Tutorial on Access to OAI Data

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OAI Coordinating Center
What is OAI Online?

- Publically-accessible website
  - [www.oai.ucsf.edu](http://www.oai.ucsf.edu)
- Developed by data team at OAI Coordinating Center, UCSF
- OAI data and documentation available to anyone
Who is OAI Online for?

- Researchers
- Analysts
- Clinicians
- Educators
- Students
- Inventors
- Policy makers
- Anyone!
What data are collected in OAI?

- **Interview**
  - Knee symptoms, function, quality of life
  - Other joint symptoms
  - Medication (prescription, OTC, CAM)
  - Health behaviors
  - OA risk factors

- **Examinations**
  - Knee exam
  - Performance measures
Last, but not least...

- Biologic specimens
  - Blood
  - Urine
  - DNA (for entire cohort!)
- Imaging
  - MRI, 3-Tesla (knee, thigh)
  - X-ray
    - Knee
    - Full limb
    - Hip
    - Hand
    - Spine
The best of all...

- Large numbers (n=4,796 participants)
- Superb quality questionnaire and exam data, images
- Data and images rapidly released
- No charge!!
Public data releases

- Participants divided into 2 groups
  - 1st ‘half’ = 1st 56% enrolled
  - 2nd ‘half’ = remaining 44%
- Concurrent release of images and clinical data

1st vs. 2nd ‘half’ characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>1st N=2,678</th>
<th>2nd N=2,118</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progression</td>
<td>813 (30%)</td>
<td>576 (27%)</td>
</tr>
<tr>
<td>Women</td>
<td>1,689 (63%)</td>
<td>1,115 (53%)</td>
</tr>
<tr>
<td>Non-white</td>
<td>363 (14%)</td>
<td>638 (30%)</td>
</tr>
</tbody>
</table>
Public data releases to date

- **First half**
  - Baseline clinical data for 2,678 pts (June 2006)
  - Baseline images for 200 pts (June 2006)
  - 12-month clinical data for 2,686 pts (Feb 2007)
  - Baseline and 12-month images for 160 pts (Feb 2007)
  - Baseline and 12-month images for 2,686 pts (August 2007)
  - X-ray readings for 160 longitudinal image set (August 2007)
  - 18-month clinical data, images for 287 pts (Nov 2007)
    (256 have Baseline, 12-month, and 18-month MRIs)

- **Second half**
  - Baseline clinical data for entire cohort (August 2007)
Data releases scheduled for 2008

- **Spring 2008**
  - 24-month questionnaire, exam, images
  - 1st half of cohort

- **Fall 2008**
  - 12-month questionnaire, exam, images
  - 2nd half of cohort
Timeline for release of 1st & 2nd half data and images: Baseline to 24-mo visit

- Baseline visit: 3/04
- 12-mo visit: 3/07 (1st 8/07, 2nd 8/07)
- 18-mo visit*: 3/09 (all 11/07)
- 24-mo visit: 3/10
- Est. dates for Clinical data: 11/07 (1st 8/07, 2nd 8/07)
- Est. dates for Images: 11/07 (1st 8/07, 2nd 8/07)

*subset of Progression
OAI data users (as of 11-30-07)

- Registered OAI Online users: 744
  - US: 528
  - International: 216
- Number of countries: 40
  (from Argentina to New Zealand)
- Researchers downloading datasets: 117
- Datasets downloaded: 1,136
- Image sets distributed: 69
  - USA: 40
  - International: 29
Data and images available
OAI Online (www.oai.ucsf.edu)

- Register
- Complete ‘Data Use Agreement’
  - Download clinical data files and documentation
- Complete and fax ‘Image Use Agreement’ & Request for Image Set(s) form
  - Smaller releases (<250 GB):
    - we send images on OAI ‘lego’-drive; user returns drive
  - Larger releases:
    - user provides 2-TB hard-drive; we return it with images
      - 1st half Baseline & 12-month images:
        - 2-TB drive, preferred (NTFS compressed), OR
        - Two 1.5-TB drives (NTFS Uncompressed or FAT-32)
The Osteoarthritis Initiative

a multi-center, four-year observational study of men and women

The OAI is a nationwide research study, sponsored by the National Institutes of Health (part of the Department of Health & Human Services), that will help us better understand how to prevent and treat knee osteoarthritis, one of the most common causes of disability in adults.

