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Making Informed Residential Setting Choices for Frail Adults Using Covid-19 Fatality Rate Comparisons

2020 Virtual Home and Community-Based Service Conference
December 9, 2020

MICHAEL GELDER, MHA, DEPARTMENT OF DISABILITY AND HUMAN DEVELOPMENT, SCHOOL OF APPLIED HEALTH SCIENCES, UNIVERSITY OF ILLINOIS AT CHICAGO (UIC), HEALTH AND MEDICINE POLICY RESEARCH GROUP

SUSAN HUGHES, PHD, DIRECTOR, CENTER FOR RESEARCH ON HEALTH AND AGING AND PROFESSOR, SCHOOL OF PUBLIC HEALTH, UIC

AMY LULICH, MHA, SENIOR POLICY ADVISOR, ILLINOIS DEPARTMENT ON AGING

Overview

This purpose of this project is to:

- Provide timely and useful information to older adults and their families about the risk factors associated with various residential options when they are no longer able to live independently.
- Inform policy makers about the relative Covid-19-related risks to ensure state funding and policies support best possible residential options for frail older adults.

The project is using mortality data on Covid-19-related deaths through October 31, 2020, among adults age 60 and older from the Cook County Medical Examiner's Office, Illinois Department of Public Health, and Illinois Department on Aging to identify risk factors and examine rates and predictors of mortality for older adults in nursing homes compared to the community and between those living in nursing homes, other congregate sites, multigenerational households, and living alone.

Methodology

Research team is analyzing decedents from the Cook County Medical Examiner's Office (CCMEO), and the Illinois Departments of Public Health and Aging.

UIC faculty with expertise in aging, aging policy, long-term care, geographic analysis, and statistical analyses along with supporting research staff will analyze the data and produce findings in the form of reports and publishable manuscripts.

Health and Medicine Policy Research Group, a Chicago-based progressive policy and advocacy not-for-profit organization will share and promote findings through reports, social media, forums, and media briefings.



Health & Medicine
POLICY RESEARCH GROUP

Project Leadership

Covid-19 Older Adult Mortality Analysis (COAMA): Collaborative, multidisciplinary effort led by UIC faculty and Health and Medicine Policy Research Group (HMPRG)

Principal Investigator: Michael Gelder, MHA

- Department of Disability and Human Development, Applied Health Sciences; School of Public Health (SPH), HMPRG Board Member

Bhatia, Ishan

- Research Assistant, SPH

DeMott, Andrew; MPH

- Center Coordinator, Center for Research on Health and Aging (CRHA)

Eisenberg, Yochai; PhD

- Assistant Professor, Department of Disability and Human Development

Hershow, Ronald; MD, PhD,

- Professor and Chair, Division of Epidemiology and Statistics, SPH

Ho, Haewon; MA

- Research Assistant, Health Policy and Administration, SPH

Hollender, Meredith

- MPP Candidate, University of Chicago; Paid intern, HMPRG

Hughes, Susan; PhD

- Director, CRHA; Professor, Community Health Sciences, SPH

Kim, Sage; PhD

- Associate Professor, Health Policy and Administration, SPH

Lulich, Amy; MHA

- Senior Policy Advisor, Illinois Department on Aging

Schaps, Margie; Executive Director, HMPRG

Sources of Data

Cook County Medical Examiner's Office (CCME)

- Deaths of all older adult deaths (60 and older) due to Covid-19 in Cook County, Illinois (Includes Chicago and inner-ring suburbs).

Illinois Department of Public Health (IDPH)

- Deaths of all Illinois residents age 60 and older due to Covid-19.

Illinois Department on Aging (IDOA)

- Residential status and level of impairment of clients of state Medicaid home and community based services (HCBS) waiver program who died from Covid-19.



