A wide-angle photograph of the Portland, Oregon skyline. On the left, the prominent orange and blue Smith Tower stands out. To the right, the green steel structure of the St. Johns Bridge is visible, with its red-painted towers. The city is situated along the Willamette River, with a green lawn and trees in the foreground. A large, white, hexagonal graphic with a dotted border is centered over the image, containing the event information.

AUG. 3-5, 2021

— AIRA 2021 —

# NATIONAL MEETING

PORTLAND, OREGON

# IIS Experiences and Perspectives on the COVID-19 Response: Provider Enrollment

**Melissa A. Mickle-Hope, MPH**

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Vaccine Management Branch Director, ICS Vaccine Section  
New York City Department of Health & Mental Hygiene

**AIRA National Meeting**

**Portland, Oregon**

**August 4, 2021**

# Overview

- COVID-19 Vaccination Program Enrollment in New York City (NYC)
- Web-based COVID-19 Vaccination Program Enrollment
  - COVID-19 Vaccination Program Application System (VPAS)
- Partnerships
- Outreach Activities
- Next Steps

# COVID-19 Vaccination Program Enrollment in New York City

- Began provider enrollment activities in the summer of 2020
- Focused on registering sites in the Citywide Immunization Registry (CIR), NYC's Immunization Information System (IIS)
  - Integrated program enrollment and vaccine ordering into CIR's Online Registry
  - Performed outreach to adult providers that may not have had experience with CIR
    - Pre-pandemic and currently, NYC Health Code and NYS law mandates reporting to CIR of vaccinations for children and adolescents <19 years – adult reporting requires consent (written or oral)
    - In response to pandemic, Governor issued emergency order mandating reporting of all flu and COVID-19 vaccinations within 24 hours, including for adults without consent (no longer in place)
- Currently, >1,870 providers are enrolled in the COVID-19 vaccination program, representing over 2,860 vaccination locations
  - 39% of the vaccination locations are new to the CIR

# Web-based Program Enrollment

# Web-based Enrollment

- Created a web-based application to capture COVID-19 vaccination program enrollment data
  - Avoided a paper enrollment process based on H1N1 lessons learned
  - Named the application: Vaccination Program Agreement System (VPAS)
    - Served as an electronic version of official CDC enrollment forms
  - Accessed by providers through the CIR Online Registry
    - Enabled us to have control over who had access to program enrollment and ordering using CIR classification criteria (e.g., only hospitals allowed to enroll in earliest phase)
- VPAS features
  - Enabled providers to share access within their facility to enrollment forms using email invitations (required 3 signatures from different people)
  - Directed healthcare networks to complete one Section A and add multiple Section Bs
  - Allowed providers to return to VPAS to update enrollment information
  - Generated automatic approval notifications



# Prioritizing Providers

- Provider enrollment/vaccine ordering strategy
  - Hospitals
  - Federally Qualified Health Centers (FQHCs)
  - Pharmacies
  - Urgent Cares
  - Private providers
    - Adult
    - Pediatric

# Managing Program Enrollment

- COVID-19 program enrollment was controlled using CIR provider classification designations
- Not all sites immediately had access to the COVID-19 vaccination enrollment section of the CIR Online Registry
- An invitation link is sent after clicking 'Start COVID-19 Vaccination Program Enrollment'

The screenshot displays the CIR Online Registry interface. At the top, a navigation bar includes links for Search, MyList, Reports, Add/Edit, Tools, Recall, Adv. Event, MM/COVID, Set Up, and Adult. Below this, a secondary menu features buttons for Vaccine Inventory Management, COVID-19 Vaccination Program (highlighted with a red arrow), Reports, Other VFC Forms, and Standing Orders Aggr. The main content area welcomes MELISSA and provides instructions for beginning the registration process for the COVID-19 Vaccination Program. It mentions that clicking the button below will send an email to "lissabkny@yahoo.com" for access to the COVID-19 Vaccine Provider Agreement System (VPAS). The interface also lists requirements for Section A (Provider Requirements and Legal Agreement) and Section B (Provider Profile Information). At the bottom, a red circle highlights the "Start COVID-19 Vaccination Program Enrollment" button.

Online Registry

Search MyList Reports Add/Edit Tools Recall Adv. Event MM/COVID Set Up Adult

Vaccine Inventory Management COVID-19 Vaccination Program Reports Other VFC Forms Standing Orders Aggr

Welcome MELISSA.

Please click the button below to begin the registration process for the COVID-19 Vaccination Program. Upon clicking the button below, an email will be sent to "lissabkny@yahoo.com", which is associated with your Online Registry login, providing you with access to the COVID-19 Vaccine Provider Agreement System (VPAS).

Once you enter the VPAS, you will be able to complete the required COVID-19 Vaccination Program Provider Agreement.

**Section A. Provider Requirements and Legal Agreement**  
This section must be completed one time per network. You will be able to view and enter data into this section and will be able to add collaborators to complete this section. This section will require electronic signatures of the following individuals:

- Chief Medical Officer
- Chief Executive Officer or Chief Fiduciary Officer

**Section B. Provider Profile Information:**  
One Section B should be completed for each vaccination site associated with your network. You will be able to view and enter data into this section and will be able to add collaborators to complete this section. This section will require the electronic signature of the following individual:

- Medical or pharmacy director or the vaccination site's designated COVID-19 vaccination coordinator

Please note that you will be able to save any incomplete information and return to it at a later time. After completing the Provider Agreement, you will be able to add additional vaccination sites (Section B. Provider Profile Information) as needed.

Start COVID-19 Vaccination Program Enrollment



# Vaccine Program Agreement System (VPAS)

Legal Agreement for CIR Testing Staff

Section A

Print

Share

[DASHBOARD](#) > [FORMS](#) > [LEGAL AGREEMENT FOR CIR TESTING STAFF](#)

## Working towards Submission

Once your organization has completed this form, you may submit it for review by the awardee that invited you to participate in this program. If additional information is required from your organization, an email will be sent with details to all collaborators on this form.

Submit for Review

Organization Information >

Responsible Officers >

Agreement Requirements & Signatures >

Additional Questions from NYC DOHMH >

CENTERS FOR DISEASE CONTROL AND PREVENTION  
COVID-19 Vaccination Program Application

M mmickie@health.nyc.gov

Profile for 0101x01

Section B

Print

Share

[DASHBOARD](#) > [FORMS](#) > [PROFILE FOR 0101X01](#)

## Ready to Submit?

Once your organization has completed this form, you may submit it for review by the awardee that invited you to participate in this program. If additional information is required from your organization, an email will be sent with details to all collaborators on this form.

Submit for Review

Location Details >

Location Demographics & Supplemental Information >

Facility Storage Capabilities >

Providers Practicing at this Facility >

Additional Questions from NYC DOHMH >



# COVID-19 Vaccination Program Application Approval



## COVID-19 Vaccination Program Application

Dear Provider,

Thank you for your recent enrollment of your network and individual facilities in the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) COVID-19 Vaccination Program. Your enrollment application (Section B) has been approved for Facility Code 1555Z01. Your PIN for the COVID-19 Vaccination Program is BAACV9999.

