

Aging, Health, and Religious Attendance among Mexican Americans

A Research Report

by Samuel Stroope



This research report was funded by a Louisville Institute Project Grant for Researchers.

This report relied on data from the Hispanic Established Population for the Epidemiological Study of the Elderly (Hispanic EPESE). The Hispanic EPESE was administered by researchers from the University of Texas Medical Branch-Galveston, the University of Texas-Austin, and the University of Texas-San Antonio. Hispanic EPESE data are available. The Hispanic EPESE was funded by the United States Department of Health and Human Services, National Institutes of Health, and National Institute on Aging. Hispanic EPESE fieldwork was conducted by Louis Harris and Associates, Inc.

Aging, Health, and Religious Attendance among Mexican Americans
A Research Report
by Samuel Stroope

About the Author — Samuel Stroope is Associate Professor in the Department of Sociology at Louisiana State University.

Image credit: Creative Commons, CC BY-NC-ND

© 2023

All rights reserved.

Additional copies of this report and further information about its contents are available from the author (https://www.lsu.edu/hss/sociology/people/faculty/profiles/stroope_samuel.php).

Executive Summary

Many people believe older adults are more religious than younger people. But this belief overlooks certain basic facts. Populations of older Hispanic adults are growing faster than almost every other group of older adults in the United States. Mexican Americans are the largest subgroup among Hispanic Americans. For older Mexican Americans, churchgoing increases at age 66, but then declines from the mid-70s onward. Two aspects of health are most strongly related to this decline in churchgoing: (1) problems with instrumental activities (e.g., traveling alone, cooking alone, etc.); and (2) a history of smoking. Other health factors, including mobility performance (e.g., walking speed), depressive symptoms, and cognitive impairment (e.g., memory problems) also contribute. This study establishes these findings with community health data from 1993 to 2013 on over 2,000 older Mexican American adults in the southwestern U.S. Practical implications drawn from the findings include the following. Religious leaders and individuals can make churchgoing more accessible, help people preserve their functional abilities, discourage smoking, and create inclusive environments in religious communities. These efforts can help the well-being of older churchgoers and the vitality of religious communities.

Introduction

One of the most pervasive beliefs about older adults is that they are more religious than younger people. Older adulthood is thought to be a time of returning to one's core beliefs, often looking to an afterlife rather than the minutia of day-to-day life. There is some truth to these assumptions about older adulthood. While there is truth to the assumption that religiosity increases with age, researchers specializing in older adulthood find a more complex picture. According to research, older adults in the United States are the most religious age group in terms of attending services, devotional activities (e.g., private prayer), financial giving, volunteering, and having a sense of belonging in religious congregations.¹ But grouping together all older adults glosses over important trends. Studies find that after a substantial increase in churchgoing from ages 65 to 66, older adults maintain a high level of attendance up to their mid-70s, and then attendance tends to decline from the mid-70s onward.^{2,3} This decline in churchgoing is likely caused by several factors related to the declining health status of older adults. While important, this fails to recognize the health details that explain this decline in participation. Researchers voice the need for identifying the most important factors in older adults' declining churchgoing.^{2,3}

Understanding religious behavior in old age has practical significance beyond building scientific knowledge. It also has practical significance. Identifying how health conditions lead to declines in church attendance can help religious leaders and physicians better serve older churchgoers dealing with health issues. Understanding these declines can also lead to the development of supports that can help people maintain their churchgoing as they age.⁴ This is important because participation in religious congregations can benefit older adults themselves and their religious communities. Research shows that congregational participation can lead to older adults living longer and healthier lives.⁵⁻¹⁰ Helping

older adults extend their years of church participation is beneficial for congregations because attendance declines in old age correspond with reduced financial and volunteering contributions to congregations.¹¹

Why Older Mexican American Adults?

Most research on the link between aging and churchgoing among older adults focuses on samples largely made up of non-Hispanic white and black participants. As a result, the conclusions drawn from that research is mostly applicable to white and black populations. This limitation in previous research makes it hard to develop more general applications that are valid for other groups such as Hispanic Americans. Hispanic Americans currently have one of the highest population increases as a proportion of older adults. According to U.S. government projections, by 2030, the number of older Hispanic Americans will exceed that of older black Americans.¹² Mexican Americans are a significant demographic as they make up the biggest share of Hispanic Americans. Researchers find that older Mexican American populations benefit from faith communities as a source of emotional and practical assistance, and living a longer and healthier life.^{8,13} Therefore, more study of older Mexican Americans is needed to better understand the relationship between declines in health and religious attendance in this population.