**COOK COUNTY
GOVERNMENT**



CCME and IDPH Data Elements

Race

Hispanic (Y or N)

Age at death

Sex

Residential Address (census tract)

Cause of Death 1

Cause of Death 2

Cause of Death 3

Date of Death

Underlying health conditions 1

Underlying health conditions 2

Underlying health conditions 3

Facility type at death (hospital, congregate setting)

Department on Aging Data Elements

IDOA will provide data for all Covid-19-related decedents age 60 and older who received services through its HCBS Medicaid waiver program (Community Care Program), which requires the same level of need to receive care at home that is required to enter a nursing home.

Data elements include:

- Living alone
- Living with family
- Living in other congregate setting
- Activities and Independent Activities of Daily Living variables
- Cognitive Impairment variables

Research Questions

- Overall analysis
 - Geographic concentrations
 - Race
 - Hispanic status
 - Age
 - Comorbidities
 - Neighborhood vulnerability index
- Questions pertaining to decedents use of HCBS
 - How many decedents qualified for CCP and received in-home support services?
 - Did CCP services impact Covid-19 mortality?



Research Questions

What were the rates of death in nursing homes compared to:

- Non-nursing home?
- Living alone?
- Multigenerational households?
- Other congregate settings?

- Nursing homes risk factors
 - Profit status
 - Union CBA
 - State quality indicators
 - Medicare certified—Star rating
 - Chain affiliation
 - Hospital system affiliation
 - Concentration in socially vulnerable communities



WSJ GRAPHICS

'If Anything Happens to Me...' Inside One of America's Worst-Hit Nursing Homes

October 6, 2020 11:30 am ET



Timeframe

Phase 1 (currently underway)—Covid-19 mortality risk factor analysis

- Risk factor analysis of Cook County Medical Examiner Office decedents
- Risk factor analysis of IDPH decedents (statewide)
- Residential comparison analysis from IDOA CCP client database

