# The Aging and Health Report 

## Disparities and Resilience

 among Lesbian, Gay, Bisexual, and Transgender Older AdultsBy Karen I. Fredriksen-Goldsen, PhD, Hyun-Jun Kim, PhD, Charles A. Emlet, PhD, Anna Muraco, PhD, Elena A. Erosheva, PhD, Charles P. Hoy-Ellis, MSW, Jayn Goldsen, BS, Heidi Petry, PhD

"The LGBT community has stepped up in the past to address coming out, AIDS, and civil rights.

The next wave has to be aging."
63-year-old gay man

# The Aging and Health Report <br> Disparities and Resilience among Lesbian, Gay, Bisexual, and Transgender Older Adults 

By Karen I. Fredriksen-Goldsen, PhD, Hyun-Jun Kim, PhD,
Charles A. Emlet, PhD, Anna Muraco, PhD, Elena A. Erosheva, PhD, Charles P. Hoy-Ellis, MSW, Jayn Goldsen, BS, Heidi Petry, PhD
with SAGE (Services and Advocacy for GLBT Elders) (New York),
LA Gay \& Lesbian Center (Los Angeles), New Leaf (San Francisco),
LGBT Aging Project (Boston), SAGE at Center on Halsted (Chicago),
Senior Services (Seattle), SAGE/Milwaukee, FORGE Transgender Aging Network, Openhouse (San Francisco), GLBT Generations (Minnesota), and SAGE Metro St. Louis

## TABLE OF CONTENTS

Acknowledgements ..... i
Foreword ..... ii
Executive Summary ..... 2
Introduction ..... 7
Health Disparities Revealed ..... 9
National Project: Making it all Possible ..... 11
Society and Health - Resilience ..... 15
Disclosure of Sexual Orientation and Gender Identity
Community Belonging
Social Support
Religious and Spiritual ActivitiesKey Background Characteristics
Society and Health - Disparities in Risk ..... 19
Victimization and Discrimination
Internalized Stigma
Verbal and Physical Abuse
Key Background Characteristics
Physical Health ..... 22
General Physical Health
Disability
Health Conditions
Vision, Hearing, and Dental Impairments
Key Background Characteristics
Mental Health ..... 26
General Mental Health
Depression and Anxiety
Suicide
Stress
Loneliness
Neglect
Key Background Characteristics
Healthcare Access ..... 30
Health Insurance Coverage

## TABLE OF CONTENTS

Financial Barriers
Fear of Accessing Services
Healthcare Provider
Routine Checkup
Emergency Room Use
Key Background Characteristics
Health Behaviors ..... 34
Sexual ActivityExercise and Wellness Activities
Health Screenings
Smoking
Excessive Drinking
Drug UseHIV Risk BehaviorsKey Background Characteristics
Services and Programs ..... 38
Most Needed Services and Programs
Legal Arrangements
Key Background Characteristics
HIV Disease ..... 41
Physical and Mental HealthResilience and Risk
Healthcare Access
Health Behaviors
Services and Informal Care
Key Background Characteristics
Caregiving and Care Receiving. ..... 45
Caregiving
Receiving Care
Key Background Characteristics
Key Findings and Call to Action ..... 49
References ..... 55
Appendices ..... 57MethodologyKey TermsTables

## ACKNOWLEDGEMIENTS

We want to gratefully acknowledge the generous support that has made this project a success. A special thank you to the following agencies that participated in the national community-based collaboration: SAGE (Services and Advocacy for GLBT Elders) (New York), LA Gay \& Lesbian Center (Los Angeles), LGBT Aging Project (Boston), FORGE Transgender Aging Network, Senior Services (Seattle), SAGE at Center on Halsted (Chicago), Openhouse (San Francisco), GLBT Generations (Minnesota), SAGE Metro St. Louis, SAGE/Milwaukee, and New Leaf (San Francisco). These organizations are out in front addressing the very real needs of LGBT older adults.

We want to thank the National Institutes of Health and the National Institute on Aging for funding this research and Dr. Sidney Stahl for his support of this work. We also want to acknowledge the Hartford Foundation, the Gerontological Society of America and the University of Washington Diversity Research Institute for funding the pilot research that made this project possible. We are grateful to the organizational sponsors of the report, including the Gerontological Society of America, American Association of Retired People (AARP), CSWE Gero-Ed Center, and the National Gay and Lesbian Task Force.

We want to thank Kathy Greenlee, the Assistant Secretary for Aging, U.S. Department of Health and Human Services, for writing the forward to this report, and Edwin Walker, Deputy Assistant Secretary for Program Operations, and Greg Case, Acting Director, Office of Home and Community Based Services, for their valuable input and assistance.

We also extend our deepest appreciation to the individuals that helped make this project a success at every stage: Loree Cook-Daniels, Serena Worthington, Lisa Krinsky, Susan Snyder, Hope Barrett, Laurie Young, Sherrill Wayland, Steve Gratwick, Kathleen Sullivan, Janaki Tompkins, Barbara Satin, Marcy Adelman, Seth Kilbourn, Jacqueline Lindo, Karen Taylor, Somjen Frazer, Bill Serpe, and Arielle Rosen. These individuals are leaders in their fields working tirelessly to address the growing needs of LGBT older adults and their caregivers.

We deeply appreciate the contributions made by our research staff, including Mary Fordham, Michel Daliva, Teresa Jewell, our editor Andrew Edwards, and students at the University of Washington, including Mark Williams, Shawn Mincer, Andrea Lahr, and Alex Shockey. We also want to acknowledge the individuals that generously provided feedback and input at various stages of the research, including Chandra Mehrotra, Linda Harootyan, Karina Walters, Nancy Hooyman, David Takeuchi, Brian deVries, and Jean Quam.

Finally, we want to extend our deepest gratitude and appreciation to the thousands of lesbian, gay, bisexual, and transgender older adults who so graciously and thoughtfully participated in the project, taking the time to share so much of themselves. At its heart, this project is their collective story.

We hope that this project will lead to improvements in the health and well-being of lesbian, gay, bisexual, and transgender older adults, and indeed all older adults. We offer our heartfelt thanks to all who made this project possible through their time and contribution.

on behalf of Caring and Aging with Pride

## FOREWORD

Lesbian, Gay, Bisexual and Transgender (LGBT) elders are a largely invisible population. Little is known about older LGBT people because very few studies on older adults and aging include a focus on sexual orientation or gender identity. Caring and Aging with Pride sheds new light and provides important information about the LGBT population over age 50.

Caring and Aging with Pride articulates the results of one of the first state-level populationbased studies as well as a national community-based survey of over 2,500 LGBT older adults. The participants represent individuals from diverse walks of life from across the country. As one of the first federally funded research projects on LGBT aging, this historic new window into the health and lives of LGBT elders in America advances our current knowledge and leads us to new questions for future research. When we understand diverse populations like LGBT older adults, a largely underserved population, we can better understand and address the needs of all older Americans.

The U.S. Administration on Aging (AoA) is dedicated to assisting all older Americans in their efforts to live as independently as possible in the community regardless of race, ethnicity, sexual orientation, or gender identity. The Older Americans Act directs AoA and the Aging Network to pay particular attention in the provision of services to those older individuals with the greatest economic and social need. In fulfilling that obligation, AoA has historically identified racial and ethnic minorities as populations of greatest need and has directed resources to assist organizations in serving these populations. Most recently, AoA has funded a technical assistance resource center to focus on the unique needs of LGBT elders recognizing that this population may experience difficulty in accessing appropriate health and social services.

The information provided in this important publication will be invaluable to the Aging Network as it strives to provide culturally appropriate services to LGBT elders in their service area. It will also serve as an important tool for LGBT organizations to assist them in understanding how they can be a resource for the elders in their community.

I am honored for this opportunity to contribute to Caring and Aging with Pride. I hope this report is found useful by researchers and academics as well as by aging services providers who touch LGBT older adults' lives each and every day.

## EXECUTIVE SUMMARY

Aging and health needs of lesbian, gay, bisexual, and transgender (LGBT) older adults are rarely addressed in services, policies, or research, ${ }^{1}$ even though diversity is a defining feature of our aging global population. Although there have been tremendous gains in health during the last century, many historically disadvantaged groups within our aging population continue to experience higher levels of illness, disability, and premature death. It is imperative to understand the diverse population of LGBT older adults in order to ensure a healthier aging population in the years to come. ${ }^{2}$ Caring and Aging with Pride, the first national federally-funded project to examine LGBT aging and health reveals significant health disparities impacting LGBT older adults as they age, including disability, physical and mental distress, victimization, discrimination, and lack of access to supportive aging and health services. Health disparities must be eliminated to effectively respond to the aging crises in the lesbian, gay, bisexual, and transgender communities.

## Closing the gap

In the first phase of this project we utilized state-level population-based information from the Behavioral Risk Factor Surveil-
lance System in Washington State (BRFSSWA) to compare key health indicators of lesbian, gay, and bisexual adults to heterosexuals. ${ }^{3-5}$ Next, to better understand the risk and protective factors impacting LGBT older adults, we collaborated with eleven commu-nity-based agencies across the country serving LGBT older adults to conduct the first national project on LGBT aging and health. The executive summary highlights key findings stemming from this ground-breaking project.

## Health disparities revealed

Higher rates of disability were found among lesbian, gay, and bisexual older adults, compared with heterosexuals of similar age utilizing state-level population-based information (BRFSS-WA). Lesbian, gay, and bisexual older adults experience higher rates of mental distress and are more likely to smoke and engage in excessive drinking than heterosexuals. Lesbians and bisexual older women report higher risk of cardiovascular disease and obesity than heterosexual women, and gay and bisexual older men are more likely to have poor physical health than their heterosexual counterparts.

LGBT older adults are also at greater risk socially than their heterosexual peers. Lesbian, gay, and bisexual older adults are

## LGBT Older Adult Participants: Aging and Health Findings

- Nearly one-half have a disability and nearly one-third report depression.
- Most LGBT older adults ( $91 \%$ ) engage in wellness activities.
- Almost two-thirds have been victimized three or more times.
- Thirteen percent have been denied healthcare or received inferior care.
- More than $20 \%$ do not disclose their sexual or gender identity to their physician.
- About one-third do not have a will or durable power of attorney for healthcare.
- Most needed services: senior housing, transportation, legal services, social events.


## EXECUTIVE SUMMARY

less likely to be partnered or married than heterosexuals, which may result in less social support and financial security as they age. Gay and bisexual older adult men have significantly fewer children in the household and are significantly more likely to live alone than heterosexual older adult men. In the general population, older women are more likely to live alone than older men. ${ }^{6}$ Among LGBT older adults the trend is reversed; gay and bisexual older men are at an elevated risk of living alone. Older adults who live alone are at serious risk of social isolation, which in the general population is linked to poor mental and physical health, cognitive impairment, and premature chronic disease and death. ${ }^{7}$

Based on the state-level populationbased information, we found that $2 \%$ of adults age 50 and older self-identify as lesbian, gay, or bisexual. Given the number of adults age 50 and older living in the U.S., these findings suggest that more than 2 million older adults self-identify as lesbian, gay, or bisexual. Given the tremendous proportional growth of the age 50 and older population expected in the next few decades, the number of self-identified LGBT older adults will more than double by 2030.

## Emerging and resilient

Contrary to the popular belief that LGBT older adults will not participate in research, 2,560 diverse LGBT older adults age 50 to 95 , from eleven community-based aging agencies across the country, joined in our national aging and health project. Despite the challenging historical context of their lives, LGBT older adults forge onward with resilience, living their lives and building their communities.

Among the LGBT older adult participants in our project, nearly $90 \%$ feel good
about belonging to their communities, and many have at least moderate levels of social support. Most engage regularly in wellness activities (91\%) and moderate physical activities ( $82 \%$ ). Many attend spiritual or religious services or activities ( $38 \%$ ), with bisexual men and transgender older adults most likely to participate. Such strengths are likely protective in terms of physical and mental health, counteracting the unique challenges that LGBT older adults face.

The societal contributions of LGBT older adults need to be recognized. Of the participants, $41 \%$ of transgender older adults, $41 \%$ of bisexual men, $34 \%$ of gay men, and $6 \%$ of lesbian and bisexual women have served in the military.

While family members related by blood or marriage play a primary role in the support of older adults in the general population, most LGBT older adults care for one another. LGBT older adult participants have distinct support networks, relying heavily


AP Photo/Jason DeCrow

## EXECUTIVE SUMMARY

on partners and friends, most of a similar age, to provide assistance and help as they age. Unlike the general population, among LGBT older adults rates of caregiving by both women ( $30 \%$ ) and men ( $26 \%$ ) are high. While the importance of friends in the lives of LGBT older adults is well documented, there may be limits in their ability to provide care over the long-term, especially if de-cision-making is required for the older adult receiving care. ${ }^{8}$

## Risks in their midst

Existing health disparities may reflect the historical and social context of LGBT older adult lives. Victimization and discrimination create significant risks in the aging and health of LGBT older adults and their caregivers. Over the course of their lifetime, most LGBT older adult participants have faced serious adversity: $82 \%$ have been victimized at least once because of their perceived sexual orientation or gender identity, and $64 \%$ have been victimized three or more times. Many LGBT older adults have encountered discrimination in employment and housing, impacting economic security. Experiences of discrimination are linked with poor health outcomes, such as depression among both chronically ill LGBT older adults and their informal caregivers. ${ }^{9}$ Nearly four out of ten LGBT older adult participants have contemplated suicide at some point during their lives.

Among LGBT older adult participants, an alarming number report disability (47\%), depression (31\%), and loneliness (53\%). Bisexual older women experience

higher levels of stress than older lesbians; transgender older adults have higher rates of disability, depression, and loneliness than non-transgender older adults. Furthermore, racial and ethnic minority LGBT older adults experience heightened and cumulative risks of aging and health disparities, as do LGBT older adults with incomes at or below $200 \%$ of the federal poverty level and those with a high school education or less.

In our project, we found that $9 \%$ of all LGBT older adult participants are living with HIV disease, while more than one in five bisexual older men and nearly one in seven gay older men have HIV. These statistics are especially alarming given that by 2015 , half of the more than 1.1 million Americans living with HIV are projected to be age 50 or older. ${ }^{10}$

More than one in ten LGBT older adults (13\%) who participated in the project have been denied healthcare or provided with inferior care. Nearly one-quarter of transgender older adults have needed to see a doctor but could not because of cost. Fifteen percent of LGBT older adults fear accessing healthcare outside the LGBT community, and $8 \%$ fear accessing healthcare inside the community. Bisexual older women (16\%) fear accessing healthcare services inside the LGBT community at nearly three times the rate of lesbians ( $6 \%$ ) and are less likely to have a primary physician or healthcare provider than lesbians.

More than one-fifth ( $21 \%$ ) of LGBT older adults have not revealed their sexual orientation or gender identity to their primary

## EXECUTIVE SUMMARY

# "Isolation, finding friend support, caregiving and health are the biggest issues older gay persons face. Who will be there for us, who will help care for us without judgment?" 

66-year-old lesbian
physician, and bisexual older women and men are less likely to disclose than lesbian and gay older adults. The American Medical Association warns that physicians' failure to recognize, and patients' reluctance to disclose, can lead to failure to diagnose serious medical problems. ${ }^{11}$ Lack of disclosure prevents discussions about sexual health, risk of breast or prostate cancer, hepatitis, HIV risk, hormone therapy, and other risk factors.

LGBT older adults often lack legal protections for their loved ones: about a third of the participants do not have a will (30\%) or a durable power of attorney for healthcare (36\%).

## Recognizing critical needs

There is a consensus among the diverse LGBT older adults on the services most needed in their communities. Senior housing, transportation, legal services, social events, and support groups were consistently deemed the most needed services. It is important to note that among LGBT caregivers, supportive long-term care facilities are seen as one of the most critical needs.

While services and programs assisting older adults are readily available in many communities, they are most often geared toward the general population and fail to take into account the unique circumstances facing LGBT older adults such as fear of discrimination and, often, the lack of children to help them. In addition, most existing aging services, public policies, and research initiatives
intended to support older adults in times of need are inaccessible to LGBT older adults and their loved ones. For example, same-sex partners do not have access to federal family leave benefits, equivalent Medicaid spenddowns, Social Security benefits, bereavement leave, or automatic inheritance of jointly owned real estate and personal property. ${ }^{12}$

The term "LGBT" is often used in research, yet the findings from this project illuminate that lesbian, gay, bisexual, and transgender older adults are in fact distinct groups, often with unique needs and experiences. Both bisexual and transgender older adults emerge as critically underserved populations at heightened risk of physical and mental health disparities often combined with less social and community support.

## Conclusion

Addressing the aging and health needs of lesbian, gay, bisexual, and transgender older adults is paramount as it sheds new light on the diversity and cumulative risks facing the aging population. A comprehensive approach is required to transform public policies, services, education, and research (as detailed in the Call to Action section). Understanding aging and health across diverse communities illuminates inequalities and reminds us that resilience often emerges from adversity. The LGBT older adults in Caring and Aging with Pride represent the past and the future, as they create a legacy for generations to come.
"Our community needs to acknowledge our next stage... being old...embracing it gracefully."

63-year-old lesbian

## INTRODUCTION

Increasing diversity is a defining feature of the older adult population, the fastest growing segment of the world's population. The overall aging of the population presents great opportunities as well as significant challenges for healthcare and aging services and policies in the United States. Although there have been tremendous gains in health and longevity during the last century, many historically disadvantaged and minority populations continue to experience disproportionately higher levels of illness, disability, and premature death. Health disparities are com-munity-level differences in health that result from systemic social, economic and environmental disadvantages and obstacles. ${ }^{13}$ The National Institutes of Health (NIH) and the National Institute on Aging (NIA) are committed to reducing and eliminating these disparities. ${ }^{14}$

Unfortunately, the aging and health needs of lesbian, gay, bisexual, and transgender (LGBT) older adults are rarely ad-
(CDC) identifies research on sexual orientation as one of the most pronounced gaps in health disparities research. ${ }^{15}$ This project seeks to address this gap and provide new information on aging and health in these communities.

In order to understand the diverse lives of today's lesbian, gay, bisexual, and transgender older adults, we must understand the historical and social context of their lives. Some are of the "Greatest Generation," who came of age in the shadow of the Great Depression or in the McCarthy era (1950s). Others are of the "Baby Boom" generation, who came of age during the era of the civil rights movement (1960s) and the Stonewall riots (1969), which sparked the gay liberation movement that allowed many younger lesbian, gay, bisexual, and transgender people to emerge from the margins of society. Regardless of their respective generational cohort, most of today's lesbian, gay, bisexual, and transgender older adults spent a great deal of their lives masking their sexual orien- dressed in services, policies, or research. Reviewing 25 years of literature, Fredriksen-Goldsen and Muraco provide evidence that health research is glaringly absent in studies about lesbian, gay, bisexual, and transgender aging. ${ }^{2}$ A report by the Institute of Medicine suggests that lesbian, gay, bisexual, and transgender older adults are one of the least understood groups in terms of their aging and health-related needs. ${ }^{1}$ The Centers for Disease Control and Prevention


## INTRODUCTION

tation and gender identity; their life stories are largely untold. Unlike many minority groups, most LGBT older adults are not readily identifiable and must manage the disclosure of their sexual orientation or gender
> "Internalized homophobia negatively affects the heath, careers, and social life of LGBT men and women."

63-year-old gay man
identity, ever cognizant of their community's historical experiences of discrimination and victimization. Yet these richly varied lives remind us that resilience often emerges from adversity.

This report is organized into the fol-
lowing sections: Health Disparities Revealed, National Project: Making it all Possible, Society and Health - Resilience, Society and Health - Disparities in Risk, Physical Health, Mental Health, Healthcare Access, Health Behaviors, Services and Programs, HIV Disease, and Caregiving and Care Receiving. We conclude with Key Findings and Call to Action.

Information from Caring and Aging with Pride paints a vivid portrait of the lives of LGBT older adults, contrasting disparities with resilience. Given the incredible surge in the aging population over the next few decades, understanding aging and health within and across the lesbian, gay, bisexual and transgender communities is imperative to expand our knowledge of the diverse experiences, needs, and strengths of all older adults.


## HEALTH DISPARITIES REVEALED

Caring and Aging with Pride represents the first ever research project to be funded by the National Institutes of Health and the National Institute on Aging addressing the aging and health of lesbian, gay, bisexual, and transgender adults age 50 and older and their caregivers.

In the initial phase of the project, we utilized information from the Behavioral Risk Factor Surveillance System in Washington State (BRFSS-WA) to assess health disparities by sexual orientation, gender and age. To our surprise, we found that approximately $2 \%$ of adults age 50 and older selfidentify as lesbian, gay, or bisexual. This is contrary to the popular belief that older sexual minorities will not reveal their sexual orientation in public health surveys. Based on the number of adults age 50 and older living in the U.S., these findings suggest that more than 2 million Americans self-identify as lesbian, gay or bisexual. The proportion of the population age 50 and older is expected to grow tremendously in the next few decades, and the number of LGBT older adults will increase proportionally, more than doubling by 2030.

When examining information from the Behavioral Risk Factor Surveillance System (BRFSS-WA), we found the prevalence of some key health problems is higher among lesbian, gay, and bisexual older adults than their heterosexual older adult counterparts, even when accounting for differences in age, income, and education. Lesbians, gay men, bisexual women, and bisexual men age 50 years and older have higher rates of disability and mental distress than their heterosexual peers. Older lesbians and bisexual women have higher rates of cardio-
vascular disease and obesity compared with older heterosexual women, and older gay and bisexual men are more likely than older heterosexual men to experience poor physical health. Important differences in some health behaviors are apparent: lesbian, gay, and bisexual older adults are more likely to smoke and engage in excessive drinking than their heterosexual counterparts. The prevalence of some preventative health screenings also differs. For instance, older lesbians and bisexual women have a lower likelihood of having a mammogram than heterosexual women. See Tables 1.1 and 1.2 for a breakdown of sociodemographic characteristics and key health indicators by sexual orientation and gender. Significant differences within distinct groups of LGBT older adults also emerged. For example, lesbian older adults (10\%) are significantly more likely than bisexual older adult women (4\%) to engage in excessive drinking. Diabetes is significantly more common among bisexual older adult men (20\%)


## HEALTH DISPARITIES REVEALED

> "I have done well. I am educated. I am self sufficient. I have a relationship with my children. I am alone - I never had a partner because I lived in a closet. I still have two sets of friends - they may suspect but are too polite to ask and I would not share anyway. My hope is that today is a more gentle time. Young people come out are accepted and build lives and long term friendships, being who they are."

72-year-old gay man
than among gay men (10\%). Bisexual older adult men ( $60 \%$ ) are also less likely than gay older adult men (83\%) to get tested for HIV. Compared with their heterosexual peers, older lesbians, gay men, and bisexual women and men demonstrate some important strengths related to health. For example, compared with older heterosexual men, older gay and bisexual men have lower rates of obesity and are more likely to get a flu shot and get tested for HIV. Similarly, older lesbians and bisexual women are more likely to receive HIV tests than their heterosexual counterparts.

