Leveraging Inclusive Data and Partnerships toward Equitable Disaster Outcomes

The Community Inclusion in Colorado Mapping Project

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2019 Public Health in the Rockies
CDPHE acknowledges that generations-long social, economic, and environmental inequities result in adverse health outcomes. They affect communities differently and have a greater influence on health outcomes than either individual choices or one's ability to access health care. Reducing health disparities through policies, practices, and organizational systems can help improve opportunities for all Coloradans.
Where are the people?
Emergency Planning Cycle

- Assessment
- Planning
- Exercise
- Training
- Evaluation
What is a disaster?

Unexpected
Overwhelming
Disruption
Community Inclusion in Colorado: General Indicators

Prevalence estimates of important inclusion indicators for each census tract in Colorado.

Age 65+ Population

This map illustrates the percent of the population (2013-2017 estimates) that was Age 65 or older across Colorado, by census tract.

Percentage of the Total Population Age 65 or Older, 2013-2017 ACS Estimates

- Percent_Population_AgeOver64
  - 30.4 - 81.8% of the Population
  - 20.8 - 30.3
  - 14.6 - 20.7

Who lives in my community and where?
Objectives

Describe the CICOmaps’ data selection and visualization to support inclusive planning.

Give examples of how the CICOmaps data has been applied.

Orient participants to the Access & Functional Needs framework in disaster planning and Colorado’s current capacity building.
C-MIST
Social Vulnerability Index
Social Determinants of Health
Health Outcomes
C-MIST Framework

- Communication
- Medical/Health Independence
- Safety, Support, Services
- Transportation

Trust
- Economics
  - Isolation
    - geographic
    - social
    - cultural
  - Capacity
  - Housing
Social Vulnerability Index

Overall Vulnerability

Socioeconomic Status
- Below Poverty
- Unemployed
- Income
- No High School Diploma

Household Composition & Disability
- Aged 65 or Older
- Aged 17 or Younger
- Civilian with a Disability
- Single-Parent Households

Minority Status & Language
- Minority
- Speak English "Less than Well"

Housing & Transportation
- Multi-Unit Structures
- Mobile Homes
- Crowding
- No Vehicle
- Group Quarters
Disaster don’t happen in a vacuum. They happen because of conditions that already exist.
Social Determinants of Health\textsuperscript{4,5}

- SDOH
- Neighborhood and Built Environment
- Health and Health Care
- Social and Community Context
- Economic Stability
- Education
Health Outcomes

- Asthma
- Binge Drinking
- Cigarette Smoking
- Delayed Medical Care ($)
- Depression
- Diabetes
- Flu Vaccine
- Fair or Poor Health Status
- Health Insurance
- Heavy Drinking
- Heart Disease
- Marijuana Use

- Mental Distress
- No Medical Checkup
- No Physical Activity
- Obese
- Overweight
- Physical Distress
Data Visualization

Community Inclusion in Colorado: General Indicators
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Community Inclusion in Colorado: Ambulatory (Mobility) Difficulties and Resources

Prevalence estimates of Coloradans living with an Ambulatory or Mobility difficulty for each census tract and the location and regional distribution of supporting resources that can assist those living with these difficulties across the state.

Aging and Disability Resource, Offices and Regions

This map indicates the location of ADRC offices and corresponding region each office serves. ADRC’s provide a visible and trusted source of information on the full range of long-term services and support options available to older adults, including: Assisting individuals in planning for their future long-term service and support needs, Providing options counseling in a person-centered, interactive decision-support process, Providing coordinated and streamlined access to information and assistance and Providing personalized and
CDHS, CDPHE - Healthcare, Childcare, Behavioral Health Facilities
Community Inclusion in Colorado: Electricity Dependent Durable Medical Equipment

Durable Medical Equipment data as reported in the HHS emPOWER Initiative (by Colorado county, zip code area or zip code location). This data illustrates claims for specific devices from Medicare FFS and Medicare Advantage beneficiaries.

