

# Moving the Needle:

## The Value of the Pharmacy Team in Immunizing

Alyssa Puia, PharmD, RPh | Clinical Pharmacist  
Lori Lewicki, RPh | Chief Pharmacy Officer  
Holyoke Health Center, Inc.  
230 Maple Street, Holyoke, MA 01040

Building healthy communities  
**HOLYOKE HEALTH**  
MEDICAL | DENTAL | PHARMACY

Improving the health of our patients through affordable, quality health care & comprehensive community based programs

# Audience Participation

Chat →

Polling →

The screenshot displays a virtual meeting interface with several components:

- Chat Window:** Shows a list of messages from participants like Brian Long, James Henkel, and Laura Wiggins. A text input field and a 'Send' button are at the bottom.
- Polling Window:** Displays a poll question: "#1.) What is your biggest business writing challenge? (NO RIGHT ANSWER - OPEN QUESTION)". The results are shown as horizontal bars: Content (45%), Grammar and/or typos (20%), Content Structure (16%), Tone (16%), and Other (0%).
- Video Feed:** A central window showing a man in a dark suit and white shirt.
- Slide:** A presentation slide titled "UDS Reporting: Preparing, Doing, and Utilizing" with the subtitle "Cultivating Health Center Operations". It features logos for "multireportcard", "SkillPath", and "CURIS".
- Session Info:** A small window at the top left showing session details.
- Footer:** Includes "Request Support", "12:09pm Eastern", "Session Support Profile Options Windows", and "Powered by Digitell".

## *Live Content Slide*

*When playing as a slideshow, this slide will display live content*

**Poll: We want to know who is attending this session! Please let us know what role you play at your health center/organization**

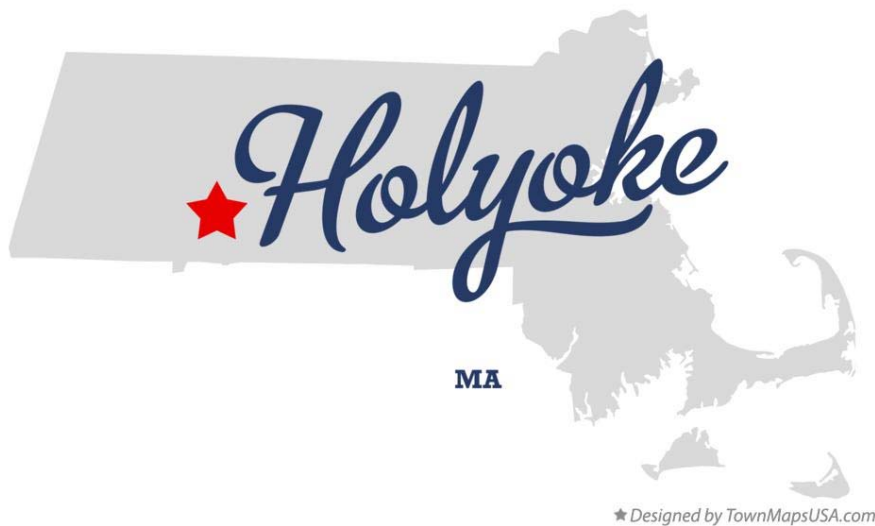
# Introduction



MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS



# Holyoke, Massachusetts



- Located in Western Mass
- Fun facts:
  - Birthplace of Volleyball
  - Paper City
- Population:
  - 40,000 people
  - Largely Hispanic/Latino (51.2%)
    - Mostly Puerto Rican

MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS

# Holyoke Health Center, Inc.

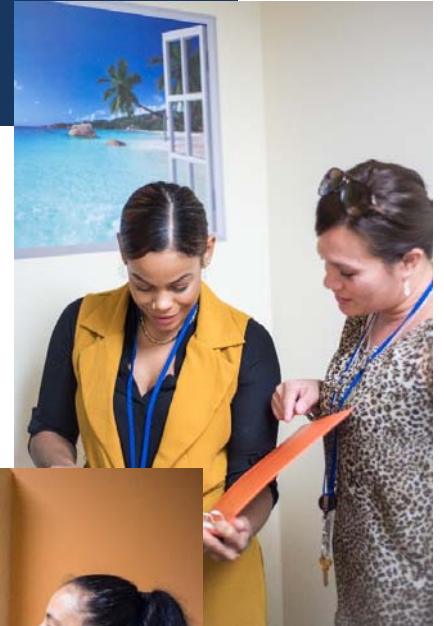


- Located in downtown Holyoke
- Second location in Chicopee, MA  
15 min. commute
- Serves 22,000 patients
- Mostly underserved | 76% Medicaid
- Holyoke In-House Pharmacy  
established: **January 8, 2007**
- Chicopee In-House Pharmacy  
established: **November 30, 2009**

MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS

# Demographics

- Primary patient population:
  - Low-income, underinsured
  - 65% Hispanic/Latino
  - 72% are below 200% Federal Poverty Level
  - 55% MassHealth/ Health Safety Net
  - 54% Spanish-speaking
- 52% Capture rate



# Pharmacy Services



MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS





# Retail Pharmacy

- Fill an average of 1200 prescriptions daily
- Holyoke: Monday - Friday (8am - 6pm)
- Chicopee: Monday - Friday (8am - 4:30pm)

## Staff

- 10 Staff Pharmacists
- 4 Clinical Pharmacists
- 3 Pharmacy Residents



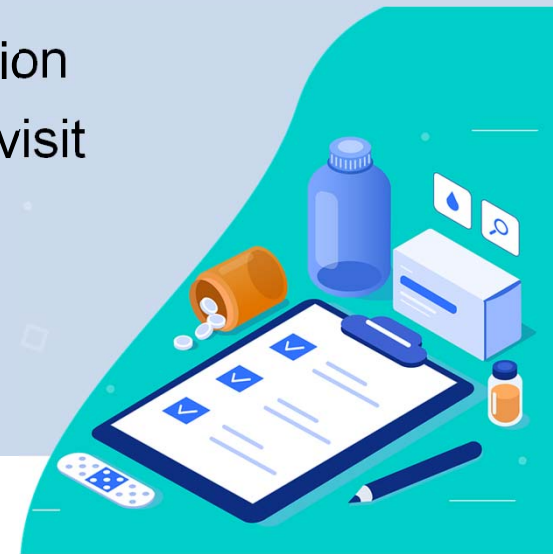
# Medication Adherence Packaging



- 7-day blister cards
- Morning, Noon, Evening, Bedtime slots
- Fill 30 days monthly
- Meet with Clinical Pharmacist
  - To initiate → 1-2 mo → yearly

# Clinical Pharmacy Services

- Transitions-of-care (TOC)
  - Patients recently discharged from inpatient hospitalization
  - Telehealth visit with a pharmacist prior to primary care visit
  - Pharmacist note posted in EHR for provider
    - Summary of medication changes, etc.



# Clinical Pharmacy Services

- Medication Therapy Management (MTM)
  - In-person visit with patient to review medication use
  - Note summarizing problems/recommendations posted in EHR
- Collaborative Practice Agreement (CPA)
  - Hypertension
  - Diabetes



# Learning Programs

- Pharmacy students
  - Five local colleges of pharmacy
  - One on-site clinical pharmacist (faculty)
- Pharmacy residents
  - 3 PGY-1 positions
  - Rotation blocks encompassing all pharmacy services
  - Integral part of immunization program



# Immunization Program

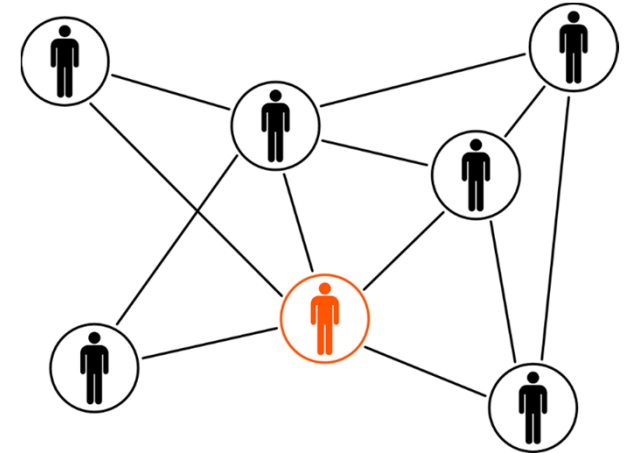


MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS



# Utility of Pharmacist-Led Programs

- Revenue generating
  - On average, \$22 per immunization
- Integrates with MTM
  - Workup - screening for eligible vaccinations
  - In visit - vaccines offered/administered
- Reduces provider burden
  - Patients can be directed to pharmacy
- Increases patient access