OAIOnline is the name for this website, which provides access to the Osteoarthritis Initiative (OAI) study documentation and data.

1-2-3 Data. Three quick steps to download the clinical data:

What's Available as of 2/16/2007

<table>
<thead>
<tr>
<th>Clinical</th>
<th>Imaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-month follow-up questionnaire and exam data for the first half of the cohort (2687 participants). (Download data from the web.) The Biomarkers dataset release will be briefly delayed until completion of QC checks on Baseline/12-month X-RAY readings.</td>
<td>Baseline X-RAY and MRI images for a sample of 200 progression and incidence cohort participants.</td>
</tr>
<tr>
<td>Baseline questionnaire and exam data for the first half of the cohort (2678 participants). (Download data from the web.)</td>
<td></td>
</tr>
</tbody>
</table>
Sitemap

- About OAI
  - study design protocol (0.65 mb)
  - appendices (2.6 mb)
  - collaboration worldwide
  - funding
  - UCSF IRB approval letter for OAI
- Data & Documentation
  - clinical data
  - imaging data
  - search/browse categories, questions, and variables
  - data collection forms
  - operations manuals
  - DataExplorer
  - frequently asked questions
  - Tutorial
- Publications
- My Account
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1.2.3 Data Three quick steps to download the clinical data.

What’s Available as of 3/16/2007

Clinical
- 12-month follow-up questionnaire and exam data for the first half of the cohort (3,486 participants). (Download data from the web.) The Biomarkers dataset release will be briefly delayed until completion of QC checks on Baseline/12-month X-RAY readings.
- Baseline questionnaire and exam data for the first half of the cohort (2,762 participants). (Download data from the web.)

Imaging
- Baseline X-RAY and MRI images for a sample of 200 progression and incidence cohort participants.
- Baseline and 12-month X-RAY and MRI images for a sample of 160 progression cohort participants.

OAIonline Technical Requirements

OAIonline is designed to work best with Internet Explorer 6.0, Netscape Navigator 7.1, and Adobe Acrobat Reader 5.0. Firefox and Safari browsers will also work, but all the browsers mentioned above and Acrobat Reader are highly recommended.

Important: OAIonline is intended as a means to learn about and retrieve the data collected in the Osteoarthritis Initiative. By using OAIonline, users have no understanding of these intended uses and agree not to use the website or downloadable materials for any other purpose.

Introduction

This tutorial walks you through the variety of tools available for viewing and understanding the clinical data.

Below is the home page or initial page for OAIonline. On the home page, a summary of the new information regarding data releases can be found in the “Data News” section.

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About OAI

The Osteoarthritis Initiative (OAI)

- Study overview and objectives
- Study design protocol (0.65 mb) Appendices (2.5 mb)
- Collaboration worldwide
- Funding
- UCSF IRB approval letter for OAI

Visit Schedule and Assessments

- Examination Measures
- Questionnaire Measures

OAI Related Links

- OAI News & Events at the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- National Institute on Aging (NIA)
## Visit schedule and assessments

**OAI Protocol**
*Osteoarthritis Initiative: A Knee Health Study*

<table>
<thead>
<tr>
<th>Questionnaire Measures and Frequency</th>
<th>Initial Eligibility</th>
<th>Screening Visit</th>
<th>Enrollment Visit</th>
<th>12-mo</th>
<th>18-mo</th>
<th>24-mo</th>
<th>30-mo</th>
<th>36-mo</th>
<th>48-mo</th>
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</thead>
<tbody>
<tr>
<td><strong>Contact information</strong></td>
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<td>X</td>
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<tr>
<td><strong>Demographics (such as age, gender, ethnicity, education, marital status, residency, income)</strong></td>
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<td></td>
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<td>X</td>
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<tr>
<td><strong>Employment, current and past</strong></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>Health care and health insurance</strong></td>
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<tr>
<td><strong>MRI contraindications</strong></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td><strong>Knee Symptoms</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>- Frequency of knee symptoms &amp; medication use for knee symptoms, past 12 mos, 30 days</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
<tr>
<td>- Knee pain 0-10 rating scale, past 7, 30 days</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>- WOMAC knee pain and stiffness, past 7 days</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>- KOOS knee pain and symptoms, past 7 days</td>
<td>X</td>
<td>X</td>
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<tr>
<td><strong>Knee-related function and QOL</strong></td>
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<tr>
<td>- WOMAC physical function, past 7 days</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>- KOOS sport, recreation, past 7 days</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>- KOOS Quality of life, past 7 days</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- Participant global assessment of knee impact</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- Limitation of activity due to knee Sx, past 30 days</td>
<td>X</td>
<td></td>
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</tr>
</tbody>
</table>
Account and logon