We also found important differences in socio-demographic characteristics that can have important implications for aging and health in these communities. For example,

Lesbian, gay, and bisexual older adults experience more mental distress than heterosexuals of similar age
lesbian, gay, and bisexual older adults are less likely than heterosexuals of similar age to be partnered or married. Compared with heterosexual older adult men, gay and bisexual older adult men have significantly fewer children in the household and are significantly more likely to live alone.

This research illustrates that lesbian, gay, and bisexual older adults are a resilient yet at-risk population experiencing significant health disparities. In order to better understand the risk and protective factors that impact the aging and health of LGBT older adults and their caregivers, we collaborated with eleven community-based agencies across the country serving LGBT older adults to conduct the first national project on LGBT aging and health. While most previous aging-related research has relied on responses from LGBT adults in mid-life and often collapsed sexual minorities into a single group, Caring and Aging with Pride gathered important information from 2,560 lesbian, gay, bisexual, and transgender adults age 50 to 95 . This large number of sociodemographically diverse participants, and the inclusion of transgender older adults, enables us to provide an in-depth examination of health indicators by sexual orientation, gender identity, and age.

## NATIONAL PROJECT: MAKING IT ALL POSSIBLE

Across the nation 2,560 lesbian, gay, bisexual, and transgender adults age 50 to 95 participated in Caring and Aging with Pride. We collaborated with eleven agencies across the nation serving lesbian, gay, bisexual, and transgender older adults to create the first national project on LGBT aging and health. By reaching out to the older adults connected with these agencies, we can better understand the unique risks and protective factors associated with aging and health among LGBT older adults.

The participants in the project are diverse in many important ways, including sexual orientation, gender, gender identity, and age, as well as race and ethnicity, education, income, employment, living arrangements, and geographic location. See Table 2 for the socio-demographic characteristics of project participants.

## Lesbian, gay and bisexual participants

Among the participants, 1,462 (61\%) identify as gay men, 773 ( $33 \%$ ) as lesbian, 127 (5\%) as bisexual (comprised of $2 \%$ bisexual women and $3 \%$ bisexual men), and almost $1 \%$ as "queer" or "other."

## Transgender participants

One hundred and seventy four (7\%) of the older adults are transgender. Among the transgender older adults $60 \%$ are male-to-female (MTF), $26 \%$ are female-to-male (FTM), 6\% identified as "other," and 7\% did not answer. Among the transgender older adults in the project, $32 \%$ identify as lesbian or gay men, $28 \%$ as bisexual, $20 \%$ as hetero-
sexual, and $20 \%$ as queer or other.
Age
The LGBT adults participating in the project range in age from 50 to 95 years old (with a mean age of 66.5 and a standard deviation of 9.1). Ten percent ( $\mathrm{n}=225$ ) are 80 and older, $46 \%$ ( $\mathrm{n}=1,168$ ) are between 65 and 79 , and $44 \%$ ( $\mathrm{n}=1,137$ ) are between 50 and 64.

## Race and ethnicity

In terms of race and ethnicity, $87 \%$ of the participants identified themselves as non-Hispanic White, $4 \%$ as Hispanic, $3 \%$ as African American, 2\% as Asian/Pacific Islander, $2 \%$ as Native American/Alaskan Native, and $2 \%$ as another race or ethnicity.


## NATIONAL PROJECT: MAKING IT ALL POSSIBLE

## Household income

Eighteen percent of the LGBT older adults who participated in the project earn less than $\$ 20,000,8 \%$ earn $\$ 20,000$ \$24,999, $12 \%$ earn $\$ 25,000-\$ 34,999,14 \%$ earn \$35,000 - \$49,999, 17\% earn \$50,000 $\$ 74,999$, and $31 \%$ have annual household incomes of $\$ 75,000$ or more. When household size is considered, $31 \%$ have household incomes at or below $200 \%$ of the federal poverty level (FPL).

## Education

Eight percent of the participants have a high school education or less. Nineteen percent have some college, and $73 \%$ have a 4 -year college degree or higher.

## Employment

Forty-four percent of the LGBT older adult participants are employed. Of the $56 \%$


who are not employed, most (76\%) are retired. Twenty percent are not employed due to illness or disability, $6 \%$ are unable to find work, $5 \%$ are "doing something else," and $2 \%$ of those who are not formally employed have primary responsibility for taking care of their home or family.

## Military service

Among LGBT older adult participants, $26 \%$ have served in the military including $41 \%$ of transgender older adults, $41 \%$ of bisexual men, $34 \%$ of gay men, $7 \%$ of bisexual women, and $6 \%$ of lesbians.

## Relationship status

Forty-four percent are currently partnered or married. More than a quarter of the LGBT older adults (27\%) have experienced the death of a same-sex partner or spouse.

## Children

One-quarter of the older adults have children. Fifteen percent have grandchildren.

## Household size

The average household size is 1.5

## NATIONAL PROJECT: MAKING IT ALL POSSIBLE

persons. While $45 \%$ live with others, more than half (55\%) live alone.

## Pets

Forty-four percent of the participants have one or more pets; nearly two-thirds (65\%) of those living alone do not have a pet.

## Living arrangements

Fifty-nine percent of those participating in the project own their home or apartment, and another $33 \%$ rent. Four percent reside in senior housing, $0.4 \%$ in an assisted living facility, $0.1 \%$ in a skilled nursing facility, and $0.1 \%$ are homeless. Three percent indicate that they have "other" housing arrangements.

## Geographic location

In terms of geographic location, 44\% of the participants are from the western region of the United States, $16 \%$ are from the central region, and $39 \%$ are from the eastern region; they represent nearly every state.

## Distinct differences within the LGBT older adult population

There are both similarities and differ-
ences within distinct LGBT older adult groups. The distribution of age, race, and ethnicity is similar for lesbian and bisexual older women who participated in the project, as are levels of educational achievement and the rates of employment. However, bisexual older women are more likely to earn at or below $200 \%$ of the poverty level than lesbians. Bisexual older women are also less likely to be partnered or married than lesbians, though the rates of living alone, average number of children, types of housing, military service and geographic locations are similar.

Distributions of age, race and ethnicity are also similar for the gay older men and bisexual older men who participated in the project. Levels of educational achievement and the rates of employment are also similar, though bisexual men have lower annual household incomes than gay men. While bisexual older men are less likely to be partnered or married than gay older men, bisexual men are more likely to have children. The likelihood of living alone, type of housing, and military service are similar for both groups. Compared with bisexual men, gay men in the project are more likely to reside in the eastern region of the country.

> "Transgender is different things to different people. I was transgender for 2 years during transition. I completed that process so I am no longer 'transitioning' anything. I'm on the side I want to be."

65-year-old lesbian

## NATIONAL PROJECT: MAKING IT ALL POSSIBLE



Summary
The lives of LGBT older adults that are linked to aging-related service organizations are demographically diverse. This cross section of lives from around the nation includes lesbian, gay, bisexual, and transgender adults ranging from age 50 to 95 . They are single, partnered, married, and widowed-with and without children and grandchildren, with varied levels of education and incomes. This diversity of lives provides a window into the risks and protec-

The background characteristics of transgender older adult participants are different in many ways from those that are nontransgender. The transgender older adults who participated in the project are younger, on average, than non-transgender older adults in the project. Native American older adults are more likely to identify themselves as transgender than non-Hispanic White. While educational achievement level and employment rates are similar, transgender older adults are more likely to earn an income at or below $200 \%$ of the federal poverty level than non-transgender older adults. The rates of being partnered or married are similar for transgender and non-transgender older adults, but transgender older adults are more likely to have children, more likely to have served in the military, less likely to live alone, and less likely to own a home. Transgender older adult participants are also more likely to reside in the central region of the U.S. than non-transgender older adults.
tive factors impacting the aging and health of LGBT older adults.

The goal of this report is to better understand how the LGBT older adults who participated in the project experience health and well-being, as well as the risk and protective factors impacting their lives. In each of the following sections, aging and health indicators of LGBT older adult participants are examined. We compare participants by sexual orientation (lesbian compared to bisexual women and gay men compared to bisexual men) and gender identity (transgender compared to non-transgender adults). Since age, income, and education can significantly influence aging and health disparities, we adjust for these background characteristics in making our comparisons by sexual orientation and gender identity. At the end of each section, we also discuss how aging and health are associated with gender, race and ethnicity, as well as age, income, and education.

## SOCIETY AND HEALTH: RESILIENCE

Resilience, the ability to handle adversity and challenges successfully, is an important key to maintaining good physical and mental health. According to the American Psychological Association, a "primary factor in resilience is having caring and supportive relationships within and outside the family. Relationships that create love and trust, provide role models, and offer encouragement and reassurance can help bolster a person's resilience" (p.3). ${ }^{16}$ For lesbian, gay, bisexual, and transgender older adults, the relationship between adversity and resilience can be complex. The LGBT older adults that participated in the project often have had to choose between claiming a sexual or gender identity that provides the opportunity for community, belonging, and support and the risk of rejection, loss, discrimination, and violence. See Table 3 for a breakdown of resilience indicators by sexual orientation, gender identity, and background characteristics.

## Disclosure of sexual orientation and gender identity

In a world that stigmatizes LGBT individuals, disclosure, or being "out," presents both risks and opportunities. While being out has been shown to be a positive protective factor for mental health, those who come out risk the very real possibility of rejection by
friends, family members, and others as well as the possibility of losing their job and housing. The LGBT older adult participants range from those who disclosed their LGBT identity as young people in the 1930's to those who have come out as 90 -year-olds. Some have identified only to themselves and will only allow their sexual orientation or gender identity to be known upon their death. Others never plan to reveal their sexual orientation or gender identity.

The LGBT older adult participants are most likely to be out to their best friend ( $92 \%$ ), followed by their children ( $85 \%$ ), sisters ( $81 \%$ ), brothers ( $80 \%$ ), mother ( $66 \%$ ), and father ( $54 \%$ ). They are least likely to be out to their grandparents ( $27 \%$ ). In terms of the broader community, about two-thirds are out to their current or previous supervisor (69\%), at least one neighbor (66\%), and to their faith communities ( $73 \%$ ). While $79 \%$ of the LGBT older adult participants are out to their primary physician, $21 \%$ of LGBT older adults are not, which can have adverse health consequences.

On a scale of 1 to 4 (4 represents more likely to disclose one's sexual orientation or gender identity), on average the level of disclosure is 3.5 for LGBT older adults. Levels of disclosure for distinct LGBT older adult groups are: lesbians (3.6), bisexual women, (3.2), gay men (3.5), bisexual men
> "In spite of some of the hassles I have had in my life because I am gay, I consider being gay a gift. It has made my life richer and opened so much of the world for me. Of course if I had it to do over again, there are some things I would have done differently but being gay isn't one of them."

70-year-old gay man

## SOCIETY AND HEALTH: RESILIENCE

(3.0), and transgender older adults (3.3). Lesbians and gay men are more likely to disclose their sexual orientation than bisexual women or men respectively, even after adjusting for socio-demographic characteristics

## 89\%

feel positive about belonging to the LGBT community
(age, income, and education). Transgender older adults are less likely to disclose their gender identity or sexual orientation than non-transgender older adults, even after taking into consideration differences in sociodemographic characteristics.

## Community belonging

While self-disclosure can lead to rejection and victimization, it can also provide opportunities for community and social support that can be crucial to older adults' wellbeing. Although a small number of LGBT older adults in the project hold negative views related to their sexual orientation or gender identity (see "Internalized Stigma," Society and Health: Disparities in Risk section), most of the LGBT older adults (89\%) report positive feelings about belonging to the LGBT community.

Among LGBT older adults, most lesbians (92\%), bisexual women ( $84 \%$ ), gay men ( $89 \%$ ), bisexual men ( $85 \%$ ), and transgender older adults ( $82 \%$ ) have positive feelings of belonging to the LGBT community. However, there are distinct differences among LGBT older adult groups and their sense of community belonging. For example, lesbians are more likely to feel positive about belonging to the LGBT community than bi-
sexual women, regardless of age, income, and education. However, older adult gay and bisexual men are similar in their feelings of belonging to the LGBT community. Transgender older adults are less likely to have positive feelings about belonging to the LGBT community than non-transgender older adults. This difference is significant regardless of age, income, and education.

## Social support

Social support, having people that you can "count on," seems central to both mental and physical health. Again, the picture is complex for LGBT older adults. For instance, while two-thirds of LGBT older adult participants (67\%) report that they have someone to help with daily chores if they are


## SOCIETY AND HEALTH: RESILIENCE

sick, one in three (33\%) report that they do not. Eighty-two percent usually have someone to turn to for suggestions about how to deal with a personal problem, and $83 \%$ have someone with whom to do something enjoyable. While $71 \%$ have someone to love and make them feel wanted, $29 \%$ do not.

On a scale of 1 to 4 (4 represents higher levels of social support), on average the level of social support is 3.1 for LGBT older adults. Average levels of social support for distinct older adult groups are: lesbians (3.3), bisexual women (3.0), gay men (3.0), bisexual men (2.8), and transgender older adults (2.9). Among the LGBT older adults, lesbians and gay men are more likely to have higher levels of social support than their respective bisexual counterparts. After controlling for age, income, education, the difference between lesbians and bisexual older women remains significant. Transgender older adults have significantly lower levels of social support than nontransgender older adults, regardless of sociodemographic differences.

## Religious and spiritual activities

Many people find support in spiritual and religious communities. Thirty-eight percent of the LGBT older adults that participated in the project currently attend spiritual or religious services or activities at least once a month, including lesbians (40\%), bisexual women (45\%), gay men (35\%), bisexual men (54\%), and trans-
gender older adults (48\%). The rates of attendance are not significantly different for lesbians and bisexual older adult women, yet bisexual older adult men are significantly more likely to attend spiritual or religious activities than gay men, and transgender older adults are more likely to attend than nontransgender older adults. These differences are significant regardless of age, income, and education.

## Key background characteristics

## Gender

Among LGBT older adults in the project, women are more likely than men to openly disclose their sexual orientation or gender identity. They also are more likely to feel good about belonging to the LGBT community, have higher levels of social support, and

Rates of attending religious or spiritual activities for LGBT older adult participants


## SOCIETY AND HEALTH: RESILIENCE

engage in religious and spiritual activities more frequently.

## Race and ethnicity

There are differences in disclosure, social support and religious and spiritual activities among LGBT older adult participants as differentiated by race and ethnicity. For example, Asian/Pacific Islander LGBT older adults have lower levels of disclosure than White LGBT older adults, while Hispanic
poverty level report a lower degree of disclosure and social support than those with higher incomes. Income is not related to positive feelings about community belonging or participation in religious and spiritual activities.

## Education

Education resembles income in its relationship to disclosure and social support. LGBT older adults in the project with a high school
> "In the course of many years, since Stonewall, so much has occurred in our struggling attempt to gain respect, understanding and simple rights so freely offered to our straight brothers and sisters. Vigilance and determination are needed to bind our older LGBT constituents and communities. Keeping well, staying well, enjoying life and liberties - here - must never be forgotten."

72-year-old gay man

LGBT older adults have lower levels of social support. Both African American and Native American LGBT older adults are more likely to participate in religious or spiritual activities than Whites.

## Age

LGBT older adults in the project age $50-64$ are more likely to disclose their sexual orientation or gender identity than those age 65 79 or 80 and older, and are also more likely to feel positive about belonging to the LGBT community. Those age $50-64$ are more likely to attend spiritual or religious services or activities than those age 80 and older.

## Income

LGBT older adult participants with annual incomes at or below $200 \%$ of the federal
education or less have lower levels of disclosure and social support than those with at least some college education. Education is not related to positive feelings about community belonging or participation in religious and spiritual activities.

## Summary

LGBT older adult participants display many signs of resilience, which are likely protective in terms of their physical and mental health. This is evidenced in their sense of belonging to their communities, their levels of social support, and their attendance in religious and spiritual activities. This resilience may help counteract the unique challenges facing LGBT older adults such as internalized stigma, discrimination, and victimization, as will be examined in the next section.

## SOCIETY AND HEALTH: DISPARITIES IN RISK

When we assess the aging and health of lesbian, gay, bisexual, and transgender older adults, it is important to remember the historical and social context of their lives. Many of these older adults came of age during a time when they could be arrested or forced to undergo unwanted and harmful medical treatments to change their sexual orientation or gender identity.

Health disparities experienced by lesbian, gay, bisexual, and transgender individuals are likely linked to victimization and stigma, which can impact both physical and mental health. The U.S. Department of Health and Human Services recognizes that LGBT individuals frequently experience sexual orientation-related stressors such as victimization and violence that have an enduring influence on mental and physical health. ${ }^{17}$ This section examines the experiences of the LGBT older adults who participated in the project in terms of victimization, employment and housing discrimination, internalized stigma, and abuse. See Table 4 for a breakdown of risk indicators by sexual orientation, gender identity, and background characteristics.

## Victimization and discrimination

The LGBT older adult participants have experienced high rates of victimization resulting from their actual or perceived sexual orientation or gender identity. Eighty-two percent of LGBT older adult participants report having been victimized at least once, and $64 \%$ report experiencing victimization at least three times in their lives. The most common type of victimization is verbal insults (68\%), followed by threats of
physical violence (43\%), and being hassled by the police ( $27 \%$ ). Nearly one in four ( $23 \%$ ) have had an object thrown at them, and one-fifth $(20 \%)$ have had their property damaged or destroyed. Nearly one in five (19\%) have been physically assaulted (i.e. punched, kicked, or beaten), $14 \%$ threatened with a weapon, and $11 \%$ sexually assaulted. One-quarter ( $23 \%$ ) have been threatened with disclosure of their sexual orientation or gender identity. Additional experiences of victimization include discrimination. More than half of LGBT older adults have been discriminated against in employment and housing. Discrimination in employment includes not being hired for a job (22\%), not being given a job promotion ( $21 \%$ ), and being fired (14\%). Five percent of LGBT older adults have been prevented from living in their desired neighborhood as a result of their actual or perceived sexual orientation or gender identity.

Among the LGBT older adult participants, lesbians are more likely to report victimization than bisexual women, regardless


## SOCIETY AND HEALTH: DISPARITIES IN RISK

of sociodemographic characteristics (age, income, and education). Gay and bisexual men do not differ significantly on the rates of victimization. Transgender older adults report significantly higher rates of victimization than non-transgender older adults, regardless of age, income, and education.

## Internalized stigma

As part of growing up, individuals from historically disadvantaged communities can "internalize" prevalent societal values, beliefs and negative attitudes about themselves. LGBT people are bombarded with negative messages about who they are, often before they even realize their own sexual orientation or gender identity. These messages often become internalized and can profoundly impact beliefs about oneself and others. Such internalized stigma can "get under the skin" and have serious and harmful ef-

© Carla Lewis
> "I am not aware that anyone close to me knows or suspects my sexual orientation. My son once hinted at it but not in recent years. At my death, they will probably find tell-tale clues."

88-year-old gay man

fects on health. Slightly more than one in four (26\%) of the LGBT older adults in the project tried at one time or another to not be lesbian, gay, bisexual, or transgender.

On a scale of 1 to 4 (4 represents higher levels of stigma), on average the overall level of stigma is 1.5 for LGBT older adult participants, including lesbians (1.3), bisexual women (1.5), gay men (1.5), bisexual men (1.9), and transgender older adults (1.8). Among LGBT older adults, bisexual women, bisexual men and transgender older adults report significantly higher levels of internalized stigma than lesbians and gay men, regardless of differences in age, income, and education.

## Verbal and physical abuse

Physical and verbal abuse within relationships can also have very serious negative health consequences. Overall, 7\% of the LGBT participants have experienced verbal abuse by a partner, family member or close friend in the past year, while $3 \%$ have experienced physical abuse. Seven percent of lesbians, $14 \%$ of bisexual women, $5 \%$ of gay men, $9 \%$ of bisexual men, and $15 \%$ of transgender older adults report verbal abuse by a partner, family member or friend. Two percent of lesbians, $2 \%$ of bisexual women, $3 \%$ of gay men, $8 \%$ of bisexual men, and $5 \%$ of transgender older adults have experienced physical abuse.

## SOCIETY AND HEALTH: DISPARITIES IN RISK

## Those 80 and older have the highest <br> rates of internalized stigma and the lowest rates of victimization

The rates of verbal and physical abuse by a partner, family member, or friend are similar for lesbian and bisexual older adult women in the project. However, bisexual older adult men are more likely to experience physical abuse by a partner, family member or friend than gay men, regardless of age, income, and education. Gay and bisexual men report no differences in verbal abuse.

Transgender older adult participants report significantly higher rates of verbal and physical abuse than non-transgender older adults; verbal abuse remains significant regardless of age, income, and education.

## Key background characteristics

## Gender

Among the LGBT older adults in the project, men report higher rates of victimization and higher levels of internalized stigma than women. While the rates of physical abuse by a partner, family member or friend are similar for women and men, women report significantly higher rates of verbal abuse.

## Race and ethnicity

Hispanic and Native American LGBT older adults in the project are more likely to experience victimization than White LGBT
older adults. Native American LGBT older adults are more likely to experience verbal abuse from a partner, family member or friend than Whites, while Asian/Pacific Islanders report higher levels of internalized stigma.

## Age

Among LGBT older adult participants the rate of victimization increases with age. The level of internalized stigma for those age 80 and older is higher than those age $50-64$ and $65-79$. Age is not associated with physical abuse, but the rate of verbal abuse decreases with age.

## Income

LGBT older adults in the project with annual incomes at or below $200 \%$ of the federal poverty level have higher rates of victimization and physical and verbal abuse, and higher levels of internalized stigma compared with those with higher incomes.

## Education

LGBT older adult participants with a high school education or less report more experiences of victimization than those with higher education levels. Educational level is not associated with internalized stigma or verbal and physical abuse by a partner, family member or friend.

## Summary

The majority of LGBT older adults came of age during an era when homosexuality and gender variance were criminalized or severely stigmatized. As a result, the vast majority of LGBT older adults in the project have experienced severe stigma and victimization. Such adverse life experiences can potentially lead to diminished health and lower quality of life.

## PHYSICAL HEALTH

Poor physical health can have serious consequences for older adults as they age. As part of the project we wanted to better understand multiple aspects of physical health for LGBT older adults. We asked the LGBT older adults that participated in the project about their general health, physical health, disability, sensory impairments, and health conditions. See Tables 5.1 and 5.2 for a breakdown of physical health indicators and health conditions by sexual orientation, gender identity, and background characteristics.

## General physical health

Overall, the majority of LGBT older adult participants rate their general health as good. Twenty-three percent report poor general health, including $23 \%$ of lesbians, $22 \%$ of bisexual women, $22 \%$ of gay men, and $29 \%$ of bisexual men. One-third of transgender older adult participants report poor general health.