To place your COVID-19 vaccine order, log into the [CIR Online Registry](#) ONE HOUR after receiving this email. Be sure to use the Online Registry User ID that is associated with the CIR Online Registry Facility Code noted on this approved COVID-19 enrollment application. Please order enough vaccine to cover your healthcare personnel and patients when pre-booking COVID-19 vaccine. Partial vaccine shipments will be sent incrementally as vaccine becomes available.

Along with prebooking COVID-19 vaccine your site will need for health care personnel and eligible patients and community members, you will now be asked to submit a partial order for the number of COVID-19 vaccines your facility is able to administer in one week. Going forward, place an order by Monday at 12pm to receive vaccine for the following week. If you did not receive vaccine for the current week, your request will rollover to the next week and you will not need to re-enter an order. After receiving vaccines, you are required to submit and reconcile your first and second dose on-hand COVID-19 vaccine inventory by lot number. Please see the attached guidance for ordering and managing inventory in the VIM.

Even though you may place a COVID-19 vaccine order, vaccine distribution will be based on priority groups put forth by the New York State Department of Health and it may take several weeks before your practice receives vaccine.

In addition, it is required that you report COVID-19 vaccinations to the Citywide Immunization Registry (CIR) within 24 hours of administration. You may report in one of 3 ways:

1. The preferred option is via direct connection from your electronic health record (EHR). You can connect your EHR directly to the CIR and report in real time as you are vaccinating. To achieve this, you will need to place a ticket with your EHR vendor to install an immunization interface with the CIR. The EHR vendor will need to reach out to us at [cir\\_interop@health.nyc.gov](mailto:cir_interop@health.nyc.gov) to set up and test the interface before you can report your vaccinations. You must also complete the [Healthcare Provider Confidentiality Agreement](#) and email it to [cir\\_interop@health.nyc.gov](mailto:cir_interop@health.nyc.gov) or fax it to (347) 396-2559.
2. Through the [Online Registry \(OR\)](#), the CIR's web-based application. You already obtained access to the [OR](#) in order to sign the COVID-19 Vaccine Provider Agreement and to order COVID-19 vaccine. You can log into the [OR](#) and report COVID-19 vaccinations, one by one.
3. **Via a flat file.** If you have a programmer on site, they can compile a file from your electronic system and send it to us through a secure website. Please email [rkabin@health.nyc.gov](mailto:rkabin@health.nyc.gov) for more information.

Thank you for your cooperation,

Bureau of Immunization  
New York City Department of Health and Mental Hygiene



# Partnerships

# Internal Partnerships (1)

- Vaccine Command Center
  - Managed by City Hall
    - Coordination of large-scale clinics
    - Deployment of community vaccinators to administer COVID-19 vaccine
  - Worked with local government officials to enroll and train providers
  - Held weekly calls with elected officials
- NYC Health Department Bureau of Equitable Health Systems (BEHS)
  - Matched Medicare provider lists
    - Identified and prioritized providers with a large number of older patients and providers with a large number of unvaccinated patients at high-risk for severe COVID infection
    - Performed outreach to providers to help them enroll

# Internal Partnerships (2)

- NYC Health Department, Center for Health Equity and Community Wellness
  - Prioritized Taskforce on Racial Inclusion & Equity (TRIE) neighborhoods
    - Neighborhoods heavily impacted by COVID-19 infection
- NYC Health Department, Integrated Data Team
  - Tracked enrollment and vaccine administration numbers using virtual dashboards



# Provider Enrollment Tracking

Summary, by facility type												
Summary, by facility type												
Facility Type (group)	Facility Type	N, facilities	CDC Deliveries	NYC Deliveries	Delivered Doses	Net transfer, all doses	Administered Doses	Dose 1 Administered	Dose 2 Administered	Single Dose Administered	% Doses Administered	% Single Dose Administered
Hospitals	Hospital, H+H	44									103%	42%
	Hospital, other than H+H	361									99%	56%
Vaccination Hubs	AP	1									88%	87%
	FDNY	1									69%	0%
	NYC Pharmacy	156									132%	495%
	NYPD	1									92%	3%
	VNS	1									105%	
	City Mass Vaccination Site	22									117%	794%
	Federal Site	2										
	Homebound Program	14									83%	80%
	NYS Site	3									92%	158%
Chain Pharmacy	Chain Pharmacy, Costco	5									84%	77%
	Chain Pharmacy, CVS	167									79%	66%
	Chain Pharmacy, Rite Aid	110									82%	78%
	Chain Pharmacy, ShopRite	1									56%	103%
	Chain Pharmacy, Stop & Shop	14									66%	79%
	Chain Pharmacy, Walgreens	240									90%	86%
FQHC	FQHC	174									109%	116%
	FQHC Expansion Site	18									81%	85%
	HRSA (Federally-run FQHC pro..	50									80%	48%
Urgent Care	Urgent Care	126									89%	44%
Private or Other Specialty Provider	Other	152									85%	96%
	Other, LTCF	4									493%	56%
	Private Provider	1,041									78%	48%
Indeopendant Pharmacy	Other Independent Pharmacies	187									92%	79%

## Vaccinations by ZIP Code

These data show the percent of NYC residents who received at least one dose of COVID-19 vaccine, and the percent who are fully vaccinated by, Modified ZIP Code Tabulation Areas (MODZCTAs). MODZCTAs can provide better estimates of population size than ZIP codes because they combine census blocks that have smaller populations.

