What is AZCOVIDTXT-RH?

- A bilingual, information sharing platform that allows for the dissemination of expert-curated health information tailored to the unique needs of rural healthcare workers.
AZCOVIDTXT - RH Background

Developed in collaboration with the Arizona Center for Rural Health as a component of the AHEAD AZ grant.

Based off AZCOVIDTXT, an established COVID-19 information sharing platform, but now focused on resilience too.

The team is comprised of staff, faculty, and students across multiple University of Arizona colleges.
OUR GOAL is to disseminate tailored information related to social determinants of health to rural healthcare workers in Arizona to support them and their communities to build resilience against future health - implicating disasters and shocks to community wellbeing and promote health equity.
Promote Resilience Through....

1. Providing rural healthcare workers with weekly, expert-curated health information related to community-specific social determinants of health.

2. Supporting rural healthcare workers in communicating health information to their communities.

3. Tailoring health messaging to the unique interests of rural individual healthcare workers and the needs of their communities.

4. Incorporating feedback through input from community advisors and participants.

5. Collaborating with local partners and organizations who are pursuing similar objectives.
User Experience

Subscribe by texting “JOIN” or “UNIRSE” to the AZCOVIDTXT-RH phone number (1-833-410-2974)

Brief intake survey - used to ensure future content is tailored to their needs and interests

Users then gain access to relevant weekly health information

Regular opportunities to provide feedback on programmatic features and content
Resilience is “the ability of people, households, communities, countries and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth”

- USAID 2022
Framework, Logic Model, & Assumptions
AZCOVID -TXT Resilience

For whom? Rural healthcare workers in AZ & the communities they serve

Of what? Healthcare systems, health equity, and social determinants of health

To what? COVID - 19 Pandemic & other similar shocks

To what end? To be prepared for the next shock to our healthcare system

Through what? Information services/access to resources
Social Determinants of Health Issues
- Economic Insecurity
- Lack of healthcare access
- Substance abuse
- Mental health
- Chronic disease (e.g. Obesity and diabetes)

Shocks and Stresses
- COVID - 19
- Climate Change
MAPP Framework
Desired Outcomes

- Implementing strategies to improve messaging based on our findings
- Foster relationships with community health care workers, leaders and stakeholders
Phase 1
Conduct a literature review

Phase 1-4
Conduct focus groups, community maps, & key informant groups
Phase 1: South/southeast
Phase 2: West
Phase 3: Central
Phase 4: North

Phase 5
Promotion & continued evaluation of the project

The Plan
Breakdown of State Regions

Phase 1: South/Southeast Arizona
- Pima
- Santa Cruz
- Cochise

Phase 2: Western Arizona
- Yuma
- La Paz
- Mohave

Phase 3: Central Arizona
- Maricopa
- Pinal
- Graham
- Greenlee
- Gila

Phase 4: Northern Arizona
- Yavapai
- Coconino
- Navajo
- Apache
CNA Phase 0 Activities: Literature Review

- Existing CNA findings from rural Arizona
- Google Scholar searches
- Arizona and Local Health Department websites
- Initial meetings with community stakeholders
- Health Sciences Librarian, Jean McClelland
CNA Phase 0: Domains of Information Extracted

- Top three needs identified in each CNA
- Time period
- Health Equity issues
- Resilience issues
- Other relevant domains:
  - Mental Health/burnout
  - Unemployment
  - Advocacy
  - Leading causes of death
Phase 0: Literature Search
## SWOT Analysis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Involvement of field experts, Unique project, Very adaptive, Collaborative, Machine learning (for message tailoring, personalized search)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weaknesses</td>
<td>Limited human power (small team), Technological limitations, Current lack of rapport / relationships with rural community leaders</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Potential for doing a lot of good, Optimize feedback opportunities for users, Leveraging existing resources / relationships from AZ AHEAD, Could leverage this project to meet future needs</td>
</tr>
<tr>
<td>Threats</td>
<td>Busy target population, Lack of potential interest / accessibility, Competing with other sources of information, Technical complications with SMS system, COVID - 19 burnout among users</td>
</tr>
</tbody>
</table>
Top Health Needs Around Arizona

AzCAH Community Health Priorities 2013-2020
- Transportation
- Chronic Disease Management
- Care for Seniors/Aging Population
- Food Insecurity & Access to Healthy Food
- Alcohol Use Prevention
- Good Jobs
- Teledmedicine
- Affordable Prescriptions
- Healthy Economy

ADHS State Health Priorities 2016-2020
- Shared Priorities
  - Access to Care
  - Built Environment
  - Substance Use Disorder
  - Mental Health
  - Diabetes
  - Obesity
  - Heart Disease
  - Stroke
  - Tobacco Use
- School Health
  - Worksite Wellness
  - Cancer
  - Chronic Lower Respiratory Disease & Asthma
  - Maternal & Child Health
  - Oral Health
  - Suicide
  - Healthcare Associated Infections
  - Intentional Injury

