

ICPSR 36158

**Work, Family, and Health Study
(WFHS)**

Work, Family and Health Network

User Guide

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Work, Family & Health Study

Public Use Data User Guide

November 2014



work, family & health network

This research was conducted as part of the Work, Family & Health Network (www.WorkFamilyHealthNetwork.org), which is funded by a cooperative agreement through the National Institutes of Health and the Centers for Disease Control and Prevention: *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (Grant # U01HD051217, U01HD051218, U01HD051256, U01HD051276), National Institute on Aging (Grant # U01AG027669), Office of Behavioral and Social Sciences Research, and National Institute for Occupational Safety and Health (Grant # U01OH008788, U01HD059773). Grants from the National Heart, Lung, and Blood Institute (Grant #R01HL107240), William T. Grant Foundation, Alfred P. Sloan Foundation, and the Administration for Children and Families have provided additional funding. The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of these institutes and offices. Special acknowledgement goes to Extramural Staff Science Collaborator, Rosalind Berkowitz King, PhD, and Lynne Casper, PhD, for design of the original Workplace, Family, Health and Well-Being Network Initiative. We wish to express our gratitude to the worksites, employers, and employees who participated in this research and made this publication possible..

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1. STUDY OVERVIEW

To address a gap in the knowledge base supporting work-family policies, the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) formed the Work, Family & Health Network (WFHN). The WFHN is a two-phase, transdisciplinary research effort designed to enhance understanding of the impact of workplace practices and policies on work, family life, and health outcomes and to illuminate the processes through which such practices and policies are adopted by employers and implemented by managers and employees (see King et al., 2012, for a full description of the conceptual framework). The WFHN draws on expertise from sociology, economics, social epidemiology, organizational behavior, occupational health psychology, human development, demography, and dissemination science.

Phase I of the WFHN involved pilot testing of an intervention to reduce work-family conflict and other health and family outcomes. Phase II of the WFHN involved the Work, Family & Health Study (WFHS), a group-randomized field experiment to test the effects in two industries of a workplace intervention designed to reduce work-family conflict and improve the health and well-being of employees, their families, and the workplace. The WFHS had five primary research aims:

- **Aim 1:** Test the effect of the intervention, compared with usual practice (UP), on employees' work-family conflict, cardiovascular risk, sleep disruption, and psychological distress.
- **Aim 2:** Test whether the effects of the intervention, compared with UP, spill over to improve employees' global and daily family processes (e.g., marital satisfaction, daily parental involvement) and health (physical symptoms, self-reported and biological indicators of daily stress) and cross over to improve global and daily family processes and health in spouses/ partners and children.
- **Aim 3:** Test the effect of the intervention, compared with UP, on organizational outcomes, such as job satisfaction, organizational commitment, absenteeism, safety/ injuries, retention rates, and productivity.
- **Aim 4:** Test whether work-family conflict mediates the effects of the intervention on employee health outcomes and whether employee, mid-level manager, and work-group characteristics moderate the effect of the intervention on work-family conflict and health outcomes.
- **Aim 5:** Translate and disseminate the results of our research to the broader public and business community by drawing on process evaluations and dissemination research to make the intervention accessible and informative to a wider audience.

The intervention was aimed at increasing employees' control over their work time and supervisor support for managing work and family responsibilities. The intervention included both supervisory training on strategies to facilitate employees' control over work time and work redesign activities that identified new ways to work that meet business needs, while increasing employee control over work time. The intervention involved changing both the organization of work and the organizational culture. It was tailored specifically to the needs of the participating workplaces, but conceptual fidelity was carefully monitored across sites. The intervention and its conceptual background are described in detail in Kossek and colleagues (2014).

This study was conducted via group-randomized field experiments, one at each of two employers representing different industries. The information technology division of a Fortune 500 company (pseudonym: Tomo) had 26 total sites made up of 56 study groups with 7 to 60 employees each (average of 28). Within the extended-care company (pseudonym: Leef), 30 worksites of 30 to 89 employees each (average of 51) were randomly assigned to intervention or UP conditions. All employee and manager participants were assessed at baseline and at 6, 12, and 18 months post baseline, including survey interviews and health assessments of cardiovascular risk and sleep dysregulation based on selected biomarkers and actigraphy. Employees' spouses/partners and/or children (one resident child per employee) aged 9 to 17 years were assessed to document the impact of the intervention on family functioning. In addition, to provide a more detailed perspective on the temporal relationship of work-family conflict and health, a subsample of 633 employee participants and their children participated in a daily diary assessment, including telephone interviews and saliva sampling. Finally, process evaluation documents detail intervention fidelity, implementation, and dose received by participants. A full description of the study design and methods is available in Bray and colleagues (2013).