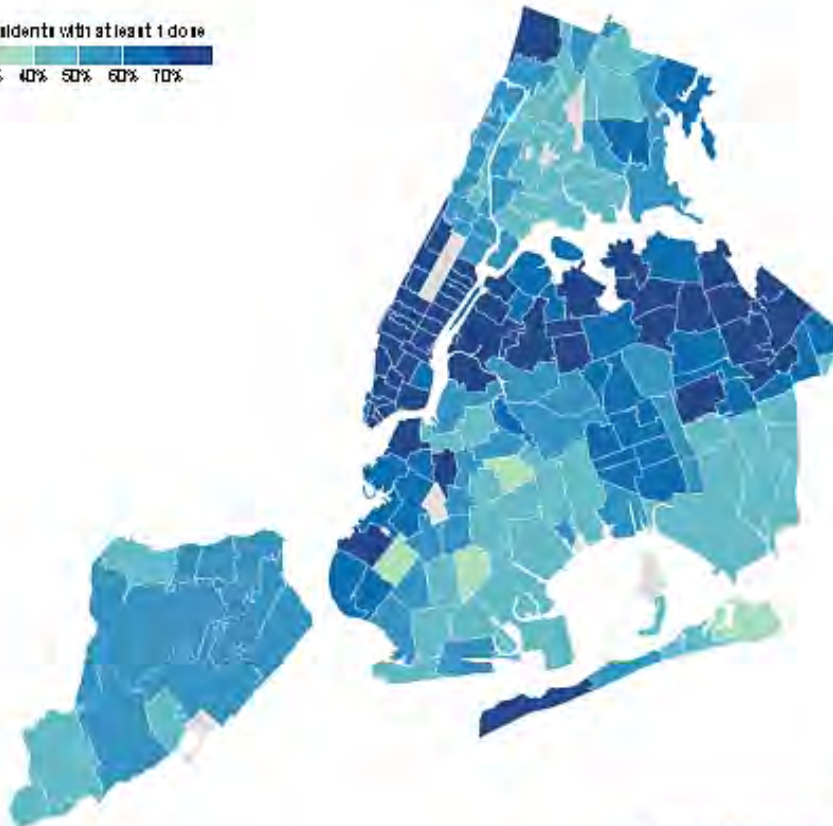
Map Table

At least 1 dose: ☒ All ages ☐ Adults

Fully vaccinated: ☐ All ages ☐ Adults

NYC residents with at least 1 dose

30% 40% 50% 60% 70%



About the data for this map. Get the data.

# Vaccine Administration Tracking

- Identify low vaccine coverage ZIP codes
  - Conduct enhanced outreach to providers
  - Provide additional resources
- [www1.nyc.gov/site/doh/covid/covid-19-data-vaccines.page#byzip](http://www1.nyc.gov/site/doh/covid/covid-19-data-vaccines.page#byzip)

# External Partnerships

- Used external partnerships to enroll and train providers in the COVID-19 vaccination program
  - Hospital Associations
  - FQHCs
  - Hospital networks
  - Community organizations
  - Medical Associations
- Distributed guidance materials and performed multiple webinars
  - Program enrollment
  - Vaccine administration
  - Vaccine storage and handling

# New Types of Providers

- Worked with city government and community partners to enroll new types of vaccinators
  - In-home vaccinators
  - Community vaccinators
  - Mobile vaccinators
  - Mass vaccinators
- Held weekly office hours to further educate new providers
  - Vaccine management
  - Clinical operations
  - IIS reporting
  - Vaccine ordering

# Provider Outreach Activities



# Provider Enrollment Outreach Summary (1)

- Over 40 webinars conducted
  - Provider enrollment
  - Vaccine ordering
  - Vaccine management
  - Clinical operations
- Phone outreach
  - Vaccine ordering support
  - Outreach to unenrolled pediatric providers
  - Vaccine redistribution
- Created two email boxes to capture questions about enrollment and ordering

# Provider Enrollment Outreach Summary (2)

- Created an 'Independent Provider Workplan' to track outreach activities being performed
- Administered surveys
  - Readiness to vaccinate
    - Ensured providers had systems in place to begin vaccine administration
  - Barriers to program enrollment and vaccine ordering
- Provider detailing project
  - NYC Health Department staff visiting sites in priority ZIP codes with COVID-19 enrollment information and COVID-19 vaccine educational materials

# Challenge: Engaging Pediatric Providers (1)

- Currently, only ~52% of NYC Vaccines for Children (VFC) providers are enrolled in the COVID-19 vaccination program
  - Held COVID-19 vaccine webinars and Q&A sessions for VFC providers
- Encouraged COVID-19 enrollment and sent email blast to all pediatric providers
- Surveyed pediatric providers registered in CIR to assess barriers
  - Conducted targeted outreach based on survey responses

# Challenge: Engaging Pediatric Providers (2)

- Contacted sites vaccinating pediatric patients but not enrolled in the COVID-19 vaccination program to answer outstanding questions and help them enroll
- Created a '**Youth Vaccination Task Force**' in order to boost youth vaccinations across the city.
  - City agencies worked together to set priorities and goals of the taskforce

# Next Steps

- Focus on ongoing education of pediatric providers to dispel misinformation and continue working with pediatric clinical networks to encourage engagement of youth and families
  - Back to school campaign for COVID-19 vaccine
  - Link to increasing pediatric vaccination with back-to-school immunization requirements
- Monitor number of pediatric providers enrolled and receiving COVID-19 vaccine
  - Increase pediatric care providers receiving COVID-19 vaccine allocation across the city



# THANK YOU!

- Georgia Elysee, MPH
- Arianne Ramautar, MPH
- Dr. Amy Metroka
- Dr. Jane Zucker
- Vaccine Operations Center (VOC) Team

# IIS Experiences and Perspectives on the COVID-19 Response

Scheduling for Mass Vaccination  
Funding Challenges/Sustainability

# Agenda

- Vaccination Prioritization
- Central Registration System
- Vaccine Management
- Patient Experience
- Data Quality
- Vaccine Administration Billing
- Funding

# Vaccine Prioritization

Healthcare  
providers

- Long term care staff

First responders

Age based  
criteria

Special  
healthcare needs

General  
population

College students

School based  
vaccination



Novel Coronavirus (COVID-19)

Indiana COVID-19  
Dashboard and  
Map

Testing  
Information

Find a Vaccination  
Site

Public Resources

Professional  
Resources



SEARCH

Gov. Eric J. Holcomb

# Vaccine Information and Planning

Novel Coronavirus (COVID-19) > Vaccine Information and Planning



[Click here to find a vaccination site and register](#)



