# NACC Computing Systems and Database Update

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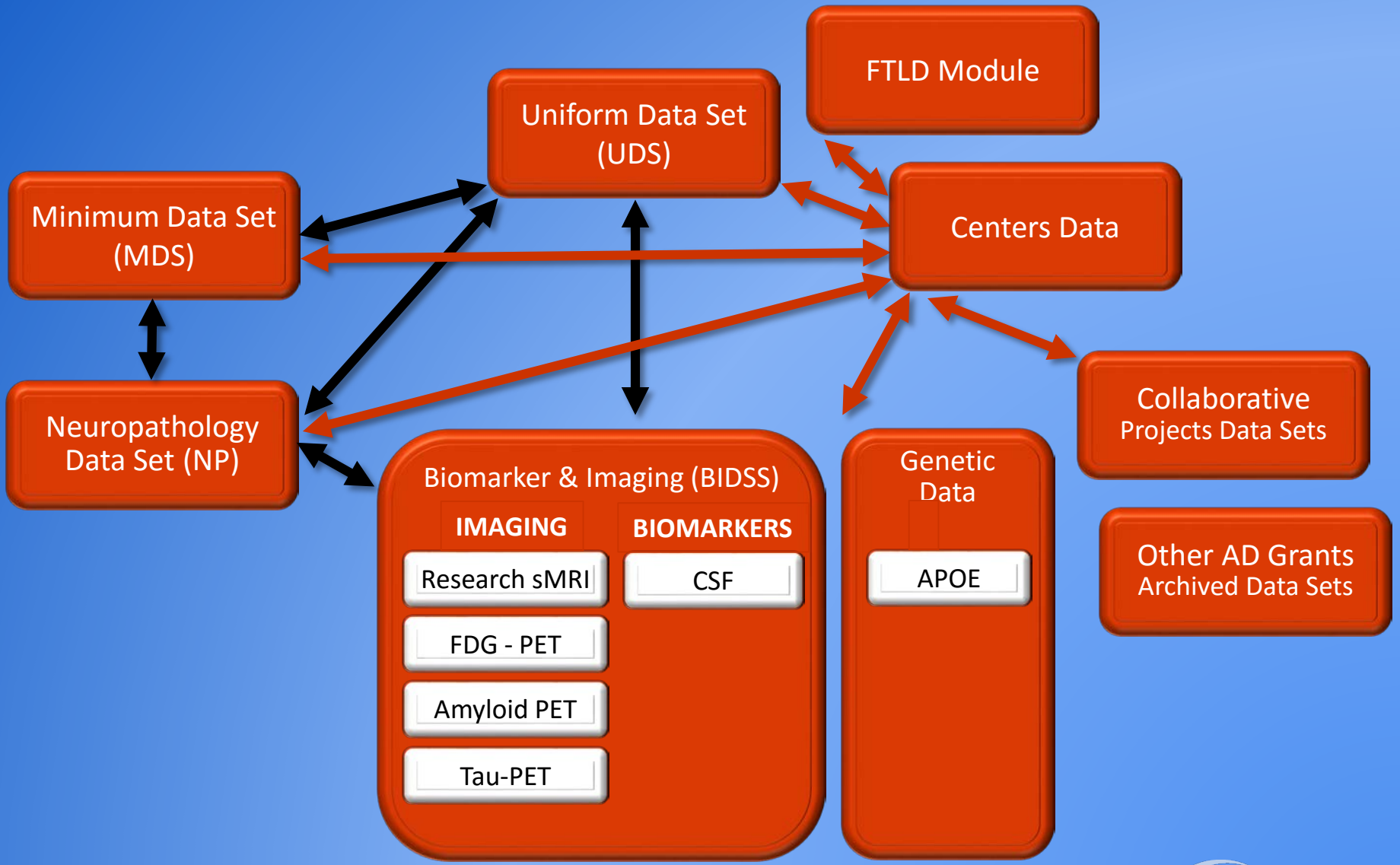
# The NACC database