Physical health refers to how people perceive their overall physical health impact-
ing their lives. The range of the scale is 0 (very poor) to 100 (excellent). The level of physical health for LGBT older adult participants, on average, is good (69.7); the average levels of physical health are 68.3 for lesbians, 65.8 for bisexual women, 71.6 for gay men, and 65.6 for bisexual men. The average level of perceived physical health for transgender older adults is 62.1.

Lesbians and bisexual women are similar to each other regarding general and physical health. Bisexual men report poor physical health more often than gay men, though this difference is explained by sociodemographic characteristics (age, income, and education). Transgender older adults are more likely than non-transgender older adults to report poor general health and poor physical health, but when controlling for sociodemographic differences only the difference in physical health remains significant.

## Disability

Forty-four percent of the LGBT older adults in the project report that their physical

activities are limited due to physical, mental, or emotional problems. Twenty percent of LGBT older adults are using special equipment, such as a cane, wheelchair, special bed, or special telephone due to a health condition. When limited physical activities and use of special equipment are considered jointly, nearly half (47\%) of the LGBT older adult participants have a disability: 53\% of lesbians, $51 \%$ of bisexual women, $41 \%$ of gay men, and $54 \%$ of bisexual men. Sixtytwo percent of transgender older adults have a disability.

## PHYSICAL HEALTH

Among the LGBT older adult participants, lesbians and bisexual women have disabilities at a similar rate. Bisexual men report higher rates of disability than gay men, but the difference does not remain significant after accounting for age, income and education. Transgender older adults are more likely to have a disability than nontransgender older adults, regardless of sociodemographic differences.

## Health conditions

Health conditions can impact quality of life among older adults. Obesity is a serious and growing problem in the U.S. and LGBT older adults are no exception. Based on body mass index, $26 \%$ of LGBT older adult participants are obese: $34 \%$ of lesbians, $34 \%$ of bisexual women, $19 \%$ of gay men, and $18 \%$ of bisexual men. About $40 \%$ of transgender older adults are obese. Many have been diagnosed with other health conditions, including high blood pressure ( $45 \%$ ), high cholesterol (43\%), arthritis (34\%), cataracts ( $22 \%$ ), asthma (16\%), diabetes (15\%), hepatitis (11\%), and osteoporosis (10\%). Nine percent of LGBT older adult participants are living with HIV disease; among gay and bisexual men, $14 \%$ have HIV disease (see HIV Disease section). Approximately $13 \%$ of

LGBT older adult participants have cardiovascular disease. Specifically, 6\% have had a heart attack, $4 \%$ angina, $4 \%$ stroke, and $3 \%$ congestive heart failure. In terms of cancer prevalence, $19 \%$ of LGBT older adults, including $16 \%$ of lesbians, $20 \%$ of bisexual women, $21 \%$ of gay men, $24 \%$ of bisexual men, and $16 \%$ transgender older adults, report that they have had at least one type of cancer. The most commonly reported cancer among women is breast cancer (7\%), and among men, prostate cancer ( $10 \%$ ).

Comparing health differences between LGBT older adult groups, lesbians and bisexual women are similar to each other in terms of health conditions. Most health conditions among gay and bisexual men are also similar to each other, but the cardiovascular disease rate for bisexual men is significantly higher than for gay men even after adjusting


## PHYSICAL HEALTH

for socio-demographic characteristics. Transgender older adults are more likely than nontransgender older adults to report obesity, cardiovascular disease, asthma and diabetes, but are significantly less likely to have cata-

47\%
of LGBT older adult participants have a disability
racts, hepatitis, or HIV disease. Of these differences in health conditions, only cataracts are explained by differences in age, income, and education.

Vision, hearing, and dental impairments
Sensory impairments can present challenges for navigating one's environment. One-quarter of the LGBT older adult participants ( $25 \%$ ) experience visual impairment even when wearing glasses or contact lenses: $24 \%$ of lesbians, $31 \%$ of bisexual women, $23 \%$ of gay men, and $34 \%$ of bisexual men. Thirty-seven percent of transgender older adults report visual impairment. Overall, $19 \%$ of LGBT older adults experience acute
hearing impairment, even when wearing a hearing aid. This includes $16 \%$ of lesbians, $12 \%$ of bisexual women, $20 \%$ of gay men, and $25 \%$ of bisexual men. One-quarter of transgender older adults have hearing impairments.

In addition, dental impairments can increase the risk of poor nutrition and exacerbate poor physical health. Nearly $24 \%$ of the LGBT older adults in the project have dental problems requiring care: $22 \%$ of lesbians, $31 \%$ of bisexual women, $22 \%$ of gay men, and $28 \%$ of bisexual men. Forty-four percent of transgender older adults report dental problems.

Among LGBT older adults, lesbians and bisexual women are similar in terms of vision, hearing, and dental impairments. Bisexual men report vision impairment more often than gay men, but this difference is explained by age, income, and education. Transgender older adults are more likely than non-transgender older adults to report vision, hearing, and dental impairments. These differences are significant regardless of age, income, and education.

## Key background characteristics

## Gender

Among LGBT older adult participants, the

> "I have been homeless, staying briefly on streets, in car \& in shelter... until my daughter began to help me.
> I am unable to get cataracts operated on as she cannot help me by paying for glasses and unable to get 2 hearing aides (medical pays for one)."

76-year-old lesbian

## PHYSICAL HEALTH

level of physical health is significantly lower for women than men. Women have higher rates of disability, arthritis, obesity, asthma, and osteoporosis than men. On the other hand, men have higher rates of HIV disease, hepatitis, high blood pressure, high cholesterol, cardiovascular disease, diabetes, cancer, and hearing impairments.

## Race and ethnicity

Both Hispanic and African American LGBT older adults in the project are more likely to report HIV disease than Whites. In addition, Hispanics are more likely to report asthma, diabetes, and visual impairment. African American LGBT older adults are more likely to be obese and have high blood pressure and HIV disease, but are less likely to have hearing impairment than Whites. Native American LGBT older adults are less likely to report cancer than Whites but more likely to report poor physical health, disability, obesity, asthma, cardiovascular disease, and visual, hearing, and dental impairments. Asian/ Pacific Islander LGBT older adults are more likely to have visual impairment, but less likely to be obese or have cancer than Whites.

## Age

Risks of poor physical health, disability, cancer, high blood pressure, high cholesterol, arthritis, cardiovascular disease, osteoporosis, and hearing impairment are elevated with age among the project participants. On the other hand, the risks of obesity, asthma, and HIV disease decrease with age.

## Income

The LGBT older adults in the project earning an income at or below $200 \%$ of the federal poverty level show elevated risks of poor physical health, including poor general
health, disability, visual, hearing, and dental impairments, obesity, high blood pressure, diabetes, asthma, arthritis, hepatitis, arthritis, cardiovascular disease, osteoporosis, and HIV disease.

## Education

Participants with a high school or less education report heightened risks of poor physical health, including poor general health, disability, visual and dental impairments, high blood pressure, diabetes, arthritis, cardiovascular disease, osteoporosis, and HIV disease.

## Summary

The LGBT older adults in the project show high rates of disability, obesity and HIV, which may put them at risk for other

| "Long-term care |
| :---: |
| for trans people |
| is a big, dark unknown. |
| How do trans people |
| who don't pass |
| get decent treatment and respect. |
| Where do trans people |
| who do not identify as LGB |
| fit into the picture?" |
| 58-year-old transgender women |

chronic illnesses and even premature death. Healthy People 2020, a federal report released by the U.S. Department of Health and Human Services, emphasizes the need for more research to better understand health disparities in the LGBT community. ${ }^{17}$ These findings point to specific areas of concern regarding the physical health of LGBT older adults.

## MENTAL HEALTH

Mental health is inextricably intertwined with physical health and is a key component to overall quality of life. We asked the LGBT older adults that participated in the project about their general mental health, depression, anxiety, suicide, stress, loneliness, and neglect. See Table 6 for a breakdown of mental health indicators by sexual orientation, gender identity, and background characteristics.

## General mental health

General mental health refers to how people perceive their overall mental health impacting their lives. The range of the scale is 0 (very poor) to 100 (excellent). The overall level of general mental health for LGBT older adult participants is good (70.8) and $74 \%$ are satisfied with their life. Average levels of general mental health for distinct groups are: lesbians (71.8), bisexual women (65.6), gay men (71.7), bisexual men (65.6),

and transgender older adults (62.7).
Overall, the level of general mental health for bisexual women is lower than that for lesbians. However, this difference is explained by socio-demographic characteristics (age, income, and education). Compared with gay men, bisexual men report a lower level of general mental health. This difference is also explained by age, income, and education. Transgender older adults report lower levels of general mental health than non-transgender older adults, even after controlling for socio-demographic differences.

## Depression and anxiety

About $31 \%$ of LGBT older adult participants have depressive symptoms at a clinical level (measured using the CESD-10, with a cut-off point of 10; Center for Epidemiologic Studies Depression Scale). Among LGBT older adults, the prevalence of depression by each specific group is as follows: $27 \%$ of lesbians, $35 \%$ of bisexual women, $29 \%$ of gay men, $36 \%$ of bisexual men, and $48 \%$ of transgender older adults. Among the LGBT older adults with depressive symptoms at a clinical level, slightly more than half (53\%) have been told by a doctor that they have depression. Almost one-quarter of the LGBT older adults in the project ( $24 \%$ ) have been told by a doctor that they have anxiety, including $22 \%$ of lesbians, $34 \%$ of bisexual women, $22 \%$ of gay

## MENTAL HEALTH

# "LGBT's read of youth suicide. How many LGBT elders kill themselves because of isolation, grieving, and lack of reliable resources?" 

63-year-old gay man
men, $24 \%$ of bisexual men, and $39 \%$ of transgender older adults.

Bisexual women are more likely to report anxiety than lesbians. However, this difference is explained by sociodemographic characteristics. Transgender older adults report higher rates of depression and anxiety than non-transgender older adults, even after controlling for sociodemographic differences.

## Suicide

Thirty-nine percent of LGBT older adults in the project have seriously thought of taking their own lives at some point, including $35 \%$ of lesbians, $40 \%$ of bisexual women, $37 \%$ of gay men, $39 \%$ of bisexual men, and $71 \%$ of transgender older adults. Among those who have contemplated suicide, $39 \%$ report that their suicidal thoughts were related to their sexual orientation or gender identity. Lesbian and bisexual women and gay and bisexual men are similar in terms of suicidal ideation. Transgender older adults are more likely to have contemplated suicide than non-transgender older adults, regardless of sociodemographic differences.

## Stress

The effects of stress on physical health and immune system functioning are well documented. Fourteen percent of the participants often feel they are unable to control the important things in
their life, and $11 \%$ feel difficulties are piling up so high that they cannot overcome them. However, $69 \%$ are confident about their ability to handle their personal problems. Stress was measured on a scale from 0 to 4 (with 4 representing more stress). Lesbians report an average score of 1.2 , bisexual women 1.5 , gay men 1.2, bisexual men 1.4, and trans-


## MENTAL HEALTH

gender older adults 1.6. Bisexual women are more likely to experience higher levels of stress than lesbians, as are transgender older adults compared with nontransgender older adults, regardless of age, income, and education. Bisexual men report higher levels of stress than gay men, but the differences are not significant after adjusting for socio-demographic differences.

## Loneliness

Loneliness and social isolation can lead to negative health consequences. Among LGBT older adults in the project, $59 \%$ feel that they lack companionship, $53 \%$ feel isolated from others, and $53 \%$ feel left out. Loneliness was measured on a scale from 1 to 3 (with 3 representing more loneliness). The level of loneliness on average for lesbians is 1.6 , bisexual women 1.8 , gay men 1.7, bisexual men 2.0, and transgender older adults 2.0. Among LGBT older adults, bisexual women and men are more likely to report loneliness than lesbians and gay men. However, these differences are not significant when adjusting for differences in age, income, and education. Transgender older adults, compared to non-transgender older adults, experience higher levels of loneliness, even after controlling socio-demographic characteristics.

## Neglect

Neglect is defined as not having one's basic needs met, for instance not having sufficient food, hygiene, and safety. Those who experience neglect often lack necessary sup-
port and may be at an increased risk for institutionalization or death. About 3\% of LGBT older adult participants report experiencing neglect at least three days in the past week. Neglect was measured on a scale from 0 to 3 (with 3 representing more days of neglect). The level of neglect on average for lesbians is 0.1 , bisexual women 0.3 , gay men 0.1 , bisexual men 0.2 and transgender older adults 0.2 .

Bisexual women were more likely to experience neglect than lesbian older adults, regardless of age, income, and education. There were no significant differences between gay and bisexual older adult men in terms of neglect. Transgender older adults report higher levels of neglect than nontransgender older adults, regardless of age, income, and education

## Key background characteristics

## Gender

Among LGBT older adults in the project, the indicators of mental health are generally similar between women and men, though men are more likely to be lonely than women.

## Race and ethnicity

Both Hispanic and Native American LGBT older adult participants report lower levels of general mental health, higher rates of depression, and more stress than Whites. The likelihood of neglect for Hispanic and African American LGBT older adults is also greater. Native Americans are more likely to experi-

## MENTAL HEALTH

ence anxiety, suicidal ideation, and loneliness than Whites. Asian/Pacific Islanders do not differ on mental health indicators from Whites with one exception; Asian/Pacific Islanders have lower rates of suicidal ideation.

## Age

LGBT older adults in the project age $65-79$ are more likely to report higher levels of gen-
elevated risk of poor mental health, depression, stress, loneliness, and neglect.

## Summary

Overall, most LGBT older adults in the project report positive mental health, although those experiencing elevated levels of depression, anxiety, and suicidal ideation are of concern. Comparing the distinct groups of LGBT older adults reveals a more nuanced

# "I am who I am and it is hard. Bi is harder than one way or another. It's normal to me to feel attraction \& admiration for both sexes, yet I live in a world that is binary. I'm single \& feel like I'm missing expressing a huge part of who I am by not being in a relationship." 

52-year-old bisexual woman
eral mental health and less likely to experience depression or stress than those age $50-64$. There are no differences in these mental health indicators between those age $50-64$ and those age 80 and older. In terms of anxiety, suicidal ideation, and loneliness, LGBT older adults age 64-79 and age 80 and older are more at risk than those age $50-64$.

## Income

The participants earning an income at or below $200 \%$ of the federal poverty level are at elevated risk of poor mental health including higher likelihood of depression, anxiety, suicidal ideation, stress, loneliness, and neglect.

## Education

LGBT older adults in the project with a high school education or less are at
picture, exposing the elevated risks of poor mental health among bisexual and transgender older adults. Many of the factors associated with poor mental health for LGBT older adults have a similarly negative impact on older adults in general, including poverty and lower levels of education.


## HEALTHCARE ACCESS

Lesbian, gay, bisexual, and transgender older adults face unique disparities in their quest for healthcare. Access to healthcare refers to the extent to which a person can obtain medical services. Lack of access to quality healthcare can have sweeping consequences. To better understand access and lack of access to healthcare for LGBT older adults in the project, we examined health insurance coverage, financial barriers, fear of accessing services, having a regular healthcare provider, routine checkups, and emergency room visits. See Table 7 for a breakdown of healthcare access indicators by sexual orientation, gender identity, and background characteristics.

## Health insurance coverage

Almost all (97\%) LGBT older adult participants have some healthcare insurance
coverage, primarily through Medicare, including lesbians (97\%), bisexual women ( $95 \%$ ), gay men ( $98 \%$ ), bisexual men ( $100 \%$ ), and transgender older adults ( $91 \%$ ). The rates of health insurance coverage are similar for lesbians and bisexual women and for gay and bisexual men. Transgender older adults are less likely to have health insurance than non-transgender older adults, but this is accounted for by differences in sociodemographic characteristics (age, income, and education).

## Financial barriers

There are generally financial costs associated with accessing healthcare even if one has insurance, such as deductibles and co-pays. Seven percent of LGBT older adults in the project have needed to see a doctor during the past year but were unable to because of cost, including $7 \%$ of lesbians, $12 \%$
 of bisexual women, $6 \%$ of gay men, $9 \%$ of bisexual men, and $22 \%$ of transgender older adults. Similarly, $7 \%$ of LGBT older adults have needed medication but were unable to afford it. The rates of financial barriers to seeing a doctor are similar for lesbians and bisexual women and for gay and bisexual men. Transgender older adults are more likely to experience financial barriers than non-transgender older adults, regardless of age, income, and education.

## "I have had an overwhelmingly positive experience with my gender transition so far, but I would say that my primary concern about the future is with access to healthcare and potential discrimination as a senior transgender person, especially if the need arises for emergency or long-term care."

56-year-old transgender woman

## Fear of accessing services

Financial access to healthcare can be thought of as an external barrier; not accessing healthcare because of fear of how one will be treated because of sexual orientation or gender identity can be thought of as an internal barrier. More than one in ten (13\%) of LGBT older adult participants report being denied healthcare or provided inferior care because they are LGBT, and $4 \%$ have experienced this three or more times in their life. The percentages of LGBT older adults who have been denied healthcare or received inferior care are $11 \%$ of lesbians, $11 \%$ of bisexual women, $11 \%$ of gay men, $11 \%$ of bisexual men, and $40 \%$ of transgender older adults. Transgender older adults are more likely than non-transgender older adults to have been denied healthcare or provided with inferior care, regardless of age, income, education.

Overall, $15 \%$ of LGBT older adults fear accessing healthcare services outside the LGBT community and $8 \%$ fear accessing healthcare inside the LGBT community.

## Healthcare provider

Having one person that you think of as your personal doctor or healthcare provider can be immensely helpful when attempting to navigate the complexities of the healthcare system. The vast majority of LGBT older adults in the project (94\%) indicate they have someone who they consider their personal doctor. Among the LGBT older adults, most lesbians (93\%), bisexual women ( $86 \%$ ), gay men ( $95 \%$ ), bisexual men (91\%), and transgender older adults ( $90 \%$ )

## HEALTHCARE ACCESS

report having a personal doctor. Bisexual women are more likely than lesbians to have a personal doctor, but rates are similar for gay and bisexual men. Transgender older adults are less likely to have a personal
> "I worry a lot about my future, as I really age not so much now. And if anything happens to my partner, I'll be in big trouble; my medical insurance and household income come through her."

56-year-old lesbian
doctor than non-transgender older adults; these differences are not significant when adjusting for differences in age, income, and education.

## Routine checkup

Routine physical exams are important and a cost-effective way to detect health issues early on, when they may be more amenable to treatment. Although most LGBT older adult participants ( $82 \%$ ) have had a routine checkup in the past year, almost one in five (18\%) have not. Those not having had a routine checkup are as follows: lesbians (22\%), bisexual women ( $27 \%$ ), gay men (14\%), bisexual men ( $16 \%$ ), and transgender older adults ( $27 \%$ ). The rates of not having had a routine checkup for lesbians and bisexual women and for gay and bisexual men are similar. Transgender older adults are less likely to have had a routine checkup than
non-transgender older adults, but the difference is accounted for by socio-demographic characteristics.

## Emergency room use

Whereas routine checkups can be preventive, trips to the emergency room are generally acute in nature. On the whole, just under one-quarter of LGBT older adults included in the project $(24 \%)$ visited a hospital emergency room for their own health during the past 12 months, including $23 \%$ of lesbians, $19 \%$ of bisexual women, $23 \%$ of gay men, $36 \%$ of bisexual men, and $27 \%$ of transgender older adults. While lesbians and bisexual women report similar rates of emergency room use, bisexual men are more likely to report an emergency room visit than gay men. The difference, however, does not remain significant when controlling for age, income, and education. Transgender older adults do not differ significantly from their non-transgender counterparts regarding emergency room use.

## Key background characteristics

## Gender

Among LGBT older adults in the project, women are more likely to experience financial barriers to seeing a doctor and affording medication than men. They are also more likely to have been denied healthcare or received inferior healthcare and are less likely to have had routine checkups.

## Race and ethnicity

There are differences in healthcare access among the LGBT older adult participants as differentiated by race and ethnicity. For example, Asian/Pacific Islander and Native American older adults report higher rates of

## HEALTHCARE ACCESS

financial barriers to seeing a doctor, and Hispanic, African American, and Native American older adults experience greater financial barriers to affording medication than White older adults. Native American older adults are also more likely to fear accessing services outside LGBT communities, to have been denied or provided inferior healthcare, and are more likely to have used emergency rooms than Whites. African American older adults report a higher rate of routine checkups than Whites.

## Age

LGBT adult participants age $50-64$ experience greater challenges to accessing healthcare than those who are older, which likely reflects increased access to Medicare for those 65 and older. Those age $50-64$ report lower rates of health insurance coverage and are less likely to have a personal doctor and routine checkups than older age groups.
Those $50-64$ also report higher rates of being denied healthcare or having received inferior care, higher emergency room use, more financial barriers to seeing a doctor and obtaining medication, and greater fear of accessing services outside the LGBT community than older age groups.

## Income

LGBT older adults in the project whose annual income is at or below $200 \%$ of the federal poverty level have comparatively less access to healthcare than those with higher incomes. They report lower rates of health insurance coverage and are less likely to have a personal doctor. Those at or below $200 \%$ of the federal poverty level also report higher rates of being denied healthcare or having received inferior care, higher emergency room use, greater financial barriers to seeing a doctor and obtaining medication,

# 22\% <br> of transgender older adult participants need to see a doctor but cannot because of cost 

and greater fear of accessing services outside and inside the LGBT community. The rates of routine checkups are similar to those whose annual income is above $200 \%$ of the federal poverty level.

## Education

The participants with a high school education or less are more likely to report financial barriers to seeing a doctor and affording medication, greater levels of fear in accessing services both inside and outside the LGBT community, and are less likely to have a personal doctor or healthcare provider than those with higher levels of education.

## Summary

While the vast majority of LGBT older adults in the project have healthcare insurance, primarily Medicare, their ability to access healthcare varies. Transgender older adults face significantly greater hurdles than non-transgender older adults. Bisexual older adults also encounter challenges to accessing healthcare. Access to healthcare for LGBT older adults, in terms of socioeconomics and educational level, tracks mainstream America: the less income and education one has the more difficult it can be to access healthcare. Race and ethnicity are related to healthcare access, regardless of whether one is lesbian, gay, bisexual, or transgender.

## HEALTH BEHAVIORS

Some health behaviors promote good physical and mental health while other health behaviors put one at risk for poor health. Lesbian, gay, bisexual, and transgender older adult participants were asked about their sexual activity, health promoting behaviors (exercise, wellness activities, preventive health screenings), and health risk behaviors

## 91\% <br> of LGBT older adult participants engage in wellness activities 82\% <br> engage in moderate physical activities

(smoking, drinking, drug use, HIV risk behaviors). See Table 8 for a breakdown of health behaviors by sexual orientation, gender identity, and background characteristics.

