Measuring Isolation Risk for Seniors in Pennsylvania Counties

Tim Schock, Data Analyst
PA State Data Center

Dr. Raeven Faye Chandler, Director
Pennsylvania Population Network
Background & Purpose

• Social isolation tied to individual health outcomes [1,2]

• Older adults at risk for severe COVID outcomes
  • 8 out of 10 COVID-19 deaths occurred in 65+ population [i]

• Pennsylvania has both high concentration (18.7%) and number (2.4 million) of adults age 65 and older [ii]

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Operationalizing Isolation

• **America’s Health Rankings** [3]
  - Poverty
  - Living Alone
  - Single/Widowed
  - Disability
  - Independent Living Difficulties

• **Other Research** [4,5,6]
  - Poverty
  - Single/Widowed
  - Disability
  - Transportation
  - Social Support
  - Personal Health
  - Recent Migration
  - Childlessness
  - Expenses
Operationalizing Isolation

• **Finances**
  - Poverty [ACS]
  - Housing Cost Burden [ACS]

• **Living Arrangements**
  - Living Alone [ACS]
  - Widowed or Divorced [ACS]
  - Recently Moved [ACS]

• **Community Access**
  - Food Insecurity [USDA]
  - No Vehicle [ACS]
  - No Computer or Internet [ACS]

• **Individual Barriers**
  - One or More Disabilities [ACS]
  - Limited English [ACS]
  - Poor Mental Health [BRFSS]

Senior Isolation Index

• Counties were ranked on each indicator (e.g., Poverty, Housing Cost Burden)
• The average rank was calculated for each category (e.g., Finances)
• The four category averages were then averaged and normalized to produce an index score from 1 to 100
  • 1 = lowest risk, 100 = highest risk
Findings & Limitations

• Findings
  • Index scores ranged from 28.5 in Forest County to 87.3 in Philadelphia County
  • Philadelphia ranked **highest** in six indicators, including Poverty, Vehicle Access, Disability, Limited English, Widowed or Divorced, and Poor Mental Health, and **second-highest** in Housing Cost Burden and Living Alone

• Limitations
  • Personal vehicle ownership does not capture mobility well in urban areas
  • Report does not consider differences across racial groups
  • Food insecurity data is dated
Interactive report uses Esri ArcGIS Online & StoryMaps

Maps created for each indicator and final index

Access final report at:

https://storymaps.arcgis.com/stories/d8bf4fdbf5454657ae5d9caf6238f32f
References


Get in Touch

Tim Schock, Data Analyst
PA State Data Center

timschock@psu.edu
@PASDC_PSU

Dr. Raeven Faye Chandler, Director
Pennsylvania Population Network

rfc134@psu.edu
@PSU_PopNetwork