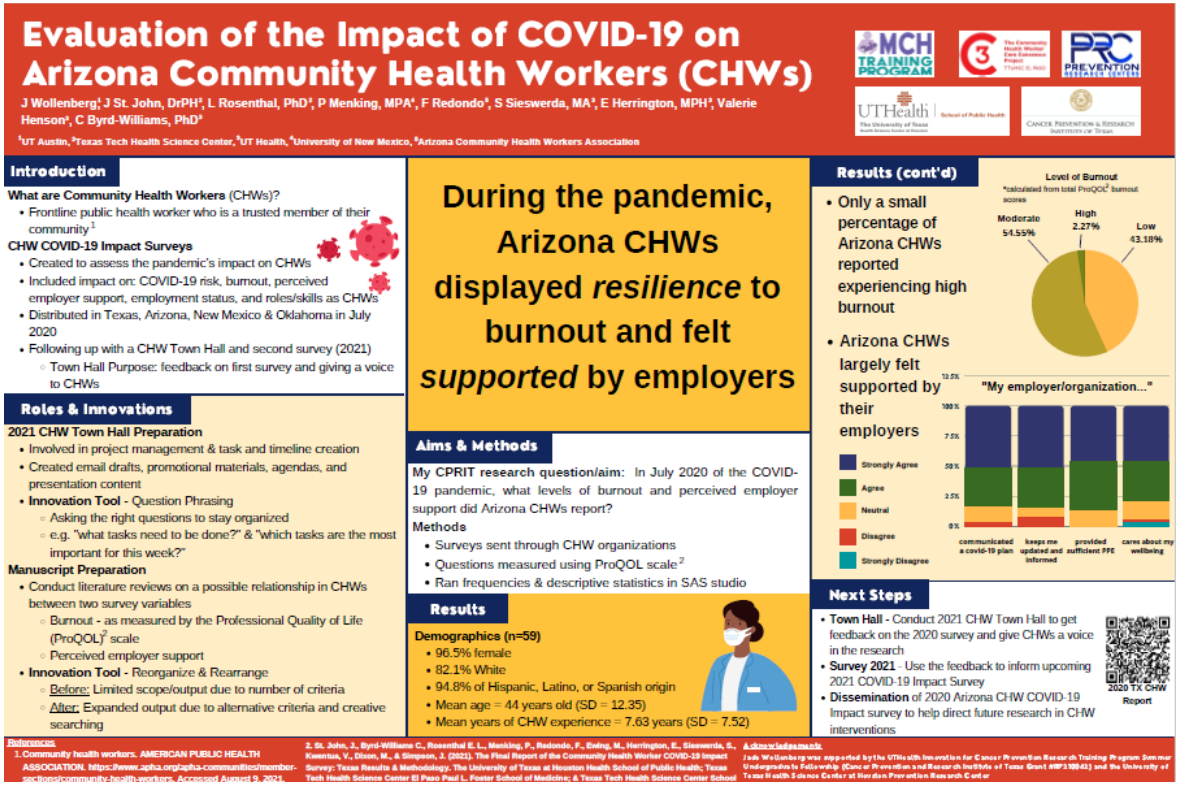
# 2021 Summer Undergraduate Research Experience Poster Presentation Winners

## 1st Place



# Evaluation of the Impact of COVID-19 on Arizona Community Health Workers (CHWs)

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## Introduction

**What are Community Health Workers** (CHWs)?

- Frontline public health worker who is a trusted member of their community [1]

**CHW COVID-19 Impact Surveys**

- Created to assess the pandemic's impact on CHWs
- Included impact on: COVID-19 risk, burnout, perceived employer support, employment status, and roles/skills as CHWs
- Distributed in Texas, Arizona, New Mexico & Oklahoma in July 2020
- Following up with a CHW Town Hall and second survey (2021)
  - Town Hall Purpose: feedback on first survey and giving a voice to CHWs

## Roles & Innovations

**2021 CHW Town Hall Preparation**

- Involved in project management & task and timeline creation
- Created email drafts, promotional materials, agendas, and presentation content
- **Innovation Tool** - Question Phrasing
  - Asking the right questions to stay organized
  - e.g. "what tasks need to be done?" & "which tasks are the most important for this week?"

