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Fall 2006

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HRS Features

A Brand-New HRS Booth at Upcoming Conferences

The Health and Retirement Study (HRS) will have a new look at the Gerontological Society of America Annual Meeting, November 16-20, 2006, in Dallas, Texas. Please stop by booth 701 and see the new exhibit. For more information about the conference click on: http://agingconference.com/about_the_meeting.cfm/

The American Economic Association (AEA) with approximately 50 other related associations will hold their annual three-day meeting January 5-7, 2007 in Chicago, Illinois. HRS will have the new booth on display, so please stop by. For conference information go to: http://www.vanderbilt.edu/AEA/Annual_Meeting/index.htm

New to Using HRS Data?

Our NEW User Guide: Getting Started with the Health and Retirement Study is available on our Web site.

http://hrsonline.isr.umich.edu/docs/dmgt/IntroUserGuide.pdf

View Publications Using HRS Data

Over 1000 multi-disciplinary publications: books, book chapters, and journal articles.

Link to HRS Online Bibliography

Find HRS Data Variables Using The Online Concordance

Looking for particular data variables for analysis? The HRS Concordance is a searchable database of all waves

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Staff Letter

Dear Colleagues,

The Health and Retirement Study interviewers are currently in the field with our 2006 data collection. We included some research summaries from across disciplines in this edition of our newsletter, as well as examples of HRS citations in the news.

Finally, we are delighted to announce the release of the much anticipated Diabetes Study along with a new process for registering for this data.

We appreciate our researchers and our continual partnership in the study of older people in the United States.

Sincerely,

HRS Staff

Health and Retirement Study Research Summaries

Process of Cumulative Adversity: Childhood Disadvantage and Increased Risk of Heart Attack Across the Life Course

O'Rand and Hamil-Luker Click to view summary in PDF.

Differences in Leisure-time, Household and Work-related Physical Activity by Race, Ethnicity, and Education

of the HRS study.

Link to HRS Concordance

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Our Sponsors

Primary support for the HRS comes from the National Institute on Aging (U01 AG00 9740), with additional support from the Social Security Administration.

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Xiaoxing, et al. Click to view summary in PDF.

The Impact of Obesity on Active Life Expectancy in Older American Men and Women

Reynolds, et al. Click to view summary in PDF.

Do New Health Conditions Support Mortality-Air Pollution Effects?

Evans and Smith Click to view summary in PDF.

HRS Recent Data Products Released

HRS 2004 Post-Exit Final Version 1.0

HRS 2002 Post-Exit Final Version 1.0

Cross-Wave Employment and Pension Data Labor Section Carry-Forward Files 2004

HRS 2004 Core Final Release

2003 Diabetes Study Final Version 1.0

Tracker 2004

The HRS 2000 Post-Exit Final Release

HRS 2002 Core Final Release

HRS RAND Version F Release

HRS in the News

In JAMA, Feb. 15, 2006
Simple system predicts mortality of older Americans with 81 percent accuracy (Press Release)

Information can be gathered in minutes using a 12-question form in a doctor's waiting room. The results are accurate within 4 years for those over 50 years of age 81% of the time. More points indicate a greater risk of dying. The study is a Development and Validation of a Prognostic Index for 4-Year Mortality in Older Adults by Sei J. Lee; Karla Lindquist; Mark R. Segal; Kenneth E. Covinsky used the HRS data from 1998-2002.

In JAMA, May 3, 2006
The English are healthier than Americans

(Press Release)

James Banks, Michael Marmot, Zoe Oldfield, and James Smith have found evidence that although the United States spends more money on health care per capita than the United Kingdom, the English are healthier. They looked at rates of heart disease, myocardial infarction, stroke, diabetes, lung disease and cancer in people aged 55 to 64.

MSNBC April 13, 2006
Facts About Older Americans and Retirement
The percentage of men and women in their early 50s who expected to work past 65...Go to article.

Web site: http://www.msnbc.msn.com

Urban Institute Policy Briefs
Many Older Americans Engage in Caregiving Activities

(Policy Briefs/Perspectives on Productive Aging)

Richard W. Johnson, Simone G. Schaner

This brief examines caregiving activities by adults age 55 and older using data from the 2002 Health and Retirement Study (HRS).

Web site: http://www.urban.org

HRS Diabetes Study Data Release

We are pleased to announce that the Diabetes Study data are available. We have begun a new Sensitive Data Process for data registration with the Diabetes data roll-out that will apply to several more HRS data products to be released soon.

New HRS Sensitive Data Process

The Health and Retirement Study strives to provide high quality data without compromising respondent confidentiality. Since respondent health data contain increasingly sensitive information, data products are released to researchers who qualify for access through a supplemental registration system. The application and download process is described below.

You will need to follow the HRS Sensitive Data Process to access the Diabetes data.