- Required to access ‘Data and Documentation’
- Contact information
  - Notified of new releases, features, errata, etc.

Logon

Username: 
Password: 
Log On

Logon Help

- If you are a new user, please Create My Account first. The process only takes a few minutes. You need an account to be able to access the Data & Documentation section of the website.
- If you intend to download data or analyze data with the DataExplorer, you have to read and accept the terms of the Data Use Agreement (you must be logged on to view it).
- Remember that passwords are case-sensitive.
Data and documentation

OAI has collected both clinical data from forms (questionnaires and examinations) and images from X-RAY and MRI images of joints.

Frequently asked questions

Clinical

- Clinical data - "Getting Started with OAI Data: Overview of Structure, Use, and Conventions", version logic, visit schedule and assessments, variable guides, formats, documentation (includes variable distributions), datasets, and dataset descriptions.

- Searchbrowse - a database of categorized variable documentation displayed longitudinally with links to statistics, comments, and annotated data collection forms.

- Data collection forms - annotated PDFs of the questionnaires used for collecting data, including the visit schedule and assessments.

- Operations manuals - PDFs of the detailed procedures for collecting data and performing examinations.

- Create a personal cart of variables of interest that can be used 1) to build a custom codebook able to be read offline, and 2) to filter downloadable datasets.

- DataExplorer - explore the clinical data online. Generate descriptive statistics, cross tabs, subsetting, frequency distributions and more. This tool requires acceptance of the terms of a Data Use Agreement.

- Tutorial - walks you through the variety of tools available for touring and comprehending the clinical data Variables for Sample Research Question.
Annotated data collection forms

OsteoArthritis Initiative

Telephone Screener
- Initial Eligibility Interview (Version 1.3b, 5-15-2007)

Baseline Clinic Visits
- Screening Visit
- Enrollment Visit
  - Questionnaire, Self-Administered Take-Home (Version 1.0b, 5-15-2007)
    - Charlson Comorbidity Index
    - Depression (CES-D)
    - Food Frequency (Block Brief 2000)
    - SF-12 Health Survey
  - Enrollment Visit Workbook (Version 1.3b, 5-15-2007)
    - Abdominal Circumference
    - Biospecimen Collection
    - Biospecimen Processing
    - Blood Pressure and Radial Pulse
    - Chair Stands
    - Interview
      - Isometric Strength
      - Knee Examination
      - Medication Assessment
      - Walk, 20-meter
      - Walk, 400-meter
- Imaging Forms
  - Enrollment Exception Notification Form (Version 1.1b, 5-15-2007)

12-month Follow-Up Visit
- Prescreener for Follow-up Visits (Version 1.4a, 10-15-2006)
- Questionnaire, Self-Administered Take-Home (Version 1.2a, 10-15-2006)
  - Depression (CES-D)
  - SF-12 Health Survey
- 12-month Follow-up Visit Workbook (Version 1.4b, 5-15-2007)
  - Biospecimen Collection
  - Biospecimen Processing
  - Blood Pressure
  - Chair Stands
**Osteoarthritis Initiative**

**View annotated data form**

**Table of Contents**
*(Linked)*

*Enrollment Visit Workbook*  
*(Version 1.3a, 3-15-06)*

- Abdominal Circumference
- Biospecimen Collection
- Biospecimen Processing
- Blood Pressure and Radial Pulse
- Chair Stands
- Interview
- Isometric Strength
- Knee Examination
- Medication Assessment

**Walk, 20-Meter**

**Walk, 400-Meter**

---

**20-METER WALK**

**Directions:**

"Now we want to measure your usual walking speed. You will start behind this line. When you have passed the orange cone, I want you to stop."

