

The Effect of Statutory Retirement on Healthy Aging

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Why this topic?

- Observational
 - Illness/death immediately post retirement
 - Boredom
 - Continuous work to advanced age
 - New lease on life
 - *Encore careers*
 - *Volunteerism*
 - *Travel*
 - *Indulging hobbies*



RETIRED

(ri-'ti(e)rd) *adj.* 1: keeping busy spending the children's inheritance 2: no



no deadlines, no



... same old



3: earns **52** weeks of

52

vacation every year 4: twice as much free



and half as much



5: chief

executive in charge of **DIDDLY SQUAT**





Definitions: Statutory retirement

Statutory retirement

- Individuals are expected or required to exit from the labor force.
- Usually tied to the age at which persons are entitled to receive superannuation or other government benefits.
- Varies among countries
 - In USA it is 66 years
 - In UK it is 65 years for men and 62 years and 4 months for women.
 - In Norway it is 67 years.
- Global financial crisis has forced some countries to propose increasing retirement age.
- 1. Wikipedia, the free encyclopedia



Definitions: Mandatory retirement

- Also known as enforced retirement
- Certain occupations are considered too dangerous (military personnel) or require high levels of physical and mental skill (air traffic controllers, airline pilots)
 - Federal Aviation Agency air traffic controllers: age 56 years
 - Airline pilots : increased to 65 years from 60 in 2007 by President Bush
 - Federal fire fighters: increased from 55 years to 57 in 2001 by President Bush
- 1. Wikipedia , the free encyclopedia



Definitions: Early retirement

- Retirement before the statutory age
- In USA usually means prior to age 65, the age at which Medicare benefits are accessible
- Voluntary
- Involuntary
 - Worker's disability or poor health
 - Economic: down sizing, recession
- 1. Wikipedia, the free encyclopedia



Retirement and Mental health

- Stress reliever or stress inducer
- Depends on pre-retirement planning
- Type of employment
 - White collar
 - Blue collar
- Type of retirement
 - Voluntary
 - Involuntary
- Several studies were done, mainly in Europe on the effect of retirement on mental health. I will discuss some of these.





British Psychiatric Morbidity Survey 2000

- Aim: To establish whether work status, age or other known risk factors account for the reduced prevalence of depressive episodes and anxiety disorders around retirement age for men and women.
- Method:
 - The British Psychiatric Morbidity Survey 2000 was analyzed, including 1875 men and 2253 women aged 45-75 years.
 - Diagnoses were from the Revised Clinical Interview Schedule.
 - Logistic models were adjusted for sociodemographic factors, social network, work status, life events, physical illness and disability.

2. Elena Villamil, Felicia A. Huppert and David Melzer. Low Prevalence of depression and anxiety is linked to statutory retirement ages rather than personal work exit: a national survey. *Psychological Medicine*, 2006, 36, 999-1009.




British Psychiatric Morbidity Survey 2000

- Results:
 - Women older than 60 years
 - 60% decreased prevalence of depression (95% CI 40-80)
 - 40% decreased prevalence of anxiety (95% CI 20-60)
 - Men older than 65 years
 - 90% decreased prevalence of depression (95% CI 70-100)
 - 80% decreased prevalence of anxiety (95% CI 60-90)
 - Work status was a significant factor for men but not for women.



British Psychiatric Morbidity Survey 2000

- Conclusion:
 - Marked decreased prevalence in depressive and anxiety episodes coinciding with statutory retirement ages in both men and women.
 - In women the decreased rate of depressive disorders continued with aging.



"You are never too
old to set another
goal or to dream a
new dream..."

