

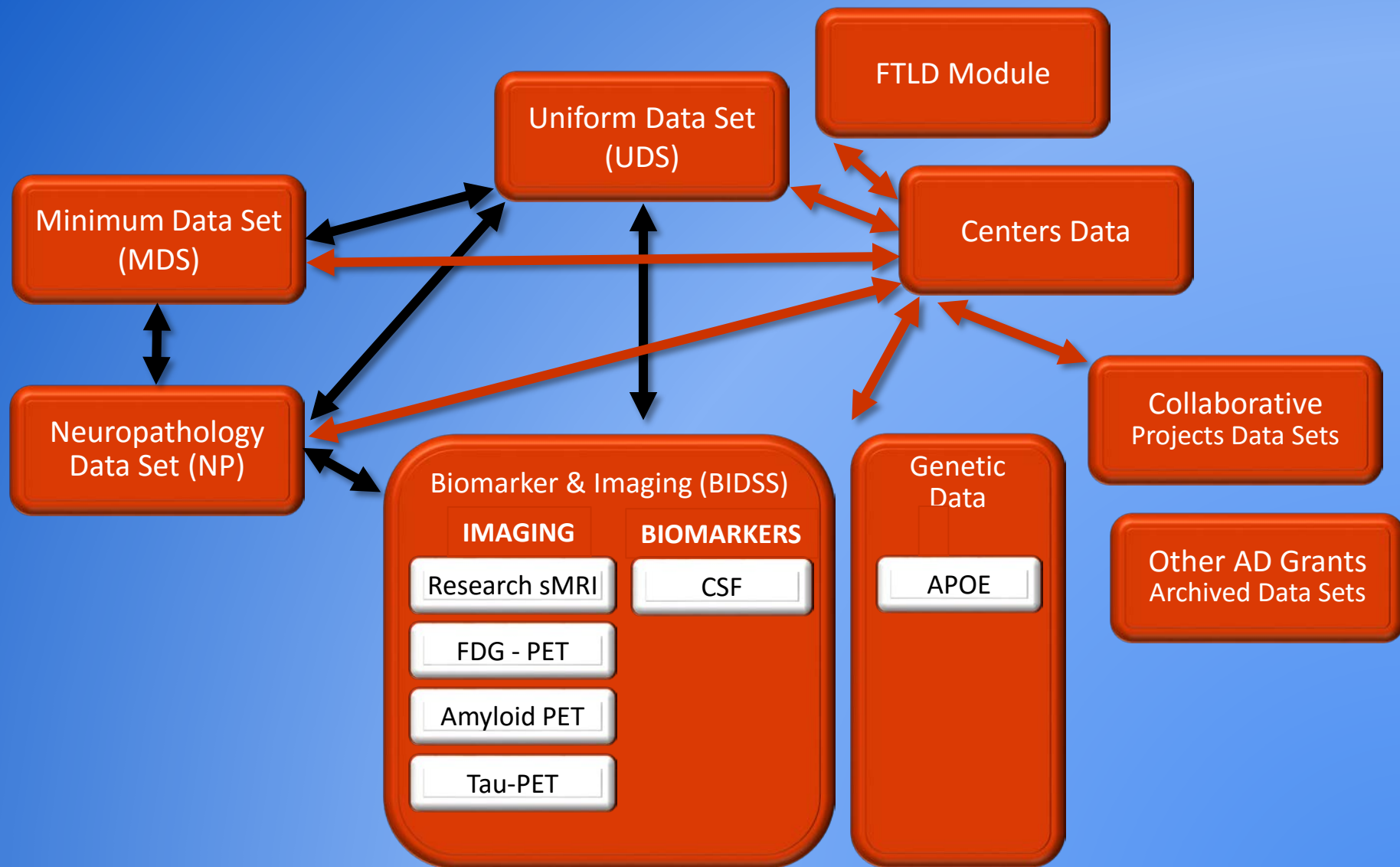
NACC Computing Systems and Database Update

