

# 2019-12: ADNI3 MRI documents & data

*UCDavis Biostat Core*

*December 05, 2019*

## MRI data availability

- Data as of 12-3-2019

Table 1: ADNI-3 data 2019-11 data

Lab	Date of last Data Upload	Date of last Method document	Data Submitted to ATRI by 2019-11	New Data available at LONI
<b>Mayo</b>				
fMRI(NFQ)	11-26-2019	02-13-2013	X	X
QC	Regularly	05-01-2013	X	X
MCH	11-18-2019	12-13-2012	X	X
TBMSyn	11-18-2019	10-31-2013	X	X
<b>UCD</b>				
WMH	05-07-2019	12-16-2013		
<b>USC</b>				
DTI	10-03-2019	10-01-2012	X	X
TBM	08-20-2015	10-01-2012		
<b>UCL</b>				
BSI	11-14-2019	10-31-2012	X	X
<b>UCSF</b>				
FS (x-sect)	11-08-2019	01-31-2014	X	X
FS (long)	11-08-2019	01-31-2014	x	x
ASL	11-02-2015	12-04-2012		
<b>UPENN</b>				
ASHS	11-05-2019	10-15-2018	X	X

## Available ADNI3 scans on LONI (scans after 2017/01/01)

- Used MRILIST data
- “SEQUENCE” variable is used to identify MRI Type.
- Passing QC: used MAYOADIRL\_MRI\_QUALITY\_ADNI3 data, Pass: series\_quality in (1,2,3), Fail: series\_quality in (-1, 4)

Type	All_N	Pass_QC
Accl.MPRAGE	1299	1298
ASL	954	896
DTI	1288	1220
FLAIR	1305	1297
fMRI	1288	1136
HighRes.Hippo	1257	1223
T2Star	1306	1291

**All scans (All\_N) by VISIT: duplicates are removed (One scan per VISIT)**

( using MRILIST )

	Accl.MPRAGE	ASL	DTI	FLAIR	fMRI	HighRes.Hippo	T2Star	NA
ADNI2.Year4	0	0	0	4	0	0	4	0
ADNI2.Year5	1	0	1	2	0	1	2	0
ADNI3.SC.NewPt	572	425	567	573	566	554	573	0
ADNI3.Init.ContPt	319	213	315	319	315	312	319	0
ADNI3.Year1	267	209	265	268	268	254	268	0
ADNI3.Year2	140	107	140	139	139	136	140	0
NA.	0	0	0	0	0	0	0	0
Total	1299	954	1288	1305	1288	1257	1306	0

**Passing QC scans (Pass\_QC) by VISIT: duplicates are removed (One scan per VISIT)**

( using MRILIST and MAYOADIRL\_MRI\_QUALITY\_ADNI3 )

	Accl.MPRAGE	ASL	DTI	FLAIR	fMRI	HighRes.Hippo	T2Star	NA
ADNI3.SC.NewPt	572	399	537	572	482	541	570	0
ADNI3.Init.ContPt	319	210	297	319	281	308	314	0
ADNI3.Year1	267	186	251	267	245	244	267	0
ADNI3.Year2	140	101	135	139	128	130	140	0
NA.	0	0	0	0	0	0	0	0
Total	1298	896	1220	1297	1136	1223	1291	0

**Experimental Sequences by VISIT: duplicates are removed (One scan per VISIT)**

	ASL-2D-PASL	ASL-3D-PASL	ASL-3DpCASL	DTI-MB	fMRI-MB
ADNI3 SC NewPt	180	136	102	78	77
ADNI3 Init ContPt	66	69	78	29	30
ADNI3 Year1	65	77	62	53	55
ADNI3 Year2	30	42	34	34	33
Total	341	324	276	194	195

## Counts of scans using ADNI3 baseline dx (scans after 2017/01/01)

(ADNI3 Baseline Diagnosis: VISCODE: bl:new subjects, init:cont. subjects)

- There are some duplicates, more than one image for the same subject, visit pair - the tables on the right remove the duplicates

