NTG Annual Transport Data. Bristol 2016.

Andy Leslie

Nurse Consultant, CenTre Neonatal Transport

Here’s what we’ve got..

- Service characteristics
- Activity numbers, national & per team
- Benchmarks
- Air transport – activity and possible unmet need

- BUT, too much to show so data by email will have more detail.

Not included today, but will be mailed out & on www

- Service characteristics
- Hypocarbia & hypercarbia per team
- More long journey data

Method

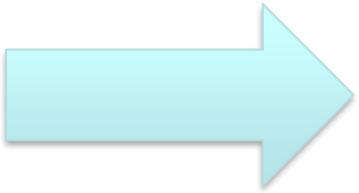
- Email to transport service's medical and nursing leads requesting activity data from 1.1.16 to 30.6.16
- Brief additional information about each service.
- New this year…
  - Stabilising time
  - Long journeys
  - New cooling metric

Number of services, UK

- 2012 – data from 22
- 2013 – data from 21
- 2014 – data from 19
- 2015 – data from 19
- **2016 – data from 18 (incl. v. limited from 1)**

Reorganisations & additions

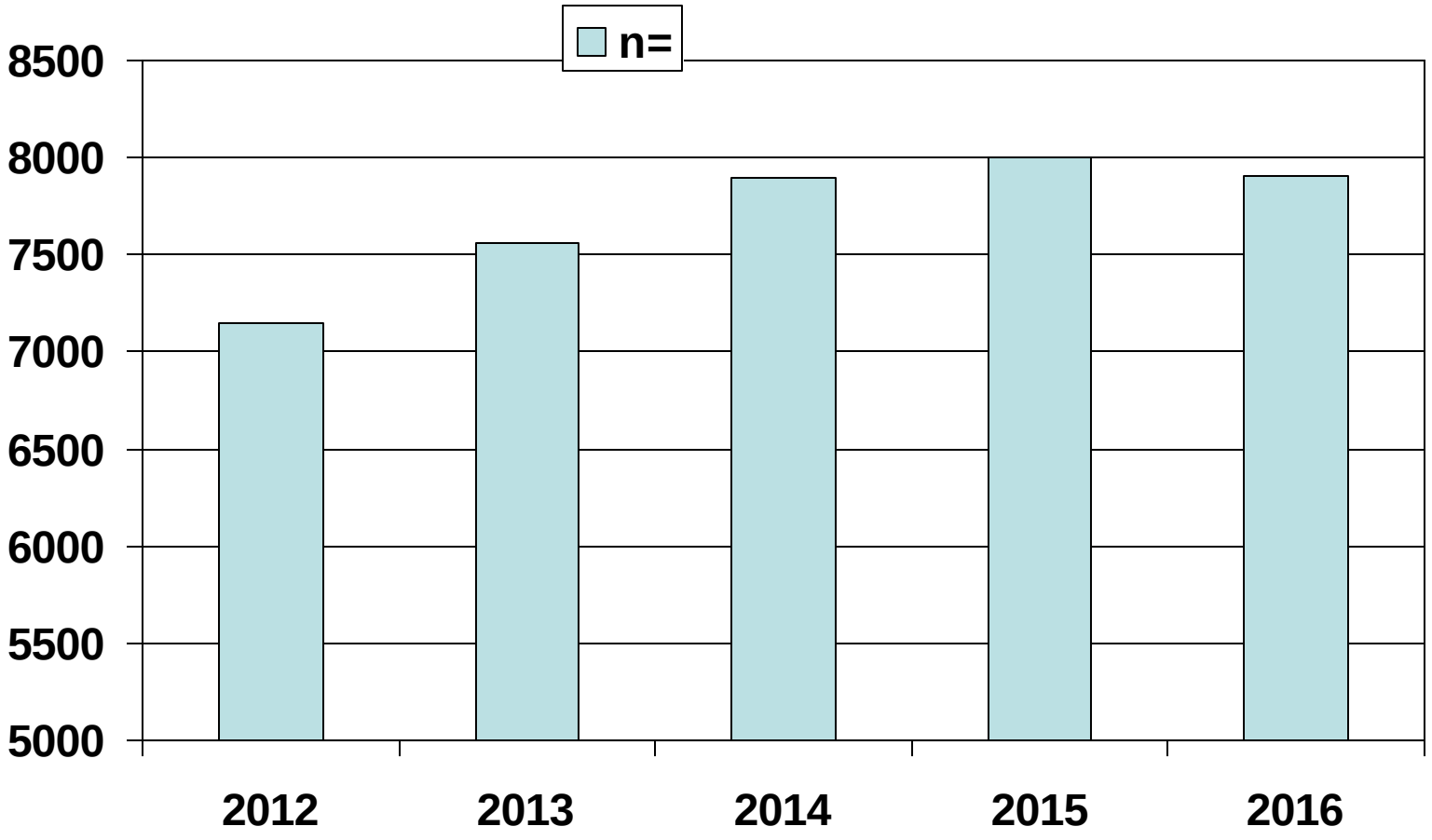
- NETS Solent
- Thames Valley



SONeT

- Rep. of Ireland data for the first time.

UK summary data, Jan-Jun/year



UK summary data
Jan-Jun/year

	2012	2013	2014	2015	2016
Total transfers	**7152**	**7562**	**7892**	**7997**	**7910**
Ventilated	1889 (26%)	1961 (26%)	1949 (25%)	2155 (27%)	2000 (25%)
HFOV					
CPAP/ high-flow					
Cooling					
iNO					
Palliative					

UK summary data, Jan-Jun/year

	2012	2013	2014	2015	2016
Total transfers	**7152**	**7562**	**7892**	**7997**	**7910**
Ventilated	1889 (26%)	1961 (26%)	1949 (25%)	2155 (27%)	2000 (25%)
HFOV	-	-	-	16 (<1%)	16 (<1%)*
CPAP/ high-flow	847 (12%)	906 (12%)	819 (10%)	790 (10%) 452 (6%)	737 (9%) 496 (6%)
Cooling	247 (3%)	288 (4%)	249 (3%)	274 (3%)	288 (4%)
iNO	99 (1%)	111 (1%)	117 (1%)	138 (2%)	145 (2%)
Palliative	22 (<1%)		19 (<1%)	19	33

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Ventilated	1889 (26%)	1961 (26%)	1949 (25%)	2155 (27%)	2000 (25%)
HFOV	-	HFOV - 2 teams in 2015 - 5 teams in 2016		16 (<1%)	16 (<1%)*
CPAP/ high-flow	847 (12%)	906 (12%)	819 (10%)	790 (10%) 452 (6%)	737 (9%) 496 (6%)
Cooling	247 (3%)	288 (4%)	249 (3%)	274 (3%)	288 (4%)
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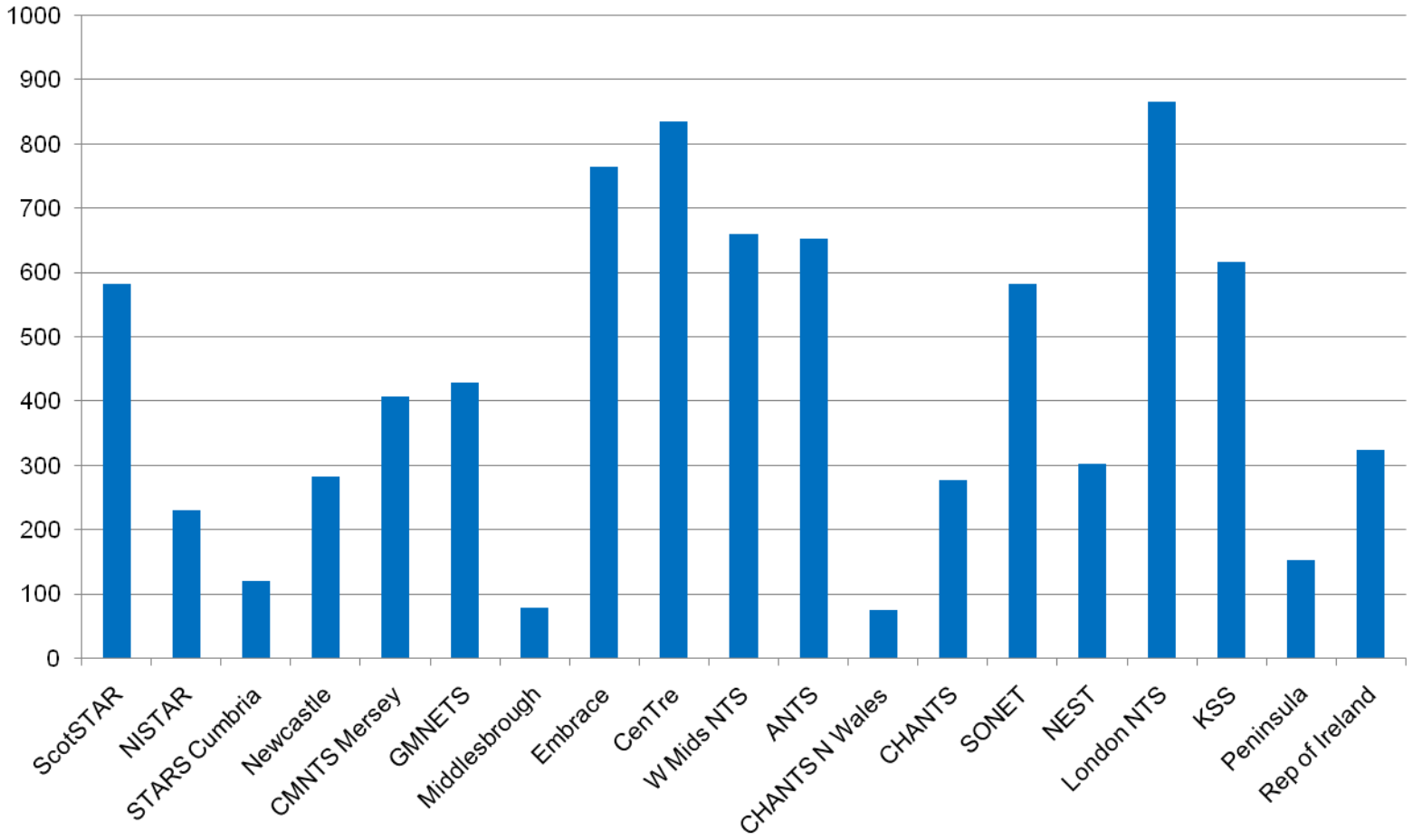
Palliative	22 (<1%)		19 (<1%)	19	33

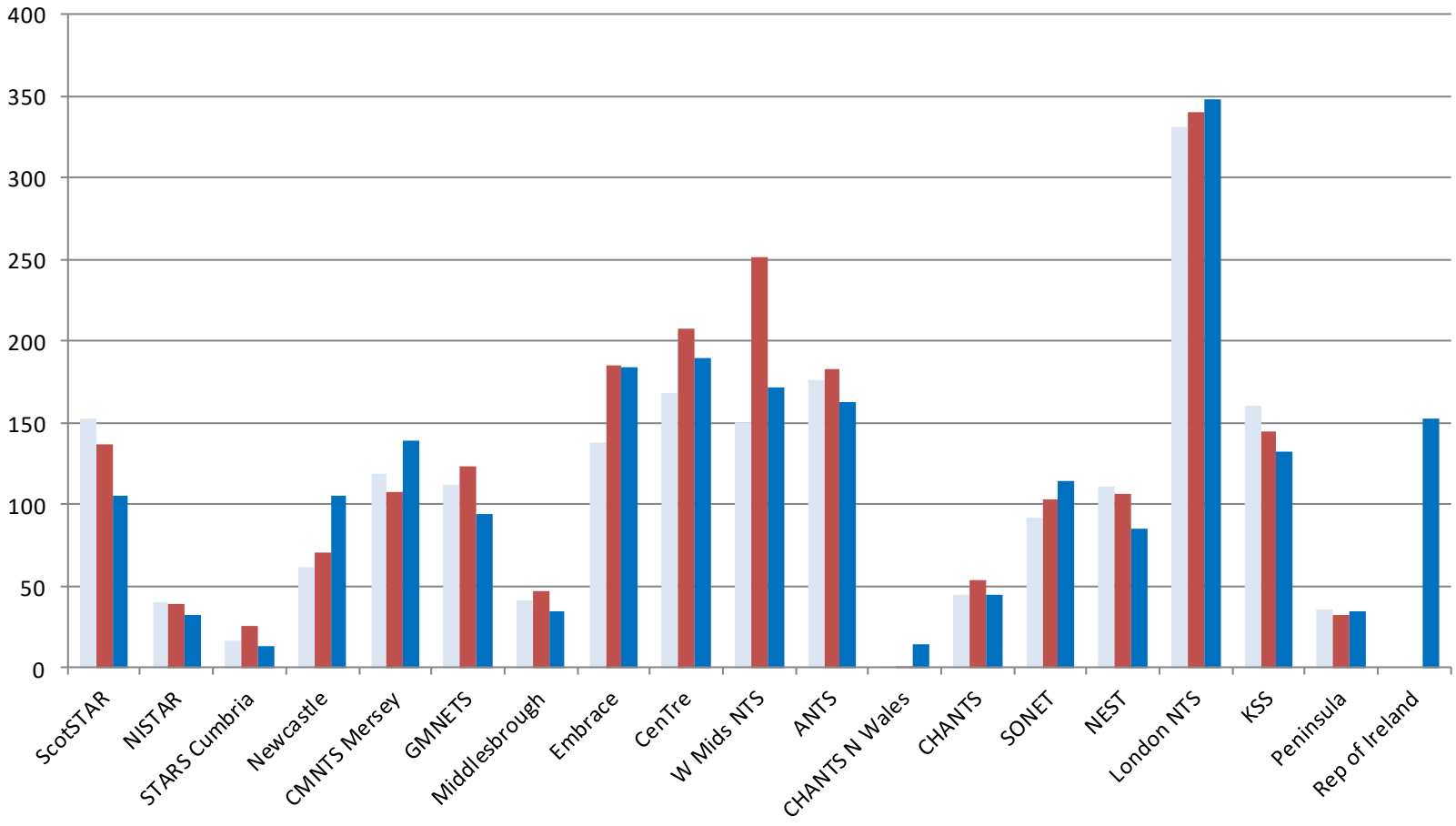
UK summary data, Jan-Jun 2012-16, three year rolling totals

	2012/13/14	**2013/14/15**	**2014/15/16**
Total transfers	**22606**	**23451**	**23799**
Ventilated	5799 (26%)	6065 (26%)	6104 (26%)
Cooling	784 (3.5%)	811 (3.5%)	811 (3.4%)
iNO	327 (1.4%)	366 (1.6%)	400 (1.7%)

Total Transfers/team, Jan – June 2016



Number of ventilated transfers, Jan-Jun 2014, 2015, 2016.