Latest Vaccine  
News and  
Resources



Vaccine Dashboard



Vaccine Provider  
Resources



Frequently Asked  
Questions



Ask Barb the Bot

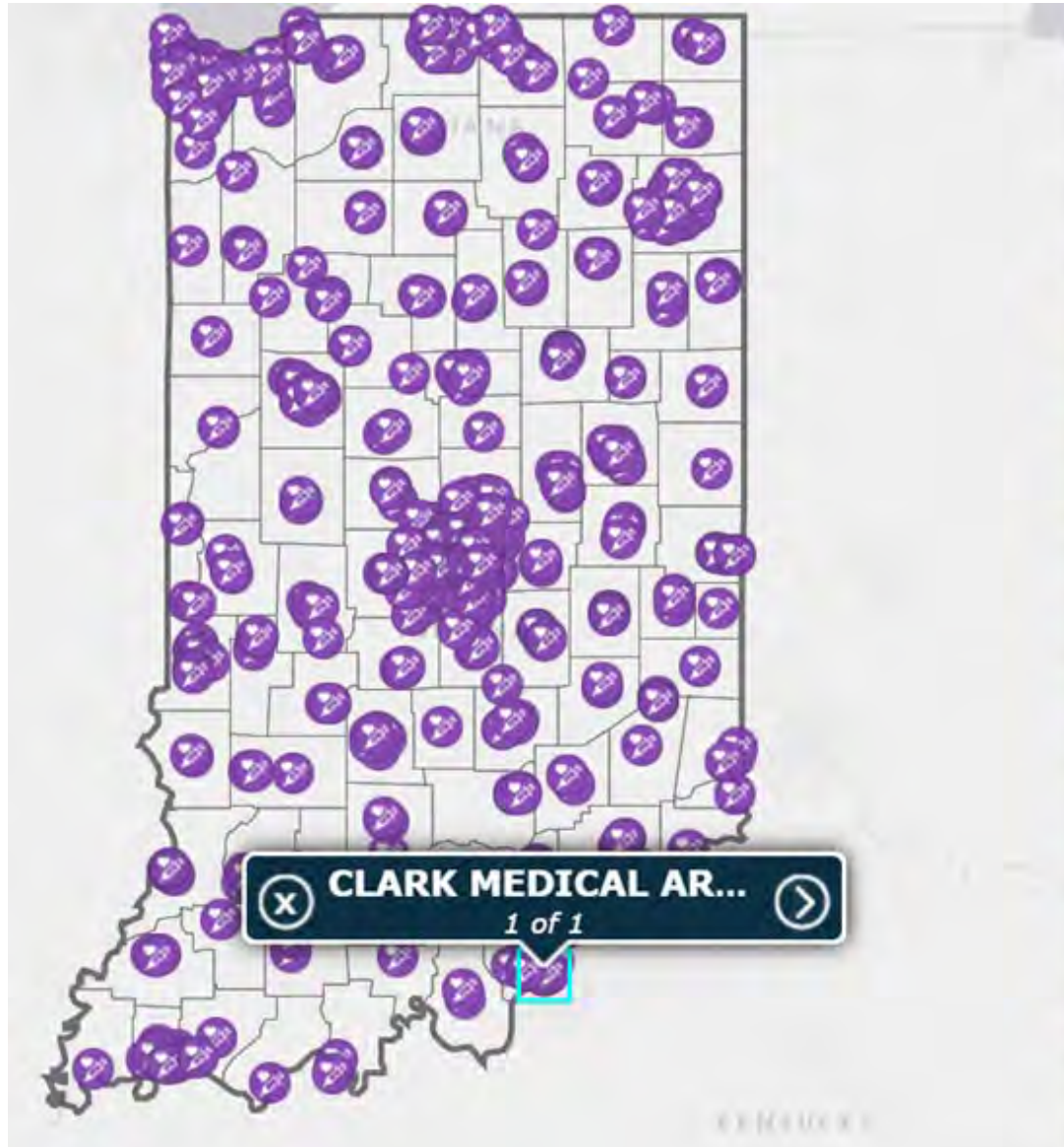
www.ourshot.in.gov



# Central Registration System



- Registered providers with clinic hours, days of operation and vaccine type
- Interactive map for citizens to see the options by county
- Added a category for high volume vaccination sites
- State and federal partners



List of Vaccine Sites by County

Carroll	3	<div></div>
Cass	3	<div></div>
Clark	10	<div></div>
<div> <div></div> <div>CLARK CO HD COVID VAX</div> </div>		
<div> <div></div> <div>CLARK MEDICAL ARTS BUILDING VAX</div> </div>		
<div> <div></div> <div>Family Health Ctrs. Of Southern Indiana VAX</div> </div>		
<div> <div></div> <div>Kroger Pharmacy - County Road 403</div> </div>		
<div> <div></div> <div>Kroger Pharmacy - E Lewis</div> </div>		
<div> <div></div> <div>Kroger Pharmacy - Jeffersonville Commons</div> </div>		
<div> <div></div> <div>LIFESPRING COM MED SHARON DR VAX</div> </div>		
<div> <div></div> <div>Walmart Pharmacy - Veterans Pkwy VAX</div> </div>		
<div> <div></div> <div>Westmoreland Pharmacy - Jeffersonville VAX</div> </div>		
<div> <div></div> <div>Westmoreland Pharmacy - Sellersburg VAX</div> </div>		
Clay	3	<div></div>
Clinton	2	<div></div>

# Vaccine Management

- Limited number of vaccines
  - Population based allocation
- Phased in approach
  - Hospitals
  - Local Health Departments
  - FQHCs
  - Pharmacies
  - Primary Care
- Appointment schedules built for every location
  - appointments matched vaccine allocation by site
- First dose and second dose appointments



## Location Vaccine View

Last Refresh Date:  
4/12/2021 9:11:54 AM

Select Location(s)

(All)

### Current Inventory

995,568

439,299 - Moderna

320,130 - Pfizer

236,139 - Janssen

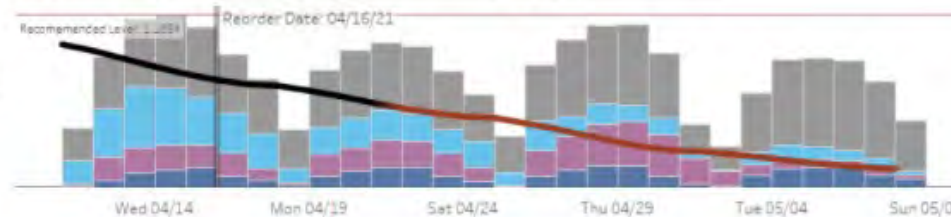
### Inventory Projection

Projection Start Date

4/11/2021

Projection End Date

5/8/2021



Upcoming Slots - Open

Upcoming Slots - Filled 1st Appts

Scheduled 2nd Appts - Pfizer

Scheduled 2nd Appts - Moderna

Start Date

4/12/2021

End Date

4/12/2021

Showing data for 4/12/2021

### Total Appointments

43,163

60.3% of your available  
appointments are filled



### Completed Appointments

146

0.3% of your scheduled  
appointments are completed



### By Hour

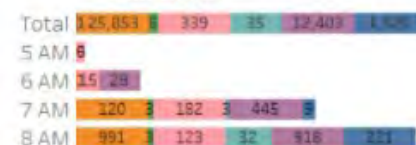
2nd Dose Janssen COVID-19 Vaccine

1st Dose Unadministered

Janssen COVID-19 Vaccine

1st Dose Pfizer COVID-19 Vaccine

#### Total Appts



#### Open Appts (%)

28,472 (39.7%)  
18 (75.0%)  
162 (78.6%)  
663 (46.5%)  
2,179 (48.8%)

#### Completed Appts %

995 (2.3%)  
6 (100.0%)  
42 (95.5%)  
555 (72.8%)  
368 (16.1%)