Research Methods in Brief

The data for this study come from the Hispanic Established Population for the Epidemiological Study of the Elderly (Hispanic EPESE).¹ The Hispanic EPESE was a comprehensive survey representative of older Mexican Americans in five southwestern states (Arizona, California, Colorado, New Mexico, and Texas). There were 3,050 participants in the survey when it began in 1993. The participants were 65 years of age or older and lived in the community. The Hispanic EPESE conducted face-to-face interviews every two years. The analysis for this report used Hispanic EPESE data spanning a 20-year period (1993 to 2013) at eight time points. Previous research observes that older Americans' religious attendance declines after reaching age 76.³ The current report aims to understand how different aspects of health lead to this decline in churchgoing. To analyze this process, the current report started with individuals between the ages of 65-76 around 1993, before the trend of decreasing religious attendance, and then followed these individuals up to 2013 as they aged.

At each of the eight time points between 1993 and 2013, the Hispanic EPESE survey collected information about various aspects of participants' lives and health. Some information was collected through questions and others were measured directly such as the participant's weight or their walking speed. Researchers refer to each of these aspects of a person's life as a "variable."

Variables have different values for different people. Variables can also change over time for the same person. For example, a person weighs 165 pounds in 1993, but then weighs 172 pounds in 1999. Researchers use variables to understand the connection between different aspects of people's lives. In the current report, one of these variables was frequency of religious service

attendance. Participants were asked how often they go to mass or services and could give a range of responses:

1. never (or almost never)
2. several times a year
3. once or twice a month
4. almost every week
5. more than once a week

For the 3,050 participants at the beginning of the survey, 20% answered that they never (or almost never) attend services, 19% that they attend several times a year, 12% attend once or twice a month, 40% almost every week, and 10% more than once a week.

This study investigated how declines in religious attendance could be linked to a variety of aspects of health. Aspects of health were included that spanned areas of physical functioning, cognitive functioning, mental health, illness diagnoses, injury, weight, and smoking behavior. The specific variables used were the following:

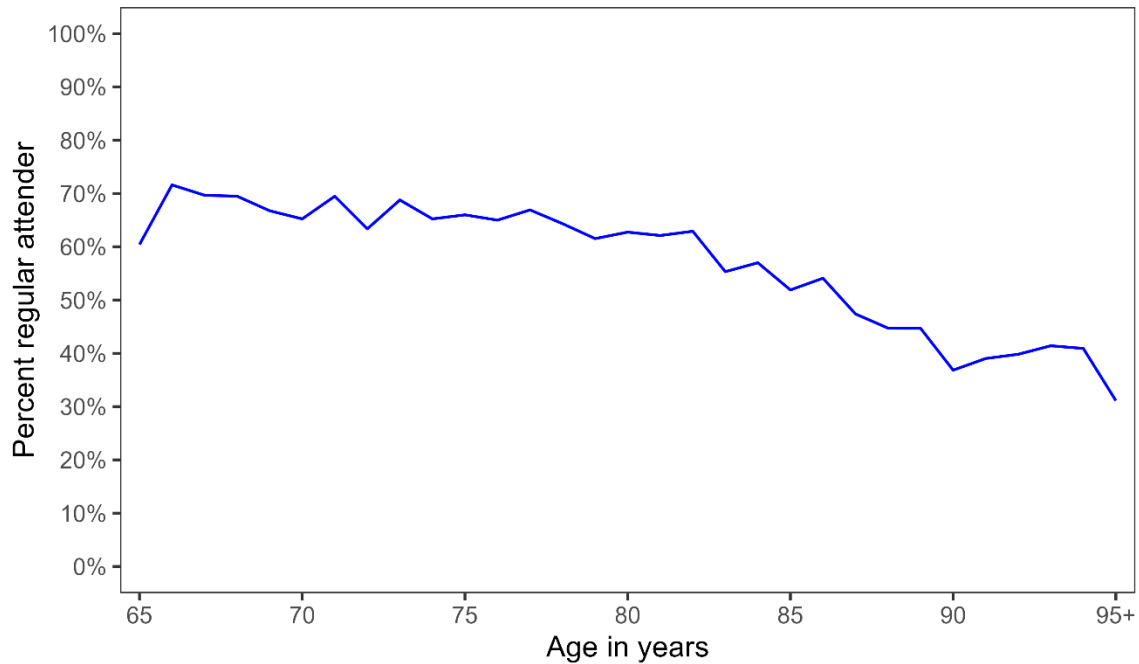
- basic functional limitations (e.g., eating, bathing, dressing, etc.)
- instrumental functional limitations (e.g., cooking, shopping, using stairs, etc.)
- mobility performance (e.g., standing, walking, balancing)
- cognitive impairment (memory, understanding, thinking, and communication)
- depressive symptoms
- physical illness diagnoses (e.g., arthritis, cancer, heart attack, etc.)
- urinary incontinence
- hip or bone fracture
- hearing impairment
- vision impairment
- body mass index (BMI)
- smoking history
- self-rated health