## Sexual activity

More than half of the LGBT older adult participants (55\%) have been sexually active in the past 12 months. Among the LGBT older adults who are sexually active, lesbians had sex with women exclusively. The majority of bisexual women (68\%) had sex with women exclusively, $21 \%$ with both women and men, and $11 \%$ with men exclusively. Most of the gay men had sex with
men only; $1 \%$ of gay men had sex with women or both women and men. The majority of bisexual men ( $83 \%$ ) had sex with men exclusively, $14 \%$ with both women and men, and $2 \%$ with women exclusively. The likelihood of being sexually active is similar for lesbians and bisexual women and for gay and bisexual men. Transgender older adults (41\%) were less likely to be sexually active than non-transgender older adults (56\%), regardless of socio-demographic characteristics.

## Exercise and wellness activities

According to the Centers for Disease Control and Prevention, "as an older adult, regular physical activity is one of the most important things you can do for your health. It can prevent many of the health problems that seem to come with age. It also helps your muscles grow stronger so you can keep doing your day-to-day activities without becoming dependent on others." ${ }^{18}$

The majority of LGBT older adult participants ( $82 \%$ ) engage in moderate ac-


## HEALTH BEHAVIORS

tivities on a weekly basis (e.g. brisk walking, vacuuming) that cause some increase in respiratory and heart rates, while just over half (51\%) engage regularly in vigorous activities
the past three years. Older lesbians and gay older men do not differ identifiably in their health screening behaviors from their bisexual counterparts with one exception. Lesbi-

> "I'm probably the happiest I have ever been, living in a gay-friendly retirement community. I'm out for the first time in my life. My only sadness is the lack of a cuddly friend, though I'm in love with an 85-year-old pianist."

81-year-old lesbian
(e.g. aerobics, heavy yard work) that significantly increase heart and breathing rates. In addition, most LGBT older adults (91\%) engage regularly in wellness activities, such as meditation, drawing, and photography.

Among the LGBT older adults included in the project lesbians ( $84 \%$ ) engage in moderate activities at a significantly higher rate than bisexual women (69\%), while gay and bisexual men engage in these activities at similar rates. Transgender older adults engage in both moderate and wellness activities at lower rates ( $74 \%$ and $85 \%$ respectively) than non-transgender older adults ( $82 \%$ and $91 \%$ respectively). These differences are significant regardless of age, income, and education.

## Health screenings

Health screenings can be a way to prevent adverse health conditions and premature death. Within the past three years $55 \%$ of the participants in the project have had a colonoscopy, $35 \%$ have had a blood stool test, and $32 \%$ have been screened for osteoporosis. Eighty-four percent of women have had a mammogram, $66 \%$ of women have had a Pap smear, and $72 \%$ of men have had a prostate-specific antigen (PSA) test within
ans ( $36 \%$ ) are significantly more likely than bisexual women ( $23 \%$ ) to have had a blood stool test, though this difference is accounted for by differences in age, income, and education. Transgender older adults are significantly less likely than their non-transgender counterparts to engage in health screenings such as colonoscopy ( $44 \%$ vs. $56 \%$ ) or osteoporosis tests ( $19 \%$ vs. $33 \%$ ), after controlling for socio-demographic characteristics.

## Smoking

Some behaviors can have direct and profound negative effects on health. For instance, smoking is the leading cause of preventable deaths in the U.S. each year, while excessive drinking is the third-leading cause of preventable deaths. ${ }^{15}$ While half of LGBT older adult participants (50\%) report having been a smoker in the past, $9 \%$ currently smoke. This finding masks some of the variation within groups: $7 \%$ of lesbians, $15 \%$ of bisexual women, $9 \%$ of gay men, $8 \%$ of bisexual men, and $15 \%$ of transgender older adults currently smoke. Bisexual older women smoke at more than twice the rate than their lesbian counterparts, while gay and bisexual men smoke at similar rates. Transgender older adults smoke at significantly

## HEALTH BEHAVIORS

higher rates (15\%) than their non-transgender counterparts ( $9 \%$ ). These differences, however, do not remain significant when controlling for age, income, and education.

## Excessive drinking

While $33 \%$ of the participants have not had an alcoholic drink in the past 30 days, $10 \%$ are excessive drinkers. Excessive drinking is defined as five or more drinks on a single occasion for men or four or more drinks on a single occasion for women in the past 30 days. Eight percent of lesbians are excessive drinkers, as are $8 \%$ of bisexual women, $11 \%$ of gay men, $9 \%$ of bisexual men, and $20 \%$ of transgender older adults. The rates of excessive drinking are similar for lesbians and bisexual women and for gay and bisexual men. Transgender older adults are more likely to engage in excessive drinking than non-transgender older adults, regardless of socio-demographic differences.


## Drug use

Almost $12 \%$ of the LGBT older adult participants report that they have used drugs other than those prescribed for medical reasons during the previous year, including 9\% of lesbians, $15 \%$ of bisexual women, $13 \%$ of gay men, $15 \%$ of bisexual men, and $14 \%$ of transgender older adults. The vast majority (91\%) report taking prescribed medications as prescribed, but $5 \%$ take less than the amount prescribed, $3 \%$ take more than prescribed, and some report both ( $0.5 \%$ ).

There are no differences in rates of non-prescribed drug use for lesbian and bisexual women, or for gay and bisexual men. Neither is there a significant difference between transgender and non-transgender older adults.

## HIV risk behaviors

Despite nearly three decades of education efforts on HIV transmission, there are 48,200 - 64,500 new HIV infections annually in the U.S. ${ }^{15}$ HIV risk behaviors contribute to an individual's risk for transmitting or acquiring HIV. Eighteen percent of LGBT older adult participants report they have engaged in at least one HIV risk behavior in the past 12 months: $16 \%$ have engaged in unprotected anal sex, $8 \%$ have been treated for a sexually transmitted disease, $4 \%$ have exchanged money or drugs for sex, and $0.3 \%$ have used intravenous drugs (see also HIV Disease section). The rates of engaging in an HIV risk behavior for distinct LGBT older adult groups are: $4 \%$ of lesbians, $14 \%$ of bisexual women, $26 \%$ of gay men, $19 \%$ of bisexual men, and $20 \%$ of transgender older adults.

## HEALTH BEHAVIORS

Bisexual older women are more likely to have engaged in HIV risk behaviors than lesbians after controlling for sociodemographic characteristics, while rates were similar for gay and bisexual older men and for transgender and non-transgender older adults.

## Key background characteristics

## Gender

Among LGBT older adult participants, women and men engage in health promoting activities at about the same rate. Women, however, are less likely to be sexually active than men. Men are more likely to have had a colonoscopy than women, while women are more likely to have had an osteoporosis test than men. Both men and women smoke and drink excessively at about the same rate, although men are more likely to engage in HIV risk behaviors and use non-prescribed drugs.

## Race and ethnicity

There are no associations between race and ethnicity and health promotion behaviors or sexual activity among the participants. Hispanic LGBT older adults are less likely to have an osteoporosis test than Whites. In terms of health risk behaviors, Native American older adults are more likely to be engaged in excessive drinking than Whites.

## Age

The rates of health promotion activities among the LGBT older adult participants, except for wellness activities, decrease with age as do the rates of sexual activity, health risk behaviors (smoking, excessive drinking, and non-prescribed drug use), and HIV risk behaviors. In terms of health screening, those age $65-79$ are more likely to have had a
colonoscopy, blood stool test, osteoporosis test, and PSA test than those age $50-64$, but the rates are similar between those age 50 64 and age 80 and older.

## Income

Having an annual income above 200\% of the federal poverty level is positively associated with higher rates of health promoting activities and sexual activity among the participants. Those with annual incomes at or below $200 \%$ of the federal poverty level are less likely to have had a colonoscopy, mammogram, Pap smear, or PSA test. They are also more likely to smoke, though they are not more likely to drink excessively or use non-prescribed drugs.

## Education

Having at least some college education is positively associated with higher rates of health promoting activities and sexual activity among the LGBT older adults in the project. Those who have a high school education or less report lower rates of having had a colonoscopy, mammogram, Pap smear, or PSA test. They also smoke at the highest rate but are less likely to use non-prescribed drugs. Education is not associated with excessive drinking or HIV risk behavior.

## Summary

The majority of LGBT older adults in the project are sexually active and most engage in moderate exercise, wellness activities, and participate in health screenings. Yet, some report high-risk health behaviors such as smoking, excessive drinking and nonprescribed drug use. Especially at high risk are those age $50-64$. Their rates of smoking, excessive drinking, non-prescribed drug use, and HIV risk behaviors are significantly higher than those age 65 and older.

## SERVICES AND PROGRAMS

While services and programs to assist older adults exist, they are generally geared to the needs of the general population, yet many lesbian, gay, bisexual, and transgender older adults have unique needs. Many LGBT older adults do not have children to help them (see Caregiving and Care Receiving section) and many fear mainstream services and programs due to the risk of discrimination and prejudice (see Society and Health: Disparities in Risk section). Currently, few cities and communities have services and programs to directly serve LGBT older adults.

Although participants in the project are connected with agencies serving LGBT older adults, only $28 \%$ of the participants indicate that they currently use programs or services available in their community. Participants were asked to indicate what services and programs they think are the most needed

## Five most needed services:

 senior housing, transportation, legal services, social events, and support groupsfor LGBT older adults. See Table 9 for a breakdown of service needs by sexual orientation, gender identity, and background characteristics.

## Most needed services and programs

The five services and programs identified by the participants as being most needed for LGBT older adults are senior housing ( $66 \%$ ), transportation ( $62 \%$ ), social events ( $62 \%$ ), support groups ( $55 \%$ ), and legal services ( $53 \%$ ). About half of LGBT
older adults report assisted living, referral services, in-home health services, meals delivered to the home, short-term help for caregivers, and fitness and exercise programs as services needed to serve LGBT older adults.

There is remarkable consistency within groups in terms of identifying the most needed services and programs. All comparison groups (i.e. lesbians, bisexual women, gay men, bisexual men, and trans-

## SERVICES AND PROGRAMS

gender older adults), endorse the top four choices (senior housing, transportation, social events, support groups) as being most needed. There is some variation in the identification of the next most needed service or
adults are much less likely than their nontransgender counterparts to have a DPAH or a will. All these differences remain significant after controlling for age, income, and education with one exception; the difference
> "I need to know if there are resources for someone to bury me with my mom \& dad. How do I make arrangements, what type of arrangements, where do I turn for help? I have no siblings, no family."

> 63-year-old bisexual man
program. Older lesbians indicate that shortterm help for caregivers is one of the most needed services, while bisexual men report that fitness and exercise programs are needed.

## Legal arrangements

Nearly two-thirds (64\%) of the participants indicate that they have a Durable Power of Attorney for Healthcare (DPAH) in place, including $70 \%$ of lesbians, $37 \%$ of bisexual women, $65 \%$ of gay men, $46 \%$ of bisexual men, and $37 \%$ of transgender older adults. Of the $36 \%$ who do not have this instrument executed, the majority (71\%) report that they do know someone that they would be comfortable with acting in this role. More than two-thirds (70\%) of LGBT older adults have a will, including 73\% of lesbians, 44\% of bisexual women, $72 \%$ of gay men, $61 \%$ of bisexual men, and $49 \%$ of transgender older adults. Almost one-third ( $33 \%$ ) of the LGBT older adults in the project do not have a will.

Lesbians and gay men are significantly more likely to have DPAHs and wills than bisexual women and men. Transgender older
in rates of having a will between gay and bisexual men does not remain significant.

## Key background characteristics

## Gender

Among the LGBT older adult participants, the top four most needed services chosen by women and men are similar; they include senior housing, transportation, social events, and support groups. The fifth most needed service for women is short-term help for a caregiver, while for men it is legal services.


## SERVICES AND PROGRAMS

## Race and ethnicity

The top five most needed services selected by LGBT older adult participants who are Hispanic, African American, and Asian/ Pacific Islander are the same as the overall top five services listed above. White older
or below $200 \%$ of the federal poverty level are the same as the overall top five services listed above. Those who have incomes above $200 \%$ of the federal poverty level indicate that assisted living is one of the five most needed services instead of legal services.
> "It seems to me that one of the most important issues for GLBTQ elders is combating isolation and passivity about seeking services don't know how to do it though. So many of us won't have children to help us with this."

57-year-old lesbian

adults, however, indicate that assisted living is one of the five most needed services instead of legal services, and Native American older adults identify meals to home as one of the five most needed services instead of support groups. Hispanic, African American, and Native American older adults are less likely to have a DPAH and a will than their White counterparts.

## Age

Of the top five most needed services identified by LGBT older adults in the project, senior housing, transportation, and social events are common across all age groups. The other two services in the top five are support groups and assisted living for LGBT older adults age $50-64$, support groups and legal services for those age $65-79$, and assisted living and short-term help for a caregiver for those age 80 and older. Compared with those age $50-64$, those age $65-79$ and age 80 and older are more likely to have a DPAH and a will.

## Income

The top five most needed services selected by the participants with household income at

Those with incomes above 200\% of the federal poverty level are more likely to have to have a DPAH and a will.

## Education

Those with a high school education or less report that meal delivery to the home is one of the most needed services, while those with at least some college education indicate that assisted living is one of the five most needed services. Those with at least some college education are also more likely to have a DPAH and a will.

## Summary

Senior housing, transportation, social events, support groups, and legal services are deemed the five most needed services by the LGBT older adult participants. The need for services and programs developed for LGBT older adults is critical, as they often have a unique combination of needs. While they may experience discrimination in mainstream services and programs, they may also lack legal protections at the federal, state and local levels.

## HIV DISEASE

Although lesbian, gay, bisexual, and transgender older adults face common agingrelated health conditions, those who are diagnosed with HIV disease (HIV or AIDS) may experience even greater challenges. There are 48,200 - 64,500 new HIV infections in the U.S. every year, and about 1.1 million Americans live with HIV. ${ }^{15}$ Men who have sex with men still account for the greatest proportions of both incidence and prevalence of HIV in the U.S.

Given the effectiveness of antiretrovirals, more adults with HIV disease are living into old age. By 2015, it is projected that half of all Americans living with HIV will be 50 and older. ${ }^{10}$ About $15 \%$ of new infections and $31 \%$ of those currently living with HIV are age 50 and older. This section examines the health of the LGBT older adults in the project living with HIV disease compared to the LGBT older adult participants who are HIV negative. See Tables 10.1
ject, 233 (9\%) have been diagnosed with HIV; $14 \%$ of the gay men and $21 \%$ of the bisexual men have HIV disease. Forty-four percent of those living with HIV disease have AIDS. Those living with HIV disease face numerous challenges associated with their general health and often have multiple chronic health conditions. Compared with the participants who are HIV negative, a higher proportion of the participants living with HIV report poor general health ( $35 \%$ vs. $21 \%$ ) and disability ( $53 \%$ vs. $46 \%$ ). Those with HIV disease also have significantly higher rates of hepatitis ( $25 \%$ vs. $10 \%$ ) and cardiovascular disease ( $18 \%$ vs. $12 \%$ ). Differences in poor general health and rates of hepatitis and cardiovascular disease remain significant after controlling for sociodemographic characteristics (age, income, and education). For those who are HIV positive, rates of cancer ( $24 \%$ ) emerged as significant compared to those who are HIV negative (19\%) after controlling for socio- and 10.2 for a breakdown by sexual orientation, gender identity, and background characteristics of those living with HIV disease and a comparison of health indicators of those with and without HIV disease.

Physical and mental health

Of the 2,560 LGBT older adults in the pro-


## HIV DISEASE

## 48\% of those with HIV disease have experienced the death of a same-sex partner

demographic characteristics.
LGBT older adult participants with HIV disease report poorer general mental health on average (64.5) than those who are HIV negative (71.4). Those with HIV disease are significantly more likely to have depression ( $40 \%$ vs. $30 \%$ respectively), anxiety ( $35 \%$ vs. $22 \%$ ), and to have contemplated suicide ( $49 \%$ vs. $38 \%$ ) compared with those who are HIV negative. Differences in general mental health, anxiety, and suicidal ideation remain significant after accounting for age, income, and education.

## Resilience and risk

Community belonging and religious and spiritual activities were not significantly different among those living with HIV disease
and those who are HIV negative, yet those living with HIV have significantly lower levels of social support (average of 2.8 vs .3 .1 ). In addition, participants living with HIV are less likely to be partnered ( $34 \%$ vs. $45 \%$ ) or to have children ( $11 \%$ vs. $26 \%$ ) and more likely to live alone ( $65 \%$ vs. $54 \%$ ) compared with their HIV negative counterparts. Those with HIV are also more likely to report loneliness (average of 1.9 vs. 1.7) and almost twice as likely to have experienced the death of a partner ( $48 \%$ vs. $25 \%$ ). These differences remain significant after controlling for socio-demographic characteristics.

Victimization, discrimination, and stigma are all negative societal dynamics impacting LGBT older adults. Those living with HIV disease report similar levels of stigma to those who are HIV negative, yet they are significantly more likely to have experienced victimization ( $91 \%$ vs. $81 \%$ ) and employment discrimination ( $33 \%$ vs. $21 \%)$. It is important to note that those living with HIV (6\%) are also more likely to have experienced physical abuse by a partner, friend, or family member than those who are HIV negative ( $2 \%$ ). These differences remain significant regardless of age, income, and education.


## HIV DISEASE

## Healthcare access

While many indicators of healthcare access are similar for those living with HIV and those who are HIV negative, those with HIV disease are significantly more likely to have been denied healthcare or provided with inferior care ( $19 \%$ vs. $12 \%$ ), experience fi-
older adults with HIV disease are more likely to engage in at least one HIV risk behavior than those who are HIV negative ( $56 \%$ vs. $23 \%$ ), such as being treated for a sexually transmitted or venereal disease ( $27 \%$ vs. $7 \%$ ), giving or receiving money or drugs in exchange for sex ( $11 \%$ vs. $5 \%$ ), having anal
> "Seniors today not only face the aging process, but also the loss of their friends to AIDS over the past almost 30 years now as this pandemic has attacked our community relentlessly. This group of seniors today are also, for a large part, the ones that were in and remain in the closet. We must help them open the door, walk out and stand proud and know that they are loved and will be cared for."

58-year-old gay man
nancial barriers to medication ( $12 \%$ vs. $7 \%$ ), and have used emergency room services in the past year ( $35 \%$ vs. $22 \%$ ). After controlling for socio-demographic characteristics, use of emergency room services remained significant. Nearly all participants who are HIV positive have a personal doctor ( $96 \%$ ), which emerged as significantly higher than those who are HIV negative, when controlling for socio-demographic characteristics.

## Health behaviors

The LGBT older adults in the project living with HIV disease are less likely to participate in moderate exercise ( $75 \%$ vs. $83 \%$ ) than those who are HIV negative which remains significant after controlling for age, income, and education. Those who are HIV positive are also less likely to participate in wellness activities ( $87 \%$ vs. $92 \%$ ).

Among LGBT older adults living with HIV disease $59 \%$ are sexually active. Among those who are sexually active, LGBT
sex without a condom ( $47 \%$ vs. $20 \%$ ), or using intravenous drugs ( $0.76 \%$ vs. $0.33 \%$ ). HIV risk behaviors remains significant after controlling for age, income, and education.

LGBT older adults with HIV disease are more likely to smoke ( $14 \%$ vs. $9 \%$ ) and use non-prescribed drugs ( $25 \%$ vs. $11 \%$ ) compared with those who are HIV negative. Non-prescribed drug use remains significant after controlling for age, income, and education.

## Services and informal care

As one might expect, the participants living with HIV ( $37 \%$ ) are more likely to use services than those who are HIV negative ( $28 \%$ ), even after controlling for sociodemographic characteristics. There are no significant differences between those living with HIV and those who are HIV negative in terms of their rates of informal caregiving or care receiving.

# "When the AIDS crisis began we took a hold of our own community to help ourselves survive and showed the rest of the world how to do it. We need to keep doing it." 

58 -year-old gay man

## Key background characteristics

## Gender

Among the LGBT older adult participants, men report significantly higher rates of HIV disease than women.

## Race and ethnicity

Among the LGBT older adult participants, African Americans and Hispanics are more likely to have HIV disease than Whites.

## Age

The rate of HIV disease among the LGBT older adult participants decreases with age. Those age $50-64$ show significantly higher rates of HIV disease than those age 65-79 and those age 80 and older.

## Income

LGBT older adult participants having annual

household incomes at or below $200 \%$ of the federal poverty level report a higher rate of HIV disease than those having incomes above $200 \%$ of the federal poverty level.

## Education

The older adult participants with a high school education or less report higher rates of HIV disease than those with at least some college education.

## Summary

LGBT older adults living with HIV disease experience extensive physical and mental health disparities, which may be accentuated by their HIV disease. The LGBT older adult participants living with HIV face higher levels of poverty and lower levels of education than those who are HIV negative. They also face disparities such as higher rates of victimization, physical abuse, living alone, smoking, and drug use, along with lower levels of social support. The health concerns impacting LGBT older adults living with HIV disease are pronounced and require tailored interventions.

## CAREGIVING AND CARE RECEIVING

One of the unique aspects and strengths of LGBT communities is the capacity to care for one another, as became evident during the AIDS pandemic in the U.S. In the general population, the unpaid yet important work of caregiving is generally performed by wives, mothers, daughters, and daughters-in-law who care for both older and younger family members. Nearly $90 \%$ of caregivers in the general population who assist persons age 50 and older are related to them by birth or marriage. ${ }^{19}$ Only $14 \%$ of care is provided by a "non-relative." The picture looks very different for LGBT older adults who participated in the project. See Tables 11.1, 11.2, 12.1 and 12.2 for a breakdown of caregiving and care receiving characteristics by sexual orientation, gender identity, and background characteristics.

## Caregiving

More than one-quarter (27\%) of LGBT older adult participants assist a partner, friend, or family member with a health issue or other needs. Rates of caregiving are similar between lesbians and bisexual older women, gay and bisexual older men, and transgender and non-transgender older
adults. Among caregivers, most (35\%) are providing care to their partner or spouse, and nearly one-third (32\%) assist a friend. In terms of caring for biological family mem-

bers, $16 \%$ provide care to a parent or parent-in-law, $7 \%$ to another relative and $2 \%$ assist an adult child. In addition, $7 \%$ provide caregiving assistance to another non-relative such as a neighbor. Just over one-third (37\%) live with the person whom they help.

The length of time that LGBT older adults have been providing care ranges from less than one month to 60 years; the median duration of providing care is 4 years. In a typical week, LGBT older adult caregivers
> "I took care of my elderly mother last year until she died, and I realize how taxing this can be. I also had a glimpse at how many services are not easily available to seniors as they lose their ability to be independent. It made me wonder how it will be for me as I age and how being a lesbian might be received as I get older and more dependent."

50-year-old lesbian

## CAREGIVING AND CARE RECEIVING

provide approximately 6 hours of care. Some provide care for less than one hour, while others provide care 24 hours a day, 7 days a week. About $41 \%$ provide less than 5 hours of assistance per week, while $19 \%$ provide $5-9$ hours, one in five provide $10-19$ hours, and another one in five provide 20 hours or more per week.

