Addictive Behaviors 38 (2013) 1894–1897

Contents lists available at SciVerse ScienceDirect

Addictive Behaviors

Short Communication

Risky drinking in the older population: A comparison of Florida to the rest of the US

Laura A. McClure [a,*], Cristina A. Fernandez [b], Tainya C. Clarke [c], William G. LeBlanc [d], Kristopher L. Arheart [e], Lora E. Fleming [f,d], David J. Lee [d]

[a] Department of Epidemiology & Public Health, Miller School of Medicine, University of Miami, 1120 NW 14th Street, CRB 15th Floor C202, Miami, FL 33136, USA
[b] Department of Epidemiology & Public Health, Miller School of Medicine, University of Miami, 1120 NW 14th Street, CRB Room 1074, Miami, FL 33136, USA
[c] Department of Epidemiology & Public Health, Miller School of Medicine, University of Miami, 1120 NW 14th Street, CRB Room 1074-1, Miami, FL 33136, USA
[d] Department of Epidemiology & Public Health, Miller School of Medicine, University of Miami, 1120 NW 14th Street, CRB Room 911, Miami, FL 33136, USA
[e] Department of Epidemiology & Public Health, Miller School of Medicine, University of Miami, 1120 NW 14th Street, CRB Room 1067, Miami, FL 33136, USA
[f] European Centre for Environment and Human Health (ECEHH), University of Exeter Medical School, Truro, Cornwall, TR1 3HD, UK

HIGHLIGHTS

- Excess alcohol consumption is an important modifiable cancer risk factor.
- Older Floridians report greater risky drinking than the rest of the US.
- This population is in need of increased screening and intervention programs.
- State-level evaluations using NHIS data are valuable but currently limited.

ARTICLE INFO

Keywords:
Risky drinking
Cancer
Older population
National Health Interview Survey

ABSTRACT

Introduction: While alcohol use has traditionally been thought to decrease with age, several recent studies have shown an increase in heavy drinking among retirees. Florida's unique population distribution that includes a higher proportion of elderly residents warrants an in-depth look at the drinking patterns in the elderly and how they may differ from those in other areas of the country. However, state-level comparisons of excessive alcohol consumption are limited.

Methods: We compared risky drinking (defined as ten or more drinks/week in men and seven or more drinks/week in women; or five or more drinks at one sitting, one or more times/year for both men and women) in Florida to the rest of the US. We used pooled data from the 1997–2010 National Health Interview Survey (NHIS).

Results: The prevalence of risky drinking for those aged ≥65 in Florida and the rest of the US was 24.1%, and 21.8%, respectively, compared to 31.9% and 37.4% for all ages in Florida and the rest of the US, respectively. In multivariable analyses of those aged ≥65 years, risky drinking was significantly associated with male gender, younger age, non-Hispanic White race/ethnicity, more than a high school education, unemployment (including retirement), lower BMI, and current or former smoking. Floridians aged ≥65 were significantly more likely to report risky drinking than their counterparts in the rest of the US (Odds ratio = 1.13; 95% CI: 1.04–1.21), in contrast to analyses of all ages where Floridians were less likely to report risky drinking compared to the rest of the US (0.77; 0.67–0.86).

Discussion: Excessive alcohol consumption is an important modifiable risk factor for cancer, cardiovascular disease, and liver disease; a reduction among the elderly has great potential to reduce disease burden. Although Floridians overall were less likely to be risky drinkers than the rest of the US, almost a third of the Florida population reported this behavior. It is, therefore, an important public health concern, particularly in Florida's older population who are more likely to engage in this behavior than their counterparts in the rest of the US.

1. Introduction

Traditionally alcohol use was thought to decrease with age; however, several studies have shown an increase in heavy drinking among retirees (Ekerdt, De Labry, Glynn, & Davis, 1989; Ferreira & Weems, 2008; Kuerbis & Sacco, 2012; Zins et al., 2011). The reasons for this are not

* Corresponding author at: University of Miami Miller School of Medicine, Department of Epidemiology and Public Health, 1120 NW 14th Street, 15th Floor, C202, Miami, FL 33136, USA. Tel.: +1 518 584 8391; fax: +1 305 243 5544.
E-mail addresses: lmcclure@med.miami.edu (L.A. McClure), cfernandez5@med.miami.edu (C.A. Fernandez), tclarke2@med.miami.edu (T.C. Clarke), thedatadoctor@gmail.com (W.G. LeBlanc), karheart@biostat.med.miami.edu (K.L. Arheart), lora.fleming@pcmd.ac.uk, lfleming@med.miami.edu (L.E. Fleming), dlee@med.miami.edu (D.J. Lee).