# Pharmacist-Led Vaccination at HHC



- Initiated in December 2018
  - Standing order for all adult vaccines
  - In accordance with CDC vaccine schedule
- All pharmacists on staff are certified immunizers\*
  - Completion of a certificate course
  - CPR certified

\*constitutes certified immunizer status in the state of MA, check with your Board of Pharmacy for state-specific requirements

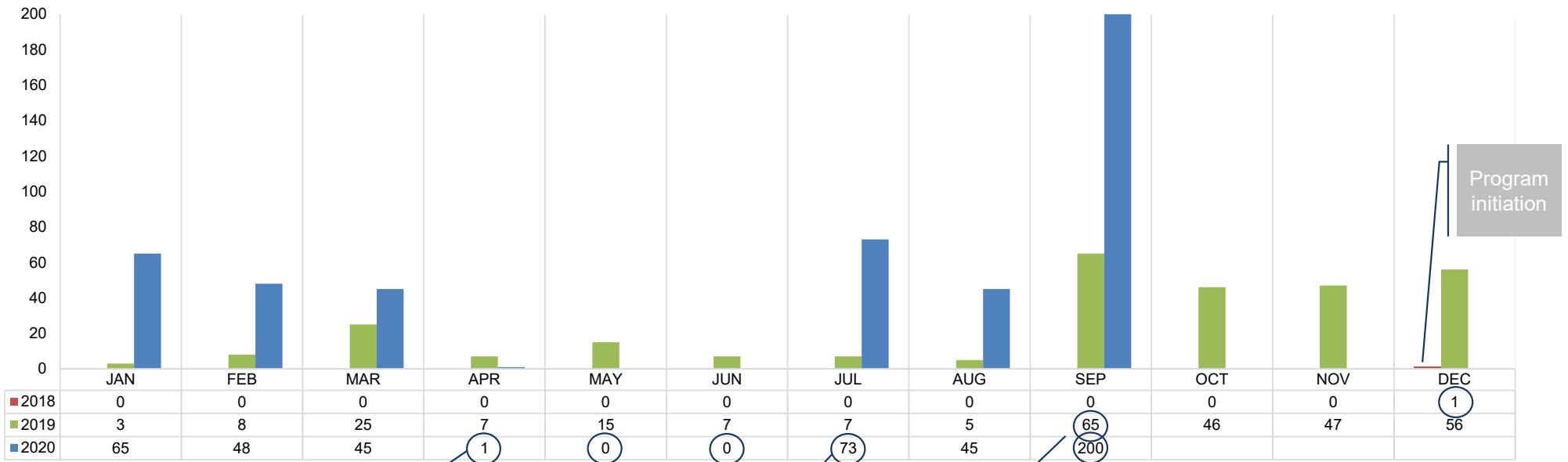
MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS



# HHC Program Growth

## IMMUNIZATIONS ADMINISTERED- HHC

■ 2018 ■ 2019 ■ 2020



Program on hold April - June 2020 (COVID-19)