### Mayo-fMRI NFQ (version: 11\_26\_19)

#### Total number of fMRI scan

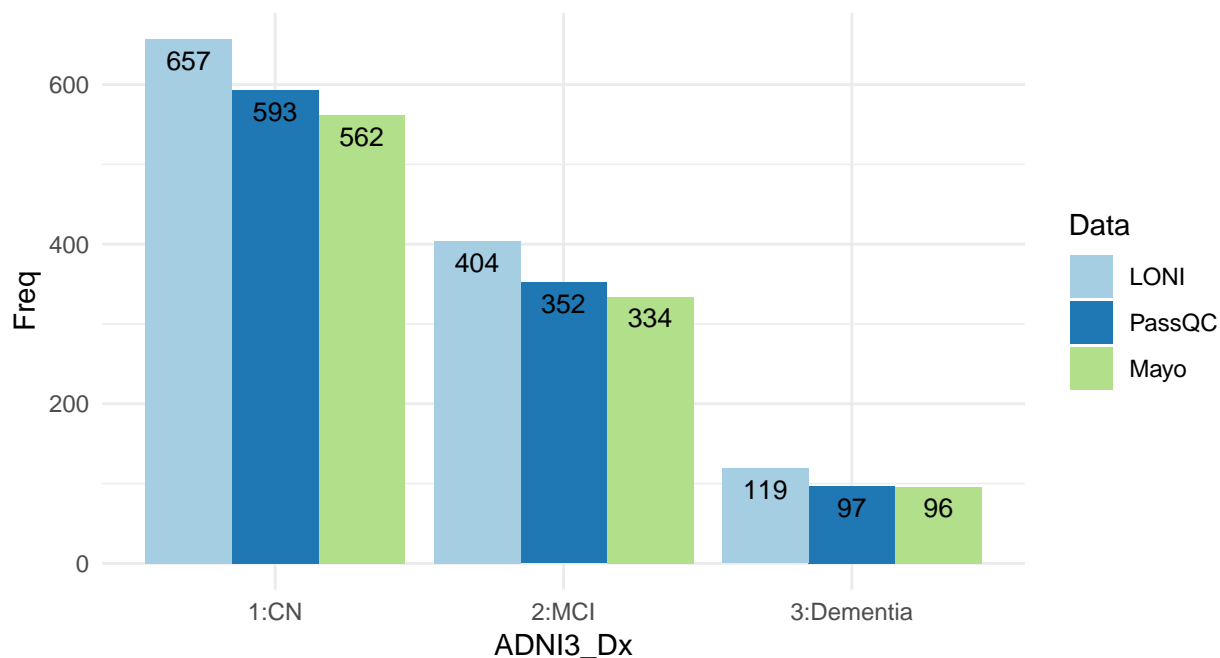
Data	N
MRILIST fMRI	1288
MRILIST fMRI QC Pass	1136
MAYO fMRI Data	1101

#### Mayo fMRI By Visit

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	168	96	35	3	167	95	33	3
sc	251	110	37	86	248	110	37	85
y1	91	102	21	0	88	101	21	0
y2	56	24	4	0	56	24	4	0
nv	1	4	1	6	1	4	1	5
NA.	2	0	0	3	2	0	0	3
<b>Total</b>	<b>569</b>	<b>336</b>	<b>98</b>	<b>98</b>	<b>562</b>	<b>334</b>	<b>96</b>	<b>96</b>

### fMRI scans (total across all visits)

No Duplicates (One scan per visit)



Mayo-MCH (version: 11\_06\_19)