2. DATA AVAILABILITY

Two types of data are available to data users: Public Use Data and Restricted Use Data. Employee and manager survey interview data are available for public use to any user through the Inter-university Consortium for Political and Social Research (ICPSR). Additional employee and manager survey data and health assessment data and spouse/partner, child, and daily diary data are available as Restricted Use Data. Restricted Use Data require a formal application due to the sensitive nature of the items.

2.1 Public Use Data

Public Use Data for WFHS primarily include data regarding workplace measures from employee and manager workplace interviews (see Appendix A for a brief overview of the types of information included in the Public Use Data). Additional variables related to randomization and organizational structure are included as necessary to allow for basic data analysis, including replication of the samples used in the Aim 1 main findings.

2.2 Restricted Use Data

Restricted Use Data sets for WFHS include a broader array of data, including demographic information from employee workplace interviews; health assessment data, including data from dried blood spot assays and 1 week of actigraphy; data from spouse/partner interviews; data from interviews with employee children; and data from 1 week of daily diary interviews and salivary cortisol sampling.

Users can get more information on data availability and access requirements and can apply for access to the Restricted Use Data through the Harvard University Center for Population and Development Studies (www.workfamilyhealthnetwork.org/).

3. DOCUMENTATION

Available documentation for Public Use Data includes the following:

- one measures book, covering both Tomo and Leef, with detail on the sources of variables included in the survey, how the variables in the data are used to construct scales, and how to appropriately interpret those scales; and
- two data dictionaries, one for Tomo and one for Leef, containing a brief description of each variable, the variable's format, and a summary of the variable's contents.

4. USING THE DATA

4.1 Sample Recruitment

The sample recruited for baseline participation in data collection was the census of eligible employees in the recruited sites in each company. Each participating study group in Tomo (information technology) and worksite in Leef (extended-care) consists of approximately 50 employees and up to 8 managers invited to participate in data collection. All subjects recruited for the study were given sufficient information through recruiting materials and informed consent documents to make a fully informed decision to participate in the research activities and understood that no penalties or negative outcomes would be imposed for participating or declining participation.

4.2 Tomo Baseline Eligibility

Employees and managers in Tomo were eligible to participate if they were employed by the company in the two cities where data collection occurred and were classified as employees, rather than independent contractors, of the company. In general, study groups in Tomo consisted of people who worked together under the same director or manager depending on the size of the director's group.

4.3 Leef Baseline Eligibility

Worksites in Leef were individual extended-care facilities. Employees and managers in Leef were eligible to participate if they were normally scheduled to work 22.5 or more hours per week in direct patient care or in relevant positions within the nursing department, and they worked on the day or evening shifts (thus excluding night shift workers).

4.4 Follow-up Eligibility

Eligibility for follow-up surveys consisted of (1) having completed baseline data collection, (2) still being employed at the company, and (3) still being located in the geographic areas in which data collection was being conducted. Table 1 presents the timing schedule for data collection, and Table 2 presents response rates by participant group, wave, and company.

Table 1. Schedule for WFHS Data Collection Activities

Activity	Date
Baseline Data Collection	September 2009–July 2011
6-Month Follow-Up Data Collection	March 2010–December 2011
12-Month Follow-Up Data Collection	October 2010–June 2012
18-Month Follow-Up Data Collection	March 2011–December 2012

Table 2. Response Rates by Participant Group, Wave, and Company

Participant Group	Company	Baseline	6 Months	12 Months	18 Months
Manager Interview	Tomo	221	196	188	187
(worksite)	Leef	184	154	145	137
Employee Interview	Tomo	823	717	701	651
(worksite)	Leef	1,525	1,275	1,083	1,007

4.5 Analytic Methodology

Among the issues that need to be addressed in analyses are the cluster-randomized design and use of data that are hierarchical/multilevel and include repeated measures over time. Data users are strongly recommended to see Bray et al. (2013) for guidance on appropriate analytic methods for these data.

4.6 Key Identifiers

The individual-level identifier for sorting the data is the variable **adminlink**. The data collection wave is indicated by the variable **wave**. The indicator variables **manager** and **employee** designate respondents in those positions.

The unit of randomization in Leef is identified by the variable **lf_centerid**. The unit of randomization in Tomo is identified by the variable **studygroup**. In the Tomo data, an additional

nesting variable within **studygroup** is available to identify work groups (**wgid**). Work groups are teams of employees that collaborate on projects.

In the Tomo data, the variable **exclude** will allow users of the Public Use Data to re-create the sample Kelly and colleagues (2014) used for analysis of outcomes using the baseline and 6-month follow-up responses. Kelly and colleagues dropped several observations due to various logistical issues with intervention delivery. Since the necessary variables to drop these observations cannot be included in the Public Use Data themselves, the variable **exclude** identifies these observations and their associated reason for exclusion from the analytic sample.