Research Findings

Simple Descriptive Results

Before combining the above aspects of health and church attendance into a single analysis, we look at relationships between pairs of variables. In the following graphs, regular church attendance is defined as attending once a month or more. Figure 1 shows the percent of study participants who regularly attend church within each age group. As can be seen, about 60% of 65-year-olds attend church regularly. Regular attendance then jumps to 72% among 66-year-olds. The level of regular churchgoing remains relatively steady with a gradual softening. Next, it returns close to that of the level of 65-year-olds (62% for 79 year-olds). A more rapid and sustained drop in regular attendance sets in at age 83 until reaching the lowest levels of regular attendance for those aged 95 years old or greater, 31% of whom attend church regularly.

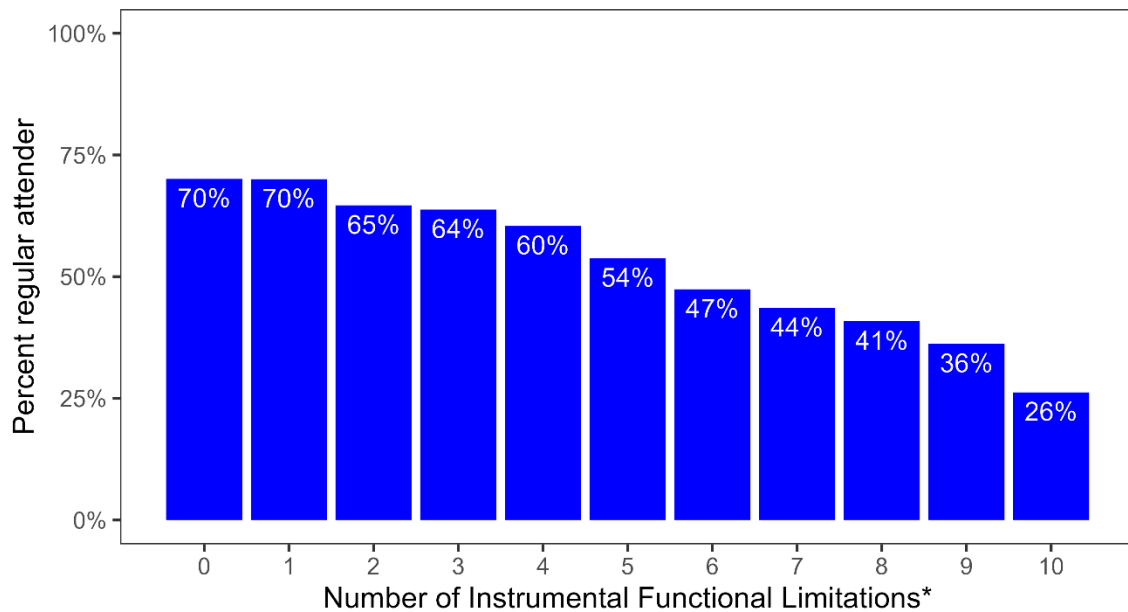
Figure 1. Age and Church Attendance



Hispanic EPESE, 1993-2013

Figure 2 shows the relationship between study participants' number of instrumental functional limitations and the percentage of participants who regularly attend church. As with age, there is a clear relationship between instrumental functional limitations and regular church attendance. About 70% of those with no or one limitation attend church regularly. This number drops to 26% among participants with eight limitations.