**Total number of MCH scan**

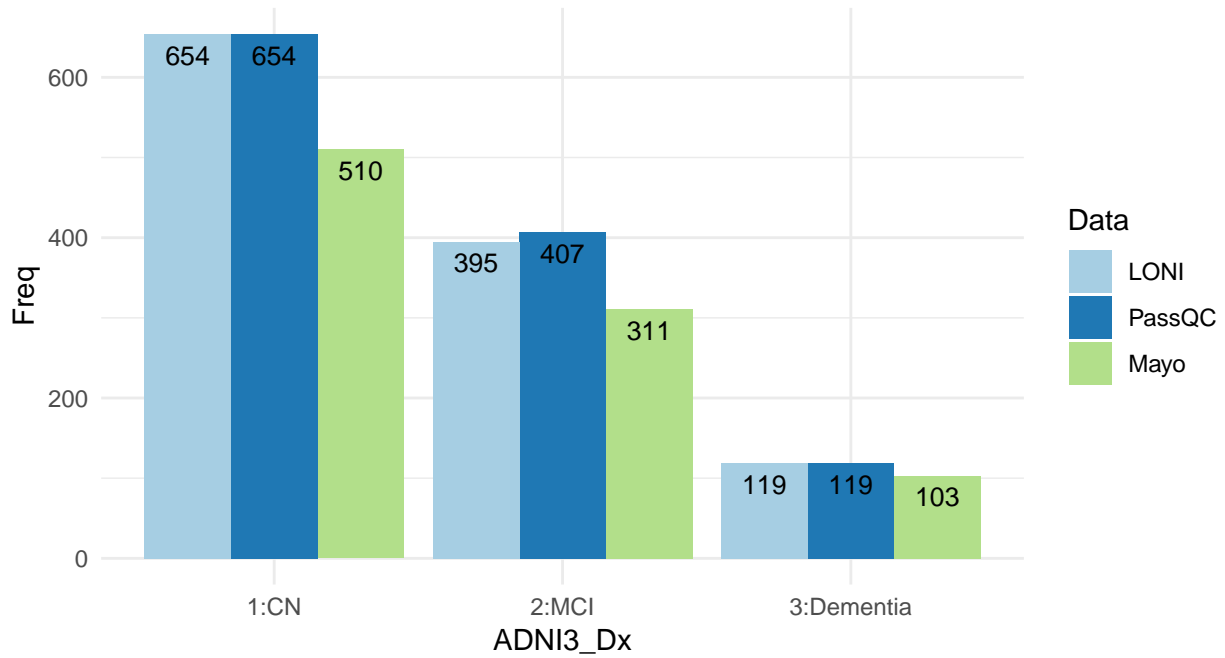
Data	N
MRILIST T2Star	1306
MRILIST T2Star QC PASS	1291
MAYO MCH Data (All Rows)	2301
MAYO MCH NoDup SeriesID	1019

**By Visit**

	Some duplicates (NoDup SeriesID)				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	160	92	36	6	160	91	36	6
sc	237	117	38	83	237	117	38	83
y1	82	82	22	0	81	81	22	0
y2	29	18	5	0	29	18	5	0
NA.	3	4	2	3	3	4	2	3
<b>Total</b>	<b>511</b>	<b>313</b>	<b>103</b>	<b>92</b>	<b>510</b>	<b>311</b>	<b>103</b>	<b>92</b>

**T2 Star scans (total across all visits**

No Duplicates (One scan per visit)



Mayo-TBMSyn (version: 11\_18\_19)

- Check ADNI2 baseline scans with ADNI3 (after 2017/01/01) for continuous subjects, and two ADNI3 scans for new subjects.

Total number of MPRAGE scan (Having ADNI3 follow-up scans)

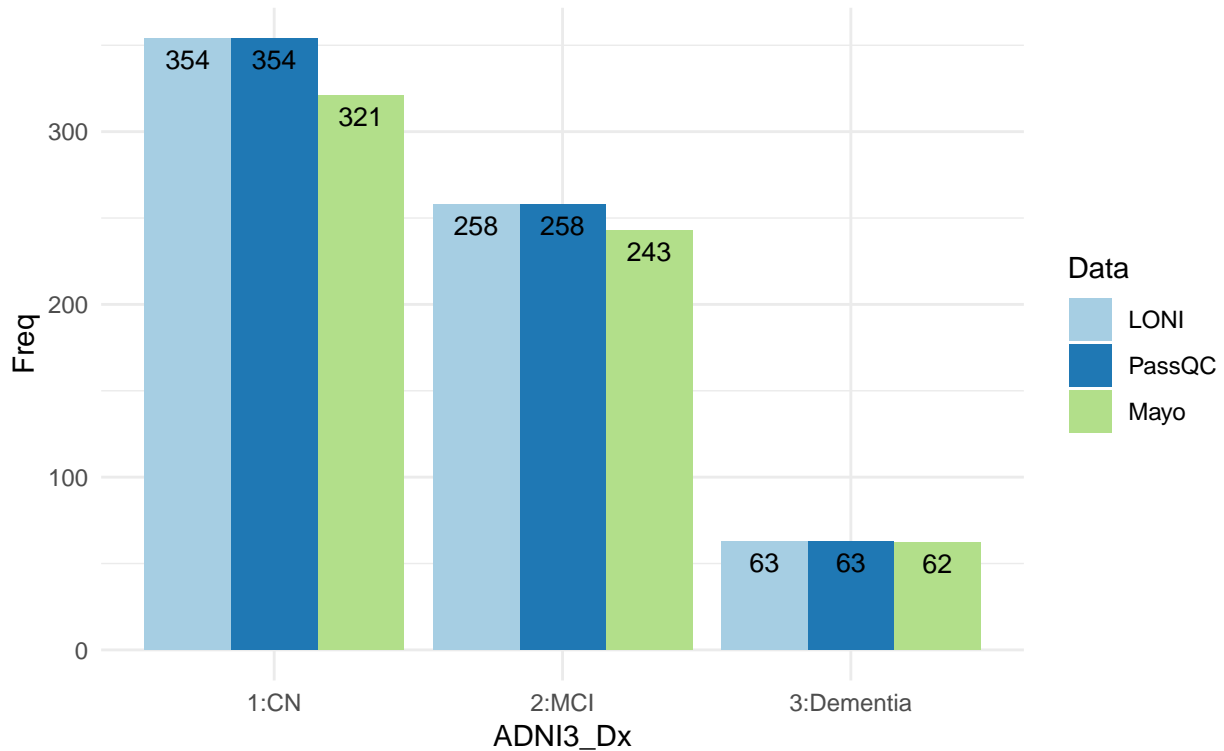
- Having ADNIGO23 baseline scan and ADNI3 follow-up