Program restart

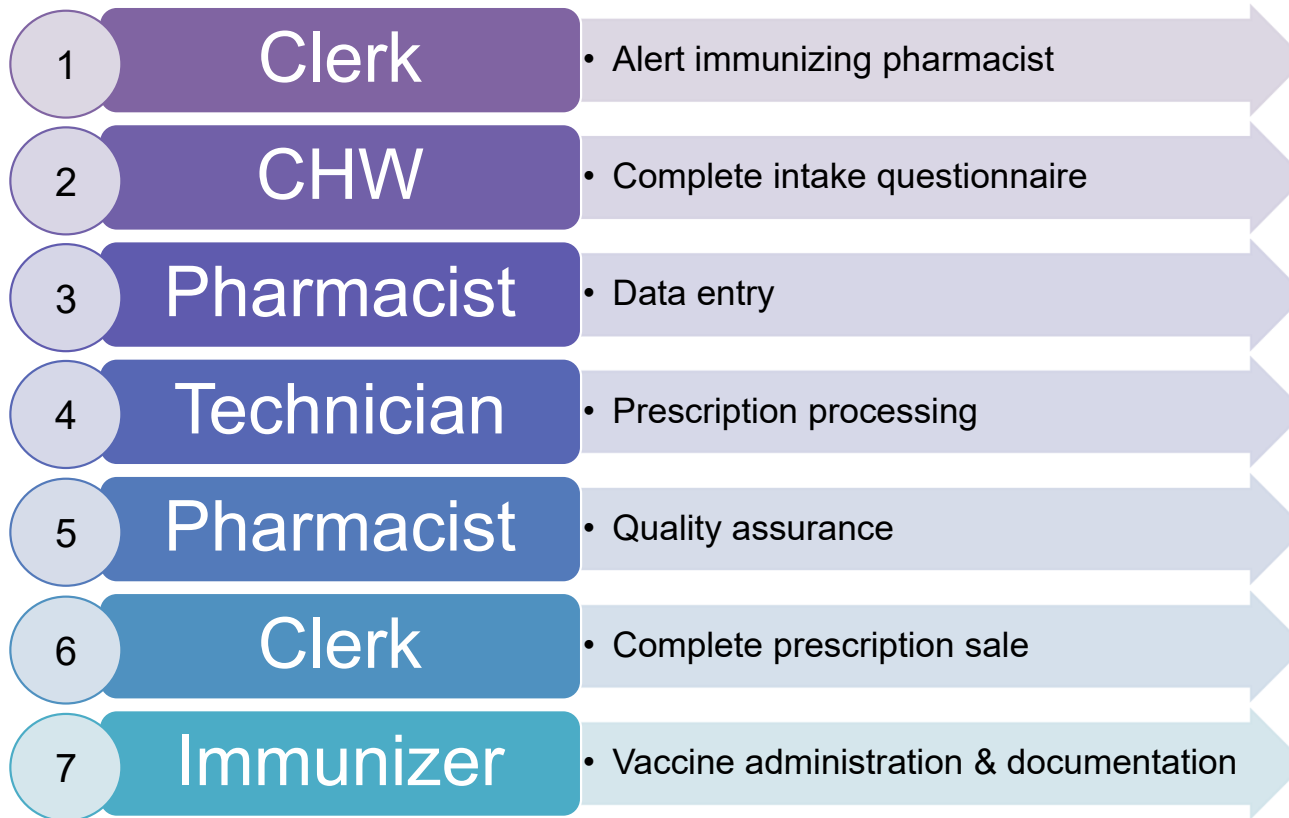
Employee flu clinic (s)

Program initiation

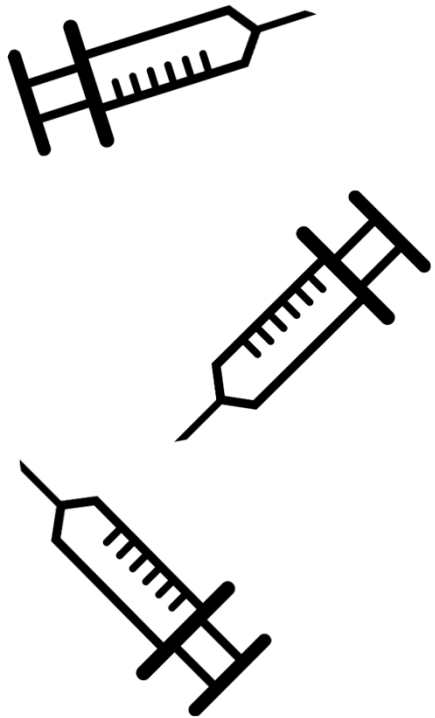


MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS

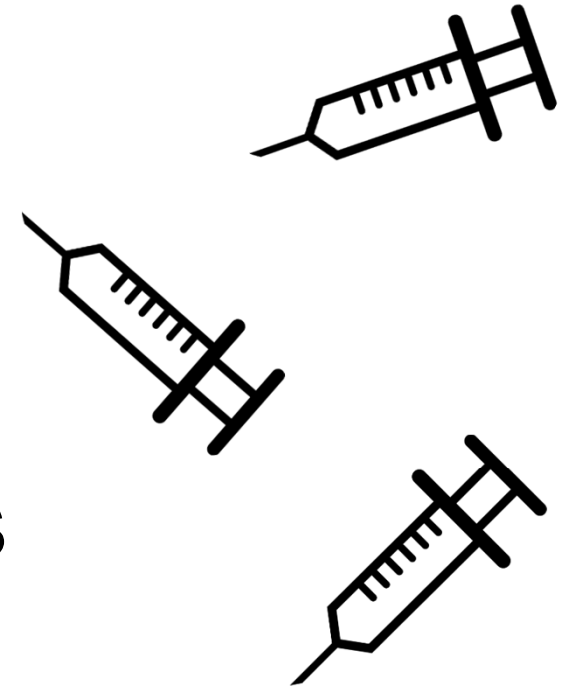
# Immunization Workflow



# Creating a Pharmacist-Led Program



- Immunizers
- Standing Orders
- Documentation
- Space & Supplies
- Stock & Storage



# Creating a Pharmacist-Led Program

## Immunizers

- Are your pharmacists certified?
  - State regulations vary
  - Most new-graduates complete certification
- Does your state allow pharmacy interns or pharmacy technicians to administer vaccines?