0306-4603/$ – see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.addbeh.2012.12.020

exactly clear; however, it may be due in part to the "healthy retiree effect" (Lovegreen, Kahana, & Kahana, 2010; Walters, 2002; Walters & Wilder, 2003; Wilmoth, 2010). Many older Americans move to Florida from other parts of the country seeking a more favorable climate and better living conditions (Wilmoth, 2010), and those who are healthy enough to make this life change in their older years may also be healthy enough to have a lifestyle that affords the opportunity to drink excessively. An alternative school of thought suggests that move-associated stress in older adults may lead to an increase in depressive symptomatology and a related increase in excessive drinking (Bradley & Van Willigen, 2010). Because Florida has an unusually high proportion of elderly residents, it deserves an in-depth look at the drinking patterns in this group and how they may differ from those in other areas of the country. State-level comparisons of excessive alcohol consumption, however, are limited. Using data from the National Health Interview Survey (NHIS), we report the prevalence of risky drinking in Floridians and compare those rates to the rest of the United States (US).

2. Material and methods

Data were obtained from the 1997–2010 NHIS, an annual, cross-sectional household survey of the US civilian non-institutionalized population (n = 242,451). Risky drinking was defined as ten or more drinks/week in men and seven or more drinks/week in women; or five or more drinks at one sitting, one or more times/year for both men and women (Breslow & Smothers, 2004). This variable was derived from the following NHIS questions: "In your entire lifetime, have you had a least twelve drinks of any type of alcoholic beverage?"; "In any one year, have you had at least twelve drinks of any type of alcoholic beverage?"; "In the past year, on those days that you drank alcoholic beverages, on the average, how many drinks did you have?"; and "In the past year, on how many days did you have five or more drinks of any alcoholic beverage?". We first examined the prevalence of this behavior among the general population, and then restricted analyses to those ≥65 years.

NHIS data were pooled and the analyses were conducted using Statistical Analysis System (SAS) version 9.2 (SAS Institute, Inc., Cary, NC), with adjustments for sample weights and design effects. Records from each survey year were weighted according to person-level weights provided in annual NHIS data files. Weights were adjusted according to the number of representative years used in the analyses. Prevalence rates were calculated, and multivariable logistic regression analyses were performed with risky drinker (yes vs. no) as the outcome of interest. NHIS data from Florida were compared to NHIS data from the rest of the US. All analyses were conducted at the Research Data Center (RDC) of the National Center for Health Statistics (NCHS) to ensure confidentiality. The study was approved by the University of Miami Institutional Review Board.

3. Results

Overall, Floridians aged ≥65 years reported a significantly higher prevalence of risky drinking than the rest of the US (24.1% vs. 21.8%) (Table 1), in contrast to all adult Floridians, who reported a significantly lower prevalence of risky drinking than persons in the rest of the US (31.9% vs. 37.4%, data not shown). In terms of sociodemographic subgroups, the prevalence of risky drinking among Floridians aged ≥65 years was significantly higher than in the rest of the US for females (22.3% vs. 18.1%), those aged 75–79 years (25.2% vs. 20.9%), Whites (24.4% vs. 22.0%), non-Hispanics (25.2% vs. 21.8%), those with a high school education (24.4% vs. 20.4%) or more than a high school education (25.8% vs. 22.8%), the insured (24.1% vs. 21.8%), the unemployed (including retirees) (24.0% vs. 21.9%), blue-collar workers (40.0% vs. 24.1%) and those born in the US (26.1% vs. 22.6%). Two exceptions to this higher trend were Floridians aged ≥65 years of Hispanic ethnicity (14.8% vs. 20.5%) and those born outside the US (16.3% vs. 22.0%), who reported a significantly lower prevalence of risky drinking than the rest of the US.

Table 1
Prevalence of risky drinking[a] in Florida (FL) and the rest of the United States (US) by demographic factors (pooled data from the 1997–2010 National Health Interview Survey).