Data	N
MRILIST Accel.MPRAGE(Have ADNI3 FU)	677
MRILIST Accel.MPRAGE QC PASS(Have ADNI3 FU)	677
MAYO TBMSyn Data (Have ADNI3 FU)	638

By Visit (follow-up scan visit)

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	157	95	30	2	157	95	30	2
y1	102	120	26	0	101	120	26	0
y2	64	30	6	0	61	27	6	0
NA.	2	1	0	3	2	1	0	3
<b>Total</b>	<b>325</b>	<b>246</b>	<b>62</b>	<b>5</b>	<b>321</b>	<b>243</b>	<b>62</b>	<b>5</b>

Acc.MPRAGE scans (have ADNI3 follow-up scans)  
No Duplicates (One scan per visit)



UCD-WMH (version: 05\_07\_19)

Total number of FLAIR scan

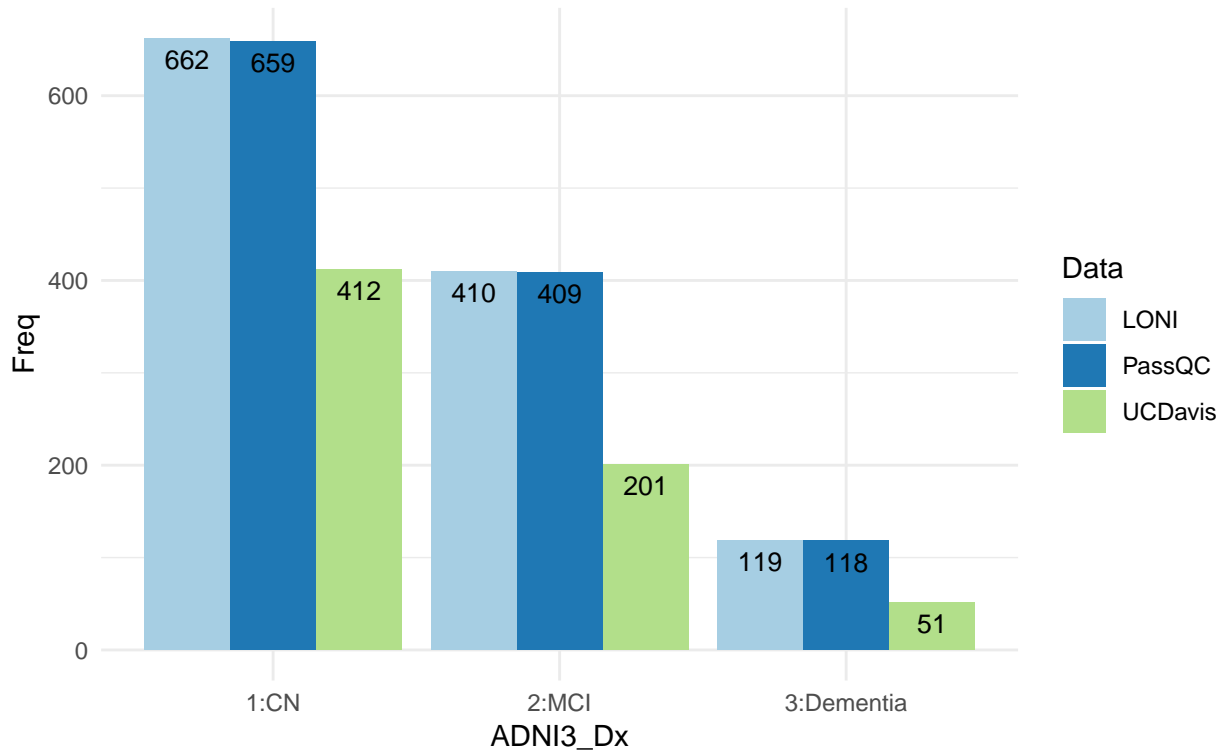
Data	N
MRILIST FLAIR	1305
MRILIST FLAIR QC Pass	1297
UCD WMH Data	718