Response standards

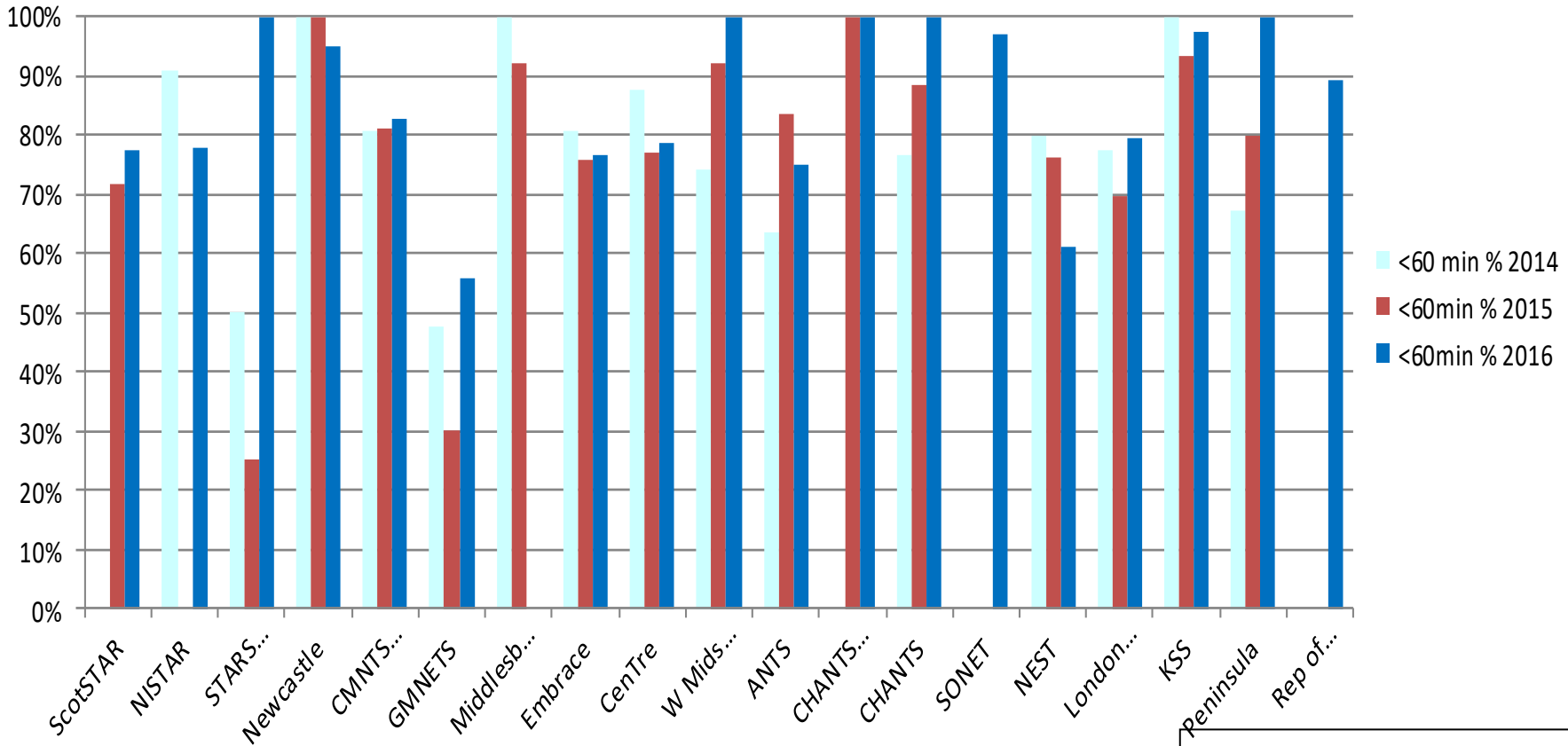
Data on

- Time critical (% mobile/60 mins)
- Referral response time (for ICU/uplift)
- Uplift transfers performed (%)

% of time critical transfers team mobile within 60 minutes of start of referring call.

2013: 73 % (n=404)
2014: 77% (n=409)
2015: 81% (n=469)
2016: 84% (n=408)

% of time critical transfers team mobile within 60 minutes of start of referring call.



2013: 73 % (n=404)
2014: 77% (n=409)
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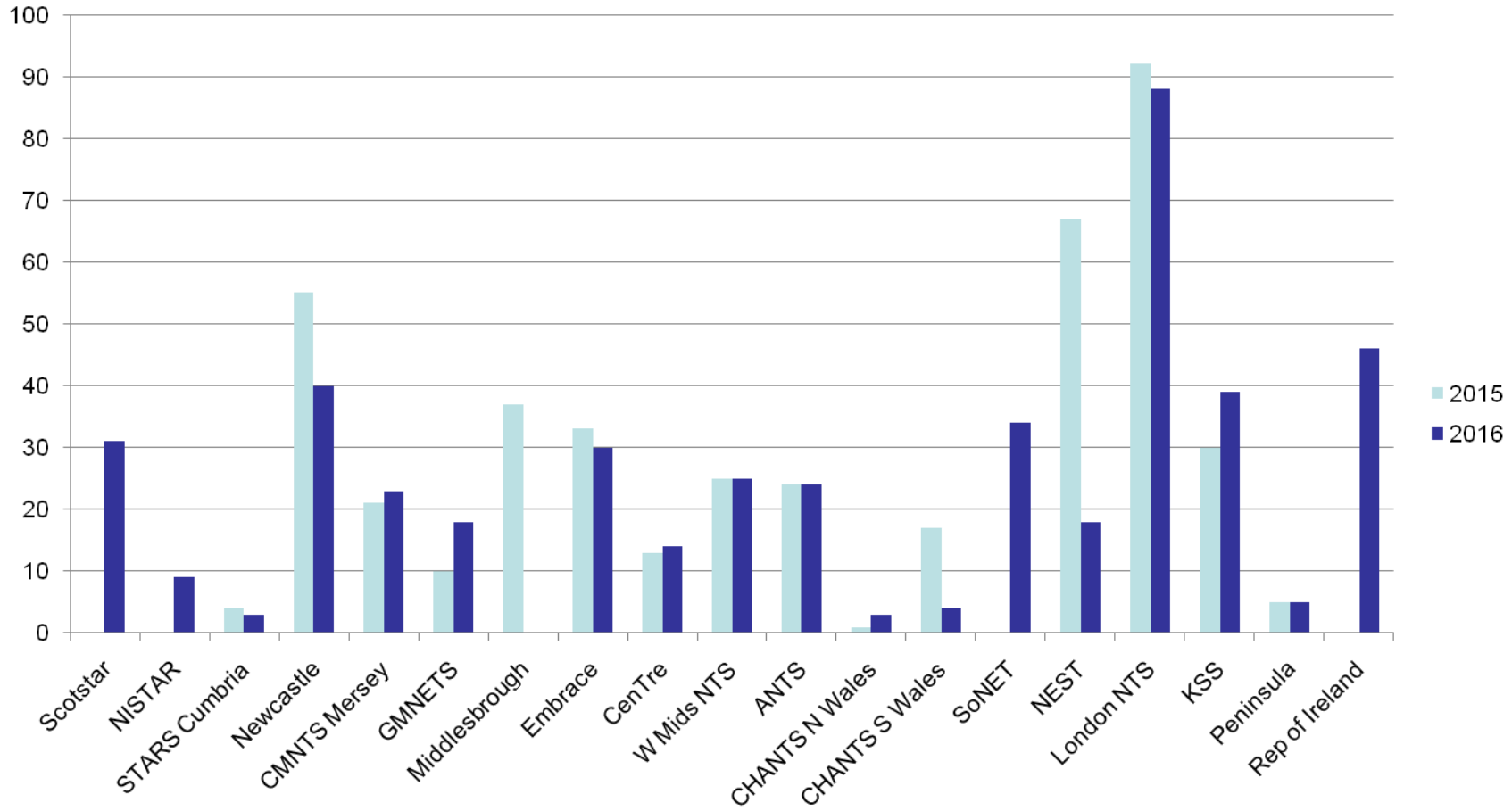
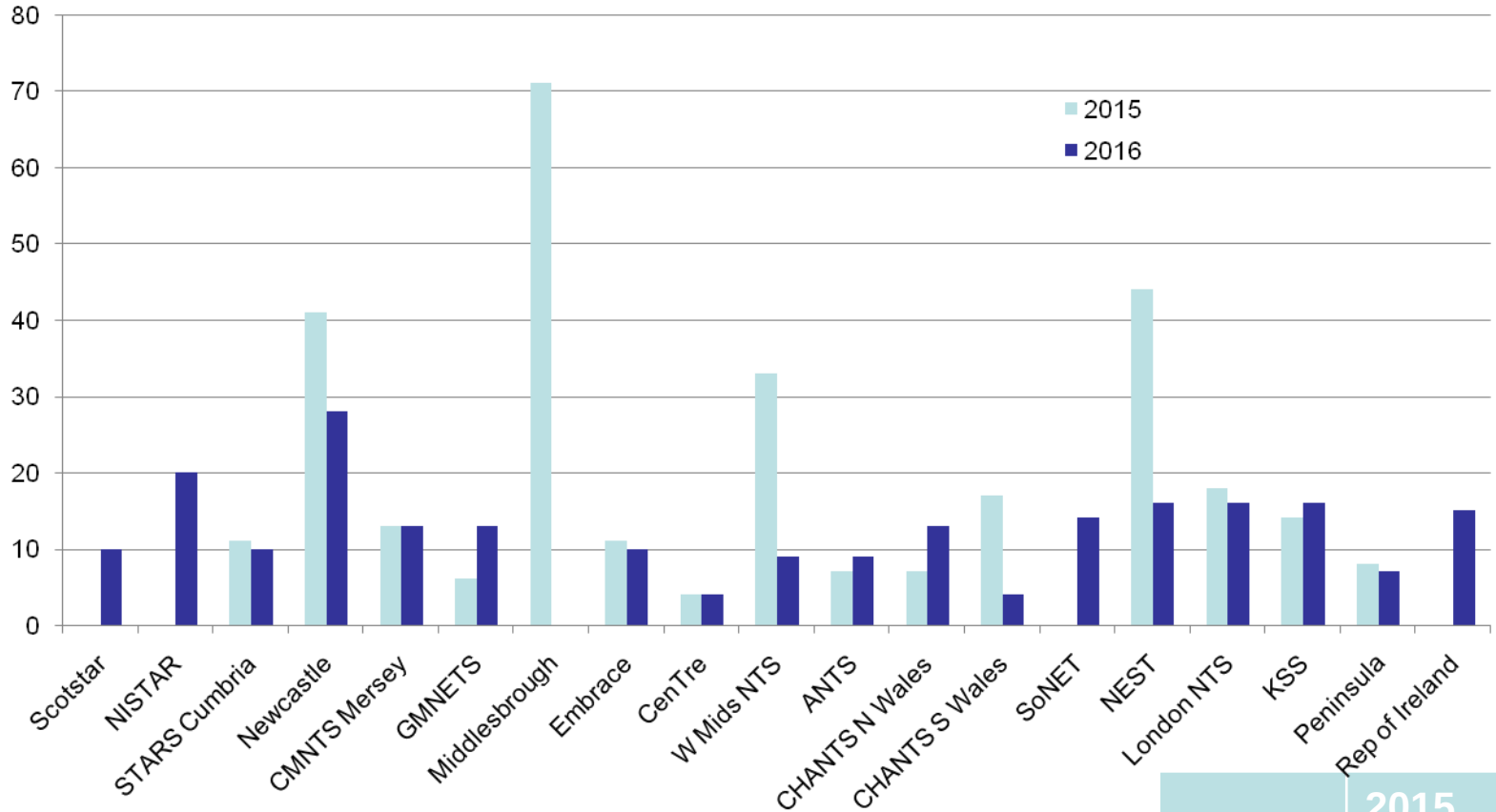
Number of time-critical transfers/team, Jan-Jun 2015, 2016



TC transfers/team as % of uplift transfers, Jan-Jun 2015 & 2016



	2015	2016
TC	469	408
Uplift	3172	3355
%	15	12

Team arrived with the patient within 3.5 hours of the start of the referring call (Intensive care; uplift) (%), Jan-Jun/year.