Durable Medical Equipment - Electricity Dependent DME By Zip Code

This map illustrates the number of electricity dependent Durable Medical Equipment per zip code (based on Medicare claims) including:

- Respiratory DME (Cardiac Devices, Ventilators, O2 Concentrators, Suction Pumps, BiPAP Therapy)
- Dialysis (At Home ESRD)
- Other (Electric Beds, Motorized wheelchairs, IV Infusion Pumps, Enteral Feeding)

Total Electric DME by Zip Code

Montrose, 81401

Durable Medical Equipment Inventory: 81401 Zip Code, August 2019

Number of Power Dependent Devices (DME): 861

Number of Medicare Beneficiaries in Zip Code: 5,431

- Service - Infacility ESRD Dialysis (3 months): 11
- Service - Oxygen Service Tanks (13 months): 323
- Service - Home Health (3 months): 63

Esri, HERE, Garmin, FAO, USGS, NGA, EPA, NPS | CDPHE, HHS | The American Indian Reservation...
The Regional Opportunity Index (ROI) combines the flag counts from all three demographic indexes to identify the access and functional needs of communities in Colorado. Census tracts obtained a value between 0 and 9 where 0 represents areas that do not fall within the 90th percentile for any indicator and 9 represents areas that fall within the 90th percentile for 9 of 11 indicators. No tracts obtained all 13 flags.

396 census tracts received 0 flags, 346 received 1 flag, 153 received 2 flags, 44 received 3 flags, 45 received 4 flags, 36 received 5 flags, 17 received 6 flags, 7 received 7 flags, 3 received 8 flags, and 2 received 9 flags. All census tracts listed that were assigned 7 to 9 flags were located within the Metropolitan Statistical Area.

The Disability Resource Index (DRI) is a preliminary analysis of access to disability resources that serve the access and functional needs of a community. To compute the DRI, flags were assigned to counties based on whether the county had aging, cognitive, hearing, mobility, and vision resources located in the county. Flags were also assigned based on whether (1) a specific resource was not located in the county and (2) whether the county was not covered by a specific resource. Counties were analyzed for each specific resource listed in both the report methodology and in Appendix B.

3 counties received 0 flags, 6 received 1 flag, 2 received 2 flags, 2 received 3 flags, 1 received 4 flags, 1 received 5 flags, 1 received 6 flags, 2 received 7 flags, 9 received 8 flags, 7 received 9 flags, 14 received 10 flags, 11 received 11 flags, and 3 received 12 flags. All counties that were assigned 11-12 flags were located in non-metropolitan regions.

The majority of counties that received 11-12 flags were located in central Colorado with a cluster of counties in southwest Colorado. One county is located in north-central Colorado and 2 are located in south-central Colorado. Flag count was smallest along the metropolitan corridor in central Colorado.

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COMMUNITY INCLUSION EXERCISE EVALUATION FORM

Exercise Host (Agency): ___________________________ Date: ____________

Location: __________________________________________

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. POD staff were briefed on who may come to the POD with access and</td>
<td>5</td>
<td>1 NA</td>
</tr>
<tr>
<td>functional needs (AFN).</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2. POD staff were trained on how to deliver access and functional needs</td>
<td>5</td>
<td>1 NA</td>
</tr>
<tr>
<td>(i.e. interpretation).</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3. Communication capacities and resources were available to support</td>
<td>5</td>
<td>1 NA</td>
</tr>
<tr>
<td>access and functional needs.</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>4. Health capacities and resources were available to support access and</td>
<td>5</td>
<td>1 NA</td>
</tr>
<tr>
<td>functional needs.</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Observations:

POD Locations

- Exact Location Identified
- Location TBD
THE FUTURE OF THE CICOmaps

Community Inclusion in Colorado

The Community Inclusion in Colorado (CICO) website aims to catalyze conversations about who lives in our communities and how we can tailor emergency practices to align with our community characteristics.

These maps and data include community demographics and functional characteristics. They also contain locations, service areas, and contact information for community organizations, health and childcare facilities, and other local service providers.

Assess (Tableau)
See a dashboard of demographic data and other community characteristics at the Regional and County level. Combine and calculate data for multiple counties.

Plan (Storymaps)
See the distribution of demographics and resource providers at the community level. Find and build relationships with service providers in your community.

Respond (CDPHE Response Map)
Apply community information during specific exercises and incidents. Build your own map using configurable data layers that can be used to visualize response actions and resources.

