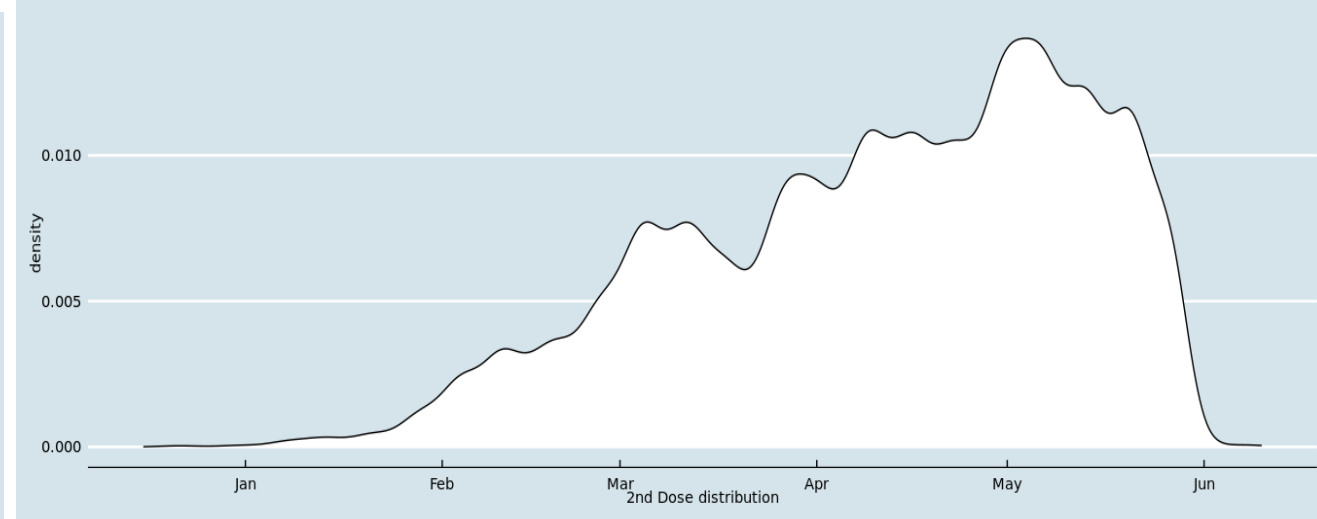
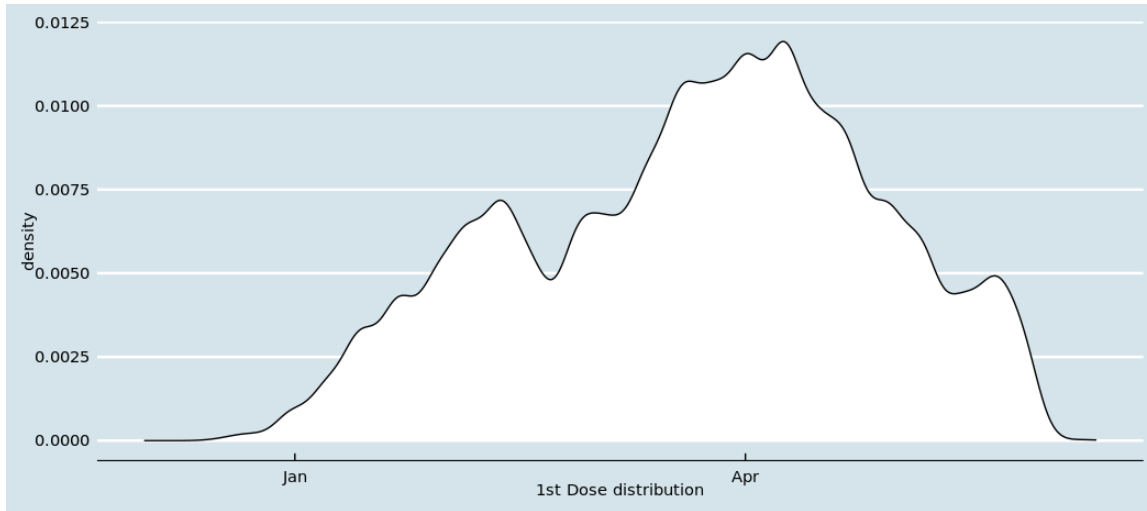


Dashboards as a Tool for Improvement

- Modern process improvement techniques have been shown to be highly effective in improving complex systems in healthcare
 - These include PDSA, Lean, Agile and Rapid Cycle Improvement
- A high quality dashboard should be the “north star” of these efforts– make changes → look at impact → change again → repeat
- A dashboard that is not accurate can actually cause harm: by obscuring the true performance or impact of change
 - Dashboards can have the benefit of being used to calculate measures, drive care management and care coordination, improve safety and demonstrate business practices/ ROI



Vaccination Patterns at Health Centers: 2020-2021



Dashboards can help you to understand patterns of care and identify further questions to ask

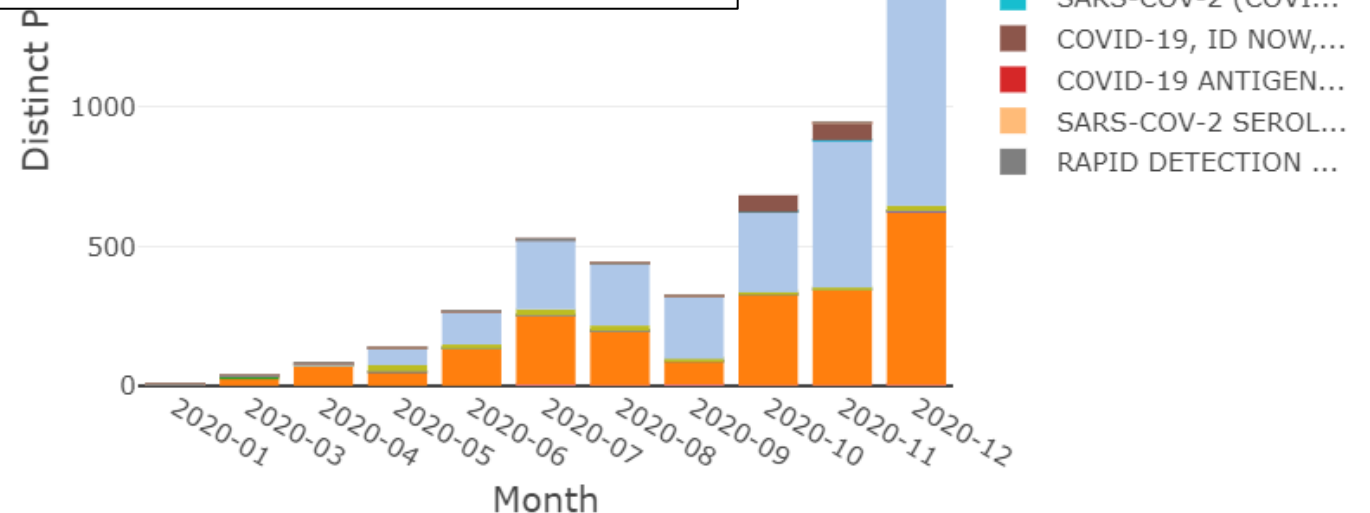
We observed a small peak in 1st dose vaccinations in February, followed by a large peak in April - May. Second doses, naturally, peaked in March and May. It's worth noting that a significant portion of our sample took the J+J vaccine

Dashboards Can Monitor Data Quality and Completeness

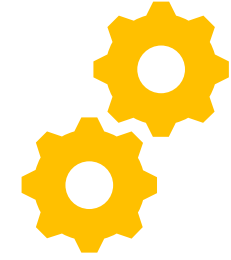
	Procedure	Distinct Patients
1	SARS-COV-2 RNA (COVID-19)	2766
2	CORONAVIRUS (COVID)SARS COV 2	1850
3	RAPID DETECTION OF COVID-19 (SARS-COV-2) POCT	424
4	COVID-19, ID NOW, ABBOTT (POCT)	144
5	SARS COV-2 SEROLOGY (COVID-19) AB (IGG)	114
6	COVID-19, SARS-COV-2 RNA (ABSTRACTED)	12
7	SARS-COV-2 (COVID-19) QUALITATIVE	6
8	CORONAVIRUS RT-PCR	5

Showing all 12 rows.