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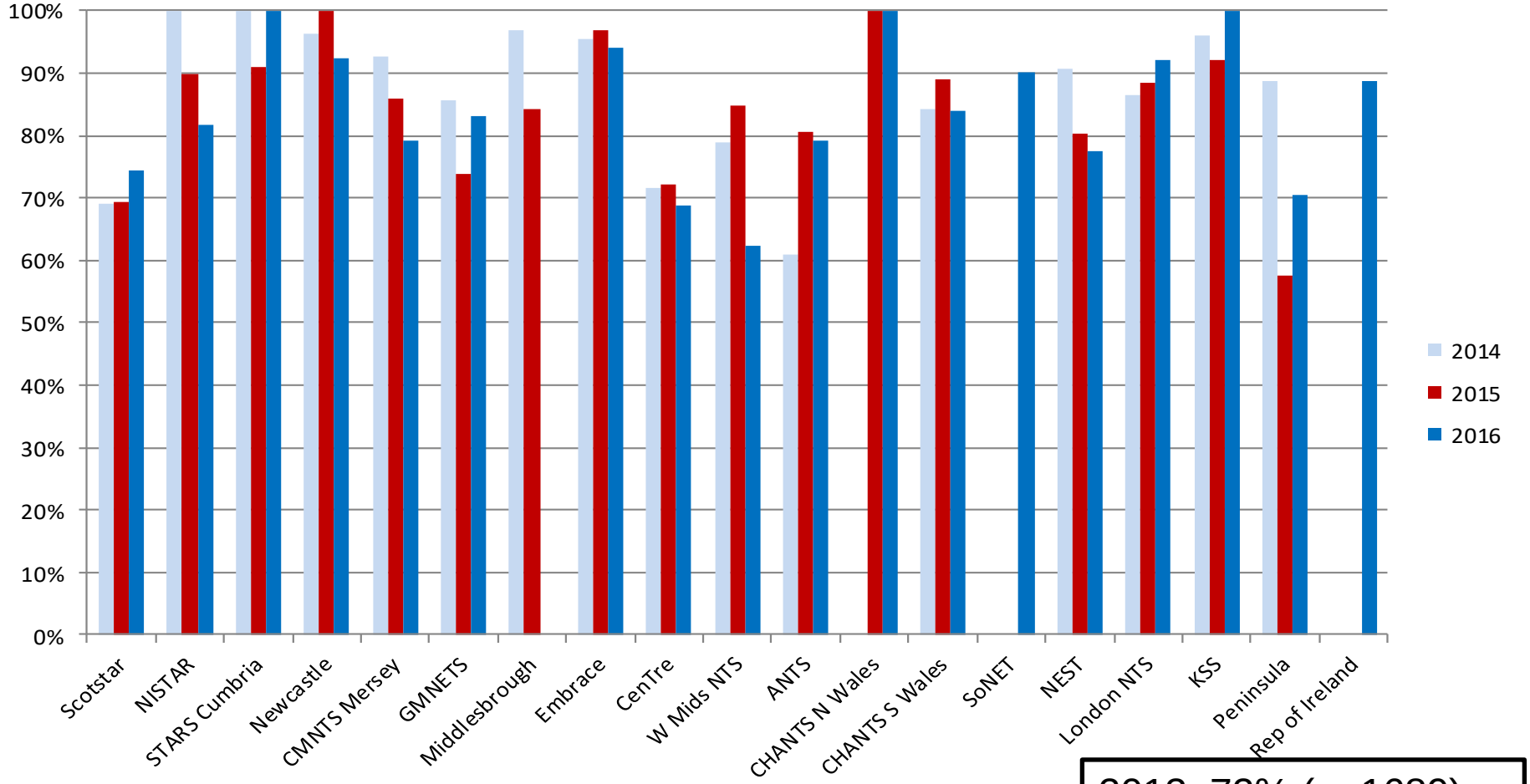

2013: 72% (n=1689)
2014: 86% (n=1836)
2015: 83% (n=1945)
2016: 82% (n=1787)

Neonatal Transport Services transfer at least 95% of patients requiring transfer for uplift within its defined catchment area. (%)

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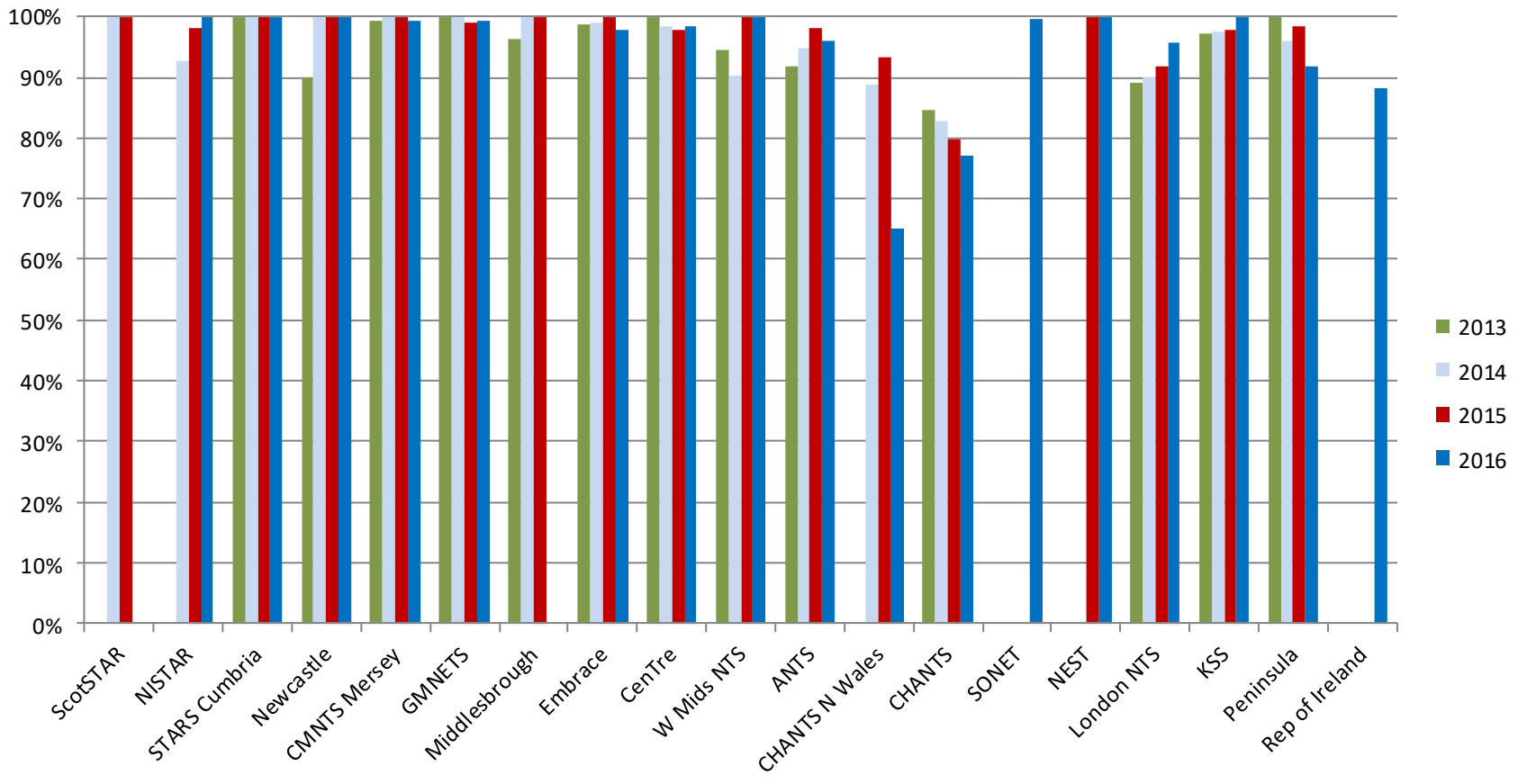


Neonatal Transport Services transfer at least 95% of patients requiring transfer for uplift within its defined catchment area. (%)

	2013	**2014**	**2015**	**2016**
n=	3109	3416	**3268**	**3355**
Done by commissioned team n= (%)	2704 (87)	3097 (91)	**3172 (97)**	**2971 (89)**