Phase 2 (January-July 2021)—Excess Mortality Study

- Data requested from IDPH on deaths to adults 60 and older from 2015-2020



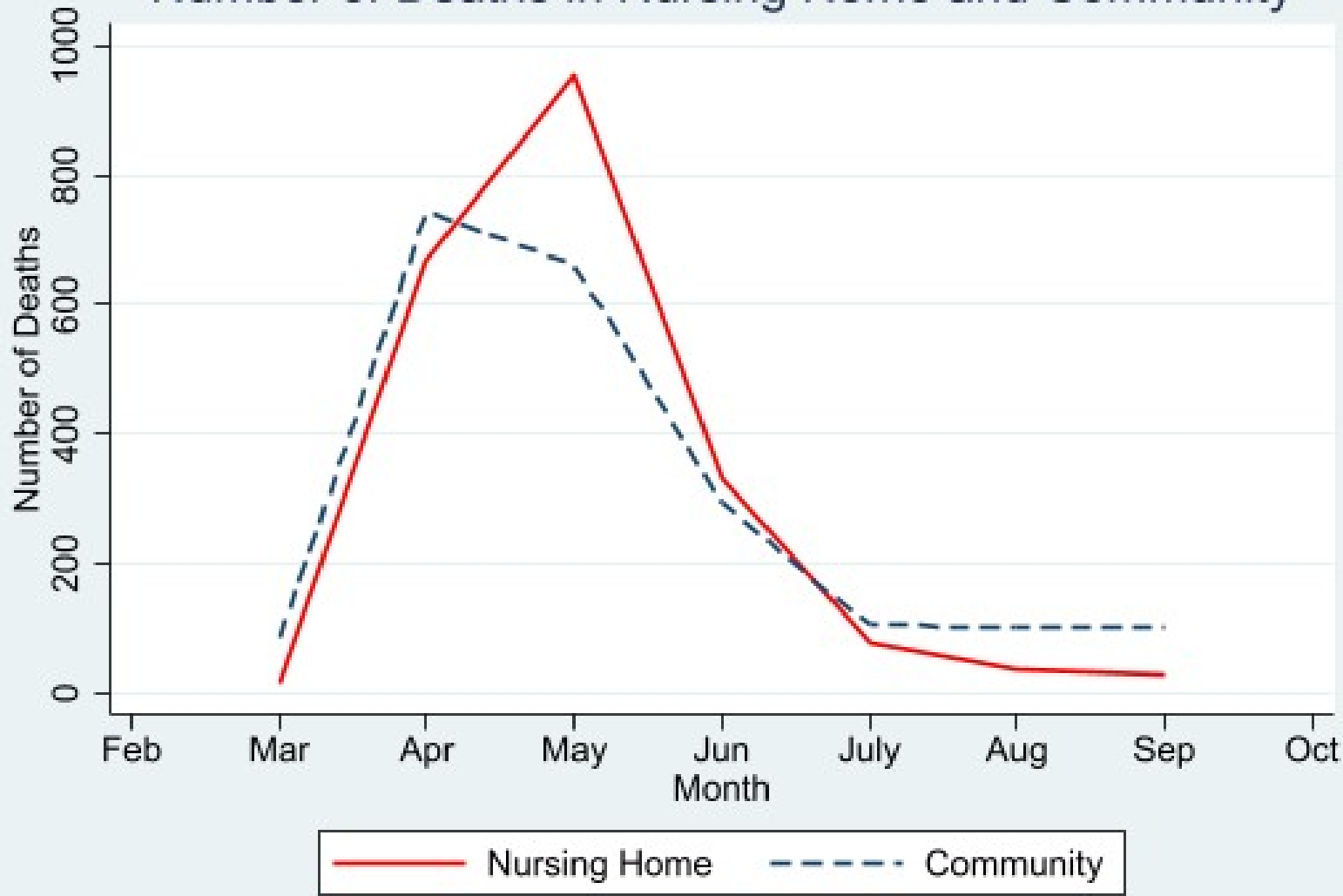
Preliminary Findings – Phase 1

Cook County, Illinois



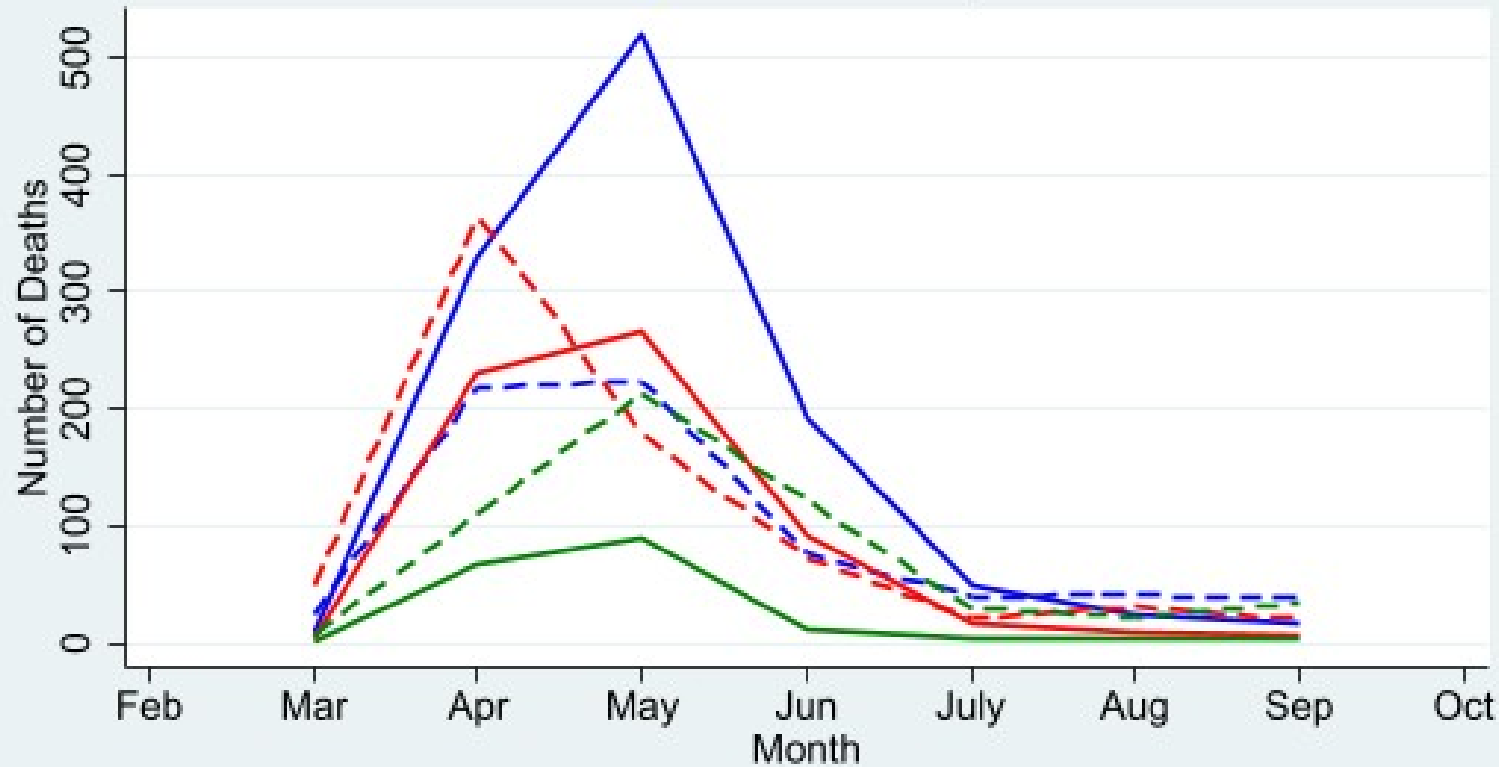
Demographics	
Total Population	5.2 M
White; Non-Hispanic, Latino	42.0%
White; Hispanic, Latino	25.6%
Black	23.8%
Asian	7.9%
Persons 60 and older	1.1 M (21.1%)
Housing Units	2.2 M
Median Household Income	\$62,000
Below poverty line	14%