AzHIP Priorities 2021-2025
- Health Equity
- Health in All Policies/Social Determinants of Health
- Mental Well-Being
- Rural & Urban Underserved Health

(Koch et al., 2022)
Figure 2B-5
Age-adjusted Mortality Rates* for the Five Leading Causes of Death by Gender in Urban* and Rural Areas, Arizona, 2019

<table>
<thead>
<tr>
<th>Rank</th>
<th>Urban male</th>
<th>Urban female</th>
<th>Rural male</th>
<th>Rural female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diseases of heart 168.9</td>
<td>Cancer 113.5</td>
<td>Diseases of heart 186.2</td>
<td>Cancer 129.1</td>
</tr>
<tr>
<td>2</td>
<td>Cancer 153.4</td>
<td>Diseases of heart 105.4</td>
<td>Cancer 168.9</td>
<td>Diseases of heart 110.2</td>
</tr>
<tr>
<td>3</td>
<td>Unintentional injury 79.1</td>
<td>Alzheimer’s disease 39.1</td>
<td>Unintentional injury 97.2</td>
<td>Unintentional injury 47.3</td>
</tr>
<tr>
<td>4</td>
<td>Chronic lower respiratory diseases 38.4</td>
<td>Chronic lower respiratory diseases 34.7</td>
<td>Chronic lower respiratory diseases 54.5</td>
<td>Chronic lower respiratory diseases 46.7</td>
</tr>
<tr>
<td>5</td>
<td>Diabetes 29.9</td>
<td>Unintentional injury 34.0</td>
<td>Intentional Self-harm (suicide) 45.6</td>
<td>Alzheimer’s disease 34.5</td>
</tr>
</tbody>
</table>

Notes: * Number of deaths per 100,000 population age-adjusted to the 2000 U.S. standard; *Urban = Maricopa, Pima, Pinal, and Yuma counties. The remaining counties comprise Arizona’s rural areas.
South/Southeast

Pima, Santa Cruz, Cochise
# Leading Causes of Death, By County

## Pima County (2019)
1. Malignant Neoplasms (Cancer)
2. Diseases of Heart
3. Accidents
4. Chronic Lower Respiratory Diseases
5. Cerebrovascular Diseases

## Santa Cruz (2019)
- **Infant**: Cardiovascular disorders (Rio Rico PCA), low birthweight/short gestation disorders (Nogales PCA)
- **Ages 20 - 44**: Motor/non motor accident
- **Ages 45 - 64**: Chronic ischaemic heart disease
- **Ages 85+**: Chronic ischaemic heart disease (Rio Rico) Alzheimer’s disease (Nogales)

## Cochise (2017)
1. Cancer
2. Injury
3. Diabetes
4. Stroke
5. Kidney disease
Top Needs for South/Southeast AZ

- 2017 to 2022 timeframe
  - 5/9 included community input
- Top three needs:
  - Mental Health
  - Substance Use
  - Chronic disease (obesity/diabetes)
Mental Health/Burnout Issues

**Pima County**
- Poor mental health days (2022): 4.9
- 12% of community members report **mental distress**
- Among Medicare seniors, 13.5% are treated for **depression**
- **High housing costs** relative to family income are associated with declines in mental health
- Suicide rate (2018): 17.1 per 100,000

**Santa Cruz County**
- Poor mental health days (2022): 4.2
- Estimated on an annual basis (2018):
  - 2,600 adults and 500 children (under 18) suffering from **depression**
  - 3,960 individuals suffering from **anxiety**
  - 2,700 individuals (>16) experiencing a form of **substance abuse**

**Cochise County**
- Poor mental health days (2022): 4.4
- **Poor mental health issues** are prominent among all ages of county residents
- Suicide Rate → Sierra Vista (2019): 27.3 per 100,000
Health Equity Issues: Healthcare Access

**Pima County**
- **Uninsured (2022):** 12%
  - 26% of tribal Pascua Tribal members (2021)
- **PCP Ratio (2022):** 1,104:1
  - Pascua tribe region: 454:1 (2020)
  - AzDHS considered the Pascua Yaqui Tribal land a [medically underserved area](#)

**Cochise County**
- **Uninsured (2022):** 11%
- **PCP ratio (2022):**
  - 1,840:1
- **Benson hospital SA:**
  - One of three rural critical access hospitals
  - 22 bed unit that provides care to skilled and acute nursing
  - Only 9 PCPs

**Santa Cruz County**
- **Uninsured (2022):** 17%
  - Holy Cross Hospital SA: 78.1% (2018)
- **PCP ratio (2022):** 1,108:1
  - Nogales and Rio Rico have been designated as a [Health Professional Shortage Area (2018)](#)
- 16% of the population reported not being able to see a doctor due to cost of medical care
West