## Location Daily Throughput View

Last Refresh Date:  
4/12/2021 11:11:54 AM

Location  
Multiple Values

Start Date

4/12/2021

End Date

4/26/2021

Showing data from 4/12/2021 to 4/26/2021

0%

< 90%

< 75%

>= 90%

County	Loc..	Location	Locatio..	SIIS ID	VFC PIN	Appointment Date	Total Appt Slots	Original Slots	Overbooked Slots	Overbooked %	Filled Appts	Open Appts	Filled %	1st Appts	2nd Appts - Pfizer	2nd Appts - Moderna	
MARION	SDH1496	Indy Motor Speedway Gate2 JVAX	Public	SIISCLIENT135429	LAB001	4/13/2021	6,006	6,000	6	0.10%	6,004	2	100%	5,995	6	3	●
						4/14/2021	6,004	6,002	2	0.03%	6,004	0	100%	6,002	2	0	●
						4/15/2021	6,001	5,996	5	0.08%	6,001	0	100%	5,999	2	0	●
						4/16/2021	6,003	5,999	4	0.07%	6,003	0	100%	5,999	2	2	●
						4/17/2021	6,000	5,995	5	0.08%	5,996	4	100%	5,991	4	1	●
						4/18/2021	6,005	6,003	2	0.03%	6,003	2	100%	6,002	0	1	●
						4/24/2021	6,099	5,607	492	8.07%	6,096	3	100%	5,605	490	1	●
						4/25/2021	6,001	6,001	0	0.00%	5,984	17	100%	5,981	1	1	●
						4/26/2021	6,000	6,000	0	0.00%	5,999	11	100%	5,985	3	0	●
SDH958	IU METHODIST NEUROSCIENCE BLDG PVAX	Public	SIISCLIENT135109	H49K01		4/12/2021	812	796	16	1.97%	812	0	100%	170	642	0	●
						4/13/2021	411	380	31	7.54%	411	0	100%	12	399	0	●
						4/14/2021	383	362	21	5.48%	383	0	100%	11	372	0	●
						4/15/2021	384	378	6	1.56%	384	0	100%	7	377	0	●

☰ Thursday, Mar 04, 2021



Phone (123-456-7890), first name, last name, or DOB (mm/dd/yyyy)



Schedule Appointment

Zotec Smoke Test Vaccine Location

Time	First Name	Last Name	DOB	Service	Appointment Type	Status	
8:50 AM	ZoLocadivya	Test	01/01/2000	Immunizations	COVID VACCIN...	Checked Out	>
10:50 AM	Paul	Test	01/01/1980	Immunizations	COVID VACCIN...	Cancelled	>
12:50 PM	New	Test	08/15/2014	Immunizations	COVID VACCIN...	Checked Out	>
1:20 PM	Test	Test 3 4 2021	01/01/2013	Immunizations	COVID VACCIN...	Rescheduled	>
1:30 PM	Test	Test 3 4 2021	01/01/2013	Immunizations	COVID VACCIN...	Cancelled	>

# Patient Experience

- Web-based system so patients could complete all information prior to appointment
- Call center for individuals that did not have access to web services
- Make an appointment, change or cancel an appointment on-line
- Complete all necessary demographic, insurance and medical history information
- Text or email reminders
- V-Safe and VAERS information sent after each appointment





## 2. RAPHAEL HLTHCTR INDPLS 34THST MVAX 4.0 mi

**This vaccine site has Moderna only**

401 E 34TH ST  
INDIANAPOLIS, IN 46205

[Schedule an Appointment](#)

## 3. IU HEALTH RILEY HOSPITAL PVAX 5.0 mi

**Pfizer only, bring proof of eligibility**

575 RILEY HOSPITAL DR  
INDIANAPOLIS, IN 46202

[Schedule an Appointment](#)




# Attestation/Consent

## Indiana COVID-19 Vaccine Program

Certain at-risk Indiana residents are now eligible to get the coronavirus vaccine.

Select the group you belong to:

- ☐ **Healthcare Worker**  
Healthcare worker who has face-to-face interactions with patients or contact with infectious material.
- ☐ **First Responder**  
Firefighter, police officer or sheriff's deputy, EMS, reservist, or correctional officer who is regularly called to the scene of an emergency to give medical aid.
- ☐ **Educators**  
Teachers and staff in pre K-12 schools, childcare centers and Head Start and Early Head Start Programs; licensed childcare providers, including center-based and family care providers; classroom aides; bus drivers; janitors; counselors; administration staff; cafeteria workers; and substitute teachers
- ☐ **People 40 years or older**

☒ 1/1/1900 

☐ None of these apply to me

### Eligibility Attestation

- ☒ I certify that I am 40 years of age or older (proof of age required) OR an eligible healthcare worker, first responder or educator as described above (proof of eligibility required for all who are eligible based on employment). I am an Indiana resident (proof of residency required at appointment).

[Schedule an Appointment](#)

Consenting Party Name

Emergency Contact Phone

Relationship to Patient

Patient

This Patient is under the age of 18 and cannot sign consents.

## PATIENT CONSENT FOR COVID-19 VACCINATION

[View Consent Text](#)

Accepted

Declined

## Notice of Privacy Practices

[View Consent Text](#)

Acknowledged

Declined

Cancel

Save

# Data Quality



- New data elements that had to be collected
- Self reported demographics
- IIS connection
- Additional resources
- Daily dashboards

## Additional Demographics

**What is the patient's preferred language?**

- ☒ English
- ☐ Spanish
- ☐ Prefer not to say
- ☐ Other

**What is the patient's preferred ethnicity?**

- ☒ Hispanic or Latino/Spanish
- ☐ Not Hispanic or Latino
- ☐ Prefer not to say

If appropriate, you may optionally select a more specific ethnic subgroup

Puerto Rican

**What is the patient's preferred race?**

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☒ White
- ☐ Multiracial
- ☐ Prefer not to say

# Race/Ethnicity

---

- 95.5% of patients reported a race category
- 93.2% of patients reported an ethnicity category

# Vaccine Administration Billing



- Hospital EMRs
- Local Health Department capacity
- Centralized process
- Opt out
- Long term solution



# Funding

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- Sustainability
- Political will
- Public expectations