	Number of Tests per Patient	Distinct Patients
1	1	3367
2	2	639
3	3	519
4	4	93
5	5	47
6	6	24
7	7	4
8	8	3

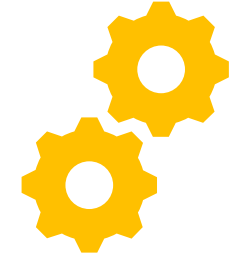


Dashboard Best Practices



- Evaluate what dashboards are needed and what are available:
 - Consider: quality measures, clinical guidelines, follow up care, utilization, etc.
- Dashboards may be included in some EHRs and tooling may exist with the EHR to allow you to create them
 - Work with vendors and data hosts about what is available
 - Ask for the functionality you need or...
- They are often available in third party data products/population health tools
 - Some organizations outsource their data to tools that meet their needs better

Dashboard Best Practices



- An expert who understands the clinical workflow, EHR capacity and the measure desired/specified is critical to ensuring an accurate dashboard
 - Clinical Informatics Champions are ideal to answer these questions
- While dashboards are key to QI, they are not a primary EHR function and require design, testing and workflow integration
 - Who is currently using the dashboard? Who should be using it? Where is it visible? What functionality does it offer?
 - A multidisciplinary team should include data analysts, quality managers and clinical champions

Using Dashboards to Improve Clinical Care

- NACHC 2022 HRSA-sponsored Learning Community on Using Data to Improve Care
- Session 3: Using Dashboards to Improve Clinical Care
 - <https://www.youtube.com/watch?v=4MR9AqAYD38>
- Session 4: Quality Improvement for Immunizations
 - <https://www.youtube.com/watch?v=TZj3Ru64BRc>



Harnessing the Power of Data Dashboards for the Future: Lessons Learned from the COVID-19 Pandemic

Agenda

- Overview of AllianceChicago
- AllianceChicago Enterprise Data Warehouse
- COVID-19 highlighted the need for quick snapshots of healthcare related data for
 - Decision making
 - Reporting
 - Planning
- Discussion, Questions & Answers

AllianceChicago Mission and Services

Our Mission

To improve personal, community and public health through innovative collaboration.

AllianceChicago's efforts are focused in three core areas:

Health Care Collaboration

Providing exemplary, innovative health services that unite health care providers and consumers to optimize effectiveness, efficiency, experience and outcomes

Health Information Technology

Leading the way in improving health and health care delivery through the thoughtful use of leading edge health information technology (HIT) in the safety net

Health Research & Education

Providing essential guidance that informs policy, health care delivery design and clinical services to improve health, increase relevance and accessibility of health care, and eliminate disparities



Advancing community health through collaboration, technology and research



Health Care
Collaboration



Health Information
Technology



Health Research
+ Education

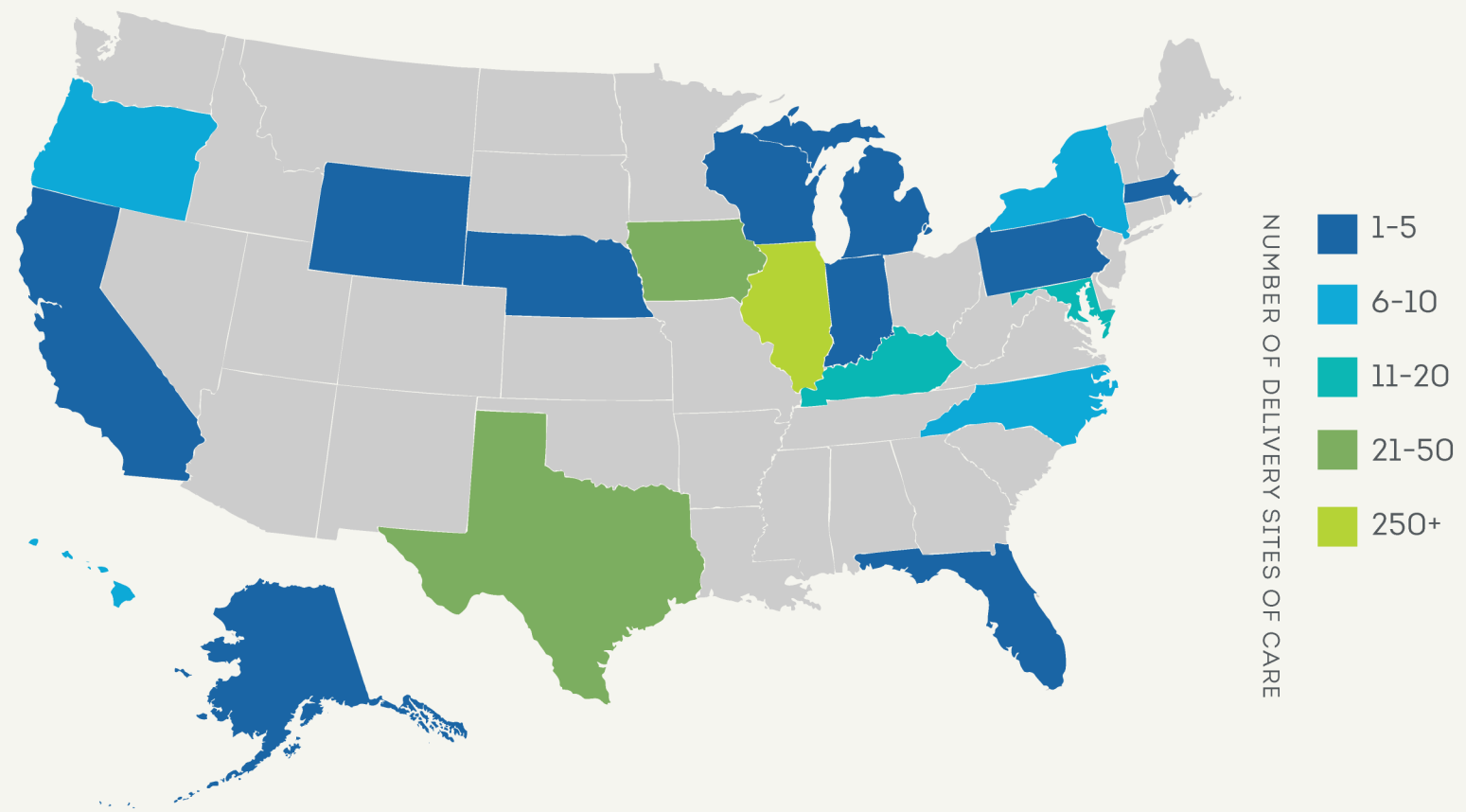
AllianceChicago Network

72 Safety-net Organizations

400+ Delivery Sites of Care

Providing Services in **19** States

3.6+ Million Unique Patients



What We Do

Health Care Collaboration

Hosted over **50** virtual events for learning and best practice sharing

Broadcasted our first virtual conference with **46** educational sessions, in partnership with Health Choice Network