How to Apply

1. Visit the HRS User Registration/File Download Web site. If you do not already have a username and password, you must register in order to enter the site. (Researchers with questions about this process may wish to examine the *Data Use Agreement* prior to registration.)
2. Identify the desired data set(s) under the **HRS Special Access File Request Information** heading.
3. Download and complete the *Data Use Agreement* in hardcopy format.
4. Send a signed copy of the agreement via surface mail to:

Health and Retirement Study
DUA Review Committee
426 Thompson Street, Room 3050 ISR
Ann Arbor, Michigan 48104-2321

Approval Process

HRS will review your request, and based on the information you provide when you are registering at the HRS User Registration/File Download Web site, verify your identity and institutional affiliation. Once this authentication process has been completed to our satisfaction, we will authorize access to the desired data set(s). We will communicate with you at the e-mail address that you provided when you registered at the File Download Web site.

How to Download

1. Once you receive your approval notification, login at the HRS User Registration/File Download Web site.
2. In the HRS Special Access Files box on the right hand side of the page you will now see links to the data set(s) that you have requested.
3. Click on the appropriate link and follow instructions to download the file(s) you need.

Visit our Web site http://hrsonline.isr.umich.edu/

Sociology/Health Research

Process of Cumulative Adversity: Childhood Disadvantage and Increased Risk of Heart Attack Across the Life Course

Childhood adversity may be compounded later in life with persisting socio-economic disadvantages or unsafe health behaviors that increase heart-attack risk. O'Rand and Hamil-Luker used the HRS cohort born from 1931-41 over six waves surveyed from 1992-2002 to create three latent-class clusters with differential exposure to childhood disadvantages. They examined those clusters with subsequent life-event covariates: educational attainment, employment status, income attainment, marital history, and health behaviors. They examined risk for heart attack based on membership in one of three latent clusters 1.) Early Disadvantaged 2.) Fatherless and 3.) Early Advantaged, defined by the predominance of circumstances from a list of variables. Each cluster had differential exposure to each of these variables with the predominant variables from the list in the cluster identified in Table 1. This study is unique in the use of the latent-class cluster analysis that allows for a more specific definition of the variables in childhood that define membership in different risk groups. It also helps in overcoming measurement issues associated with respondent recall.

Cluster One	**Cluster Two**	**Cluster Three**
Early Disadvantaged	**Fatherless**	**Early Advantaged**
Predominant Variables	**Predominant Variables**	**Predominant Variable**
Low-educated mothers	Never lived with father	Father worked as laborer
Father unemployed/disabled	Father unemployed/disabled	
Poor family of origin		
Father worked as laborer		
Family moved because of finances		

Table 1. Three Latent-Class Clusters with the predominant defining variables

Risk of Heart Attack

O'Rand and Hamil-Luker also identified three different heart-attack risk trajectories predicted by the clusters and other demographic, employment, income, and health behavior variables. They describe three heart attack risk trajectories: high, increasing, and low. The high-risk trajectory group members (8% of the total sample) came primarily from the early-disadvantaged cluster, and were characterized by poor childhood health, unemployment, divorce, lack of exercise, and being overweight. Those subjects within the increasing risk trajectory (6% of the total sample) were older, white, male, and lacked a high school diploma as well as employer-provided health insurance; also those with increasing heart attack risk were more likely to have stressful jobs, low income, and a history of smoking (Table 2.)

High Risk Heart Attack Trajectory	**Increasing Risk Heart Attack Trajectory**	**Low Risk Heart Attack Trajectory**
8% of Total Sample[1]	**6% of Total Sample**	**86% of Total Sample**
Early Disadvantaged Cluster	Older, white, male	
Poor childhood health	No high school diploma	
Male	Unemployed since 1992	
Unemployed since 1992	Low household income	
No Exercise	Ever smoked	
Overweight	No employer-provided insurance	
	Stressful job	

Table 2. Three Heart-Attack Risk Trajectories

Adult Life Paths Alter Childhood Effects on Heart Attack Risk

O'Rand and Hamil-Luker's results suggest that educational experiences in the early disadvantaged cluster only amplified the effects of early disadvantage on being selected into the most serious heart-attack risk trajectory, but that more education had a significant effect in reducing the risks of the fatherless and advantaged clusters for the high and

[1] Sample size 9,760

increasing heart-attack risk trajectories. Poor childhood health predicted a consistently, high-risk heart-attack trajectory, but education and adult life variables can diminish the risk up to 50%. The fatherless-cluster was not significantly associated with any heart attack risk trajectory when all covariates were considered.

O'Rand and Hamil-Luker examined the likelihood of being in the high-risk trajectory or the low-risk trajectory by modeling. Education and adult-life circumstances lowered the chance of being in the high-risk heart attack trajectory in both the early disadvantaged cluster and those with poor childhood health, although less so for those with poor childhood health.