# North Dakota IIS Experiences and Perspectives

**Mary Woinarowicz, MA**  
***AIRA 2021***



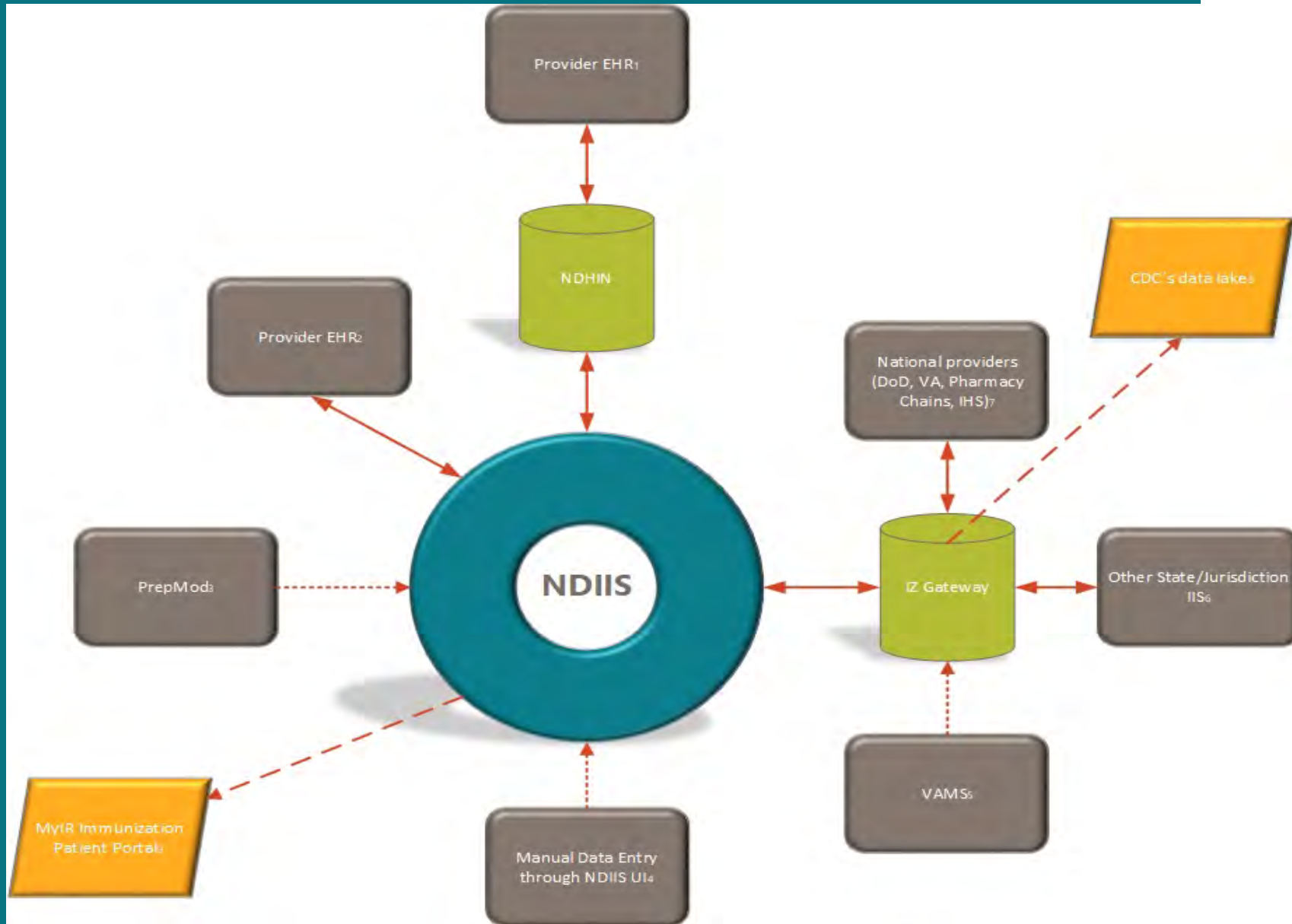
Managing  
increased volume



# PRE-PANDEMIC VOLUME

- Interface reporting
  - VXU messages received during Q1 2019 = 375,679 (*12,500 per month*)
  - QBP messages received during Q1 2019 = 1,339,710 (*446,237 per month*)
- Provider sites
  - 184 VFC provider sites receiving publicly funded vaccine
  - 484 non-VFC provider sites
- # client records (2019): 1.29 million
- # dose records (2019): 14.5 million

# VACCINE ADMINISTRATION



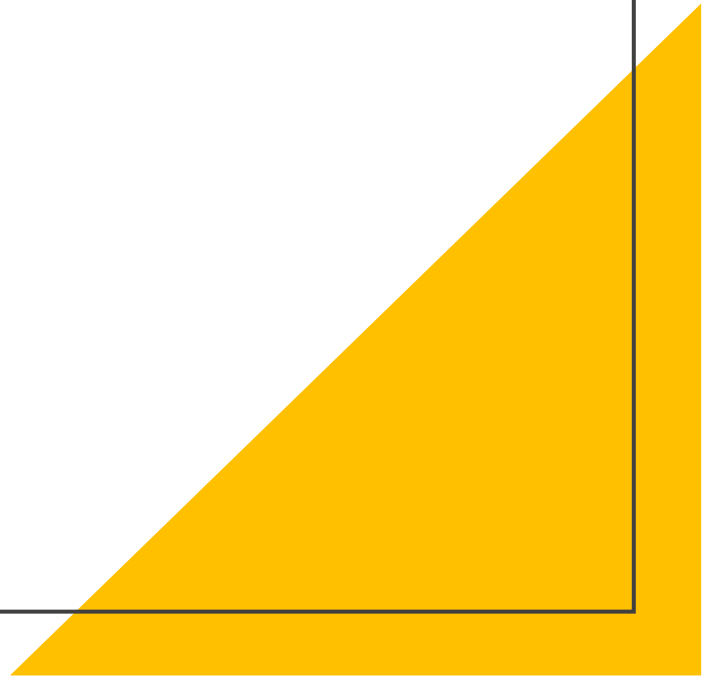
# PANDEMIC VACCINE PLANNING

- What we have in place
  - Changed the hosting environment for NDIIS database to virtual servers allowing us to quickly and easily scale up or down as needed
- What we have in progress
  - In 2020, development team was completing end-of-life replacement of messaging engine servers
    - Completed project in October of 2020

# PANDEMIC VOLUME

- Interface reporting
  - VXU messages received during Q1 2021 = 732,761 (*244,254 per month*)  
**95% increase**
  - QBP messages received during Q1 2021 = 1,596,912 (*532,304 per month*)  
**19% increase**
- Provider sites
  - 420 COVID enrolled providers receiving publicly funded vaccine
  - 499 non-VFC provider sites
- # client records (2021): 1.39 million **10% increase**
- # dose records (2021): 17 million **14% increase**

# Vaccine Redistribution



# ROUTINE ORDERING

- VFC-enrolled providers place their vaccine orders directly in the IIS ordering module
  - Must order in package quantity increments
  - Orders are approved by immunization program staff and uploaded to VTrckS
  - Shipping file data is loaded back into the IIS to populate inventory and shipment tracking information for the provider
  - Providers can track orders and shipping information



# INFLUENZA ALLOCATIONS

- Providers pre-book the amount of vaccine they think they will need
- When ND receives allocations of vaccine during flu season, determine how many doses of each presentation providers will get based on pre-book and how much vaccine we receive
- Upload an allocation file into the NDIIS that auto-generates the individual provider orders and approves them
- Orders are uploaded to VTrckS and an automated email is triggered to the provider letting the know an order was placed
- Shipping file data is loaded back into the IIS to populate inventory and shipment tracking information for the provider

# CHALLENGE WITH COVID VACCINE

- Limited doses allocated each week means providers cannot place their own orders
- Large minimum package quantities means smaller providers could not receive direct shipments of vaccine
- Doses would have to be ordered for storage at and redistribution by the NDDoH warehouse
  - Shipping information would apply to warehouse and not individual provider site
  - Redistributed vaccine would need to be shipped to a lot of different sites across the state in a short amount of time