Approximately $62 \%$ of caregivers provide assistance with transportation, shopping, laundry, and preparing meals. Another $39 \%$ help with finances, $31 \%$ manage care provided by others, and nearly $18 \%$ provide personal care, including grooming, dressing and toileting. When asked how much money they spend in an average month helping the
person they assist, more than two-thirds (68\%) report spending less than $\$ 100$ per month, $13 \%$ spend $\$ 100$ to $\$ 249,7 \%$ spend $\$ 250$ to $\$ 499$, and $12 \%$ spend $\$ 500$ or more. Forty-four percent of the caregivers indicate that the person whom they provide care to is the person who helps them the most if they are ill or need help.

LGBT older adult caregivers in the project provide care despite the adversity they may encounter. LGBT older adult caregivers report significantly higher rates of victimization compared to non-caregivers ( $85 \%$ vs. $81 \%$ ). They also report higher levels of verbal ( $8 \%$ ) and physical (4\%) abuse by a partner, friend, or family member within the

past year than noncaregivers ( $2 \%, 6 \%$, respectively). In addition, in many cases caregivers have more pronounced health problems than noncaregivers. For example, caregivers are more likely to have lower levels of physical and mental health ( 66.7 vs. 70.8 and 68.1 vs. 71.8, respectively), more likely to have a disability ( $51 \%$ vs. $45 \%$ ) and have depression than noncaregivers. The higher rates of victimization and physical abuse, and the lower levels of physical and mental health remain significant after controlling for age, income, and education.

## CAREGIVING AND CARE RECEIVING

The socio-demographic characteristics of LGBT older adult caregivers are distinct from those of non-caregivers. They are more likely to be partnered or married ( $55 \%$ vs. $40 \%$ ), less likely to live alone ( $41 \%$ vs. $60 \%$ ), and have significantly higher levels of social support ( 3.2 vs. 3.1). Interestingly, they are also nearly twice as likely ( $25 \%$ vs. $13 \%$ ) to be receiving care themselves than non-caregivers. These differences are significant regardless of socio-demographic characteristics.

Caregivers diverge from the LGBT older adult overall in regard to which services and programs they rank as most needed. They report the five most needed services and programs are the following: nursing homes, case management, personal care, adult day care, and in-home health services.

## Receiving care

Seventeen percent of LGBT older adults in the project are currently receiving care from a partner, friend or family member as a result of a health issue or other needs. Rates of receiving care are similar between lesbians and bisexual older women, gay and bisexual older men, and transgender and nontransgender older adults. Among LGBT older adult care recipients, the majority (54\%) receive care from their partner or spouse. Nearly one-quarter (24\%) receive help from a friend, and about one in ten (11\%) receive assistance from a neighbor or other non-relative. Some receive care from biological family members, but to a much lesser extent than in the general population: $3 \%$ receive care from an adult child and $8 \%$ from another relative. Over half ( $55 \%$ ) live with the person who provides their care.

Receiving care often coincides with other losses. Compared to the LGBT older
adults who are not receiving care, those participants receiving care are significantly more likely to not be employed ( $76 \%$ vs. $53 \%$ ) and to have experienced the death of a same-sex partner ( $31 \%$ vs. $26 \%$ ). They are more likely to have higher rates of victimization ( $84 \%$ vs. $82 \%$ ), and to have experienced physical abuse by a partner, friend, or family member within the past year ( $6 \%$ vs. $2 \%$ ). They report significantly poorer physical and mental health ( 51.3 vs. 73.4 and 59.5 vs. 73.0), and have more than twice the rate of disability ( $81 \%$ vs. $40 \%$ ). Compared to those not receiving care, care recipients are significantly more likely to report depression ( $46 \%$ vs. $35 \%$ ), anxiety ( $35 \%$ vs. $21 \%$ ), and suicidal thoughts ( $47 \%$ vs. $37 \%$ ). In the past year, LGBT older adults receiving care are twice as likely to have used emergency room services than those not receiving care ( $40 \%$ vs. $20 \%$ ). These differences are significant regardless of socio-demographic characteristics.

Compared with LGBT older adults not receiving care, those who are receiving care have significantly higher levels of social support ( 3.2 vs. 3.1 ), are more likely to be partnered or married ( $56 \%$ vs. $42 \%$ ), and are less likely to be living alone ( $42 \%$ vs. $58 \%$ ). Interestingly, those receiving care are often in reciprocal caregiving relationships; they are significantly more likely to provide care to others than those not receiving care ( $41 \%$ vs. $25 \%$ ). These differences are significant regardless of socio-demographic characteristics.

As distinct from caregivers, those receiving care identified the following five services as most important: physical/ occupational/speech therapy, meals delivered to the home, referral services, personal care, and transportation.

## CAREGIVING AND CARE RECEIVING

## Key background characteristics

## Gender

Among LGBT older adults in the project, women are significantly more likely to be

## Education

The education level of LGBT older adult caregivers in the project is not associated with providing care. However, those with a high school education or less are more likely

# While caregivers are more likely to be partnered or married and have greater social support, they are significantly more likely to experience depression, disability, victimization, discrimination, and violence compared to non-caregivers 

caregivers, although men also provide high levels of care. There is no difference by gender for those receiving care.

## Race and ethnicity

Among LGBT older adult participants, Hispanics and Native Americans are more likely to provide care than Whites. We do not observe differences on the rates of receiving care by race and ethnicity.

## Age

Among LGBT older adult participants there are no significant differences in the likelihood of caregiving by age, but there is a significant relationship between age and receiving care. Those age 80 and older are more likely to receive care than those age $50-64$.

## Income

There are no differences in the rate of caregiving by income. However, those who have household incomes at or below $200 \%$ of the federal poverty level are more likely to receive care than those who have incomes above $200 \%$ of the federal poverty level.
to receive care than those with at least some college education.

## Summary

In the general population unpaid caregiving is primarily performed by women (wives, mothers, daughters, and daughters-in-law), predominantly to persons related by birth or marriage. Among LGBT older adult participants there are important differences in the patterns of care compared to the general population; rates of caregiving for both women and men are high. Furthermore, among LGBT older adults, friends play a much greater role in caregiving. Despite their higher rates of victimization and potential problems with physical and mental health, LGBT older adult caregivers and care receivers do not have access to many of the caregiving supports available to the general community since they are often not related by blood or marriage. As we move forward, it is imperative that services and policies be developed to address the growing needs for these caregivers and care receivers.

## KEY FINDINGS

Aportrait of the diverse lives of lesbian, gay, bisexual, and transgender (LGBT) older adults is revealed through Caring and Aging with Pride, a collaboration with eleven com-munity-based agencies throughout the nation serving LGBT older adults. It is important to recognize the health disparities that exist in this resilient yet at-risk population, as well as the unique factors that characterize the experiences and needs of lesbian, gay, bisexual, and transgender older adults as they age.

## Emerging from the margins

Contrary to the myth that they will not participate in research, 2,560 diverse LGBT older adults age 50 to 95 , participated in this first national project on LGBT aging and health. The willingness of lesbian, gay, and bisexual older adults to participate was also evident in the initial phase of Caring and Ag ing with Pride, which used state-level popu-lation-based data from the Behavioral Risk Factor Surveillance System in Washington State (BRFSS-WA) to assess health disparities. Approximately $2 \%$ of adults, age 50 and older revealed their sexual orientation as lesbian, gay, or bisexual in the public health survey. These findings indicate that more than 2 million older adults in the U.S. self-identify as lesbian, gay, or bisexual. Given the remarkable surge in the aging population in the next few decades, the population of self-identified lesbian, gay, bisexual, and transgender older adults will more than double between 2000 and 2030.

As we can see from the number of participants in Caring and Aging with Pride, LGBT older adults are emerging from the margins. In fact, LGBT older adults are not

## LGBT older adults are at an elevated risk of disability

## Living alone: The risk of social isolation

LGBT older adults are also at greater risk socially than their heterosexual peers. Sexual minority older adults are less likely to be partnered or married, likely reflecting limited access to marriage, and this may result in less social and financial support as they age. Compared with older heterosexual men, older gay and bisexual men have significantly fewer children in the household, and are significantly more likely to live alone. In the general population, older women are more likely to live alone than older men. However, in these populations the trend is reversed, and gay and bisexual older men are at an elevated risk for living alone. Older adults who live alone in the general popula-

## KEY FINDINGS

tion are at risk of social isolation, which is linked to poor mental and physical health, cognitive impairment, and premature chronic disease and death. ${ }^{20}$

## Elevated health risks

An alarming number of LGBT older adults connected to community-based agencies report loneliness, disability, and depression. Approximately half of the participants report loneliness and disability, and almost one-third are depressed at clinical levels. An important finding that emerged from this project is the distinct differences between

## LGBT older adults are a resilient yet at risk population

LGBT older adult groups. Among LGBT older adults who participated in the project, lesbians and bisexual women have higher rates of disability and obesity than gay and bisexual men. Gay and bisexual men, on the other hand, have higher rates of HIV disease, and more with the disease are now living into old age, often with pronounced health concerns. Bisexual older women experience higher levels of stress than older lesbians. Transgender older adults are at heightened risk of disability, depression, suicidal thoughts, and loneliness than nontransgender older adults.

Racial and ethnic minority LGBT older adults experience heightened and cumulative risks of aging and health disparities, as do LGBT older adults with incomes at or below $200 \%$ of the federal poverty level and those with a high school education or less.

## Forging forward with resilience

Despite the risks, LGBT older adults forge onward with resilience, living their lives and building their communities. Almost all of the LGBT older adults who participated in the project feel good about belonging to their communities, and many have moderate levels of social support. Most of them engage regularly in wellness activities and moderate physical activities, and many attend spiritual or religious services or activities. These strengths are likely protective in terms of physical and mental health, counteracting the unique challenges that LGBT older adults face.

Furthermore, the societal contributions of LGBT older adults should not go unrecognized. More than $40 \%$ of the bisexual men and transgender older adult participants, more than one-third of the gay older adult men, and $6 \%$ of the older lesbian and bisexual women have served in the military.

## LGBT older adults face serious adversity

Victimization creates significant risks for LGBT older adults and their communities. Over the course of their lifetime, most LGBT older adults have faced serious adversity and stigma. Most LGBT older adults have been victimized at some point in their lives, and many have been victimized multiple times, because of their perceived sexual orientation or gender identity. Many LGBT older adults have also faced discrimination in employment and housing, which may impact their economic security. Experiences of discrimination are linked with poor health outcomes, such as depression among both chronically ill LGBT older adults and their informal caregivers. ${ }^{9}$

## Obstacles to quality healthcare

More than one in ten LGBT older

## KEY FINDINGS

adult participants have been denied healthcare or received inferior care. Nearly onequarter of transgender older adults have needed to see a doctor but could not because of cost. Many LGBT older adults fear accessing healthcare outside the LGBT community, and some fear accessing healthcare inside the community. Bisexual older women fear accessing healthcare services inside the LGBT community much more often than lesbians and are less likely to have a personal doctor or healthcare provider.

Almost one-quarter of LGBT older adults have not revealed their sexual orientation or gender identity to their primary physician, and bisexual women and men are less likely to disclose than lesbians and gay men. The American Medical Association warns that physicians' failure to recognize, and patients' reluctance to disclose, can lead to failure to diagnose serious medical problems. ${ }^{11}$ We find that lack of disclosure prevents discussions about sexual health, risk of breast or prostate cancer, hepatitis, HIV risk, hormone therapy, and other risk factors.

## Distinct networks of support

While family members related by blood or marriage play a primary role in the support of older adults in the general population, most LGBT older adults care for one another. The LGBT older adult participants rely most heavily on partners and friends, most of a similar age, to provide assistance and help as they age, with women and men providing high levels of care. While the importance of friends in the lives of LGBT older adults is well documented, there may be limits in their ability to provide care over the long-term, especially if decision-making is required for the older adult receiving care. ${ }^{8}$ LGBT older adult caregivers and care recipients both face unique types of adversity and
need tailored supports.
Due to the lack of access to federally recognized marriage and the more than 1,100 rights that inhere automatically by marriage, ${ }^{21}$ LGBT older adults must take additional legal steps to protect their loved ones. Yet about a third of LGBT older adults who

# More than one in ten LGBT older adult participants have been denied healthcare or provided inferior care 

participated in the project do not have a will or a durable power of attorney for healthcare. LGBT older adults identify senior housing, transportation, social events, support groups, and legal services as the most important services needed.

## Limitations

While this report highlights important findings regarding the aging and health of LGBT older adults, the limitations of the research must be considered. The Behavioral Risk Factor Surveillance System in Washington State (BRFSS-WA) relies on a telephone survey with English- and Spanish-speaking callers and does not reach those without a landline or who speak another language. A major limitation is the potential for underreporting those who identify as LGBT. This may be more pronounced among those age 50 and older. Furthermore, sexual orientation and gender identity are complex constructs and our research does not include those that may engage in same-sex behavior but do not openly identify as lesbian, gay, or bisexual. In addition, the population-based survey is

## KEY FINDINGS

designed to obtain information about the general population and does not gather specific information that may be unique to LGBT older adults and their caregivers. Even though this data is population-based, it is not national, it represents one state.

The findings from the national project may also have limitations. The participants were recruited via mailing lists from agencies serving LGBT older adults, so service users are likely over-represented. In general, service users are more likely to have more aging and health needs compared with non-service users. In addition, since the agencies are primarily located in large urban areas, LGBT older adults residing in rural and other areas are likely under-represented.

While it is important to consider the limitations and biases associated with these different research methods, the vast majority of findings converge and are relatively consistent across both sources of information.

## Moving forward

As we move forward it is important to address the challenges facing lesbian, gay, bisexual, and transgender older adults while recognizing advances in services and policies. For example, the federally funded National Resource Center on LGBT Aging is an important resource that has been implemented to provide technical assistance, training and resources related to LGBT aging. In addition, legal protections for LGBT older adults have been extended through recent federal regulations enacted to prohibit discrimination in visitation based on sexual orientation and gender identity by hospitals participating in Medicare and Medicaid.

## Many LGBT older adults

have been victimized
three or more times

Most existing aging services, public policies and research initiatives that are intended to support older adults in times of need, however, are inaccessible to LGBT older adults and their loved ones. For example, same-sex partners do not have access to federal family leave benefits, equivalent Medicaid spend-downs, Social Security benefits, bereavement leave, or automatic inheritance of jointly owned real estate and personal property. ${ }^{12}$ In addition, while services and programs assisting older adults are readily available, they are most often geared towards the general population and do not take into consideration the unique circumstances facing LGBT older adults, such as fear of discrimination or the lack of children to help and support them.

## Conclusion

Given the increasing diversity of our aging society, it is imperative that we begin to address the aging and health needs of lesbian, gay, bisexual, and transgender older adults. Examining the health and well-being of older adults from these historically disadvantaged populations sheds new light on the diversity of, and cumulative risks facing, an aging population. Understanding aging and health in these communities requires knowledge that cuts across the life course, illuminating inequalities as well as risks and resilience. Only through a holistic approach to aging and health will we be prepared to address the mounting needs of our increasingly diverse society. LGBT older adults represent the past and the future, as they create a legacy for generations to come.

## CALL TO ACTION

Compared with the older population in general, lesbian, gay, bisexual, and transgender older adults have higher rates of disability, mental distress, and living alone. Addressing the aging and health needs of lesbian, gay, bisexual, and transgender older adults requires a comprehensive approach to transform public policies, services, education, and research:

## Policy

Advocate for the Older Americans Act (OAA) to target social and health services and programs toward LGBT older adults. Address the distinctive aging and health needs within the LGBT older adult population, recognizing that bisexual and transgender older adults are critically underserved.

Ensure the economic security of LGBT older adults and their loved ones by maintaining entitlement and need-based programs, such as Social Security, Supplemental Security Income (SSI), Social Security Disability Insurance (SSDI), Medicare, and Medicaid, and extending benefits to same-sex partners.

Amend the federal Family and Medical Leave Act (FMLA) to extend coverage beyond those related by blood or marriage, recognizing the central role of friends in providing care for LGBT older adults. Educate LGBT older adults, caregivers and providers about support services available through the National Family Caregiver Support Act (NFCSA).

Protect the safety and security of LGBT older adults by implementing policy and programmatic interventions to combat prejudice, victimization, and stigma. Advocate for protection from discrimination based on sexual orientation and gender identity in employment, housing, and public accommodations. Fully prosecute hate crimes based on sexual orientation, gender identity, and age.

## Services

Create comprehensive aging and health services for LGBT older adults by fostering partnerships between LGBT aging agencies, services in the larger LGBT community, and federal, state, and local mainstream providers of aging and health services to meet the needs of LGBT older adults. Ensure services for LGBT older adults target those living alone without adequate services or support.

Identify successful programs and policies addressing the aging and health needs of LGBT older adults and create models that can be implemented in urban, suburban, and rural communities where LGBT organizations are not present.

## CALL TO ACTION

Prioritize the needs of older adults in LGBT organizations and communities and participate in local, state and federal planning processes to secure resources for needed service developments, including housing, transportation and support services. Provide opportunities for intergenerational programs and exchanges of support.

## Education

Implement cultural competency training for healthcare, human service, housing, and legal professionals addressing LGBT older adults and caregivers, incorporating diversity in age, gender, gender identity, ethnicity, race, socio-economic status, geographic location, and ability.

Educate and train caregivers, providers, and LGBT older adults in navigating existing laws, public policies, and regulations, e.g., the necessity of legal planning including wills and durable power of attorney for healthcare and the use of advocates if no one is available to act in such a capacity; and the recourse available if privacy is violated under HIPPA regulations in healthcare settings.

Develop competencies necessary for effective practice with LGBT older adults and their families and advocate for the integration of these competencies as part of degree requirements in educational programs including medicine, nursing, social work, law, and other educational programs.

## Research

Integrate sexual orientation, gender identity, and sexual behavior measures in aging-related research, including public health surveys. Develop innovative research methods to effectively reach out and obtain more representative samples of LGBT older adults. Collaborate with LGBT older adults and their communities to support capacity and accountability in research.

Evaluate interventions designed to improve the mental and physical health of LGBT older adults. Expand the reach of strategies to promote healthy living, especially aimed at prevention and reduction of obesity, excessive drinking, and smoking. Ensure that HIV research, prevention, education, and treatment programs include older adults.

Distinguish similarities and unique aging and health needs of distinct groups of LGBT older adults to develop tailored and responsive services and health promotion strategies. Investigate changes in LGBT health across the life course and how differing types of social structures and life events impact aging and health.

## REFERENCES

1. Institute of Medicine. The health of lesbian, gay, bisexual, and transgender people: Building a foundation for better understanding. Washington, DC: The National Academies Press; 2011.
2. Fredriksen-Goldsen K, Muraco A. Aging and Sexual Orientation: A 25 -Year Review of the Literature. Research on Aging. 2010; 32(3): 372-413.
3. Fredriksen-Goldsen KI, Kim H-J, Barkan SE. Disability among lesbians, gay men, and bisexuals: Disparities in prevalence and risk. American Journal of Public Health. Published online ahead of print November 17, 2011: e1-e6. doi:10.2105/AJPH.2011.300379
4. Kim H-J, Fredriksen-Goldsen KI. Are Hispanic lesbians and bisexual women at heightened risk of health disparities? American Journal of Public Health. Published online ahead of print November 17, 2011: e1-e7. doi:10.2105/AJPH.2011.300378
5. Fredriksen-Goldsen KI, Kim H-J, Barkan SE, Balsam KF, Mincer S. Disparities in health-related quality of life: A comparison of lesbian and bisexual women. American Journal of Public Health. In press.
6. Vincent GA, Velkoff VA. The next four decades, The older population in the United States:2010 to 2050. Washington, DC: U.S. Census Bureau; 2010.
7. Cacioppo JT, Hawkley LC. Social isolation and health, with an emphasis on underlying mechanisms. Perspectives in Biological Medicine. 2003; 46(3 Suppl): S39-52.
8. Muraco A, Fredriksen-Goldsen K. "That's what friends do:" Informal caregiving for chronically ill lesbian, gay, and bisexual elders. Journal of Social and Personal Relationships. 2011; 28(8): 1073-1092.
9. Fredriksen-Goldsen KI, Kim H-J, Muraco A, Mincer S. Chronically ill midlife and older lesbians, gay men, and bisexuals and their informal caregivers: The impact of the social context. Sexuality and Research and Social Policy. 2009; 6(4): 52-64.
10. HIV over fifty: Exploring the new threat. United States Senate Special Committee on Aging. 101st Cong. 1. Washington, DC: U.S. Government Printing Office; 2005. pp. 53.
11. American Medical Association. AMA policy regarding sexual orientation: H-65.973 health care disparities in same-sex partner households. 2009; Houston, TX; 2009 [cited 2011 June 22]; Available from: http://www.ama-assn.org
12. Fredriksen-Goldsen KI. Caregiving with pride. Binghamton, NY: Haworth Press; 2007.
13. Department of Health and Human Services, U.S. The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020. Phase I report: Recommendations for the framework and format of Healthy People 2020. Section IV. Advisory Committee findings and recommendations. 2010 [cited 2011 June 22]; Available from: http://www.healthypeople.gov/hp2020/ advisory/PhaseI/sec4.htm\#_Toc211942917
14. National Institutes of Health. Biennial Report of the Director, National Institutes of Health, Fiscal Years 2008 \& 2009. Washington, DC: National Institutes of Health; 2010.
15. Centers for Disease Control and Prevention. CDC health disparities and inequalities report- United States. Morbidity \& Mortality Weekly Report 2011. 2011; 60(Suppl): 1-116.
16. American Psychological Association. The Road to Resilience: Resilience factors \& strategies. 2011 [cited 2011 October 26]; Available from: http://www.apa.org/helpcenter/road-resilience.aspx\#
17. Department of Health and Human Services, U.S. Healthy People 2020 Objectives: Lesbian, gay, bisexual, and transgender health. 2011 [cited 2011 October 26]; Available from: http:// www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=25
18. Centers for Disease Control and Prevention. Physical activity for everyone: Older adults. 2011 [cited 2011 October 26]; Available from: http://www.cdc.gov/physicalactivity/everyone/guidelines/ olderadults.html
19. Family Caregiver Alliance. Fact sheet: Selected caregiver statistics. 2005 [cited 2008 Web Page]; Available from: http://www.caregiver.org/caregiver/jsp/content_node.jsp?nodeid=439