These researchers illustrated how advantages or disadvantages over the life course affected the high-risk trajectory of heart attack for the early disadvantaged, the fatherless, and those with poor childhood health. Model (a) added demographics and early environmental circumstances, Model (b) added years of schooling and no high school diploma, and Model (c) added stresses of adult life. The researchers used models to explore in precise detail the cumulative effects of life events on the risk of heart attack; using the latent-class clustered model allowed close enumeration to the contribution of individual variables to heart attack risk.

O'Rand, A. M. and Hamil-Luker, J., Journals of Gerontology; Series B, Vol. 60 B, (Spec. Iss. II), 2005.

Diabetes Data Are Released by HRS

This new product is from a mail survey done in 2005, sent to the participants in the HRS who had self-reported a diagnosis of diabetes by a physician in a previous wave. These data can be linked to all waves of HRS data for thorough analysis of costs of care, disability, health and demographics.

Upcoming HRS Data Products

Tracker 2004 — This updated file on all HRS participants provides core longitudinal data and weights.

Aging, Demographics, and Memory and Study (ADAMS)

Internet 2003 — This will be data from a mail survey conducted on the HRS participants in 2003.

Health/ Labor Research

Differences in Leisure-time, Household, and Work-related Physical Activity by Race, Ethnicity, and Education

The importance of physical activity for cardiorespiratory health has been discussed in the literature for years. Leisure-time physical activity has been stressed as the important activity for better health. Researchers, He, et al., investigated the amount of work-related physical activity (including housework) and total physical activity (including leisure-time) of various populations due to the evidence that an increase in leisure-time physical activity tends to be related to ethnicity and race.

They used the 51-61 year olds in the HRS sample from 1992 to examine all three measures of activity as the dependent variables along with the independent variables of race, ethnicity, socioeconomic measures, and health indicators.

Leisure-time physical activity (LTPA)

Most men participated in light LTPA at least once a week, over half reported light LTPA three or more times a week. Only about a quarter reported vigorous LTPA at least once a week. Women reported light LTPA at least once a week also, but they were more likely to say they never participated in vigorous LTPA. Black and Hispanic males were more likely to report no LTPA. Black and Hispanic females had lower LTPA than whites. Spanish-speaking Hispanics were far more likely to report no LTPA.

Educational attainment showed a very strong relationship to light and vigorous LTPA for both men and women. Using multivariate analyses the differences in LTPA across the racial and ethnic groups were explained by the differences in health status and education.

Work-related physical activity (WRPA)

Most men reported doing WRPA less than once a month a home (or never), but about one third reported WRPA at work. Most women reported doing WRPA at home at least several times per month, and conversely less at work. Some woman, about a quarter, reported doing WRPA at work. Women with 0-8 years of school were the least likely to have WRPA due to their higher rate of unemployment. Women with 9-11 years of school were the most likely to do strenuous WRPA at work compared to the other groups.

Black and Hispanic males were more likely to report strenuous WRPA all of the time. White males reported the lowest amount. Using a multivariate analysis the adjusted mean WRPA scores were higher among those with the least education.

Total Physical Activity (TPA)

Although the settings and amounts of LTPA and WRPA differed in men and women the scores for TPA were very similar. The amount of TPA across race and ethnic groups also were very similar. Analysis of education showed the mean scores of TPA were similar across educational categories.

In a multivariate analysis, lower educational attainment was strongly associated to women with a lower mean score for LTPA, but a higher adjusted mean score for WRPA. TPA was higher among the group of women with 9-11 years of education.

Education and health status were the strongest factors in determining LTPA and WRPA. More education and better health status were associated with more LTPA. The less the education and the worse the health status were associated with more WRPA. "Education appears to be a more important predictor of the type of physical activities someone performs that the total amount of physical activity performed."

Previous findings of the benefits of exercise have shown the amount of LTPA to be a predictor of heart disease and overall health. WRPA has not been shown to lead to better health. "Public health efforts to promote greater physical activity may need to overcome individuals' perceptions that the activities they do at their job and around the house are adequate to maintain their health."

Xiaoxing X. He, MD, MPH, David W. Baker, MD, MPH, Journal of General Internal Medicine, Vol.20, 2005.

The Aging, Demographics, and Memory Study

The Study

This new national study will provide data from a single standardized diagnostic protocol on many aspects of dementia including: antecedents, prevalence, outcomes, costs of care, caregiver time and burden, and cognitive impairment, not demented (CIND).

The Sample

The 856 individuals, 70 years of age or older, from all over the country are a subsample from the ongoing participants in HRS. They received extensive clincial and neuropsychological assessments in their homes by a team of professionals. These were used to determine if a person had dementia, and if so what type.