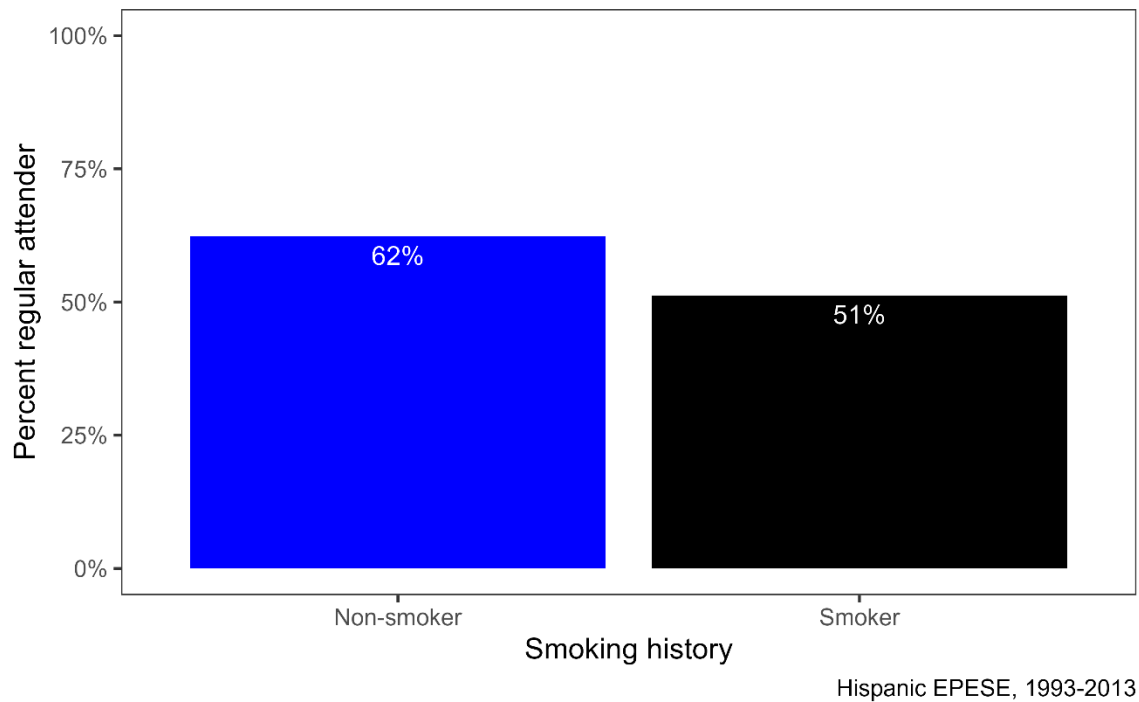
Figure 2. Functional Limitations and Church Attendance



*e.g., shopping, walking half a mile, traveling alone, cooking, taking medicine, phone use, housework, handling finances, using stairs, and heavy work around the house
Hispanic EPESE, 1993-2013

Figure 3 shows how the percentage of participants with a history of smoking is related to the percentage of participants who regularly attend church. Participants were grouped into smokers and non-smokers based on whether they had smoked 100 cigarettes in their life. As with both previous graphs, there is clear relationship between being a smoker and regular church attendance. About 62% of non-smokers in the study attended church regularly. The percentage of regular attenders declines by more than 10% among smokers to a level of 51%, a substantial decrease.

Figure 3. Smoking History and Church Attendance



A Brief Description of Multiple Regression

Figures 1 through 3 show simple relationships between two variables. The main results of this study move beyond this simple analysis to examine the relationships between multiple variables. This study aims to understand the effects of different aspects of health on church attendance. A statistical modeling technique called multiple regression is used. Imagine a slightly different study. A researcher wants to know which demographic characteristics are related to how much people go to church. These demographic characteristics could include age, gender, and region of the country. Multiple regression can help reveal how different things like where people live, their age, and their gender work together to lead people to attend church more or less. By doing this, researchers can find out which things tend to be the most important for people going to church.

But problems can arise when making these contrasts. A single aspect can sometimes substitute for another. For instance, someone claims Southerners in the U.S. attend church more than Westerners. But is it because people who live in rural areas tend to attend church more and a larger proportion of Southerners reside in small towns? Multiple regression can help identify whether a single characteristic is substituting for another, such as if the Southern region is being used as a stand-in for living in a small town. In this case, the South's statistical association with churchgoing would disappear, revealing it as a substitute for living in a small town.ⁱⁱ This example just uses three variables. To really solve such puzzles, it is important to examine how multiple demographic variables are related to churchgoing, such as age, gender, region, income, education, marital status, and so on. The multiple regression technique is how researchers do this and it is why the word multiple is in the term—the effectsⁱⁱⁱ of multiple variables are examined at the same time to see which ones matter. It also reveals which variables looked like they mattered at first but it turns out are just standing in for another variable that really matters. The multiple regression technique will be used for the final results in this report.¹ to understand how changes in aspects of health relate to changes in churchgoing. This technique allowed the researcher to determine whether each health variable remained a predictor of churchgoing, even when accounting for all the other variables in the study.