Duane Beekly
September 2015

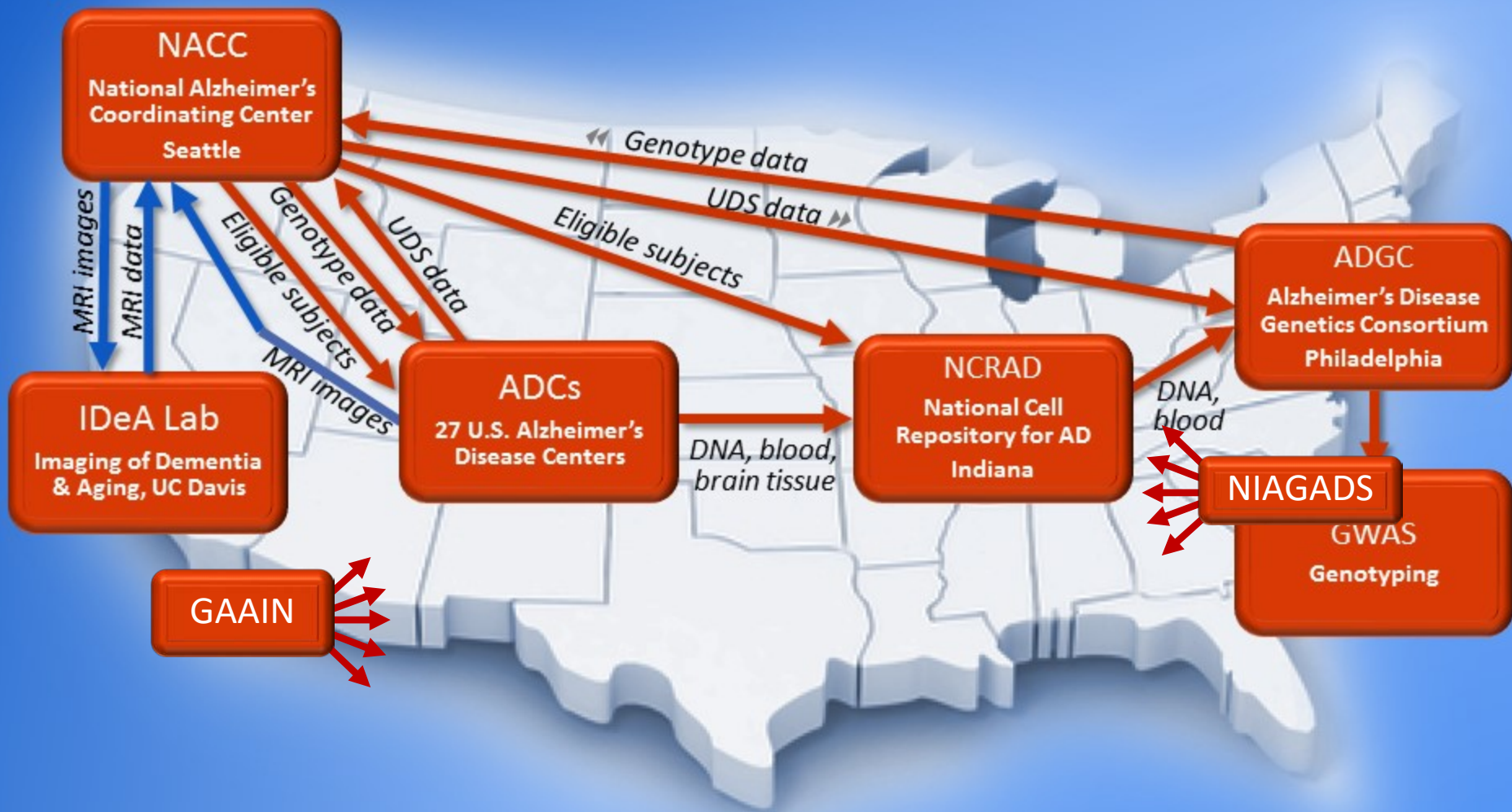


Supported by Grant U01 AG016976 from the