Number transferred on iNO – Jan – June/year

Total for UK

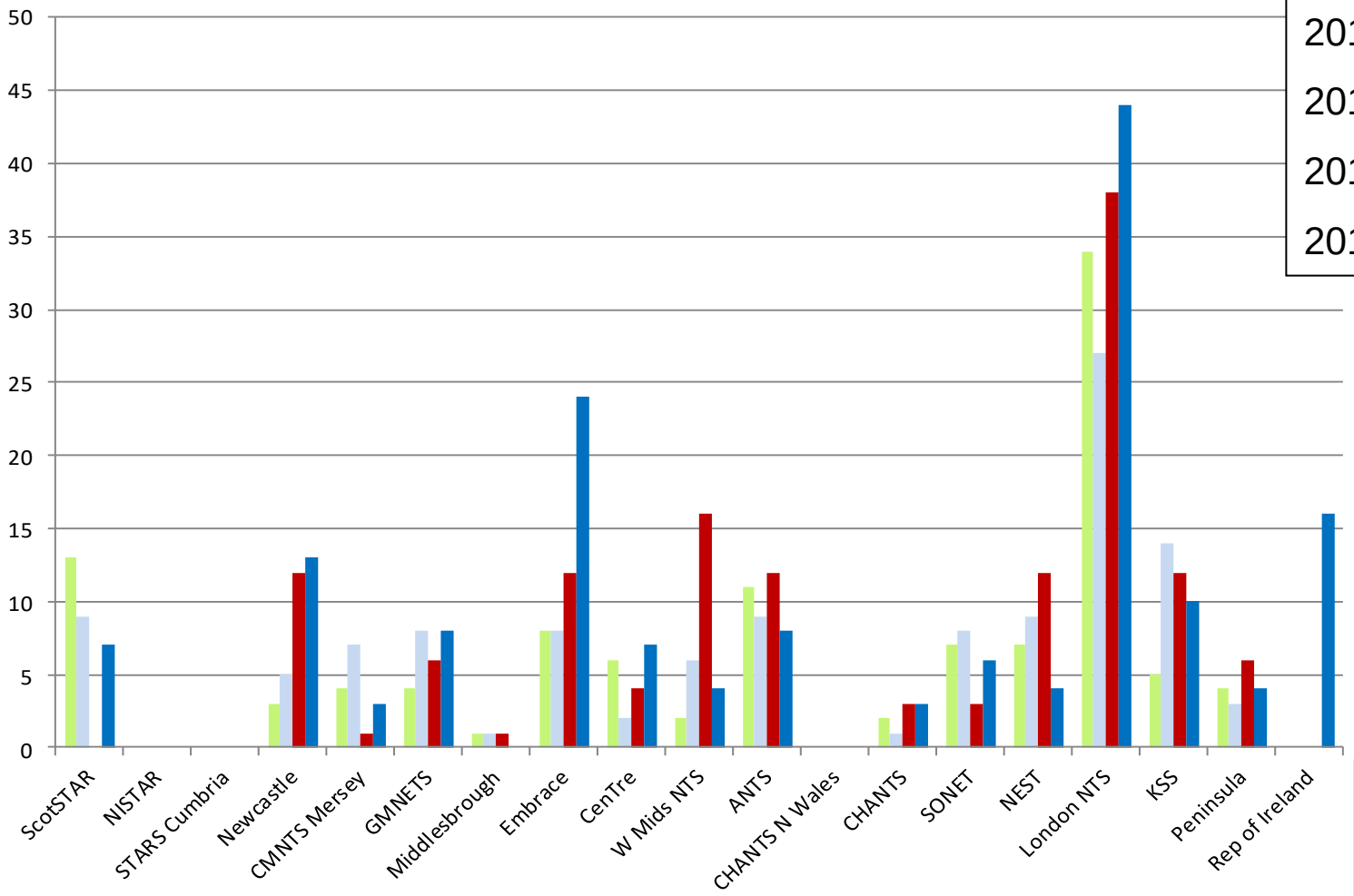
2012: 99

2013: 111

2014: 117

2015: 138

2016: 145



100% of services have iNO available

Number transferred for cooling or assessment for cooling, Jan – Jun/year

Total for UK

2012: 247

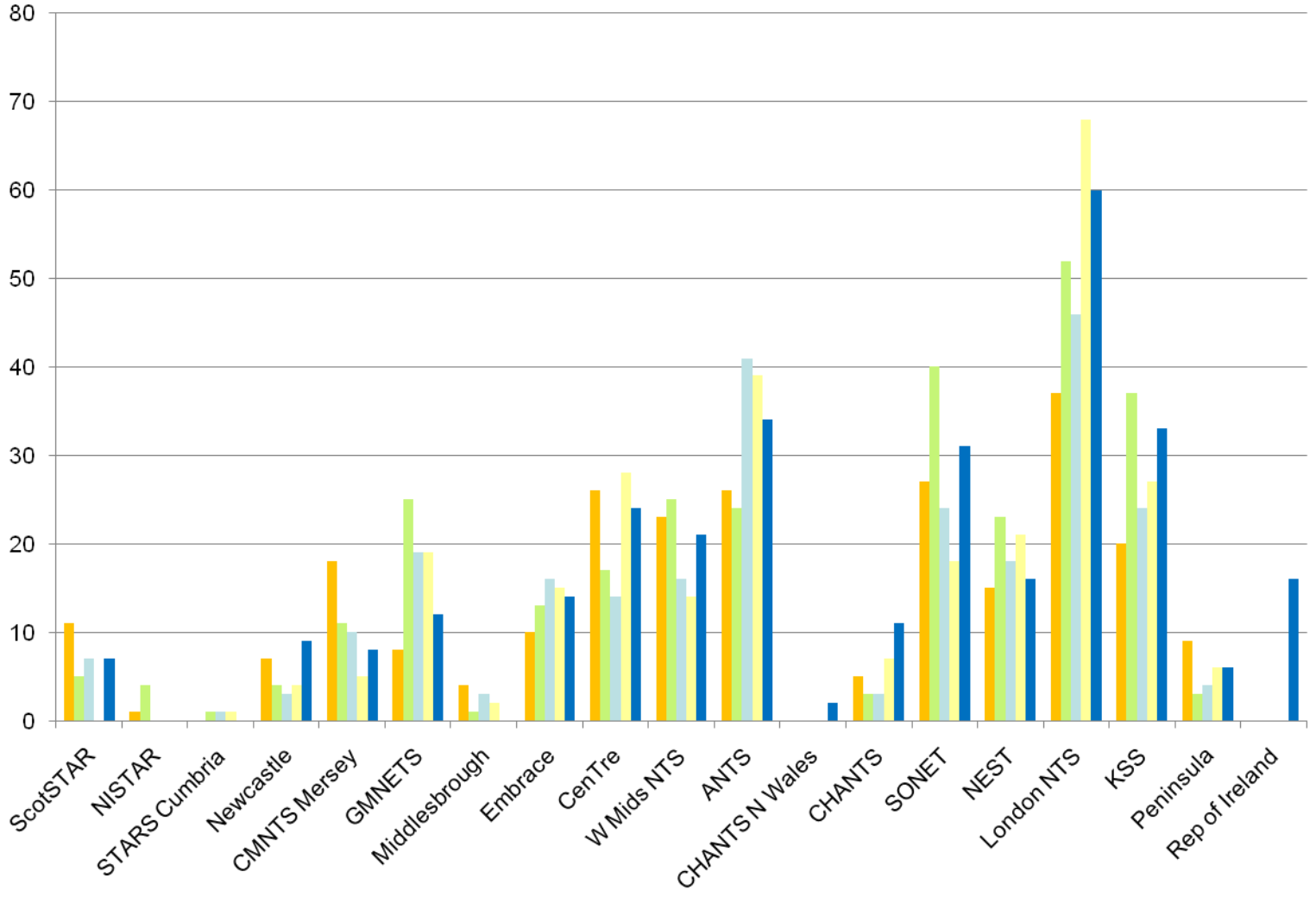
2013: 288

2014: 249

2015: 274

2016: 288

Number transferred for cooling or assessment for cooling, Jan – June 2012, 2013, 2014, 2015



Total for UK

2012: 247

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Transferred for cooling, >6h at completion, temp 33-34^{0}C (%)

	2014	**2015**
Cooling n=	249	**274**
Cooling>6h n=	192	**173**
33-34^{0}C n=(%)	172 (90%)	**147 (85%)**

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Transferred for cooling, temp 33-34^{0}C at 6 hours of age.

Transferred for cooling, >6h at completion, temp 33-34^{0}C (%)

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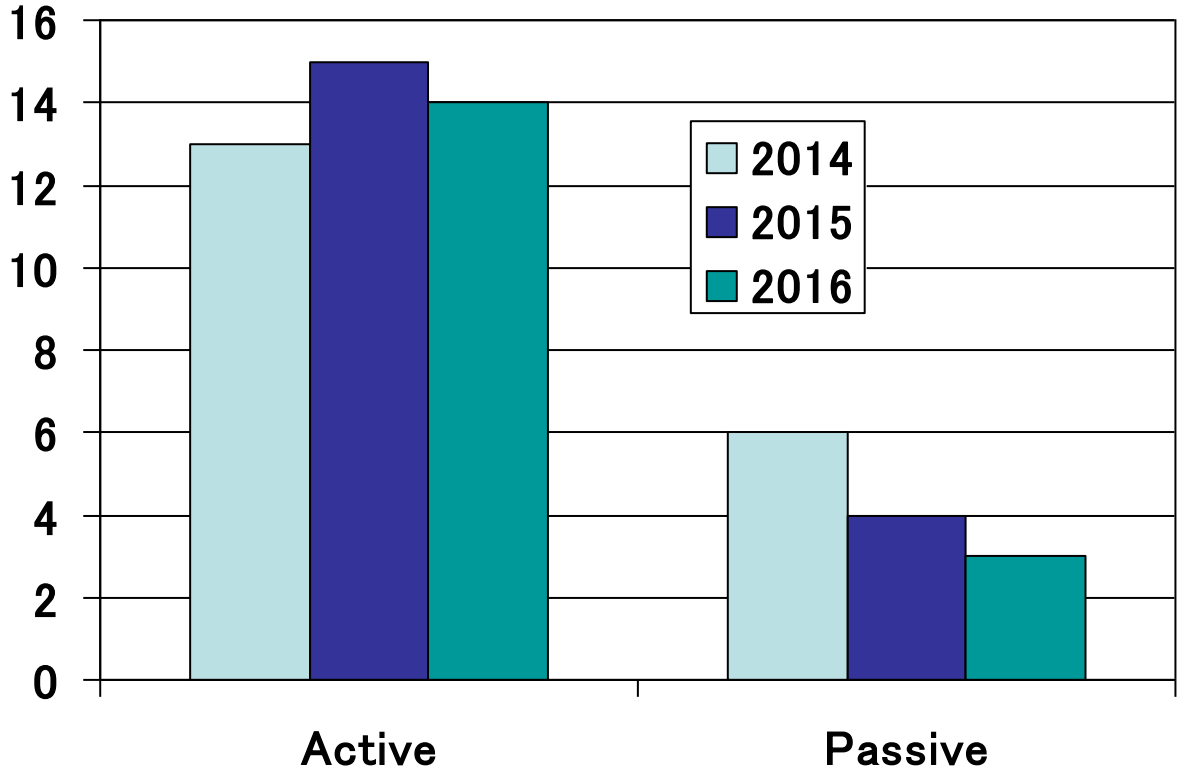
33-34^{0}C n=(%)	172 (90%)	**147 (85%)**

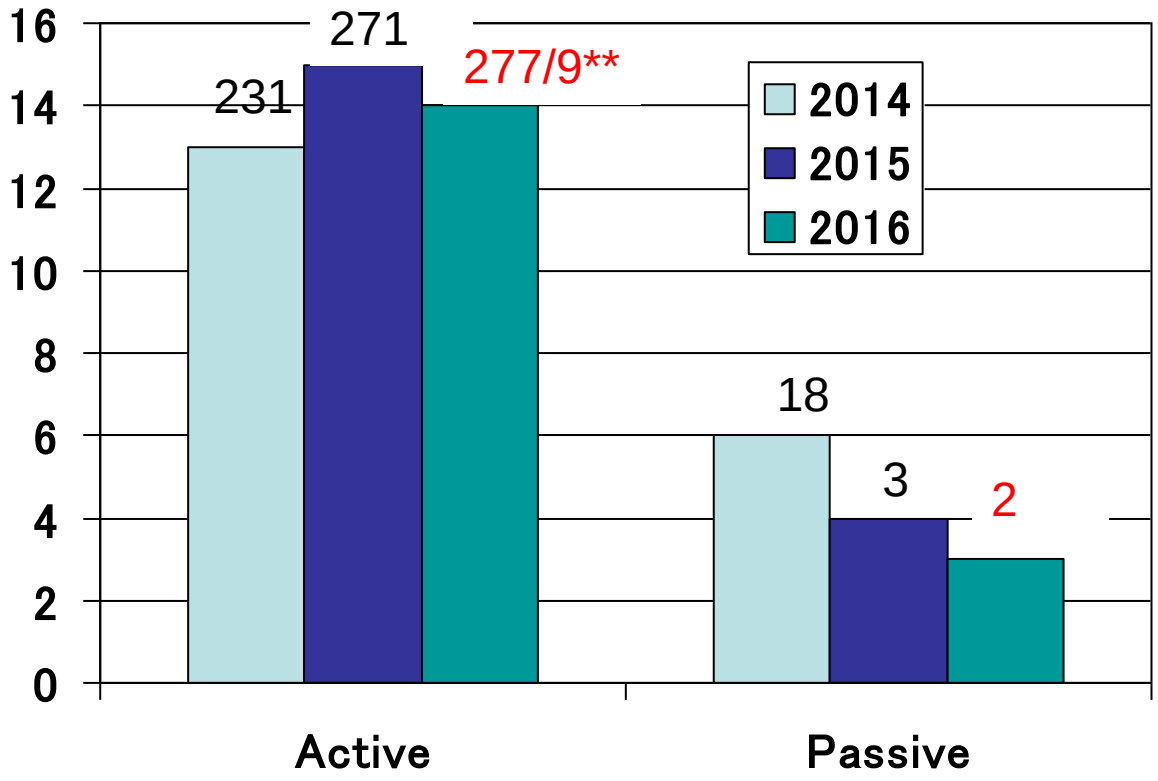
Transferred for cooling, temp 33-34^{0}C at 6 hours of age.

	2016
Cooling n=	288
Transferred on active cooling n= (%)	277 (96)
Infant temperature data available n= (%)	216 (75)
Temp 33-34^{0}C at 6hrs n= (%)	180 (83)

Active vs. passive cooling, number of teams, 2014 & 15.

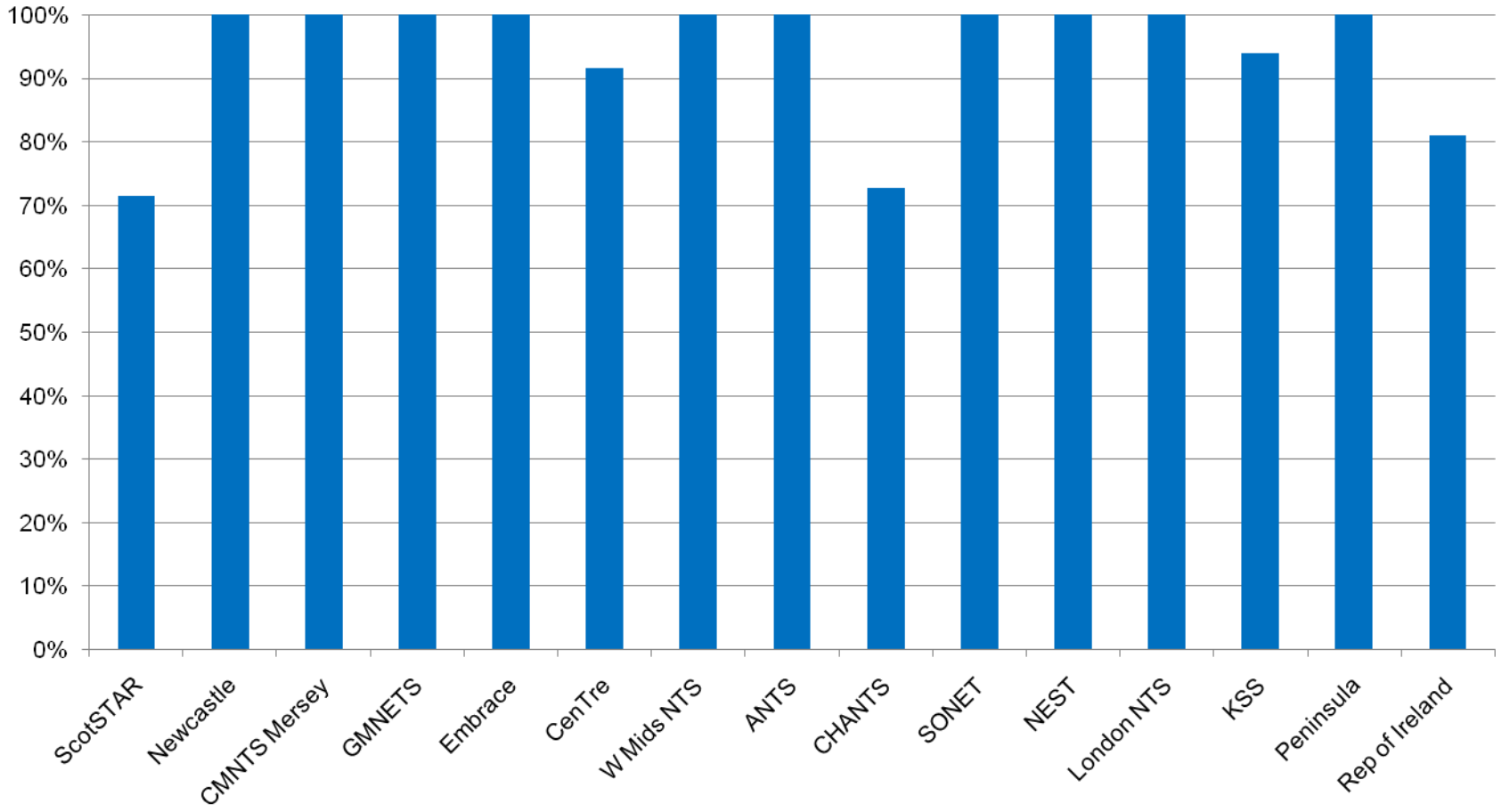


Active vs. passive cooling, number of teams, 2014/15/16 and number of infants transferred.