# Creating a Pharmacist-Led Program

## Standing Orders

- For each vaccine offered:
  - Target population (age, etc.)
  - Screening for contraindications
  - Administration
  - Documentation
  - Management of emergencies
  - Reporting of adverse events

Holyoke Health Center Inc.  
230 Maple Street Holyoke, MA 01040 | 505 Front Street Chicopee MA 01013  
413-420-2200

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_  
Address: \_\_\_\_\_ Date: \_\_\_\_\_

Prescribed item: Influenza Vaccine  
SIG: To be administered intramuscularly by immunizing pharmacist  
\_\_\_\_\_ Check for high dose vaccine (≥65 years of age)  
Qty: #1 syringe

Refills: 0

Physician Signature: Standing order per Dr. Alejandro Esparza

Templates for all routinely recommended vaccines are available from the Immunization Action Coalition ([www.immunize.org/standing-orders](http://www.immunize.org/standing-orders))

# Creating a Pharmacist-Led Program

 Building healthy communities  
230 Maple Street, P.O. Box 6260, Holyoke, MA 01401-6260  
P: 413-420-2220 F: 413-534-5416 TTY: 413-534-9472  
www.hhcinc.org

**Holyoke Health Center Pharmacy  
Immunization Intake Form**

Name \_\_\_\_\_ Date of Birth: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Primary Care Provider: \_\_\_\_\_  
Weight (circle): <200 lbs    200-260 lbs    ≥ 260 lbs  
Race:  Caucasian  African American  Hispanic  Asian  Native American  Other: \_\_\_\_\_  
Please list any food or drug allergies along with the type of reaction:  
\_\_\_\_\_ Reaction: \_\_\_\_\_  
\_\_\_\_\_ Reaction: \_\_\_\_\_

Please answer the following questions:	Yes	No	Not Sure
Are you sick today?			
Do you have a long term health problem with heart disease, kidney disease, metabolic disorder (e.g. diabetes), anemia or other blood disorders?			
Do you have a long term health problem with lung disease or asthma?			
Do you smoke?			
Do you have allergies to medications, food (i.e. eggs), latex or any vaccine component (e.g. neomycin, formaldehyde, gentamicin, thimerosal, bovine protein, phenol, polymyxin, gelatin, baker's yeast or yeast)?			
Have you received any vaccinations in the past 4 weeks?			
Have you ever had a serious reaction after receiving a vaccination?			
Do you have a neurological disorder such as seizures or other disorders that affect the brain or have had a disorder that resulted from a vaccine (e.g. Guillain-Barre Syndrome)?			
Do you have cancer, leukemia, AIDS, or any other immune system problem? (in some circumstances you may be referred to your physician)			
Do you take prednisone, other steroids, or anticancer drugs, or have you had radiation treatments?			
During the past year, have you received a transfusion of blood or blood products, including antibodies?			
Are you a parent, family member, or caregiver to a new born infant?			
Are you pregnant or could you become pregnant in the next three months?			

## Documentation

- Intake Questionnaire
  - Screening for contraindications
  - Information for:
    - Documentation in EHR
    - Reporting to state immunization information system (IIS)
- Procedures for documentation
  - Included in workflow

# Creating a Pharmacist-Led Program

## Space & Supplies

- Where will vaccination occur?
- Ensure supplies are on hand:
  - Syringes
  - Needles
  - Gloves
  - Bandages
  - Emergency meds
  - Alcohol pads
  - Gauze
  - Sharps & Biohazard disposal containers



# Creating a Pharmacist-Led Program

## Stock & Storage

- Which vaccines will you stock?
  - Standing orders
  - Preference
- Storage
  - Vaccine fridge
  - Temperature monitoring system





# Vaccinating during COVID-19



MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS



# Additional Screening

**Vaccine / COVID-19 Screening:**

1. Have you had any of the following symptoms in the past 2-14 days?

	No	Yes
Fever or chills		
Cough		
Shortness of breath or difficulty breathing		
Fatigue		
Muscle or body aches		
Headache		
New loss of taste or smell		
Sore throat		
Congestion or runny nose		
Nausea or vomiting		
Diarrhea		