By Visit of WMH

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	151	87	27	2	151	87	27	2
sc	237	80	20	51	237	80	20	51
y1	24	34	4	0	24	34	4	0
y2	0	0	0	0	0	0	0	0
nv	0	0	0	1	0	0	0	1
NA.	0	0	0	0	0	0	0	0
<b>Total</b>	<b>412</b>	<b>201</b>	<b>51</b>	<b>54</b>	<b>412</b>	<b>201</b>	<b>51</b>	<b>54</b>

FLAIR scans (total across all visits)

No Duplicates (One scan per visit)



UCL-BSI (version: 11\_14\_19)

## Warning: NAs introduced by coercion

For single scans for “BRAINVOL”

Total number of BSI scan

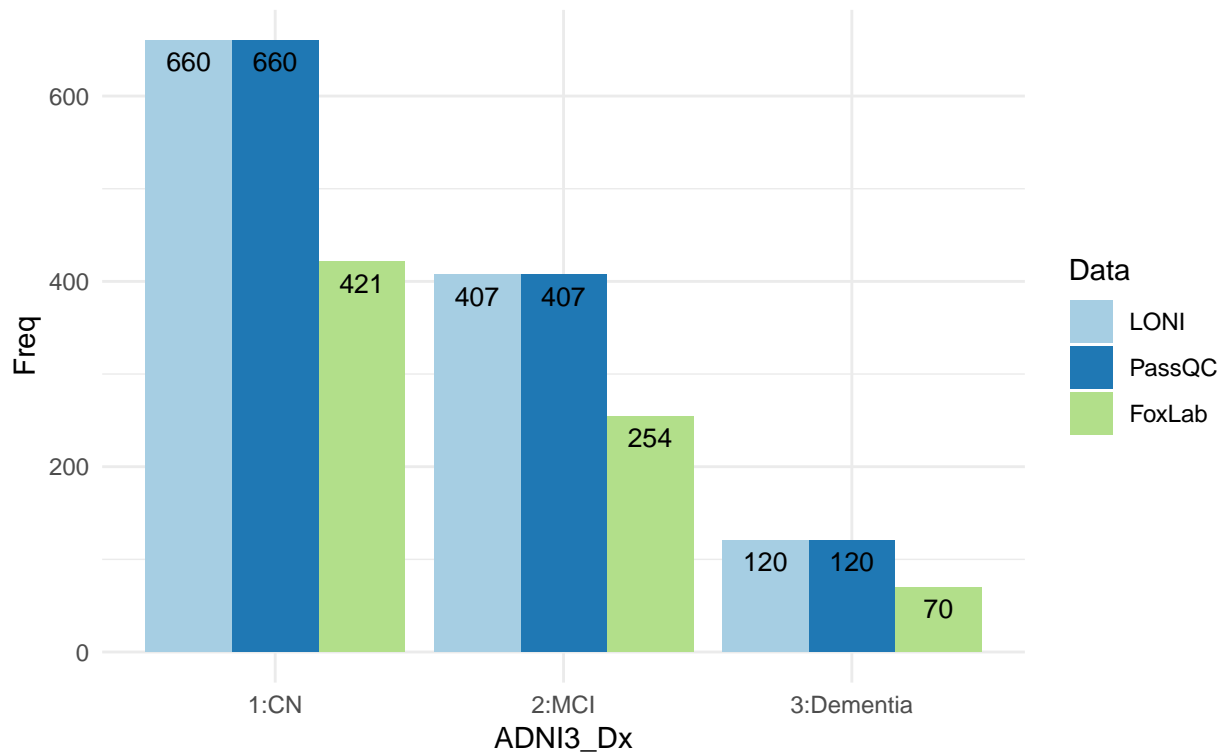
Data	N
MRILIST Accel.MPRAGE	1299
MRILIST Accel.MPRAGE QC PASS	1298
FOXLAB BSI Data	837