# NORTH DAKOTA



- North Dakota is approximately 70,762 square miles
- Total population of approximately 762,062 people (2019 Census)



- Indiana is approximately 36,418 square miles
- Total population of approximately 6.7 million people (2019 Census)

# VACCINE REDISTRIBUTION

- Emergency Preparedness warehouse purchased transport storage units, additional primary storage units, and transport thermometers to be able to safely redistribute large amounts of vaccine
- Almost all COVID vaccine was ordered centrally through the immunization program for delivery to the warehouse
- Warehouse staff mapped out courier routes after getting the list of provider sites being allocated vaccine from the immunization program
  - After route was mapped, notified each individual provider site about upcoming delivery and when to expect vaccine

# REDISTRIBUTION CONTINUED

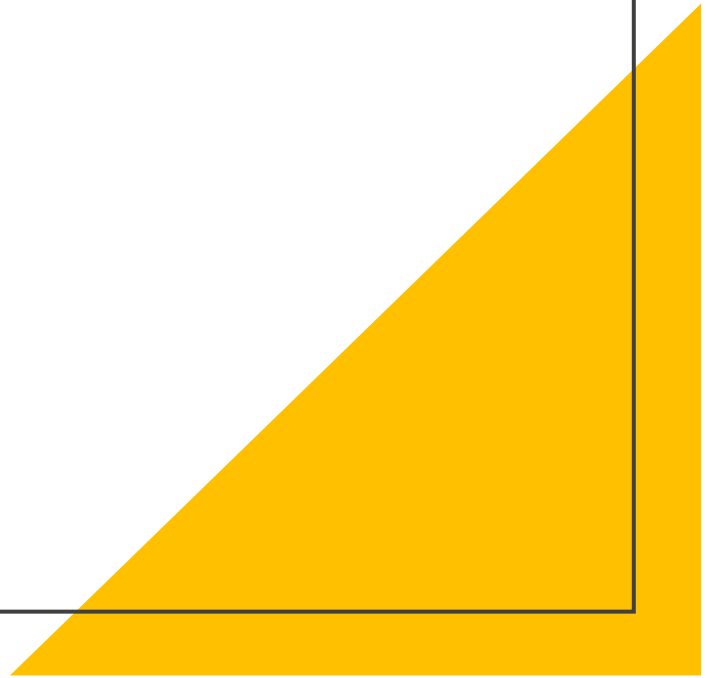
- Warehouse entered vaccine deliveries, including lot number, into their tracking system
- Sent list of deliveries with provider ID and lot number back to immunization program
- Initially, immunization program staff manually entered lots into each provider's IIS vaccine inventory and sent email notifications to providers
  - Very time consuming
  - Needed to do this early in the morning or late at night when the inventory management module in the IIS was not under heavy user load



# REDISTRIBUTION CONTINUED

- Used our automated allocation ordering process (used for flu vaccine allocations) to generate individual provider orders in the IIS.
  - Allowed providers the ability to see what vaccine they were getting and how many doses were coming
  - Immunization program staff could use the order file generated from the IIS module to create a fake shipping file
- Wrote SAS code to create a file formatted to look like the VTrckS shipping file that would load vaccine into provider inventory in the IIS

# Trial Vaccines



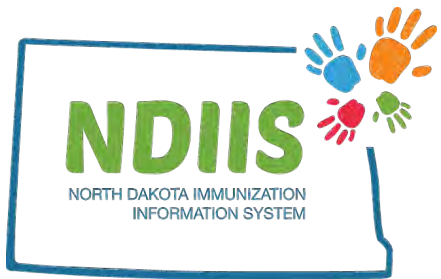


# ENTERING TRIAL VACCINES

- ND has one medical research facility that has been participating in the Pfizer vaccine trials
- Early on, when initial vaccine trial data was un-blinded, the research facility had ND residents that they knew received the authorized Pfizer vaccine
- Wanted to document these trial doses in the IIS to show the participants were fully vaccinated

# SOLUTION

- If someone is able to provide documentation from their vaccine trial participation that shows:
  - they received an FDA authorized vaccine, not the placebo
  - and, they received the authorized dose of the vaccine
- The provider can enter the dose in the IIS as historical
  - Historical dose designation excludes the dose from being reported to the CDC clearinghouse
  - Allows the trial participant to have their vaccination series included with their vaccination record



# THANK YOU



Mary Woinarowicz: [mary.woinarowicz@nd.gov](mailto:mary.woinarowicz@nd.gov)

Immunization Program website: <https://www.health.nd.gov/immunize>

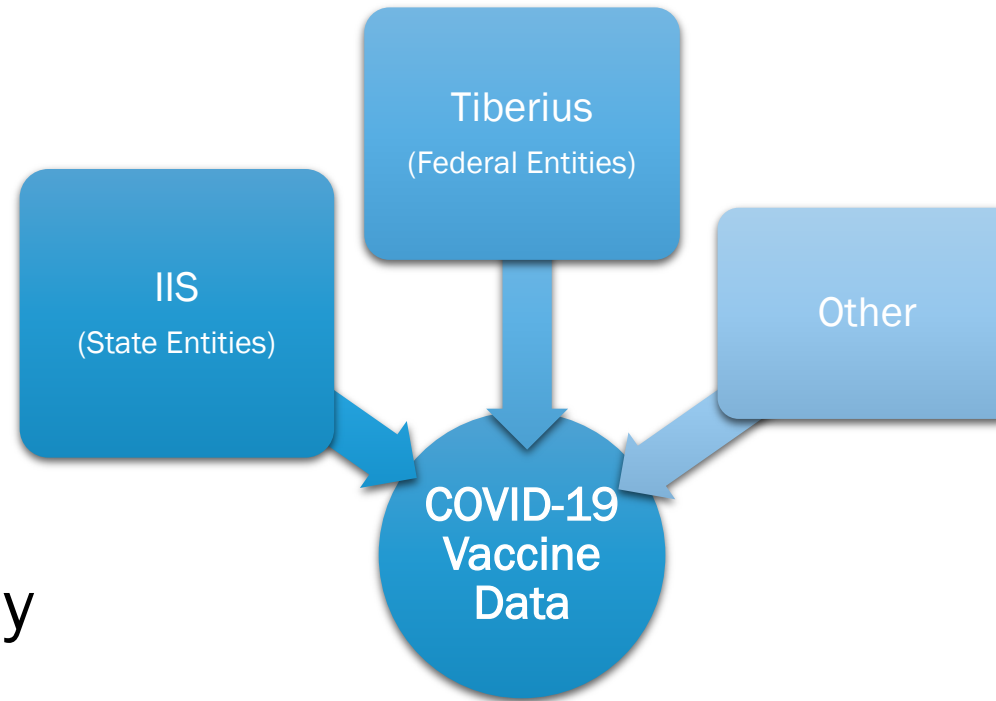
# IIS Experiences and Perspectives on the COVID- Response: Data