Links to HRS Data

The ADAMS data come directly from participants in the HRS who are surveyed every two years. The available longitudinal data that can be linked to ADAMS include: demographics, health, health care utilitzation, informal care, economic resources and family involvement.

Check our Web site for its release: http://hrsonline.isr.umich.edu

Health Research

The Impact of Obesity on Active Life Expectancy in Older American Men and Women

The public health concern with obesity in the United States has been well documented for over 20 years. The literature on the relationship of obesity to mortality is beginning to suggest that it varies by age. Therefore, Reynolds, et al., chose to analyze the effects of obesity on mortality and disability in adults at 70 years and older. They used the first three waves of data from the Asset and Health Dynamics Among the Oldest Old (AHEAD) study.

An active life was defined by having no difficulty performing any functions necessary for the activities of daily living (ADLs). Disability was defined as having difficulty with one or more ADLs; regardless of function level, anyone residing in a nursing home was counted as disabled. Obesity was defined as a body mass index (BMI) of 30 or more.

People with disabilities both improve and decline so these researchers chose a multi-state life-table method to estimate total and active life expectancy. This also allowed a differentiation in mortality profile by disability state. Three states of conditions were defined, two as living: active and disabled; and one as deceased. The transitions of the sample were followed into different conditions and examined by obesity and non-obesity. There was no significant difference in the likelihood of death for the obese or non-obese in men or women, but a significant risk of becoming disabled.

These findings support others and inform policy. "Public health policy for older adults should be concerned with the prospect of growing numbers of longer-lived disabled obese adults" (Arterburn et al., 2004).

Reynolds, S., Saito, Y. and Crimmins, E., The Gerontologist, Vol. 45, 2005.

Economics/Environmental Health Research

Do New Health Conditions Support Mortality – Air Pollution Effects?

Epidemiological research documents a link between air pollution exposure and increased risk of premature death. Recent research identifies a potential biological mechanism, related to heart and lung functioning, consistent with the observed epidemiological evidence. Evans and Smith examined this pathway using merged data from the HRS Wave 3 (1996) and from EPA's Aerometric Information Reporting System (AIRS). They investigated the following two chronic health conditions for potential links to air pollution exposure and two alternative health variables indicative of health limitations:

- Onset of angina or heart attack between 1994-1996
- Onset of a chronic lung condition between 1994-1996
- Shortness of breath
- Count of limitations in activities of daily living

The air pollution measures they used were ozone and particulate matter (PM_{10}).

Their first-stage analysis examined factors that affected the likelihood of an HRS respondent experiencing the new health condition. Covariates included preexisting conditions such as asthma, high blood pressure, and diabetes; demographic characteristics such as gender, age, race, education, and household income; additional lifestyle variables such as smoking history, current body mass index, an indicator of physical exercise, and previous chemical exposure. A final set of variables included in the first-stage analysis is a set of indicator variables for the respondent's county of residence. This gave the researchers the broadest picture of other causes of any heart and lung disease onset

New Product for Data Users — Getting Started with the Health and Retirement Study

For researchers just becoming familiar with using the HRS data and our Web site — Getting Started with HRS is a PDF that can be downloaded and printed; it is designed to be placed in a three-ring binder, or it can be read on the computer and the hyperlinks opened to references to our Web site. Included is a tutorial for data analysis using the HRS RAND data with STATA.
At:
http://hrsonline.isr.umich.edu/docs/dmgt/Getting_Started_HRS_v.1.pdf

and findings were consistent with previous research.

In the second-stage analysis, they found that current and long-term exposures to particulate matter are important factors in explaining new cases of angina and heart attacks. Long-term exposure to ozone (particulate matter) is one of the primary factors associated with the onset of a chronic lung condition (shortness of breath). The findings are consistent with past research suggesting that air pollution exposure increases morbidity risk in older adults and the biological mechanism identified in the epidemiological literature. Their results relating increased morbidity risk with air pollution exposure also reinforce previous findings linking increased mortality risk to air pollution exposure.

This finding has implications for benefit analyses of air-pollution policies that assume estimated lives saved are proportional to the baseline distribution of deaths for different age groups. Using a sample of older adults, they confirmed a significant association between current and long-term exposure and onset of a heart or lung condition.

Mary F. Evans, V. Kerry Smith, Journal of Environmental Economics and Management, Vol. 50, 2005.

Health and Retirement Study in the News

HRS Co-Director, Robert J. Willis, was quoted on 12/28/05 in "Baby Boomers Face Life After 60." in the Cincinnati Post.

"Boomers express a new work ethic that 'we'll work until we drop,' says economist Robert Willis, Director of University of Michigan's Health and Retirement Study. If past is prologue, he says, there will be 'a strong relationship between boomers' expected retirement and actual retirement."