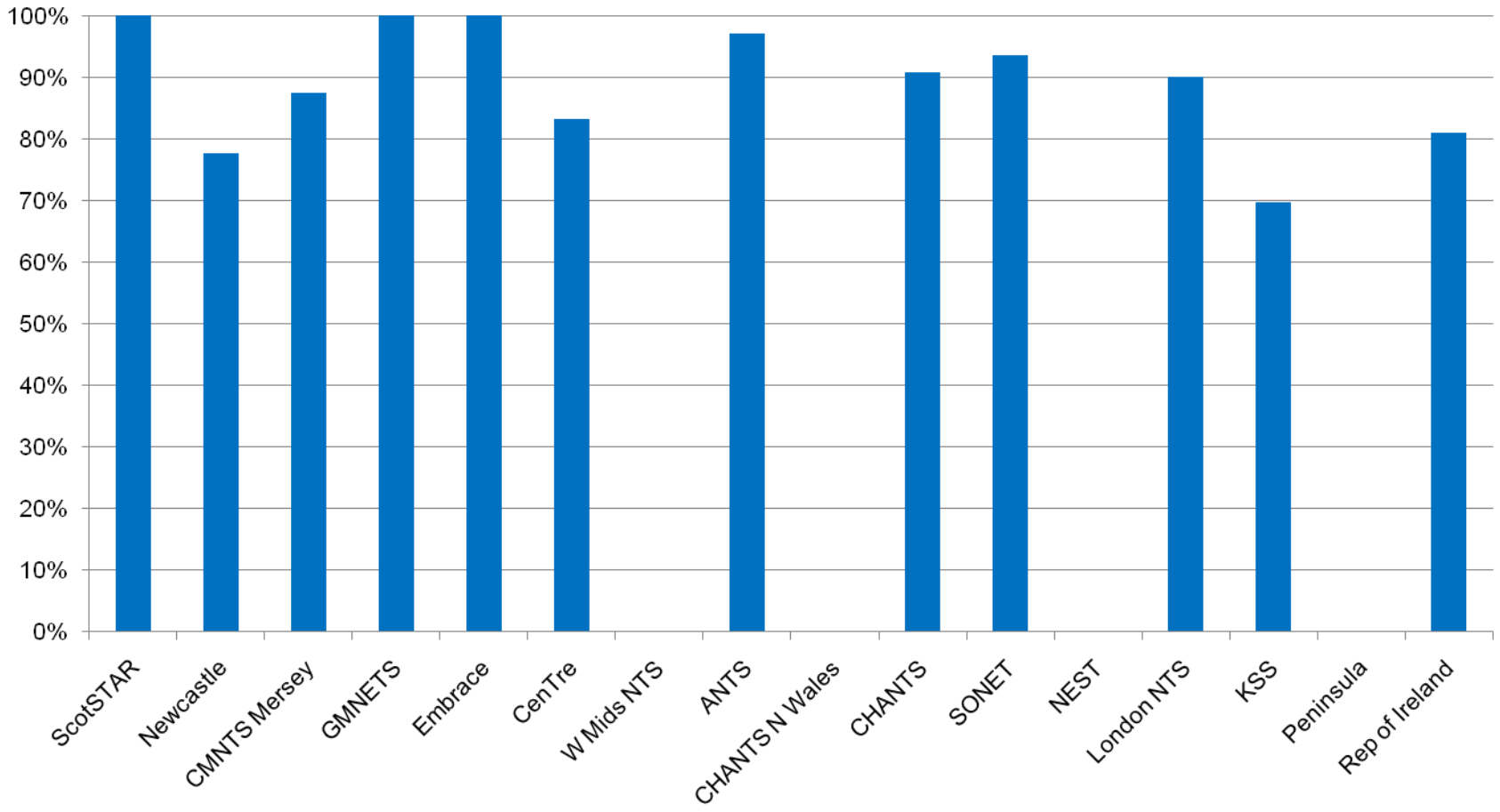


**Nine infants received passive cooling in transit while being transferred by a service that has active cooling available. In previous years this information wasn't available.

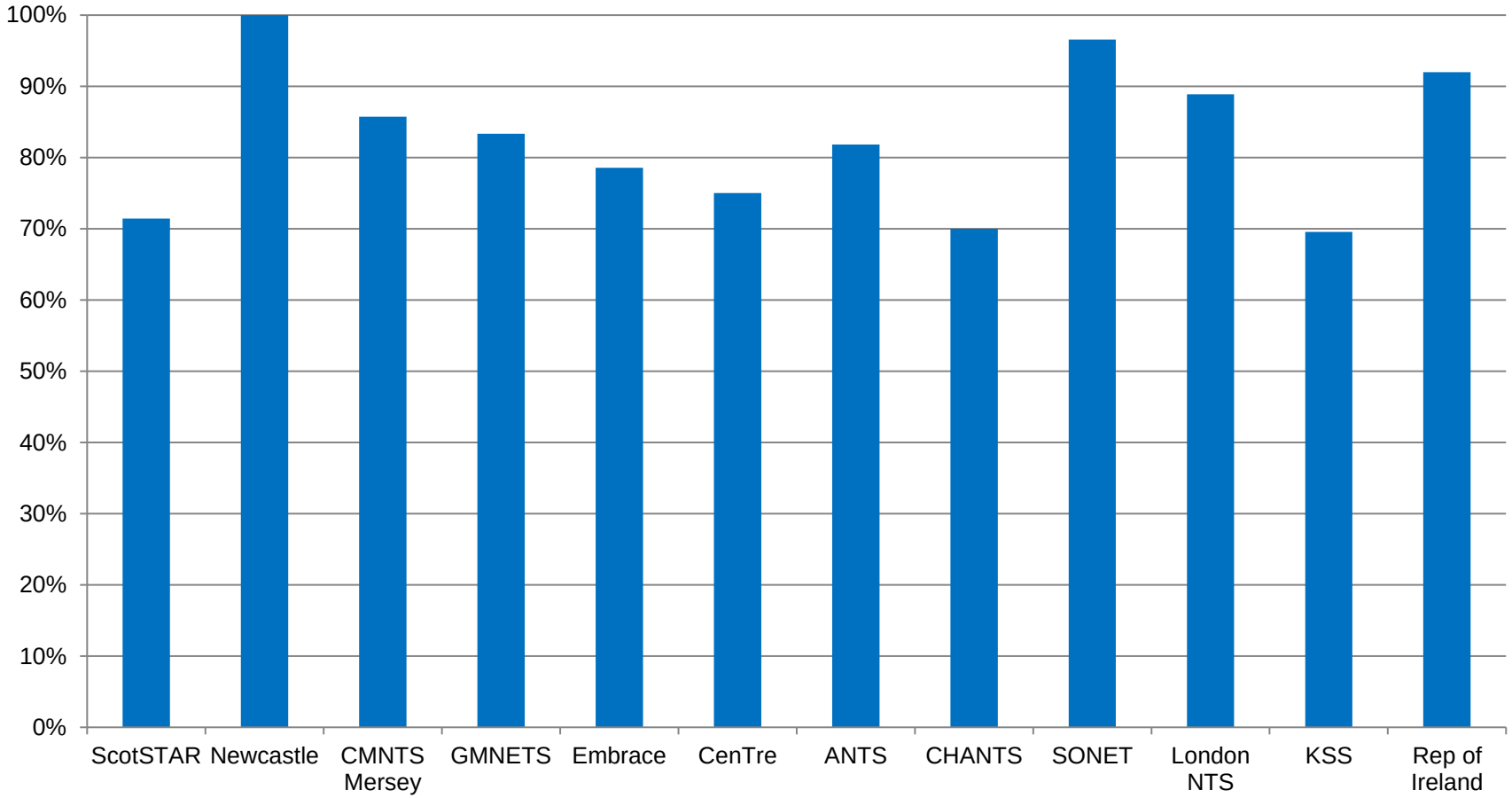
Active cooling services, % transferred on active cooling.



Teams undertaking cooling transfers, % of transfers with infant temperature data available.

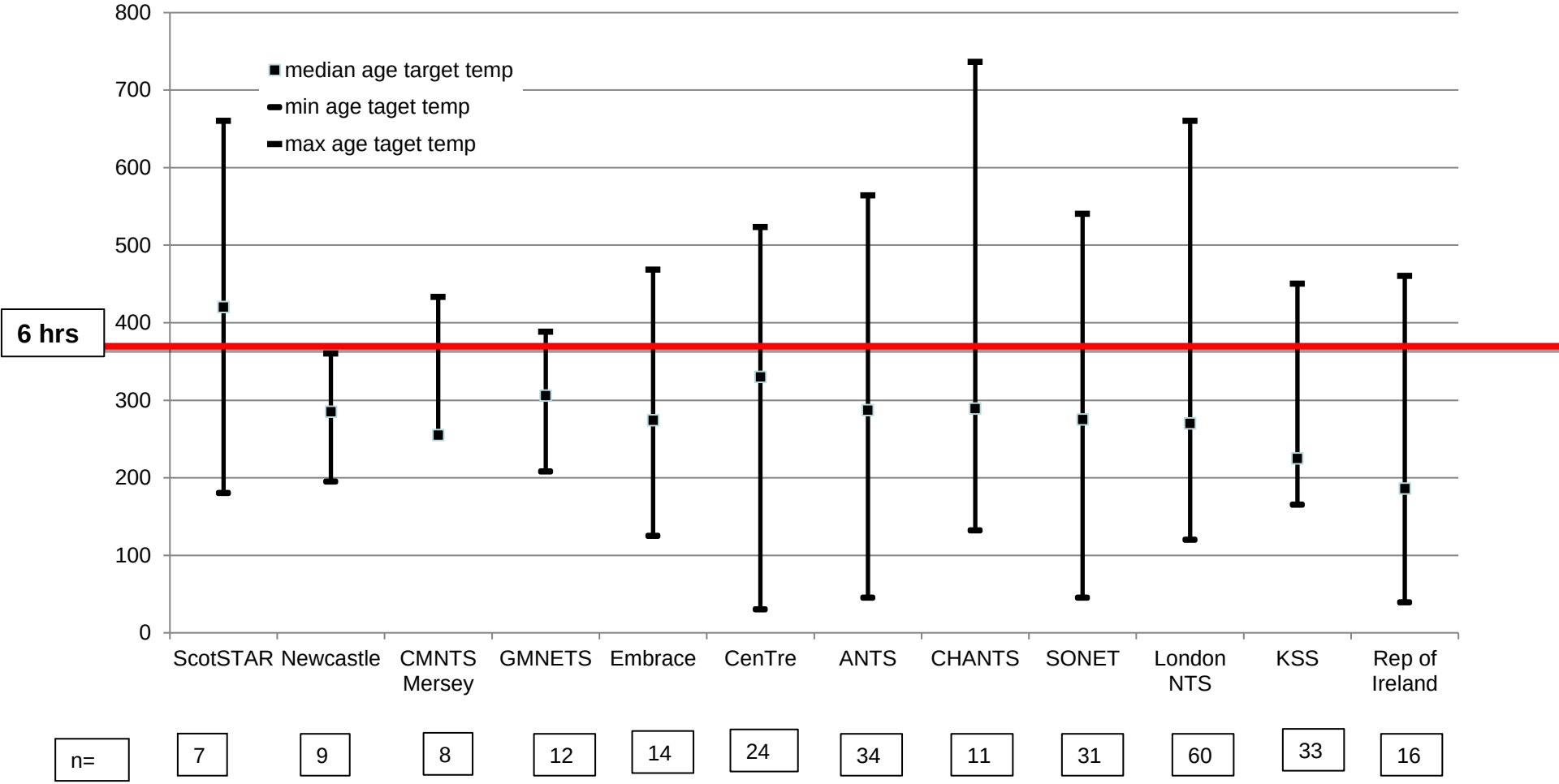


Infants transferred for cooling, percentage in target range at 6 hours of age.



n=	7	9	8	12	14	24	34	11	31	60	33	16

Age (mins) target temperature achieved, infants transferred for cooling



Hypocarbia & hypercarbia

- pCO_2 <4 kPa
- pCO_2 >7 kPa and pH<7.2

…on the gas measurement on completion of transfer of ventilated infants.