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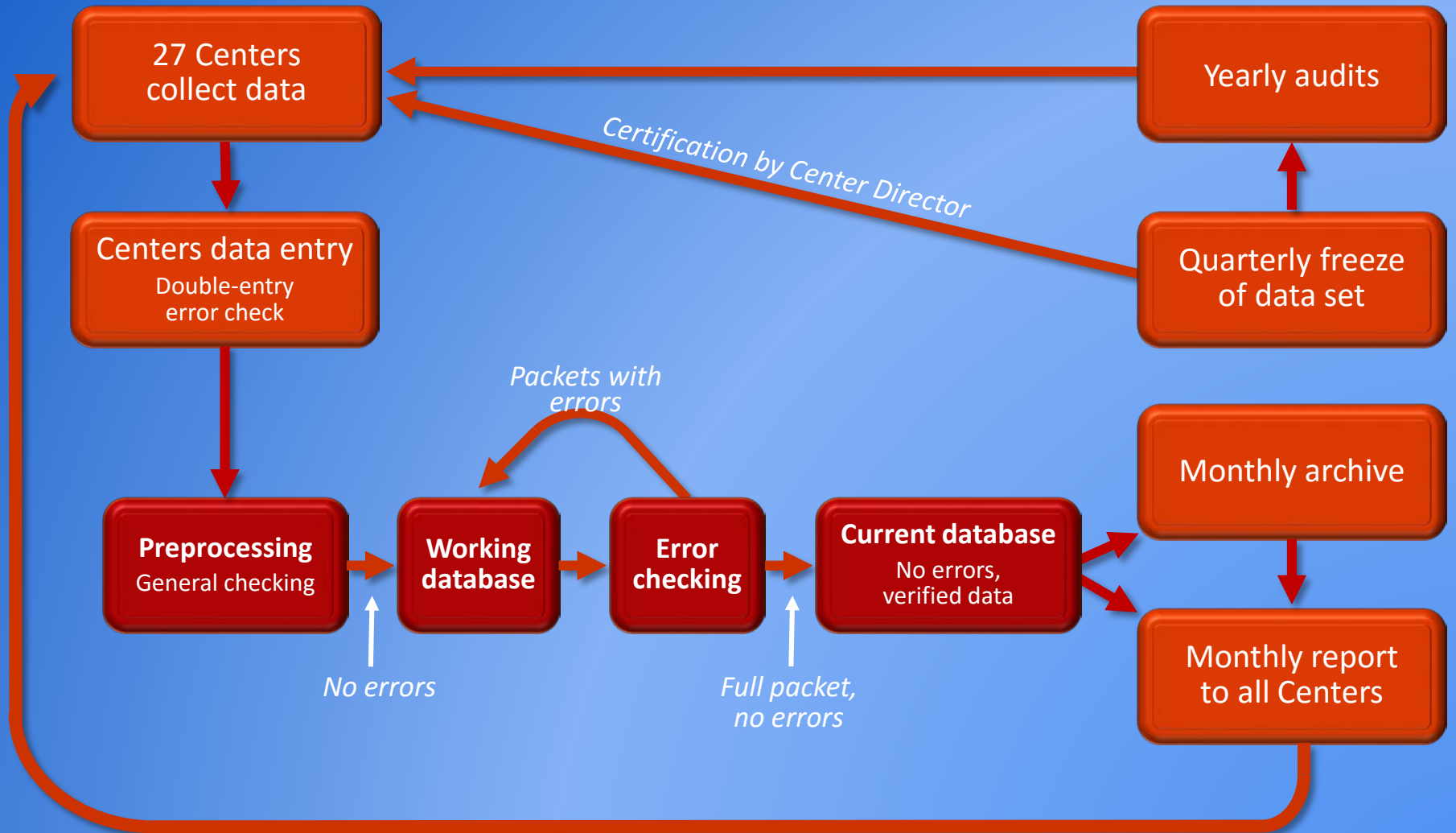
The NACC database