Led a large-scale **7**-Health Center Network cohort survey to initiate the ARCH Collaborative to improve use and satisfaction of the EHR

Health Information Technology

Developed **396** Clinical Content updates to athenaPractice

Maintained an average EHR hosted uptime of **100%**

Captured **3,707,443** unique patient lives from **35** health centers

Health Research & Education

Led **43** active research projects

Engaged **32** health centers in research

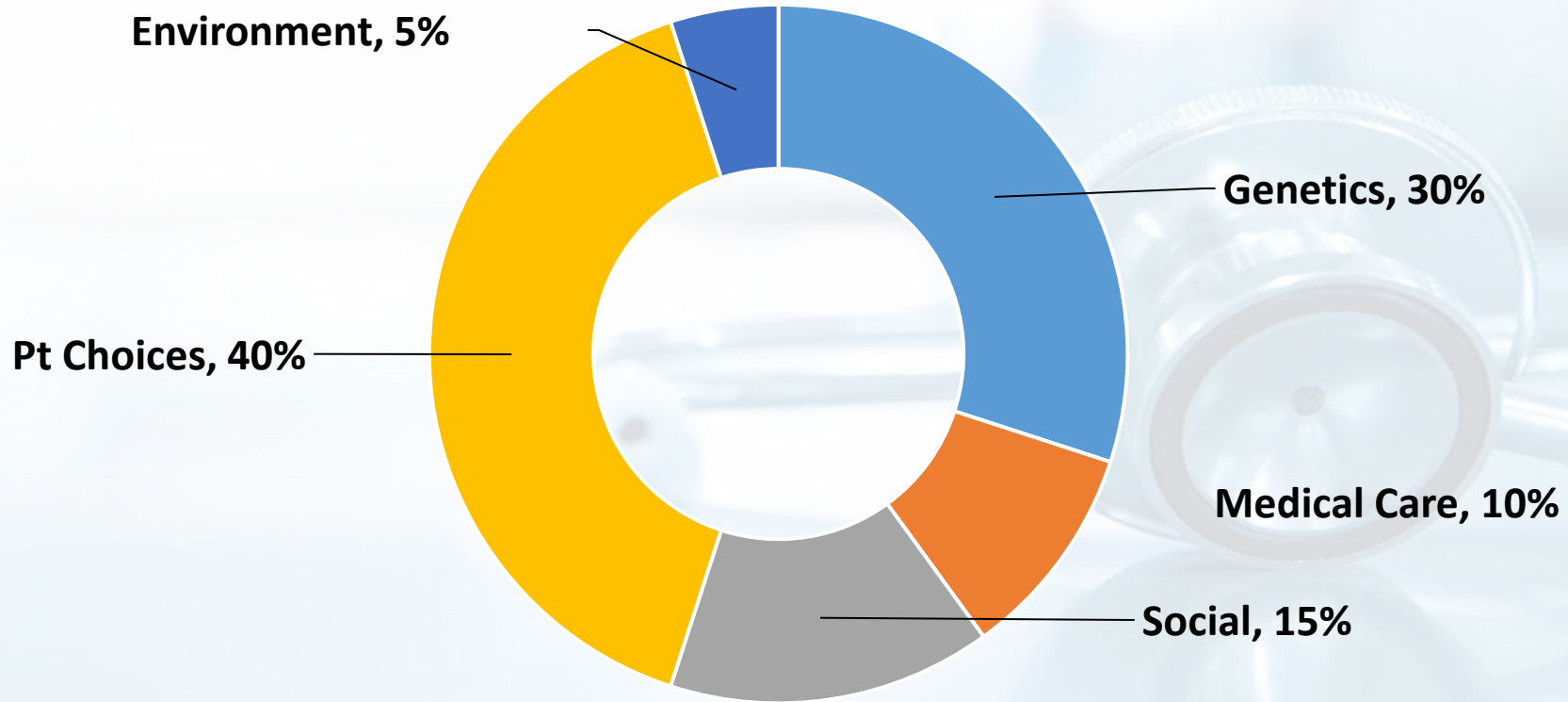
Published **12** research manuscripts

Disseminated research findings through **12** presentations

*Data captured over the last 12 months May 2020 - April 2021

Level 8	Personalized Medicine & Prescriptive Analytics	Tailoring patient care based on population outcomes and genetic data. Fee-for-quality rewards health maintenance.
Level 7	Clinical Risk Intervention & Predictive Analytics	Using predictive risk models to support organizational processes for intervention. Including fixed per capita payment in fee-for-quality.
Level 6	Population Health Management & Suggestive Analytics	Tailoring patient care based upon population metrics. Including bundled per case payment in fee-for-quality.
Level 5	Waste & Care Variability Reduction	Reducing variability in care processes. Focusing on internal optimization and waste reduction.
Level 4	Automated External Reporting	Ensuring efficient, consistent production of reports and adaptability to changing requirements.
Level 3	Automated Internal Reporting	Ensuring efficient, consistent production of reports and widespread availability in the organization.
Level 2	Standardized Vocabulary & Patient Registries	Relating and organizing the core data content.
Level 1	Enterprise Data Operating System	Collecting and integrating the core data content.
Level 0	Fragmented Point Solutions	Tolerating inefficient, inconsistent versions of the truth and cumbersome internal and external reporting.