Socio demographics	FL	Rest of US	US
	% (95% CI)	% (95% CI)	% (95% CI)
Total	24.1 (22.3–25.9)	21.8 (21.2–22.4)[b]	22.0 (21.4–22.6)
Gender			
Male	25.8 (23.7–28.0)	25.1 (24.3–26.0)	25.2 (24.4–26.0)
Female	22.3 (19.7–25.1)	18.1 (17.3–19.0)[b]	18.5 (17.7–19.4)
Age (years)			
65–69 years	26.9 (22.9–31.3)	24.1 (23.2–25.1)	24.3 (23.4–25.3)
70–74 years	23.4 (20.9–26.0)	22.3 (21.1–23.6)	22.4 (21.3–23.6)
75–79 years	25.2 (21.3–29.6)	20.9 (19.6–22.2)[b]	21.3 (20.1–22.5)
80–84 years	20.1 (15.9–25.1)	18.8 (17.2–20.4)	18.9 (17.4–20.5)
85+ years	19.5 (14.1–26.4)	16.2 (14.4–18.1)	16.5 (14.–18.4)
Race			
White	24.4 (22.6–26.2)	22.0 (21.4–22.6)[b]	22.2 (21.6–22.8)
Black	17.9 (12.8–24.4)	19.4 (17.3–21.8)	19.3 (17.3–21.5)
Other	23.5 (9.1–48.7)[c]	18.6 (15.4–22.2)	18.7 (15.6–22.3)
Ethnicity			
Non-Hispanic	25.2 (23.4–27.2)	21.8 (21.2–22.5)[b]	22.1 (21.5–22.7)
Hispanic	14.8 (11.0–19.8)	20.5 (18.1–23.0)[b]	19.3 (17.2–21.5)
Education			
More than high school	25.8 (23.7–28.1)	22.8 (21.9–23.7)[b]	23.1 (22.3–24.0)
High school	24.4 (21.1-28.1)	20.4 (19.4-21.5)[b]	20.8 (19.8-21.8)
Less than high school	17.9 (14.6–21.7)	21.4 (20.2–22.7)	21.1 (19.9–22.4)
Health insurance			
Insured	24.1 (22.3–25.9)	21.8 (21.1–22.4)[b]	22.0 (21.4–22.6)
Uninsured	23.8 (10.1–46.6)[c]	26.1 (18.9–34.8)	25.8 (19.2–33.8)
Employment			
Employed	24.2 (19.8–29.3)	21.2 (19.8–22.7)	21.4 (20.1–22.8)
Not employed	24.0 (22.3–25.9)	21.9 (21.2–22.6)[b]	22.1 (21.5–22.7)
White-collar	22.2 (18.3–26.6)	20.8 (19.1–22.6)	20.9 (19.3–22.6)
Service	16.3 (9.9–25.8)	19.0 (15.6–22.8)	18.7 (15.6–22.3)
Farm	–[d]	24.3 (16.7–33.9)	24.9 (17.3–34.4)
Blue-collar	40.0 (27.4–54.0)	24.1 (20.8–27.7)[b]	25.1 (21.9–28.7)
Birth place			
US born	26.1 (23.2–29.2)	22.6 (21.7–23.6)[b]	22.9 (22.0–23.8)
Foreign born	16.3 (12.1–21.6)	22.0 (19.3–24.8)[b]	20.9 (18.6–23.5)

[a] Defined as 10 or more drinks per week in men, and 7 or more drinks per week in women, or 5 or more drinks at one sitting, 1 or more times in a year.
[b] Significantly different from Florida at $p<0.05$.
[c] Prevalence estimate considered statistically unreliable with a relative standard error of more than 30% or sample size of less than 50.
[d] Estimate not presented due to sample size <5.

In adjusted analyses of those aged ≥65 years, risky drinking was significantly associated with male gender, younger age, non-Hispanic White race/ethnicity, more than a high school education, unemployment (including retirement), lower BMI, and current or former smoking (Table 2). Floridians aged ≥65 were significantly more likely to report risky drinking than their counterparts in the rest of the US (Odds Ratio = 1.13; 95% Confidence Interval (1.04–1.21)). Overall, however, Floridians were significantly less likely to report risky drinking compared to the rest of the US (0.77; 0.67–0.86). In adjusted analyses for all adults, the predictors of risky drinking remained largely the same, with the exception that unemployment was not significant in these models. In addition, those of all ages who were compliant with physical activity recommendations and those lacking health insurance were more likely to be risky drinkers.