Yuma, La Paz, Mohave
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Chronic respiratory disease</td>
<td>3. Other</td>
<td>3. Accidents</td>
</tr>
<tr>
<td>5. Self harm &amp; interpersonal violence</td>
<td>5. Stroke</td>
<td>5. Liver Disease</td>
</tr>
</tbody>
</table>
Top Health Needs for West AZ (2017 - 2020)

- Mental Health
- Transportation
- Early learning and development
- Access to Healthcare
North

Yavapai, Coconino, Navajo, Apache
# Leading Causes of Death, By County

<table>
<thead>
<tr>
<th>Navajo County (2019)</th>
<th>Coconino County (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cardiovascular disease</td>
<td>1. Cancer</td>
</tr>
<tr>
<td>2. Malignant neoplasms (cancer)</td>
<td>2. Heart Disease</td>
</tr>
<tr>
<td>3. Accidents (unintentional injuries)</td>
<td>3. Accident (motor vehicle, drug or alcohol accident, other)</td>
</tr>
<tr>
<td>4. Diabetes</td>
<td>4. Suicide</td>
</tr>
<tr>
<td>5. Chronic liver disease</td>
<td>5. Chronic Liver Disease &amp; Cirrhosis</td>
</tr>
</tbody>
</table>
## Leading Causes of Death (cont.)

### Apache County (2020)
- **Infant**: complications in placenta
- **15-19**: intentional self-harm
- **20-44**: alcoholic liver disease
- **45-64**: Malignant neoplasm of bronchus and lung
- **65-85+**: Cardiac arrest

### Yavapai County (2019)
1. Heart Disease
2. Cancer
3. Coronary heart disease
4. Lung disease
5. Unintentional injury

(Springerville/Eager PCA)
Mental Health

Substance Use

Behavioral Health

Top Health Needs: Northern AZ
Central/East

Maricopa, Pinal, Graham, Greenlee, Gila
<table>
<thead>
<tr>
<th>Leading Causes of Death, by County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Graham County (2018)</strong></td>
</tr>
<tr>
<td>1. Cardiovascular disease</td>
</tr>
<tr>
<td>2. Malignant neoplasms</td>
</tr>
<tr>
<td>3. Alzheimer’s disease</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
**Leading Causes of Death (cont.)**

<table>
<thead>
<tr>
<th>Gila County (2017)</th>
<th>Pinal County (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cardiovascular disease</td>
<td>1. Cardiovascular Disease</td>
</tr>
<tr>
<td>2. Malignant neoplasms</td>
<td>2. Cancer</td>
</tr>
<tr>
<td>3. Accidents (unintentional injuries)</td>
<td>3. Chronic lower respiratory disease</td>
</tr>
<tr>
<td>4. Drug - induced deaths</td>
<td>4. Total Accidents</td>
</tr>
<tr>
<td>5. Intentional Self - harm (Suicide)</td>
<td>5. Lung Cancer</td>
</tr>
</tbody>
</table>
Findings Across Rural AZ
Top Causes of Death in Rural AZ by Sex

Male:
1. Diseases of the heart
2. Cancer
3. Unintentional injury
4. Chronic lower respiratory diseases
5. Intentional self-harm (suicide)

Female:
1. Cancer
2. Diseases of the heart
3. Unintentional injury
4. Chronic lower respiratory diseases
5. Alzheimer’s disease

(AZDHS, 2019)
Breakdown of State Regions

West
- Mental Health
- Transportation
- Early Learning & Development

South/Southeast
- Mental Health
- Substance Use
- Chronic disease (obesity/diabetes)

North
- Mental Health
- Substance use
- Behavioral Health

Central/East
- Access to Care
- Substance Use
- Mental/Behavioral Health
Next Steps: Phases 1-4
Next Steps

Focus groups and interviews for various healthcare workers

- Community health workers
- Public Health Professionals
- Specialized Care Providers
- Emergency Service Providers

Community Coalition Meetings
Community Advisory Board Recruitment

- Interview and Focus Group Participants
- Current AZCOVIDTXT(- RH) members
- Other stakeholders and experts in rural health and resilience around Arizona
Community Advisory Board’s Role

- Check in periodically to evaluate the progress of AZCOVIDTXT-RH
- Guide the objectives, logistics, and content of messages to help it stay relevant to current rural health issues
- Provide up-to-date, useful information which AZCOVID-TXT can share with subscribers
Continued Evaluation, Implementation, and Tailoring

- Periodic surveys
  - Pre-test
  - Periodic feedback and evaluation surveys
  - Post-test
- Interview evaluations
- Use of feedback and intake survey to further develop project implementation and tailoring complexity
- Continued expansion and recruitment of subscribers
Thank you!

Acknowledgements to our AZCOVID-TXT and AZ AHEAD teams for their help and support

Email mgbloch@email.arizona.edu for questions about the project, or for a list of our references

@azcovidtxt

Text JOIN to 833-937-2974