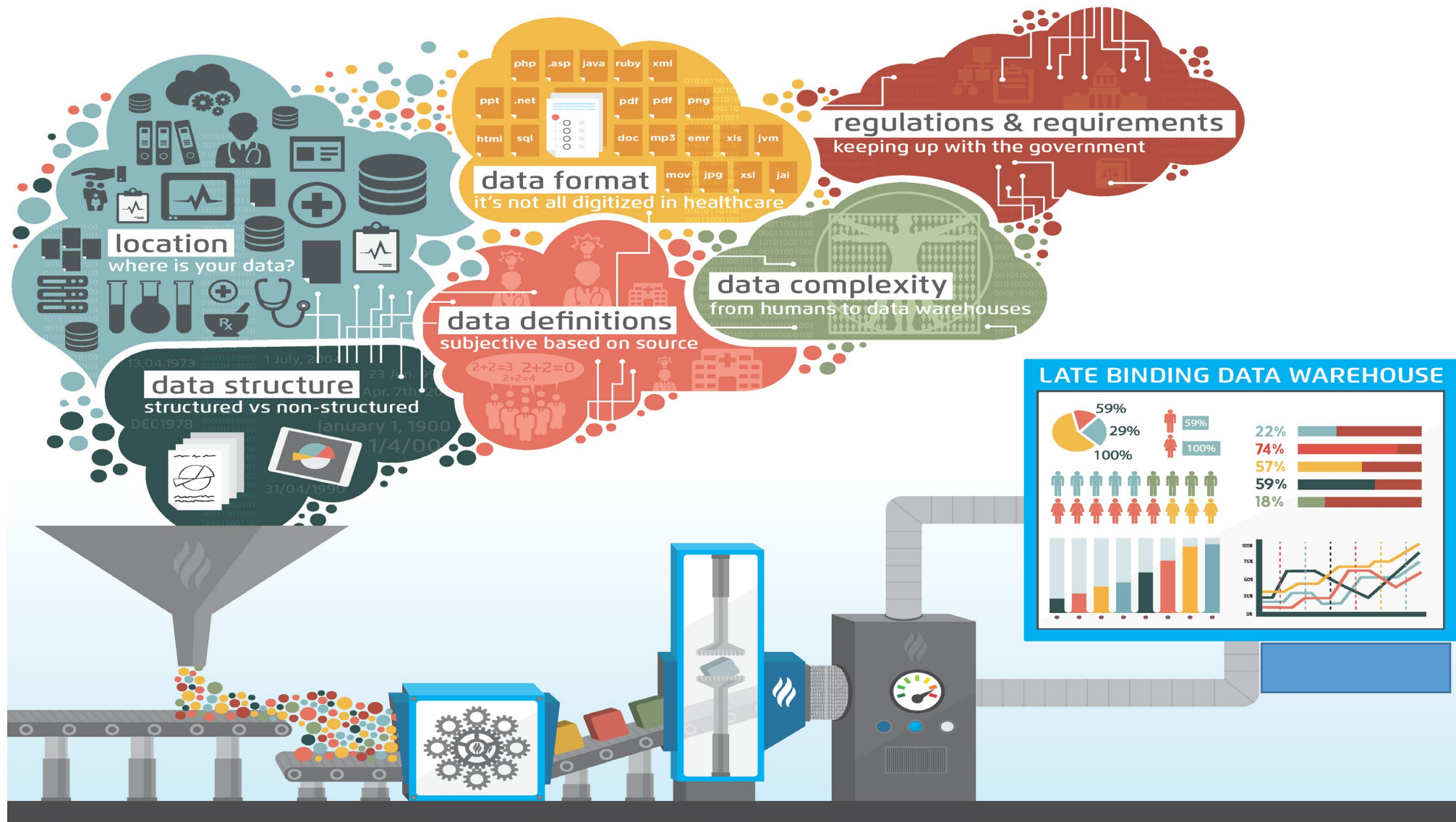
What Determines Health



Data Sources

- Ambulatory EMR
- Inpatient/Specialty EMR
- Claims/Enrollment
- Pharmacy
- ADT
- Public Health
- Patient Reported Outcomes
- Social Determinates of Health
- Environmental