## REFERENCES

20. Cornell EY, Waite LJ. Measuring social isolation among older adults using multiple indicators from the NSHAP Study. Journal of Gerontology: Social Sciences. 2009; 64B(S1): 138 - 146.
21. General Accounting Office US, Office of the General Counsel. GAO/OGC-97-16 Defense of Marriage Act. Washington, DC: United States General Accounting Office, Office of the General Counsel; 1997.
22. Department of Health and Human Services, U.S. Computations for the 2009 annual update of the HHS poverty guidelines for the 48 contiguous States and the District of Columbia. 2009 November 16, 2009 [cited 2011 March 12]; Available from: http://aspe.hhs.gov/poverty/09computations.shtml
23. Mohr J, Fassinger R. Measuring dimensions of lesbian and gay male experience. Measurement and Evaluation in Counseling and Development. 2000; 33(2): 66-90.
24. Luhtanen R, Crocker J. A Collective Self-Esteem Scale: Self-evaluation of one's social identity. Personality and Social Psychology Bulletin. 1992; 18(3): 302-18.
25. Sherbourne CD, Stewart AL. The MOS social support survey. Social Science and Medicine. 1991; 32 (6): 705-14.
26. D'Augelli A, Grossman A. Disclosure of sexual orientation, victimization, and mental health among lesbian, gay, and bisexual older adults. Journal of Interpersonal Violence. 2001; 16(10): 1008-27.
27. Pilkington NW, D'Augelli AR. Victimization of lesbian, gay, and bisexual youth in community settings. Journal of Community Psychology. 1995; 23: 34-56.
28. Bruce D. Associations of racial and homosexual stigmas with risk behaviors among Latino men who have sex with men [dissertation]: University of Illinois at Chicago; 2006.
29. Ware JE, Kosinski M, Dewey JE, Gandek B. How to score and interpret single-item health status measures: A manual for users of the SF-8 Health Survey. Lincoln, RI: QualityMetric; 2001.
30. Department of Health and Human Services, U.S. Healthy People 2010: Understanding and improving health. Washington, DC: U.S. Department of Health and Human Services; 2000.
31. Centers for Disease Control and Prevention. Overweight and obesity: Defining overweight and obesity. 2010 June 21, 2010 [cited 2011 March 12]; Available from: http://www.cdc.gov/obesity/defining.html
32. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Questionnaire. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2011.
33. Radloff LS. The CES-D scale: A self-report depression scale for research in the general population. Applied Psychological Measurement. 1977; 1:385-401.
34. Andresen EM, Malmgren JA, Carter WB, Patrick DL. Screening for depression in well older adults: Evaluation of a short form of the CES-D (Center for Epidemiologic Studies Depression Scale). American Journal of Preventive Medicine. 1994; 10(2): 77-84.
35. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. Journal of Health and Social Behavior. 1983; 24(4): 385-96.
36. Hughes ME, Waite LJ, Hawkley LC, Cacioppo JT. A short scale for measuring loneliness in large surveys: Results from two population-based studies. Research on Aging. 2004; 26(6): 655-72.
37. Centers for Disease Control and Prevention. Cigarette smoking among adults -- United States, 1992, and changes in the definition of current cigarette smoking. Morbidity and Mortality Weekly Report. 1994; 43(19): 342-6.
38. Centers for Disease Control and Prevention. Alcohol and public health: Fact sheets: Alcohol use and health. 2011 [cited 2011 15]; Available from: http://www.cdc.gov/alcohol/fact-sheets/alcohol-use.htm

## METHODOLOGY

The goal of this project is to better understand aging and health among LGBT older adults and the risk and protective factors impacting their lives as they age. In the initial phases of the project we utilized population data obtained from the Washington State Behavioral Risk Factor Surveillance System (BRFSSWA), which added a sexual orientation question in 2003. The BRFSS is an annual state-based random-digitdialed telephone survey of non-institutionalized adults conducted by each state in the United States. For these analyses we aggregated data from 2003-2010 and analyzed key health indicators by sexual orientation, gender and age. The CDC designed BRFSS to investigate health conditions and behaviors of U.S. adult residents (see http://www.cdc.gov/brfss/ for more information). Analyses were conducted separately by gender while applying sample weights provided by BRFSS to best calculate estimates representing the population. First, we describe the weighted distribution of socio-demographic characteristics, comparing lesbians and bisexual women and gay and bisexual men to their heterosexual counterparts. $T$-tests and chi-square tests were applied. Second, weighted prevalence rates of health-related indicators were estimated and compared by sexual orientation. For the comparisons, we conducted unadjusted logistic regression analyses, which included dummy variables with heterosexuals coded as the reference group. We then tested adjusted logistic regression models, which controlled for socio-demographic characteristics (age, household income, and education). Finally, unadjusted and adjusted logistic regression analyses were conducted to examine health disparities between lesbians and bisexual women and between gay men and bisexual men. Lesbians and gay men were coded as the reference groups.

While the state-level component of the project is one of the first to examine health disparities among lesbian, gay, and bisexual older adults using population-based data, there are several limitations to consider. First, it is state-level data and not national. The cross-sectional nature of the BRFSS data limits the ability to examine the temporal relationships between variables. The findings are also limited with respect to response rate and the self-identification of sexual orientation. Lesbian, gay, and bisexual older adults may be less likely than younger age groups to openly self-identify on a telephone-based survey. In addition, the statelevel population-based information does not include questions related to gender identity.

Since this was one of the first large studies of aging and health among LGBT older adults and caregivers, we also wanted to test the utility of different data collection and sampling methods, including survey distribution by mail, electronic survey distribution, and respondent driven sampling (RDS).

For the national project we utilized a cross-sectional survey design and collaborated with eleven agencies across the nation to better understand the risk and protective factors impacting LGBT older adults and caregivers. Each participating agency distributed survey questionnaires via their agency mailing lists to older adults, defined as age 50 and older. The self-administered questionnaire consisted of several sections including: background characteristics, physical and mental health, life satisfaction, quality of life, health conditions, health behaviors, health screenings, health care access, disclosure, victimization, discrimination, stigma, characteristics of caregiving and care receiving and services needed.

The total N for the survey is 2,560 . Data was gathered over a six month period from June 2010 to November 2010. Based on agency mailing lists, 4,650 survey questionnaires with an invitation letter were distributed. Two weeks following the initial distribution of the questionnaire, a reminder letter was sent. Two weeks later, a second reminder letter was sent. Of the surveys, 647 were not mailed, 245 had incomplete addresses and 157 were not deliverable (e.g., wrong address or deceased). In addition, 81 of the returned surveys did not meet criteria for inclusion in the study (e.g., the respondent was younger than 50 years of age or not LGBT). A total of 2201 usable surveys were returned for a response rate of 63 percent.

For the agencies that had electronic mailing lists, a similar internet web-based survey was used. The same protocol for survey distribution was used: an electronic survey with invitation letter was sent, with a two week reminder. Two weeks later, a followed-up reminder was sent. Using the electronic mailing lists, 390 surveys were returned. Of these, 31 did not meet criteria for inclusion in the study (e.g., younger than 50 years of age, not LGBT). Thus a total of 359 electronic surveys were obtained. All study procedures were

## METHODOLOGY

reviewed and approved by the University of Washington Institutional Review Board.
For data analysis, descriptive statistics were initially conducted. Next, similarities and differences by sexual orientation (lesbians compared to bisexual women and gay men compared to bisexual men) and gender identity (transgender compared to non-transgender adults) were examined, utilizing unadjusted and adjusted logistic regression analyses. Since age, income, and education may significantly influence health, adjusting for these background characteristics in the comparisons by sexual orientation and gender identity was necessary. We also examined how health-related indicators are associated with gender and race/ethnicity as well as age, income, and education utilizing chi-square tests, $t$-tests, ANOVAs, and linear or logistic regression analyses, as appropriate.

In this study lesbian, gay, bisexual and transgender older adults are treated as distinct categories so that groups do not overlap in analyses. Those who responded to the sexual orientation question as "other" were excluded from analyses since the sample size was too small to make a meaningful interpretation. We stratified participants into three age groups: those 50-64, those 65-79, and those 80 and older. For statistical comparisons for race and ethnicity, individuals were classified as either Hispanic, non-Hispanic White, African American, Asian/Pacific Islanders, and, Native American/Native American ancestry/Alaska Native.

By using a cross-sectional design, information about risk and protective factors was gathered on a large number of older LGBT adults. This sample, unavailable in most other studies, represents diverse LGBT older adults by sexual orientation, gender identity, gender, age, race, ethnicity, income and education. However, the research design and sampling procedures used in this component of the study limit the generalizability of the findings. In addition, self-report data are based on participants' perceptions and interpretations rather than behaviors, and do not replace objective measures of the variables under study.

## KEY TERMS

Below are the definitions of the key terms and measures used in this project. They are organized according to each section in the report.

## Socio-demographic characteristics

Sexual orientation: Participants were asked to select from the following categories: lesbian, gay, bisexual, heterosexual/straight, or other. Women who indicated gay as their sexual orientation were collapsed with lesbians.

Gender identity: Assessed by the following questions: Are you transgender? (yes or no), and How old were when you first considered yourself transgender? Participants were also asked: If transgender, are you female to male (FTM) or male to female (MTF)?

Non-transgender: Refers to lesbian, gay and bisexual older adult participants who did not respond affirmatively to the transgender questions.

LGBT: Refers to lesbian, gay, bisexual, and transgender older adult participants.
Age: Calculated from participants' year of birth.
Older adult: Participants age 50 or older.
Race and ethnicity: Participants were asked whether they were Hispanic or Latino (yes or no). They were also asked to select one or more of the following categories: White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaskan Native, or other.

Income: Participants selected their annual household income from the following categories: less than $\$ 20,000 ; \$ 20,000$ to $\$ 24,999 ; \$ 25,000$ to $\$ 34,999 ; \$ 35,000$ to $\$ 49,999 ; \$ 50,000$ to $\$ 74,999 ; \$ 75,000$ or more. Income was dichotomized by factoring annual household income with household size to determine whether participants were above $200 \%$ of the federal poverty level (FPL) or whether participants were at or below $200 \%$ of the FPL. ${ }^{22}$

Education: Determined by the highest grade of school completed. Categories included: never attended school or only attended kindergarten, grades $1-8$, grades $9-11$, grade 12 or GED, college $1-3$ years, college 4 or more years. Education was dichotomized into either a high school education or less, or some college education or more.

Employment: Participants were asked if they have been employed full or part-time during the past 12 months (yes or no). If not employed, they were asked for the main reason they were not working. Categories included: retired, ill or disabled, taking care of home or family, unable to find work, or doing something else.

Military service: Participants were asked if they have served or are currently serving in the military (yes or no) and if yes, in what years.

Relationship status: Participants were asked to select their current relationship status: single, partnered, married, divorced, widowed, or separated. Relationship status was dichotomized into married or partnered and other.

## KEY TERMS

Living arrangement: Participants selected from the following categories: living alone, living with a partner/ spouse, with other family members, or with non-family members. Living arrangement was dichotomized into living alone or living with others.

Death of same-sex partner: Participants were asked whether they had experienced the death of a same-sex partner (yes or no) and if yes, in what year.

Housing: Determined by asking participants to select the type of housing they currently live. Categories included: own a house or apartment, rent, senior housing, assisted living, nursing home, homeless, or other.

Geographic location: Calculated by participant's ZIP Code. Three regions were determined: Western (west of the Rocky Mountains), Central (between the Appalachian Mountains and the Rocky Mountains), and Eastern (east of the Appalachian Mountains).

## Resilience

Disclosure: This study modified the 12 -item Outness Inventory scale. ${ }^{23}$ and measured, using a 4-point Likert scale, whether specific individuals knew the participants' sexual orientation or gender identity, including mother, father, brothers, sisters, children, grandchildren, grandparents, best friend, current or most recent work supervisor, neighbors, faith community, and primary physician. Participants' average "outness" scores were calculated from 12 items to examine the overall level of outness. The range of the score is 1 to 4 with higher scores indicating greater levels of disclosure.

Community belonging: Measured by asking to what degree participants agreed to the following statement, "I feel good about belonging to the LGBT community," measured on a 4 -point Likert scale. The measure was adapted from the Collective Self-Esteem scale. ${ }^{24}$ Higher scores indicate greater community belonging.

Social support: The 4-item abbreviated Social Support Instrument ${ }^{25}$ was adapted to measure the degree of perceived social support, using a 4-point Likert scale. The items measured if participants had someone they could turn to for instrumental support (i.e. "to help with daily chores if you were sick") and emotional support (i.e. "to do something enjoyable with"). Higher scores indicate greater social support.

Religious and spiritual activity: Participants were asked how often during the past thirty days they had attended spiritual or religious services or activities.

## Health risks

Victimization: Assessed using 16 items adapted from the 9-item MacArthur Foundation National Survey of Midlife Development in the United States (MIDUS) and a 7-item victimization survey. ${ }^{26,27}$ Participants were asked how many times in their lives ("never, once, twice, three or more") they had experienced types of victimization and discrimination related to their actual or perceived sexual orientation or gender identity. Examples include being hassled by the police, physical or verbal assault, being denied a job, being fired from job, being prevented from living in a neighborhood. A 4-point Likert scale was used, with higher scores indicating more experiences of victimization.

Internalized stigma: A 9-item measure (using a 4-point Likert scale) adapted from Bruce, ${ }^{28}$ which asks participants to what extent they agree with various statements related to their sexual or gender identity, such as "I wish I weren't LGBT", "I have tried to not be lesbian, gay, bisexual or transgender," and "I feel that being

## KEY TERMS

lesbian, gay, bisexual or transgender is a personal shortcoming for me." The range is 1 to 4 with higher scores indicating higher levels of internalized stigma.

Abuse by a partner, family member, or close friend: Physical abuse was assessed by whether "in the past year" the participant had been "hit, slapped, pushed, shoved, punched, or threatened with a weapon" by a partner, family member or close friend. Verbal abuse was assessed by whether "in the past year" the participant was" severely criticized, made fun of, told you were stupid or worthless, or threatened verbally to harm you, your possessions or pets" by a partner, family member or close friend.

Physical health: Measured using four items of the SF-8 Health Survey. ${ }^{29}$ The scale measures a participant's overall subjective assessment of physical health. The range is 0 to 100 with higher scores indicating better perceived physical health. In addition, an individual item was utilized to measure general health, "Overall, how would you rate your health during the past 4 weeks?" Response categories were dichotomized as poor (very poor, poor, fair) and good (good, very good, excellent).

Disability: Defined as being limited in any activities due to physical, mental, or emotional problems, or having any health problem that requires the use of special equipment (e.g. cane, special telephone), based on the definition recommended by Healthy People 2010. ${ }^{30}$

Vision, hearing, and dental impairments: Determined by asking participants whether they had trouble with seeing "even when wearing glasses or contact lenses" or hearing "even when wearing hearing aid." They were also asked if they had a dental problem that needed dental care.

Obesity: Based on participant's self-reported weight and height (calculated by Body Mass Index $\geq 30 \mathrm{~kg}$ / $\mathrm{m}^{2}$ ). ${ }^{31}$

Health conditions: Measured by whether participant had ever been told by a health professional that they had one or more of the following conditions: arthritis, angina, asthma, cancer (specifically breast, colon-rectal, lung, prostate, or other), cataracts, congestive heart failure, diabetes, heart attack, hepatitis, high blood pressure, high cholesterol, HIV, AIDS, multiple sclerosis, osteoporosis, or stroke. Cardiovascular disease (CVD) was defined as having had a heart attack, angina, or stroke. ${ }^{32}$

## Mental health

General mental health: Measured using four items of the SF-8 Health Survey. ${ }^{29}$ The scale measures a participant's overall subjective assessment of their mental health. The range is 0 to 100 , with higher scores indicating better perceived mental health.

Depression: The 10-item short form of the Center for Epidemiological Studies Depression Scale (CES-D), was utilized to measure current depressive symptomatology. ${ }^{33}$ Scores range from $0-30$, with a score of 10 or higher indicating depressive symptomatology at a clinical level. ${ }^{34}$

Anxiety: Assessed by whether participants had ever been diagnosed by a physician as having anxiety.
Suicidal ideation: Assessed by the following questions, "Have you ever seriously thought of taking your own life?" (yes or no) Those who responded in the affirmative were asked if their suicidal thoughts were related to their sexual orientation or gender identity.

## KEY TERMS

Stress: Measured using the 4-item Perceived Stress Scale (PSS4), which assesses the degree to which participants perceive the events and situations in their lives during the preceding month as being stressful. ${ }^{35}$ Utilizing a 5-point Likert scale, questions included such items as "in the last month, how often have you felt that you were unable to control the important things in your life?" Higher scores indicate greater levels of perceived stress.

Loneliness: Assessed with the 3 -item Loneliness Scale, ${ }^{36}$ which measures subjective perceptions of feeling a sense of not-belonging, isolation, and disconnection. Utilizing a 3-point Likert scale, participants were asked questions such as, "how often do you feel isolated from others?" Higher scores indicate greater levels of loneliness.

Neglect: Measured by asking participants how many days during the previous week they felt they "did not have their own basic needs met such as food, cleanliness, or safety." Higher scores indicate greater levels of neglect.

## Healthcare access

Healthcare access: Assessed by health insurance coverage: whether the participant had health insurance coverage; financial barriers: whether a participant had experienced a financial barrier to seeing a doctor in the last 12 months or a financial barrier to obtaining medication; healthcare provider: if a participant had a personal doctor or healthcare provider; routine checkup: whether a participant had a routine checkup in the preceding year; and emergency room use: whether a participant visited a hospital emergency room for his/ her own health in the preceding year.

Fear accessing services: Two questions assessed to what extent participants feared accessing healthcare services inside the LGBT community and feared accessing healthcare services outside the LGBT community.

Healthcare access discrimination: Measured by asking participants whether or not they were denied healthcare or provided with inferior healthcare.

## Health behaviors

Exercise: Adapted from BRFSS, exercise was defined as moderate if a participant engaged in activities "such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate," for ten or more minutes at a time in an average week. Vigorous exercise was defined as activities "such as running, aerobics, heavy yard work, or anything else that causes a large increase in breathing or heart rate" for ten or more minutes at a time in an average week.

Wellness activities included meditation, reading, drawing, painting, crafts, photography, and other activities that promote wellness.

Sexual activity: Participants were asked with whom they had engaged in sex during the past 12 months (men only, women only, both men and women, or did not have sex).

Health screening: Participants were asked if they had any of the following screenings within the past three years: a blood stool test using a home kit, colonoscopy, osteoporosis test, HIV test, mammogram (women only), Pap smear (women only), or a prostate-specific antigen test (PSA) (men only).

## KEY TERMS

## Health risk behaviors

Current smoking: Defined as having ever smoked 100 or more cigarettes and currently smoking every day or some days. ${ }^{37}$

Excessive drinking: Having five or more drinks for men and four or more drinks for women on one occasion during the past 30 days. ${ }^{38}$

Drug use (non-prescribed): Defined as having used drugs other than those prescribed for medical reasons during the past 12 months.

HIV risk behaviors: Determined by whether on one or more occasions during the past year, participants had been treated for a sexually transmitted disease, exchanged money or drugs for sex, had unprotected anal sex, or used non-prescribed intravenous drugs. ${ }^{32}$

## Services, programs, and legal arrangements

Services and programs: Participants were asked if they currently use programs or services for older adults in the LGBT community. In addition, participants indicated what programs and services they thought were most important in the LGBT community to meet the needs of older adults. Services listed included: transportation, meals delivered to home, meals at a center or agency, short-term help or relief for a caregiver, personal care (such as bathing, grooming), referral for services, in-home health services, social events, senior housing, adult day care, assisted living, nursing home, support groups, legal services, fitness and exercise programs, physical/occupational/speech therapy, care management, and other services.

Will: Participants were asked whether or not they had a will (yes or no).
Durable power of attorney for healthcare (DPAH): Participants were asked whether they had a durable power of attorney for healthcare (yes or no). Those who answered no were also asked if they know someone they would be comfortable with in this role.

## HIV Disease

HIV disease: Participants were asked if a doctor had ever told them they had HIV and if so, the year of diagnosis. They were also asked if they had ever been told that they had AIDS and if so, the year of diagnosis.

## Caregiving and Care Receiving

Caregiving: Assessed by asking participants if they provide help to a partner/spouse, friend, or family member as a result of a health issue or other needs. For those who indicated they are caregivers, additional questions included: background characteristics (sexual orientation, gender, gender identity, age, relationship, living arrangement) for the person that they help the most, the duration of the caregiving relationship, and the number of hours spent in a typical week providing care. Additionally, participants were asked what type of care they provided and approximately how much money they spent in a typical month helping the care recipient.

Care receiving: Assessed by asking if participants currently receive help from a partner/spouse, friend, or family member as a result of a health issue or other needs. For those that indicated they are care recipients, background characteristics (sexual orientation, gender, gender identity, age, relationship, living arrangement) for the person who helps them most, the duration of the caregiving relationship, and the number of hours spent in a typical week receiving care.