By Visit

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
bl	336	157	52	49	325	152	48	47
m12	72	91	20	0	67	86	18	0
m24	32	19	5	0	28	16	4	0
v41	2	0	0	2	1	0	0	1
NA.	0	0	0	0	0	0	0	0
<b>Total</b>	<b>442</b>	<b>267</b>	<b>77</b>	<b>51</b>	<b>421</b>	<b>254</b>	<b>70</b>	<b>48</b>

MPRAGE scans (total across all visits)

No Duplicates (One scan per visit)



For two scans for “KMNDDBCBSI”

Total number of MPRAGE scan (Having Both BL and Follow-up scans)

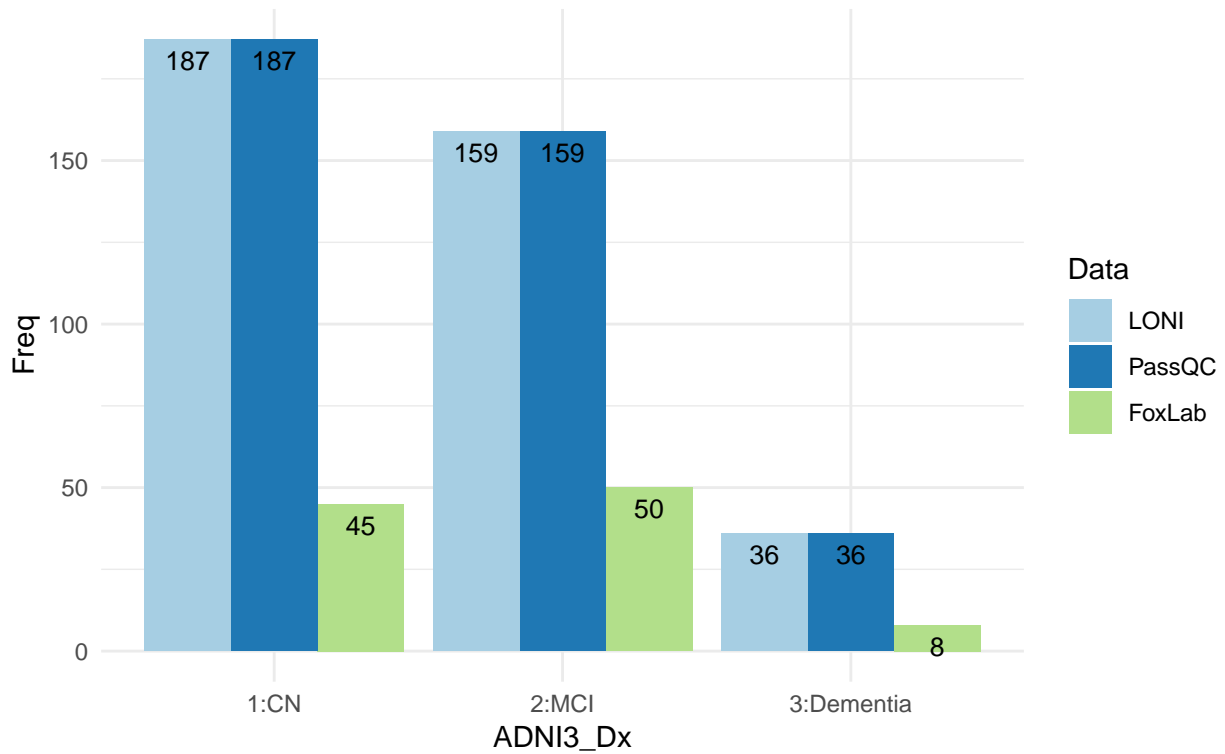
- Limited to having both scans from ADNI3

Data	N
MRILIST Accel.MPRAGE(Have BL and Y1/Y2)	382
MRILIST Accel.MPRAGE QC PASS(Have BL and Y1/Y2)	382
FoxLAB BSI Data (having KMNDDBCBSI in ADNI3)	105

By Visit (follow-up scan visit)