**Manuscript Preparation**

- Conduct literature reviews on a possible relationship in CHWs between two survey variables
  - Burnout - as measured by the Professional Quality of Life (ProQOL)[2] scale
  - Perceived employer support
- **Innovation Tool** - Reorganize & Rearrange
  - Before: Limited scope/output due to number of criteria
  - After: Expanded output due to alternative criteria and creative searching

**During the pandemic, Arizona CHWs displayed *resilience* to burnout and felt *supported* by employers**

## Aims & Methods

**My CPRIT research question/aim:** In July 2020 of the COVID-19 pandemic, what levels of burnout and perceived employer support did Arizona CHWs report?

**Methods**

- Surveys sent through CHW organizations
- Questions measured using ProQOL scale [2]
- Ran frequencies & descriptive statistics in SAS studio

## Results

**Demographics (n=59)**

- 96.5% female
- 82.1% White
- 94.8% of Hispanic, Latino, or Spanish origin
- Mean age = 44 years old (SD = 12.35)
- Mean years of CHW experience = 7.63 years (SD = 7.52)

## Results (cont'd)

- Only a small percentage of Arizona CHWs reported experiencing high burnout
- Arizona CHWs largely felt supported by their employers







## Next Steps

- **Town Hall** - Conduct 2021 CHW Town Hall to get feedback on the 2020 survey and give CHWs a voice in the research
- **Survey 2021** - Use the feedback to inform upcoming 2021 COVID-19 Impact Survey
- **Dissemination** of 2020 Arizona CHW COVID-19 Impact survey to help direct future research in CHW interventions

2020 TX CHW Report

References

1. Community health workers. AMERICAN PUBLIC HEALTH ASSOCIATION. https://www.apha.org/apha-communities/member-sections/community-health-workers. Accessed August 9, 2021.

2. St. John, J., Byrd-Williams C., Rosenthal E. L., Menking, P., Redondo, F., Ewing, M., Herrington, E., Sieswerda, S., Kwentus, V., Dixon, M., & Simpson, J. (2021). The Final Report of the Community Health Worker COVID-19 Impact Survey: Texas Results & Methodology. The University of Texas at Houston Health School of Public Health; Texas Tech Health Science Center El Paso Paul L. Foster School of Medicine; & Texas Tech Health Science Center School

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# 2nd Place (tied)

## Barriers for Students with Disabilities in Medical Careers

Cancer Prevention & Research Institute of Texas

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UTHealth The University of Texas Health Science Center at Houston School of Biomedical Informatics

ilru Independent Living Research Utilization

### Introduction

2-4% of medical students have a disability compared to 20% of the US population.[1, 2, 3] Of that 2-4%, 90% have a psychological/learning disability. [1, 4]

Previous research demonstrates several barriers for disability in medicine, including issues of accessibility, accommodations, and culture. [4-9]

No current study focuses on students who left medical careers. These **students with disabilities (SWD)** have potentially faced other barriers not yet covered by research which have prevented them from pursuing medical careers.

### GOALS

- ☑ **Identify barriers** causing SWD to leave medicine
- ☑ **Evaluate potential strategies** to address these barriers

### Methods

1. **Social Media Data Scraping:** A python script was used to gather social media data. Data will then be qualitatively coded (not yet available).
2. **Semi-structured interviews:** Participants were recruited using social media, target enrollment of 20 (currently n = 6). Transcripts were qualitatively coded.

