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**COGNITIVE AND BEHAVIORAL HEALTH IN LATER LIFE**  
**Maryland Demographic and Epidemiological Information**

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# FOREWORD: MEETING THE COGNITIVE AND BEHAVIORAL HEALTH CHALLENGES OF THE ELDER BOOM IN MARYLAND

- This document provides demographic and epidemiological background information for policymakers, advocates, journalists, and others who are concerned about the mental well-being of older adults in Maryland during the “elder boom”.
- Unfortunately, people with dementia, mental illnesses, and/or substance use problems and their families often do not get the services they need due to service shortages, limited access to services that exist, uneven quality of care, limited integration of services, limited continuity of care, workforce shortages, and more.
- Unmet cognitive and behavioral health needs can result in avoidable individual and family suffering as well as in premature death and disability, excessive institutionalization, and very high health care costs.
- To meet the cognitive and behavioral health needs of older adults in Maryland it will be necessary to
  - Expand current services to keep pace with population growth
  - Take bold steps to improve services to overcome current service shortfalls.
- Keeping pace and improving care will depend on the availability of data to inform the planning and policy development. This document is a small step towards gathering the needed data.

*We are grateful to AARP Maryland for the resources and assistance it has provided to assemble this data book.*

# TABLE OF CONTENTS

<b>FOREWORD</b>	<b>2</b>
<b>TABLE OF CONTENTS</b>	<b>3-4</b>
<b>DEMOGRAPHICS</b>	<b>5-19</b>
<i>Population Growth in Maryland</i>	6-8
<i>Male-Female Population</i>	9
<i>Racial and Ethnic Mix</i>	10
<i>Poverty</i>	11
<i>Volunteer and Paid Work</i>	12
<i>Where Older Adults Live</i>	13
<i>Caregiving Needs and Family Caregiving</i>	14-15
<i>Social Isolation and Loneliness</i>	16
<i>Internet Access</i>	17
<i>Elder Mistreatment</i>	18
<i>Veterans</i>	19
<b>COGNITIVE AND BEHAVIORAL HEALTH PROBLEMS OF LATER LIFE</b>	<b>20-44</b>
<i>Types and Prevalence of Cognitive and Behavioral Health Disorders</i>	21-23
<b><i>Cognitive Impairment and Dementia</i></b>	<b>24-27</b>
<i>Types of Dementia</i>	25
<i>Prevalence of Dementia</i>	26
<i>Co-occurrence of Dementia With Behavioral Health Conditions</i>	27

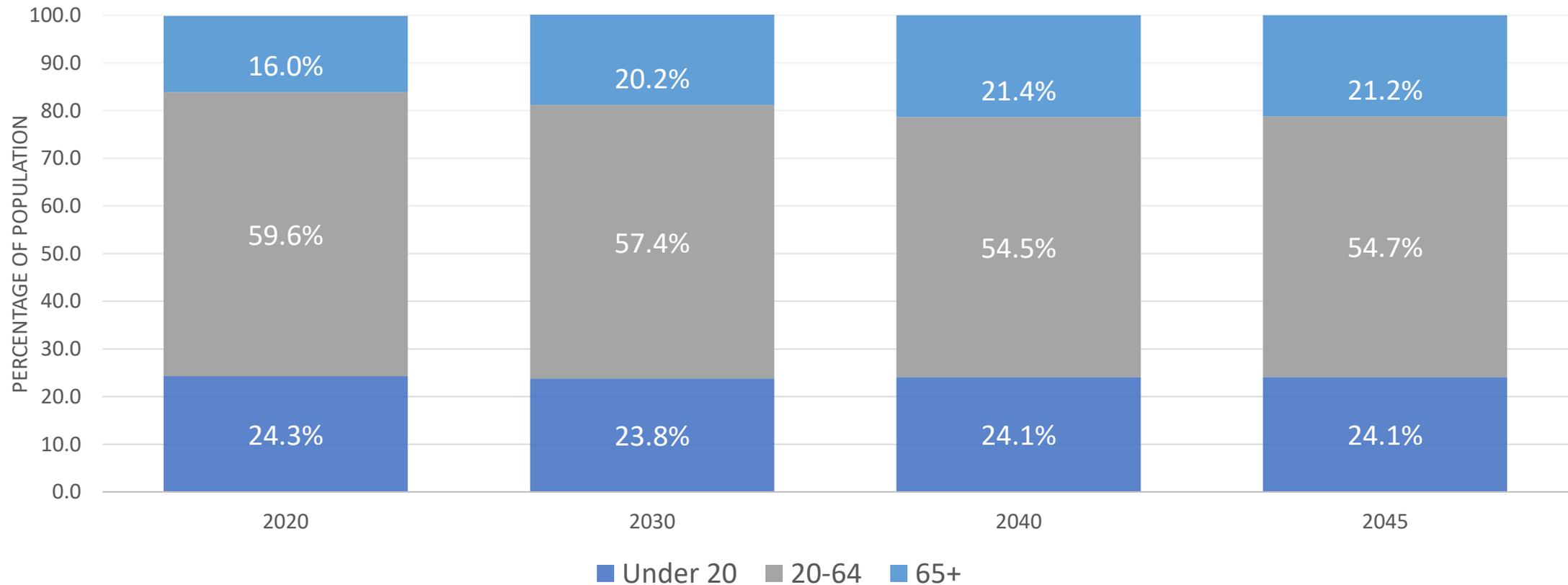
## Table of Contents (continued)

<b>Behavioral Health Conditions</b>	<b>28-44</b>
<i>Prevalence of Behavioral Health Conditions</i>	29-31
<i>Anxiety and Mood Disorders</i>	32-34
<i>Suicide</i>	35-36
<i>Severe Mental Illness</i>	37
<i>Substance Misuse</i>	38
<i>Traumatic Brain Injury</i>	39
<i>Autism and Developmental Disabilities</i>	40
<i>Emotional Reactions to Adverse Experiences</i>	41
<i>Developmental Emotional Challenges of Old Age</i>	42
<i>Co-occurring Disorders</i>	43
<i>Psychological Well-Being</i>	44
<b>High Risk Populations</b>	<b>45-53</b>
<i>Psychological Fallout of the Pandemic on Older Adults</i>	46
<i>Social Isolation</i>	47
<i>Mental Disorders Among Family Caregivers</i>	48
<i>Behavioral Health Conditions in LTC Facilities</i>	49
<i>Cognitive and Behavioral Disorders Among People of Color</i>	50
<i>Poverty</i>	51
<i>Women</i>	52
<i>Trauma Risk Among Older Adults</i>	53
<i>Cognitive and Behavioral Disorders Among Veterans</i>	54
<i>LGBTQ+</i>	55
<b>Projected Growth of Cognitive and Behavioral Health Conditions</b>	<b>56-62</b>
<b>Access To Quality Care and Treatment Is Inadequate</b>	<b>63-69</b>
<i>Improvements for Cognitive Health Care</i>	64
<i>Inadequacy of Behavioral Health Care</i>	65-67
<i>Barriers</i>	68
<i>Workforce Shortages</i>	69
<b>AN AGENDA FOR CHANGE</b>	<b>70</b>

# **DEMOGRAPHIC DATA ABOUT THE AGING POPULATION OF MARYLAND**

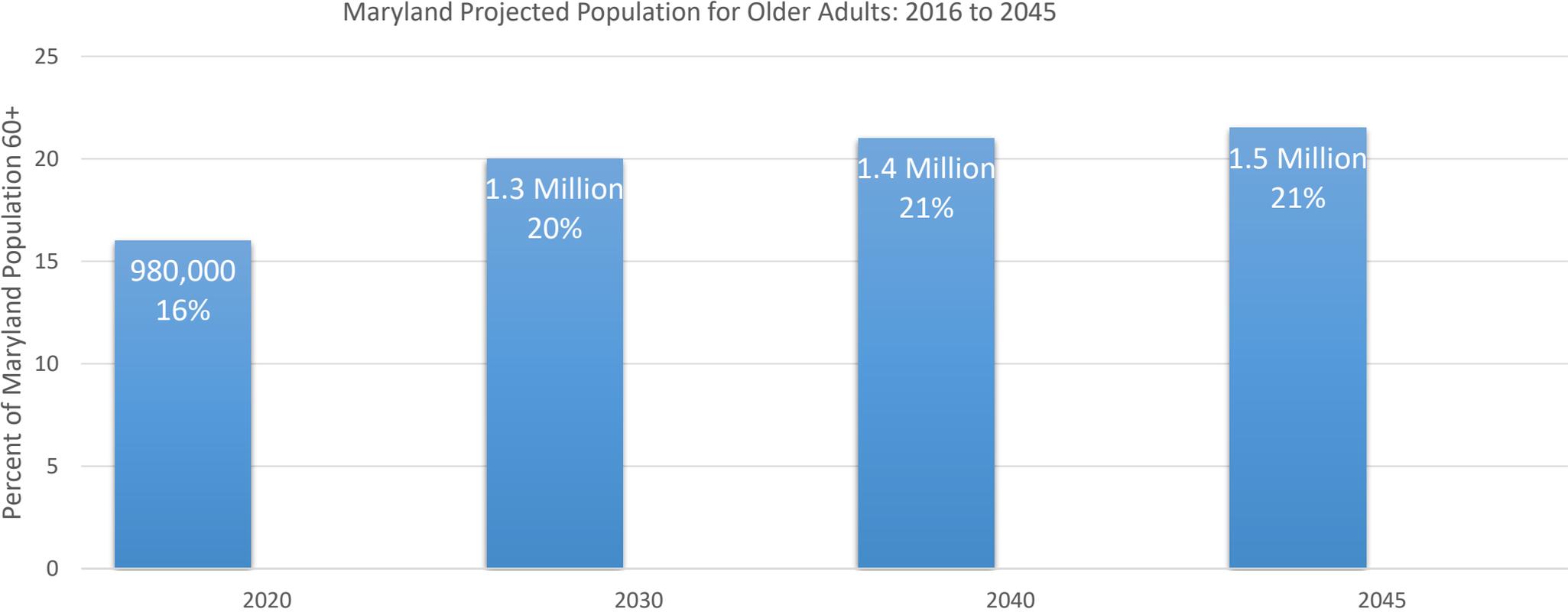
# Over The Next 25 Years The Proportion Of Adults 65+ In Maryland Will Increase 5% While The Proportion Of Working Age Adults Will Decline 4.7%

Age Distribution of the Maryland Population: 2020-2045



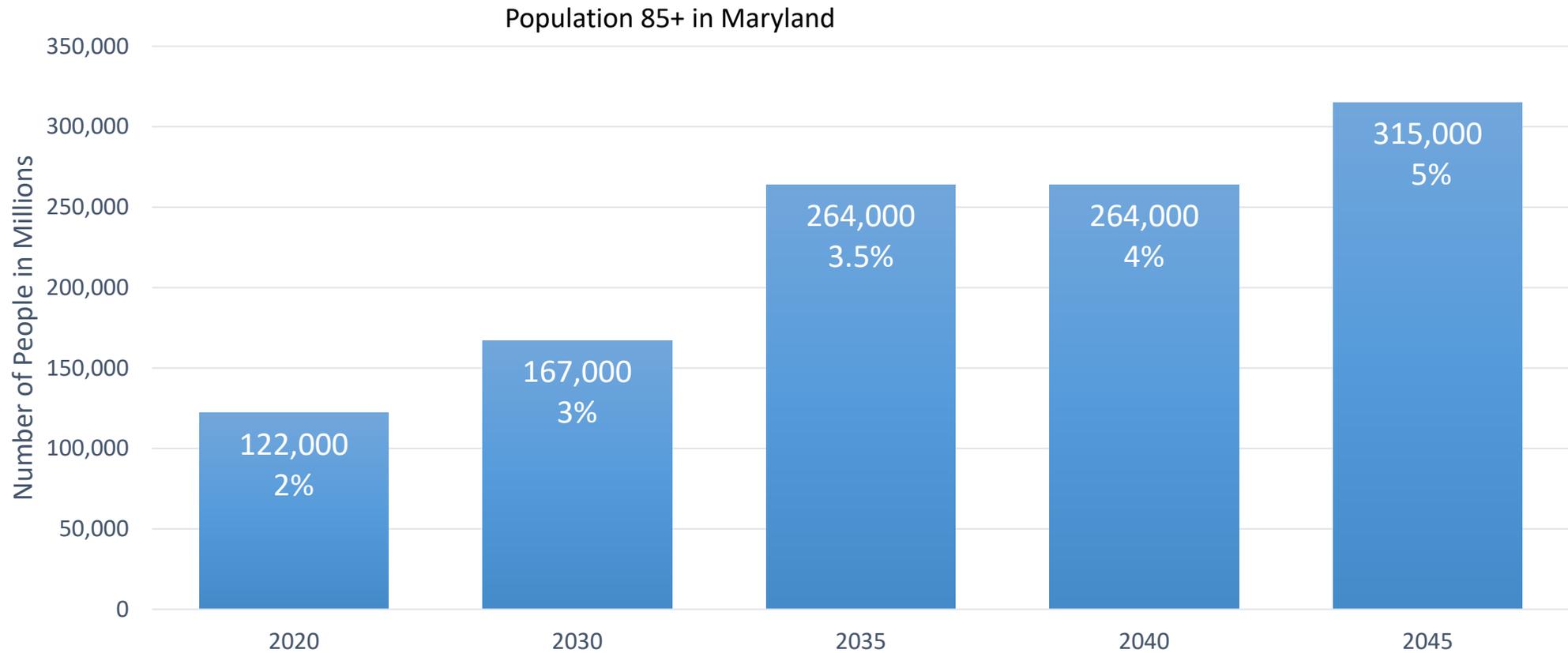
Maryland State Data Center (2020). "Projections to 2045." *Maryland Department of Planning*.  
<https://planning.maryland.gov/MSDC/Documents/popproj/TotalPop-Race-Age-Gender.xlsx>

# Over The Next Decade, Maryland's 65+ Population Will Grow By 320,000 From 16% To 20% Of The Total Population



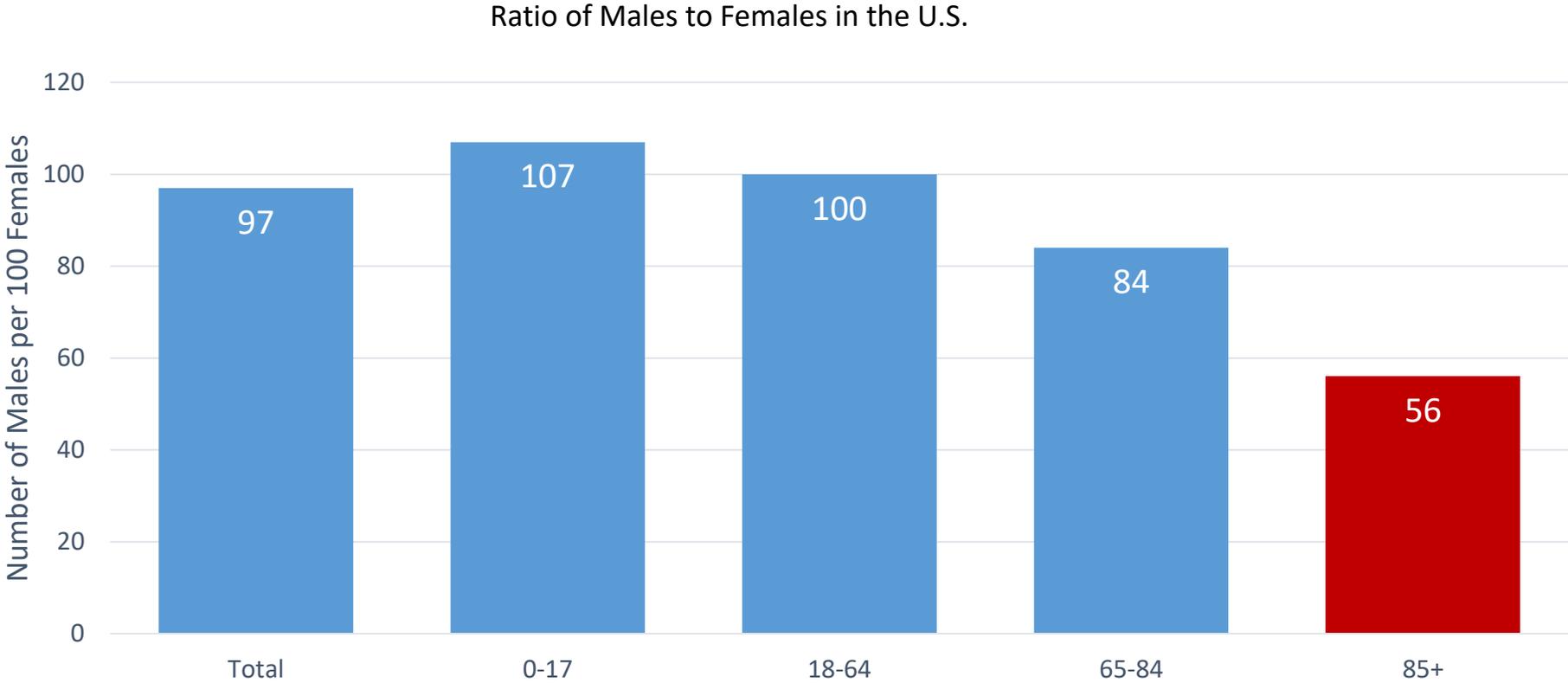
Maryland State Data Center (2020). "Projections to 2045." *Maryland Department of Planning*.  
<https://planning.maryland.gov/MSDC/Documents/popproj/TotalPop-Race-Age-Gender.xlsx>

# Over The Next 25 Years Maryland's 85+ Population Will Increase By 158%, From 122,000 To 315,000 And From 2%-5% Of The Total Population



Maryland State Data Center (2020). "Projections to 2045." *Maryland Department of Planning*.  
<https://planning.maryland.gov/MSDC/Documents/popproj/TotalPop-Race-Age-Gender.xlsx>

**The Number of Males per 100 Females Declines Sharply at Older Ages.**  
**For Those 85+ There Are Almost 2 Females Per Male**



*[The U.S. population is growing older, and the gender gap in life expectancy is narrowing.](#)* PRB. (n.d.). Retrieved February 27, 2022.