WHY HEALTHCARE DATA IS DIFFICULT



Operational
Analytics

Population Health

Quality/Regulatory
Reporting

Research

ACO/Value Based
Care

Machine Learning & Augmented Intelligence

HealthCatalyst

Ingestion Layer



COVID-19 Dashboards

COVID-19 Testing Dashboard

3/18/2022 11:38:38 AM

Last Data Refresh Time

211553

178276

31966

Total Test

Negative

Positive

Health Center name

All

Observation Date

3/6/2020

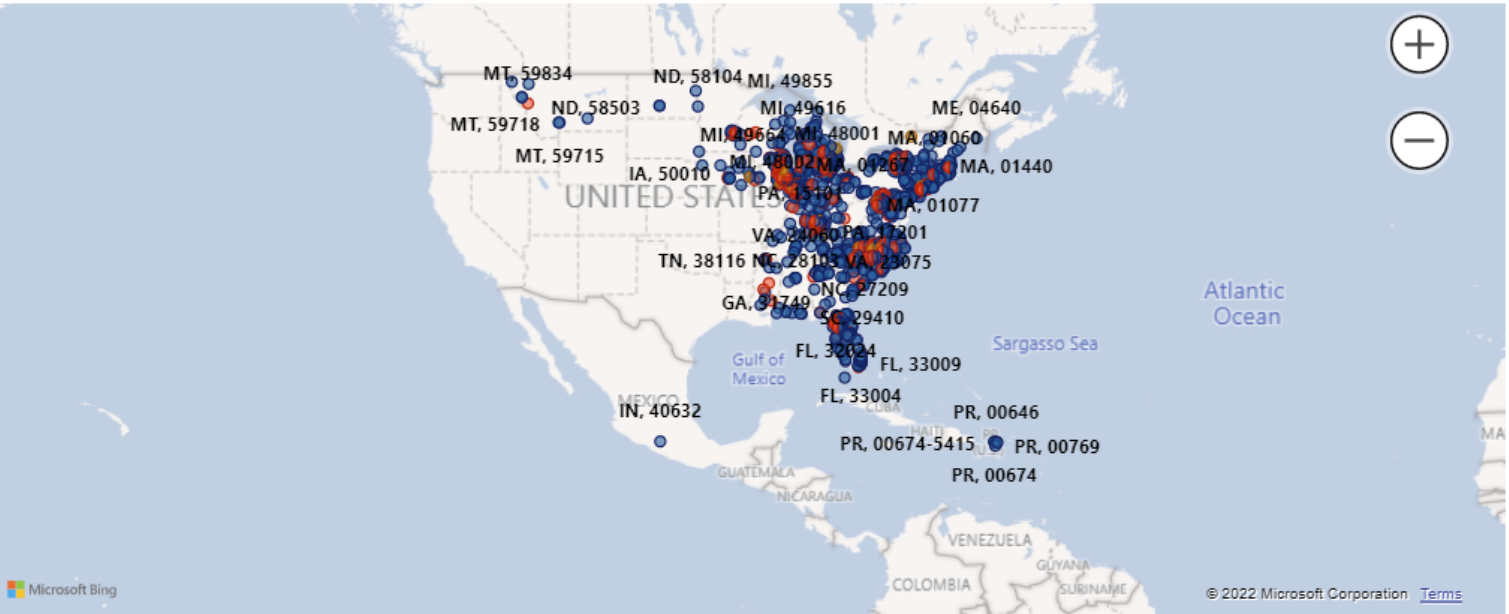
12/31/2021

COVID_Result

● Negative

● Positive

● Unknown

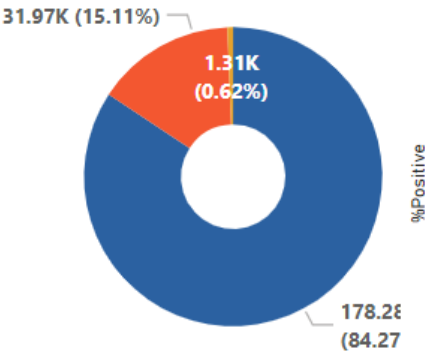


COVID_Result

● Negative

● Positive

● Unknown



COVID Testing – Demographics Dashboard

211423

Patient Count

Health Center name

All

COVID_Result

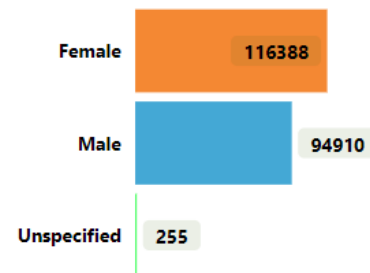
- ☐ Negative
- ☐ Positive
- ☐ Unknown

Observation Date

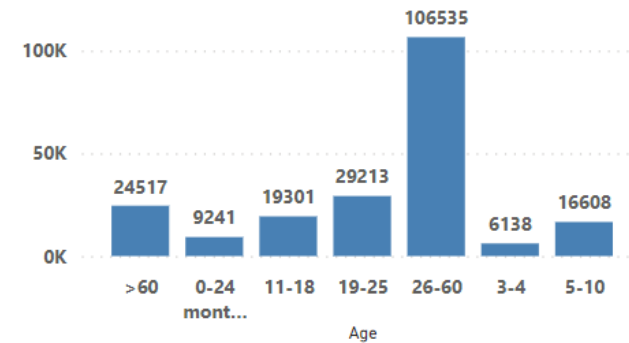
3/6/2020

12/31/2021

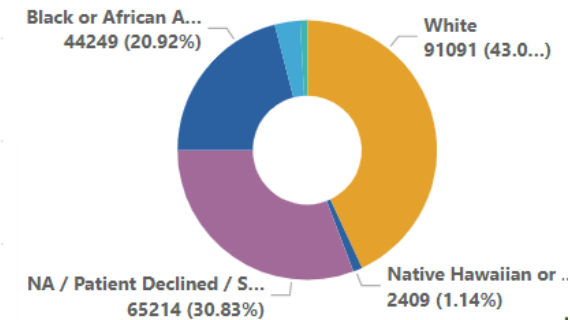
Gender Distribution



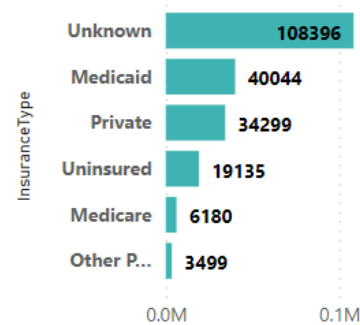
Age Distribution



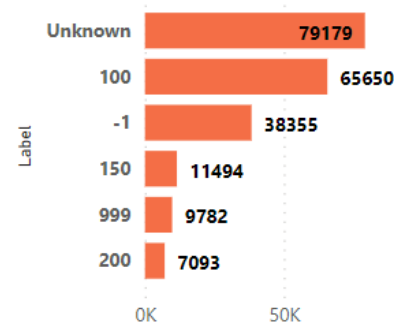
Race Distribution



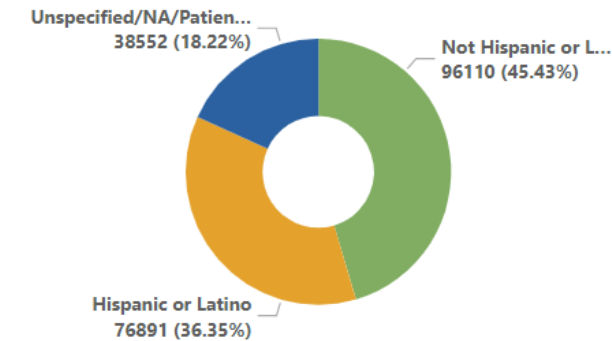
InsuranceType



PovertyLevel



Ethnicity Distribution



Telehealth Visit Change Due to COVID

8/12/2020 10:05:57 AM

Report Last Refresh

Health Center

All

Date Range

1/1/2020

7/28/2020

From

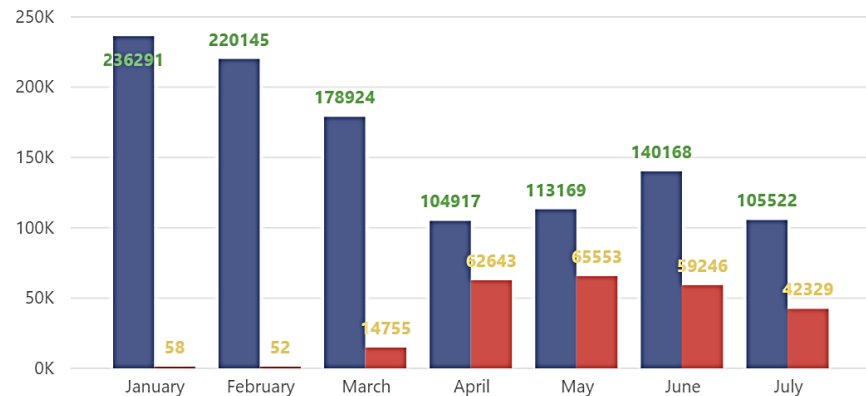
To

1/1/2020

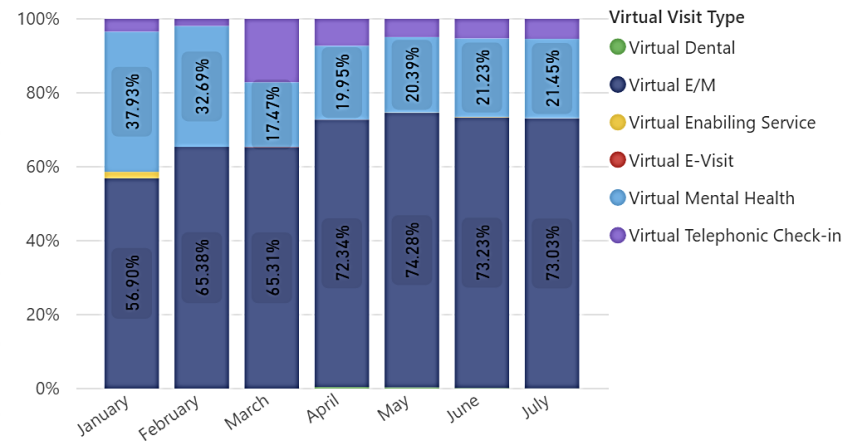
7/28/2020

Visit Count (In-Person vs Virtual) by Month

Visit Category ● In-person ● Virtual Visit



Virtual Visit Distribution



Visit Category Filter

- ☐ In-person
☐ Virtual Visit

UDS Visit Type

All

ServiceLocationName

All

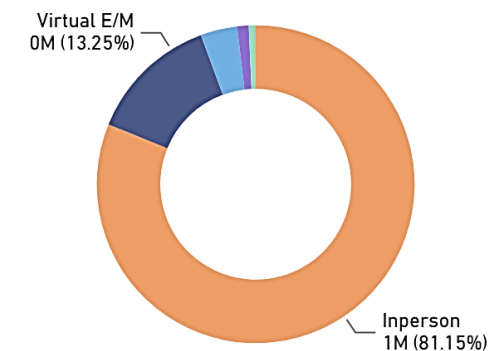
ProviderFullName

All

UDS Visits

Week #	January	February	March	April	May	June	July	Total
Medical	163790	153922	137543	118544	125723	141599	107725	948846
Unmapped	33576	29630	28570	26508	28525	29839	20902	197550
MentalHealth	15787	15374	12762	15846	15919	15574	11247	102509
Dental	16711	15083	9499	2417	3699	6670	4325	58404
EnablingServices	4303	4202	3711	3143	3268	3820	2284	24731
Other	1269	1099	876	691	797	950	700	6382
SubstanceAbuse	453	363	326	391	407	465	278	2683
Vision	460	524	392	20	384	497	390	2667
Total	236349	220197	193679	167560	178722	199414	147851	1343772