Abuse CICO | User Guide | Data | Applications | Web Resources | Exercises | Opportunity Index

Visit the Dashboard
Choose a Storymap
Visit the CDPHE Response Map
Community Inclusion in Colorado (CICO) Mapping Project
Leveraging Inclusive Data and Partnerships toward Equitable Disaster Outcomes

Adding People to the HVA
- Hazard Vulnerability Assessment
- Data selection and visualization
  - C-MIST
  - Social Vulnerability Index
  - Conference Connections

Changes in Time and Space
- Change over Time
- Regional Opportunity Index
- Statewide Training

Revisiting HVA
- Designing HVA template with people-based data
- What = assessment; How = planning

Intentional Community Engagement
- Community Engagement Plans for 2021 Full Scale Exercise
- Expanding community networks in CICOmaps

Data to Partnerships
- CU Assistive Technology Partners, State Independent Living Council Resource Maps
- FEMA/ADA Recognition

emPOWER/ Exercise
- CMS/ASPR emPOWER
- PHED Ex 2017 application and inclusion evaluators

Integrating with planning, grants
- HCC Response Plans, Focus Groups
- LPHA partner identification, alternate power
- Regional, County CICO visualization
What does equity look like in a disaster?
Core Principles of Equity in Emergency Management

- Equity, Justice, Inclusion, Transparency & Accountability
- Human rights and civil protections are safeguarded and prioritized in disasters, shape policies at all levels.
- People’s rights to resources required to create productive, dignified, and ecologically sustainable livelihoods.
- Emergency management phases built on deep democracy, participatory decision-making, and self-governance.
- Prioritize disaster prevention and mitigation measures.
- Climate change integrated into risk assessment & mitigation
- Emergency management practices embody a spirit of care, cooperation, and collectivism among peoples and communities through practices such as knowledge, resource sharing and mutual aid.
- Community leadership should inform emergency management continuum, including community-designed planning, response, and recovery.
COLORADO DHSEM INVITES YOU

"GETTING IT RIGHT" ACCESS & FUNCTIONAL NEEDS EMERGENCY MANAGEMENT CONFERENCES

Nov. 5th
EAST REGION
COLORADO SPRINGS, CO
HOTEL ELEGANTE

Nov. 7th
WEST REGION
MONTROSE, CO
MONTROSE FAIR GROUNDS

Here in Colorado, we are working to make emergency management more inclusive of Colorado’s diverse communities and to integrate access & functional needs in all that we do. To build networks, knowledge, and resources around doing this work, Colorado’s Division of Homeland Security and Emergency Management is hosting its first “Getting it Right” Emergency Management Access & Functional Needs Conferences.

These one-day conferences will focus on access & functional needs related to inclusive communication, including:

- Practical planning considerations
- Information sharing
- Training and exercise strategies
- Resource sharing and networking

COLORADO
Division of Homeland Security & Emergency Management
Department of Public Safety

We strive to host inclusive, accessible events that empower all individuals, including individuals with disabilities, to engage fully. Additionally, to be respectful of those with allergies and environmental/chemical sensitivities, we ask that you please refrain from wearing strong fragrances. To request an accommodation or for inquiries about accessibility, please include this information in your registration and/or contact Sierra Cortez at (512) 523-1309 or email info@theDreamCollaborative.com

SCAN TO REGISTER
East | COS
West | Montrose
RESOURCES AND SOURCES

CDPHE Colorado Community Inclusion Map
http://www.cohealthmaps.dphe.state.co.us/colorado_community_inclusion/

   https://drive.google.com/file/d/1ERHOJpDiu3WmQexwkn_RHazragFDvRH-/view


   https://svi.cdc.gov/A%20Social%20Vulnerability%20Index%20for%20Disaster%20Management.pdf

4. CDPHE Social Determinants of Health Meta-Analysis

5. CDPHE Community Health Equity Map
   http://www.cohealthmaps.dphe.state.co.us/cdphe_community_health_equity_map/

6. CDPHE Community Level Estimates Map (BRFSS)
   https://www.cohealthmaps.dphe.state.co.us/cdphe_community_level_estimates/

7. NAACP. In the Eye of the Storm: A People’s Guide to Transforming Crisis and Advancing Equity in the Disaster Continuum
THANKS!

More questions?
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