# People of Color Were 34% Of The Older Population Of Maryland In 2020. They Will Increase To 50% By 2045.

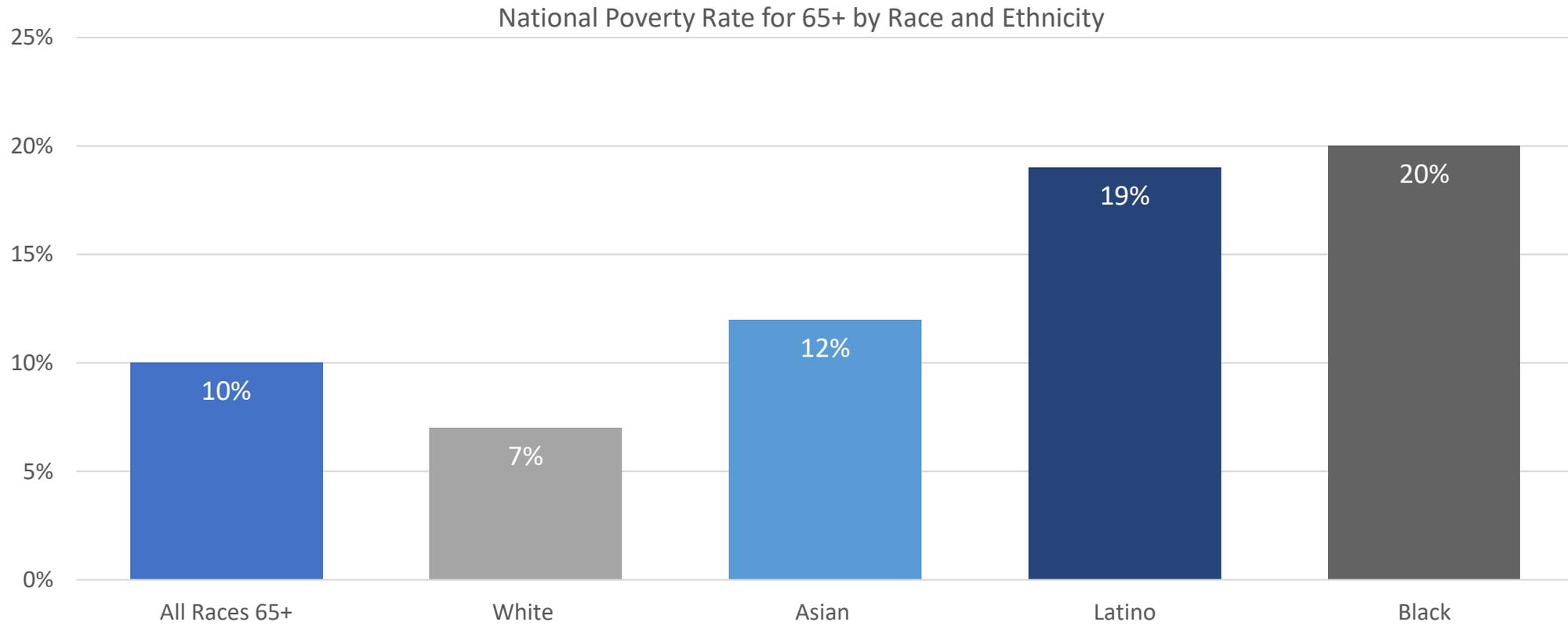
Racial and Ethnic Mix of Adults 65 and Older: 2020 and 2045



Maryland State Data Center (2020). "Projections to 2045." *Maryland Department of Planning*.  
<https://planning.maryland.gov/MSDC/Documents/popproj/TotalPop-Race-Age-Gender.xlsx>

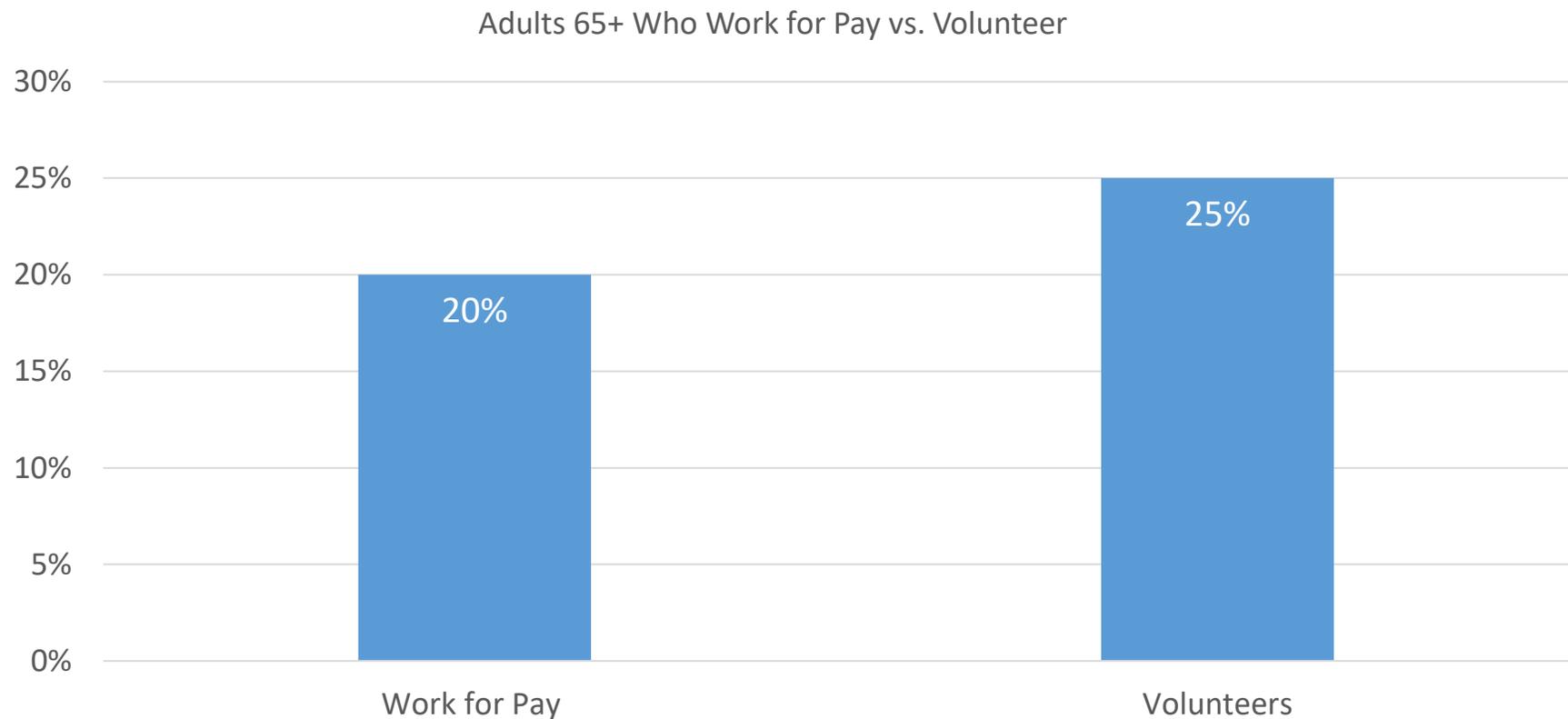
Note: This data set includes Asian as part of "other".

# Approximately 10% Of Older Adults Live In Poverty, Varying From 7% For White Older Adults To 20% For Black Older Adults



Federal Interagency Forum on Aging-Related Statistics (2020), 2020 Older Americans Key Indicators of Well-Being.  
[https://www.agingstats.gov/docs/LatestReport/OA20\\_508\\_10142020.pdf](https://www.agingstats.gov/docs/LatestReport/OA20_508_10142020.pdf)

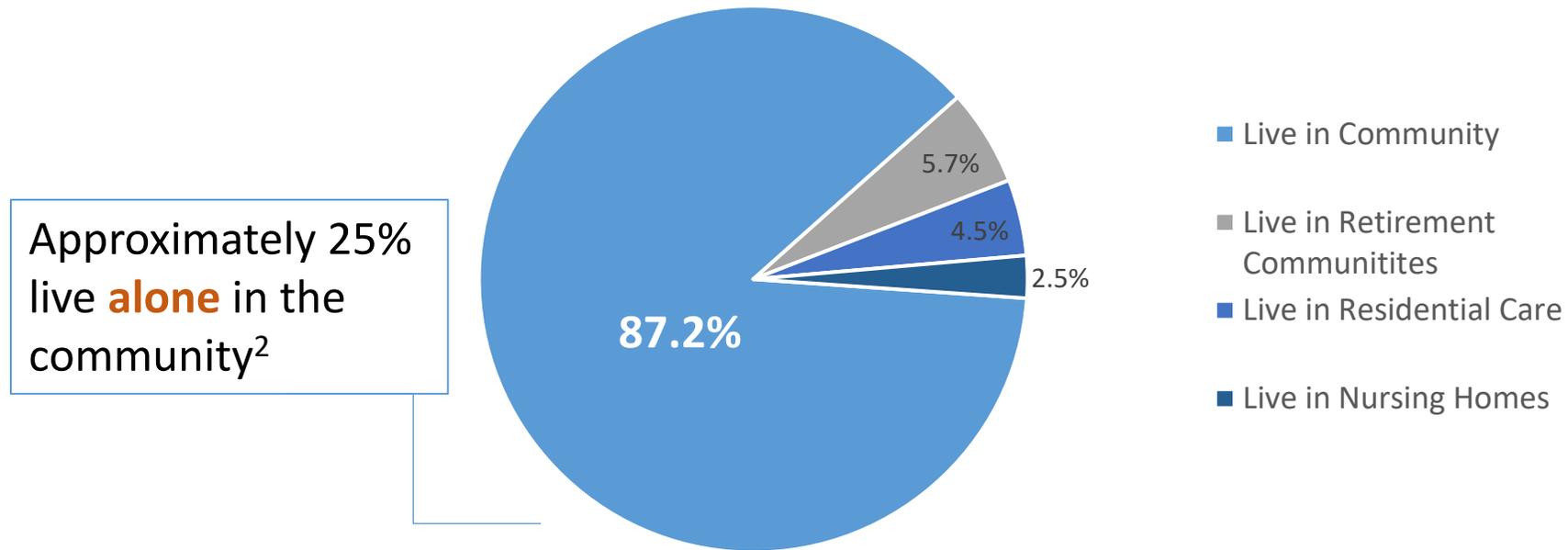
# 20% Of Older Adults Work For Pay<sup>1</sup> 25% Work As Volunteers,<sup>2</sup> With Numbers Growing



1. Edelson, H. (2019). "More Americans Past 65". AARP. April 22, 2019. [More Americans Working or Looking for Work After 65 \(aarp.org\)](https://www.aarp.org/work-life/working-after-65/)
2. BLS Monthly Labor Review (July 2020) "Making Volunteer Work Visible: Supplementary Measures of Work in Labor Force Statistics"  
<https://www.bls.gov/opub/mlr/2020/article/making-volunteer-work-visible-supplementary-measures-of-work-in-labor-force-statistics.htm>

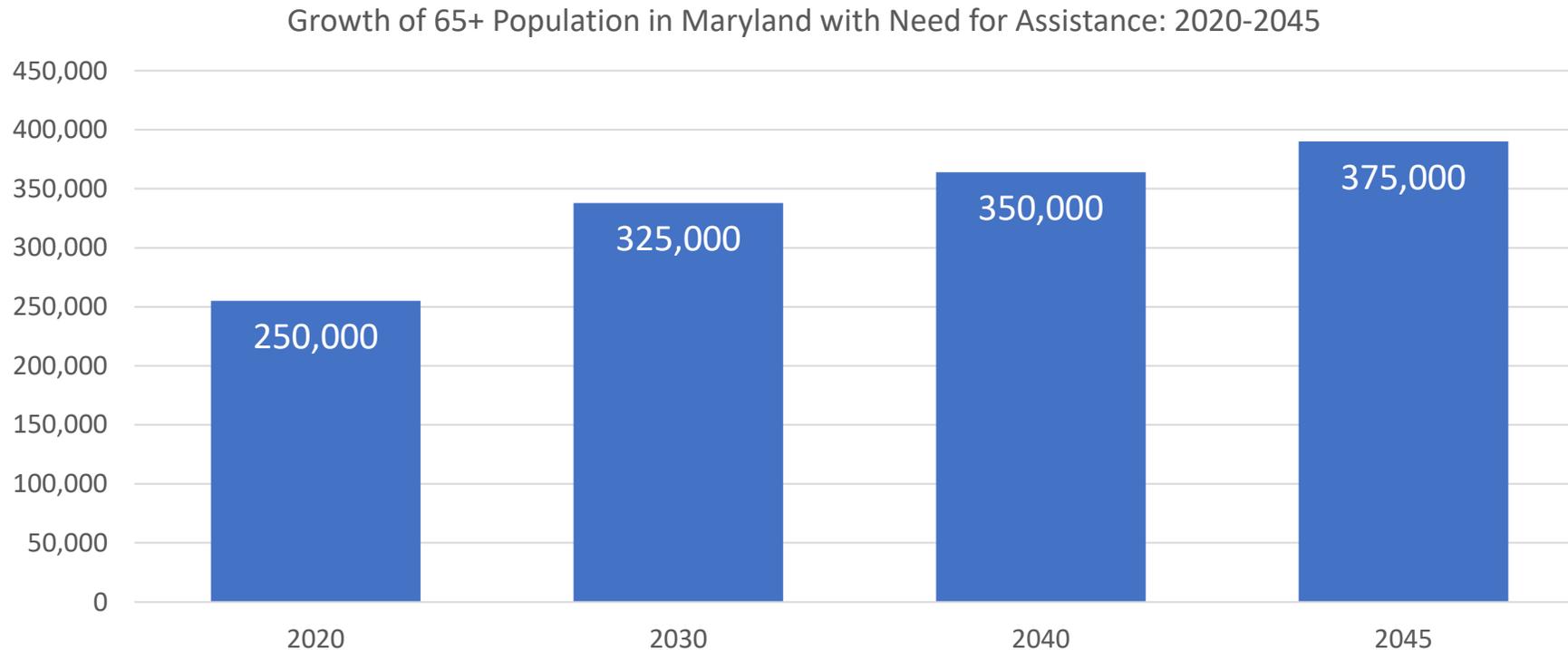
# The Vast Majority Of Older Adults Live In the Community