Overall Visit Distribution

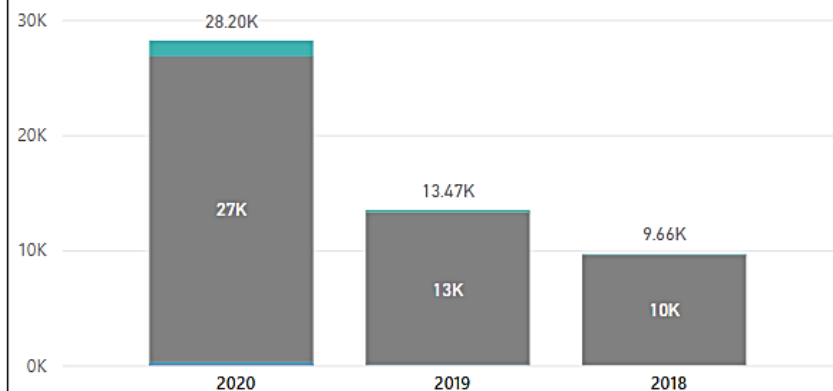


Vaccination Status Based on UDS Visits

Health Center Name

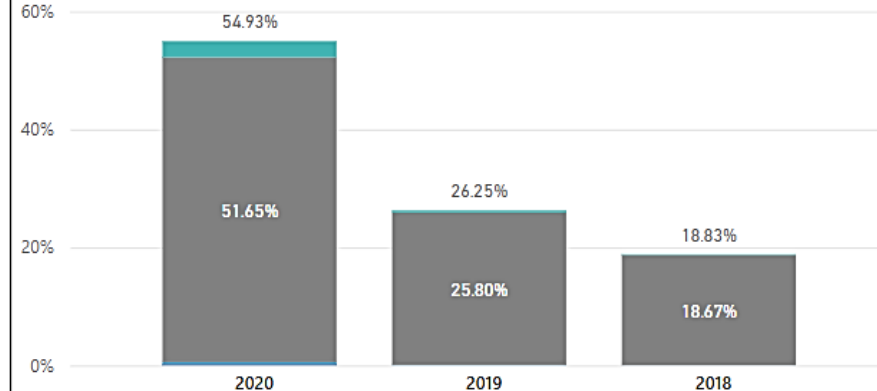
Patient Count by Year and Vaccination Status

VaccinationStatus ● First Dose Complete ● Overdue ● Unknown ● Vaccinated



Patient Count by Year and Vaccination Status

VaccinationStatus ● First Dose Complete ● Overdue ● Unknown ● Vaccinated



VaccinationStatus

- ☐ First Dose Complete
- ☐ Overdue
- ☐ Unknown
- ☐ Vaccinated

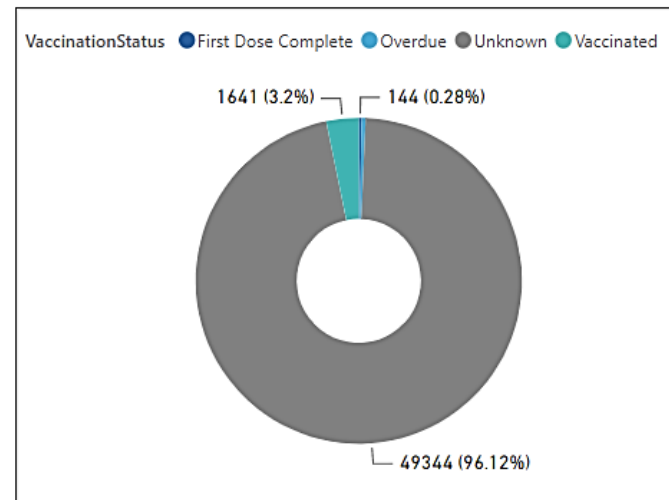
UDS Visit Type

- ☐ Dental
- ☐ Medical
- ☐ Mental Health
- ☐ Other
- ☐ Substance Abuse
- ☐ Vision

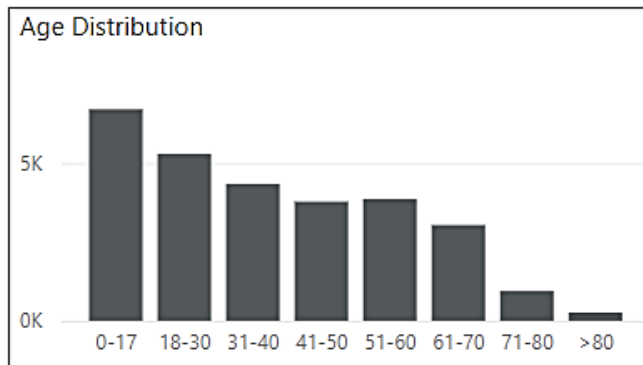
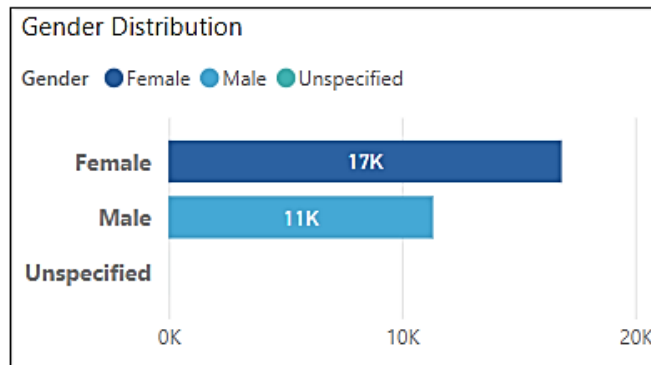
Age