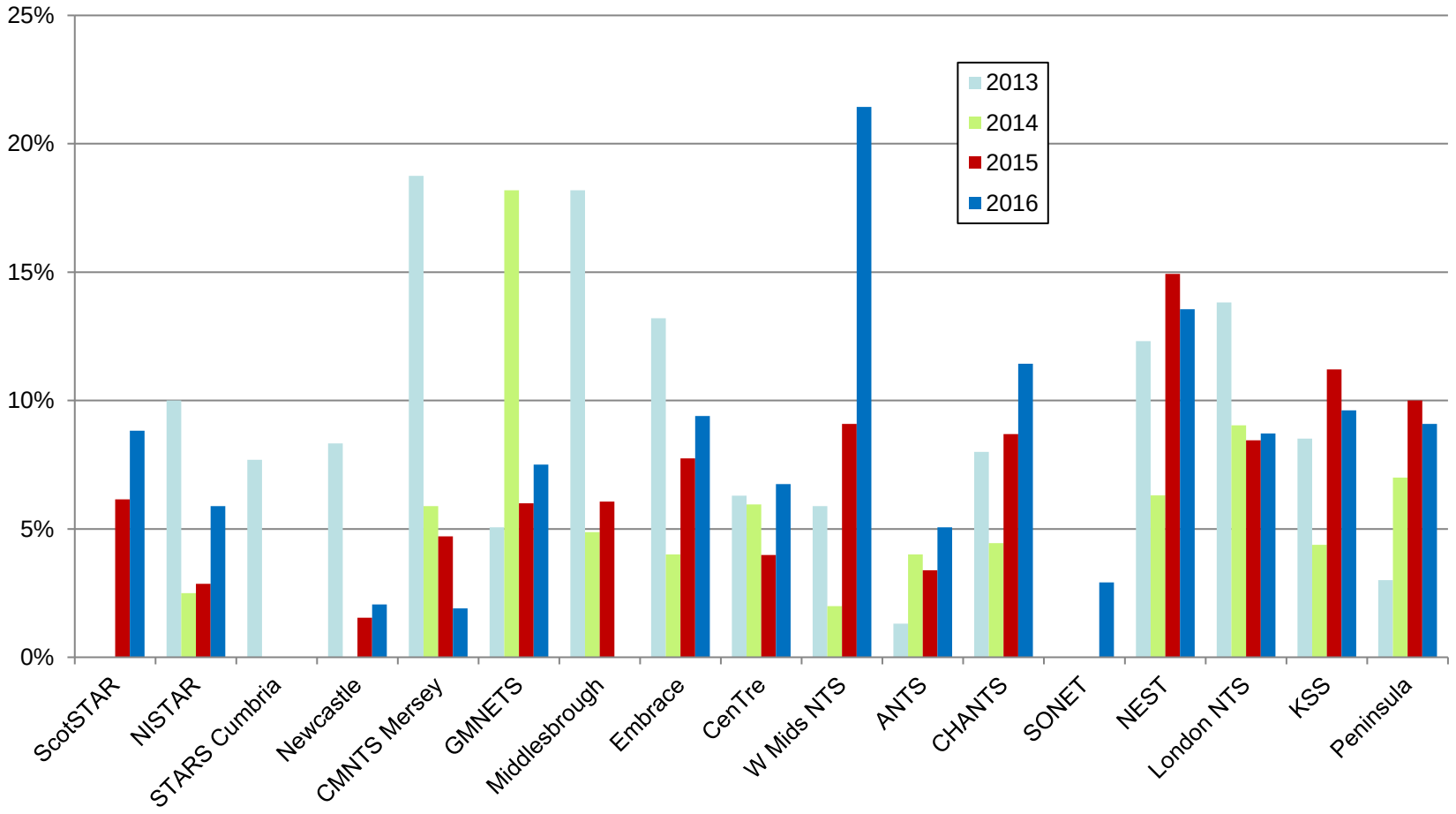
Note that not all infants had pCO_2 available post-transfer.

Hypocarbia & hypercarbia, Jan-Jun/year, infants on a ventilator during journey, all operational reasons.

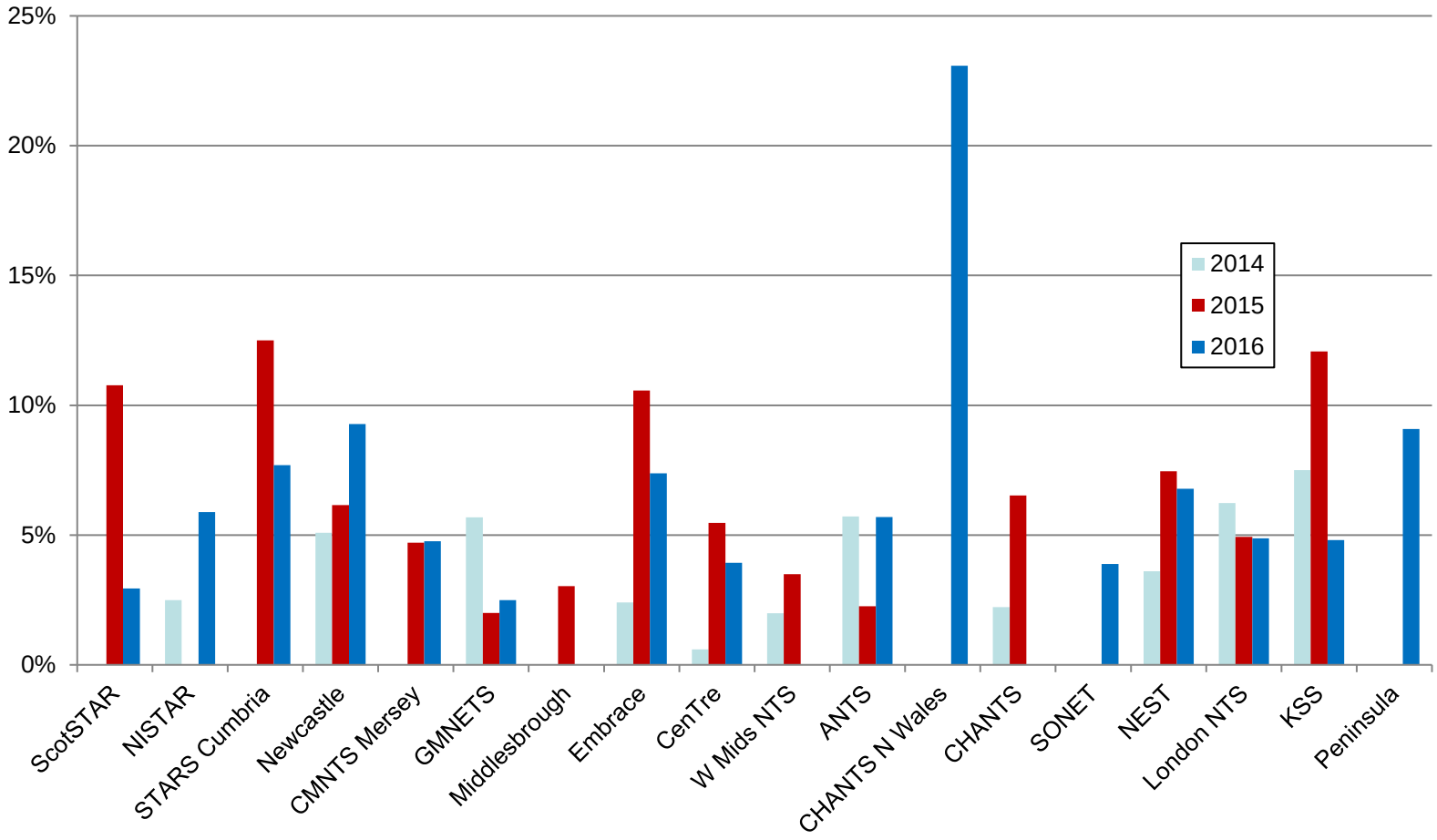
	2013	**2014**	**2015**	**2016**
Ventilated + gas available n=	1355	1895	1685	1493
pCO_2 <4kPa, n=(%)	118 (9)	106 (5)	122 (7)	107 (7)
pCO2>7kPa & pH<7.2, n=(%)		68 (3)	94 (6)	79 (5)

Infants transferred for cooling	**2014**	**2015**	**2016**
Cooling, n=	249	274	288
Cooling & ventilated & gas available n= (%)	202 (81)	230 (84)	217 (75)
pCO_2 <4kPa, n=(%)	27 (13)	25 (11)	21 (10)

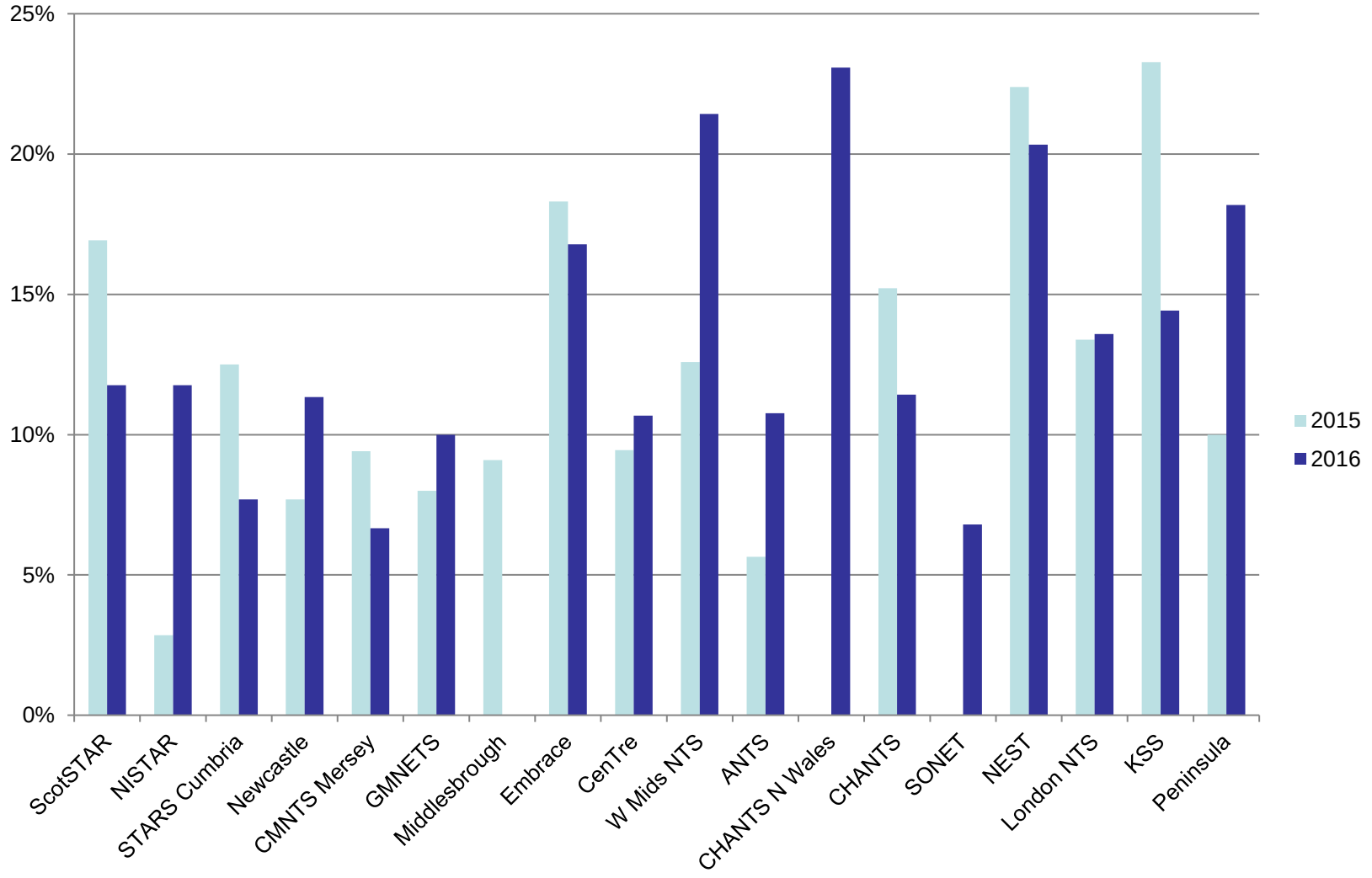
% pCO_2 <4 kPa on completion , per service. Jan – June/year



% pCO_2 >7kPa & pH<7.2 on completion , per service, Jan – June/year.



% pCO_2 >7kPa & pH<7.2 and/or pCO_2 <4 kPa on completion , per service, Jan – June/year.



Do you have a service policy to treat as time-critical transfers infants referred with bile-stained vomiting/aspirates?

	Yes	No
2015	9	10
2016	6	11

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2015	9	10
2016	6	11

Operational reason for transfer for premature infants transferred on the first 3 days of life.

