

QUOD Statistics

October 2017

QUOD Bioresource Key Figures

Date 1 October 2017

Donors 2,591

Samples 45,486 in total, including:

Blood 24,460 samples

Urine 5,675 samples

Kidney 6,197 samples (3,128 biopsies)

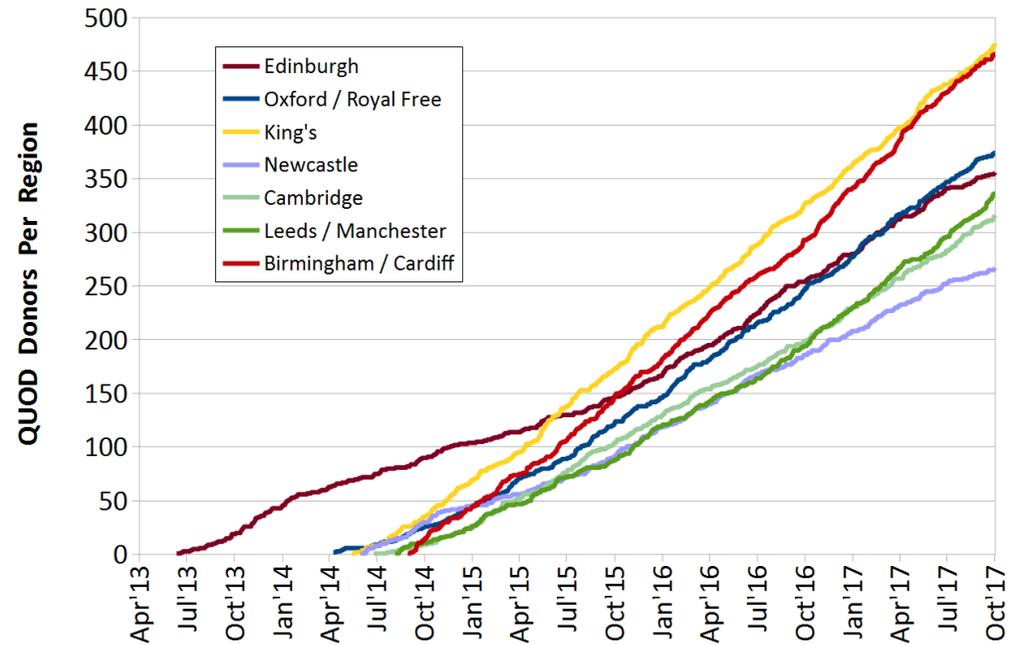
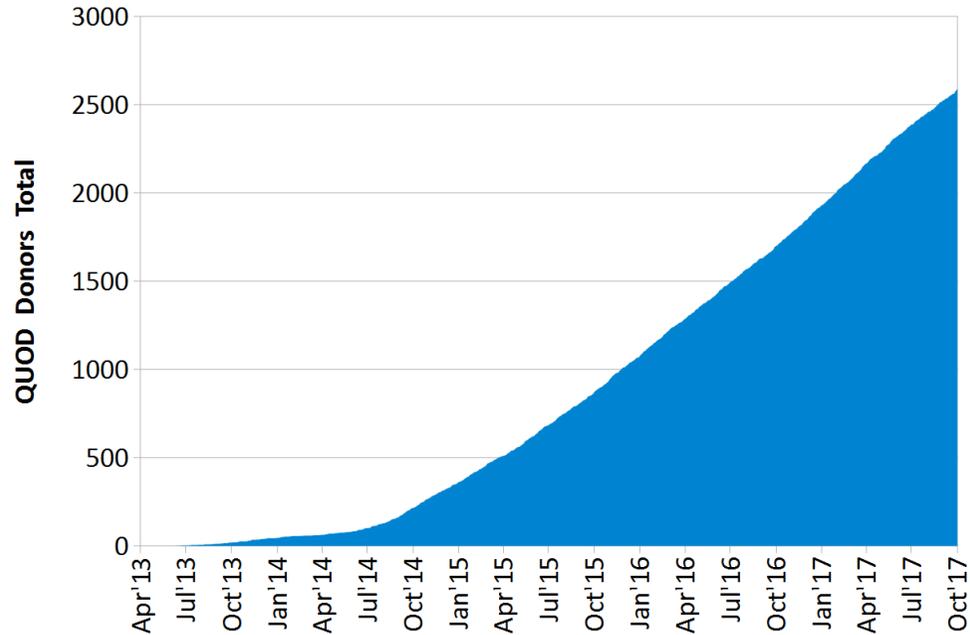
Liver 3,461 samples (1,739 biopsies)

Ureter 3,780 samples (1,903 biopsies)

Spleen 1,913 samples (1,913 biopsies)