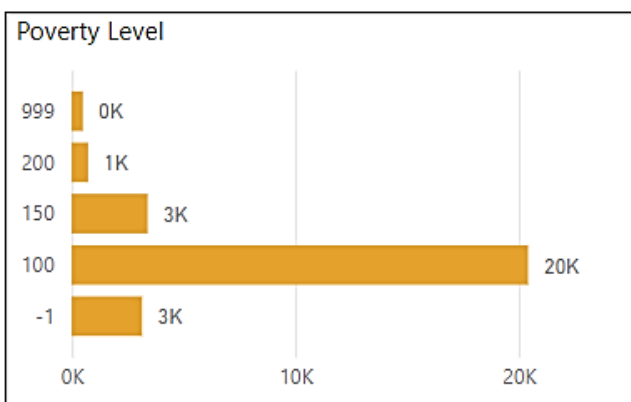
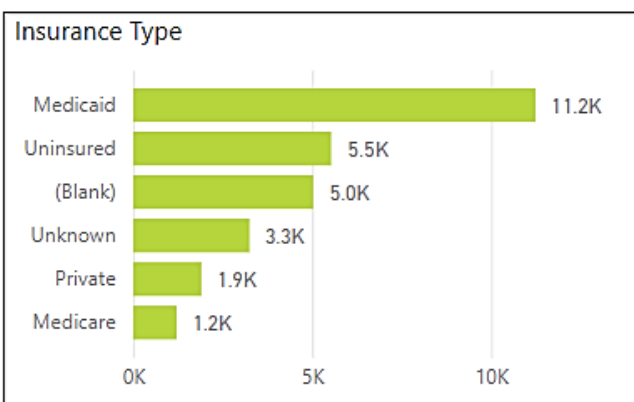
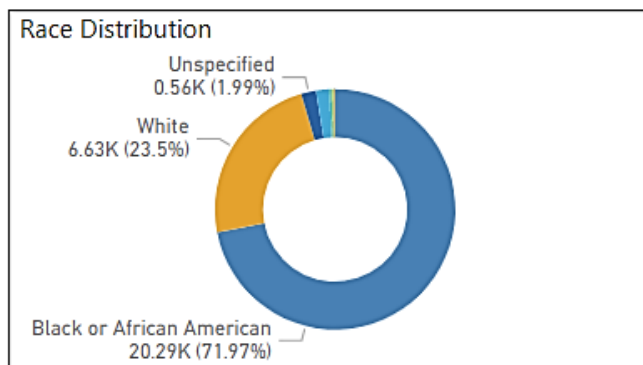
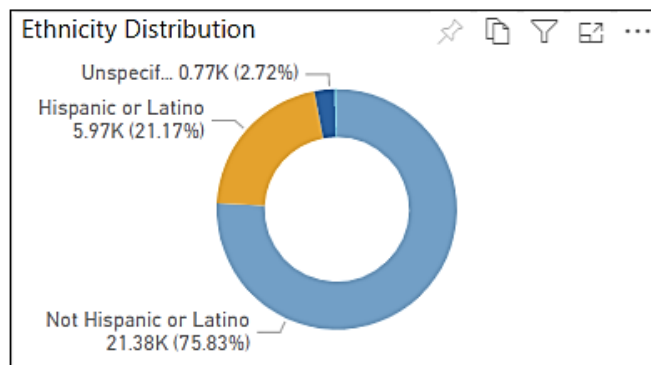
-	First Dose Complete	Overdue	Unknown	Vaccinated	Total
Medical	136	194	44502	1533	46365
Dental	5	7	3971	54	4037
Mental Health	1	2	445	12	460
Other	2	2	351	28	383
Vision			36	13	49
Substance Abuse		1	39	1	41
Total	144	206	49344	1641	51335



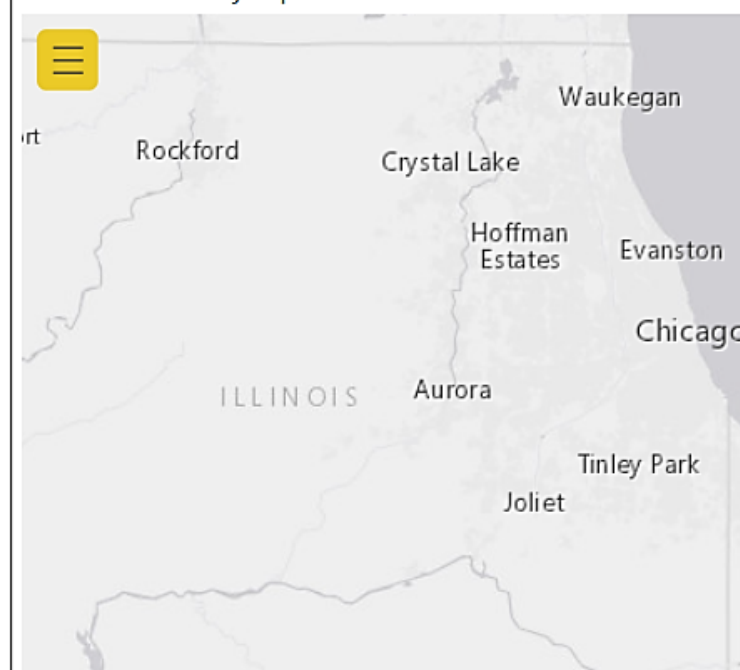
Demographics for Vaccination Status by UDS Visit



VaccinationStatus	Count
First Dose Complete	122
Overdue	170
Unknown	26516
Vaccinated	1389
Total	28197



Patient Count by Zip



9/30/2022 11:05:25 AM

Last Data Refresh Time

Health Center name

All

12/2/2020

9/29/2022

VaccinationType

All

Total #Shot

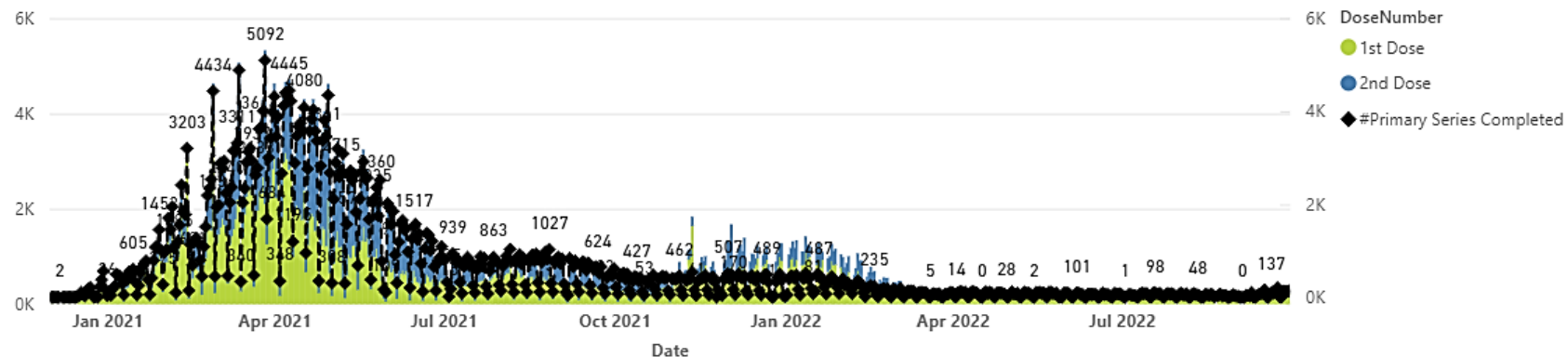
#Patients who received 1st dose

Distinct Patients

#Patients completed primary series

(2nd Dose or Completed if Janssen/J&J)

Vaccination Count by Day




Relative Date Filter

Last

1

Select

 No filters applied

State

All

City

All

Zip

All

LocationofService

All

ProviderFullName

All

Age range

All

IsStaff

Y

☐ N☐ (Blank)

