Support Health Promotion Programs & Services Throughout Maryland’s Aging Network

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Introduction

Population aging is unprecedented in the United States, driven by decline in fertility rates and increase in life expectancy as well as retirement of baby boomers.

- By 2030, one in five Americans is projected to be 65 and over.²
- In Maryland, population aging is also a critical issue. The percentage of adults aged 60 and over was 18.35% in 2015 and is projected to increase to 25.4% by the year 2030.¹

Maryland Department of Aging (MDoA) serves as the State Unit on Aging and works with the statewide network of 19 Area Agencies on Aging (AAAs).¹ MDoA partners with the Aging Network and other stakeholders to

- oversee effective and accountable use of federal and state funds;
- administer federal and state-funded services and programs;
- adjust and promote policies;
- provide expert and objective guidance, technical assistance and education.

Organization

Background

Population aging is unprecedented in the United States, driven by decline in fertility rates and increase in life expectancy as well as retirement of baby boomers.

- By 2030, one in five Americans is projected to be 65 and over.²
- In Maryland, population aging is also a critical issue. The percentage of adults aged 60 and over was 18.35% in 2015 and is projected to increase to 25.4% by the year 2030.¹
Introduction

1. Develop a detailed understanding of demographic and disease burden
2. Review health promotion programs and characterize healthcare resources
3. Execute data analyses to identify gaps
   - Evaluate availability and efficiency of funding
   - Visualize results using maps

- Develop a comprehensive and easy-to-use Excel-based tool
- Create policy and program recommendations
- Promote health of older adults in Maryland
02 Methods

Demographic burden

Disease burden

MDoA

IIID Funding

Health Promotion Programs

Gap

Healthcare Resources
2018 American Community Survey (ACS) 5-year estimates

Percentage of population aged 65 years and over
Percentage of older adults below poverty level
Percentage of older adults uninsured
Percentage of households with householders aged 65 years and over living alone

For each variable, generate a score according to quintile, ranging from 1-5

A summary score adding together

Demographic burden

Disease burden

IIID Funding

Health Promotion Programs

Gap

Healthcare Resources
Chesapeake Regional Information System for our Patients (CRISP)⁴

Percentage of visits where the condition-specific diagnosis codes were present

Demographic burden:
- Alzheimer's disease and related disorders
- Any mental health condition
- Any substance use disorder
- Diabetes
- Hypertension
- Fall
- Malnutrition

Disease burden:
- Alzheimer's disease and related disorders
- Any mental health condition
- Any substance use disorder
- Diabetes
- Hypertension
- Fall
- Malnutrition

For each condition, generate a score according to quintile, ranging from 1-5

A summary score adding together and then scaled back using a factor of 4/7

IIID Funding

Health Promotion Programs

Gap

Healthcare Resources
Semi-annual report (April and October) from Area Agencies on Aging in 2019

- Total number of unduplicated persons served with IIID funds
- Total number of service units (sessions) offered with IIID funds
- Types of programs provided under IIID funds
- Percentage of participants completed the programs

For each variable, generate a score according to quintile, ranging from 1-5

A summary score adding together
Chesapeake Regional Information System for our Patients (CRISP)⁴

- Average charges per visit
- All-cause inpatient readmissions
- Prevention Quality Indicators (PQIs)
- Average length of stay (LOS) per visit

For each condition, generate a score according to quintile, ranging from 1-5

A summary score adding together

Demographic burden

Disease burden

IIID Funding

Health Promotion Programs

Healthcare Resources
Gap Analysis and IIID Funding

\[
\text{Gap} = (\text{Demographic burden} + \text{Disease burden}) - (\text{Health Promotion Programs} + \text{Healthcare Resources})
\]
Summary Score includes 4 items: percentage of population aged 65+, percentage of older adults under poverty, percentage of older adults uninsured and percentage of households with older adults living alone. For each item, score ranges from 1-5, based on ranking of counties. Higher Score indicates higher demographic burden.
Disease Burden among Older Adults in Maryland by County

Legend
Summary Score of Disease Burden
- ≤9
- 10-11
- 12
- 13-14
- ≥15

Summary score of disease burden includes 7 items: Alzheimer's disease and related disorders, Any mental health condition, Any substance use disorder, Diabetes, Hypertension, Fall and Malnutrition. For each item, counties are ranked and counties with higher disease burden will receive higher score. Summary score ranges from 4-20.
Summary Score includes 4 items: Number of unduplicated persons served, Number of service units offered, program completer rate and types of programs. Score of each item ranges from 1-5, based on ranking of counties. Higher score indicates more resources.
Summary score of healthcare resources includes 4 items: charges per visit, readmit rate, PQI rate and length of stay per visit. For each item, counties are ranked according to the values. Summary score ranges from 4-20, higher value indicates more resources.
Summary Score of Gap (Burden – Resources) in Maryland

Resources and Burden in Each County across Maryland

- **Burden < Resources** (Gap<0)
- **Burden = Resources** (Gap = 0)
- **Burden > Resources** (Gap>0)
Prince George’s County: funding awarded is above median but funding spent is below median: under-spending.

Washington County: funding awarded and funding spent are both at median level: insufficient funding awarded.

Funding Awarded by Gap in each county across Maryland  
Funding Spent by Gap in each county across Maryland
I. Detailed presentation of data and score for each variable

II. Built-in maps for data visualization
For summary scores of gap and funding in the future, information from previous years will be taken into account by taking a weighted average of summary scores over several years.

\[
\text{Gap Score}_{2021} = 1 \times \text{Gap Score}_{2021} + 0.8 \times \text{Gap Score}_{2020} + 0.6 \times \text{Gap Score}_{2019} \over 1 + 0.8 + 0.6
\]

\[
\text{Gap Score}_{2022} = 1 \times \text{Gap Score}_{2022} + 0.8 \times \text{Gap Score}_{2021} + 0.6 \times \text{Gap Score}_{2020} + 0.4 \times \text{Gap Score}_{2019} + 0.2 \times \text{Gap Score}_{2018} \over 1 + 0.8 + 0.6 + 0.4 + 0.2
\]
04 Limitations and Challenges

Future Analyses

Longitudinal perspective
Possibility of taking longitudinal perspective is persevered by building into the Excel tool for future years, current analysis is cross-sectional for year 2019 because of inconsistencies in measurements.

Definition of gap
Defining gap based on 2 parts of burden and 2 parts of resources might not be sufficient. May consider other data sources in the future.

Data quality
Under-reporting of disease burden.
Inconsistencies and errors in semi-annual reports of health promotion programs.
**Policy and Practice Implications**

**Improve quality and availability of data**
Other data sources that can provide additional information or more reliable data to substitute measures with quality issues in current analyses.

Reporting of health promotion programs:
A more consistent form of reporting; Reduce errors

**Improve efficiency in spending funding**

**Short-term**
- Counties that could have addressed the gap better with the funding awarded: focus on solving the underspending issue
- Counties that spent all funding awarded to them but still not sufficient: improve distribution of funding across health promotion programs to prioritize specific aspects.

**Long-term**
- Promote model for funding allocation

**Cooperate with other agencies**
The framework implies the needs for cooperation with other relevant agencies like hospitals and community health centers that are also providing resources for promoting health of older adults.
References


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