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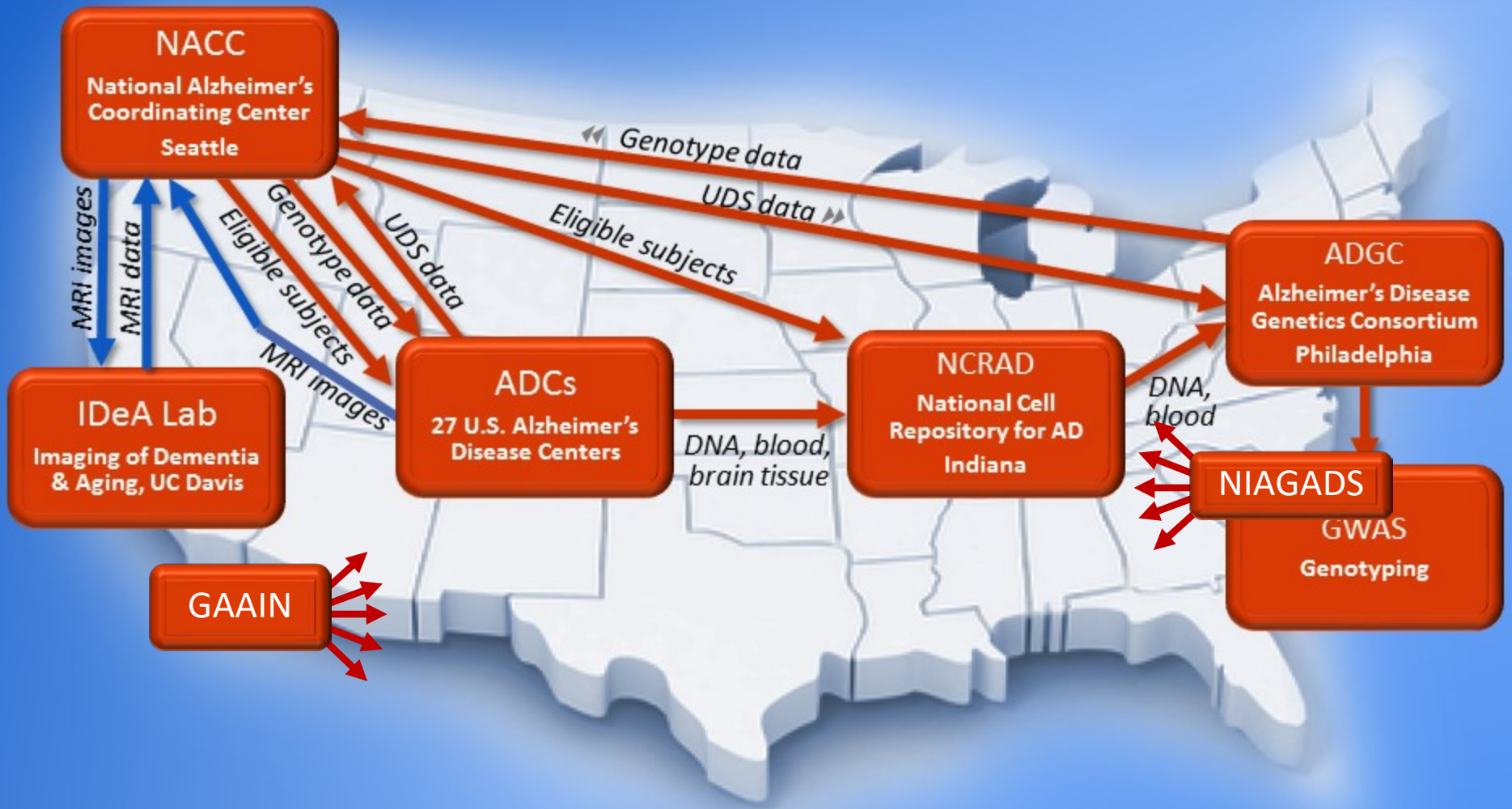
# NACC data connections