2. Are you or anyone in your home diagnosed with or being monitored for COVID-19?

Yes                      No

3. Have you traveled outside of the state in the last 30 days?

Yes                      No

If yes, please specify where: \_\_\_\_\_

4. The following is a list of the most common vaccine side effects:

- Pain, redness, and swelling at the injection site
- Headache
- Muscle pain
- Tiredness
- Shivering
- Fever

\*\*Most reactions are mild to moderate with duration of 2-3 days \*\*

If you have any questions or concerns about a potential reaction from the vaccine you received today or symptoms of COVID-19, please contact your primary care provider. Be sure to inform your provider that you have recently received a vaccine.

---

I have read the above statements. I certify that I am in good health to receive a vaccine today. I am agreeable to vaccination and will reach out to my provider should I have any concerns.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

- Screen for symptoms of COVID-19
  - Ensures patient is eligible
  - Limit exposure risk for staff
  
- Statement that vaccine side effects can mirror symptoms of COVID-19
  - Contact provider with concerns
  - Inform them of recent vaccine

# Personal Protective Equipment (PPE)

- Subject to state & local guidelines
- At HHC we are utilizing:
  - Gloves (standard when immunizing)
  - Surgical mask (standard while in public)
  - Eye protection (standard for patient interactions)



# How to address declining rates?

## DRIVE-THROUGH FLU SHOTS



### Flu shots for the entire family.

No out of pocket cost with  
most insurance plans.



- Drive-thru vaccination clinics
  - Ensure timely vaccination
  - Minimize exposure risk for patients and staff
- Expansion of eligible patient age ranges
  - Subject to state regulation
  - Amendment to the PREP Act (Aug 2020)
    - Pharmacists to immunize patients  $\geq 3$  yo

Image: Nantucket Cottage Hospital

MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS

# Drive-Thru Clinics: Not Adopted

## 1 Lack of space for monitoring

- Inner city location

## 2 Not conducive for our population

- Few have private vehicles

## 3 Fear of COVID-19 exposure not affecting vaccination rates

- Appointment show rates improved



# Expansion of Age Range: Not Adopted

1

## Minimal decline in pediatric vaccination rates

- Due to outreach by pediatric team
- Designated routine immunization time (AM) to minimize exposure risk

2

## Expansion unlikely to produce an effect due to shared setting

- Pharmacy on 1<sup>st</sup> floor, Pediatrics on 2<sup>nd</sup>
- Unwilling to bring child to pediatrics → unlikely to bring child to pharmacy