NACC data connections



The NACC QA System



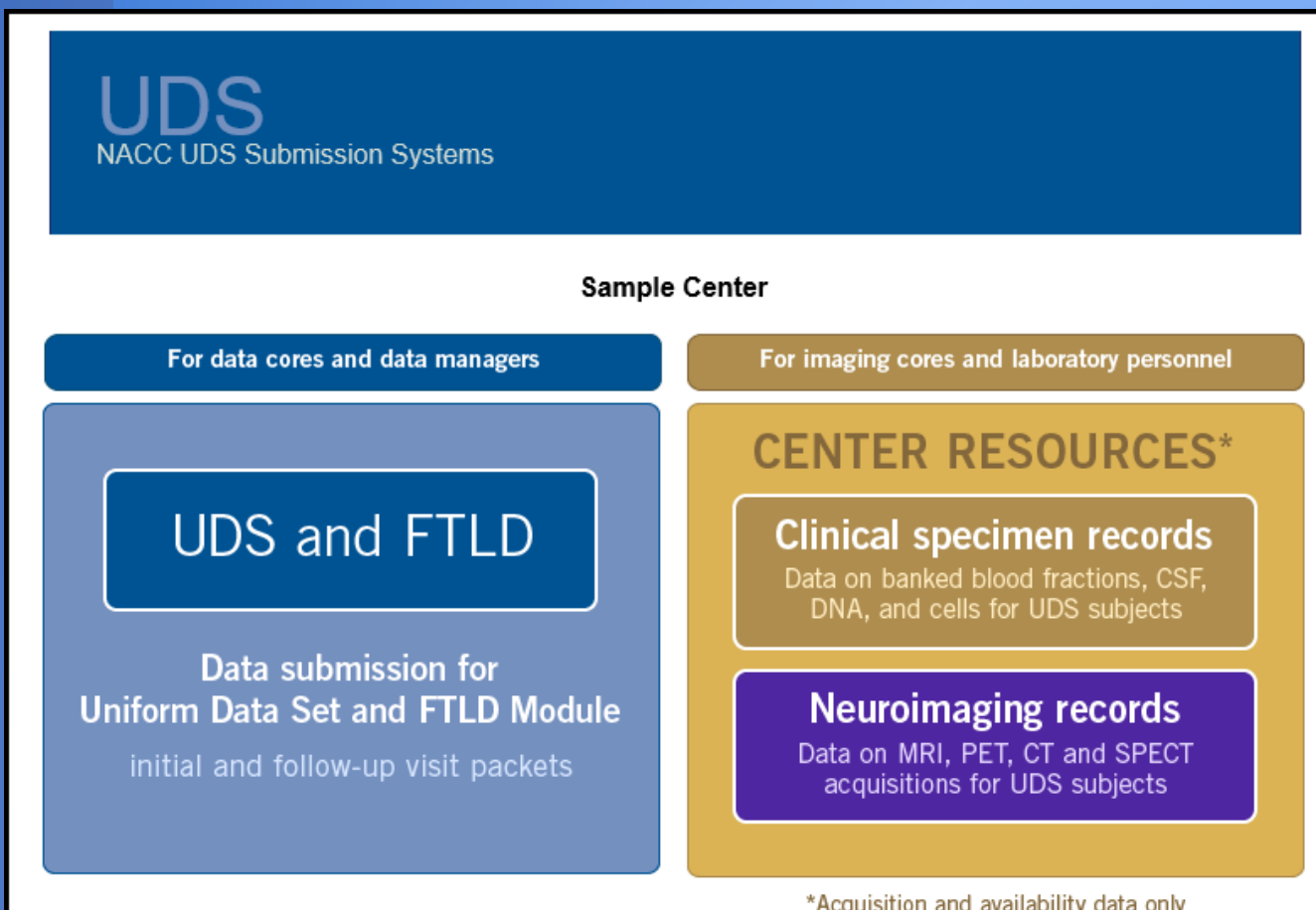
The UDS as of September 1, 2015

Total Initial Visits	32,663
Total In-Person Follow-ups	65,658
Total Telephone Follow-ups	5,351
Total Visits	103,672
Total Neuropathology Forms	3,835
FTLD Module Completed	895

UDS Version 3 as of September 1, 2015

Total Initial Visits	184
Total In-Person Follow-ups	937
Total Telephone Follow-ups	190
Total Visits	1,311