Living Arrangements of 65 and Over Population: 2016



1. Freedman Vicki A., and Spillman, Brenda C. (2016). Making National Estimates with the National Health and Aging Trends Study. NHATS Technical Paper #17. Johns Hopkins University School of Public Health. [https://www.nhats.org/scripts/documents/Making\\_National\\_Population\\_Estimates\\_in\\_NHATS\\_Technical\\_Paper.pdf](https://www.nhats.org/scripts/documents/Making_National_Population_Estimates_in_NHATS_Technical_Paper.pdf)
2. U.S. Department of Health and Human Services. (2014, June). 65+ in the United States: 2010. <https://www.census.gov/content/dam/Census/library/publications/2014/demo/p23-212.pdf>

**About 25% Of Older Adults (50%+ of those 85+ ) Need Assistance With Daily Activities.**  
**In The Next Decade In Maryland Those In Need Will Grow 30%,**  
**From About 250,000 To 325,000**



1. Freedman, V. and Spillman, B. (2014). "Disability and Care Needs Among Older Adults" in *Milbank Quarterly*, September 2014. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4221755/>
2. Maryland State Data Center (2017). "Projections to 2045." *Maryland Department of Planning*. [https://planning.maryland.gov/MSDC/Pages/s3\\_projection.aspx](https://planning.maryland.gov/MSDC/Pages/s3_projection.aspx)

## Family Caregivers Provide Most Care For Older Adults With Disabilities

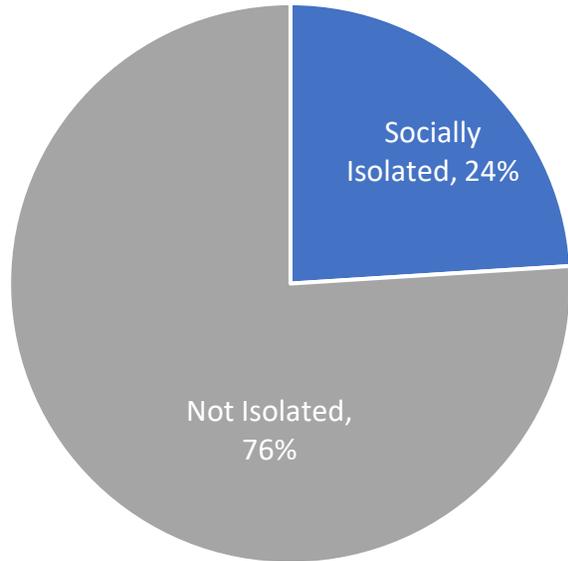
**80% of older adults in the community with long-term care support service needs receive care from unpaid (informal) caregivers.<sup>1</sup>**

- In 2017, the national economic value of informal caregiving for older adults was estimated to be over \$470 billion annually. <sup>2</sup>
- In 2019, the average out-of-pocket spending for family caregivers was \$7,200 per year. <sup>2</sup>
- The estimated total cost of lost earnings was about \$67 billion in 2013. Due to population growth, these costs would roughly double by 2050. <sup>3</sup>
- Family caregivers are at high risk for mental and physical disorders. (See slide 47).

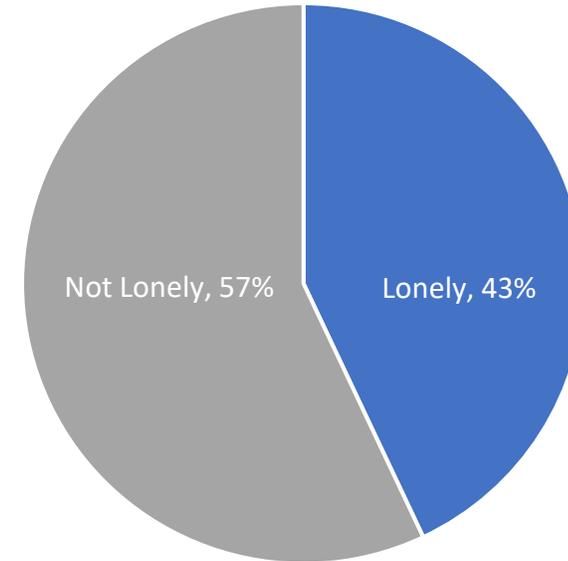
1. Assistant Secretary for Planning and Evaluation. (2020, January). *Economic Impacts of Programs to Support Caregivers*. Retrieved 11 13, 2021, from U.S. Department of Health and Human Services: [https://aspe.hhs.gov/sites/default/files/migrated\\_legacy\\_files//194136/EconImpact.pdf](https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//194136/EconImpact.pdf)
2. AARP and National Alliance for Caregiving. (2021, June). *Cargiving Out-of-Pocket Costs Study*. Retrieved 11 13, 2021, from AARP: [https://www.aarp.org/content/dam/aarp/research/surveys\\_statistics/ltc/2021/family-caregivers-cost-survey-2021.doi.10.26419-2Fres.00473.001.pdf](https://www.aarp.org/content/dam/aarp/research/surveys_statistics/ltc/2021/family-caregivers-cost-survey-2021.doi.10.26419-2Fres.00473.001.pdf)
3. Mudrazija, S. (2019). "Work-Related Opportunity Costs Of Providing Unpaid Family Care In 2013 and 2050." *Health Affairs*, June 2019. <https://www.healthaffairs.org/doi/10.1377/hlthaff.2019.00008>

# About 1/4 Of Older Adults Are Socially Isolated More than 1/3 Are Lonely

Socially Isolated Population 65+



Loneliness in Population 60+

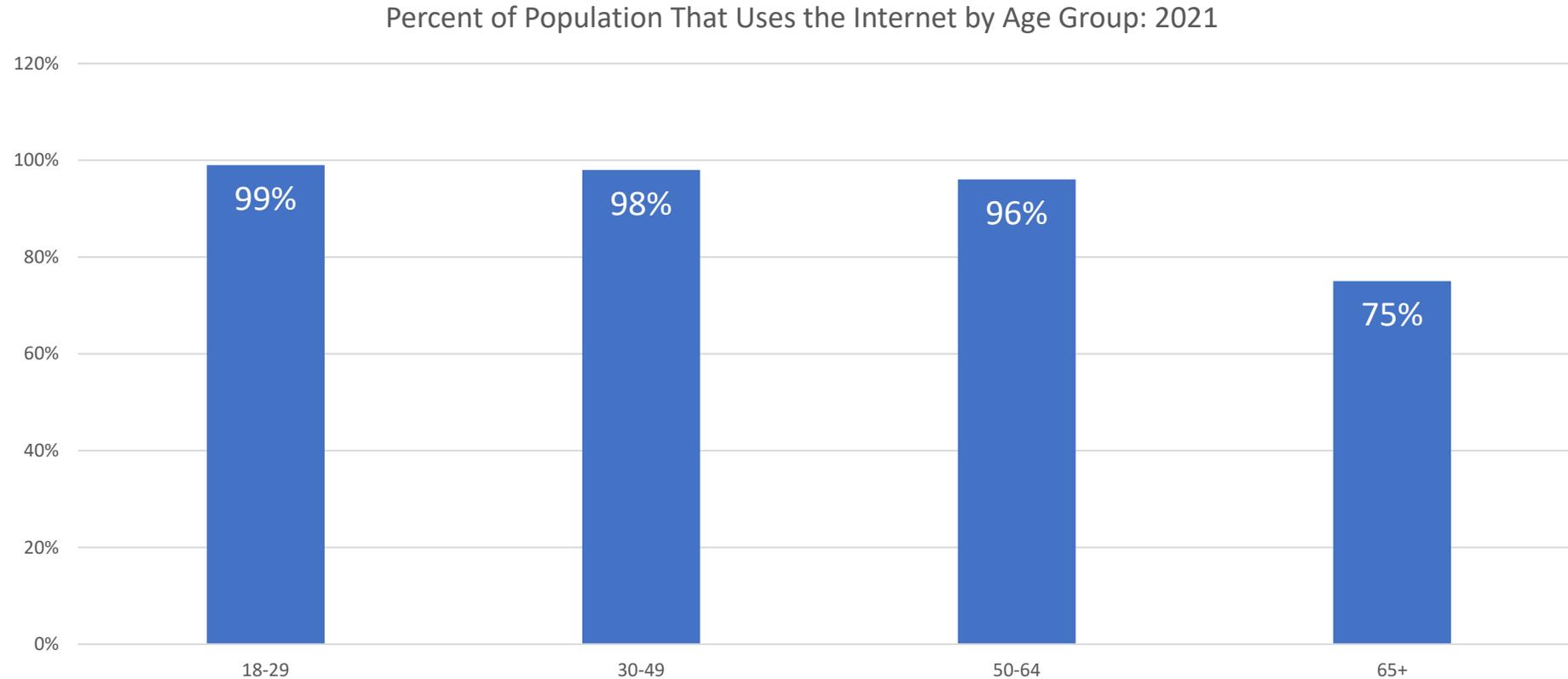


**Social isolation** – a lack of social connections. **Loneliness** – the feeling of being alone, regardless of the amount of social contact a person has. Social isolation can lead to loneliness in some people, but not in others.

**Both contribute to physical and mental disorders, disability, and premature mortality. (see slide 46)**

National Academies of Sciences, Engineering, and Medicine. (2020). *Social isolation and loneliness in older adults: Opportunities for the health care system*. Washington, DC: The National Academies Press.

# Use Of The Internet, Which Is Widely Viewed As An Antidote To Social Isolation, Decreases With Age



Pew Research (2019). Internet/Broadband Fact Sheet. <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>

# 10-15% Of Older Adults In The U.S. Are Victims Of Mistreatment<sup>1, 2</sup> And At Elevated Risk For Psychological And Physical Conditions<sup>1, 2, 3</sup>

- Elder abuse, by definition, is committed by a person with caregiving responsibilities, including family members, home health aides, and long-term residential care staff.<sup>1</sup>
- Estimates of the amount of elder abuse vary. CDC estimates about 10%. WHO estimates over 15%.
- Elder abuse “can lead to early death, harm to physical and psychological health, substance misuse, ruptured social and family ties, social isolation, and/or devastating financial loss....”<sup>3</sup>

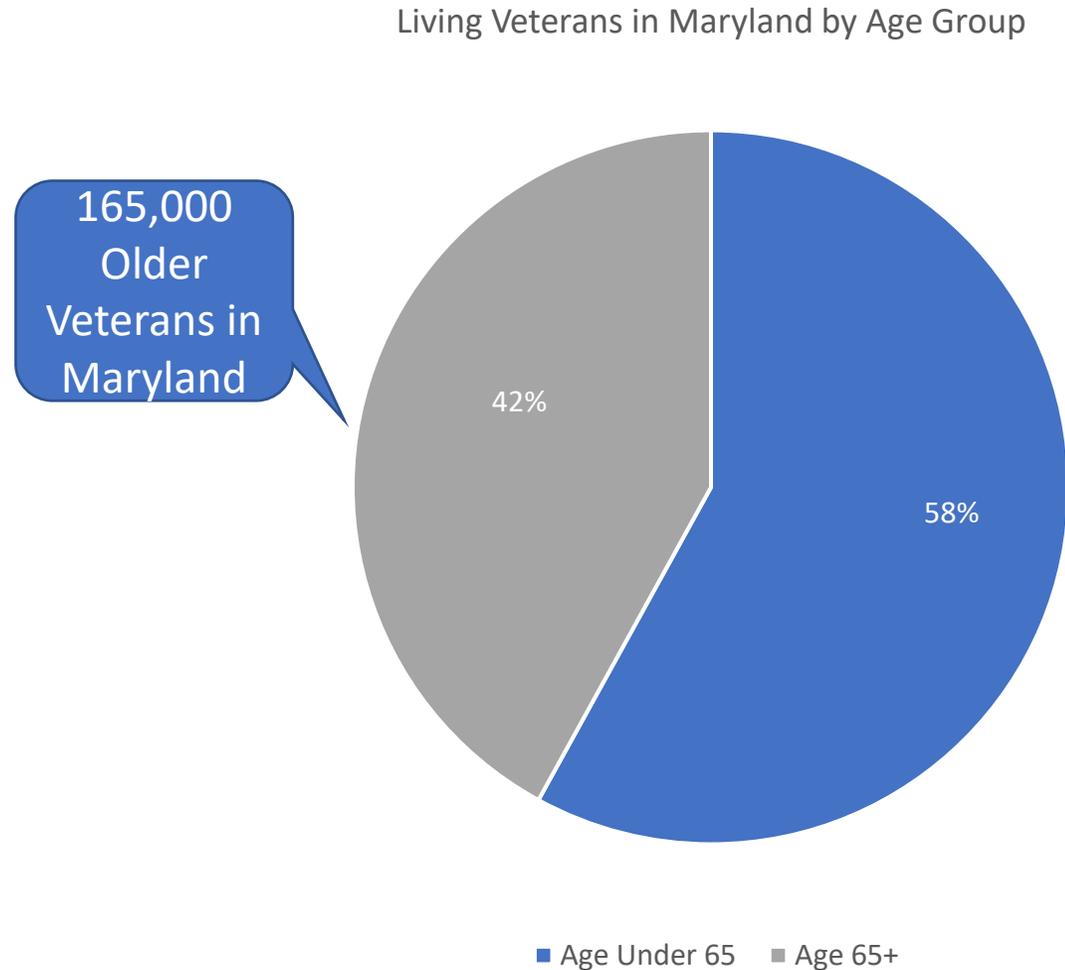
WHO Rates of Elder Mistreatment<sup>2</sup>

Overall Mistreatment	Psychological Abuse	Financial Exploitation	Neglect	Physical Abuse	Sexual Abuse
15.7%	11.6%	6.8%	4.2%	2.6%	.9%

Some older adults experience multiple forms of mistreatment.