- C. S. Lewis





Finnish Public Sector Cohort Study

- Aim: To examine potential influences of retirement on objectively assessed mental health.
- Method:
 - Participants Finnish public sector employees.
 - *7138 retired at statutory retirement age*
 - *1238 retired early due to mental health issues*
 - *2643 retired early due to physical health issues*
 - Information on purchase of antidepressant medication
 - *4 years before and 4 years after retirement year*
 - *Based on national pharmacy records in 1994-2005.*



Finnish Public Sector Cohort Study

Results: Antidepressant use

- Depended on reason for retiring
- Participants retiring at statutory age
 - *4% used antidepressants 1 year prior to retirement*
 - *23% decline in antidepressant use after the transition to retirement.*
- Participants retiring early due to mental disorders
 - *61% used antidepressants 1 year prior to retirement*
 - *Slight increase (to 65%) in the year of retirement, followed by a steady decrease in antidepressant use.*
- Participants retiring early due to physical causes
 - *14% used antidepressants 1 year prior to retirement*
 - *Very mild increase in use in the retirement year, followed by plateau back to baseline 14% in the ensuing years.*

A decorative graphic of a pine branch with needles, rendered in a light green color, positioned on the left side of the slide.

Finnish Public Sector Cohort Study

Conclusion: The observed trajectories of recorded antidepressant purchases are consistent with the hypothesis that retirement may be beneficial for mental health.





Maastricht Aging Netherlands Study

- Aim:
 - To analyze the relation between retirement and cognitive development.
 - Distinguish between 3 dimensions of cognition
 - *Immediate and delayed verbal memory*
 - *Cognitive flexibility*
 - *Information processing speed*
- Method: Person's cognitive ability and labor market activity were measured at 3 points in time in a longitudinal study
 - *Wave 1 in 1993-1995*
 - *Wave 2 in 1999- 2001*
 - *Wave 3 in 2005-2007*
- This 3 wave assessment allowed measurement of the impact of changes in labor market activity on a person's cognitive abilities.



Maastricht Aging Netherlands study

- Participants were classified into 3 groups of labor market activity
 - Employed
 - Inactive (unemployed or unpaid housework)
 - Retired
- The same participants were tested in each wave.
- Underwent the same set of standard neurological tests
 - Memory, as in immediate recall (Word Learning Task Test)
 - Memory , as in delayed recall
 - Cognitive flexibility (Stroop test)
 - Information Processing speed (Letter Digit Substitution Test)



Maastricht Aging Netherlands Study

Results:

- Immediate and delayed memory – retirement had no effect
- Cognitive Flexibility – a 65 year old worker had the cognition flexibility of a 69.5 year old retired person.
- Information processing speed – a 65 year old retired person had the information processing speed of a 71 year old worker. This only held true for low-skilled workers.



Maastricht Aging Netherlands Study

Conclusion: after controlling for individual fixed effects and lagged cognition

- Retirees face less decline in cognitive flexibility than persons who continued to work and this positive effect persists for at least 6 years.
- The contrasting results of more rapid decline in information processing speed also persists for at least 6 years.
- These findings did not hold for those who became inactive at a younger age because of unemployment or other causes of labor market inactivity.





US Health And retirement Study (HRS)

- Aim: to estimate the effects of full retirement on health status as measured by indicators of physical and mental health.
- Method: Seven longitudinal waves of the Health And Retirement study spanning 1992 to 2005 were analyzed on several health measures, such as
 - Self rated health
 - Objective functional indicators
 - Objective illness indicators
- HRS data allowed for
 - Good comparison with controls
 - Ease of disentanglement of the causal effect of retirement on subsequent health

- 5. Dhaval Dave, Inas Rashad, Jasmina Spasojevic (2008). The effects of retirement on physical and mental health outcomes. Working Paper 2008-1-5. January 2008. W.J. Usery Workplace Research Group Paper Series.



US Health and Retirement Study

Results:

- complete retirement leads to 15 – 16 % increase in difficulties associated with mobility and daily activities
- 5 – 6% increase in illness conditions
- 6 - 9 % decline in mental health
- Adverse health effects were mitigated if
 - *Individual is married*
 - *Has social support*
 - *Engages in physical activity*
 - *Continues to work part-time*
- Adverse health effects are even worse with involuntary retirement.



US Health and Retirement Study

Conclusion:

- These results were cumulative effects realized over a 6 year post retirement period.
- Programs that help older workers forced into retirement find alternative employment opportunities may be health-promoting.