Multiple Regression Results

It is important to note the variables included in the analysis before reporting the results of the multiple regression. A variety of demographic variables were included in the analysis in addition to the health variables mentioned in the 'Research Methods in Brief' section. Survey participants were asked questions about their demographic and personal characteristics: age at the start of the survey, gender, marital status, years of schooling completed, whether they were born in the U.S., whether they would like the interview done in Spanish or English, how many living children they have, the number of residents in their household, and the extent of financial strain they recently experienced. They were also asked about their religious affiliation. Their responses were grouped into

¹ The current study used more complex multiple regression techniques, specifically, "mixed effects" "random effects" regression for longitudinal data.¹⁷

three categories: Catholic (87%), Protestant (10%), or other/no religious affiliation (3%).

The following are the results^{iv} from the multiple regression analysis. The effect strength of health variables are ranked from greatest to least:

1. instrumental functional limitations (e.g., traveling alone)
2. smoking
3. mobility performance (e.g., walking speed)
4. depressive symptoms
5. cognitive impairment (e.g., memory loss)
6. basic functional limitations (e.g., dressing oneself)
7. vision impairment
8. physical illness diagnoses (e.g., arthritis)

The study found that these health variables had stronger effect, especially when compared to other variables. The negative effects for instrumental functional limitations and smoking which were almost as strong as the positive effect of identifying as female, the largest effect in the analysis. After the strong effects for instrumental functional limitations and smoking, other health variables' effects listed from stronger to weaker were: mobility performance (e.g., walking speed), depressive symptoms, cognitive impairment, basic functional limitations, and physical illness diagnoses.

The variable for instrumental functional limitations is a sum of several individual types of limitations. In an additional analysis the effects of these individual limitations were examined separately. These results showed that among these separate limitations, the effect strength from greatest to least was as follows:

1. shopping
2. walking half a mile
3. traveling alone
4. cooking
5. taking medicine
6. using the phone

However, there was no clear connection between churchgoing and the remaining indicators of instrumental functional limitations: doing housework, handling finances, using stairs, and doing heavy work around the house. Overall, results from this further analysis suggest that declines in religious attendance are most strongly predicted by limitations in the less physically demanding instrumental activities.

Implications for Religious Leaders and Individuals

This study presents religious leaders with possibilities for promoting churchgoing among older adults. These results also apply to individuals starting efforts in their congregations, their communities, and making changes in their own lifestyles. The study results showed that declines in instrumental functional abilities had the strongest impact on decreased religious attendance. In analyzing the specific limitations that comprised these declines, transportation (e.g., traveling alone, walking, shopping) was a theme among the limitations with the greatest impact. Religious leaders can address transport challenges to enable

church attendance in older adults.¹⁸ Solutions such as a shuttle ministry or help with ridesharing can make attendance more accessible. Additionally, installing ramps, elevators, and other building modifications could increase accessibility for congregants. While online worship services can be a cheap and easy solution for leaders, religious leaders should be aware that new research suggests that online services do not provide the same benefits as in-person worship in terms of well-being.¹⁹

In addition to helping overcome challenges to churchgoing impeded by instrumental functional limitations, it is also worth considering approaches that can counteract or postpone instrumental functional limitations. Research conducted among older adults has revealed that walking speed, along with other movements like turning, sitting down, and standing, were the most influential short-term predictor of instrumental functional limitations.²⁰ Maintaining regular physical activity (e.g., aerobic exercises and muscle strengthening) and avoiding a sedentary lifestyle play a critical role in preserving physical mobility.²¹ Furthermore, cognitive impairment significantly contributes to the decline in instrumental functional abilities.²² Implementing preventive measures to reduce the risk of cognitive impairment could involve installing home carbon monoxide detectors and taking steps to prevent brain injury, such as eating a healthy diet and keeping a healthy weight. These aspects of a healthy life help prevent stroke, an important cause of brain injury. There are also a range of behaviors that lower the likelihood of cognitive impairment: exercise, eating healthfully, not smoking, getting sufficient sleep, coping with stress, and spending time in positive face-to-face interaction with people.²³ Some religious leaders already promote many of these behaviors and collaborate with other organizations around exercise, diet, smoking, stress management, and combatting social isolation.²⁴ These existing efforts could be applied more widely and new efforts could be added.