## TABLES

Table 1.1. Socio-Demographic Characteristics of Respondents by Sexual Orientation and Gender, Age 50 and Older

|  | Women |  |  |  | Men |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Heterosexual | Lesbian and bisexual |  |  | Heterosexual | Gay and bisexual |  |  |
|  |  | Total | Lesbian | Bisexual |  | Total | Gay | Bisexual |
| Age, mean (SE) | 63.82 (0.06) | 58.63 *** (0.37) | 58.09 (0.40) | 59.67 (0.78) | 62.35 (0.07) | 59.54*** (0.39) | 59.26(0.45) | 60.22 (0.75) |
| Below 200\% poverty level, \% | 27.38 | 27.12 | 26.47 | 28.43 | 20.85 | 24.79 | 25.45 | 23.18 |
| High School or less, \% | 30.18 | $13.44^{* * *}$ | 13.83 | 12.69 | 24.96 | 14.57*** | 12.34 | 20.09 |
| Non-Hispanic White, \% | 91.79 | 90.31 | 89.86 | 91.23 | 90.40 | 93.22* | 92.85 | 94.18 |
| Partnered or married, \% | 63.26 | 47.98*** | 46.53 | 50.75 | 79.10 | 41.10*** | 35.45 | 55.03 |
| Children in household | 0.15 (0.00) | 0.20 (0.04) | 0.18 (0.05) | 0.24 (0.06) | 0.22 (0.00) | 0.07*** (0.02) | 0.03 (0.01) | 0.15 (0.05) |
| Living alone, \% | 26.24 | 29.43 | 29.65 | 28.99 | 15.15 | 38.34*** | 40.66 | 32.59 |
| Note. SE=standard error, T-tests *<.05; ** <. 01 ; *** < . 001 <br> Data source: Washington State | d chi-square tes vioral Risk Fa | were conducted. <br> Surveillance Sy | tem, 2003-201 |  |  |  |  |  |

Table 1.2. Weighted Prevalence Rates of Health Indicators by Sexual Orientation and Gender, Age 50 and Older

|  | Women |  |  | Men |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Heterosexual Lesbians and bisexual women |  |  | Heterosexual Gay and bisexual men |  |  |
|  | \% | \% | AOR | \% | \% | AOR |
| Health outcomes |  |  |  |  |  |  |
| Frequent poor physical health | 15.47 | 15.79 | 1.02 | 12.88 | 16.79 | 1.38* |
| Frequent mental distress | 9.36 | 15.92 | 1.40* | 6.88 | 13.09 | 1.77** |
| Disability | 36.87 | 44.27 | $1.47^{* * *}$ | 33.96 | 38.27 | 1.26* |
| Health conditions |  |  |  |  |  |  |
| Obesity | 25.93 | 36.27 | 1.42*** | 27.07 | 22.57 | 0.72* |
| Diabetes | 11.87 | 13.59 | 1.25 | 13.96 | 12.44 | 0.92 |
| Cardiovascular disease | 10.71 | 10.51 | 1.37* | 16.49 | 14.11 | 1.04 |
| Health behaviors |  |  |  |  |  |  |
| Smoking | 11.61 | 18.33 | 1.57*** | 13.15 | 20.04 | 1.52** |
| Excessive drinking | 4.61 | 7.88 | 1.43* | 11.12 | 17.13 | 1.47* |
| Health screenings |  |  |  |  |  |  |
| Flu shot | 55.07 | 52.99 | 1.20 | 50.40 | 54.87 | $1.47^{* * *}$ |
| Mammogram | 79.77 | 74.16 | 0.71* | - | - | - |
| HIV test ${ }^{\text {a }}$ | 23.89 | 40.80 | 1.80*** | 28.31 | 76.47 | 7.91*** |

Note. AOR=adjusted odds ratio; logistic regression analyses were conducted while controlling for age, income, and education; heterosexuals were coded as the reference group. ${ }^{\text {a }}$ Question was asked only to those age less than 65.
Data source: Washington State Behavioral Risk Factor Surveillance System, 2003-2010

## TABLES

Table 2. LGBT Older Adults: Socio-Demographic and Background Characteristics

|  | $\%$ |
| :--- | ---: |
| Education |  |
| High School or less | 7.9 |
| Some college | 18.7 |
| 4 years of college or more | 73.4 |
| Not employed | 56.1 |
| Reasons not employed | 76.3 |
| Retired | 20.1 |
| III or disabled | 1.7 |
| Taking care of home or family | 6.0 |
| Unable to find work | 4.8 |
| Doing something else | 25.5 |
| Military service | 44.3 |
| Partnered or married | 24.6 |
| Children | 15.0 |
| Grandchildren | 27.0 |
| Death of same-sex partner or spouse | 59.0 |
| Housing | 33.3 |
| Own house/apartment | 4.3 |
| Rent | 0.4 |
| Senior housing | 0.1 |
| Assisted living | 0.1 |
| Nursing home | 2.8 |
| Homeless | $1.5(0.7)$ |
| Other |  |
| Household size, mean (SD) | 55.1 |
| Living arrangement | 44.9 |
| Living alone | 43.9 |
| Living with others |  |
| Have Pet(s) | 39.1 |
| Geographic region | 44.4 |
| Western U.S. | 16.4 |
| Central U.S. |  |
|  |  |


|  | $\%$ |
| :--- | ---: |
| Age, mean (SD) | $66.5(9.1)$ |
| $50-64$ | 44.4 |
| $65-79$ | 45.6 |
| 80 and older | 10.0 |
| Gender |  |
| Women | 37.2 |
| Men | 62.9 |
| Transgender | 6.8 |
| Female to Male | 26.4 |
| Male to Female | 60.3 |
| Other | 5.8 |
| Missing | 7.5 |
| Sexual Orientation: Non-transgender | 32.5 |
| Lesbian | 61.3 |
| Gay men | 2.5 |
| Bisexual women | 2.8 |
| Bisexual men | 0.9 |
| Queer or Other | 22.2 |
| Sexual Orientation: Transgender | 9.9 |
| Lesbian | 27.8 |
| Gay men | 19.8 |
| Bisexual | 20.4 |
| Heterosexual | 55.3 |
| Queer or Other |  |
| Sexually active | 86.5 |
| Race and Ethnicity | 4.4 |
| White | 3.5 |
| Hispanic | 3.5 |
| African American | 1.6 |
| Asian and Pacific Islander | 2.4 |
| Native American/Alaskan Native | 1.6 |
| Other |  |
| Income below 200\% Poverty Level |  |
|  |  |

## TABLES

Table 3. Resilience Indicators: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics

|  | Disclosure Overall | Specific Disclosure |  |  |  |  |  | Community belonging | Social support | Religious or spiritual activities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mother | Father | Child | Grand parent | Best friend | Physician |  |  |  |
|  | M (SD) | \% | \% | \% | \% | \% | \% | \% | M (SD) | \% |
| Total | 3.5 (0.6) | 65.7 | 53.8 | 85.4 | 27.2 | 91.7 | 79.0 | 89.1 | 3.1 (0.8) | 38.1 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |
| Lesbians | 3.6 (0.6)***\# | 77.3 *** | 64.8* ${ }^{\text { }}$ | 94.9** ${ }^{\text {\# }}$ | 37.7 | 95.4 | $77.2{ }^{* * *}$ | 92.1* ${ }^{\text { }}$ | 3.3 (0.7)***\# | 39.9 |
| Bisexual women | 3.2 (0.8) | 46.5 | 44.7 | 79.2 | 16.7 | 90.4 | 52.9 | 83.9 | 3.0 (0.8) | 44.8 |
| Gay men | 3.5 (0.6)***屯 | $62.0 * * \ddagger$ | 49.9 | 82.2** ${ }^{\text {¹ }}$ | 22.9 | $91.2{ }^{* * *}$ | 81.5*** | 88.8 | 3.0 (0.8)* | $34.9 * * \ddagger$ |
| Bisexual men | 3.0 (1.0) | 41.7 | 36.6 | 56.3 | 26.7 | 76.3 | 78.8 | 85.0 | 2.8 (0.8) | 53.9 |
| Gender Identity ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |
| Transgender | $3.3(0.8){ }^{* * * \pm}$ | $61.4^{\ddagger}$ | $50.0^{\ddagger}$ | $79.3{ }^{\text {埆 }}$ | 25.0 | 85.3 ** | 81.0 | 81.8** ${ }^{\text {7 }}$ | $2.9(0.8)^{* * * \pm}$ | $47.7{ }^{* * \ddagger}$ |
| Non-transgender | 3.5 (0.6) | 66.1 | 54.1 | 86.7 | 27.4 | 92.2 | 78.8 | 89.6 | 3.1 (0.8) | 37.5 |
| Gender |  |  |  |  |  |  |  |  |  |  |
| Women | 3.6 (0.6)*** | 73.4*** | 61.3 *** | 91.3*** | 34.5** | 94.1** | 76.9* | 91.0* | 3.2 (0.7)*** | 41.6** |
| Men | 3.4 (0.7) | 65.7 | 49.6 | 77.8 | 23.5 | 90.3 | 80.3 | 88.0 | 3.0 (0.8) | 35.9 |
| Age |  |  |  |  |  |  |  |  |  |  |
| 50-64 (ref) | 3.6 (0.6) | 80.9 | 70.9 | 89.9 | 33.1 | 95.1 | 83.5 | 89.5 | 3.1 (0.8) | 39.8 |
| 65-79 | 3.4 (0.7)*** | 57.0*** | 42.7*** | 83.8* | 22.3** | 90.2*** | 77.3*** | 89.7 | 3.1 (0.8) | 37.6 |
| 80 and older | 3.1 (0.7)*** | 28.3*** | 21.2*** | 69.8*** | 18.8* | $82.7 * * *$ | $66.2{ }^{* * *}$ | 84.6* | 3.0 (0.7) | 32.6* |
| Race and Ethnicity |  |  |  |  |  |  |  |  |  |  |
| White (ref) | 3.5 (0.6) | 65.3 | 53.6 | 86.7 | 26.5 | 92.2 | 79.8 | 89.8 | 3.1 (0.8) | 36.8 |
| Hispanic | 3.5 (0.6) | 65.6 | 54.1 | 90.5 | 30.0 | 89.0 | 78.8 | 88.2 | 2.9 (0.9)* | 39.1 |
| African American | 3.5 (0.6) | 74.0 | 65.5 | 70.6 | $58.8{ }^{\text {tr }}$ | 89.2 | $67.5^{* *}$ | 86.1 | 3.0 (0.8) | $62.8^{* * *}$ |
| Native American | 3.5 (0.6) | 80.0 | 58.3 | 76.5 | 33.3 | 95.4 | 69.6 | 86.7 | 2.9 (0.7) | 53.2 *** |
| Asian/Pacific Islander | 3.0 (0.9)*** | 32.4*** | 29.7** | 55.6* | 25.0 | 70.3** | 63.9* | 85.0 | 3.0 (0.9) | 27.5 |
| Below 200\% poverty level |  |  |  |  |  |  |  |  |  |  |
| Yes | 3.4 (0.7)*** | 62.8* | 53.1 | 80.6* | 29.5 | 88.6*** | 76.1* | 87.5 | 2.8 (0.8)*** | 40.8 |
| No | 3.5 (0.6) | 67.3 | 54.6 | 88.0 | 27.2 | 93.3 | 80.5 | 90.1 | 3.2 (0.7) | 37.4 |
| Education |  |  |  |  |  |  |  |  |  |  |
| High School or less | 3.3 (0.8)*** | 60.7 | 46.9 | 60.4*** | 32.0 | 82.5*** | 72.5* | 89.1 | 2.8 (0.9)*** | 35.0 |
| Some college or more | 3.5 (0.6) | 66.4 | 54.4 | 87.3 | 26.8 | 92.4 | 79.4 | 89.1 | 3.1 (0.8) | 38.4 |

${ }^{*} p<.05 ; * p<.01 ;{ }^{*} p<.001$ -
${ }^{\ddagger}$ Indicates that a $p$ value remains $<.05$ after controlling for age, income, and education

## TABLES

Table 4. Risk Indicators: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics

|  | Victimization |  |  |  |  |  |  |  | Internal stigma | Abuse |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | At least once | 3 times or more | Verbally insulted | Physically threatened | Physical assault | Threat of being outed | Not promoted | Denied housing |  | Physical | Verbal |
|  | \% | \% | \% | \% | \% | \% | \% | \% | M (SD) | \% | \% |
| Total | 82.0 | 63.6 | 68.4 | 42.5 | 19.3 | 22.7 | 21.4 | 5.2 | 1.5(0.6) | 2.5 | 6.7 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Lesbians | 75.1姆 | 52.1 | 63.0 | 29.5** ${ }^{\text {¹ }}$ | 9.7 | 24.2** | 19.2 | 5.5 | 1.3(0.5)*** | 2.2 | 7.0 |
| Bisexual women | 61.8 | 40.0 | 52.7 | 12.7 | 5.5 | 9.1 | 10.9 | 0.0 | 1.5(0.6) | 1.7 | 14.0 |
| Gay men | 85.7 | 69.0 | 71.1 | 49.0 | 23.8 | 21.7 | 21.1 | 4.8 | 1.5(0.6) ${ }^{\star \star *}$ | 2.5* | 5.0 |
| Bisexual men | 78.1 | 67.2 | 71.9 | 49.2 | 25.4 | 23.8 | 17.7 | 4.8 | 1.9(0.8) | 7.7 | 9.2 |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Transgender | 91.1** ${ }^{\text {\# }}$ | 77.5*** | 75.7* ${ }^{\text { }}$ | 53.0** | 26.6* | 29.3* | 39.3 **× | 10.1** | 1.8(0.6)*** | 5.4* | 14.9*** |
| Non-transgender | 81.2 | 62.6 | 67.9 | 41.6 | 18.8 | 22.3 | 20.0 | 4.9 | 1.5(0.6) | 2.6 | 6.1 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |
| Women | 76.1*** | $54.4{ }^{* * *}$ | 63.5 *** | 31.5*** | 10.9*** | 23.9 | 20.9 | 5.8 | 1.4(0.5)*** | 2.7 | 8.2* |
| Men | 85.4 | 68.8 | 71.2 | 48.9 | 24.0 | 21.8 | 21.7 | 4.8 | 1.5(0.6) | 2.8 | 5.7 |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 50-64 (ref) | 87.0 | 72.0 | 77.6 | 49.7 | 22.4 | 23.4 | 24.8 | 6.4* | 1.5(0.6) | 3.4 | 8.5 |
| 65-79 | 79.9*** | $59.8{ }^{\text {*** }}$ | 64.1*** | 39.0*** | 18.0* | 22.8 | 20.1*** | 4.6 | 1.5(0.6) | 2.2 | 5.5** |
| 80 and older | 68.6 *** | 42.5 *** | 46.5*** | 25.1*** | $10.8^{* * *}$ | 19.5 | 11.9*** | $5.2^{*}$ | 1.6(0.6)** | 2.5 | 3.7* |
| Race and Ethnicity |  |  |  |  |  |  |  |  |  |  |  |
| White (ref) | 82.4 | 63.2 | 68.7 | 42.1 | 18.7 | 22.3 | 20.7 | 4.7 | 1.5(0.6) | 2.6 | 6.6 |
| Hispanic | 80.4 | 66.4 | 64.5 | 42.9 | 20.8 | 30.5 | 24.8 | 4.8 | 1.5(0.6) | 5.6 | 5.6 |
| African American | 73.6* | 51.7* | 58.1* | 42.4 | 19.8 | 16.5 | 20.7 | 5.8 | 1.4(0.6) | 1.2 | 2.3 |
| Native American | 95.7* | 82.6** | 82.6* | 68.9** | 39.1** | 37.8* | 41.3** | 23.9*** | 1.6(0.6) | 4.3 | 19.2** |
| Asian/Pacific Islander | 71.1 | 60.5 | 60.5 | 15.8** | 2.7* | 15.8 | 16.2 | 7.9 | 1.7(0.8)** | 7.9 | 2.6 |
| Below 200\% poverty level |  |  |  |  |  |  |  |  |  |  |  |
| Yes | 82.8 | 66.9* | 68.0 | 48.1*** | 27.9*** | 26.3* | 24.6* | 8.0*** | 1.4(0.6)** | 5.0 *** | 11.5*** |
| No | 82.0 | 62.5 | 69.2 | 40.0 | 15.1 | 21.9 | 19.9 | 4.3 | 1.5(0.5) | 1.8 | 4.7 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| High School or less | 77.0 | 61.7 | 61.1* | 42.8 | 30.3 *** | 22.4 | 21.8 | 7.3 | 1.5(0.6) | 2.6 | 7.7 |
| Some college or more | 82.4 | 63.7 | 69.2 | 42.5 | 18.4 | 22.8 | 21.3 | 2.1 | 1.5(0.6) | 2.8 | 6.6 |
| ${ }^{*} p<.05 ; \text { ** } p<.01 \text {; *** } p<.001$ <br> ${ }^{a}$ Adjusted logistic regressions were conducted <br> ${ }^{\ddagger}$ Indicates that a $p$ value remains $<.05$ after controlling for age, income, and education |  |  |  |  |  |  |  |  |  |  |  |

${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education

## TABLES

Table 5.1. Physical Health Indicators: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics

|  | General physical health | Poor General health | Disability | Impairments |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Vision | Hearing | Dental |
|  | M (SD) | \% | \% | \% | \% | \% |
| Total | 69.7 | 22.9 | 46.8 | 24.5 | 18.8 | 23.6 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Lesbians | 68.3 | 22.6 | 52.6 | 24.1 | 15.5 | 20.8 |
| Bisexual women | 65.8 | 22.0 | 50.9 | 30.5 | 11.9 | 30.5 |
| Gay men | $71.6{ }^{*}$ | 21.6 | 41.1* | 22.50* | 19.6 | 22.0 |
| Bisexual men | 65.6 | 29.4 | 53.7 | 33.8 | 25.0 | 27.9 |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Transgender | 62.1*** ${ }^{\text {* }}$ | 33.3** | $61.8 * * *$ | 37.4*** | 25.3 * ${ }^{\text { }}$ | 43.7*** |
| Non-transgender | 70.2 | 22.1 | 45.7 | 23.6 | 18.4 | 22.2 |
| Gender |  |  |  |  |  |  |
| Women | 67.5*** | 23.9 | 53.5*** | 26.0 | 16.7* | 24.4 |
| Men | 71.0 | 22.2 | 42.7 | 23.7 | 19.9 | 23.0 |
| Age |  |  |  |  |  |  |
| 50-64 (ref) | 71.0 | 23.2 | 44.8 | 25.2 | 13.5 | 25.0 |
| 65-79 | 69.6 | 21.7 | 45.9 | 24.0 | 20.7*** | 22.9 |
| 80 and older | 64.1*** | 27.0 | $60.2^{* * *}$ | 24.3 | 33.3 *** | 21.2 |
| Race and Ethnicity |  |  |  |  |  |  |
| White (ref) | 70.1 | 22.0 | 46.4 | 23.1 | 18.9 | 22.3 |
| Hispanic | 66.3 | 29.7 | 45.0 | 32.2* | 16.1 | 25.0 |
| African American | 67.6 | 30.3 | 51.7 | 28.1 | 7.9* | 29.2 |
| Native American | $60.4{ }^{\text {** }}$ | 31.3 | $66.7^{* *}$ | 54.2*** | $35.4{ }^{* *}$ | 58.3*** |
| Asian/Pacific Islander | 72.4 | 22.0 | 36.6 | 39.0* | 17.1 | 19.5 |
| Below 200\% poverty level |  |  |  |  |  |  |
| Yes | 61.0*** | 36.8*** | 64.7*** | 35.7*** | 23.2*** | 42.5*** |
| No | 73.7 | 16.3 | 38.8 | 20.2 | 17.0 | 15.9 |
| Education |  |  |  |  |  |  |
| High School or less | $60.6^{* * *}$ | 38.3*** | 55.1* | 30.9* | 18.9 | 38.3*** |
| Some college or more | 70.5 | 21.5 | 46.1 | 24.1 | 18.8 | 22.2 |
| ${ }^{*} p<.05 ; \text { ** } p<.01 ; \text { *** } p<.001$ <br> ${ }^{a}$ Adjusted logistic regressions were conducted <br> ${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education |  |  |  |  |  |  |

## TABLES

Table 5.2. Health Conditions: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics


## TABLES

Table 5.2. Health Conditions: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics (Continued)

|  | Health Conditions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Obesity <br> \% | Any cancer <br> \% | Prostate cancer ${ }^{\text {b }}$ \% | Breast cancer ${ }^{\text {c }}$ \% | Hepatitis <br> \% | $\begin{gathered} \text { HIV } \\ \% \end{gathered}$ |
| Total | 25.5 | 19.1 | 10.6 | 7.4 | 11.3 | 9.2 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Lesbians | 34.3 | 16.3 | NA | 7.2 | 4.4 | 0.1 |
| Bisexual women | 34.5 | 20.3 | NA | 10.2 | 6.8 | 0.0 |
| Gay men | 19.3 | 20.9 | 10.6 | NA | 15.7 | 14.4 |
| Bisexual men | 18.2 | 23.5 | 13.2 | NA | 14.7 | 20.9 |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Transgender | 39.5***\# | 15.5 | Insufficient | Insufficient | 5.8* ${ }^{\text { }}$ | 3.5 ** ${ }^{\text {\# }}$ |
| Non-transgender | 24.6 | 19.3 | data | data | 11.7 | 9.5 |
| Gender |  |  |  |  |  |  |
| Women | 34.5*** | 16.3** | NA | 7.4 | 4.7*** | $0.6{ }^{* * *}$ |
| Men | 20.2 | 20.7 | 10.6 | NA | 15.2 | 14.2 |
| Age |  |  |  |  |  |  |
| 50-64 (ref) | 29.2 | 11.4 | 4.7 | 3.7 | 11.6 | 11.9 |
| 65-79 | 24.9* | 23.4*** | 12.6*** | 10.2*** | 11.5 | 8.3** |
| 80 and older | 11.8*** | 33.3*** | 20.9*** | 18.9*** | 9.0 | 1.2*** |
| Race and Ethnicity |  |  |  |  |  |  |
| White (ref) | 24.6 | 20.1 | 10.9 | 7.7 | 11.5 | 8.0 |
| Hispanic | 25.2 | 16.1 | 9.7 | 2.9 | 10.7 | $24.1{ }^{* * *}$ |
| African American | 38.2** | 14.6 | 12.0 | 6.5 | 6.7 | 19.1*** |
| Native American | 46.8** | 6.3* | 5.9 | 0.0 | 12.5 | 8.7 |
| Asian/Pacific Islander | 5.0* | 2.4* | 3.5 | 0.0 | 12.2 | 7.5 |
| Below 200\% poverty level |  |  |  |  |  |  |
| Yes | 29.1** | 20.4 | 11.3 | 7.7 | 13.2* | 13.5*** |
| No | 24.0 | 18.4 | 10.2 | 7.1 | 10.4 | 7.5 |
| Education |  |  |  |  |  |  |
| High School or less | 30.2 | 20.4 | 13.2 | 11.5 | 13.4 | 13.6* |
| Some college or more | 25.0 | 18.8 | 10.4 | 6.8 | 11.1 | 8.8 |
| ${ }^{*} p<.05 ; * * p<.01 ; \text { *** } p<.001$ <br> ${ }^{a}$ Adjusted logistic regressions were conducted <br> ${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education <br> ${ }^{\mathrm{b}}$ Analyses were conducted only for men <br> ${ }^{\text {c }}$ Analyses were conducted only for women |  |  |  |  |  |  |