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
m12	33	40	8	0	32	40	7	0
m24	13	10	1	0	13	10	1	0
NA.	0	0	0	0	0	0	0	0
<b>Total</b>	<b>46</b>	<b>50</b>	<b>9</b>	<b>0</b>	<b>45</b>	<b>50</b>	<b>8</b>	<b>0</b>

Acc.MPRAGE scans (have both ADNI3BL and Y1/Y2 follow-up scans)  
No Duplicates (One scan per visit)





UCSF FreeSurfer6 (version: 11\_08\_19)

Total number of MPRAGE scan for FreeSurfer

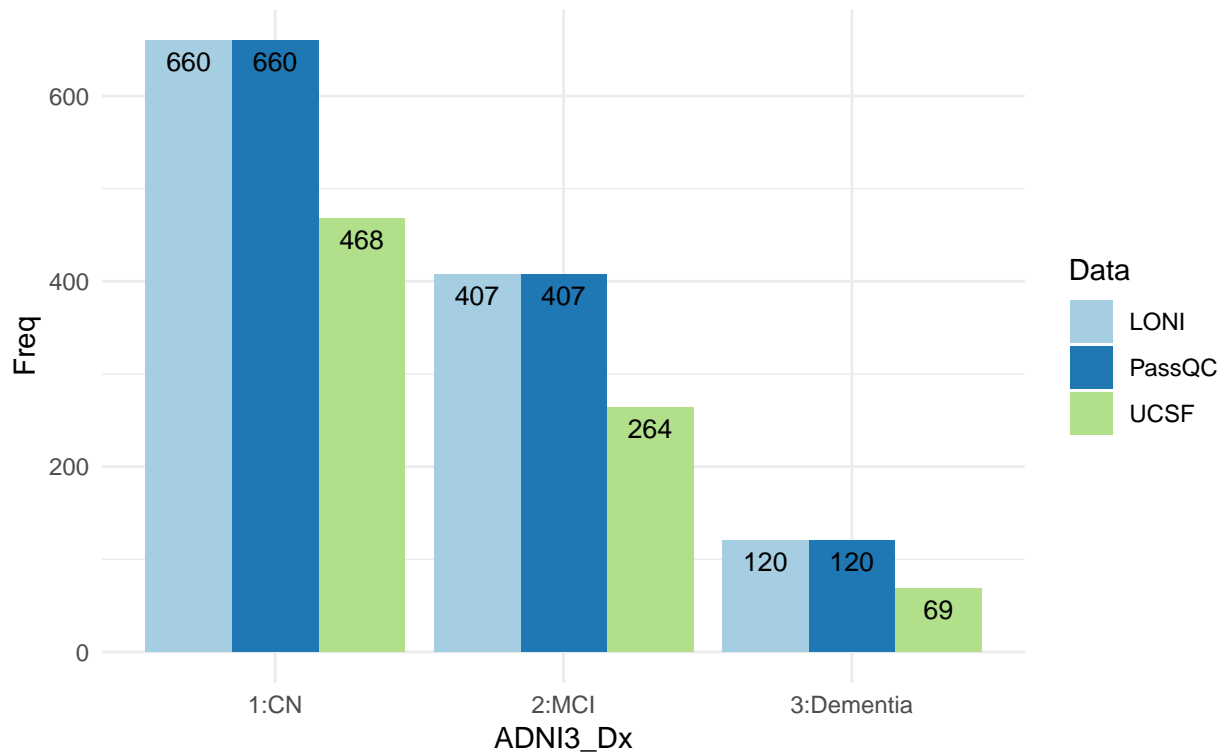
Data	N
MRILIST Accel.MPRAGE	1299
MRILIST Accel.MPRAGE QC PASS	1298
MRILIST Accel.MPRAGE QC Pass nodup	1299
UCSF FS6 Data	906

By Visit

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	140	72	24	2	131	71	22	2
sc	222	101	32	66	216	98	30	65
y1	82	82	12	0	76	77	12	0
y2	46	19	5	0	44	18	5	0
nv	1	0	0	0	1	0	0	0
NA.	0	0	0	0	0	0	0	0
<b>Total</b>	<b>491</b>	<b>274</b>	<b>73</b>	<b>68</b>	<b>468</b>	<b>264</b>	<b>69</b>	<b>67</b>

MPRAGE scans (total across all visits)

No Duplicates (One scan per visit)



UPENN ASHS (version: 11\_05\_19)