*(Examiner Note: Demonstrate how to walk past cone and stop.)*

"Now when I say 'Go,' I want you to walk at your usual walking pace. Any questions?"

"Ready, Go."

Begin timing and counting steps with the first footfall over the starting line and stop with the first footfall over the finish line.

**Trial 1:**

- **Completed**
- **Steps**
- **Second**
- **Hundredths/Sec**

**WALK20T1**

- **C** Completed, unable to complete
- **K** Not attempted, unable
- **R** Participant refused

**Stop test. Go to next exam.**
Search and browse

- Powerful tool to become familiar with data
- ‘Search and browse’ keywords and categories of data
- Longitudinal display
- Variable label linked to:
  - Annotated data forms
  - Statistics
  - Comments
Search keyword and category
Research Question:
What is the relationship between physical activity and knee symptoms?

Keyword or phrase:
in variable label, root, or category
Browse/Limit Category:
1
Knee exam
Knee function/QOL
Knee pain/OA status
Knee symptoms
Hold "Ctrl" to select multiple categories.

Keyword or phrase:
in variable label, root, or category
Browse/Limit Category:
2
Nutrition
Other joint symptoms
Performance measures
Physical activity
Hold "Ctrl" to select multiple categories.

Visit:  
- P02 Initial Eligibility Intw
- P01 Screening
- V00 Enrollment
- V01 12 month Annual

Search/Browse  Clear All  tutorial
## Search results

### Summary of Results:
130 Record(s)

<table>
<thead>
<tr>
<th>Category</th>
<th>SubCategory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee symptoms</td>
<td>Knee pain severity scale</td>
</tr>
<tr>
<td>Physical activity</td>
<td>Knee bending activities</td>
</tr>
</tbody>
</table>

### Knee symptoms

**Variable Name = Prefix (from Visit column heading) + Root**

<table>
<thead>
<tr>
<th>Label</th>
<th>Root</th>
<th>P02</th>
<th>P01</th>
<th>V00</th>
<th>V01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequent knee pain status by person (calc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right knee symptom status (combines past 30 days and 12 months, calc, used in OAI definition of symptomatic knee OA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right knee pain, aching or stiffness: any, past 12 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right knee pain, aching or stiffness: any, past 30 days (calc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right knee pain: severity, past 30 days, rated on scale of 0-10 (calc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left knee symptom status (combines past 30 days and 12 months, calc, used in OAI definition of symptomatic knee OA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Descriptive statistics

SAVE Label: Right knee pain, aching or stiffness: any, past 12 months

Dataset: Joint symptoms/function Download

Category: Knee symptoms
SubCategory: Knee pain severity scale

Descriptive Statistics:

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Screening</th>
<th>12 month Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAG Format Name</td>
<td>YNDK</td>
<td>YNDK</td>
</tr>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>0: No</td>
<td>1299</td>
<td>648</td>
</tr>
<tr>
<td>1: Yes</td>
<td>3500</td>
<td>1868</td>
</tr>
<tr>
<td>.:Missing Form/Incomplete Workbook</td>
<td></td>
<td>156</td>
</tr>
<tr>
<td>.:Not Expected</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>.:Don't Know/Unknown/Uncertain</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>.:Missing</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>.:Refused</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

Related Labels:

Label                                      Root
-----                                      -----
Frequent knee pain status by person (calc)  KSX
  Right knee symptom status (combines past 30 days and 12 months, calc, used in OAI definition of symptomatic knee OA)  RKSX
  Right knee pain, aching or stiffness: any, past 12 months  KPNR12
Annotated data collection form

KNEE SYMPTOMS

Now I am going to ask you some questions about pain, aching, or stiffness in or around your knees. The first set of questions are about your right knee. Then I will ask you the same questions about your left knee.