US vs Europe

- European studies cited show an improvement in mental health with retirement whereas US studies show the opposite.
- In Europe many of the countries have socialized medicine and health care is publicly available and almost free of cost.
- In Norway for example retirement pensions are generous compared with labor income before retirement.
- Europeans therefore have more time allocation post retirement and the financial resources to invest in healthy life style changes such as increased physical activity, and pursuing hobbies which will certainly improve their health post retirement.
- 6. Astri Syse, PhD, Marijke Veenstra, PhD et al. Changes in health and health behavior associated with retirement. *Journal of aging and Health*, 1-29, 2015





Encore Careers for Baby Boomers

- Baby boomers : persons born between 1948 and 1965.
- Longer life expectancy, therefore longer period post retirement
- Pension paying younger generation getting smaller.
- Paid employment gives workers a sense of purpose and self-worth that is removed with retirement
- Persons who engage in fewer social activities have a significantly higher incidence of depression
- The social interaction of an encore career may mitigate against depression and dementia.
- Several studies have shown that mortality is higher among those retiring early, although this may be confounded by those retiring early due to ill health.
- Unemployment, retirement and restricted social network are all risk factors for suicide, the 11th leading cause of death in USA.
- Baby boomers should be allowed to pursue encore careers beyond statutory retirement age, although this will have to be assessed on an individual basis.



Working Beyond Traditional Retirement Age

- The global financial crisis and the increased life expectancy has forced some countries to increase the statutory retirement age.
- In USA Social Security and Medicare are facing severe financial difficulties
 - Social security will pay out more benefits than it collects in payroll taxes by 2018
 - These deficits will exhaust the fund by 2042
 - The unfunded liability facing Medicare is six times that of social security, so this fund will run out long before the Social Security fund
- In France, a proposed rise in the retirement age from 60 to 62 met with fierce resistance from trade unions and the public angered by loss of entitlement to the perceived benefits of retiring at 60.

- 8. Will Maimaris, Helen Hogan, Karen Lock. The impact of working beyond traditional retirement ages on mental health: Implications for public health and welfare policy. Public Health Reviews, Vol.32, No2, 532-548
- 5. Dhaval Dave, Inas Rashad, Jasmina Spasojevic(2008). The effects of retirement on physical and mental health outcomes. US Health and Retirement survey.