1. Center For Disease Control (2021). “Elder Abuse Fast Fact Sheet.” <https://www.cdc.gov/violenceprevention/elderabuse/fastfact.html>  
2. World Health Organization (2021). “Elder Abuse Key Facts.” <https://www.who.int/news-room/fact-sheets/detail/elder-abuse>  
3. National Institute On Aging (2021). “Elder Abuse.” U.S. Department Of Health & Human Services <https://www.nia.nih.gov/health/elder-abuse>

# About 42% Of Veterans In Maryland Are 65+



Department Of Veterans Affairs (2018). "National Survey Of Veterans." *National Center For Veteran Analysis And Statistics*. <https://www.va.gov/vetdata/>

# **COGNITIVE AND BEHAVIORAL HEALTH PROBLEMS OF LATER LIFE**

# There Are Various Types Of Cognitive And Behavioral Health Conditions

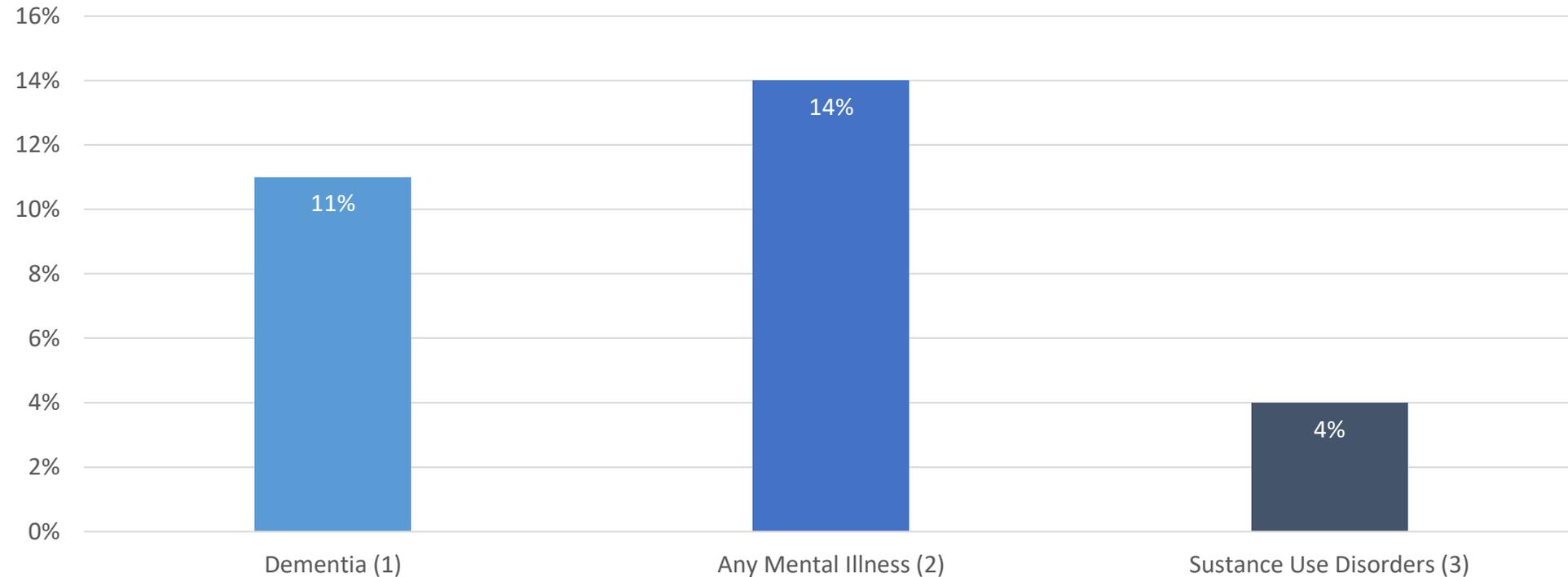
- Alzheimer's Disease and Other Dementias
- Severe and Persistent Mental Illness
- Late-life Psychotic Conditions
- Severe Anxiety and Depression
- Mild or Moderate Anxiety and Mood Disorders
- Substance Misuse and Addiction
  - Misuse of Alcohol, Prescription Drugs, and/or Over-the-Counter Medication
  - Misuse of illegal substances
  - Addictions Such As Gambling
- Autism and Other Developmental Disabilities
- Lingering cognitive and psychological effects of illnesses, such as COVID, and injuries, such as traumatic brain injuries (TBI)
- Neuro-Psychiatric Symptoms Associated With Neurodegenerative Disorders Other Than Dementia Such As Parkinson's Disease

# Types Of Cognitive And Behavioral Health Conditions (Continued)

- Co-Occurring Disorders
  - Dementia With Behavioral Health Disorders
  - Behavioral Health Disorders With Acute and/or Chronic Health Conditions
  - Mental With Substance Use Disorders
  - Developmental Disabilities With Dementia and/or Behavioral Health Disorders
  - Other Neurodegenerative Conditions (such as ALS) With Behavioral Health Disorders
- Emotional Distress In Reaction to Adverse Life Experiences Such As The Pandemic
- Developmental Challenges of Old Age

# Cognitive And Behavioral Health Disorders Are Highly Prevalent Among Older Adults

Annual Rates of Cognitive and Behavioral Health Disorders

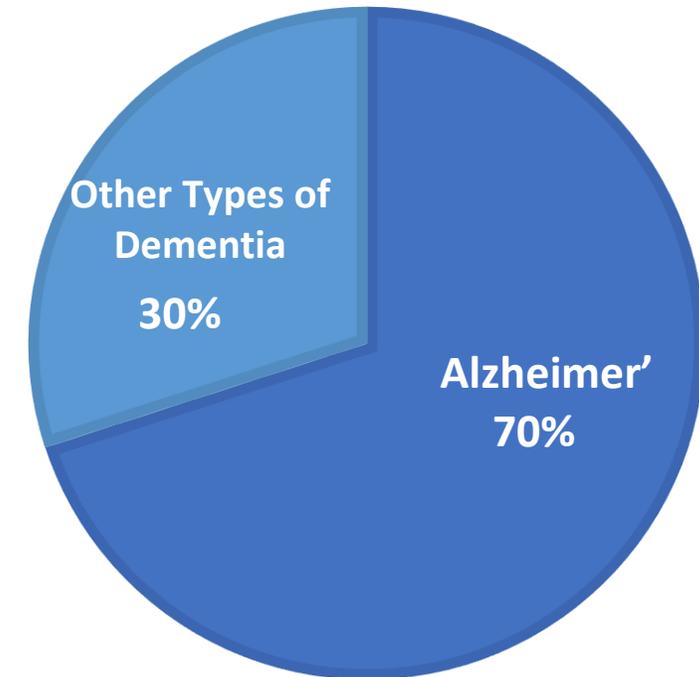


1. Alzheimer's Association. (2021). *2021 ALZHEIMER'S DISEASE FACTS AND FIGURES*. Retrieved 11 01, 2021, from Alzheimer's Association: <https://www.alz.org/media/documents/alzheimers-facts-and-figures.pdf>
2. *Mental Health Information, Prevalence of Any Mental Illness*. (2019). Retrieved 11 01, 2021, from National Institute of Mental Health: <https://www.nimh.nih.gov/health/statistics/mental-illness#:~:text=Mental%20illnesses%20are%20common%20in,mild%20to%20moderate%20to%20severe>
3. Reynolds, K., Pietrzak, R. H., El-Gabalawy, R., Mackenzie, C. S., & Sareen, J. (2015). *Prevalence of psychiatric disorders in U.S. older adults: findings from a nationally representative survey*. Retrieved 11 01, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4329900/>

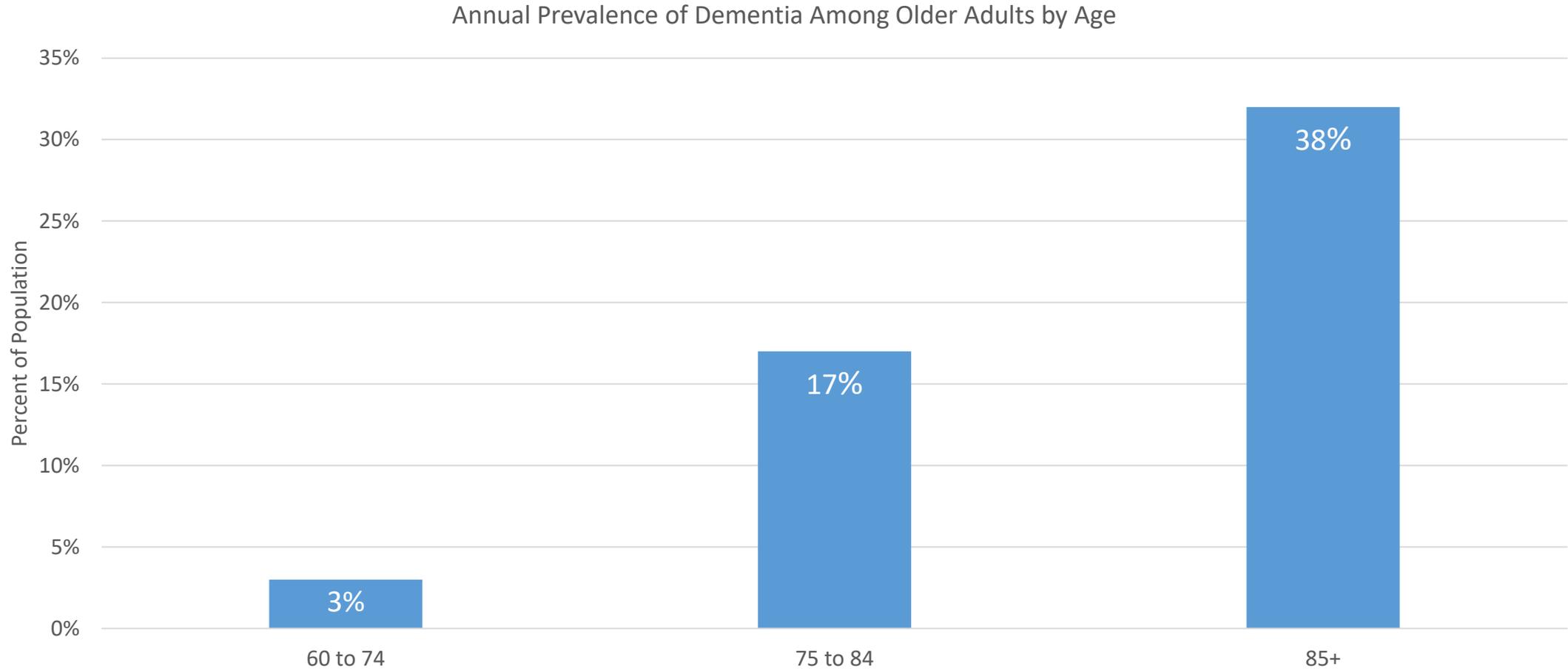
# **COGNITIVE IMPAIRMENT AND DEMENTIA**

## There Are Several Types Of Dementia: Alzheimer's Disease Is The Most Common

- 5 most common types of dementia:
  - Mixed dementia (a combination of two or more types of dementia)
  - Alzheimer's disease
  - Frontotemporal dementia
  - Lewy body dementia
  - Vascular dementia
- Other conditions known to cause dementia/dementia-like symptoms:
  - Argrophilic grain disease
  - Creutzfeldt-Jakob disease
  - Huntington's disease
  - Chronic traumatic encephalopathy (CTE)
  - HIV-associated dementia
  - Parkinson's disease



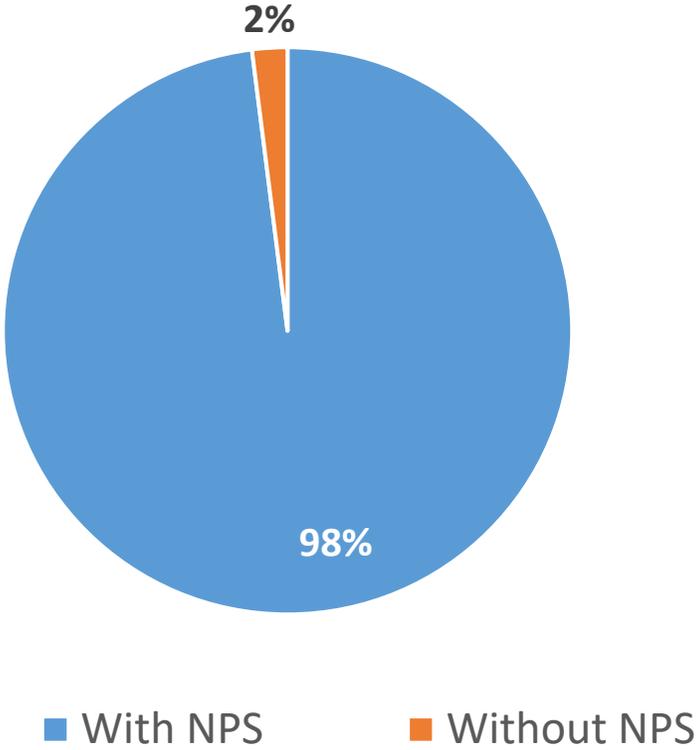
# The Prevalence Of Dementia Increases With Age



Plassman, B.L. et al. (2007). "Prevalence of Dementia in the United States: The Aging, Demographics, and Memory Study" *Neuroepidemiology*. <https://pubmed.ncbi.nlm.nih.gov/17975326/>

# 98% of People With Dementia Have Co-Occurring Symptoms of Behavioral Health Conditions

People With Dementia and Neuropsychiatric Symptoms (NPS)



Phan, S. V., Osae, S., Morgan, J. C., Inyang, M., & Fagan, S. C. (2019, June). *Neuropsychiatric Symptoms in Dementia: Considerations for Pharmacotherapy in the USA*. Retrieved 11 02, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6544588/>

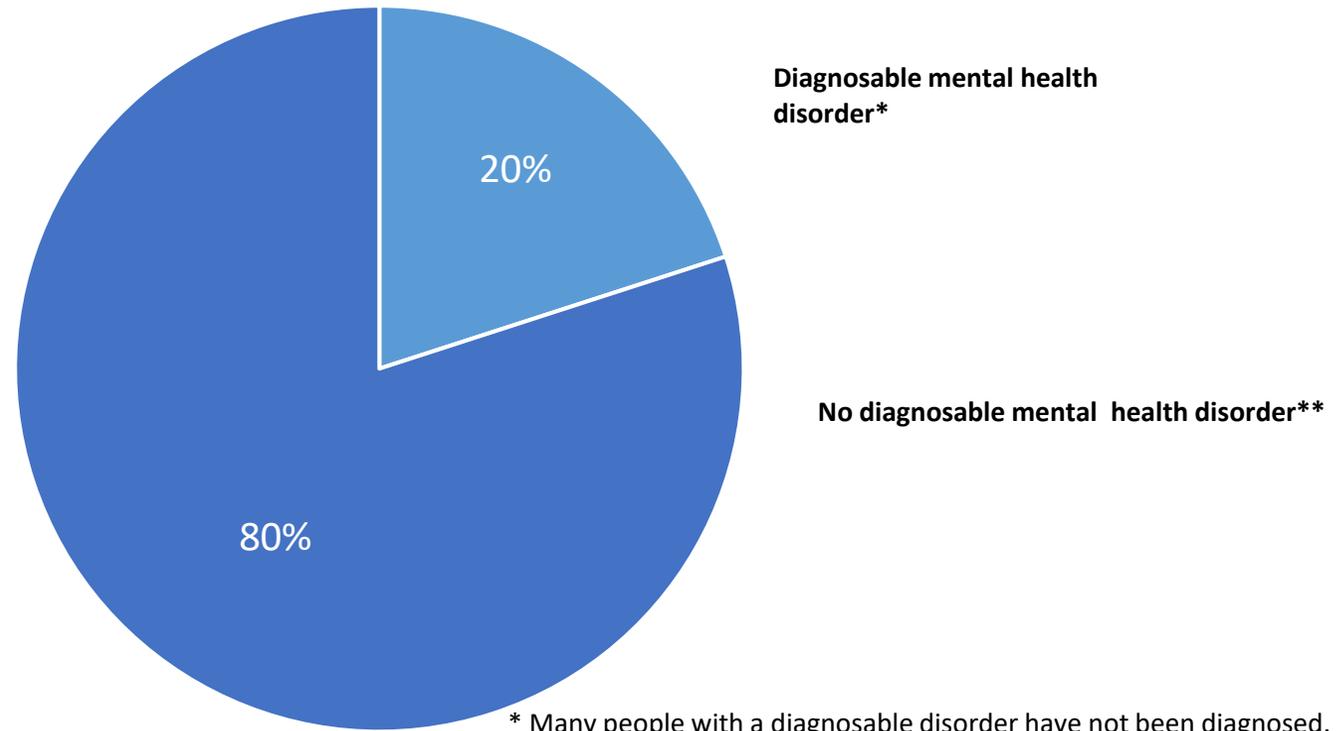
# **BEHAVIORAL HEALTH CONDITIONS**

## There Are Various Types of Behavioral Health Disorders

- Anxiety Disorders
- Depression and other mood disorders
- Psychoses
- Substance misuse and other addictions
  - Alcohol Overuse and Dependence
  - Medication Misuse
  - Misuse of illegal substances
  - Gambling

# Annually, Approximately 20% Of Older Adults 55+ Have A Mental Disorder

Proportion of Older Adults With or Without a Mental Health Disorder

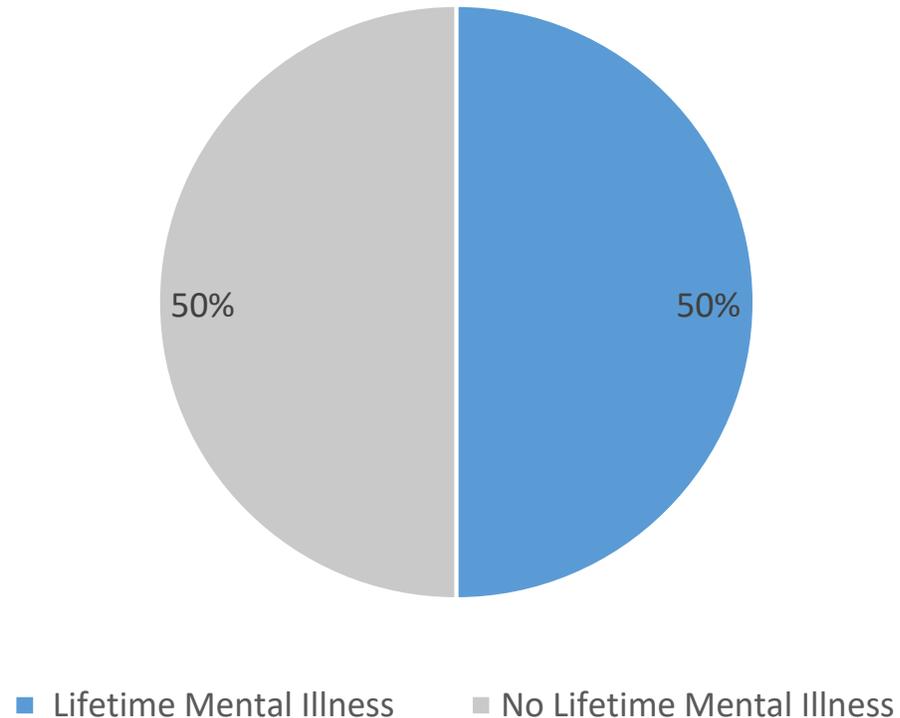


\* Many people with a diagnosable disorder have not been diagnosed.