HRSA Federal Dose

 \square y

☐ N

Given Elsewhere/Historical

□ Y

□ N

 Reset Filter

COVID Vaccination Demographics

629736

Total #Shot

293987

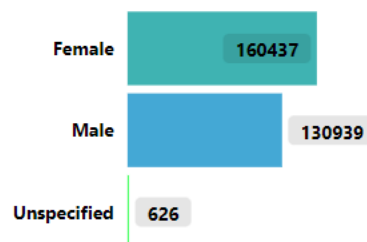
Distinct Patients

Health Center name
All

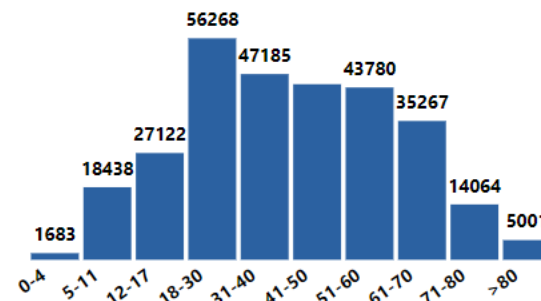
AdministeredDate
12/2/2020 9/29/2022

VaccinationType
All

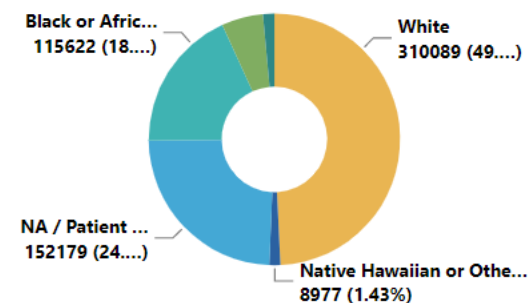
Gender Distribution



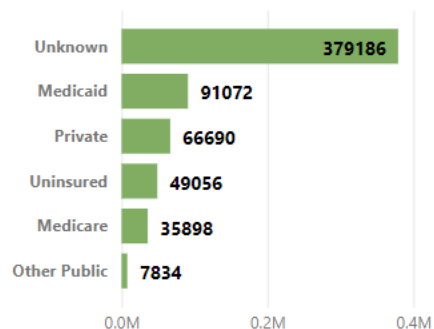
Age Distribution



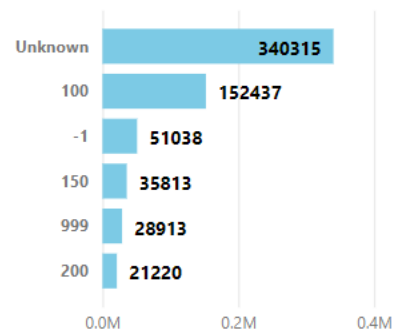
Race Distribution



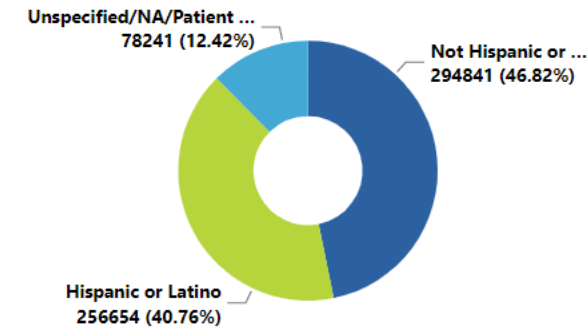
InsuranceType



PovertyLevel



Ethnicity Distribution



COVID Vaccination Equity (HRSA Reporting)

198355

Total #Shot

148858

Distinct Patients

Health Center name

All

IsVaccinated

☐ Yes

☐ No

VaccinationType

All

Race (groups)	Hispanic or Latino	Not Hispanic or Latino	Unspecified/NA/ Patient Declined/State Prohibited	Total
American Indian or Alaska Native	961	674	209	1844
Asian	251	7106	905	8262
Black or African American	1242	25938	1896	29076
NA / Patient Declined / State Prohibited / Unspecified	19738	2760	10316	32814
Native Hawaiian or Other Pacific Islander	252	1856	176	2284
White	37805	33583	3190	74578
Total	60249	71917	16692	148858

Additional Demographics Count

548	9803	575	5495
Agriculture Worker	Homeless	PublicHousing	Limited English Proficiency

COVID Vaccine Inventory

9/30/2022 11:05:25 AM

Health Center name

Last Data Refresh Time

All

12/2/2020

9/29/2022

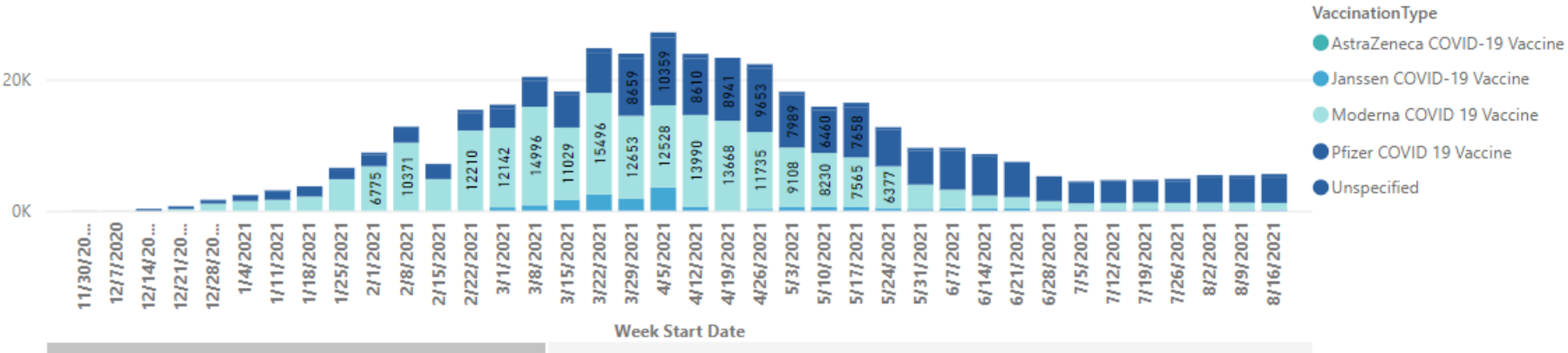
Dose Number

All

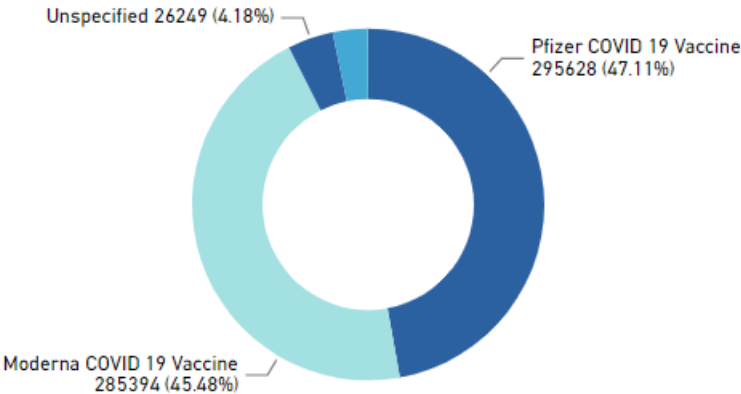
VaccinationType

All

Vaccination Count by Week



Vaccination Count/Distribution by Type



Week#, Month	Week Start Date	VaccinationType	Count
40th Week September	9/26/2022	Moderna COVID 19 Vaccine	63
40th Week September	9/26/2022	Pfizer COVID 19 Vaccine	273
40th Week September	9/26/2022	Unspecified	807
39th Week September	9/19/2022	Janssen COVID-19 Vaccine	2
39th Week September	9/19/2022	Moderna COVID 19 Vaccine	69
39th Week September	9/19/2022	Pfizer COVID 19 Vaccine	365
39th Week September	9/19/2022	Unspecified	961
40th Week September	9/19/2022	Unspecified	2
38th Week September	9/12/2022	Janssen COVID-19 Vaccine	1
38th Week September	9/12/2022	Moderna COVID 19 Vaccine	99
38th Week September	9/12/2022	Pfizer COVID 19 Vaccine	387
38th Week September	9/12/2022	Unspecified	521
39th Week September	9/12/2022	Pfizer COVID 19 Vaccine	2
Total			629736

QUESTIONS?



THANK YOU!

jskapik@nachc.com or
informatics@nachc.com



NATIONAL ASSOCIATION OF
Community Health Centers®

PLEASE VISIT US ONLINE

nachc.org