Kathryn (Katie) Cruz  
NMSIIS Manager



# COVID-19 Data Challenges

- ❑ Multiple sources for data reporting
- ❑ Lack of transparency for federal data
- ❑ Urgent data requests
- ❑ Increased scrutiny





# CDC Clearinghouse Reporting



- ☐ Daily manual uploads to CDC Clearinghouse
- ☐ Upcoming edit/delete functionality
- ☐ Potential for API Connection
- ☐ Onboarding providers to VaccineFinder

# Managing Data Requests

- ☐ Daily Report/Public dashboard
- ☐ Ad-hoc requests/IPRAs
- ☐ Demand for immediate changes
- ☐ Very large data sets
- ☐ Leadership not familiar with data constraints
- ☐ Lack of existing infrastructure





# Data Quality: Balancing Immediate and Accurate

## CHALLENGES

- Disconnect in Communication
- Immediate Data Requests
- Increased Scrutiny
- Coverage Goals

## SOLUTIONS

- Developing Data Team
- Anticipating Requests
- Establishing data request process

# Public Reporting

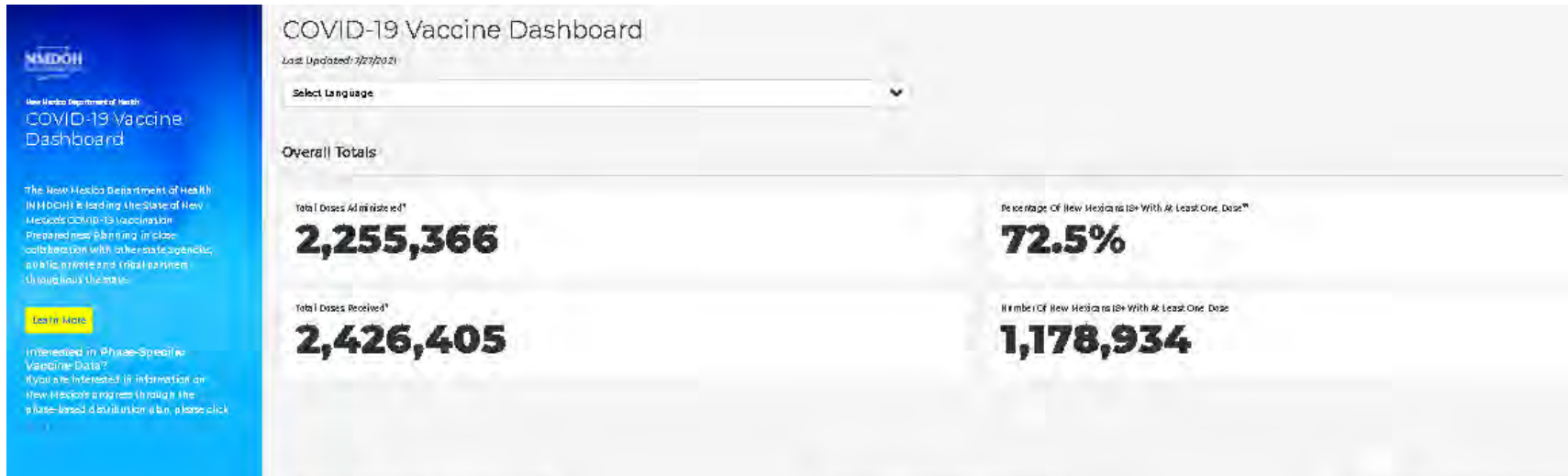


- ☐ Internal vs external
- ☐ Increase of scrutiny and demand
- ☐ Helps identify potential errors in data
- ☐ Constant requests for changes in data presentation
- ☐ Difficulty in presenting data visually
- ☐ JIC – public communication on data

<b>Total Doses Delivered to NM</b>					
Jurisdiction + Pharmacy	2,088,355				
al	338,050				
<b>Doses Administered in NM with State Doses (NMSIIS)</b>		<b>Total Doses Administered in NM with Federal Doses (Tiberius)</b>		<b>Total Doses Administered in NM</b>	
lative Doses Administered	1964903	Cumulative Doses Administered	290,463	Cumulative Doses Administered	
s Administered in Last 7 Days	14900				
ge Daily Doses Administered in Days	2128.6				
<b>New Mexicans Vaccinated with State Doses (16 and over includes Out of State - NMSIIS)</b>		<b>New Mexicans Vaccinated with Federal Doses and Out of State Doses (Tiberius)</b>		<b>New Mexicans Vaccinated from Either</b>	
	<b>Count</b>	<b>Status</b>	<b>Count</b>	<b>Status</b>	
ist one vaccine	994709	At least one vaccine	184,225	At least one vaccine	
vaccinated	902581	Fully vaccinated	145,122	Fully vaccinated	
<b>Percentage of New Mexicans Receiving Vaccine from State (16 and over - NMSIIS, excludes individuals living out of</b>		<b>Percentage of New Mexicans Receiving Vaccine from Federal</b>		<b>Percentage of New Mexicans Receiving</b>	

## Internal Reporting Example

<b>New Mexicans Vaccinated with State Doses (12 to 17, excludes Out of State - NMSIIS)</b>		<b>New Mexicans Vaccinated with Federal Doses (12 to 17, excludes Out of State - NMSIIS)</b>		<b>New Mexicans Vaccinated from Either</b>	
	<b>Count</b>	<b>Status</b>	<b>Count</b>	<b>Status</b>	
ist one vaccine	62765	At least one vaccine	15,637	At least one vaccine	
vaccinated	50232	Fully vaccinated	12,363	Fully vaccinated	
<b>Percentage of New Mexicans Receiving Vaccine from State (12 to 17 - NMSIIS, excludes individuals living out of</b>		<b>Percentage of New Mexicans Receiving Vaccine from State Doses (12 to 17 - NMSIIS, excludes individuals living out of</b>		<b>Percentage of New Mexicans Receiving Source (12 to 17)</b>	
iving at least one vaccine	37.6%	Receiving at least one vaccine	9.4%	Receiving at least one vaccine	
vaccinated	30.1%	Fully vaccinated	7.4%	Fully vaccinated	
<b>Vaccinations in New Mexico by Race/Ethnicity Group (NMSIIS, excludes doses to individuals living out of state)</b>					
<b>Ethnicity Group</b>	<b>Cumulative Doses (all phases)</b>	<b>Population Total (12 and over)</b>	<b>Doses per 100 Population</b>	<b>People receiving at least one vaccine</b>	<b>Percent of Population Receiving at Least Vaccine Fully vaccinated</b>
can Indian or Alaska Native	183180	157,872	116.0	100180	63.5%
or Pacific Islander	51958	32,752	158.6	27863	85.1%



## External Reporting Example



thank you!

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