\*\*Many people without a diagnosable disorder suffer from emotional distress.

# 50% Of American Adults Experience A Mental Or Substance Use Disorder In Their Lifetime

American Adults Who Experience A Mental Or Substance Use Disorder  
In Their Lifetime



Kessler et al (2005). "Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication." *Archives of General Psychiatry*. June 2005. <https://pubmed.ncbi.nlm.nih.gov/15939837/>

# There Are Various Types Of Mood & Anxiety Disorders

## MOOD DISORDERS

- Major Depressive Disorder
- Psychotic Depression
- Bipolar Disorder
- Persistent Depressive Disorder (“Dysthymia”)
- Minor/Subsyndromal Depression
- Seasonal Affective Disorder
- Prolonged Grief

## ANXIETY DISORDERS

- Generalized Anxiety Disorder
- Panic disorder
- Phobias
- Post Traumatic Stress Disorder
- Social Anxiety Disorder

1. *Older Adults and Depression*. (n.d.). Retrieved 11 05, 2021, from National Institute of Mental Health: <https://www.nimh.nih.gov/health/publications/older-adults-and-depression?platform=hootsuite>
2. Depression. (2018, February). Retrieved 11 05, 2021, from National Institute of Mental Health: <https://www.nimh.nih.gov/health/topics/depression>
3. *Anxiety Disorders*. (2018, July). Retrieved 11 05, 2021, from National Institute of Mental Health: <https://www.nimh.nih.gov/health/topics/anxiety-disorders>

# Anxiety Disorders And Depression Are Highly Prevalent Among Older Adults

Anxiety Disorders <sup>1, 2</sup>	11.4%
Minor “Subsyndromal” Depression <sup>3,4</sup>	15%
Major Depressive Disorder <sup>1,2</sup>	4-5.6%

1. Byers, A. L., Yaffe, K., Covinsky, K. E., Friedman, M. B., & Bruce, M. L. (2010, May). *High occurrence of mood and anxiety disorders among older adults: The National Comorbidity Survey Replication*. Retrieved 11 02, 2021, from National Center for Biotechnology Information: <https://pubmed.ncbi.nlm.nih.gov/20439830/>
2. Reynolds, K., Pietrzak, R. H., El-Gabalawy, R., Mackenzie, C. S., & Sareen, J. (2015). *Prevalence of psychiatric disorders in U.S. older adults: findings from a nationally representative survey*. Retrieved 11 02, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4329900/>
3. VanItallie, T. B. (2005, May). *Subsyndromal depression in the elderly: underdiagnosed and undertreated*. Retrieved 11 02, 2021, from National Center for Biotechnology Information: <https://pubmed.ncbi.nlm.nih.gov/15877312/>
4. Grabovich, A., Lu, N., Tang, W., Tu, X., & Lyness, J. M. (2010). *Outcomes of subsyndromal depression in older primary care patients*. Retrieved 11 02, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2827819/>

# Major Anxiety And Depressive Disorders Can Have Serious Consequences

- Increased risk of dementia <sup>1</sup>
- Increased risk of disability and premature death due to physical illnesses <sup>2</sup>
- High rates of suicide <sup>2</sup>
- Problems in relationships, loneliness, and isolation <sup>2,3</sup>
- Reduced productivity <sup>2,3</sup>
- Reduced engagement in pleasurable and/or meaningful activities <sup>2, 3</sup>
- High rates of substance use disorders <sup>5,6</sup>
- Higher rates of nursing home admissions than those with dementia alone <sup>4</sup>

1. Byers, A. L., & Yaffe, K. (2011, May 3). *Depression and Risk of Developing Dementia*. Retrieved 11 06, 2021, from National Institutes of Health: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3327554/pdf/nihms-352655.pdf>
2. Substance Abuse and Mental Health Services Administration. (2011). *The Treatment of Depression in Older Adults: Depression and Older Adults: Key Issues*. Retrieved 11 06, 2021, from Center for Mental Health Services, Substance Abuse and Mental Health Services Administration: <https://store.samhsa.gov/sites/default/files/d7/priv/sma11-4631-keyissues.pdf>
3. Friedman, M. B., Furst, L., Gellis, Z. D., & Williams, K. (2012). *Identifying and Treating Anxiety Disorders*. Retrieved 11 06, 2021, from Today's Geriatric Medicine: <https://www.todaysgeriatricmedicine.com/archive/050712p14.shtml>
4. Fullerton, C. A., McGuire, T. G., Feng, Z., Mor, V., & Grabowski, D. C. (2009, July). *Trends in mental health admissions to nursing homes: 1999–2005*. Retrieved 11 06, 2021, from National Institutes of Health: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2759604/pdf/nihms-148155.pdf>
5. Goodwin, R. D., Stayner, D. A., Chinman, M. J., Wu, P., Kraemer Tebes, J., & Davidson, L. (2002, August). *The relationship between anxiety and substance use disorders among individuals with severe affective disorders*. Retrieved 11 13, 2021, from National Center for Biotechnology Information: <https://pubmed.ncbi.nlm.nih.gov/12107861/>
6. Quello, S. B., Brady, K. T., & Sonne, S. (2005, December). *Mood Disorders and Substance Use Disorder: A Complex Comorbidity*. Retrieved 11 13, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2851027/>

## From 2016-2020 The Rate of Suicide In Maryland Increased With Age, Peaking With Men 85+

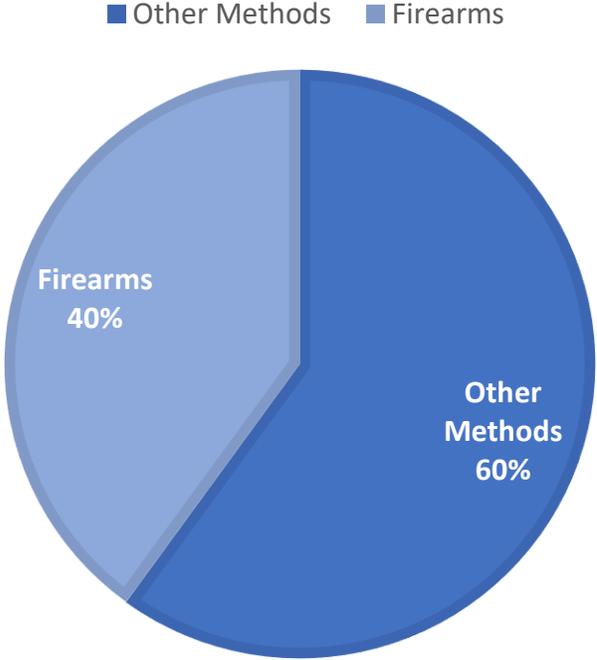
Rates of Suicide By Age in Maryland 2016-2020 (Per 100,000)

<u>Age</u>	<u>Suicide Rate</u>	<u>Female Suicide Rate</u>	<u>Male Suicide Rate</u>
All Ages	10.30	4.06	16.72
15-24	9.64	5.53	15.29
25-39	12.45	5.00	20.05
40-49	12.31	5.72	19.34
50-64	13.50	5.86	21.91
65+	13.44	4.39	25.32
75+	14.97	3.81	31.71
85+	15.95	3.10	<b>40.51</b>

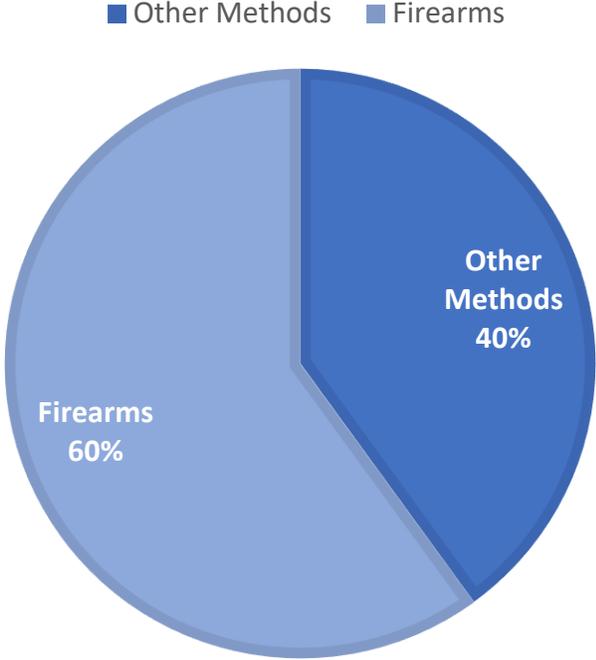
Source: *Fatal Injury Reports*. (2020). Retrieved 1/27/2022, from Centers for Disease Control and Prevention: <https://wisqars.cdc.gov/fatal-reports>

# In 2019, In Maryland 40% of All Completed Suicides Involved Guns 60% Of Older Adults Who Completed Suicide Used Guns

METHOD OF SUICIDE ALL AGES IN 2019



METHODS OF SUICIDE AGES 65+ IN 2019



Centers for Disease Control and Prevention (2019). "Fatal Injury Data and Visualization." *Web-based Injury Statistics Query And Reporting System (WISQARS)*. <https://www.cdc.gov/injury/wisqars/fatal.html>

# People With Severe Mental Illness Are At High Risk For Serious Physical Disorders And Have Low Life Expectancy<sup>1</sup>

- People with severe mental illness are at high risk of serious physical health conditions and low life expectancy due to:
  - High rates of smoking, obesity, diabetes, and heart disease<sup>1, 2</sup>
  - High rates of substance abuse (about 50% lifetime)<sup>3</sup>
  - Lingering effects of homelessness and crime victimization<sup>4</sup>
  - Poor access to adequate physical health care<sup>5</sup>
  - Behaviors and lifestyles that increase health risk<sup>6</sup>
  - High suicide rates (8.5 times the general population)<sup>7</sup>
- They are also at elevated risk for dementia.<sup>8</sup>
- People with severe mental illness often rely on special housing and on public income supports to be able to live in the community.<sup>9</sup>

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# Misuse Of Alcohol, Medications, And Illegal Substances Can Be Extremely Dangerous To Older Adults <sup>1, 2</sup>

- Nearly 1 million adults aged 65 and older live with **substance use disorder** as reported in 2018 data.<sup>7</sup>
- Approximately 14.5% of older adults consume more **alcohol** than is recommended by health authorities <sup>1</sup> with high risks of falls<sup>3</sup> and other accidents as well as physical illnesses.
- An estimated 3.6% to 7.2% of older adults age 50+ used **illegal drugs** between 2002-2012, including heroin, cocaine, methamphetamine and cannabis. <sup>1, 4</sup>
- The **drug overdose epidemic** has impacted everyone of all ages and has not left the older adult population untouched.<sup>6</sup>
- Use of **cannabis**, the most commonly used “illegal” substance, is expected to rise due to relatively higher use by the baby boomer population and to the legalization of cannabis for medical and recreational purposes.<sup>2, 3</sup>
- **Prescription opioids** sometimes result in addiction, overdoses, and later heroin use.<sup>5</sup>
- The misuse of **prescription** and/or over-the-counter **medications** by older adults can result in injury, addiction, or death.<sup>1, 4</sup>

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# Traumatic Brain Injuries Contribute To The Development Of Cognitive and Behavioral Health Conditions

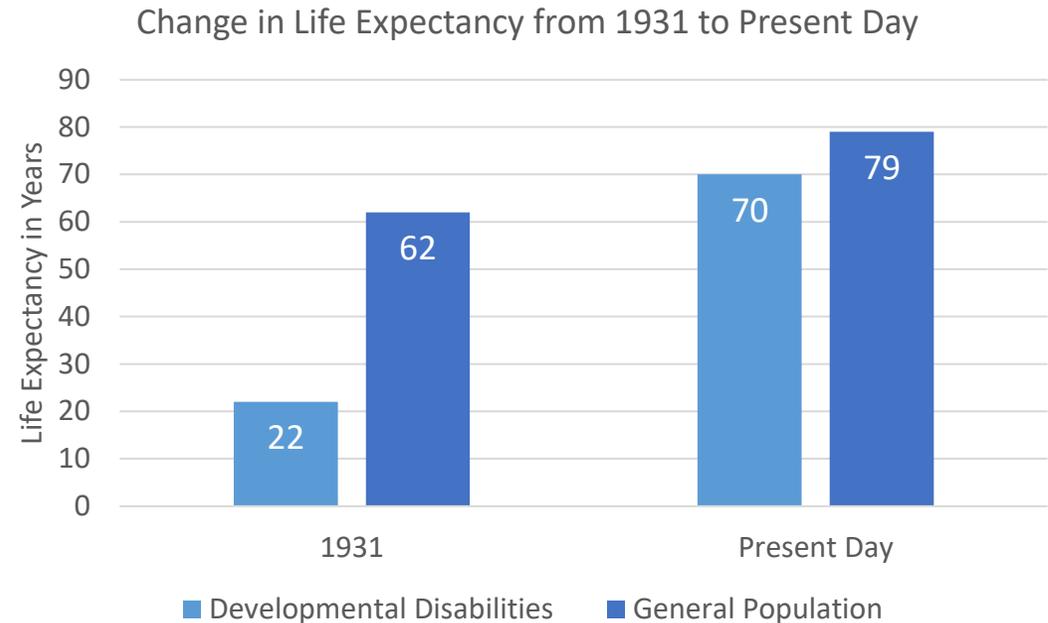
- The incidence of traumatic brain injury is increasing. <sup>1, 2, 3</sup>
- Traumatic brain injuries contribute to early development of dementia and other neurodegenerative disorders. <sup>4</sup>
- Traumatic brain injuries contribute to the development of mood and anxiety disorders including PTSD. <sup>5, 6</sup>

1. Centers for Disease Control and Prevention. Traumatic Brain Injury and Concussion. 2016. <https://www.cdc.gov/traumaticbraininjury/data/index.html>.
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# Many People With Developmental Disabilities Now Survive Into Old Age

**Historically, people with developmental disabilities died at younger ages**

- Recently, individuals with developmental disabilities have experienced a dramatic increase in lifespan.<sup>1</sup>
- The average life expectancy for people with a developmental disability was 22 years in 1931, compared to 62 years for the general population.<sup>1</sup> Now, their average life expectancy is 70, which is approaching that of the general population, about 79 years in 2018.<sup>1, 2</sup>



1. Association On Aging With Developmental Disabilities (2021). "About Us." <https://www.agingwithdd.org/about/>
2. Centers for Disease Control and Prevention: National Center for Health Statistics (2021). "Life Expectancy Fast Stats." <https://www.cdc.gov/nchs/fastats/life-expectancy.htm>

# Emotional Reactions To Adverse Life Circumstances, Including Social “Determinants” and Personal Trauma

Emotional Reactions Include:

- Grief
- Fear for self or loved ones
- Loneliness/sense of isolation
- Economic distress
- Loss of a sense of control
- Sense of uncertainty
- Sense of helplessness
- Sadness and hopelessness
- Demoralization
- Apathy
- Anger
- Sense of bigotry and injustice
- Stress for working parents
- Stress for grandparents
- Stress for family caregivers
- Family tension and violence
- Overuse of alcohol and/or drugs
- Exacerbation of pre-existing mental conditions
- Sleep disturbance
- Eating disturbance
- Thoughts of suicide

# Developmental Emotional Challenges Of Old Age

- Retirement and other role changes
  - Finding meaningful activities
- Decreasing social connections and increasing social isolation as friends and family move away or die
  - Developing new relationships, including intimate relationships
- Dealing with loss and grief
- Living with declining physical and mental capabilities, with chronic health conditions, and with pain
- Tolerating increasing risk of dependency
- Reconciliation with one's past despite regrets and disappointments
- Coming to terms with the inevitability of death

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# Co-occurring Disorders Are Highly Prevalent Among Older Adults Contributing To Higher Rates of Disability, Premature Death, and High Medical Costs

- Types of co-occurring conditions
  - Co-occurring dementia and neuro-psychiatric symptoms including depression and anxiety<sup>1,2</sup>
  - Co-occurring types of mental disorders, e.g., depression and anxiety<sup>3</sup>
  - Co-occurring mental and substance use disorders<sup>4</sup>
  - Co-occurring acute/chronic physical and behavioral health conditions<sup>5,6,7</sup>
- Older adults with co-occurring disorders are at high risk for premature disability and death <sup>8</sup>
- Older adults with co-occurring disorders require more care leading to high health care costs <sup>9</sup>

1. Lyketsos, C., et al. (2005). *Population-Based Study of Medical Comorbidity in Early Dementia and "Cognitive Impairment, No Dementia (CIND)": Association With Functional and Cognitive Impairment: The Cache County Study*. Retrieved 11 06, 2021, from The American Journal of Geriatric Psychiatry: [https://www.ajgponline.org/article/S1064-7481\(12\)60933-6/fulltext](https://www.ajgponline.org/article/S1064-7481(12)60933-6/fulltext)
2. Onyike, C. U. (2016). *Psychiatric Aspects of Dementia*. Retrieved 11 13, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5390928/>
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# Despite Common Emotional Challenges In Old Age, Psychological Well-Being Is The Norm And Older Adults Are Often A Resource Rather Than A Burden<sup>1, 2</sup>

- Personality traits that support well-being include: a positive attitude, optimism, adaptability, and resilience.
- Satisfying social relationships are a key element of well-being.
- Engaging activities that provide pleasure and/or meaning are also key to well-being
  - Grandparenting
  - Volunteering or working for pay
  - Civic/political activity
  - Creative arts
  - Self-improvement: education, hobbies including sports
- A sense of self-worth is a key element of psychological well-being.
- Self-care: exercise, eating well, sleeping well
- Complementary practices: yoga, meditation, and the like

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# **POPULATIONS AT HIGH RISK OF COGNITIVE AND BEHAVIORAL HEALTH CONDITIONS**

# The COVID-19 Pandemic Highlighted The Psychological Vulnerability Of Many Older People

- Although fewer older adults report emotional distress in response to the pandemic than younger adults, **nearly ½ report significant levels of distress and ¼ report symptoms of depression or anxiety disorders.**
- Especially vulnerable older adults include but are not limited to:
  - Those with dementia and/or other disabilities
  - Those in long-term residential care
  - Those with pre-existing serious and persistent mental illness
  - Those with substance use disorders
  - Those confronting severe illness or death
  - Those in social isolation
  - Older adults who are Black, Indigenous, and/or People of color
  - People living in economic instability
  - Informal caregivers

Koma W. et al. (2020). "One in Four Older Adults Report Anxiety or Depression Amid the COVID-19 Pandemic." Kaiser Family Foundation, October, 2020.  
<https://www.kff.org/medicare/issue-brief/one-in-four-older-adults-report-anxiety-or-depression-amid-the-covid-19-pandemic/>

# Loneliness And Social Isolation Increase Risks Of Physical, Cognitive, And Behavioral Health Disorders

- Social isolation significantly increases a person's risk of premature death from all causes, a risk that may rival those of smoking, obesity, and physical inactivity.<sup>1</sup>
- Social isolation is associated with about a 50% percent increased risk of dementia.<sup>1</sup>
- Loneliness is associated with higher rates of depression, anxiety, and suicide.
- Poor social relationships are associated with a 29% increased risk of heart disease and a 32% increased risk of stroke.<sup>1</sup>
- Loneliness among heart failure patients is associated with a nearly 4 times increased risk of death, 68% increased risk of hospitalization, and 57% increased risk of emergency department visits.<sup>1</sup>

1. CDC November 2020 - <https://www.cdc.gov/aging/publications/features/lonely-older-adults.html>

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## Family Caregivers Of People With Mental Disabilities Are At High Risk For Anxiety Disorders And Depression

- Family members and friends provide most basic care for people with
  - Dementia
  - Psychiatric Disabilities Due to Severe Mental Disorders
  - Autism and Other Developmental Disabilities
- Informal caregivers are at high risk for depression, anxiety disorders, physical ailments and burn-out, resulting in premature institutionalization.
- Informal caregivers' ability to provide care diminishes as they age, particularly if they become disabled themselves.

# Cognitive And Behavioral Health Disorders Are Highly Prevalent In Nursing Homes And Assisted Living Facilities

- **Nursing Homes**<sup>1, 2, 3</sup>
  - About 2/3 of nursing home residents are cognitively impaired.
  - Most of those with cognitive impairment also have neuropsychiatric symptoms.
  - Many nursing home residents have a primary diagnosis of serious mental illness.
- **Assisted Living Facilities**<sup>4, 5, 6</sup>
  - About 2/3 of those in assisted living have some dementia, most with co-occurring neuropsychiatric symptoms.
  - Over 20% have a psychiatric disorder other than dementia or cognitive impairment.

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5. Rosenblatt, A., Samus, Q., Steele, C., Baker, A., Harper, M., Brandt, J., . . . Lyketsos, C. (2004, October). *ELDERLY IN ASSISTED LIVING FACILITIES HAVE HIGH RATES OF DEMENTIA AND OTHER PSYCHIATRIC DISORDERS*. Retrieved 11 07, 2021, from Johns Hopkins Medicine: [https://www.hopkinsmedicine.org/Press\\_releases/2004/10\\_04c\\_04.html](https://www.hopkinsmedicine.org/Press_releases/2004/10_04c_04.html)
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# **Black And Latino Older Adults Are At Higher Risk Of Developing Dementia. They Also Have More Limited Access To Behavioral Health Services.**

- **Dementia**

- Black older adults are about two times, and Latinos are about one and one-half times, more likely than Whites to have Alzheimer's and other dementias.<sup>1</sup>
- Although the rate of Alzheimer's and other dementias among Black and Latino older adults is higher than among Whites, they are less likely than Whites to have a diagnosis of the condition.<sup>1</sup>
- Physical conditions, such as high blood pressure and diabetes, rather than genetic factors appear to account for the greater prevalence of Alzheimer's among Black and Latino older adults.<sup>1</sup>
- It is likely that improved access to high quality health care could reduce the prevalence of dementia among Black and Latino older adults.<sup>1</sup>

- **Mental and Substance Use Disorders**

- Rates of mental illnesses among Black Americans are similar with those of the general population. Rates for Latino-Americans is somewhat lower. However, both Latinos and Blacks generally receive poorer quality of care than White non-Hispanics and lack access to culturally competent care.<sup>2</sup>
- Rates of substance use disorders among these populations are about the same as White non-Hispanics. Studies of disparities in the use of public behavioral health services reveal complex patterns of use and completion of services that vary by race, ethnicity, and socio-economic status.<sup>3</sup>

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# Poverty Is Associated With Increased Risk Of Dementia, Mental Illness, and Suicide

- Poverty is associated with increased risk of dementia. There may be intervening variables such as poor diet and loss of control of finances due to dementia. <sup>1, 2</sup>
- People living in poverty are at higher risk for developing mental illness, and people with mental illness are at higher risk of becoming impoverished, a “vicious cycle”.<sup>2</sup>
- People living in neighborhoods with high rates of poverty have less access to physical and behavioral health care.<sup>3</sup>
- Mental illness is associated with lower levels of household income. <sup>4</sup>
- “Suicide rates in the U.S. are closely correlated to poverty rates” <sup>5</sup>

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5. Kerr, et al. Economic Recession, Alcohol, and Suicide Rates: Comparative Effects of Poverty, Foreclosure, and Job Loss

# Women Are At Higher Risk Than Men For Some (But Not All) Cognitive and Behavioral Health Disorders

- As they age, **women become more at risk of social isolation** than men.<sup>1</sup>
- **Women are at higher risk of dementia** than men and of faster decline after diagnosis <sup>2</sup>
- **Women are at higher risk than men of anxiety and depression** but of **lower risk of substance use disorders.**<sup>3</sup>
- **Women are 1.75 times more likely than men to attempt suicide.** <sup>4</sup>
- **Older men are almost 5 x more likely to complete suicide than are women.**<sup>5</sup>

1. *The Health and Medical Dimensions of Social Isolation and Loneliness in Older Adults*. Nationalacademies.org. (n.d.). Retrieved February 27, 2022, from <https://www.nationalacademies.org/our-work/the-health-and-medical-dimensions-of-social-isolation-and-loneliness-in-older-adults>

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# Older Adults Are At High Risk For Trauma Which Increases Risks for Dementia and Mental Disorders

- 10-15% of older adults are victims of elder abuse <sup>1, 2</sup>
- Many older adults experience other forms of trauma, such as injuries from falls and deaths of loved ones <sup>3</sup>
- Traumatic experiences in old age can result in PTSD and other anxiety and mood disorders <sup>3</sup>
- PTSD contributes to the development of dementia and vice versa. <sup>4</sup>
- People with dementia are at increased risk of elder abuse. <sup>5</sup>

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# Veterans Are At Significant Risk Of Complex, Co-Occurring Physical, Cognitive, And Behavioral Health Disorders

- Older veterans have co-occurring medical, mental health, and substance use disorders, and cognitive impairments more frequently than younger veterans. <sup>1</sup>
- Rates of post-traumatic stress disorder (PTSD) are highest among Vietnam-era veterans. <sup>1</sup>
- In 2018, the rate of suicide among veterans was 32.0 per 100,000, compared with 17.2 per 100,000 for nonveterans. <sup>2</sup>
- Alcohol and substance use disorders are more common among veterans than non-veterans and frequently co-occur with mental disorders, especially PTSD. <sup>3</sup>
- Despite higher rates of PTSD, older veterans are less likely to seek mental health services, than younger veterans. <sup>1</sup>
- This willingness to seek services will likely continue as this cohort ages and will require a system designed to support the increased care needs of the aging veteran population. <sup>1</sup>

1. O'malley, K. A., Vinson, L., Pless Kaiser, A., Sager, Z., & Hinrichs, K. (2019, December). *Mental Health and Aging Veterans: How the Veterans Health Administration Meets the Needs of Aging Veterans*. Retrieved 11 06, 2021, from Oxford Academic: <https://academic.oup.com/ppar/article/30/1/19/5687922>
2. Ramchand, R. (2021). *Suicide Among Veterans: Veterans' Issues in Focus*. Retrieved 11 06, 2021, from RAND Corporation: <https://www.rand.org/pubs/perspectives/PEA1363-1.html>
3. National Institute on Drug Abuse. (2019, October). *Substance Use and Military Life DrugFacts*. Retrieved 11 07, 2021, from National Institutes of Health: <https://www.drugabuse.gov/publications/drugfacts/substance-use-military-life>

# Older LGBTQ+ Are Less Likely To Be Diagnosed And Treated For Cognitive Impairment And At Higher Risk For Behavioral Health Disorders

- Older LGBTQ+ individuals are more likely to experience emotional distress leading to anxiety, depression and substance use due to lifetime exposure to stigma and discrimination.<sup>1</sup>
- Older LGBTQ+ individuals are less likely to get adequate cognitive and behavioral health care including culturally competent diagnosis and treatment.<sup>3</sup>
- Older LGBTQ+ individuals are less likely to receive informal caregiving due to being less likely to have children and having smaller social support networks.<sup>2, 3</sup>
- Outcomes vary greatly depending on geography, race, economic status, education and specific sexual and gender identities.

There are  
**2.7 Million**  
LGBTQ+ Adults over  
the age of 50 in the  
US.<sup>2</sup>

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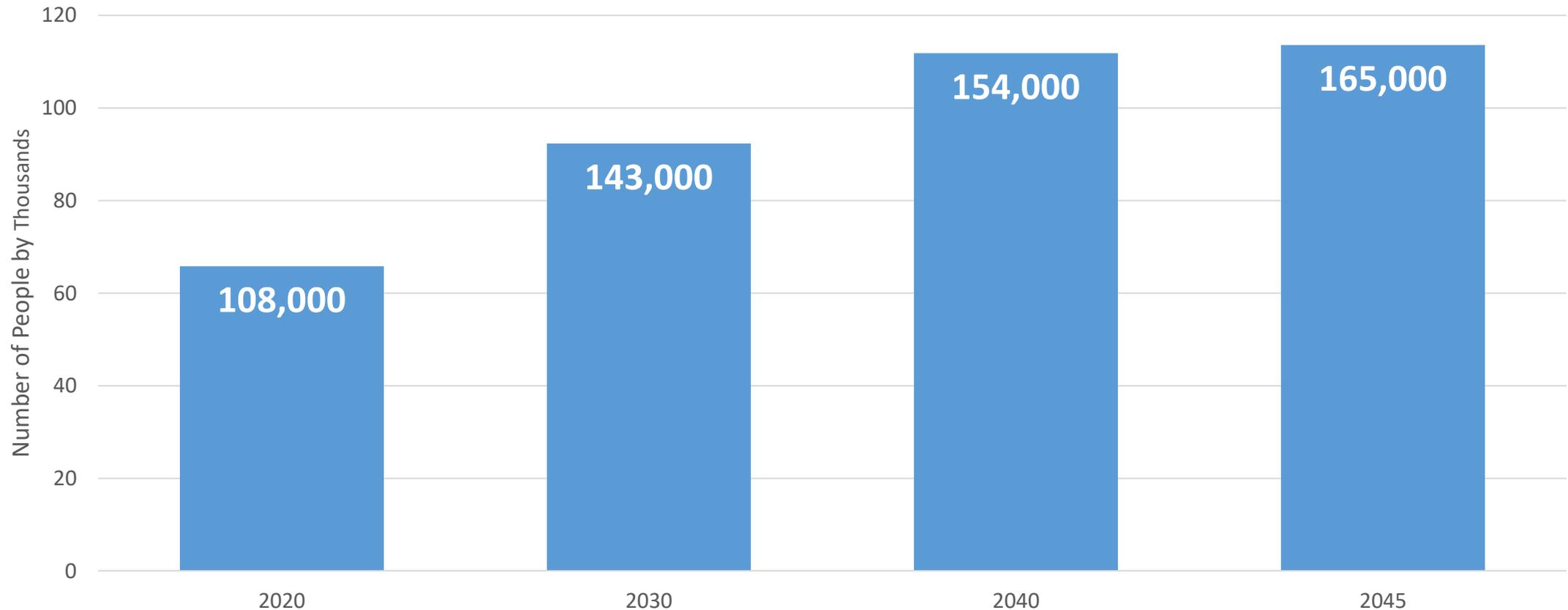
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# **PROJECTED GROWTH OF OLDER ADULTS WITH COGNITIVE AND/OR BEHAVIORAL HEALTH CONDITIONS**