Number of Deaths in Nursing Home and Community



Total Covid-19 mortality by place and over time

Number of Deaths by Race



Total Covid-19 mortality by race/ethnicity, residence, and time

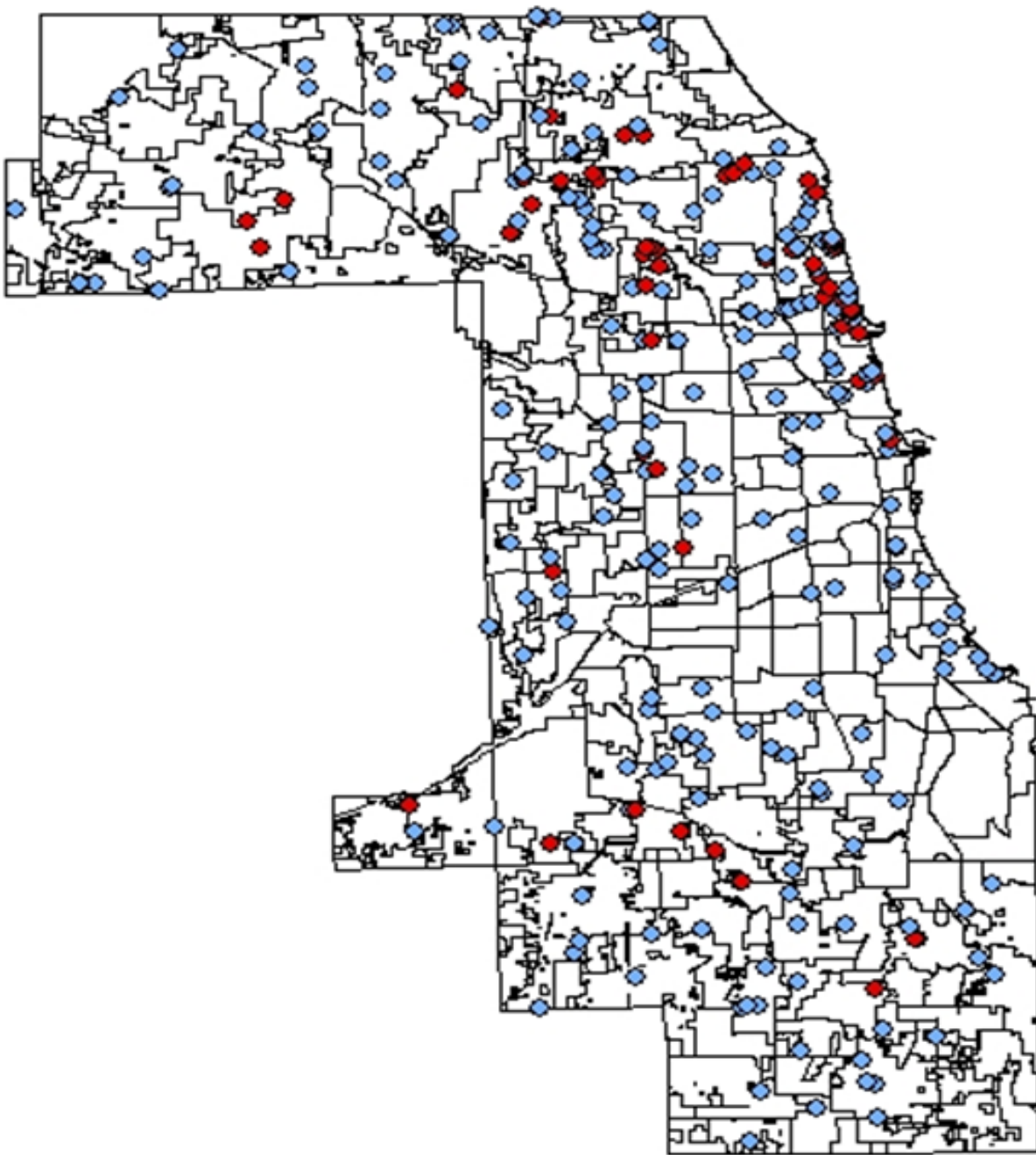
Note: These are numbers of deaths, not rates.