Units 271,949 biobank items

QUOD Donors In Total and Per Region

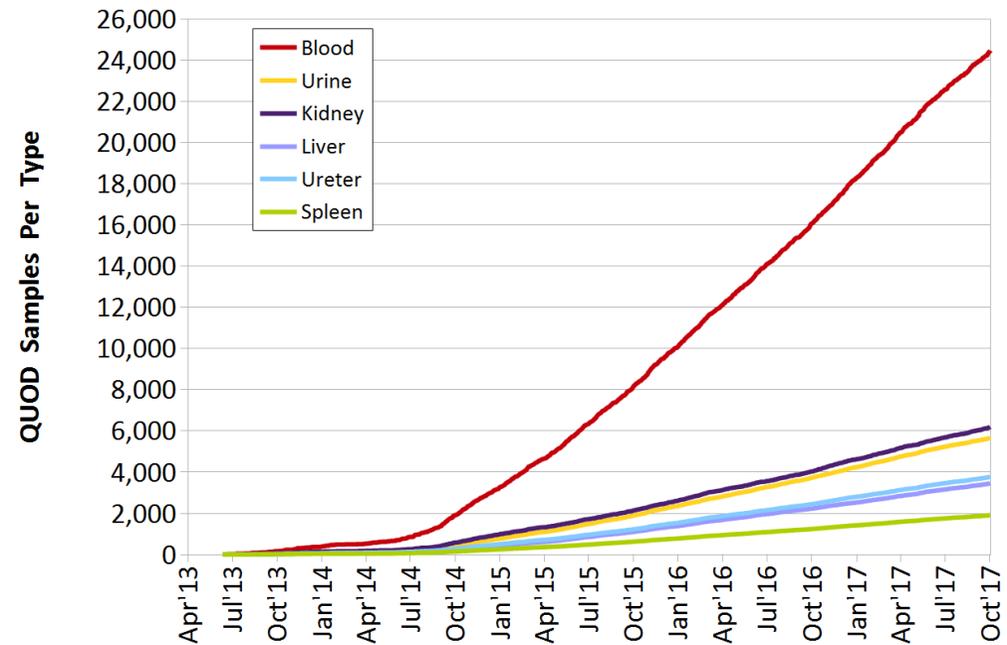
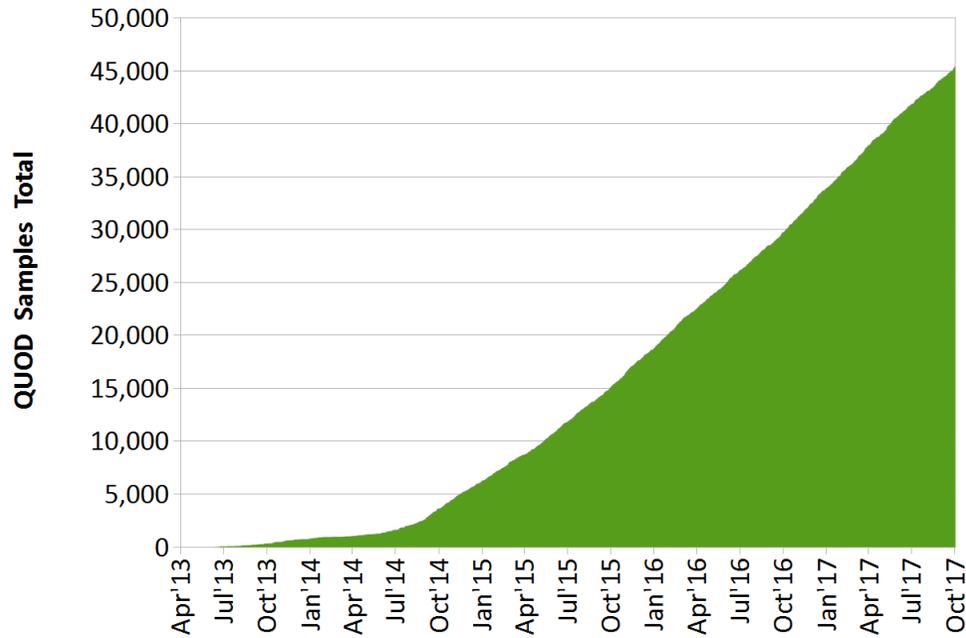


Milestone:

2,500 donors were enrolled into the QUOD Bioresource by 22 August 2017



QUOD Samples In Total and Per Type





QUOD Sample Collection Metrics

| Statistics Coverage Period: | | Jun'13 – Sep'17 | | Legend: | | CS – Collected Samples (%) | | MS – Missed Samples (%) | | EC – Expected and collected | | EM – Expected but missing | | NN – Not expected and not collected | | NC – Not expected but collected | | | |
|-----------------------------------|--|-----------------|--|------------------------|--|----------------------------|-----|-------------------------|-----|-----------------------------|----|----------------------------------|--|-------------------------------------|-----|---------------------------------|------|------|----|
| Donors Covered By Samples: | | 2558 | | Tissue Samples: | | CS | MS | EC | EM | NN | NC | Blood Samples: | | CS | MS | EC | EM | NN | NC |
| Donor Groups: | | | | DL RNAlater | | 86% | 14% | 1705 | 289 | 551 | 13 | DB1 | | 29% | 71% | 741 | 1817 | 0 | 0 |
| DBD Total | | 1250 49% | | DL Formalin | | 86% | 14% | 1706 | 288 | 551 | 13 | DB2 | | 94% | 6% | 2413 | 145 | 0 | 0 |
| – DBD Actual | | 1198 47% | | DLK RNAlater | | 77% | 23% | 1531 | 463 | 556 | 8 | DB3 | | 92% | 8% | 2347 | 211 | 0 | 0 |
| – DBD Non-proceeding | | 52 2% | | DLK Formalin | | 77% | 23% | 1534 | 460 | 556 | 8 | DB4 | | 89% | 11% | 1113 | 137 | 1296 | 12 |
| DCD Total | | 1308 51% | | DRK RNAlater | | 77% | 23% | 1538 | 456 | 557 | 7 | Blood Samples – Detailed: | | CS | MS | EC | EM | NN | NC |
| – DCD Actual | | 796 31% | | DRK Formalin | | 77% | 23% | 1540 | 454 | 557 | 7 | DB1 EDTA | | 9% | 91% | 236 | 2322 | 0 | 0 |
| – DCD Non-proceeding | | 512 20% | | DLU RNAlater | | 94% | 6% | 1865 | 129 | 553 | 11 | DB1 Heparin | | 1% | 99% | 37 | 2521 | 0 | 0 |
| | | | | DLU Formalin | | 94% | 6% | 1868 | 126 | 553 | 11 | DB1 SST | | 6% | 94% | 145 | 2413 | 0 | 0 |
| | | | | DS RNAlater | | 95% | 5% | 1886 | 108 | 550 | 14 | DB1 Plasma Other | | 2% | 98% | 45 | 2513 | 0 | 0 |
| | | | | | | | | | | | | DB1 Serum Other | | 12% | 88% | 318 | 2240 | 0 | 0 |
| Donor Groups Summary: | | | | Urine Samples: | | CS | MS | EC | EM | NN | NC | DB2 EDTA | | 94% | 6% | 2411 | 147 | 0 | 0 |
| Actual donors | | 1994 78% | | DU2 | | 88% | 12% | 2261 | 297 | 0 | 0 | DB2 Heparin | | 94% | 6% | 2405 | 153 | 0 | 0 |
| Non-proceeding donors | | 564 22% | | DU3 | | 89% | 11% | 2277 | 281 | 0 | 0 | DB2 SST | | 94% | 6% | 2398 | 160 | 0 | 0 |
| | | | | DU4 | | 85% | 15% | 1058 | 192 | 1281 | 27 | DB3 EDTA | | 92% | 8% | 2342 | 216 | 0 | 0 |
| | | | | | | | | | | | | DB3 Heparin | | 91% | 9% | 2335 | 223 | 0 | 0 |
| | | | | | | | | | | | | DB3 SST | | 91% | 9% | 2316 | 242 | 0 | 0 |
| | | | | | | | | | | | | DB4 EDTA | | 89% | 11% | 1111 | 139 | 1296 | 12 |
| | | | | | | | | | | | | DB4 Heparin | | 89% | 11% | 1107 | 143 | 1296 | 12 |
| | | | | | | | | | | | | DB4 SST | | 88% | 12% | 1102 | 148 | 1296 | 12 |

Note 1 – Tissue samples are expected to be collected only for actual donors. For tissue samples, sum of EC and EM equals the number of actual donors, and sum of NN and NC equals the number of non-proceeding donors.