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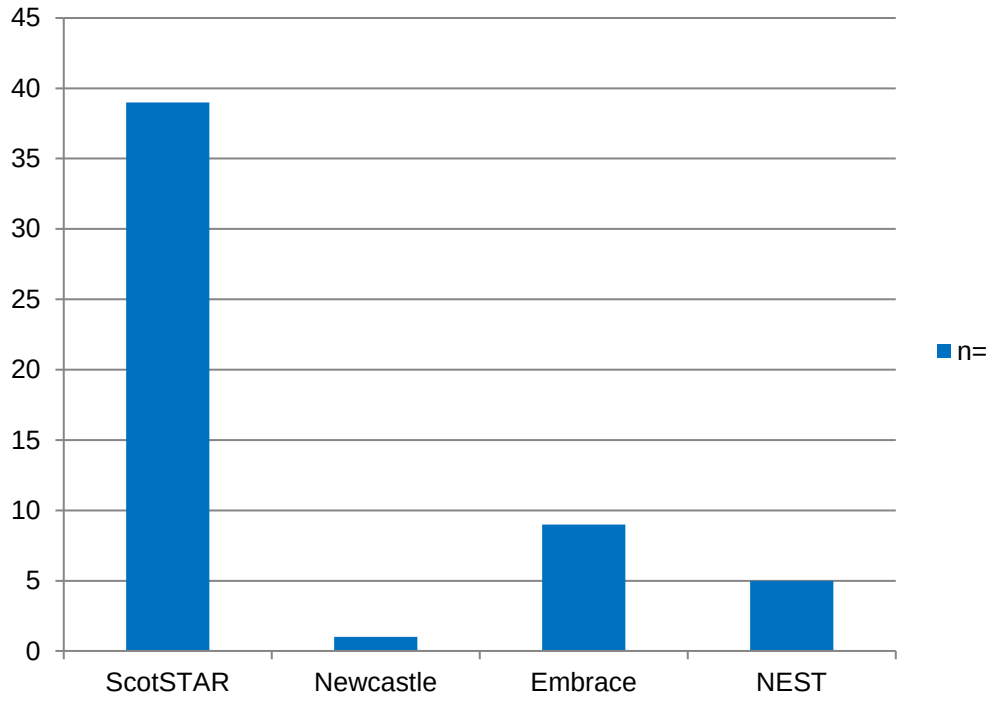
Gestation at Birth	Uplift			Capacity			Repatriation			Total		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
23^{+0} to 26^{+6}	208	199	209	9	11	12	11	2	5	228	212	226
27^{+0} to 31^{+6}	255	328	309	97	105	115	46	49	45	398	482	469
Total	463	527	518	106	116#	127*	57	51	50	626	694	695

= +9%

* = +20%

Air Transport, Jan – Jun 2016

- 54 transfers undertaken by 4 services.

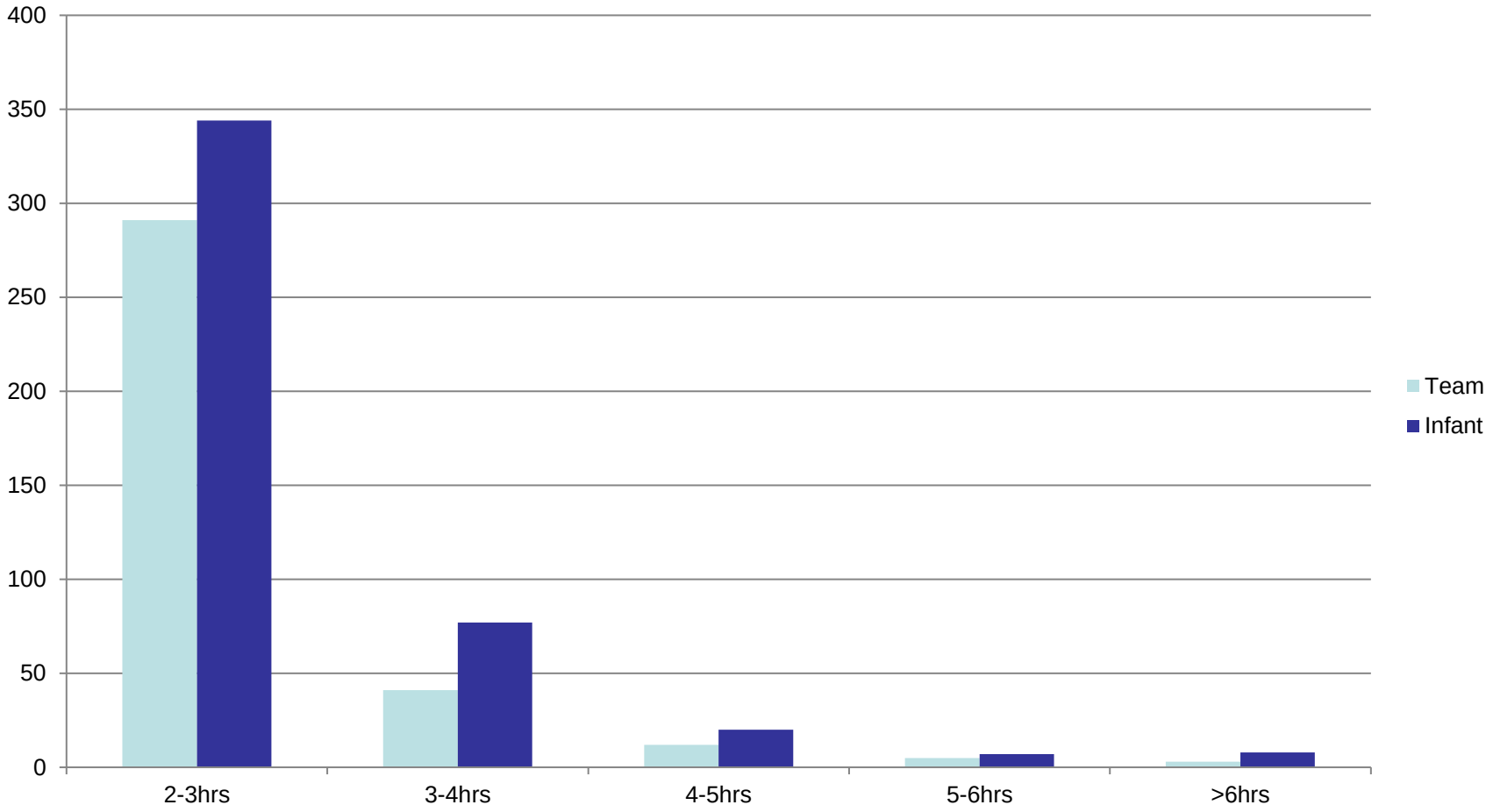


Air transport, unmet need?

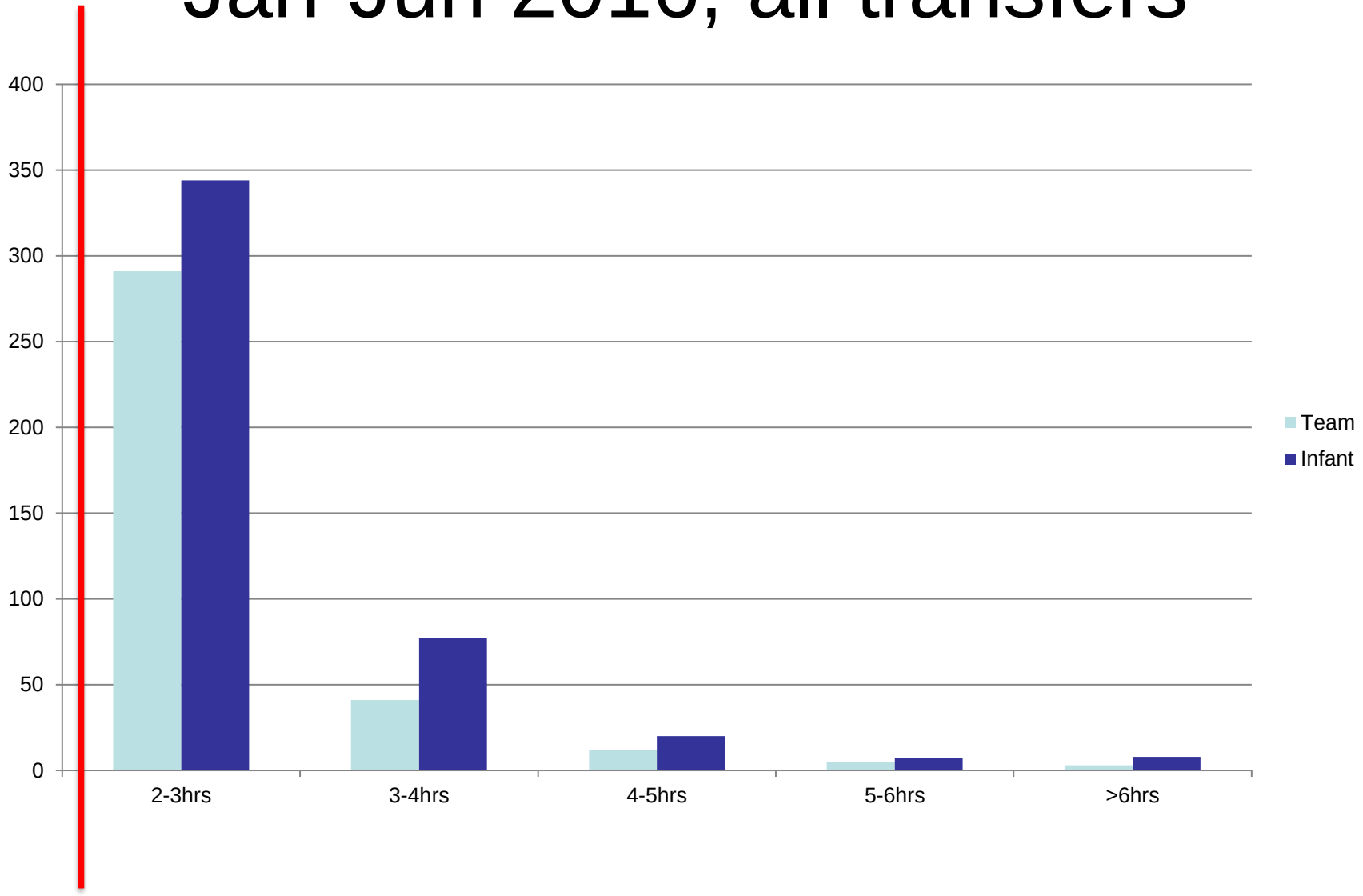
- Travel time for **team**
  - 2-3hrs
  - 3-4hrs
  - 4-5hrs
  - 5-6hrs
  - >6hrs

- Travel time for **infant**
  - 2-3hrs
  - 3-4hrs
  - 4-5hrs
  - 5-6hrs
  - >6hrs

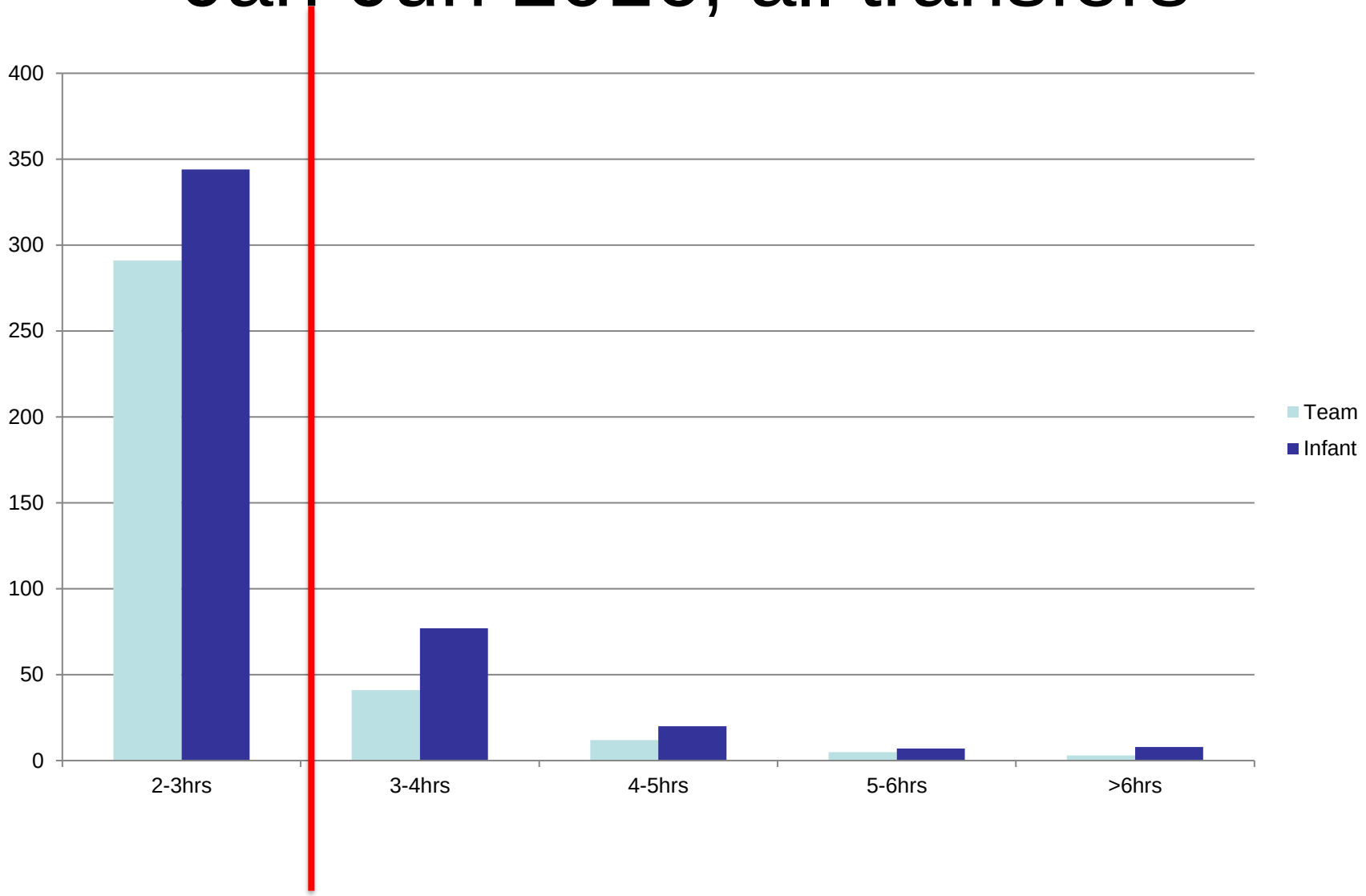
Ground travel time, team & infant, Jan-Jun 2016, all transfers