Location at time of COVID Death by Age and Race/Ethnicity

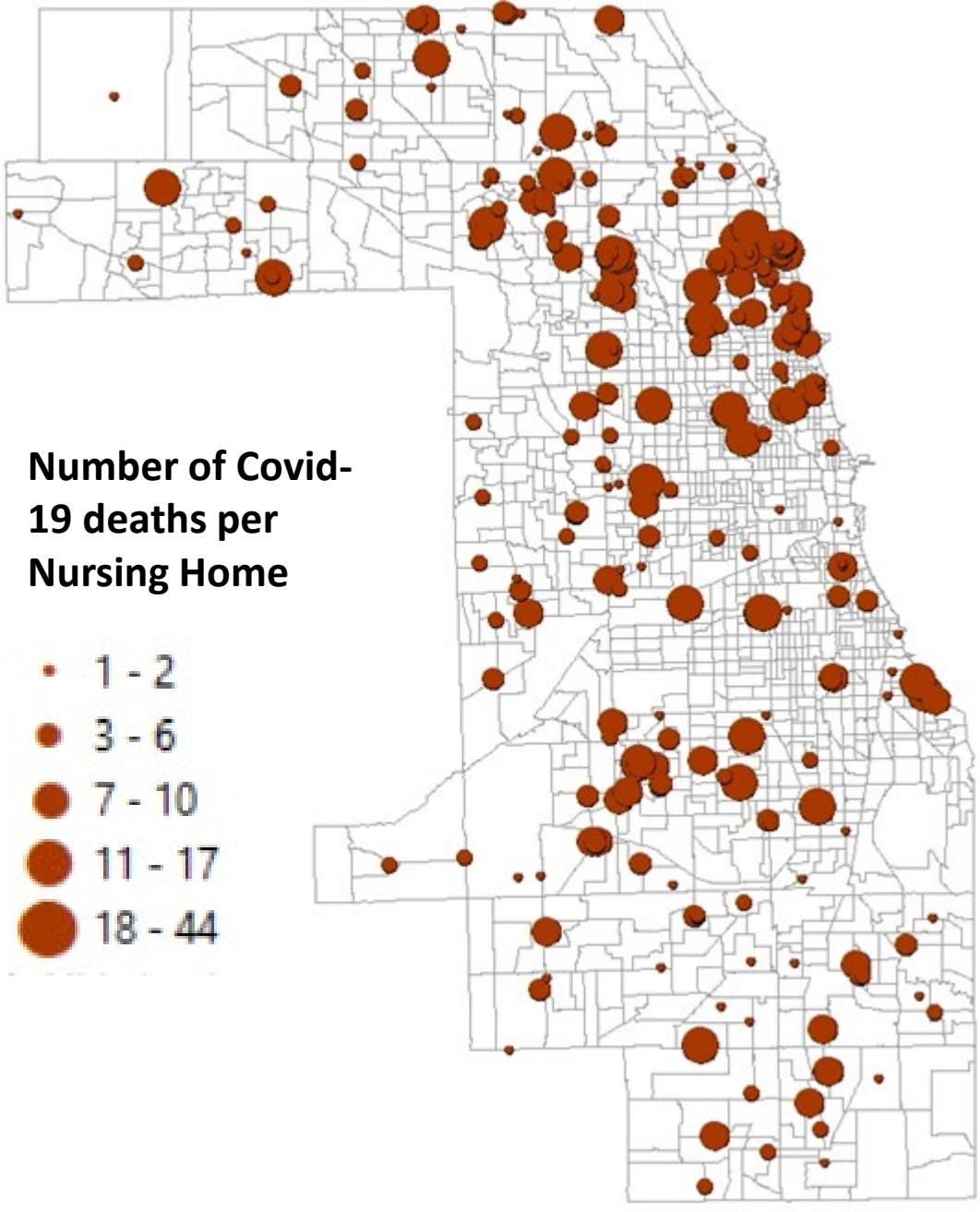
Place of Death	N	%	Age	Black (%)	Hispanic (%)	White (%)
Nursing Home	2,112	49.7	81.3	32.1	9.3	58.6
Community	2,090	50.3	75.3	37.9	27.9	34.2
Total	4,202	100	78.3	32.4 (23.8)	17.2 (25.6)	42.9 (42.0)

Overall percentages for Cook County listed in (red) (US Census Bureau, 2019)