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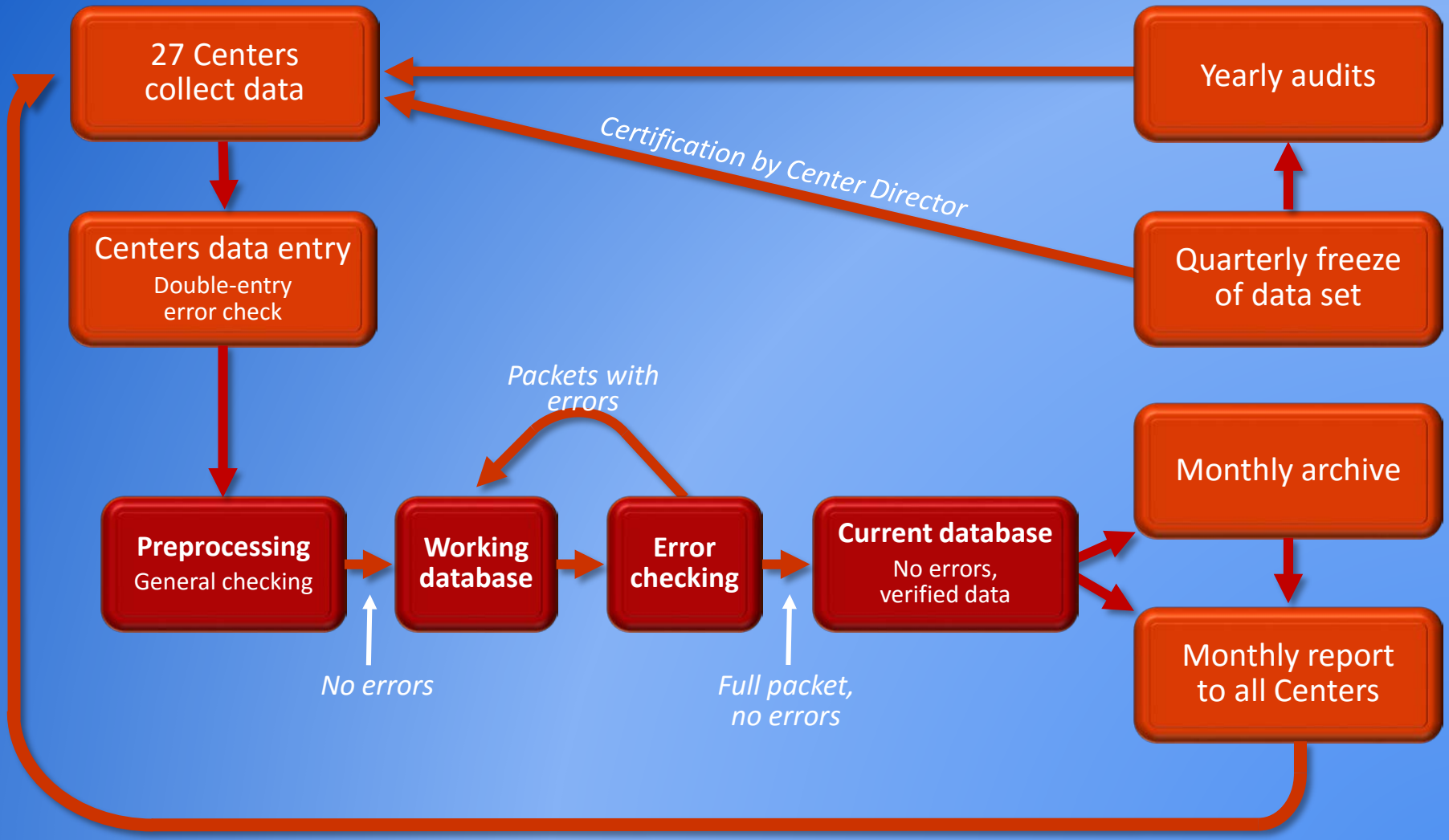
# The NACC QA System

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# 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 |