4. Discussion

This study highlights greater risky drinking among Florida's older population compared to the older population in the rest of the US. However, we note that the general Floridian population reported a lower prevalence of risky drinking compared to the rest of the US. The predictors of risky drinking were largely the same in the overall and age-restricted analyses, with the exception of unemployment status, indicating that retirement may be an important predictor of

Table 2
Odds of risky drinking[a], Florida vs. rest of US, pooled data from the 1997–2010 National Health Interview Survey.

Covariates	Overall		≥65 years old	
	OR	95% CI	OR	95% CI
Sociodemographics				
Gender				
Male	1.00	–	1.00	–
Female	0.41	(0.40–0.42)	0.73	(0.68–0.79)
Age (years)	0.97	(0.97–0.97)	0.98	(0.97–0.98)
Race/Ethnicity				
NH White	1.00	–	1.00	–
NH Black	0.54	(0.52–0.57)	0.79	(0.68–0.91)
Hispanic	0.83	(0.79–0.86)	0.81	(0.69–0.94)
Other	0.55	(0.51–0.59)	0.71	(0.53–0.94)
Education				
>HS	1.00	–	1.00	–
=HS	0.97	(0.94–0.99)	0.87	(0.81–0.94)
<HS	1.00	(0.96–1.17)	0.89	(0.81–0.97)
Health insurance status				
Insured	1.00	–	1.00	–
Uninsured	1.13	(1.09–1.17)	1.36	(0.90–2.06)
Employment status				
Employed	1.00	–	1.00	–
Unemployed	0.97	(0.94–1.00)	1.19	(1.08–1.31)
Risk factors				
Body mass index	0.99	(0.99–1.00)	0.97	(0.96–0.98)
Smoking status				
Nonsmoker	1.00	–	1.00	–
Former	1.71	(1.66–1.77)	1.82	(1.68–1.98)
Current	2.48	(2.41–2.55)	2.90	(2.62–3.21)
Compliant with physical activity guidelines				
Yes	1.00	–	1.00	–
No	0.80	(0.78–0.82)	0.94	(0.87–1.02)
Regional comparison				
Rest of US	1.00	–	1.00	–
Florida	0.77	(0.67–0.86)	1.13	(1.04 –1.21)

[a] Defined as 10 or more drinks per week in men, and 7 or more drinks per week in women, or 5 or more drinks at one sitting, 1 or more times in a year.

unhealthy drinking patterns, as found previously (Lovegreen, et al., 2010; Walters, 2002; Walters & Wilder, 2003; Wilmoth, 2010).

Risky drinking in the elderly is of particular concern because they are already at greater risk for a range of chronic conditions due to their age. Alcohol consumption has been identified as one of the top ten risks for worldwide disease burden by the World Health Organization (Ezzati, Rodgers, & Lopez, 2004) and most notably increases the risks of cancer, cardiovascular disease, and liver disease, with dose–response relationships established among all of these conditions (Rehm et al., 2010). Causal associations have been identified between alcohol and the risk of cancers of the head and neck (oral cavity, pharynx, larynx, and esophagus), colorectum, pancreas, liver, and breast (Baan et al., 2007; Pelucchi, Tramacere, Boffetta, Negri, & La Vecchia, 2011), and alcohol consumption is highly related with cardiovascular outcomes such as hypertensive disease, hemorrhagic stroke, and atrial fibrillation (Parry, Patra, & Rehm, 2011). Strong associations have also been demonstrated with liver disease, most commonly fatty liver, alcoholic hepatitis, and cirrhosis (Parry, et al., 2011). In addition to these well-known chronic disease risks, risky drinking in the aging population is also associated with other serious concerns, such as medication interactions, injuries, depression, and suicide (Breslow & Smothers, 2004; Ferreira & Weems, 2008).