# Lessons Learned



MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS



# Is this our “dress rehearsal”?

## Influenza 2020-2021

Plentiful supply

Only 1 dose required

Takeaway:  
Vaccines in the COVID-19 era

## RZV 2017-2019

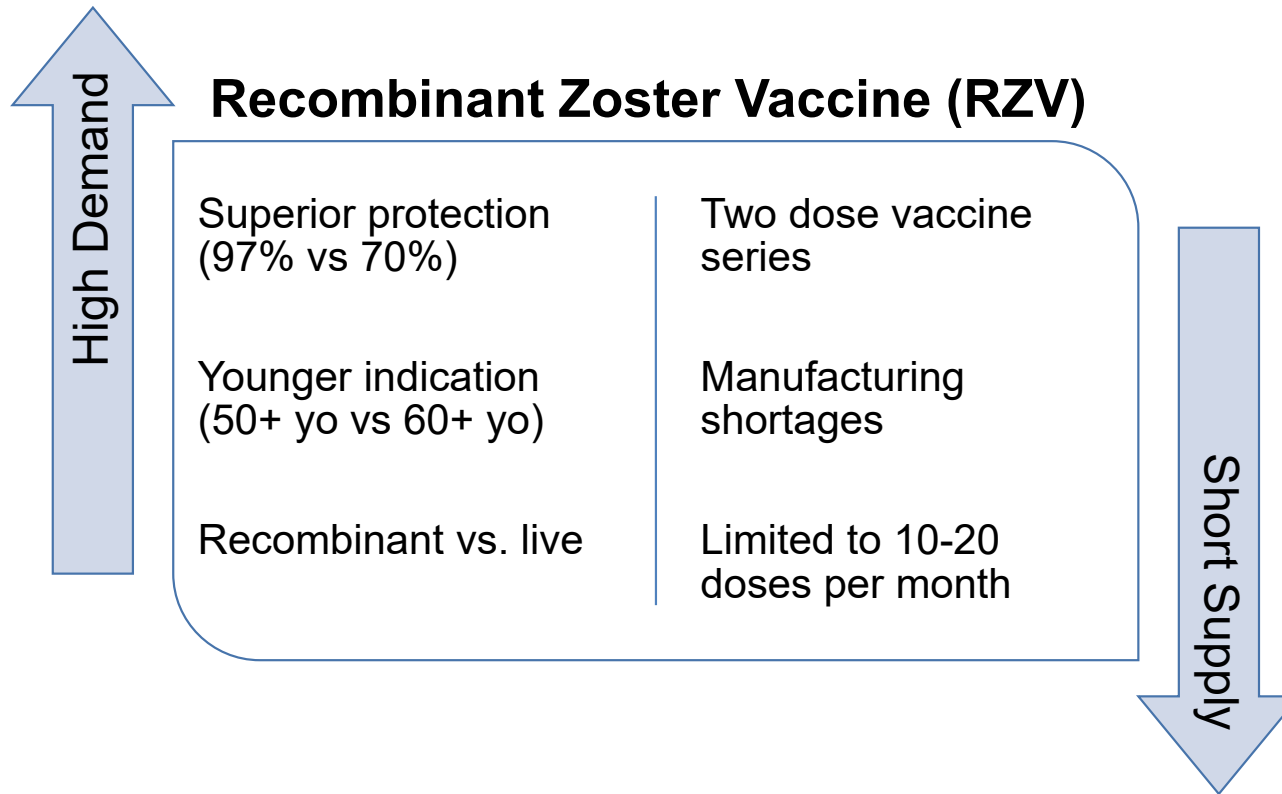
Limited supply

A 2-dose vaccine series

Takeaway:  
Maximize use of limited supply



# Supply & Demand



# RZV Vaccination Rates

Then (Oct 2019)

**Vaccinated** | 28 (0.6%)

**In Process** | 19 (0.4%)

**Unvaccinated** | 4,562 (99.0%)

Now (Oct 2020)

**Vaccinated** | 374 (7.8%)

**In Process** | 167 (3.5%)

**Unvaccinated** | 4,279 (88.8%)

\*Progress made over an 8 mo period, immunization program was on hold for 4 mo (March - July 2020) due to COVID-19

# Keys to Success

Supply Management

Patient Tracking

Appointment-Based Model

Designated Pharmacist Time



# Keys to Success

## Supply Management

- Concentrate all available vaccine
  - Determine location (pharmacy)
  - Maximize use of minimal supply
- Allocation of 2<sup>nd</sup> dose
  - 1<sup>st</sup> dose administered → 2<sup>nd</sup> dose set aside
  - Ensure supply would be available
  - Guarantee dose schedule could be followed



# Keys to Success

## Patient Tracking

- Data dashboards
  - Identifies all eligible patients
- Excel Spreadsheets
  - 1<sup>st</sup> dose waitlist
    - Provider sends prescription
    - Patient self-referral
  - 2<sup>nd</sup> dose appointment list

1st Dose Waitlist					
Patient Full Name	Date of Birth	Call 1	Call 2	Call 3	Scheduled Appt

2nd Dose Appointment List			
Patient Full Name	Date of Birth	Appointment Date	Reschedule Notes

# Keys to Success

## Patient Tracking

### Waitlist

- Patient 4
- Patient 6
- Patient 7
- Patient 8

### Scheduled for 1<sup>st</sup> Dose

- Patient 3
- Patient 5

### Scheduled for 2<sup>nd</sup> Dose

- Patient 1
- Patient 2

# Keys to Success

## Appointment-Based Model

- Pharmacy CHWs outreach patients on waitlist (top to bottom)
- Appointments preferentially made for designated immunization time

	Pre COVID-19 10/1/19 - 3/13/20	COVID-19 3/14/20 - 7/6/20	Post COVID-19 7/7/20 - 8/7/20
<b>Total, vaccines administered</b>	308	0	90
• <b>Walk-ins</b>	188 (61.0%)	n/a	10 (11.1%)
• <b>Appointments</b>	120 (39.0%)	n/a	80 (88.9%)

# Keys to Success

## Appointment-Based Model

- Appointment attendance:
  - 76.9% (Oct 2019 - Mar 2020, “Pre-COVID-19”)
  - 80% (Jul 2020 - Aug 2020, re-initiation of services)
    - Fear of COVID-19 exposure did not hinder appointment attendance
    - Patients more motivated to pursue vaccination in light of pandemic?