# In The Next Decade In Maryland, The Number Of People 65+ With Dementia Will Increase By 35,000 (Over 30%)

Projected Growth of Adults 65+ with Dementia in Maryland: 2020 to 2045



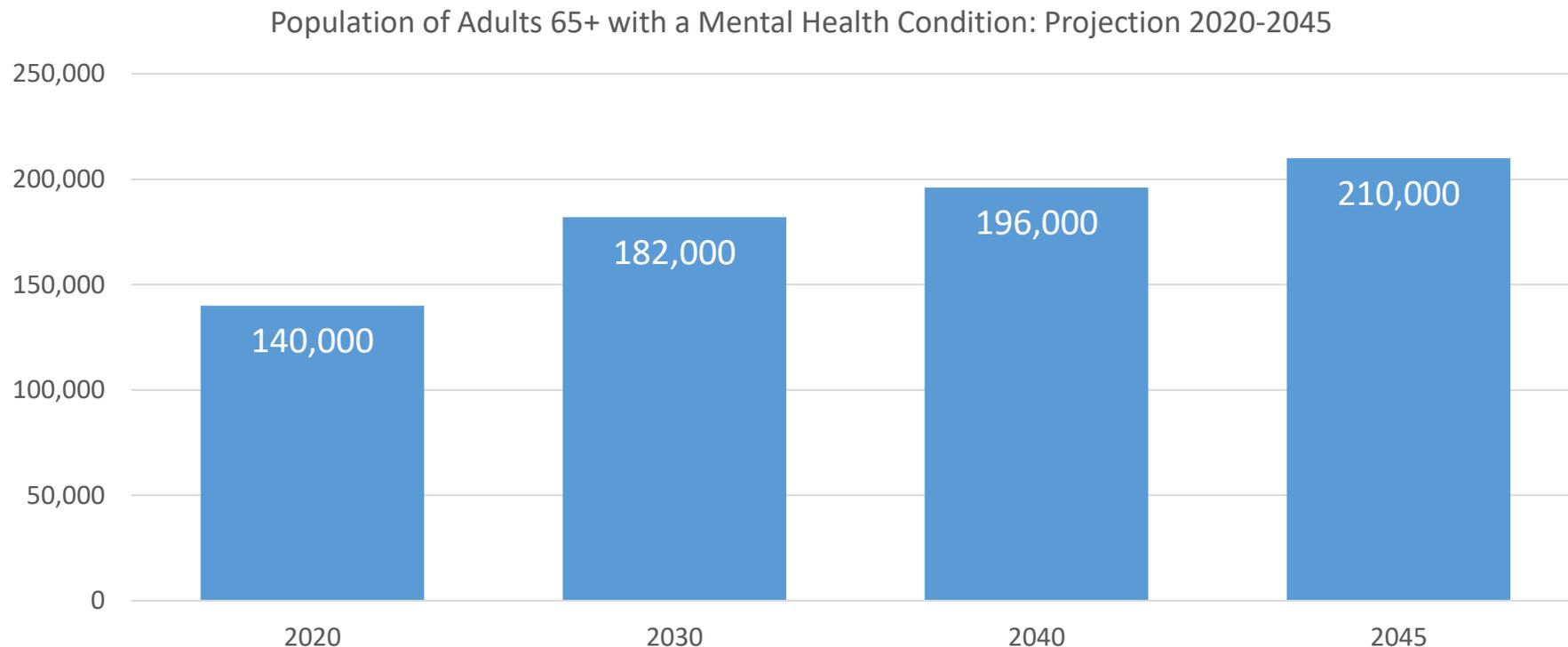
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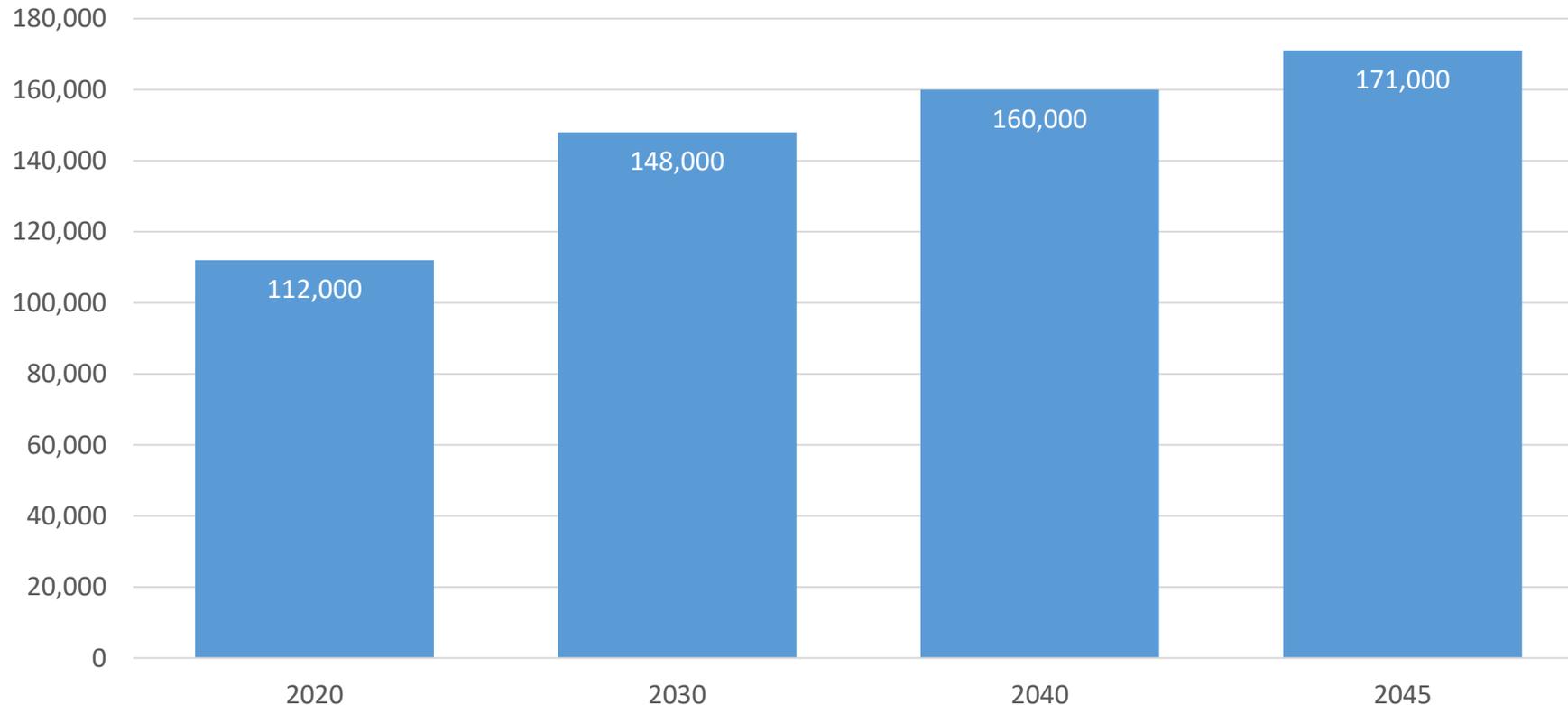
# **During The Next Decade, The Number Of Adults 65+ In Maryland With A Mental Health Condition Will Increase By Over 40,000 (30%)**



1. Kessler RC, Wang PS (2008) "The Descriptive Epidemiology Of Commonly Occurring Mental Disorders In The United States." *Annual Rev Public Health*. <https://pubmed.ncbi.nlm.nih.gov/18348707/>
2. National Institute of Mental Health. "Any Mental Illness". [NIMH » Mental Illness \(nih.gov\)](https://www.nimh.nih.gov/health/topics/any-mental-illness/)
3. Maryland State Data Center (2017). "Projections to 2045" *Maryland Department of Planning*. [https://planning.maryland.gov/MSDC/Pages/s3\\_projection.aspx](https://planning.maryland.gov/MSDC/Pages/s3_projection.aspx)

# During The Next Decade In Maryland, The Number Of Older Adults With Anxiety Disorders Will Grow By 36,000 (Over 30%)

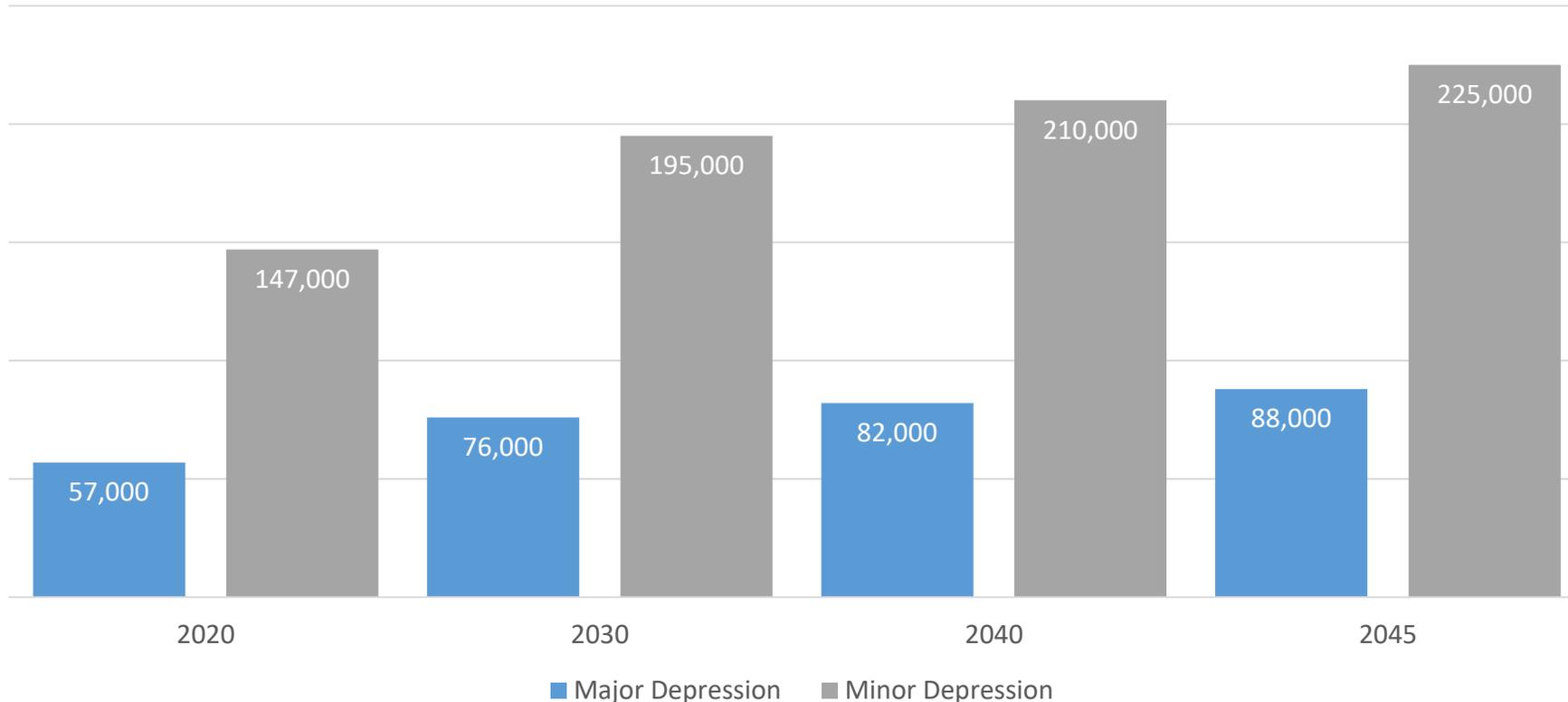
Population of Adults 65 and Older in the United States Presenting with Any Anxiety Disorder:  
Projection 2020-2045



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2. Reynolds, K., Pietrzak, R. H., El-Gabalawy, R., Mackenzie, C. S., & Sareen, J. (2015, Feb). *Prevalence of psychiatric disorders in U.S. older adults: findings from a nationally representative survey*. Retrieved 11 06, 2021, from National Center for Biotechnology Information: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4329900/pdf/wps0014-0074.pdf>

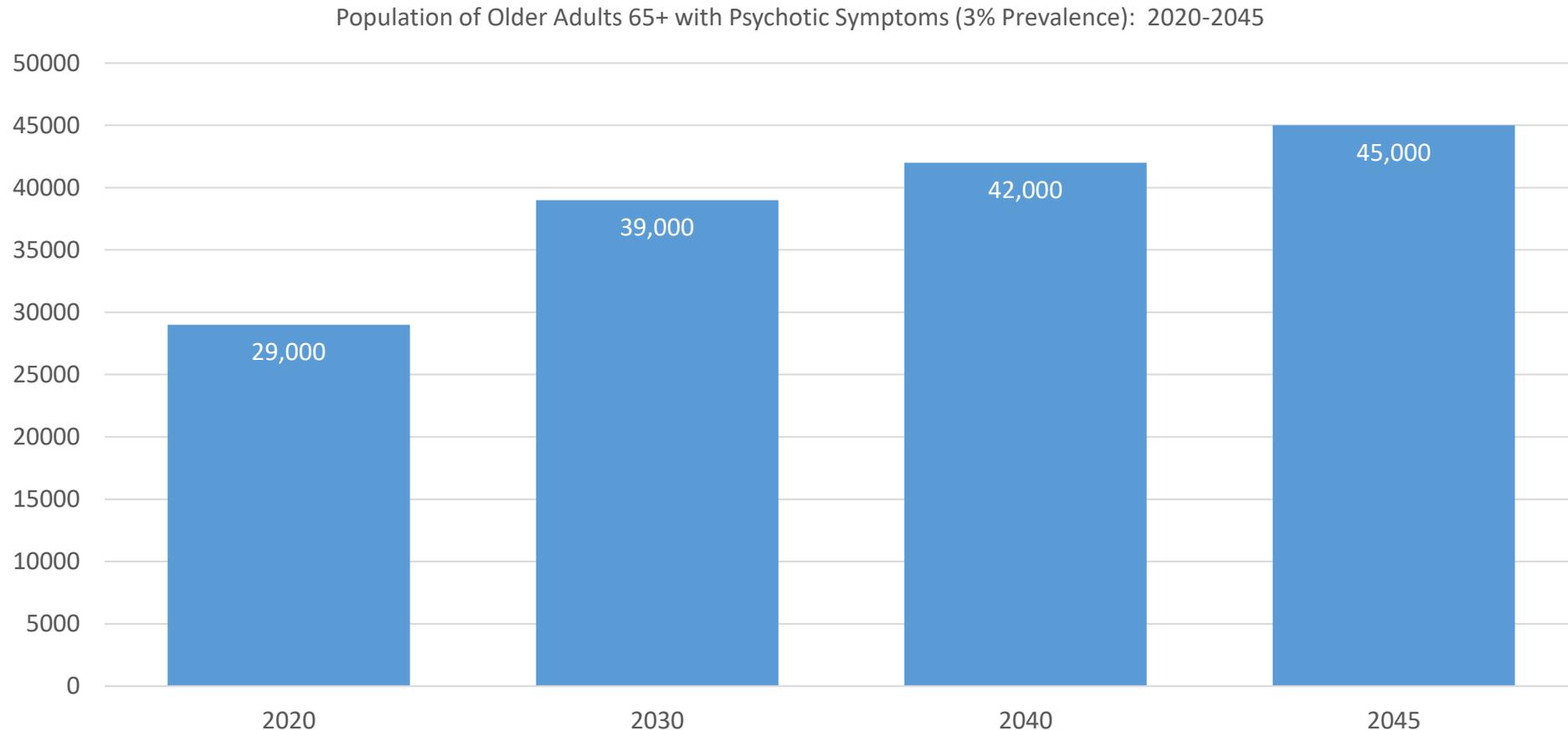
# Over The Next Decade In Maryland, The Population 65+ With Major Or Minor Depression Will Grow Over 30%

Population of Adults 65 and Older in the United States Presenting with Major or Subsyndromal Depression: Projection 2020-2045