The older population stands to benefit tremendously from prevention and cessation efforts aimed at decreasing alcohol intake. These benefits will be even more pronounced when taking into account the rapid growth of the population aged ≥65 years. This is particularly true in Florida, where persons aged ≥65 years represent a larger proportion of the population than in the rest of the US (U.S. Census Bureau, 2010). Because education and information alone have not been shown to affect lasting change in drinking behavior (Anderson, Chisholm, & Fuhr, 2009), a more effective strategy may be to deliver interventions via the health care sector, perhaps through Medicare. These efforts may include increased availability of free or low-cost alcohol cessation programs, increased accessibility to transportation for those seeking treatment, and improved counseling and screening by health care providers. In fact, the combination of screening adults for problem drinking and providing brief counseling has been shown to be one of the most valuable and effective preventive services available, although it is underutilized (Coffield et al., 2001; Fleming et al., 2002). This approach may be particularly successful for Florida's older population, who is likely to have regular contact with their health care providers.

This study has a few limitations. First, because the NHIS is a cross-sectional survey, it does not allow us to establish causal relationships. The NHIS also relies on self-reported data, which may introduce recall bias. Additionally, only two of the four questions used to assess alcohol consumption assessed lifetime use, while the other two assessed consumption in the last year. This may limit our ability to assess participants' general consumption over the course of more than one year.

Despite these limitations, the NHIS provides large sample sizes that are representative of the US population. These representative samples are unavailable in other data sources and allow for comparisons between geographic regions. Alcohol consumption data are also collected at the state level by the Behavioral Risk Factor Surveillance System (BRFSS) (Centers for Disease Control & Prevention); however, because the NHIS is household-administered, rather than telephone-administered, it yields greater response rates, generates more detailed information, and removes the bias of telephone non-coverage (Nelson, Powell-Griner, Town, & Kovar, 2003). Regional and state-level analyses, such as the ones presented here, have many applications and can be used to determine whether or not differences in prevalence rates are a function of sociodemographic characteristics. These kinds of results are useful to stakeholders advocating for policy changes to favorably impact public health in their particular state.

5. Conclusions

In conclusion, the results of this study indicate that Florida's older population demonstrates greater risky drinking behavior than their counterparts in the rest of the US. Alcohol prevention and cessation efforts have great potential to decrease this risk and are needed in this at-risk and growing elderly population.

Role of funding sources

Funding for this study was provided by the Bankhead Coley Cancer Research Program Grant #1BG06-341963; the National Cancer Institute at the National Institutes of Health-Fellowship (1F31CA153937-01); the National Institute of Occupational Safety and Health (NIOSH; R01 OH03915); and the EU Convergence funding for the European Centre for Environment and Human Health (University of Exeter). The organizations providing financial support had no involvement in the research or preparation of this short communication.

Contributors

Ms. McClure and Drs. Lee, Leblanc, and Arheart had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. Ms. McClure, Ms. Fernandez, Ms. Clarke, Dr. Fleming, and Dr. Lee were responsible for the study concept and design. Drs. LeBlanc and Arheart conducted the statistical analyses. Ms. McClure, Ms. Fernandez, Ms. Clarke, and Drs. LeBlanc, Arheart, Fleming, and Lee contributed to the interpretation of the results and the drafting of the manuscript. All authors contributed to and have approved the final manuscript.

Conflict of interest

All authors declare that there are no conflicts of interest.

References

Anderson, P., Chisholm, D., & Fuhr, D. C. (2009). Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *Lancet*, *373*(9682), 2234–2246. http://dx.doi.org/10.1016/S0140-6736(09)60744-3 (S0140-6736(09)60744-3 [pii]).

Baan, R., Straif, K., Grosse, Y., Secretan, B., El Ghissassi, F., Bouvard, V., et al. (2007). Carcinogenicity of alcoholic beverages. *The Lancet Oncology*, *8*(4), 292–293.

Bradley, D. E., & Van Willigen, M. (2010). Migration and psychological well-being among older adults: A growth curve analysis based on panel data from the Health and Retirement Study, 1996–2006. *Journal of Aging and Health*, *22*(7), 882–913. http://dx.doi.org/10.1177/0898264310368430 (0898264310368430 [pii]).

Breslow, R. A., & Smothers, B. (2004). Drinking patterns of older Americans: National Health Interview Surveys, 1997–2001. *Journal of Studies on Alcohol*, *65*(2), 232–240.

Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System, http://www.cdc.gov/brfss/. Accessed 1/22/2012.

