HEALTH FOR A CHANGE

Kentucky Health & COVID19 Response:
CCVI Interactive Map & Health Equity

March 16, 2021

Foundation for a Healthy Kentucky’s MISSION

To address the unmet health needs of Kentuckians
by . . .

- Developing and influencing policy
- Improving access to care
- Reducing health risks and disparities
- Promoting health equity

And VALUES. . .

✓ Integrity ✓ Leadership
✓ Respect ✓ Policy Equity
✓ Effectiveness ✓ Collaboration
COVID-19 Community Vulnerability Index Interactive Map and Health Equity

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Potential Uses for the CCVI Map

- Resource allocation for COVID-19 Response (vaccines)
- Reaching vulnerable and minority populations for outreach and communications
- Doing Health Equity work (or adapting current work to have using a health equity lens)
- Source of sub-county data for CHA/CHIP & PHAB process
- Program Planning and evaluation
- Targeting interventions
- Program justification and work plans
- Grant writing
Health Equity

• KY Tracking is proud to partner with the KDPH Office of Health Equity
• Our tools can support your work on health equity
  • Data-driven health equity work
  • Support resource allocation decisions
  • Prioritizing vulnerable populations
  • Show how place (environment) can impact our health
  • Provoke thought and work on addressing root causes and social determinants of health

• Health Equity should be in everyone’s public health practice!
**Social Vulnerability Index**

https://ky-dph.maps.arcgis.com/apps/MapSeries/index.html?appid=b051448dfb4b4a69a39e8adf2e8ac44e

Social vulnerability is the extent to which a community is vulnerable to the effects of a hazardous event. This can be influenced by a number of factors including, but not limited to, income and poverty, education, access to health services, and economic opportunities. A high social vulnerability index indicates a community that may be more susceptible to the impacts of hazards.

**ATSDR**

Agency for Toxic Substances and Disease Registry

**CDC's Social Vulnerability Index (SVI)**

https://svi.cdc.gov/index.html

**What is the SVI?**

Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss. CDC's Social Vulnerability Index uses 15 U.S. census variables at tract level to help local officials identify communities that may need support in preparing for hazards or recovering from disaster.

The Geospatial Analysis, Research, and Services Program (GRASP) created and maintains CDC's Social Vulnerability Index.

Contact the SVI Coordinator with comments or questions.
Definitions:

• **Social Vulnerability** refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters.

• **Social Vulnerability Index (SVI)** is an index score comprised of:
  - 15 measures from the American Community Survey Data
  - Grouped into 4 themes:
    - Socioeconomic
    - Household Composition and Disability
    - Minority Status and Language
    - Housing and Transportation

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**CCVI Interactive Map**

[https://ky-dph.maps.arcgis.com/apps/MapSeries/index.html?appid=fef62c767a734a1ab2a0140a7477920e](https://ky-dph.maps.arcgis.com/apps/MapSeries/index.html?appid=fef62c767a734a1ab2a0140a7477920e)
CCVI Additional Themes and Measures

- **COVID-19 Community Vulnerability**: How resilient is the community to COVID-19?

- **COVID-19 Community Vulnerability Index (CCVI)** is an index score comprised of:
  - The 15 measures and 4 themes of the SVI and **10 additional variables and 2 additional themes**
  - 2 themes:
    - Epidemiologic Factors
    - Healthcare System Factors

How does the CCVI rank census tracts?

- These data are ranked using **percentiles**. A percentile rank is the percentage of tracts at or below that particular rank score.
- All tracts (or counties) are ranked on a scale from 0 (least vulnerable) to 1 (most vulnerable).
- A score is calculated for each theme and for an overall vulnerability ranking.
- This map shows Kentucky’s census tract rankings **within** the state.
Subcounty Geographies

- **Census tracts**: small, relatively permanent statistical subdivisions of a county – uniquely numbered in each county with a numeric code:
  - Ave. about 4,000 inhabitants
  - Minimum pop.: 1,200
  - Maximum pop.: 8,000
- Why does the SVI/CCVI use them instead of zip codes?
  - Nest within counties – don’t cross county lines
  - Relatively permanent
- **Major Difference of the CCVI from SVI is what is available at the subcounty level**