IRB #: HSC-SPH-21-0594

PARTICIAPNT TYPE OF DISABILITY

### Results

Three general themes emerged:

1. **Boons:** circumstances that encouraged continuation in a medical career
2. **General Barriers:** circumstances that hindered but did not prevent continuation in a medical career
3. **Causal Barriers:** circumstances that directly caused the student to stop pursuing a medical career

| Boons | General Barriers | Causal Barriers |
|---|---|---|
| Medical professional support | Lack of university support | Lack of medical field exposure |
| Medical field exposure | Judgment of accommodation | Lack of peer support |
| Family and peer support | Disclosure to med schools | Financial burden for diagnosis |
| | MCAT bureaucracy | Technical standards |

### Discussion

Disability representation is not only an issue of autonomy, but of healthcare access. Medical professionals with disabilities provide **higher quality of care**, particularly to patients with disabilities[7, 10-12] Therefore, we need people with disabilities in medicine.

The results of this study may help identify new strategies to improve representation of disability and thus improve quality of care. Both the "causal barriers" and "boons" have been underexamined in efforts to recruit SWD to medicine. Focusing on eliminating "causal barriers" and supporting "boons" in future strategies could improve representation.

### INNOVATIONS

- **Changing POV:** Previous work drew solely from current medical SWD. I sought the SWD who left medicine
- **Induction/Deduction: I** balanced deduction from previous disability literature theories with induction from individual interview observations
- **Recombination: I** used social media scraping methods from data science disciplines

### Next Steps

- Recruit more interview participants (n ≥ 20)
- Analyze social media data (n ≥ 500)
- Conduct survey of SWD left medicine (n ≥ 400)
- Identify and implement strategies

Acknowledgments, References

**2nd Place (tied)**

# 3rd Place

## Collaborative Intervention Implementation:
### Determining Appropriate Reporting Strategies for Community Health Workers

Scott S. Koh[1], Lara S. Savas, PhD[2] , Emily Adlparvar, MPH[2]
[1]Rice University, [2]The University of Texas Health Science Center - School of Public Health

### Lack of Reporting Standards for CHWs

**Salud en Mis Manos** (SEMM):
- Community Health Worker (CHW)-delivered education, motivation, and navigation intervention
- Designed to increase breast and cervical cancer screenings, as well as HPV vaccinations among underserved Latinas

**Project Background:** Despite CHWs being responsible for collecting data at the individual level, there is no systematic standard for reporting findings back to CHWs.

**My Project Aim:** Use a participatory approach to obtain feedback on developing appropriate ways of disseminating results to CHWs

### Listening Sessions are Critical to Obtaining Feedback

- Conduct 4 listening sessions with a total of 11 CHWs + navigators from 3 organizations
- Ask open-ended questions to learn types of information CHWs interested in
- Obtain feedback on ways to report findings back to CHWs
- Use feedback and insight gained to develop strategies of disseminating results back to CHWs
- Share results and seek additional feedback

**Community-based research requires more effective communication with Community Health Workers**

### Innovation in the Research Process

**Asking the Right Question:**
What are innovative and appropriate ways of reporting findings back to CHWs/non-academic audiences?

**Breaking Frames:**
Data and findings should be reported via academic reports for researchers.

Data and findings should also be reported back to CHWs using appropriate terminology and visuals.

**Power of groups:**
Speaking with teams of CHWs of different backgrounds provided us with diverse perspectives and led to innovative ideas/opinions on ways to report findings.

### Feedback Gained through Listening Sessions

- CHWs in these organizations primarily want to know the health and screening outcomes of participants
- Prefer simple and colorful graphics/visual aids
- Including anecdotes, testimonials, and outcome data in CHW reports can help reduce feelings of discouragement faced when addressing barriers for participants
- In addition to positive results, negative results should also be reported to allow CHWs to address areas of improvement
- Include legends and explain how data was obtained and what conclusions were based on
- Believe findings should also be reported to community partners

Figure 1: Examples of graphics shown to CHWs to obtain feedback

### Feedback can be Used to Create Future Reporting Norms

- Utilize findings to develop systematic ways of reporting findings back to CHWs
- Share feedback and emphasize to researchers the need of reporting findings back to CHWs and communities

**Image Source:** Icons made by Freepik from www.flaticon.com

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