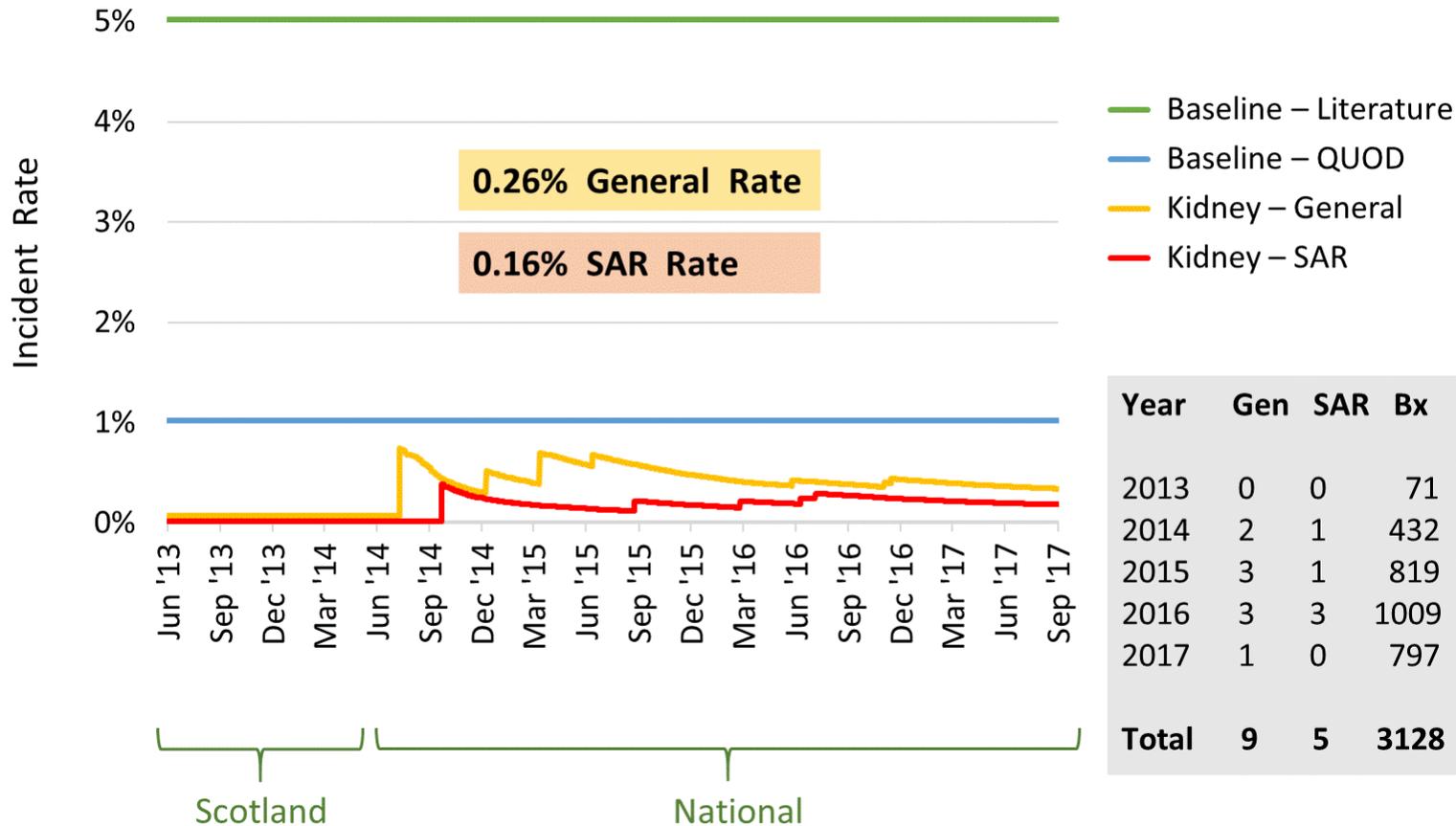
Note 2 – DB4 and DU4 samples are expected to be collected only for DBD donors. For these samples, sum of EC and EM equals the number of DBD donors, and sum of NN and NC equals the number of DCD donors.

Note 3 – DB1/2/3 and DU2/3 are expected to be collected for all donors.

QUOD Biopsy and Incident Metrics



Kidney Biopsies



| Year | Gen | SAR | Bx |
|--------------|----------|----------|-------------|
| 2013 | 0 | 0 | 71 |
| 2014 | 2 | 1 | 432 |
| 2015 | 3 | 1 | 819 |
| 2016 | 3 | 3 | 1009 |
| 2017 | 1 | 0 | 797 |
| Total | 9 | 5 | 3128 |

General Incidents:

Clinical incidents – no significant recipient consequences or thought not to be attributable to a QUOD biopsy