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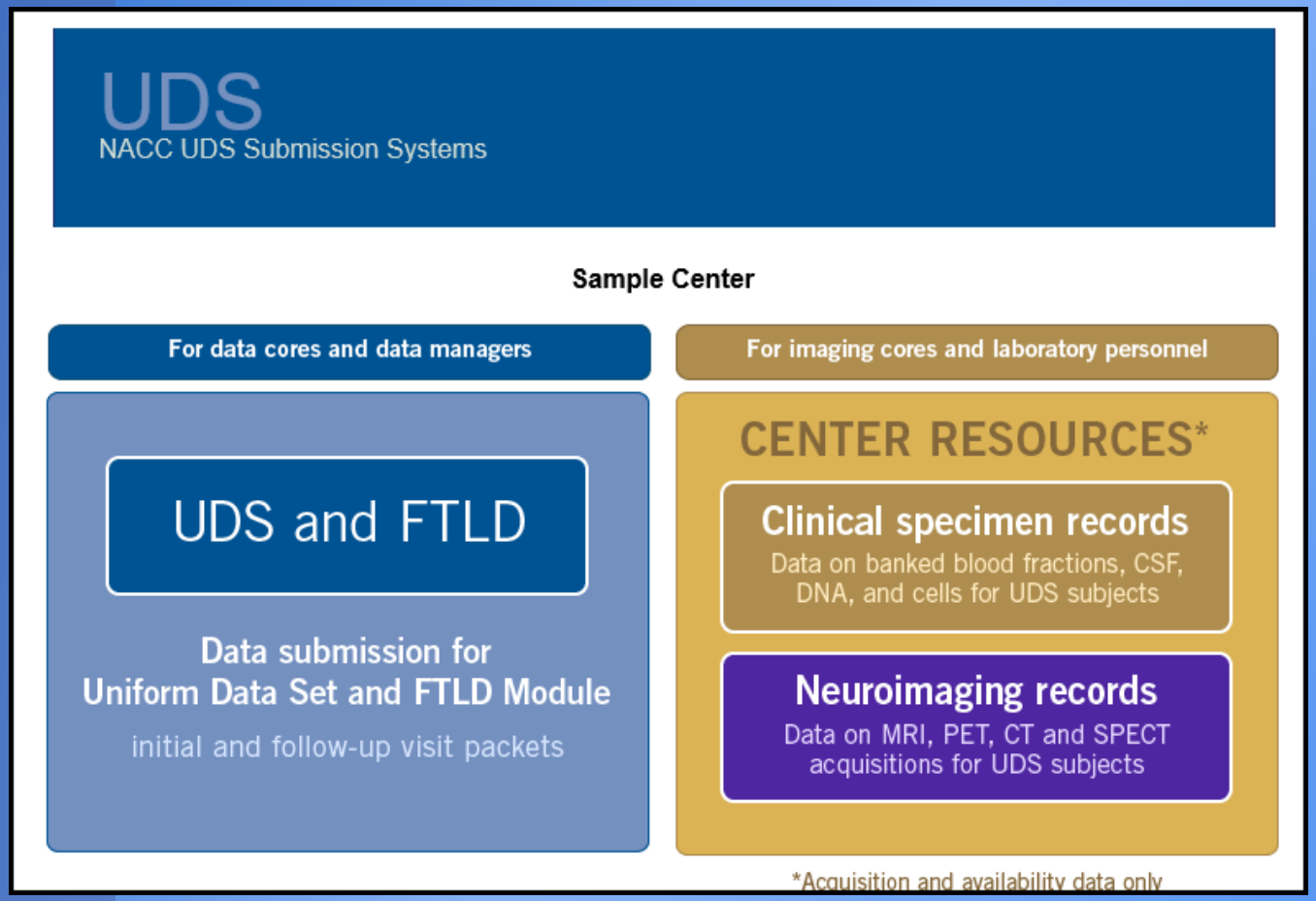
# UDS Version 3 as of September 1, 2015