Make the Rest of Your Life the Best of Your Life





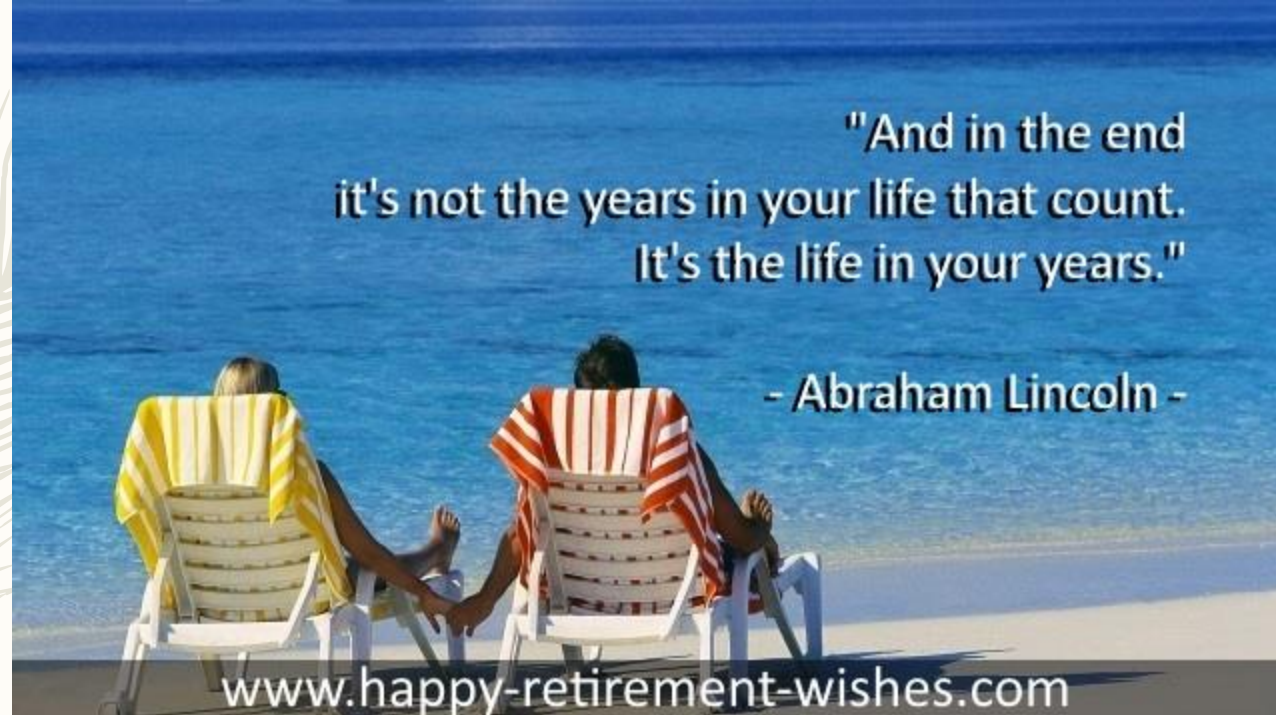
Age Discrimination in Employment Act

- Bill signed into Law by President Lyndon B. Johnson in 1967.
- Forbids employment discrimination against anyone at least 40 years of age in USA.
- Includes a broad ban against age discrimination and also specifically prohibits
 - Discrimination in hiring, promotions, wages, or termination of employment and layoffs due to age
 - Statements or specifications in job notices or advertisements of age preference and limitations
 - Denial of benefits to older employees. An employer may reduce benefits based on age only if the cost of providing the reduced benefits to the older worker is the same as the cost of providing full benefits to younger workers.
 - Since 1986 it has prohibited mandatory retirement in most sectors, with phased elimination of mandatory retirement for tenured workers, such as college professors in 1993.
- 1. Wikipedia, The free encyclopedia.



Policy

- In USA due to financial difficulties facing Social Security and Medicare, policy makers are pressing for higher retirement ages.
- If increasing statutory retirement age leads to better health then there would be less Medicare expenditure and the lifespan of the fund would be extended.
- However, this may lead to employees who are in ill health continuing to work and putting them at high risk of job related injuries and worsening health outcomes.





Possible Future Research

- Are some people more likely to benefit from continued employment beyond the statutory retirement age?
- Is volunteering or paid work more beneficial for mental health in older people?
- Do people who are compelled to work beyond retirement out of financial necessity have the same mental health benefits as people who continue to work beyond retirement age without financial pressure?
- What are the mechanisms by which employment or volunteering may lead to improved mental health?



Conclusion

- The jury is still out on whether statutory retirement is good or bad for healthy aging.
- From the review of the literature retirees
 - who use the increased leisure time to optimize health
 - who maintain good social contacts
 - who continue physical activity
 - who have good health insurance
 - who live in welfare stateshave better health outcomes post statutory retirement.
- The timing of retirement should be flexible, dependent on the person's preretirement health, finances and ability to maintain social contacts.
- It should not be determined solely by chronological age.



References

- 1. Wikipedia, the free encyclopedia.
- 2. Elena Villamil, Felicia Huppert and David Melzer. Low prevalence of depression and anxiety is linked to statutory retirement ages rather than personal work exit: a national survey. *Psychological Medicine*, 2006, 36, 999-1009.
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- 4. Andries de Gup, Arnaud Dupuy et al. Retirement and cognitive development in the Netherlands: Are the retired really inactive?
- 5. Dhaval Dave, Inas Rashad and Jasmina Spasojevic. The effects of retirement on physical and mental health outcomes. Working paper 2008-1-5. W.J. Usery Workplace Research Group Paper Series.
- 6. Astri Syse, Marijke Veenstra et al. Changes in health and health behavior associated with retirement. *Journal of Aging and Health*, 1-29, 2015.
- 7. Anya Topiwala, Shivani Patel and Klaus Ebmeier. Health benefits of encore careers for baby boomers. *Maturitas*, 78, 2014, 8-10.
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Questions ???