## TABLES

Table 6. Mental Health Indicators: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics

|  | General Mental Health | Depression | Anxiety | Suicidal ideation | Stress | Loneliness | Neglect |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M (SD) | \% | \% | \% | M (SD) | M (SD) | M (SD) |
| Total | 70.8 (0.4) | 30.6 | 23.5 | 38.6 | 1.25 (0.8) | 1.7 | 0.1 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |  |
| Lesbians | 71.8 (20.1) * | 27.4 | 22.4* | 34.9 | $1.2(0.8){ }^{\star * *}$ | 1.6 (0.6) * | 0.1 (0.3) ***\# |
| Bisexual women | 65.6 (24.3) | 35.1 | 33.9 | 39.7 | 1.5 (0.9) | 1.8 (0.7) | 0.3 (0.7) |
| Gay men | 71.7 (20.1) * | 29.4 | 21.6 | 36.7 | 1.2 (0.8)* | 1.7 (0.7) * | 0.1 (0.5) |
| Bisexual men | 65.6 (22.1) | 35.9 | 23.5 | 39.1 | 1.4 (0.8) | 2.0 (0.7) | 0.2 (0.6) |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |  |
| Transgender | 62.7 (22.1) **** | 47.9 ***\# | 38.5 *** ${ }^{\text {\# }}$ | $71.1{ }^{\text {*** }}$ | 1.6 (0.9) ***キ | $2.0(0.7)^{* * * \ddagger}$ | $0.2(0.7)^{* * \pm}$ |
| Non-transgender | 71.4 (20.2) | 29.2 | 22.4 | 36.2 | 1.2 (0.8) | 1.7 (0.7) | 0.1 (0.5) |
| Gender |  |  |  |  |  |  |  |
| Women | 70.3 (20.8) | 30.1 | 25.1 | 38.7 | 1.3 (0.8) | 1.7 (0.7)* | 0.1 (0.5) |
| Men | 71.1 (20.2) | 30.6 | 22.3 | 38.2 | 1.2 (0.8) | 1.8 (0.7) | 0.1 (0.5) |
| Age |  |  |  |  |  |  |  |
| 50-64 (ref) | 69.9 (21.3) | 32.9 | 29.3 | 44.8 | 1.3 (0.8) | 1.8 (0.7) | 0.1 (0.5) |
| 65-79 | 71.9 (20.0)* | 28.3* | 20.5*** | 35.7*** | 1.2 (0.8)** | 1.7 (0.6) ${ }^{* * *}$ | 0.1 (0.5) |
| 80 and older | 69.6 (19.2) | 30.6 | 11.8*** | 23.0*** | 1.3 (0.8) | 1.7 (0.6)** | 0.1 (0.5) |
| Race and Ethnicity |  |  |  |  |  |  |  |
| White (ref) | 71.4 (20.3) | 29.9 | 22.9 | 38.0 | 1.2 (0.8) | 1.7 (0.7) | 0.1 (0.5) |
| Hispanic | 64.9 (22.3)** | 39.6* | 30.4 | 41.1 | 1.49 (0.8)*** | 1.8 (0.7) | 0.2 (0.6)* |
| African American | 70.8 (21.1) | 26.5 | 20.2 | 32.1 | 1.3 (0.9) | 1.8 (0.7) | 0.3 (0.7)** |
| Native American | 58.3 (20.8)*** | 46.8* | 43.8** | 68.1*** | 1.59 (0.8)** | 1.9 (0.7)* | 0.2 (0.5) |
| Asian/Pacific Islander | 72.7 (18.5) | 26.8 | 17.1 | 21.1* | 1.3 (0.9) | 1.7 (0.6) | 0.1 (0.4) |
| Below 200\% poverty level |  |  |  |  |  |  |  |
| Yes | 61.4 (21.6) *** | $46.1^{\text {*** }}$ | 29.9*** | 47.9*** | $1.6(0.8){ }^{\text {*** }}$ | 2.0 (0.7) *** | $0.2(0.7)^{\text {*** }}$ |
| No | 74.8 (18.7) | 23.7 | 21.5 | 34.2 | 1.1 (0.8) | 1.6 (0.6) | 0.06 (0.4) |
| Education |  |  |  |  |  |  |  |
| High School or less | 63.5 (21.9) *** | 42.1*** | 26.4 | 39.5 | 1.6 (0.9) *** | 1.9 (0.7) *** | 0.3 (0.7) *** |
| Some college or more | 71.4 (20.3) | 29.6 | 23.2 | 38.6 | 1.2 (0.8) | 1.7 (0.7) | 0.1 (0.5) |

${ }_{\text {a }}{ }^{*} p<.05$; ${ }^{*} p<.01$, ${ }^{*}{ }^{2} p<.001$ usted logistic regressions were conducted
${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education

## TABLES

Table 7. Healthcare Access: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics


## TABLES

Table 8. Health Behaviors: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics

|  | Exercise/Activities |  |  | Sexual activity | Health screenings |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Moderate | Vigorous | Wellness |  | Colonoscopy | $\begin{gathered} \hline \text { Blood stool } \\ \text { test } \end{gathered}$ | Osteoporosis | Mammogram ${ }^{\text {b }}$ | Pap smear | PSA ${ }^{\text {c }}$ |
|  | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% |
| Total | 81.9 | 50.8 | 91.1 | 55.3 | 55.4 | 35.1 | 32.0 | 83.7 | 65.9 | 72.2 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |
| Lesbians | 83.6** ${ }^{\text {¹ }}$ | 50.3 | 93.0 | 44.7 | 50.3 | 36.4* | 55.0 | 88.1 | 72.3 | NA |
| Bisexual women | 69.5 | 39.0 | 94.9 | 32.2 | 50.0 | 22.8 | 53.5 | 82.8 | 75.4 | NA |
| Gay men | 82.4 | 52.5 | 90.9 | 63.7 | 59.8 | 34.9 | 20.5 | NA | NA | 74.1 |
| Bisexual men | 82.1 | 50.8 | 89.6 | 63.6 | 54.6 | 32.3 | 19.4 | NA | NA | 65.6 |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |
| Transgender | 73.7 ** ${ }^{\text { }}$ | 44.2 | 85.5** ${ }^{\text {¹ }}$ | $40.6{ }^{* * *}$ | 44.2** ${ }^{\text { }}$ | 32.8 | 19.1*** ${ }^{\text {f }}$ | Insufficient data |  |  |
| Non-transgender | 82.4 | 51.2 | 91.5 | 56.4 | 56.1 | 35.2 | 32.9 |  |  |  |
| Gender |  |  |  |  |  |  |  |  |  |  |
| Women | 81.6 | 49.3 | 92.0 | 42.2*** | $50.1^{\text {*** }}$ | 36.5 | $50.8{ }^{* * *}$ | 83.7 | 65.9 | NA |
| Men | 82.0 | 51.7 | 90.6 | 63.2 | 58.7 | 34.3 | 20.4 | NA | NA | 72.2 |
| Age |  |  |  |  |  |  |  |  |  |  |
| 50-64 (ref) | 82.1 | 54.6 | 90.2 | 61.0 | 50.2 | 30.1 | 27.6 | 82.7 | 72.6 | 62.9 |
| 65-79 | 83.6 | 50.0* | 91.7 | 54.0** | 60.2 *** | 40.5*** | 36.2*** | 86.6 | 61.0*** | 80.1*** |
| 80 and older | 72.7** | 36.8*** | 92.7 | 35.6 *** | 56.5 | 32.8 | 32.5 | 73.2 | $37.7^{* * *}$ | 70.8 |
| Race and Ethnicity |  |  |  |  |  |  |  |  |  |  |
| White (ref) | 81.7 | 50.5 | 91.4 | 55.7 | 55.3 | 35.5 | 32.9 | 85.0 | 66.6 | 72.1 |
| Hispanic | 83.3 | 50.0 | 87.0 | 49.5 | 56.3 | 32.1 | 21.1* | 77.1 | 61.8 | 66.7 |
| African American | 79.6 | 54.6 | 91.0 | 50.6 | 65.9 | 28.4 | 30.9 | 77.8 | 57.1 | 85.1 |
| Native American | 83.3 | 42.6 | 93.8 | 59.6 | 52.1 | 33.3 | 38.3 | 78.3 | 77.3 | 69.6 |
| Asian/Pacific Islander | 87.5 | 68.3 | 82.9 | 56.1 | 45.0 | 41.5 | 22.0 | 80.0 | 50.0 | 69.0 |
| Below 200\% poverty level |  |  |  |  |  |  |  |  |  |  |
| Yes | 77.8*** | 40.8*** | 87.6*** | 40.9*** | 49.5*** | 36.8 | 29.3 | $73.2^{* * *}$ | 52.9*** | 64.1*** |
| No | 84.1 | 55.4 | 92.8 | 61.9 | 57.8 | 34.3 | 32.7 | 88.5 | 72.0 | 75.5 |
| Education |  |  |  |  |  |  |  |  |  |  |
| High School or less | 68.5*** | 35.7*** | 79.3*** | 39.9*** | 48.5* | 29.9 | 29.4 | 68.3** | 44.1*** | 56.1 *** |
| Some college or more | 83.0 | 52.1 | 92.2 | 56.7 | 55.9 | 35.6 | 32.1 | 84.8 | 67.5 | 73.4 |

${ }_{\mathrm{a}}^{*} p<.05$; ** $p<.01 ;$ *** $p<.001$
${ }^{\ddagger}$ Indicates that a $p$ value remains $<.05$ after controlling for age, income, and education
${ }^{\text {b }}$ Analyses were conducted only for women

Analyses were conducted only for men

## TABLES

Table 8. Health Behaviors: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics (Continued)

${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education

## TABLES

Table 9. Services and Programs: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics

|  | Current service use | Service Needs |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Senior housing | Social events | Transport | Support groups | Legal service s | Assisted living | Referral services | In-home health services | Meals to home | Short term help for caregiver |
|  | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% | \% |
| Total | 28.5 | 65.7 | 62.5 | 62.0 | 55.0 | 53.1 | 52.4 | 50.3 | 49.7 | 49.6 | 49.2 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Lesbians | 26.4 | 73.0 | 68.7 | 68.1 | 60.0 | 54.2 | 58.6* ${ }^{\text {\# }}$ | 56.0 | 56.9 | 53.7 | 61.1 |
| Bisexual women | 24.6 | 74.6 | 74.6 | 57.6 | 66.1 | 66.1 | 42.4 | 54.2 | 52.5 | 42.4 | 54.2 |
| Gay men | 30.5* ${ }^{\text {¢ }}$ | 62.2 | 59.0 | 60.1 | 51.5 | 52.1 | 51.5** | 47.5 | 47.7** ${ }^{\text {¢ }}$ | 49.8 | 44.7 |
| Bisexual men | 44.8 | 63.2 | 69.1 | 60.3 | 47.1 | 44.1 | 30.9 | 41.2 | 30.9 | 44.1 | 36.8 |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |
| Transgender | $15.2^{\text {*** }}$ | 61.5 | 56.9 | 52.9** | 61.5 | 54.6 | 44.8* | 49.4 | 41.4 ${ }^{\text {# }}$ | 35.6*** | 39.1*** |
| Non-transgender | 29.4 | 65.9 | 63.0 | 62.8 | 54.4 | 53.1 | 52.9 | 50.5 | 50.3 | 50.7 | 49.9 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |
| Women | 25.4** | 72.1 *** | 67.7*** | 66.0** | 60.8*** | 55.5 | 55.9** | 55.1 *** | 54.7*** | 50.8 | 57.7*** |
| Men | 30.4 | 61.9 | 59.5 | 59.7 | 51.5 | 51.6 | 50.3 | 47.5 | 46.7 | 48.9 | 44.1 |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 50-64 (ref) | 18.9 | 68.6 | 66.8 | 61.9 | 58.8 | 56.0 | 56.9 | 52.8 | 51.9 | 50.8 | 51.8 |
| 65-79 | 35.3 *** | 65.1 | $60.5{ }^{\text {** }}$ | 61.9 | 53.6* | 52.2 | 49.2*** | 49.3 | 49.1 | 49.2 | 47.1* |
| 80 and older | 40.0*** | 55.3*** | $52.2^{* * *}$ | 62.8 | 43.9*** | 43.5*** | 46.7** | 43.5** | 42.0** | 45.5 | 47.1 |
| Race and Ethnicity |  |  |  |  |  |  |  |  |  |  |  |
| White (ref) | 27.1 | 65.2 | 61.7 | 61.9 | 54.4 | 51.7 | 52.9 | 49.6 | 49.5 | 49.3 | 49.2 |
| Hispanic | 40.2*** | 67.0 | 70.5 | 60.7 | 58.0 | 58.9 | 53.3 | 52.7 | 47.3 | 50.9 | 45.5 |
| African American | 36.8* | 69.7 | 78.7** | 61.8 | 69.7** | 66.3** | 51.7 | 61.8* | 47.2 | 55.1 | 48.3 |
| Native American | 29.8 | 83.3* | 62.5 | 70.8 | 64.6 | 64.6 | 58.3 | 52.1 | 62.5 | 66.7* | 62.5 |
| Asian/Pacific Islander | 39.0 | 63.4 | 61.0 | 63.4 | 58.5 | 63.4 | 56.1 | 53.7 | 56.1 | 43.9 | 46.3 |
| Below 200\% poverty level |  |  |  |  |  |  |  |  |  |  |  |
| Yes | 41.0*** | 72.1 *** | 61.3 | 63.5 | 55.6 | 57.4* | 45.5*** | 52.1 | 48.6 | 51.2 | 44.4** |
| No | 22.6 | 64.3 | 63.4 | 62.6 | 55.7 | 51.9 | 56.5 | 50.4 | 51.0 | 49.5 | 51.9 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| High School or less | 32.5 | 70.7 | 56.2* | 65.2 | 52.7 | 56.2 | 47.3 | 47.3 | 51.7 | 55.2 | 46.8 |
| Some college or more | 28.0 | 65.6 | 63.3 | 62.1 | 55.4 | 53.1 | 53.2 | 50.7 | 49.8 | 49.3 | 49.7 |

${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education

## TABLES

Table 9. Services and Programs: Comparisons by Sexual Orientation, Gender Identity, and Background Characteristics (Continued)

|  | Service Needs |  |  |  |  |  |  | Power of Attorney for Healthcare | Will |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fitness and exercise | Meals at agency | Care management | Personal care | Adult day care | Nursing home | Physical/ occupational/ speech therapy |  |  |
|  | \% | \% | \% | \% | \% | \% | \% | \% | \% |
| Total | 47.8 | 36.1 | 35.8 | 33.6 | 33.5 | 33.0 | 27.6 | 63.6 | 69.8 |
| Sexual Orientation ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |
| Lesbians | 51.9 | 40.2 | 44.2 | 38.9 | 41.4 | 39.1 | 34.4 | $70.2^{* * *}$ | 72.8*** |
| Bisexual women | 47.5 | 37.3 | 33.9 | 35.6 | 40.7 | 30.5 | 33.9 | 37.3 | 44.1 |
| Gay men | 45.8 | 34.4 | 32.6 | 32.1 | 31.4 | $31.4{ }^{\text {* }}{ }^{\ddagger}$ | 24.3 | 65.5 ** ${ }^{\text {¢ }}$ | 72.2* |
| Bisexual men | 45.6 | 30.9 | 22.1 | 25.0 | 22.1 | 14.7 | 22.1 | 46.3 | 61.2 |
| Gender identity ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |
| Transgender | 45.4 | 32.2 | 31.6 | $24.7{ }^{\text {* }}$ | 19.0*** | 27.0 | 24.1 | 36.5** ${ }^{\text {¹ }}$ | 49.4*** |
| Non-transgender | 47.9 | 36.5 | 36.1 | 34.3 | 34.6 | 33.5 | 27.9 | 65.5 | 71.3 |
| Gender |  |  |  |  |  |  |  |  |  |
| Women | 50.8* | 39.5** | 41.7*** | 37.3** | $38.8{ }^{\text {*** }}$ | 37.5*** | 33.8 *** | 63.8 | 68.6 |
| Men | 46.0 | 34.0 | 32.3 | 31.5 | 30.4 | 30.3 | 24.0 | 63.7 | 70.7 |
| Age |  |  |  |  |  |  |  |  |  |
| 50-64 (ref) | 50.6 | 38.2 | 42.2 | 36.9 | 36.5 | 35.4 | 30.7 | 54.2 | 61.0 |
| 65-79 | 46.5 | 35.2 | 32.5*** | 31.3** | 32.0* | 32.8 | 26.0* | 69.5*** | 74.8*** |
| 80 and older | 41.2** | 30.6* | 22.8*** | 29.8* | 27.1** | 23.1*** | 21.2** | 78.8*** | 86.4*** |
| Race and Ethnicity |  |  |  |  |  |  |  |  |  |
| White (ref) | 46.9 | 35.4 | 35.4 | 33.1 | 32.9 | 33.3 | 27.2 | 65.4 | 72.2 |
| Hispanic | 52.7 | 35.7 | 38.4 | 34.8 | 31.3 | 29.5 | 27.7 | 53.7* | 52.7 *** |
| African American | 61.8** | 50.6** | 42.7 | 31.5 | 46.1* | 30.3 | 31.5 | 48.8** | 54.0*** |
| Native American | 60.4 | 58.3** | 39.6 | 52.1** | 45.8 | 37.5 | 39.6 | 48.9* | 46.8*** |
| Asian/Pacific Islander | 53.7 | 26.8 | 34.2 | 29.3 | 31.7 | 41.5 | 24.4 | 58.5 | 70.7 |
| Below 200\% poverty level |  |  |  |  |  |  |  |  |  |
| Yes | 49.3 | 39.9* | 33.0* | 32.3 | 30.8* | 30.8* | 30.0 | 48.8*** | 51.5*** |
| No | 48.0 | 35.0 | 37.9 | 34.3 | 35.3 | 35.0 | 26.7 | 70.1 | 77.5 |
| Education |  |  |  |  |  |  |  |  |  |
| High School or less | 48.8 | 35.8 | 27.9* | 33.8 | 29.9 | 26.4* | 34.8* | 46.6*** | 50.0*** |
| Some college or more | 48.0 | 36.2 | 36.7 | 33.8 | 34.0 | 33.8 | 27.1 | 65.1 | 71.6 |
| $\text { * } p<.05 ; * * p<.01 ; \text { *** } p<.001$ <br> ${ }^{\text {a }}$ Adjusted logistic regressions were conducted <br> ${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education |  |  |  |  |  |  |  |  |  |

## TABLES

Table 10.1. HN Disease:
Socio-Demographic
and Background Characteristics

|  | $\begin{gathered} \hline \text { HIV Disease } \\ \% \end{gathered}$ |
| :---: | :---: |
| Sexual Orientation ${ }^{\text {a }}$ |  |
| Lesbians | 0.0 |
| Bisexual women | 0.1 |
| Gay men | 14.4 |
| Bisexual men | 20.9 |
| Gender identity ${ }^{\text {a }}$ |  |
| Transgender | $3.5{ }^{* *}$ |
| Non-transgender | 9.5 |
| Gender |  |
| Women | $0.6{ }^{* * *}$ |
| Men | 14.2 |
| Age |  |
| 50-64 (ref) | 11.9 |
| 65-79 | 8.3** |
| 80 and older | $1.2{ }^{* * *}$ |
| Race and Ethnicity |  |
| White (ref) | 8.0 |
| Hispanic | 24.1 *** |
| African American | 19.1 *** |
| Native American | 8.7 |
| Asian/Pacific Islander | 7.5 |
| Below 200\% poverty level |  |
| Yes | 13.5*** |
| No | 7.5 |
| Education |  |
| High School or less | 13.6* |
| Some college or more | 8.8 |

$\ddagger$ Adjusted logistic regressions were conducted
Indicates that a $p$ value remains $<.05$ after controlling for age, income, and education

## TABLES

Table 10.2. HIV Disease: Comparisons of Health Indicators of those with and without HIV Disease

|  | HIV Disease |  |
| :--- | :--- | :---: |
|  | HIV-Negative |  |
| Healthcare Access | $12.5^{* *}$ | $\%$ |
| Financial barriers to medication | $95.7^{\ddagger}$ | 6.7 |
| Healthcare provider | $35.4^{* * \star \ddagger}$ | 22.4 |
| Emergency room use | $19.2^{* *}$ | 12.0 |
| Inferior health care |  |  |
|  |  |  |
| Health behaviors | $75.0^{* \star \ddagger}$ | 82.6 |
| Moderate activities | $86.7^{*}$ | 91.6 |
| Wellness activities | $55.9^{* * * \ddagger}$ | 23.1 |
| HIV risk behavior |  |  |
| Current smoking | $13.6^{*}$ | 8.7 |
| Excessive drinking | 11.6 | 10.1 |
| Non-prescribed drug use | $24.6^{* * * \ddagger}$ | 10.5 |
|  |  |  |
| Services and caregiving |  |  |
| Currently use services | $37.3^{* * \ddagger}$ | 27.7 |
| Caregiver | 23.8 | 27.7 |
| Care receiver | 20.1 | 16.1 |


|  | HIV Disease | HIV-Negative |
| :---: | :---: | :---: |
|  | \% | \% |
| Physical and Mental Health |  |  |
| Physical health, mean(SD) | 66.4 (22.2)* | 70.14 (22.3) |
| Poor general health | 35.1*** ${ }^{\text {¹ }}$ | 21.4 |
| Disability | 53.5* | 46.1 |
| Cancer | $23.61{ }^{\ddagger}$ | 18.61 |
| Hepatitis | 25.3 ***キ | 9.93 |
| CVD | $17.6^{\text {* }}$ | 12.02 |
| General mental health, mean(SD) | 64.5 (21.7)*** ${ }^{\text {* }}$ | 71.4 (20.3) |
| Depression | 39.8** | 29.6 |
| Anxiety | $34.8{ }^{* * * \pm}$ | 22.4 |
| Suicidal ideation | 48.7** | 37.6 |
| Resilience and Risk |  |  |
| Community belonging | 91.0 | 89.0 |
| Social support, mean(SD) | $2.8(0.8)^{* * * \pm}$ | 2.8 (0.8) |
| Religious or spiritual activities | 33.3 | 33.3 |
| Partnered or married | 33.9 ** | 45.5 |
| Children | 10.9*** ${ }^{\text {¹ }}$ | 25.8 |
| Living alone | 64.7** | 54.0 |
| Death of same-sex partner or spouse | 48.3*** ${ }^{\text {¢ }}$ | 24.9 |
| Victimization at least once | $90.8{ }^{\text {*** }}$ | 81.1 |
| Physical abuse by partner, family, friend | $6.1{ }^{* * \pm}$ | 2.4 |
| Verbal abuse by partner, family, friend | 7.9 | 6.5 |
| Loneliness, mean (SD) | $2.0(0.7)^{* * * \pm}$ | 1.7 (0.7) |
| ${ }^{*} p<.05 \text {; ** } p<.01 ; \text { *** } p<.001$ <br> ${ }^{\ddagger}$ Indicates that a $p$ value remains $<.05$ after | rolling for age, in | ome, and educatio |

## TABLES



${ }^{*} p<.05 ;$ ** $p<.01$; ${ }^{* * *} p<.001$
${ }^{\ddagger}$ Indicates that a $p$ value remains
${ }^{\ddagger}$ Indicates that a $p$ value remains $<05$ after controlling for age, income, and education

## TABLES


"How to solve the problems of aging? Do not go gently into that good night."

74-year-old lesbian
"My primary concern is the lack of services for LGBT elders. Many gays and lesbians do not have family or spouses as a support. Many, even at a young age, are on their own.
It is imperative that the LGBT community and government work toward organizing services that provide members of the LGBT community, especially elder members, with such services."

53-year-old lesbian

Recommended Citation: Fredriksen-Goldsen, K. I., Kim, H.-J., Emlet, C. A., Muraco, A., Erosheva, E. A., Hoy-Ellis, C. P., Goldsen, J., Petry, H. (2011). The Aging and Health Report: Disparities and Resilience among Lesbian, Gay, Bisexual, and Transgender Older Adults. Seattle: Institute for Multigenerational Health.
© Institute for Multigenerational Health, 2011, University of Washington, Seattle, WA

This research is funded in part by the National Institutes of Health (NIH) and the National Institute on Aging (NIA), R01 AG026526, Fredriksen-Goldsen, PI.

## Caring and Aging with Pride

$410115^{\text {th }}$ Avenue NE $\cdot$ Seattle, WA 98105•1-800-558-8703•AgePride@uw.edu•CaringAndAging.org