Religious leaders promote older adults' physical activity by supporting local programs and infrastructure for walking and exercising. They can also encourage neighborhood walking groups, exercise programs, and improvements to community spaces.²⁴ This is especially important for Catholic congregations because of their connection to local geographic areas. These efforts can involve assessing the walkability of the areas, community clean-up efforts, and working with public health officials to improve sidewalks and parks.²⁵ Congregations can also create their own exercise groups for members and the community. While congregation clean-up days are commonplace, they could be more frequent, inclusive for people with different abilities, and include the surrounding neighborhoods.

This study found that smoking played a substantial role in the decline in churchgoing. One reason for this could be that smoking affects cognitive function in older adults.²⁶ Although we measured cognitive impairment, there may be other cognitive declines caused by smoking that this study was not able to measure. These other unmeasured aspects of cognitive decline could be caused by smoking and lead to reduced religious attendance. While measuring cognitive impairment is important, the current study lacks measures for other aspects of cognitive function. However, the fact that smoking history had a significant direct

relationship with attendance is noteworthy. The direct relationship between smoking and church attendance suggests that religious leaders have good reason to discourage smoking. In addition to the moral obligation to protect life, churches also benefit when people don't smoke because people are then more likely to continue participating in the congregation as they age. Since smoking often starts during the teenage years, religious leaders may find it effective to include a strong focus on young people in their smoking prevention efforts.

Congregations can also aim to create an inclusive environment for all attendees. They can accommodate people with physical disabilities and provide support for those facing mental health challenges and cognitive impairment. Church leaders can regularly emphasize the importance of welcoming individuals with different abilities through announcements, teachings, and even physical modifications to their facilities. Additionally, church leaders can seek input from people with impairments or their caregivers. They can use surveys, comment boxes, or discussion groups similar to feedback gathering methods used during congregations' fundraising campaigns. This feedback can improve understanding of the needs and challenges faced by older churchgoers and help create a supportive environment for older members' continued participation in the congregation.

Conclusion

This study examined the relationship between health status and churchgoing among older Mexican American adults. The results revealed that declines in instrumental functional abilities, such as shopping and transportation, played the strongest role in decreased churchgoing. Another important factor was having a history of smoking. Other health aspects that also contributed to the decline in churchgoing included impaired mobility performance (e.g., walking), depressive symptoms, and cognitive impairment. Religious leaders can address obstacles to church attendance through transportation assistance and building accessibility. They can also promote preventive measures for instrumental functional limitations and other health declines. Discouraging smoking and promoting physical activity are especially important. Furthermore, religious leaders can help create inclusive environments that accommodate individuals with different abilities. These efforts hold out the promise of extended well-being for older adults and greater vitality in religious congregations.