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2. Reynolds K. et al (2015). "Prevalence of Psychiatric Disorders In U.S. Older Adults: Findings From A Nationally Representative Survey." *World Psychiatry*. February 2015. <https://pubmed.ncbi.nlm.nih.gov/25655161/>
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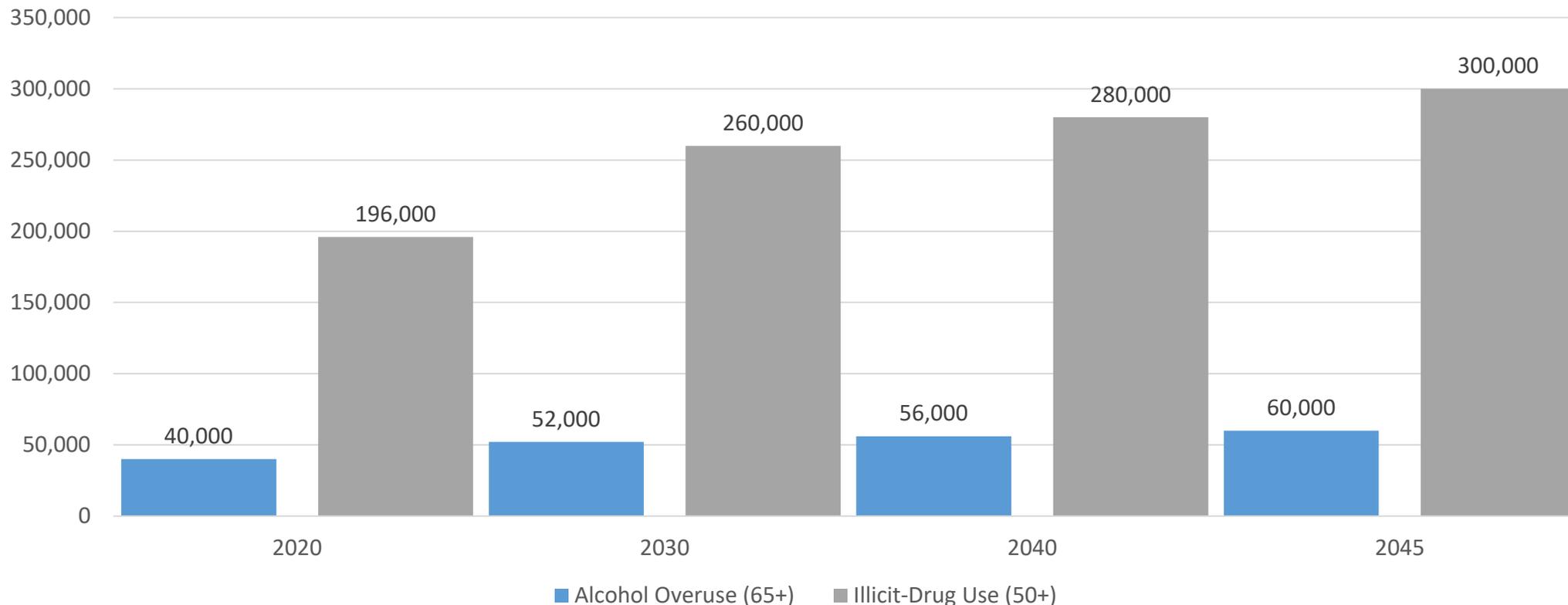
# During The Next Decade In Maryland, The Population Of Older Adults 65+ With Psychotic Conditions Will Increase By 10,000 (Over 30%)



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# Number of Maryland Adults 50+ Who Misuse Alcohol or Illegal Substances Will Grow About 30% by 2045\*

United States Population of Older Adults Overusing Alcohol and Illicit-Drug Use



Sources:

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2. Maryland State Data Center (2017). "Projections to 2045." *Maryland Department of Planning*. [https://planning.maryland.gov/MSDC/Pages/s3\\_projection.aspx](https://planning.maryland.gov/MSDC/Pages/s3_projection.aspx)

# **ACCESS TO QUALITY CARE AND TREATMENT REMAINS INADEQUATE**

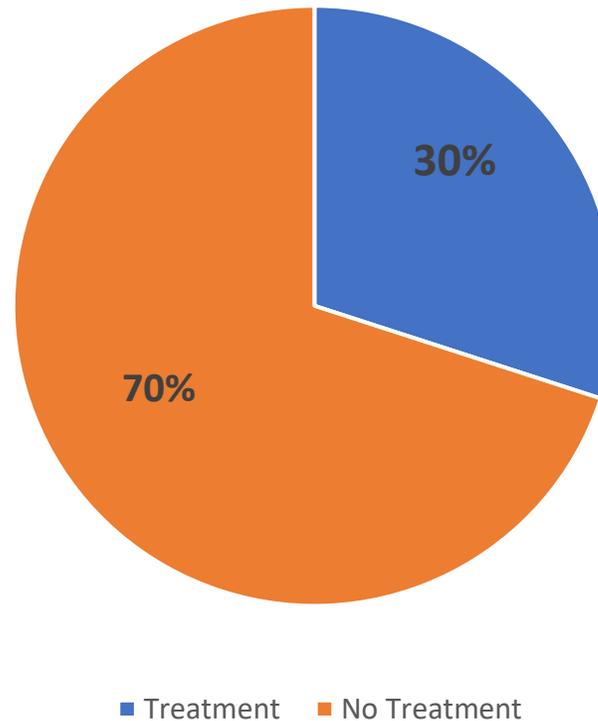
# Older Adults With Cognitive Impairment Have Extensive Unmet Needs

- They have high rates of anxiety disorders, depressive disorders, as well as physical disorders. <sup>1, 2</sup>
- Unmet needs for people with dementia living in the community and their caregivers include: <sup>3, 4</sup>
  - More extensive screening for functional abilities, neuropsychiatric symptoms, misuse of substances, safety, and pain
  - Early disclosure of diagnosis to people with dementia and their family to enable advance care planning
  - Education, support, and behavioral health care for family caregivers
  - Training for primary care physicians and gerontologists in diagnosis, treatment (including more cautious use of medications), and the use of motivational techniques to promote healthy aging.
  - Neuropsychiatric behavior management
  - Daily/meaningful activities
  - Home and personal safety provisions
  - Medical condition management

1. Maryland Behavioral Health Risk Factor Surveillance. [https://health1.maryland.gov/phpa/ccdpc/Reports/Documents/MD-BRFSS/BRFSS\\_BRIEF\\_2017-11\\_Cognitive\\_Decline.pdf](https://health1.maryland.gov/phpa/ccdpc/Reports/Documents/MD-BRFSS/BRFSS_BRIEF_2017-11_Cognitive_Decline.pdf)
2. Hughes TB, et al. (2014) "Correlates of objective and subjective measures of caregiver burden among dementia caregivers: influence of unmet patient and caregiver dementia-related care needs" in *International Psychogeriatrics*.
3. Black BS, et al. (2019) "Unmet needs in community-living persons with dementia are common, often non-medical and related to patient and caregiver characteristics" in *International Psychogeriatrics*. February 2019
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5. Schultz, S. K., Llorente, M. D., Sanders, A. E., Tai, W. A., Bennett, A., Shugarman, S., & Roca, R. (2020, February). *Quality Improvement in Dementia Care: Dementia Management Quality Measurement Set 2018 Implementation Update*. Retrieved 11 15, 2021, from American Journal of Psychiatry: <https://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2019.19121290>

# Most Older Adults With Mental Disorders Do Not Get Treatment

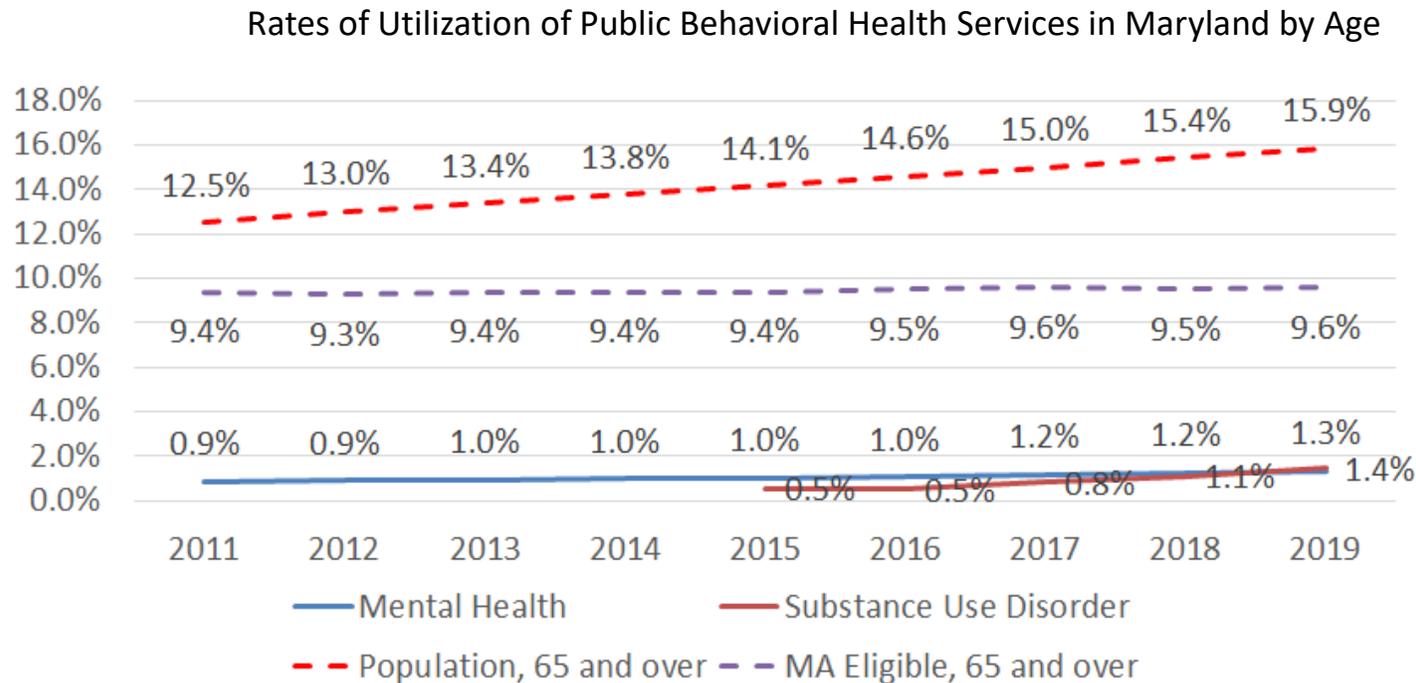
Treatment for Anxiety or Depression



Byers, A. et al (2012). "Low Use of Mental Health Services Among Older Adults With Mood and Anxiety Disorders" in *Psychiatric Services*, January 2012.

# Older Adults Are Disproportionately Underserved In Maryland's Public Behavioral Health System

- Adults aged 65 and older use less than 2 percent of public behavioral health system services, although they make up fifteen percent of the Maryland population and nine percent of Medicaid beneficiaries.



Santoni, T. (2020). "Older Adult Behavioral Health Data: Some Indicators of Need and Service Utilization[PowerPoint slides]. *PowerPoint Presentation To The Mental Health and Aging Coalition, November 2020.*

# Most Older Adults With Mental Illnesses Do Not Get Even Minimally Adequate Mental Health Services

- Treatment by primary care physicians is **not** even minimally adequate 87.3% of the time.<sup>1</sup>
- Treatment by mental health professionals is **not** even minimally adequate 51.7% of the time.<sup>1</sup>
- Older adults are less likely to get health care in mental health specialty settings than other age groups.<sup>2</sup>
- In-home service providers, such as home health aides, are rarely trained to identify or treat mental disorders.<sup>2</sup>
- Community service providers in senior centers, adult day care, etc. are rarely trained in identification or treatment.<sup>2</sup>
- Mental health care in nursing and adult homes is also uneven. Overuse of anti-psychotic medications is common and dangerous.<sup>2</sup>

1. Wang, P.S. et al. (2005). "Twelve-Month Use Of Mental Health Services In The U.S." *Archives of General Psychiatry.*  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1931566/>

2. Institute of Medicine (2012). *The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands?* The National Academies Press. [The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands? | The National Academies Press \(nap.edu\).](https://www.nap.edu/catalog/12842/the-mental-health-and-substance-use-workforce-for-older-adults-in-whose-hands)

# Barriers To Care And Treatment Of Older Adults With Behavioral Health Conditions

- Shortages of clinically, culturally, and geriatrically competent providers
  - Over reliance on primary care providers without adequate training
  - High out of pocket cost
  - Inadequate public information about where and how to get services
  - Transportation problems to reach service sites
  - Shortages of services in rural areas
  - Shortages of in-home services
  - Shortages of outreach and engagement services
  - Shortages of bi-lingual providers
  - Low perceived need
  - Stigma
  - Cultural differences regarding sources of help
- 
- The **use of tele-health** services during the pandemic has significantly improved access, but such services are less available to older adults than younger due to issues of broadband access, ownership of needed equipment, and ability to use it.

Soloway E. et al (2010). “Access Barriers to Mental Health Services for Older Adults from Diverse Populations: Perspectives of Leaders in Mental Health and Aging.”

[https://www.tandfonline.com/doi/full/10.1080/08959420.2010.507650?casa\\_token=uOSTfTGj26cAAAAA%3A67B2B06iEymDr6LJtdPHmu9AyneOZTfgFZbS8jxeKwsfPGnYF7D664BIZYNx5AeAfwOkwQvKEObvHg&](https://www.tandfonline.com/doi/full/10.1080/08959420.2010.507650?casa_token=uOSTfTGj26cAAAAA%3A67B2B06iEymDr6LJtdPHmu9AyneOZTfgFZbS8jxeKwsfPGnYF7D664BIZYNx5AeAfwOkwQvKEObvHg&)

# The Workforce For Geriatric Cognitive And Behavioral Health Is Too Small And Not Keeping Pace With Population Growth <sup>1</sup>

- Actions Needed To Address Workforce Shortages

- Increase and improve the geriatric workforce with financial and other **incentives** to work with older adults as well as by providing increased training. <sup>2</sup>
- Because it is not possible to train enough geriatric cognitive and behavioral health professionals, it is necessary to **change the workforce paradigm** and to train primary care clinicians, social service providers, paraprofessionals, peers, volunteers, etc. to identify needs and provide care.<sup>3,4</sup>
- Increase the use of the **internet** and related technologies. <sup>3</sup>
- Provide increased **support for family caregivers**, who are the primary *de facto* workforce for people with mental disabilities. <sup>5</sup>

1. Institute of Medicine (2012). *The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands?* The National Academies Press. [The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands? | The National Academies Press \(nap.edu\)](https://www.nap.edu/report/13161).
2. Warshaw, G and Bragg, E. (2014) "Preparing The Health Care Workforce To Care For Adults With Alzheimer's Disease And Related Dementias." *Health Affairs*. April 2014.
3. Bartels, S. and Naslund J. (2013). "The Underside of the Silver Tsunami — Older Adults and Mental Health Care" in *The New England Journal of Medicine*, February 7, 2013. <https://www.nejm.org/doi/full/10.1056/nejmp1211456>
4. Kunik, M. et al. (2017). "Expanding the Geriatric Mental Health Workforce Through Utilization of Non-Licensed Providers" in *Aging and Mental Health*, September 2017. [Expanding the Geriatric Mental Health Workforce through Utilization of Non-Licensed Providers \(nih.gov\)](https://doi.org/10.1177/1063426917711111)
5. Parmar, J et al. (2020). "[Caregiver-Centered Care Health Workforce Competencies: Taking Steps to Support Family Caregivers of People Living With Dementia](https://doi.org/10.1177/0891913320951111)" in *Alzheimer's and Dementia*, December 2020.

# An Agenda For Improved Cognitive And Behavioral Health Policy

1. Provide services to support **community integration** (“aging in place”).
2. Improve **long-term care**—nursing homes, assisted living, and home and community-based services.
3. Increase cognitive and behavioral health service **capacity** to keep pace with the growth of the older population and to address current shortfalls.
4. Enhance **access** to care particularly with **extensive use of telehealth**.
5. Improve **quality of care** emphasizing clinical, cultural, and geriatric competence in service design and delivery.
6. Increase and improve the professional and paraprofessional **workforce** and **change the workforce paradigm** to create clinical, cultural, and geriatric competence in the primary care, long-term care, behavioral health, and social service workforces.
7. Enhance **integration of care** within and between separate service “systems”—physical, cognitive, behavioral, and long-term health care, and aging social services.
8. Enhance **support for family caregivers**.
9. Address **social “determinants” of behavioral health** such as racism, poverty, and isolation.
10. Improve **public and professional education**.
11. Increase and redesign **funding** to meet the needs of older adults.
12. Develop a publicly accessible **data dashboard** for planning purposes.