5. STANDARD CONVENTIONS FOR VARIABLES

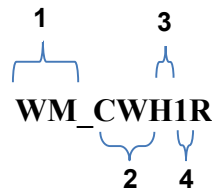
5.1 Variable Names

In general, the name for each variable is decided by (1) the survey module that contains variable; and (2) the construct, scale, or script to which it belongs. The module component noted in the variable name as a **2-letter prefix followed by an underscore**:

- Workplace instrument modules
 - RD_ Respondent Demographics
 - WM_ Workplace Measures
 - PH_ Physical Health Measures
 - EM_ Mental Health Measures

The second component, or the stub, of the variable name is an intuitive abbreviation of a construct name or piece of information. The stub is generally **5 alphanumeric characters** at most; 2 to 4 characters are generally reserved for text and the last 1 to 2 characters for numbers. For example, **WM_CWH1** is in the workplace module and is the first question related to the “control of work hours” construct. Suffixes to the variable name indicate that the variable is a recoded (**R**) version of a variable or an imputed (**i**) version of a variable. The most common form of recoding is reverse-coding a Likert scale: If the question was asked so that a *lower* response represents *more* of the item (e.g., more stress), the reverse-coded item is such that a *higher* response represents *more* of the item (e.g., more stress).

Example variable name:



WM_ indicates that this question comes from the Workplace Measures module of the instrument,

CWH refers to the “control over work hours” construct,

1 indicates that it is the first question in the scale, and

R after the number indicates that the item has been recoded.

Scales: A scale construct, computed from several individual variables, has **SC** in front of the module prefix. The prefix and first part of the stub remain the same; the stub indicates the construct.

Example: **SCWM_CWH**

Constructed Variables: A constructed or computed variable that is not a scale adds **CV** before the prefix and either maintains the associated stub and/or provides a clarifying stub.

Example: **CVWM_HPQPROD** (stub is HPQ, constructed variable represents productivity)

More detailed information on scales and constructed variables is available in the measures books.

Variables based on information available from outside the workplace survey do not follow this naming convention. Such variables include ID variables, randomization variables, and organizational variables for conducting multilevel analyses.

5.2 Missing Values

The following missing value designations are used in the WFHS Public Use Data:

- [-4] indicates a “Don’t Know” answer,
- [-7] indicates a “Refused” answer,

- [-8] indicates that not enough responses were given to compute a scale,
- [-9] indicates that a computation for a constructed variable resulted in an undefined or infinite result, and
- [.] a single period (regular missing value) indicates that the respondent was not eligible for the question and the question was not asked (logical skip).

5.3 Data Cleaning

Limited data cleaning was performed on the files. Known inconsistencies and possibly unreasonable answers may exist but remain in the data for users to determine how to handle for their analyses. Often such inconsistencies are noted by an associated flag (0 or missing (.) = no issue / 1 = issue). For example, in the Tomo data set, the variable WM_HPQ2FLAG identifies observations where data users may want to review the appropriateness of responses for the variable WM_HPQ2.

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APPENDIX A

COMMON SCALES INCLUDED IN WFHS PUBLIC USE DATA

Measure	Source/Adapted from
Work-Family Conflict	
Organization Work-Family Climate	Kossek, 2001
Work-to-Family Conflict	Netemeyer et al., 1996
Work-Family Positive Spillover	Hanson et al., 2006
Time Adequacy	Van Horn et al., 2001
Psychosocial Work Environment	
Control over Work Time	Thomas & Ganster, 1995
Job Control	Karasek et al., 1998
Job Demands	Karasek et al., 1998
Role Clarity	Cammann et al., 1983
Low-Value Work	Rizzo et al., 1970
Family-Supportive Supervisor Behaviors	Hammer et al., 2009
Organizational Citizenship	Lambert, 2000
Task Interdependence	Pearce & Gregersen, 1991
Obligation to Come to Work When Sick	WFHN Pilot Work
Psychological distress	
Non-Specific Psychological Distress K6 Scale	Kessler, Barker et al., 2003; Mroczek & Kolarz, 1998
Perceived Stress (Employee Only)	Cohen, Kamarck, & Mermelstien, 1983; Cohen & Williamson, 1991
Organizational Outcomes	
Burnout	Maslach & Jackson, 1986
Job Satisfaction	Cammann et al., 1983
Intention to Quit	Boroff & Lewin, 1997
Safety Compliance	Neal, Griffin, & Hart, 2000
Productivity	Kessler, Barber, et al., 2003
Interpersonal Conflict	Dierdorff & Ellington, 2008