References

1. Krause NM. *Aging in the Church: How Social Relationships Affect Health*. Templeton Press; 2008.
2. Bengtson VL, Silverstein M, Putney NM, Harris SC. Does religiousness increase with age? Age changes and generational differences over 35 years. *Journal for the Scientific Study of Religion*. 2015;54(2):363-379.
3. Hayward RD, Krause N. Patterns of change in religious service attendance across the life course: Evidence from a 34-year longitudinal study. *Social Science Research*. 2013;42(6):1480-1489.
4. Werber L, Mendel PJ, Derose KP. Social Entrepreneurship in Religious Congregations' Efforts to Address Health Needs. *Am J Health Promot*. 2014;28(4):231-238.
5. Chen Y, Kim ES, VanderWeele TJ. Religious-service attendance and subsequent health and well-being throughout adulthood: evidence from three prospective cohorts. *International journal of epidemiology*. 2020;49(6):2030-2040.
6. Croezen S, Avendano M, Burdorf A, van Lenthe FJ. Social Participation and Depression in Old Age: A Fixed-Effects Analysis in 10 European Countries. *Am J Epidemiol*. 2015;182(2):168-176.
7. Manning LK, Miles A. Examining the effects of religious attendance on resilience for older adults. *Journal of religion and health*. 2018;57(1):191-208.
8. Hill TD, Angel JL, Ellison CG, Angel RJ. Religious Attendance and Mortality: An 8-Year Follow-Up of Older Mexican Americans. *Journals of Gerontology Series B: Psychological Sciences & Social Sciences*. 2005;60(2):S102-S109.
9. Hummer RA, Rogers RG, Nam CB, Ellison CG. Religious involvement and U.S. adult mortality. *Demography*. 1999;36(2):273-285.
10. Ofstedal MB, Chiu CT, Jagger C, Saito Y, Zimmer Z. Religion, Life Expectancy, and Disability-Free Life Expectancy Among Older Women and Men in the United States. *The Journals of Gerontology: Series B*. 2019;74(8):e107-e118.
11. Wiepking P, James RN. Why are the oldest old less generous? Explanations for the unexpected age-related drop in charitable giving. *Ageing & Society*. 2013;33(3):486-510.
12. Pollard K, Scommegna P. The health and life expectancy of older Blacks and Hispanics in the United States. *Population Reference Bureau*. 2013;28(28):8.
13. Hill TD, Bradley CS, Dowd-Arrow B, Burdette AM. Religious Attendance and the Social Support Trajectories of Older Mexican Americans. *J Cross Cult Gerontol*. 2019;34(4):403-416.
14. Huntley J, Ostfeld AM, Taylor JO, et al. Established populations for epidemiologic studies of the elderly: Study design and methodology. *Aging Clin Exp Res*. 1993;5(1):27-37.
15. National Institute on Aging. *Established Populations for Epidemiologic Studies of the Elderly: Resource Data Book*. National Institute on Aging; 1986.
16. Putnam RD, Campbell DE. *American Grace: How Religion Divides and Unites Us*. Simon & Schuster; 2010.
17. Allison PD. *Fixed Effects Regression Models*. SAGE Publications; 2009.
18. Trinitapoli J. Religious teachings and influences on the ABCs of HIV prevention in Malawi. *Social Science & Medicine*. 2009;69(2):199-209.

19. Upenieks L, Hill TD, Acevedo G, Koenig HG. “Electronic Church” 2.0: Are Virtual and In-Person Attendance Associated with Mental and Physical Health During the COVID-19 Pandemic? *Sociology of Religion*. Published online February 17, 2023:srac043.
20. Masugi Y, Kawai H, Ejiri M, et al. Early strong predictors of decline in instrumental activities of daily living in community-dwelling older Japanese people. *PLOS ONE*. 2022;17(4):e0266614.
21. Centers for Disease Control and Prevention. Increasing Physical Activity among Adults with Disabilities. Centers for Disease Control and Prevention.
22. Johnson JK, Lui LY, Yaffe K. Executive Function, More Than Global Cognition, Predicts Functional Decline and Mortality in Elderly Women. *The Journals of Gerontology: Series A*. 2007;62(10):1134-1141.
23. Dickinson WJ, Potter GG, Hybels CF, McQuoid DR, Steffens DC. Change in Stress and Social Support as Predictors of Cognitive Decline in Older Adults with and without Depression. *Int J Geriatr Psychiatry*. 2011;26(12):1267-1274.
24. Arredondo EM, Elder JP, Haughton J, et al. Fe en Acción: Promoting Physical Activity Among Churchgoing Latinas. *Am J Public Health*. 2017;107(7):1109-1115.
25. Ickes MJ, Sharma M. A Systematic Review of Physical Activity Interventions in Hispanic Adults. *Journal of Environmental and Public Health*. 2012;2012:e156435.
26. Engelhardt H, Buber I, Skirbekk V, Prskawetz A. Social involvement, behavioural risks and cognitive functioning among older people. *Ageing & Society*. 2010;30(5):779-809.

ⁱ Funded by the United States Department of Health and Human Services, National Institutes of Health, National Institute on Aging, the Hispanic EPESE was administered by researchers from the University of Texas Medical Branch-Galveston, the University of Texas-Austin, and the University of Texas-San Antonio.

ⁱⁱ These examples are adapted from Putnam and Campbell.¹⁶

ⁱⁱⁱ We use the term 'effects' because of its use in social science methods and for readability. We do not use this term to assert definitive proof of causation.

^{iv} This section focuses on statistically significant results.