Coffield, A. B., Maciosek, M. V., McGinnis, J. M., Harris, J. R., Caldwell, M. B., Teutsch, S. M., et al. (2001). Priorities among recommended clinical preventive services. *American Journal of Preventive Medicine*, *21*(1), 1–9 (S0749379701003087 [pii]).

Ekerdt, D. J., De Labry, L. O., Glynn, R. J., & Davis, R. W. (1989). Change in drinking behaviors with retirement: findings from the normative aging study. *Journal of Studies on Alcohol*, *50*(4), 347–353.

Ezzati, M., Rodgers, A., & Lopez, A. (2004). Mortality and burden of disease attributable to individual risk factors. In M. Ezzati, A. Lopez, A. Rodgers, & C. Murray (Eds.), *Comparative quantification of health risks. Global and regional burden of disease attributable to selected major risk factors*, *Volume 2*. (pp. 2141–2166)Geneva: World Health Organization.

Ferreira, M. P., & Weems, M. K. (2008). Alcohol consumption by aging adults in the United States: Health benefits and detriments. *Journal of the American Dietetic Association*, *108*(10), 1668–1676. http://dx.doi.org/10.1016/j.jada.2008.07.011 (S0002-8223(08)01408-9 [pii]).

Fleming, M. F., Mundt, M. P., French, M. T., Manwell, L. B., Stauffacher, E. A., & Barry, K. L. (2002). Brief physician advice for problem drinkers: long-term efficacy and benefit-cost analysis. *Alcoholism, Clinical and Experimental Research*, *26*(1), 36–43.

Kuerbis, A., & Sacco, P. (2012). The impact of retirement on the drinking patterns of older adults: A review. *Addictive Behaviors*. http://dx.doi.org/10.1016/j.addbeh.2012.01.022 (S0306-4603(12)00037-8 [pii]).

Lovegreen, L. D., Kahana, E., & Kahana, B. (2010). Residential relocation of amenity migrants to Florida: "unpacking" post-amenity moves. *Journal of Aging and Health*, *22*(7), 1001–1028. http://dx.doi.org/10.1177/0898264310374507 (0898264310374507 [pii]).

Nelson, D. E., Powell-Griner, E., Town, M., & Kovar, M. G. (2003). A comparison of national estimates from the National Health Interview Survey and the Behavioral Risk Factor Surveillance System. *American Journal of Public Health*, *93*(8), 1335–1341.

Parry, C. D., Patra, J., & Rehm, J. (2011). Alcohol consumption and non-communicable diseases: Epidemiology and policy implications. *Addiction*, *106*(10), 1718–1724. http://dx.doi.org/10.1111/j.1360-0443.2011.03605.x.

Pelucchi, C., Tramacere, I., Boffetta, P., Negri, E., & La Vecchia, C. (2011). Alcohol consumption and cancer risk. *Nutrition and Cancer*, *63*(7), 983–990. http://dx.doi.org/10.1080/01635581.2011.596642 [doi].

Rehm, J., Baliunas, D., Borges, G. L., Graham, K., Irving, H., Kehoe, T., et al. (2010). The relation between different dimensions of alcohol consumption and burden of disease: An overview. *Addiction*, *105*(5), 817–843 (ADD2899 [pii] 1111/j.1360–0443.2010.02899.x [doi]).

U.S. Census Bureau (2010). 2006–2010 American Community Survey: Population 65 years and over in the United States. from http://factfinder2.census.gov/ (Accessed 4/5/2012).

Walters, W. H. (2002). Place characteristics and later-life migration. *Research on Aging*, *24*(2), 243–277.

Walters, W. H., & Wilder, E. I. (2003). Disciplinary perspectives on later-life migration in the core journals of social gerontology. *Gerontologist*, *43*(5), 758–760.

Wilmoth, J. M. (2010). Health trajectories among older movers. *Journal of Aging and Health*, *22*(7), 862–881. http://dx.doi.org/10.1177/0898264310375985 (0898264310375985 [pii]).

Zins, M., Gueguen, A., Kivimaki, M., Singh-Manoux, A., Leclerc, A., Vahtera, J., et al. (2011). Effect of retirement on alcohol consumption: Longitudinal evidence from the French Gazel cohort study. *PLoS One*, *6*(10), e26531. http://dx.doi.org/10.1371/journal.pone.0026531 (PONE-D-11-10534 [pii]).