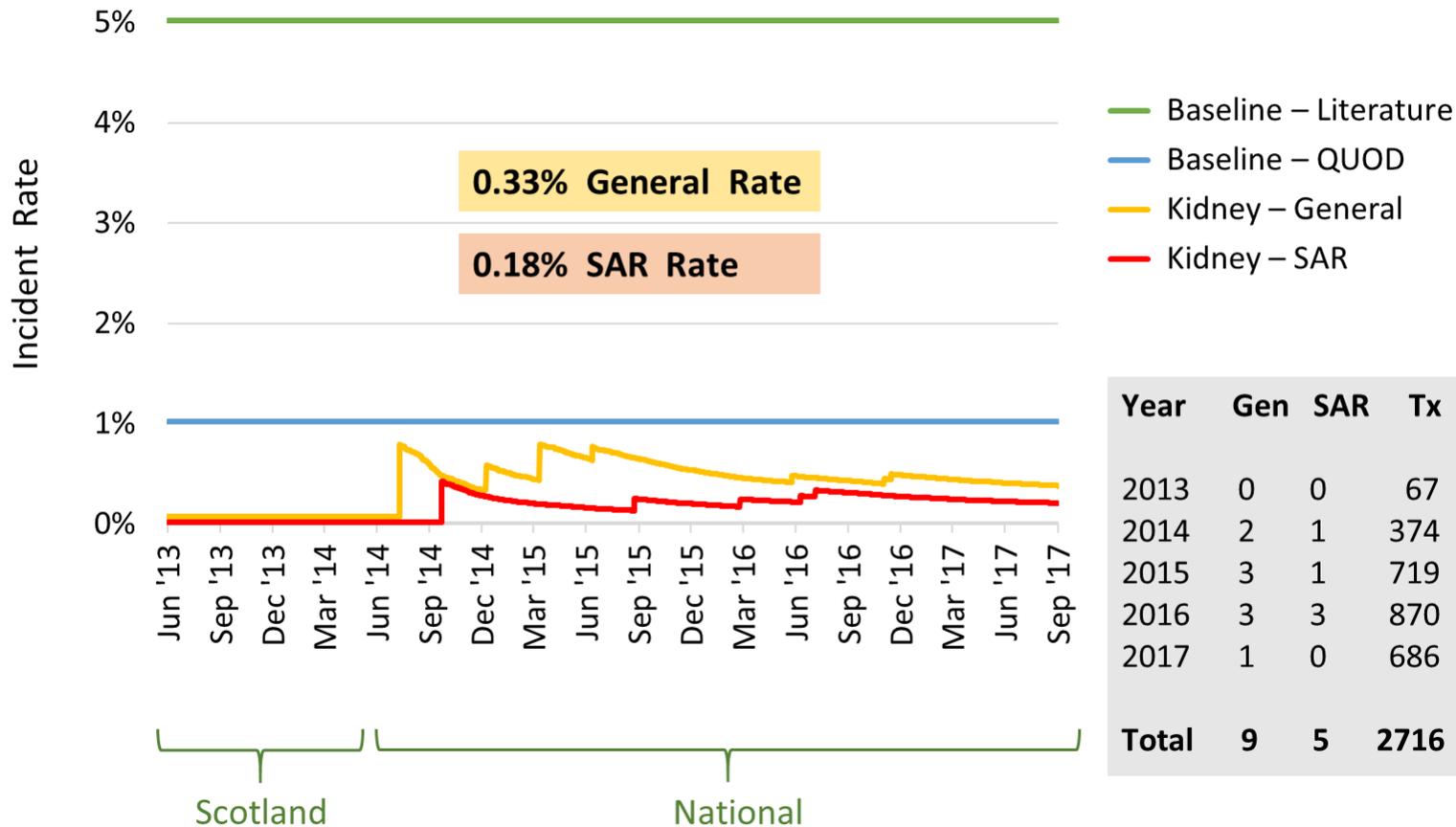
Serious Adverse Reactions:

Clinical incidents with recipient consequences – considered as most likely due to a QUOD biopsy

QUOD Biopsy and Incident Metrics



Kidney Biopsies (Tx)



| Year | Gen | SAR | Tx |
|--------------|----------|----------|-------------|
| 2013 | 0 | 0 | 67 |
| 2014 | 2 | 1 | 374 |
| 2015 | 3 | 1 | 719 |
| 2016 | 3 | 3 | 870 |
| 2017 | 1 | 0 | 686 |
| Total | 9 | 5 | 2716 |

General Incidents:

Clinical incidents – no significant recipient consequences or thought not to be attributable to a QUOD biopsy

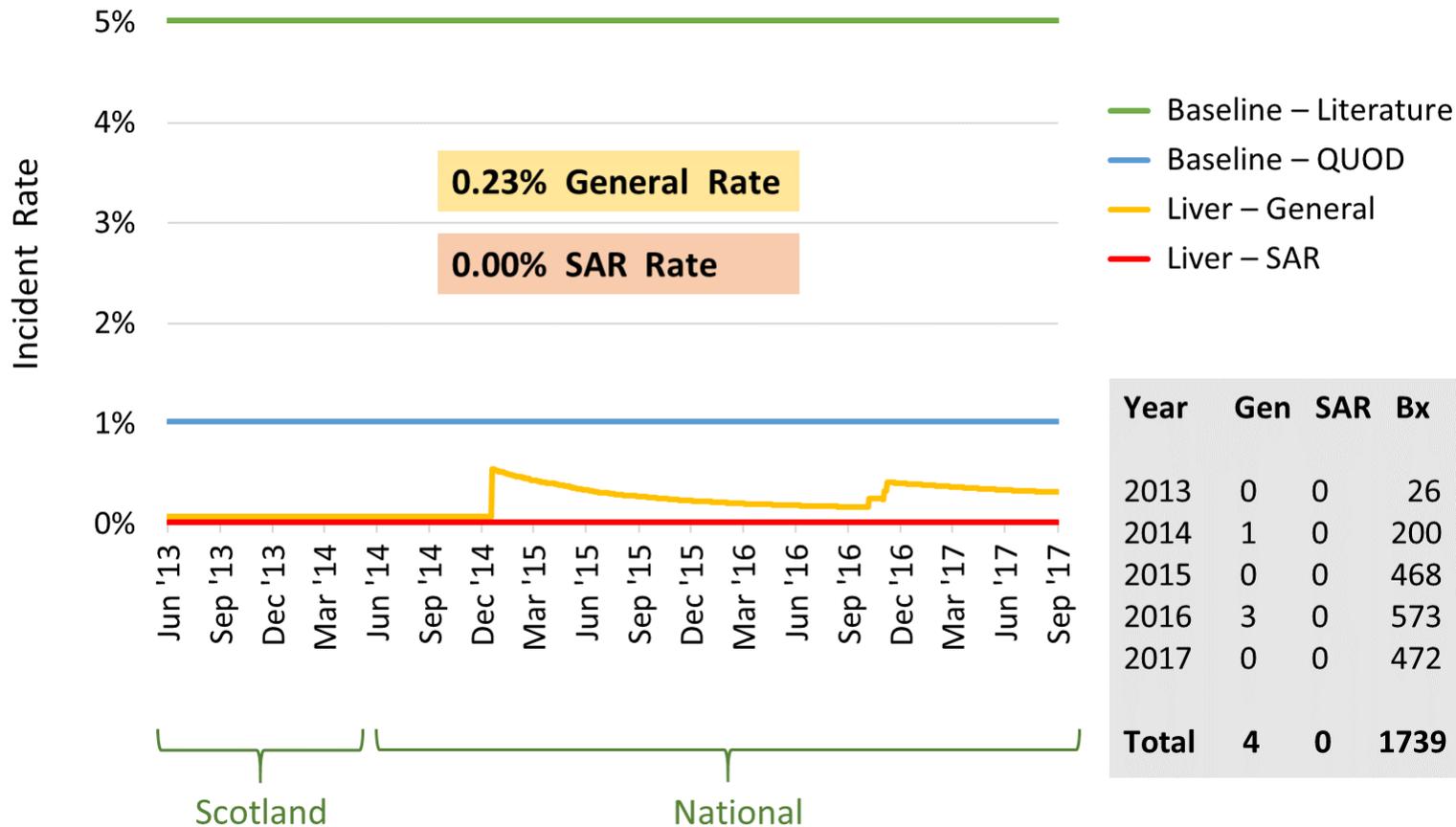
Serious Adverse Reactions:

Clinical incidents with recipient consequences – considered as most likely due to a QUOD biopsy

QUOD Biopsy and Incident Metrics



Liver Biopsies



| Year | Gen | SAR | Bx |
|--------------|----------|----------|-------------|
| 2013 | 0 | 0 | 26 |
| 2014 | 1 | 0 | 200 |
| 2015 | 0 | 0 | 468 |
| 2016 | 3 | 0 | 573 |
| 2017 | 0 | 0 | 472 |
| Total | 4 | 0 | 1739 |

General Incidents:

Clinical incidents – no significant recipient consequences or thought not to be attributable to a QUOD biopsy

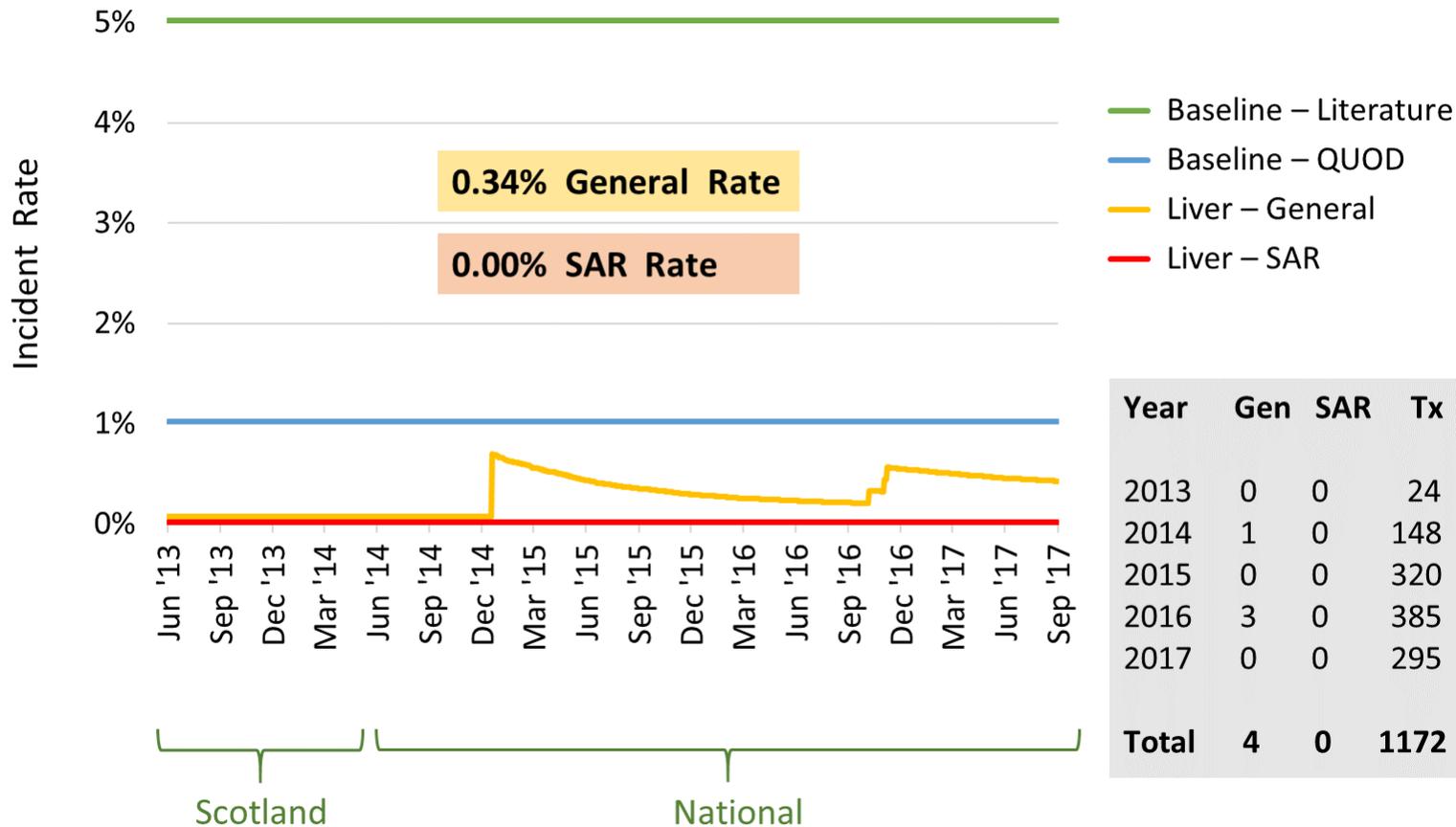
Serious Adverse Reactions:

Clinical incidents with recipient consequences – considered as most likely due to a QUOD biopsy

QUOD Biopsy and Incident Metrics



Liver Biopsies (Tx)



| Year | Gen | SAR | Tx |
|--------------|----------|----------|-------------|
| 2013 | 0 | 0 | 24 |
| 2014 | 1 | 0 | 148 |
| 2015 | 0 | 0 | 320 |
| 2016 | 3 | 0 | 385 |
| 2017 | 0 | 0 | 295 |
| Total | 4 | 0 | 1172 |