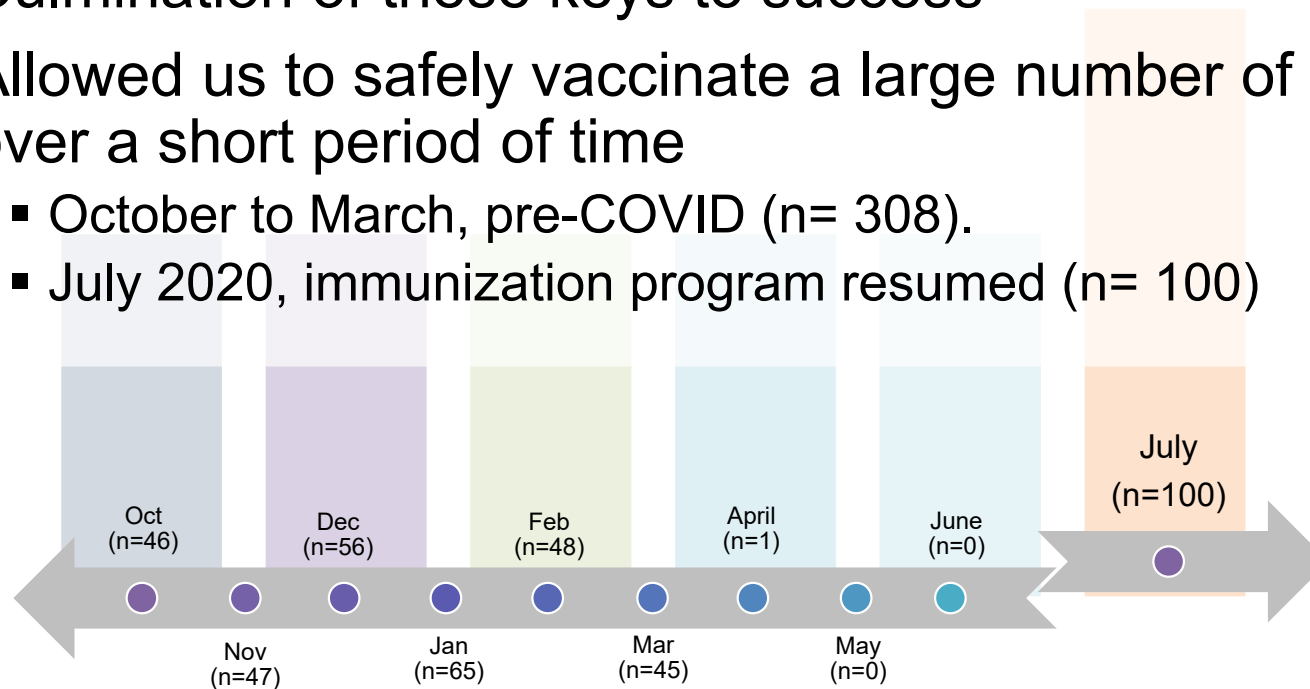
# Keys to Success

## Designated Pharmacist Time

- Optimized workflows
  - The vaccination process is time consuming
- Improved the number of vaccines administered monthly
  - Prior to implementing = 8.7 vaccines / month
  - After implementing = 55.6 vaccines / month

# The Ultimate Lesson Learned

- Culmination of these keys to success
- Allowed us to safely vaccinate a large number of patients over a short period of time
  - October to March, pre-COVID (n= 308).
  - July 2020, immunization program resumed (n= 100)



# A Prescription for Success

- Value of pharmacy-based immunization
- Steps to initiate a pharmacist-led program
- Keys to success
  - Applicable to provision of a COVID-19 vaccine





Contact Info:

[Alyssa.Puia@hccinc.org](mailto:Alyssa.Puia@hccinc.org)

[Lori.Lewicki@hccinc.org](mailto:Lori.Lewicki@hccinc.org)



# Thank you! Questions?

MEDICAL, DENTAL & PHARMACY CARE FOR OVER 50 YEARS



 Building healthy communities  
**HOLYOKE HEALTH**  
[www.hccinc.org](http://www.hccinc.org)