Right knee

14. Have you ever had knee pain, aching, or stiffness on most days for at least one month in your right knee? By most days, we mean more than half the days of a month.  
   KPNREV
   1 Yes  0 No  88 Don't know  770 Refused

  a. About how many years ago did this pain, aching, or stiffness start?  
     (Examiner Note: Read response options.)  
     KPNREVVY
     1 1 year or less  
     2 2 to 5 years  
     5 More than 5 years  
     88 Don't know

15. During the past 12 months, have you had any pain, aching, or stiffness in or around your right knee?  
   KPNR12
   1 Yes  0 No  88 Don't know  770 Refused

   Go to Page 8, Question #17.
   STOP. NOT ELIGIBLE.
   Go to Page 16, Question #10.

Osteoarthritis Initiative
Shop ‘til you drop

- Personal shopping cart (‘My Cart’)  
- Store variables that you select  
- Access later  
- Create custom codebook and save for offline work  
  ➢ Variable names  
  ➢ Statistics  
  ➢ Comments  
- Download dataset(s) containing your variables
## Shopping 'catalog'

### Physical activity

#### Knee bending activities

<table>
<thead>
<tr>
<th>Label</th>
<th>Root</th>
<th>V00</th>
<th>V01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kneel 30 minutes or more during single day, past 30 days</td>
<td>PA230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squat 30 minutes or more during single day, past 30 days</td>
<td>PA330</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lift or move objects weighing 25 pounds or more by hand during single day, past 30 days</td>
<td>PA430</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional options:
- How often kneel 30 minutes or more during typical week, past 30 days (calc)
- How often squat for 30 minutes or more during typical week, past 30 days (calc)
- How often get in and out of squatting position 10 or more times during single day, past 30 days
- How often get in and out of squatting position 10 or more times during a typical week, past 30 days (calc)
- Climb up a total of 10 or more flights of stairs during single day, past 30 days (one flight is about 10 steps)
- How often climb up total of 10 or more flights of stairs during typical week, past 30 days (calc)
- How many flights of stairs have you climbed up, past 7 days (one flight equals 10 steps)
### My shopping cart

**My Cart**

My Cart is a place where you can keep a list of variable labels that interest you. At first, you are given a temporary cart. This temporary cart is emptied after 2 hours of non-use or when you close your browser. If you want to preserve a cart for future use then you must save it. Once you are logged on, you can save your cart. A saved cart then can be used (1) to build a custom CodeBook that can be read offline, and (2) to filter downloadable datasets.

#### Current Cart

<table>
<thead>
<tr>
<th>Label</th>
<th>Root</th>
<th>Dataset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kneel 30 minutes or more during single day, past 30 days</td>
<td>PA230</td>
<td>Subject characteristics, risk factors</td>
</tr>
<tr>
<td>How often kneel 30 minutes or more during typical week, past 30 days (cal)</td>
<td>PA230CV</td>
<td>Subject characteristics, risk factors</td>
</tr>
<tr>
<td>Squat 30 minutes or more during single day, past 30 days</td>
<td>PA330</td>
<td>Subject characteristics, risk factors</td>
</tr>
<tr>
<td>How often squat for 30 minutes or more during typical week, past 30 days (cal)</td>
<td>PA330CV</td>
<td>Subject characteristics, risk factors</td>
</tr>
</tbody>
</table>

**Dataset(s) for cart:** Subject characteristics, risk factors

### Save Cart

Save cart as: **activities**

[Save New]
## Download datasets

### Enrollees Clinical Data (Applies to all Visits)

<table>
<thead>
<tr>
<th>Description</th>
<th>Documentation*</th>
<th>SAS Data**</th>
<th>Release Version</th>
<th>Last SAS.exe Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollees Demographic and grouping information that does not change from visit to visit, but is needed in analyses with data from every visit. Enrollees_descrip.pdf</td>
<td>Enrollees_Doc.zip (0.07 mb)</td>
<td>Enrollees_SAS.zip (0.45 mb)</td>
<td>1.1.1</td>
<td>2/14/2007</td>
</tr>
</tbody>
</table>