General Incidents:

Clinical incidents – no significant recipient consequences or thought not to be attributable to a QUOD biopsy

Serious Adverse Reactions:

Clinical incidents with recipient consequences – considered as most likely due to a QUOD biopsy

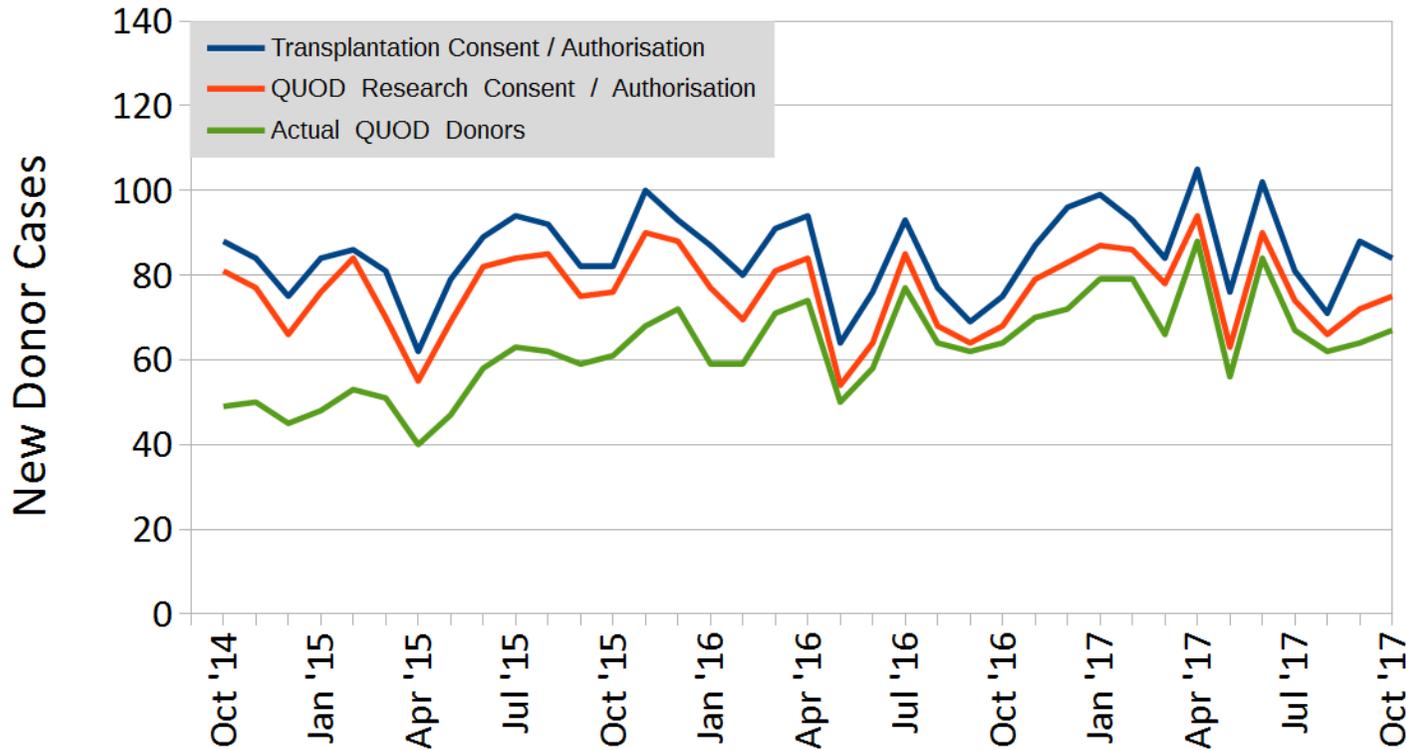
QUOD Biopsy and Incident Metrics



Literature References:

- Peters et al (2017). Acta Radiol. 58(2):240-8.
- Chunduri et al (2015). Semin Dial. 28(2):E11-4.
- Furness et al (2003). Transplantation. 76(6):969-73.
- Cozens et al (1992). Br J Radiol. 65(775):594-7.

Consent for QUOD Research and Actual QUOD Donors — Per Month

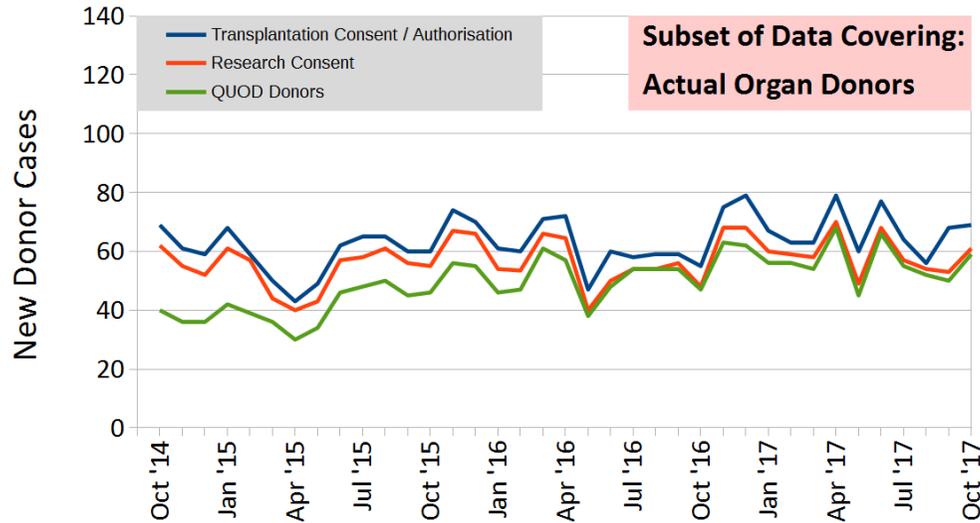


All Donors (Proc + Non)

Cases in Sep '17:

- 84 Tx Consent / Auth
- 75 Res. Consent / Auth
- 67 Actual QUOD Donors

* Research consent data for Jan-Mar '16 was imputed due to unavailability from records