Spatial Distributions of Cook County Deaths



Distribution of Covid-19 nursing home deaths in Cook County

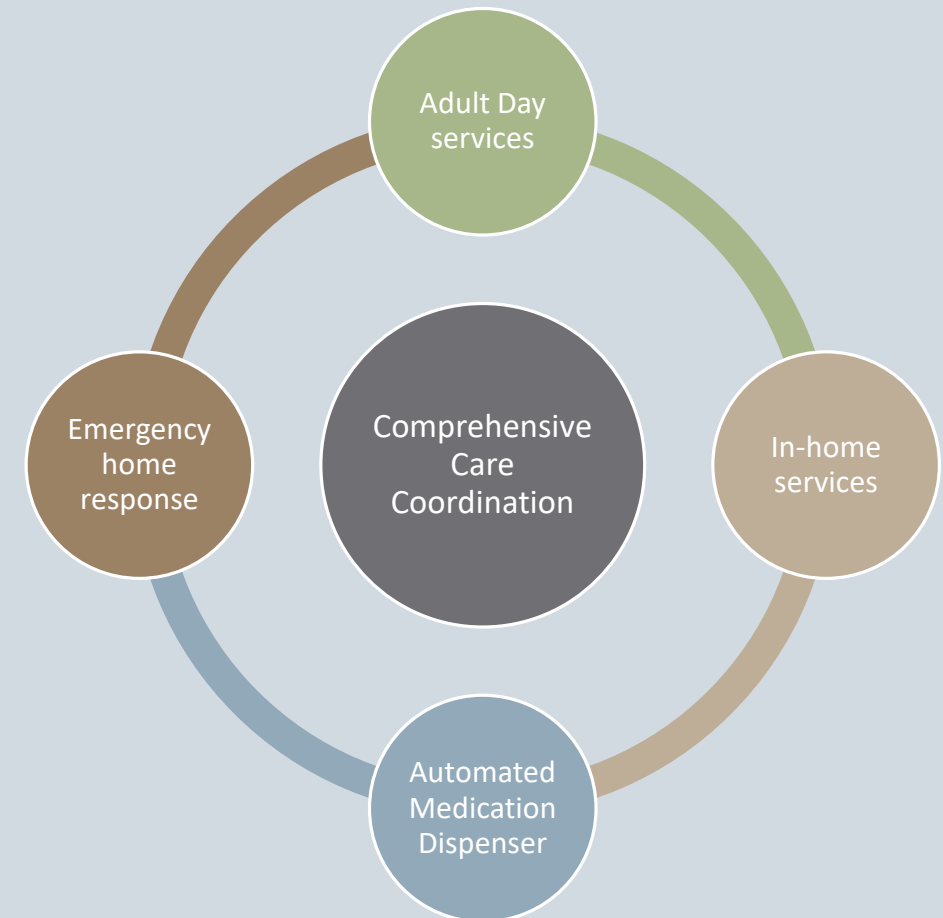


Illinois Department on Aging (IDoA) Community Care Program (CCP)

Illinois administers a Medicaid 1915 (c) waiver for home and community-based services (HCBS), specifically for older adults.

Qualifications:

- 60 years old or older;
- U.S. citizen or legal alien;
- Resident of Illinois;
- Have non-exempt assets of \$17,500 or less;
- Have an assessed need for long term care (to be at risk for nursing facility placement as measured by the Determination of Need (DON) assessment).



Potential Policy Implications

- Promulgation of **higher standards** and more **vigorous enforcement** of professional and support staffing, infection control and other measures related to controlling the introduction and transmission of potentially contagious diseases in long-term care facilities.
- Additional research on programs and policies to ameliorate the **harmful effects of social isolation** among those frail older adults living in institutional and community settings.
- Increased funding to **support more frail older adults living in community settings**.
- Higher **salaries** for **frontline workers**.
- Enhancement of efforts to help **nursing home residents relocate to community settings** with sufficient supports and services.
- Coordination between IDPH and nursing homes to further **prioritize Covid-19 vaccination efforts** to long-term care facilities with higher incidence of fatalities.
- Distribution of **Covid-19 vaccine to older adults in CCP program** in communities with higher incidence of Covid deaths.
- **Targeted education and outreach** in communities with higher incidence of Covid deaths.

Caution

Data presented to date are raw numbers and not rates. Comparisons of mortality rates that reflect the much larger number of older adults who live in the community will look very different.



This analysis is a work in progress, stay tuned!

Next Steps

Continue to pursue research questions.

Obtain, match, and analyze statewide IDPH and IDOA data to identify additional risk factors and compare mortality of nursing home and community-living frail older adults.

Thank You!

Thank you for your interest!

For questions, please contact:

Michael Gelder – mgelder@uic.edu

Susan Hughes – shughes@uic.edu

Amy Lulich – amy.lulich@illinois.gov