### Baseline (Telephone Screen, Screening, and Enrollment)

<table>
<thead>
<tr>
<th>Description</th>
<th>Documentation*</th>
<th>SAS Data**</th>
<th>Release Version</th>
<th>Last SAS.exe Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject characteristics, risk factors SubjectChar_descrip.pdf</td>
<td>SubjectChar00_Doc.zip (0.29 mb)</td>
<td>SubjectChar00_SAS.zip (0.77 mb)</td>
<td>0.1.1</td>
<td>6/22/2006</td>
</tr>
</tbody>
</table>

### 12 Month Follow-up Clinical Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Documentation*</th>
<th>SAS Data**</th>
<th>Release Version</th>
<th>Last SAS.exe Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject characteristics, risk factors SubjectChar_descrip.pdf</td>
<td>SubjectChar01_Doc.zip (0.18 mb)</td>
<td>SubjectChar01_SAS.zip (0.62 mb)</td>
<td>1.1.1</td>
<td>2/14/2007</td>
</tr>
</tbody>
</table>
Create a codebook

- **Saving for offline use**: Save your codebook as type "Web Page. HTML only" using your browser's File > Save As command. This "save type" preserves the HTML and table of contents links. NOTE that most of the links in the codebook will appear broken offline as they require internet access. The only links not requiring internet access are the table of content links at the top of the page.

- **Printing**: If the statistics tables are wide, we suggest printing in Acrobat format (File > Page Setup > Landscape).

**Codebook for cart: activities**

<table>
<thead>
<tr>
<th>3 item(s) ordered left to right by category:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA230CV</td>
</tr>
</tbody>
</table>

---

**PA230CV**

- **Label**: How often kneel 30 minutes or more during typical week, past 30 days (calc)
- **Dataset**: Subject characteristics, risk factors
- **Category**: Physical activity
- **SubCategory**: Knee bending activities

**Main Cohort**

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>PA230CV</th>
<th>PA330CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>12 month Annual</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>SAS Format Name</td>
<td><em>FREQ2Z</em></td>
<td><em>FREQ2Z</em></td>
</tr>
<tr>
<td>N</td>
<td>3597</td>
<td>1894</td>
</tr>
<tr>
<td>%</td>
<td>76.22</td>
<td>76.98</td>
</tr>
</tbody>
</table>
Baseline Demographics:
- Knee Pain Status (KSX) vs Radiographic OA (XRKOA)
- Only in elderly people who aren’t overweight
## Data explorer results

### Table of P01KSX by P01XRKO

<table>
<thead>
<tr>
<th>P01KSX</th>
<th>P01XRKO</th>
<th>0: Neither</th>
<th>1: Right knee only</th>
<th>2: Left knee only</th>
<th>3: Both knees</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>.M: Missing</td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>0: No pain either knee</td>
<td></td>
<td>77</td>
<td>10</td>
<td>15</td>
<td>22</td>
<td>124</td>
</tr>
<tr>
<td>1: Infreq pain 1 knee, no pain other knee</td>
<td></td>
<td>52</td>
<td>16</td>
<td>9</td>
<td>45</td>
<td>122</td>
</tr>
<tr>
<td>2: Infreq pain both knees</td>
<td></td>
<td>68</td>
<td>12</td>
<td>9</td>
<td>36</td>
<td>125</td>
</tr>
<tr>
<td>3: Freq pain 1 knee, no pain other knee</td>
<td></td>
<td>36</td>
<td>13</td>
<td>5</td>
<td>17</td>
<td>71</td>
</tr>
<tr>
<td>4: Freq pain 1 knee, infreq pain other knee</td>
<td></td>
<td>24</td>
<td>11</td>
<td>5</td>
<td>15</td>
<td>55</td>
</tr>
<tr>
<td>5: Freq pain both knees</td>
<td></td>
<td>33</td>
<td>11</td>
<td>10</td>
<td>30</td>
<td>84</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>291</strong></td>
<td><strong>73</strong></td>
<td><strong>53</strong></td>
<td><strong>167</strong></td>
<td><strong>584</strong></td>
</tr>
</tbody>
</table>
# Variable guides

**Variable Guides (▲)**

The first three guides are comprehensive lists of all the variables from all datasets organized in different ways to help users find the variables and datasets of interest; each guide includes variable name, variable description (label), categories (groups of related content), SAS dataset, data collection form, release comments, and distributions.