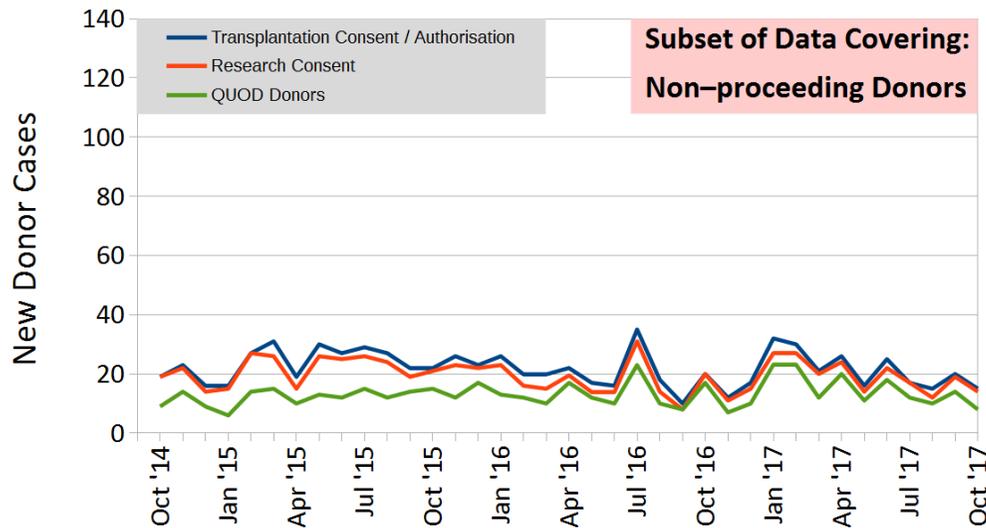


Actual Organ Donors

Cases in Sep '17:

- 69 Tx Consent / Auth
- 61 Res. Consent / Auth
- 59 Actual QUOD Donors

* Research consent data for Jan-Mar '16 was imputed due to unavailability from records



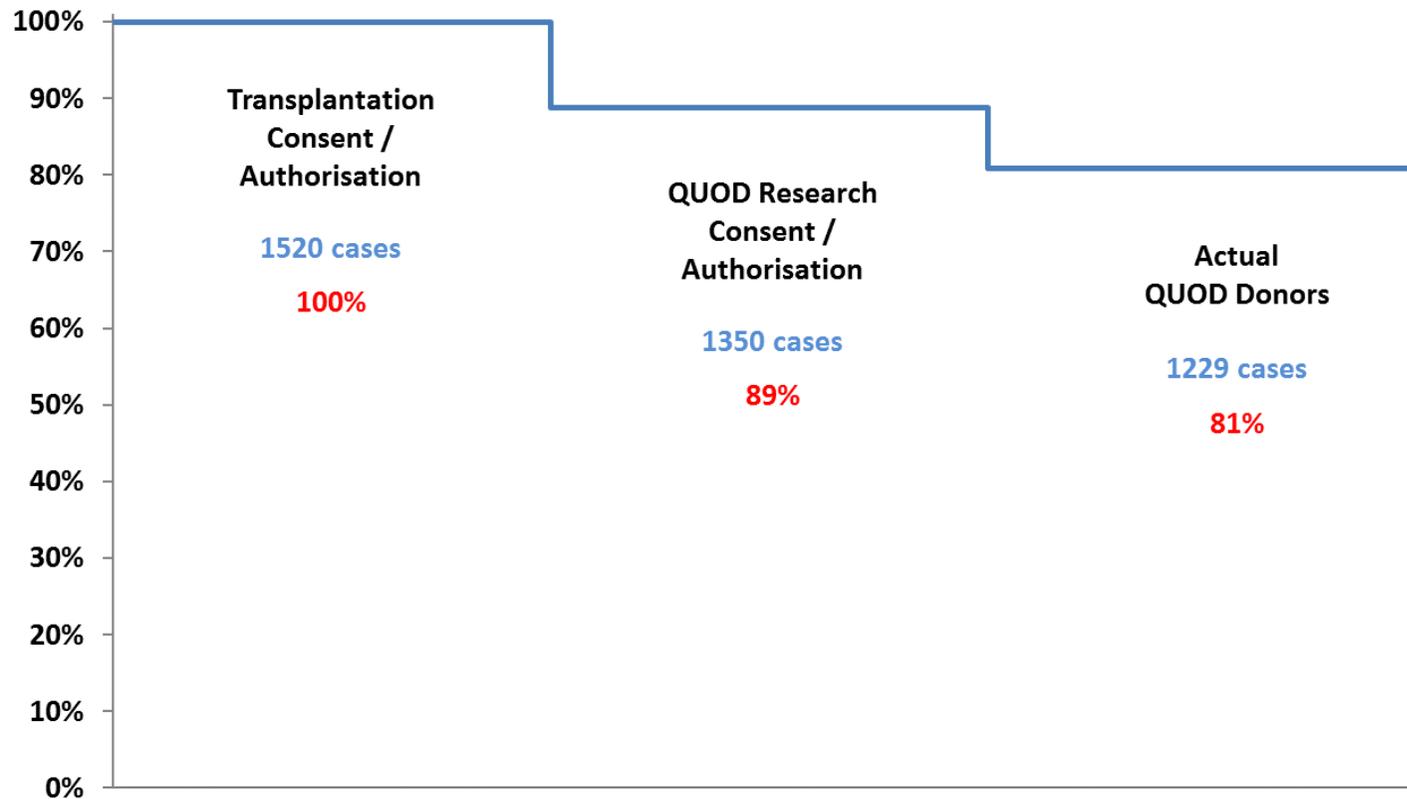
Non-proceeding Donors

Cases in Sep '17:

- 15 Tx Consent / Auth
- 14 Res. Consent / Auth
- 8 Actual QUOD Donors

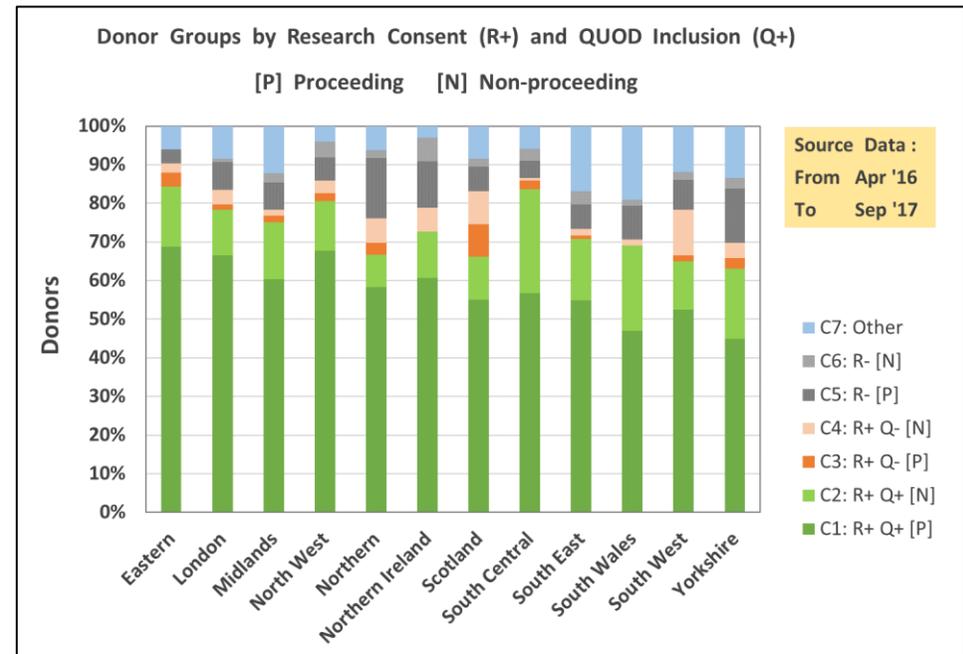
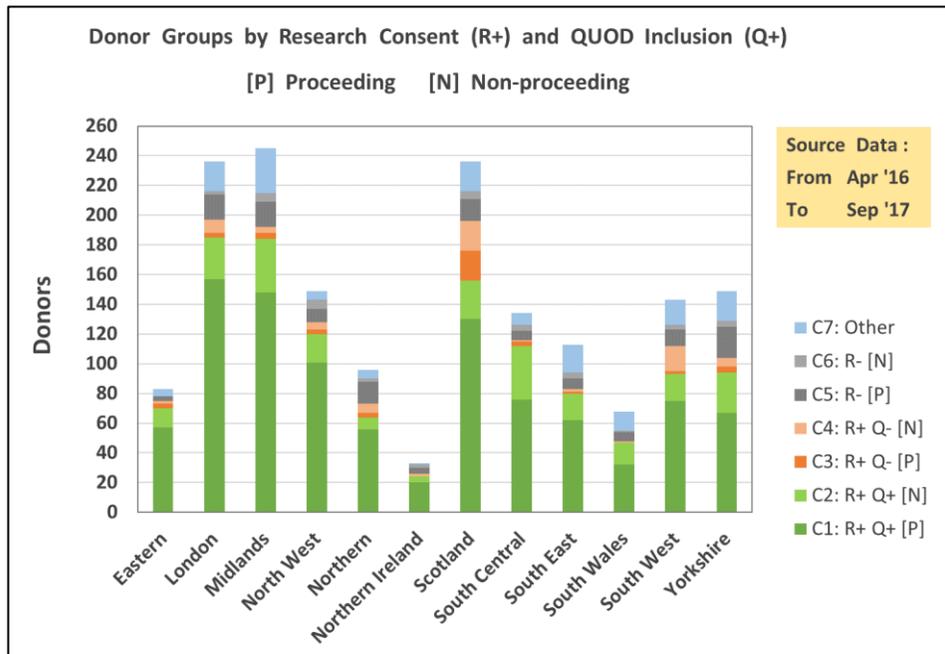
* Research consent data for Jan-Mar '16 was imputed due to unavailability from records

Consent for QUOD Research and Actual QUOD Donors — Step Chart

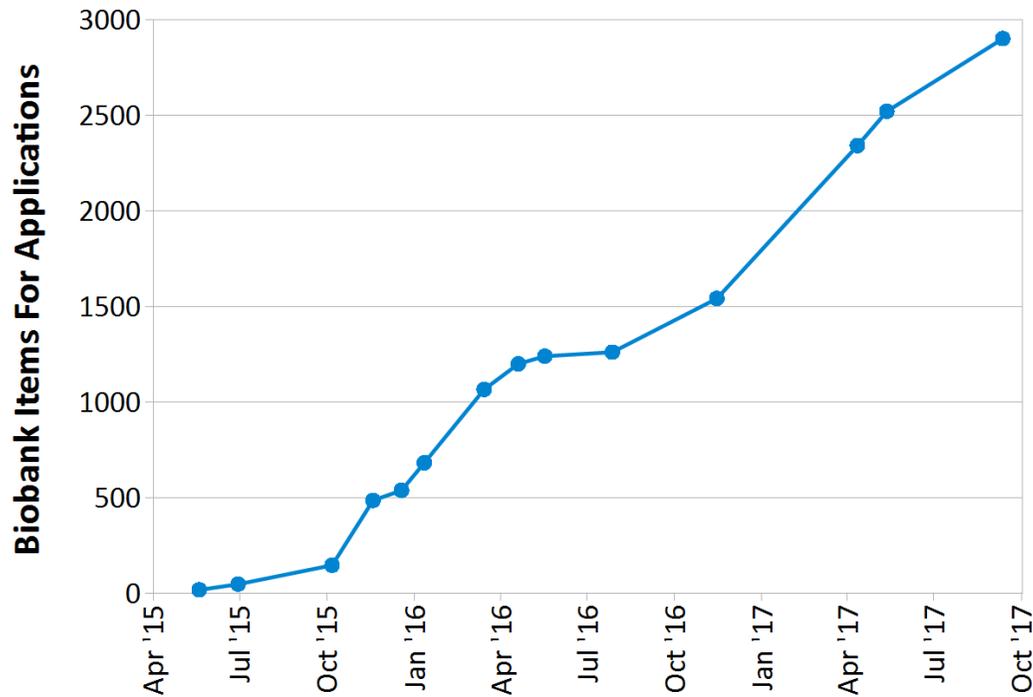


18 Months (Apr '16 – Sep '17)

Consent for QUOD Research and Actual QUOD Donors — Per SNOD Team



QUOD Samples Issued to Applications



NRG(17)28

- Latest issued samples (Sep'17) : RAP028 (Khorsandi), RAP030 (Brennan)
- Samples were issued to 14 research applications, as complete or phased sample sets
- Issued samples account to 1% of QUOD biobank items, while covering 15% of donors
- Further samples will be allocated and issued to 13 approved research applications