Total number of High-resolution Hippocampus scan

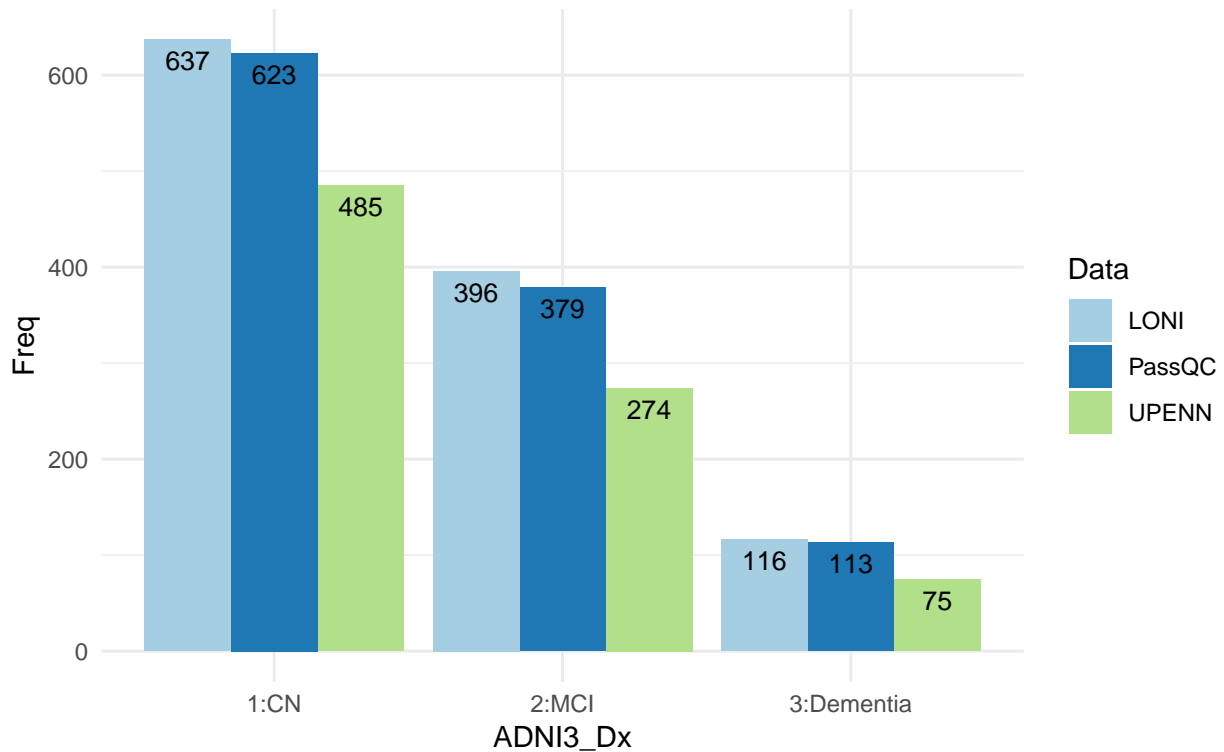
Data	N
MRILIST High-ses.Hipp	1257
MRILIST High-ses.Hipp QC Pass	1223
UPENN ASHS Data	907

By Visit

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	156	89	27	2	154	89	27	2
sc	250	100	32	66	250	100	32	66
y1	52	75	14	0	51	73	14	0
y2	29	12	2	0	29	12	2	0
nv	1	0	0	0	1	0	0	0
NA.	0	0	0	0	0	0	0	0
<b>Total</b>	<b>488</b>	<b>276</b>	<b>75</b>	<b>68</b>	<b>485</b>	<b>274</b>	<b>75</b>	<b>68</b>

High-res.Hipp. scans (total across all visits)

No Duplicates (One scan per visit)



USC DTI (version: 10\_03\_19)

Total number of DTI scan

- No ADNI3 scans are in the USC DTI file.

Data	N
MRILIST DTI	1288
MRILIST DTI QC Pass	1220
USC DTI Data	0

USC DTI By Visit

	Some duplicates				Remove the duplicates			
	1:CN	2:MCI	3:Dementia	NA	1:CN	2:MCI	3:Dementia	NA
init	0	0	0	0	0	0	0	0
sc	0	0	0	0	0	0	0	0
y1	0	0	0	0	0	0	0	0
y2	0	0	0	0	0	0	0	0
nv	0	0	0	0	0	0	0	0
NA.	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

DTI scans (total across all visits)

No Duplicates (One scan per visit)