CCVI structure = CCVI interactive map

- Overall Index Score/First Map Tab
- Theme Scores/Next 6 Tabs
- Individual Measures

Covid-19 Community Vulnerability Index

- Socioeconomic
  - Poverty
  - Unemployment
  - Income
  - Education

- Household Composition and Disability
  - Elderly
  - Children
  - Disability
  - Single Parents

- Minority Status and Language
  - Minority
  - Limited English Speakers

- Housing and Transportation
  - Large Apartment Buildings
  - Mobile Homes
  - Crowding
  - No Vehicle
  - Group Quarters
CCVI structure = CCVI interactive map
Kentucky COVID-19 Community Vulnerability Index (CCVI)

*based on the CDC’s Social Vulnerability Index (SVI) & additional risk factors specific to COVID-19 created by the Surgo Foundation.

Data for the CCVI come from:
- CDC
- Centers for Medicare & Medicaid Services (CMS)
- Harvard Global Health Institute
- Policy Map
- US Bureau of Labor Statistics (BLS)
- U.S. Census Bureau (USCB)
- Association of Public Health Laboratories

What is COVID-19 community vulnerability?
COVID-19 community vulnerability refers to the resilience of communities when

The Socioeconomic Theme is made up of these individual measures:
- Poverty - Percent (%) living in poverty
- Unemployment - Percent (%) unemployment
- Income - Income per capita
- Education - Percent (%) with no high school diploma

*based on 2014-2018 American Community Survey data
Kentucky COVID-19 Community Vulnerability Index

The Household Composition and Disability Theme is made up of these individual measures:

- Elderly - Percent (%) elderly (aged 65+)
- Children - Percent (%) minors (aged 0-17)
- Disability - Percent (%) with a disability
- Single Parent - Percent (%) single parent households

*based on 2014-2018 American Community Survey data

Kentucky COVID-19 Community Vulnerability Index

The Minority Status and Language Theme is made of the following individual measures:

- Minority - Percent (%) minority
- Limited English - Percent (%) limited English speakers

*based on 2014-2018 American Community Survey data
The Housing and Transportation Theme is made up of these individual measures:

- Large Apartment Buildings - Percent (%): large apartment buildings
- Mobile Homes - Percent (%): mobile homes
- Crowding: Percent (%): crowding (\geq 1 person/room)
- No Vehicle: Percent (%): with no car available
- Group Quarters: Percent (%): group quarters

*Based on 2014-2018 American Community Survey data
The Epidemiological Theme is made up of these variables and individual measures:

**Cardiovascular Conditions:**
- Estimated percent of adults diagnosed with high blood pressure
- Estimated percent of adults diagnosed with high cholesterol
- Estimated percent of adults diagnosed with a stroke

**Respiratory Conditions:**
- Estimated percent of adults reporting to have asthma
- Estimated percent of adults diagnosed with COPD, emphysema, or chronic bronchitis
- Estimated percent of adults reporting to smoke cigarettes

**Immunocompromised:**
- Annual cancer incidence per 100,000
- Rate of persons living with an HIV diagnosis per 100,000

**Obesity:**
- Estimated percent of adults reporting to be obese

**Diabetes:**
- Estimated percent of adults ever diagnosed with diabetes

**Population Density:**
- Estimated total number of people per area

**Influenza and Pneumonia Death Rates:**
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These Essential Data Elements to Advance Health Equity

• It is necessary to understand where disparate health conditions occur simultaneously, especially at the highest (worst) levels.
• We need data to reflect how health disparities, health inequities and social determinants are distributed by geography.
• It is equally important to understand which social determinants are correlated with other disparate health issues.
• The SVI and the CCVI data analysis will help us satisfy these conditions.
Parting Thoughts

• The Kentucky Department of Public Health is moving beyond just health disparities data.

• Using tools like SVI and the COVID-19 Community Vulnerability Index (CCVI) as data tools to better address inequities in our most vulnerable communities.

• Move beyond our silos (programmatic, professional, academic) and collaborating to share expertise in solving complex health equity issues.

• Overcome the mind-set that health equity is outside of public health practice.

CCVI Application
Questions?

Thank you!

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