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

# Center Resources - UDS



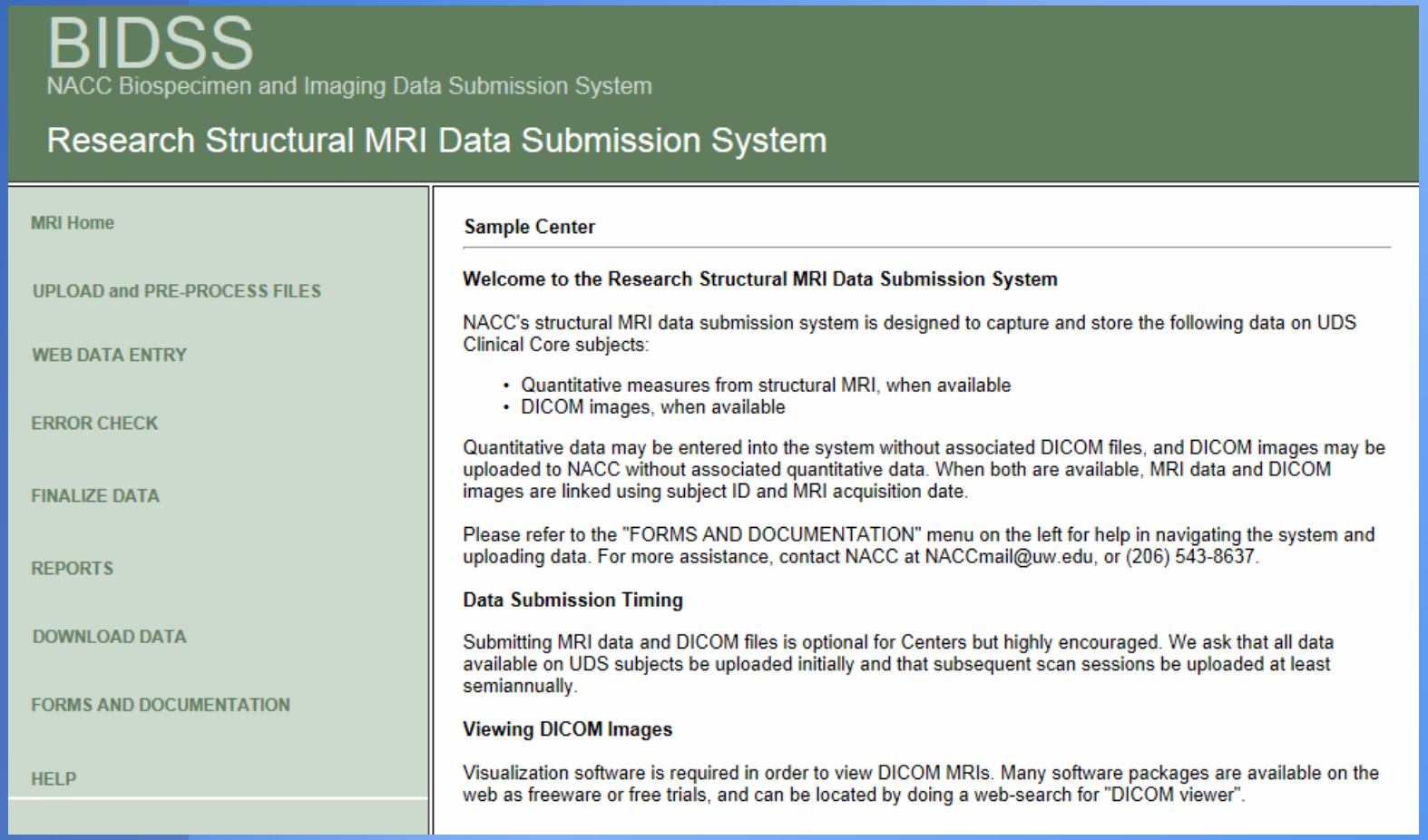
# Center Resources - UDS

- 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

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# 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 |

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# 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 |

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# 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!!!