Innovative Cohort Process
Minimizing COVID-19 Infection for Migrant Farmworkers During Travel to Iowa

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Disclosures

The presenters have no conflict of interest to disclose
Who We Are

Claudia Corwin  
MD MPH

- Occupational Medicine Physician
- Public health practitioner

Caroline Johnson  
FNP

- Clinical Director, Proteus Inc.
- Family Nurse Practitioner
- Experienced Critical Care RN
Proteus

- Proteus Inc Health 1991
- FQHC
- Mobile clinics
- Bilingual staff
- Primary care
- Pandemic mitigation, testing, care, vaccination
- Sustenance support
- Trusted entity for workers and farm employers
  - Corporate, small and large family-run operations

75,000 total lives affected in the Midwest by Proteus programs since 1979.

1,500 migrant workers were provided with professional medical care annually.

300 families in rural Indiana, Iowa, and Nebraska benefit from job training programs each year.

$5,000,000.00 annual economic impact of Proteus programs.
Proteus

- Brick and mortar clinics
- Mobile clinics
- Health Program in Iowa
- Supportive services in Iowa, Nebraska, and Indiana
Who We Serve

- Migrant and Seasonal Farmworkers
- H2A workers
- Patient demographics
- Employers
- Meatpacking workers added in 2022
Mobile Model for Primary Care Services

- Workers enrolled at large “on-boarding” events upon-face care on farm/camp property while in Iowa
- Primary Care Services including lab and pharmacy
- Longstanding relationships with growers across Iowa
- **THE FIRST -TO- KNOW** of symptoms or illness in camp/community
Determinants of Health

- Medical
- Behavioral
- Housing Status
- Genetics
- Physical environment
- Income and social status
- Health Education
- Social support networks
COVID-19 – current state

- As of 1/31/22 74,328,530 cases  883,370 deaths
- 2 variant of increased infectivity (delta and omicron)
- Early awareness of disproportionate effect on vulnerable communities, communities of color, incl Latinx and Black communities
- The migrant and seasonal farmworker (MSFW) community experienced high COVID-19 risk complicated by existing challenges related to structural and social determinants of health
- Issues of trust and hesitancy (deliberation)
- As of 4/21 we know 565,000 agricultural workers had been infected by COVID-19 across the country
Farmworkers, Mostly Undocumented, Become ‘Essential’ During Pandemic

7000 migrant workers
5000 H2A visas

1500 Proteus clients

Credit. Carlos Chavarría for The New York Times
## COVID-19 – The Early Days

<table>
<thead>
<tr>
<th>Concerns with communal living</th>
<th>Concerns with access</th>
<th>Unpaid sick leave</th>
<th>Little consensus on infection prevention in MSFW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distancing not possible</td>
<td>Personal care items</td>
<td>Effects of lost wages on workers and families</td>
<td>Unable to physically distance at work</td>
</tr>
<tr>
<td>Mask shortage</td>
<td>Medications/food</td>
<td></td>
<td>Unable to work from home</td>
</tr>
<tr>
<td>Masking not enforced</td>
<td>Primary Care services</td>
<td>Hesitation about time off</td>
<td></td>
</tr>
</tbody>
</table>
PRIMARY CARE TO PANDEMIC RESPONSE
Group Work: Innovation

• Share with your table an example of how you or others used innovation to solve a problem during COVID-19 creatively

• Can be in your personal or professional lives

• Can be a problem solved by yourself, your team, your organization, or another organization
Context for Cohort Innovation

- Family farm, arrival of 590 H2A workers
- Two arrival periods during summer
- Travel to Iowa in buses for 3 days
- On arrival testing
- Released into communal living – spread of COVID19 resulted.
Concerns with positive cases

• Isolation housing/challenges
• Proteus follow up protocol
• Plans for departure, return to MX
• Uncertain infection status despite attempt to test on departure
• Concern regarding arrival of second group of workers for harvest
Response

- State
- County
- Community based organizations/health care systems
## The Plan – Cohort Intervention

- Proposal to state officials and public health
- Enabled by CARES funding
- Numbering system
- Separation while waiting for test results
- Release to work for negative results
- Contact tracing/re-testing for close contacts before release to work
Figure 1
Cohorting Process Map

Timeline from Boarding Buses in Mexico to Release to Work

- **Board buses in Mexico**
- **Workers receive numbers, seat assignments, masks and travel in cohorts**
- **Arrival in Iowa; workers housed within cohorts and tested**
- **Quarantine and testing per CDC guidelines**
- **Clinical follow-up with provider**
- **Rapid test results received**
- **Negative + close contact**
- **Move to isolation housing per CDC guidelines**
- **Release to work and communal housing**

**Timeline**
- **Day 1**
- **Day 3 (Arrival) + test result receipt (12-24 hours)**
- **Day 3-4 + 14 days**
“Essential” relationships with employer

- Call for video conference with employer to present plan
- Established relationship from previous summers
Group Work

Discuss difficult or persuasive conversations during COVID-19 regarding response for the population you work or interact with – what were most effective strategies and result?
Proposal to the Employer

• Acknowledge anxieties prior to meeting
• Understand employer’s primary concerns
• Establish mutual purpose
• Stick to the facts
• Validate concerns
• End with a question: Are you with us?
How it went

• Two testing teams
• On site and at hotel
• Sample collection
• Communication with State Lab
Results – data collection and analysis

<table>
<thead>
<tr>
<th></th>
<th>Pre-Implementation</th>
<th>Post-Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positivity Rate</td>
<td>12.7%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Hospital Transfers</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>
Discussion of Results

• Assuming consistent positivity rates between two groups without intervention, the cohorting process prevented isolation of an estimated 21 workers that would have resulted in 1700 hours of lost work.

• Implementation of this process increased productivity and had a positive impact on the employer’s operation.
Cohorting model – Challenges

- Cost
- Staff
- Decreased Primary Care Services/screening provided to workers
Challenges continue

• Vaccine
  • Access
  • Misinformation
  • Not required for employment

• Rapid testing
  • Access
  • Inaccurate results
What is Next? Push for Change

01 PUSH for preparation in order to minimize the need to respond

02 Capitalize on the current social and political will for change.

03 Seize window of opportunity to dig down deep and focus (finally) on health equity and justice.
Our Team

- Migrant and seasonal farmworkers of Iowa
- Proteus*
  - Daniel Zinnel, Chelsi Barazza, Naomi Marroquín, PRN providers summer aides, volunteers, and more
- Dr. Kimberly Dukes, Dr. Emily Sinnwell