Center Resources - UDS



*Acquisition and availability data only

Center Resources - UDS

- Replace Form E1
- Required
- Used for Tissue Requests, GWAS
- 2 parts
 - Clinical Specimen Records
 - Plasma, Serum, CSF, DNA
 - Neuroimaging Records
 - MRI, FDG-PET, Amyloid-PET, TAU-PET
- Not BIDSS

BIDSS — Biospecimen & Imaging Data Submission System

- APOE
- Research structural MRI
- FDG-PET
- Amyloid-PET
- TAU-PET
- CSF

Biospecimen and Imaging Data Submission System

BIDSS

NACC Biospecimen and Imaging Data Submission System

Research Structural MRI Data Submission System

MRI Home

UPLOAD and PRE-PROCESS FILES

WEB DATA ENTRY

ERROR CHECK

FINALIZE DATA

REPORTS

DOWNLOAD DATA

FORMS AND DOCUMENTATION

HELP

Sample Center

Welcome to the Research Structural MRI Data Submission System

NACC's structural MRI data submission system is designed to capture and store the following data on UDS Clinical Core subjects:

- Quantitative measures from structural MRI, when available
- DICOM images, when available

Quantitative data may be entered into the system without associated DICOM files, and DICOM images may be uploaded to NACC without associated quantitative data. When both are available, MRI data and DICOM images are linked using subject ID and MRI acquisition date.

Please refer to the "FORMS AND DOCUMENTATION" menu on the left for help in navigating the system and uploading data. For more assistance, contact NACC at NACCmail@uw.edu, or (206) 543-8637.

Data Submission Timing

Submitting MRI data and DICOM files is optional for Centers but highly encouraged. We ask that all data available on UDS subjects be uploaded initially and that subsequent scan sessions be uploaded at least semiannually.

Viewing DICOM Images

Visualization software is required in order to view DICOM MRIs. Many software packages are available on the web as freeware or free trials, and can be located by doing a web-search for "DICOM viewer".

Center Resources vs BIDSS

- Center Resources part of UDS - Required
- BIDSS – Strictly voluntary
- Center Resource used for tissue requests , GWAS
- BIDSS actual values and scans used for data requests

APOE data as of September 1, 2015

Total UDS IDs	32,663
Total with APOE Values	24,805
Percent with APOE Values	76%

Data gathered from Center submission, NP Forms, and ADGC

CSF data as of September 1, 2015

- Total 629
- 2 Centers

Research structural MRI image data submission

- Submission of images and related data through website
- Data-cleaning program written in SAS, De-identify
- Submission systems tailored to Centers' needs:
 - FTP sites
 - Upload one file or many files in one zip file
 - Tailored programs to process images into database

MRI Structural Images – Participating Centers

Boston

Columbia

Mass General

Indiana

Mayo

Mount Sinai

OHSU

UC Davis

USC

UC Irvine

U Penn

USC

U Wisconsin

MRI Scan Totals as of September 1, 2015

Total Image Files	2,632
Unique IDs	1,887
T1 Scans	2,537
T2 Scans	727
Flair Scans	2,236
DTI Scans	1,660
DWI Scans	191
Other Scans	255
Total Scans	7,606

Sequential MRI Scan Totals as of September 1, 2015

Total Image Files	453
T1 Scans	446
T2 Scans	26
Flair Scans	373
DTI Scans	347
DWI Scans	9
Other Scans	19
Total Scans	1,220

Volume Calculations Complete as of September 1, 2015

Total Intracranial	1,735
Gray Matter	1,735
White Matter	1,735
White Matter Hyperintensities	1,575
Hippocampus	1,037
Frontal White Matter	1,037
Frontal CSF	1,037
Frontal Gray Matter	1,037

Volume Calculations Complete as of September 1, 2015 - Continued

Occipital Gray Matter	1,037
Occipital CSF	1,037
Occipital White Matter	1,037
Parietal CSF	1,037
Parietal Gray Matter	1,037
Parietal White Matter	1,037
Temporal CSF	1,037
Temporal Gray Matter	1,037
Temporal White Matter	1,037



**Thank
You!!!**

www.alz.washington.edu