<table>
<thead>
<tr>
<th>File</th>
<th>Description</th>
<th>Search Strategy</th>
<th>Release Version</th>
<th>Last Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>VG_Varname.pdf (4.01 mb)</td>
<td>Sorted alphabetically by variable name.</td>
<td>You have a variable name and want to know the dataset and data collection form.</td>
<td>1.1.1</td>
<td>2/13/2007</td>
</tr>
<tr>
<td>VG_Form.pdf (4.55 mb)</td>
<td>Sorted by data collection form. For each form, variables are ordered by their appearance on the pages.</td>
<td>You have a data collection form and want to walk through it and look up the variable details.</td>
<td>1.1.1</td>
<td>2/13/2007</td>
</tr>
<tr>
<td>VG_CatSubcat.pdf (4.1 mb)</td>
<td>Sorted by category &amp; subcategory. For each subcategory, variables are ordered by their appearance on each page of the form.</td>
<td>You have a category that relates to a research concept and you want to know the pertinent variables.</td>
<td>1.1.1</td>
<td>2/14/2007</td>
</tr>
<tr>
<td>VG_Tutorial.pdf (0.63 mb)</td>
<td>Variable Guide Tutorial</td>
<td>Tutorial for using the variable guides.</td>
<td>1.1.1</td>
<td>6/21/2007</td>
</tr>
<tr>
<td>CategoryList.pdf (0.07 mb)</td>
<td>Category &amp; subcategory combinations that a variable may be grouped under.</td>
<td>Use this in conjunction with the variable guide above which sorts the variables by categories.</td>
<td>1.1.1</td>
<td>2/15/2007</td>
</tr>
<tr>
<td>VisitPrefixDefinitions.pdf (0.01 mb)</td>
<td>Visit prefixes and their definitions. Variable names in the datasets and guides are a combination of the “Visit prefix” + “variable root”. The annotated forms show variable roots.</td>
<td>Use this in conjunction with the variable guides above.</td>
<td>1.1.1</td>
<td>6/16/2006</td>
</tr>
</tbody>
</table>
Imaging

Imaging Data

- **Requesting Images** - procedures to request and obtain X-RAU and MRI images
- **Imaging Data Use Agreement** - complete and send to the UCSF Coordinating Center when requesting images
- **Operations Manuals** - This link is to all the manuals ordered by visit, you will need to click on a visit to view the operations manuals for MRI and XRAY images.
- **Example Images** - Examples showing types of images typically available from participants with varying degrees of OA.
- Summary QA reports on MR scanner performance are available. Please contact us by email at OAIOnlineFeedback@pfs.ucsf.edu if you would like a copy.

Visit Schedule and Assessments

- **Examination Measures**
- **Questionnaire Measures**

Image Releases

Image releases are listed below. Please refer to the row when making a request for images.

See OAI data release version logic for an explanation of both the clinical and imaging data version conventions.

Images will be distributed upon request via hard-drives and will be accompanied by a Dicom Image Release Notes (DIRN) file for that release. DIRNs are available for download via the links below. They contain the following sections:

- Participants and images included - selection criteria for participants and types of images available
- Data Contents - Sub-maps of the data
Last, but not least...
Guidelines for publications using public datasets

- Encourage use of public datasets
- Appropriate citation and acknowledgement of OAI
- Inform us about OAI publications
  - Publications tracked on OAI Online
  - Electronic archive of OAI publications
    - PDFs posted if available and permitted by copyright holder
- Registry of OAI data recipients
  - Receive updates on new data releases, features, errata
  - Provide research interests and planned uses of data
    - Avoid unintended duplication of effort
    - Foster contact between researchers with similar interests
Another option: collaborate with OAI investigators

- Participation in publication process for OAI investigators welcomed and encouraged!
- Submit analysis proposal to OAI Publications Committee for feedback and approval
  - Avoid unintended duplication of effort
  - Foster collaboration among OAI investigators
- Acknowledgement:
  - “This manuscript has received the approval of OAI Publications Committee based on review of scientific content and data interpretation”
- E-mail: OAIPublications@psq.ucsf.edu
  - Publication Guidelines for OAI Investigators