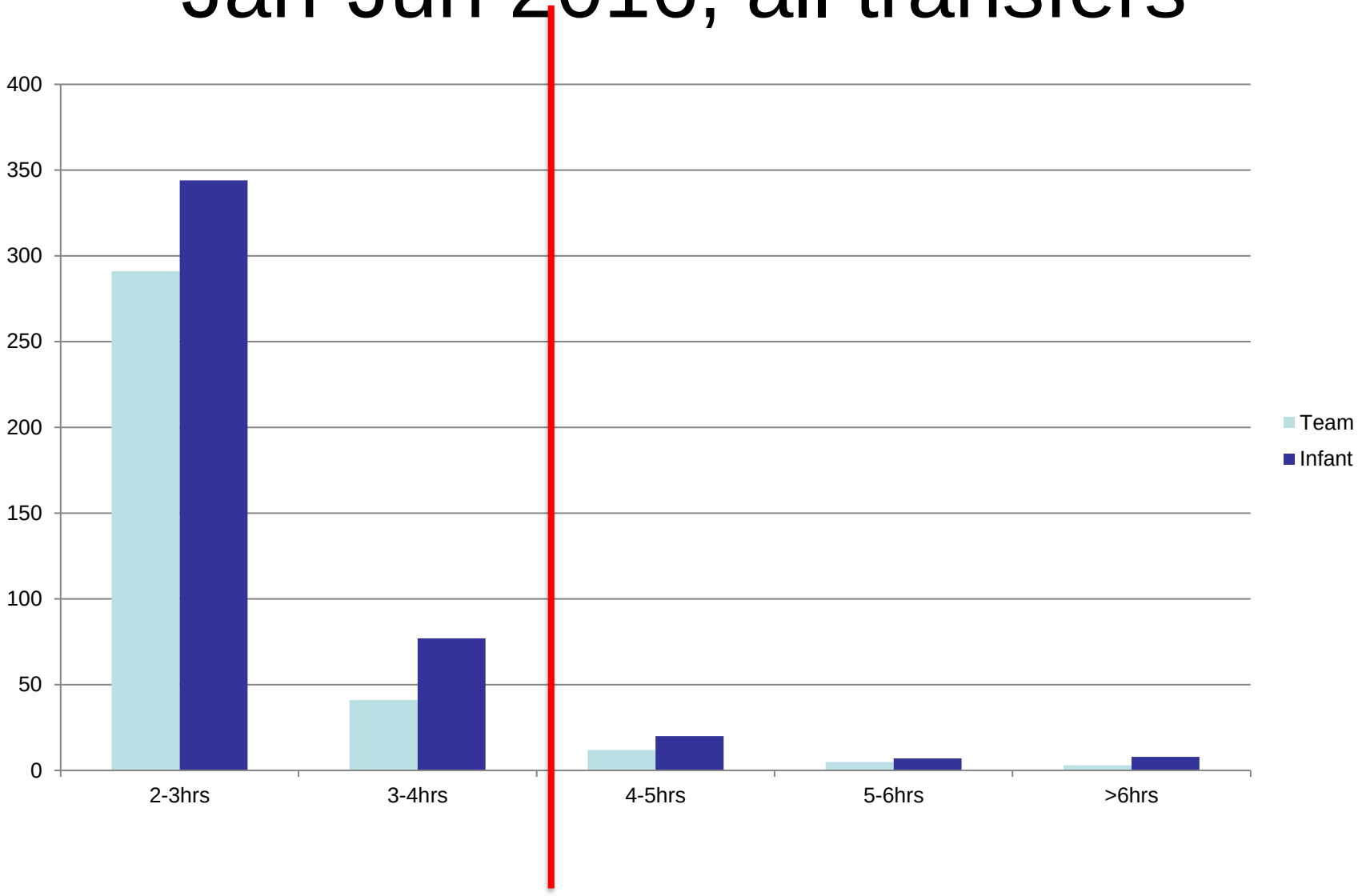
Ground travel time, team & infant, Jan-Jun 2016, all transfers



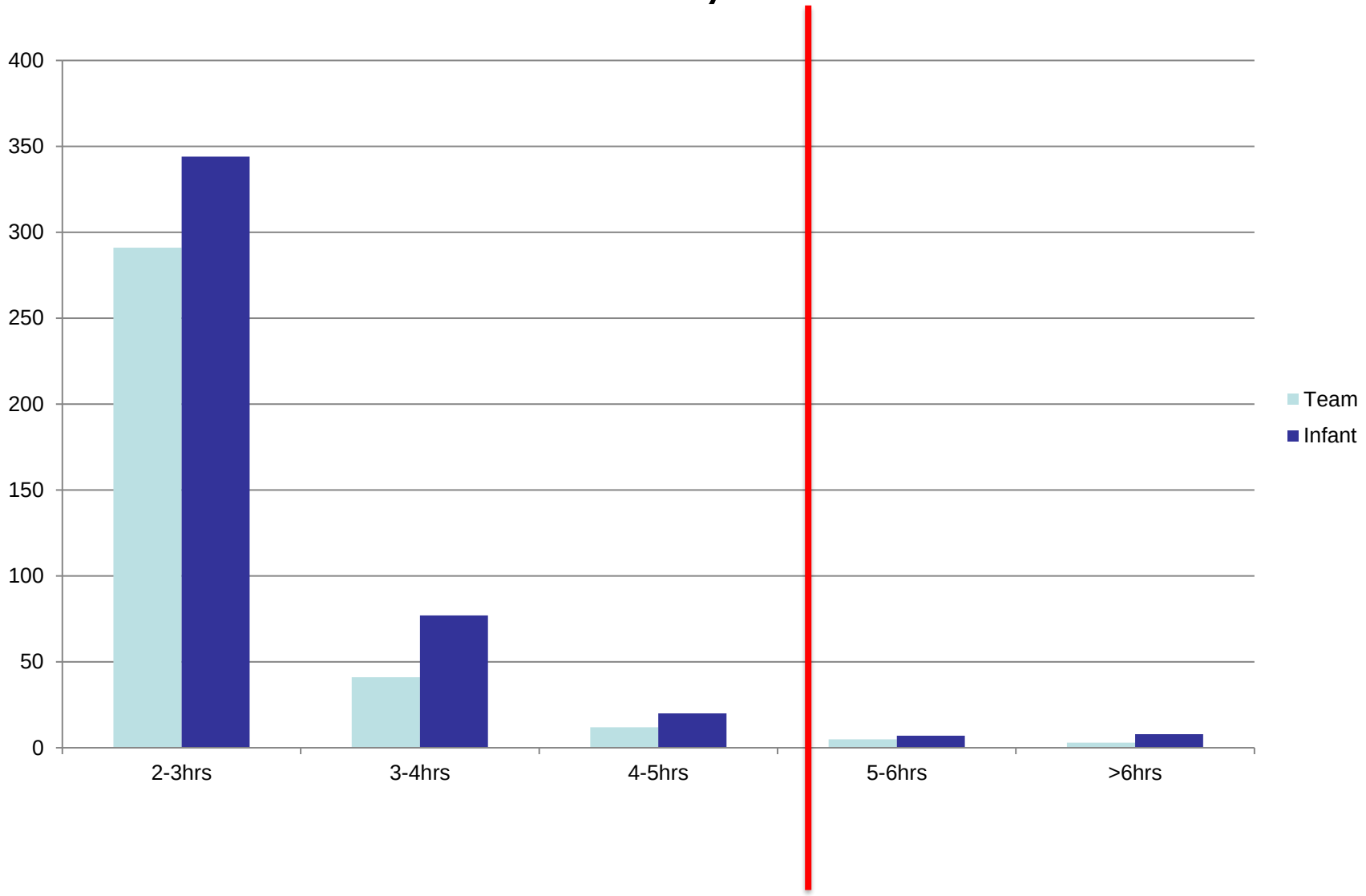
Ground travel time, team & infant, Jan-Jun 2016, all transfers



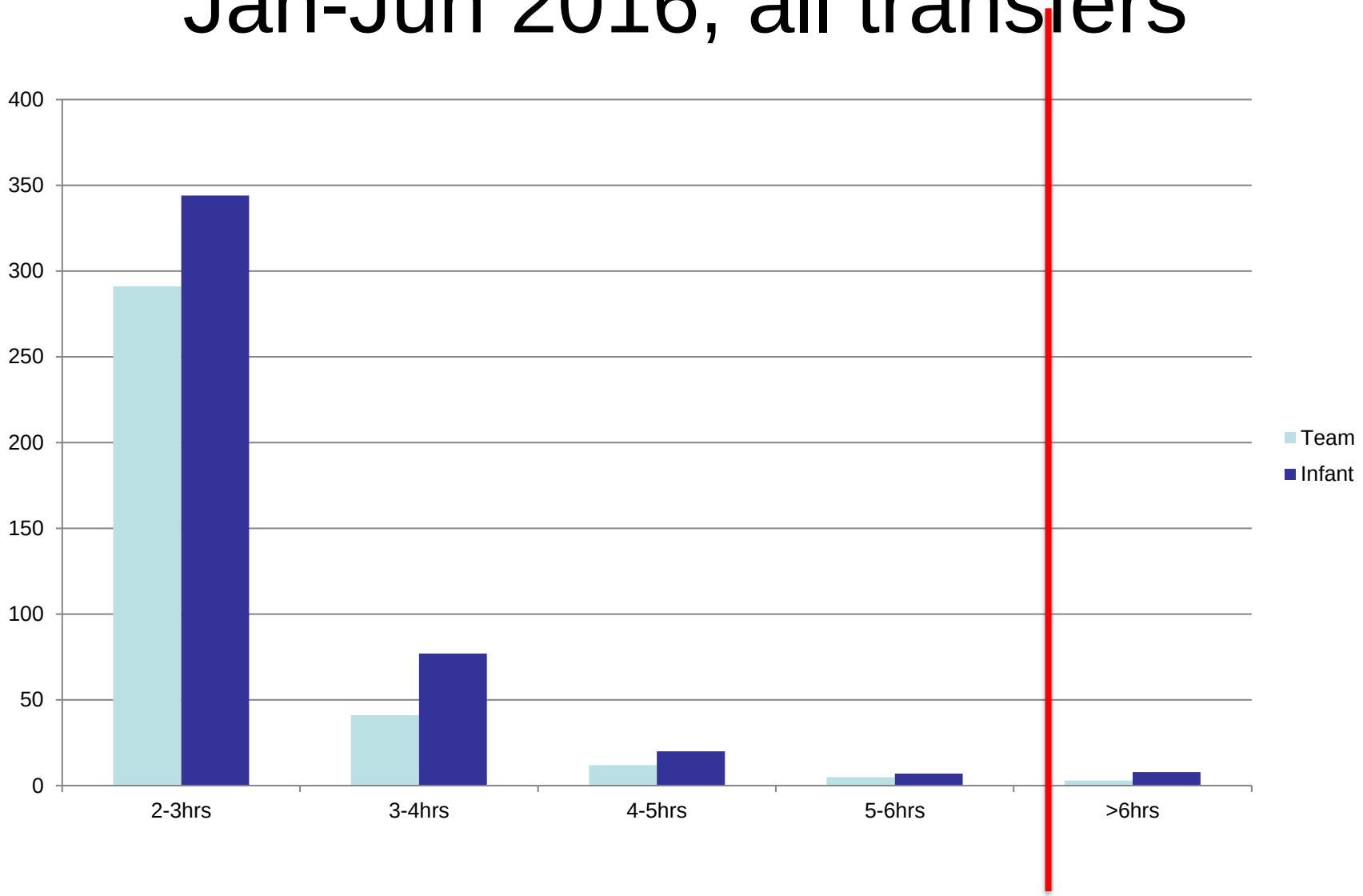
Ground travel time, team & infant, Jan-Jun 2016, all transfers



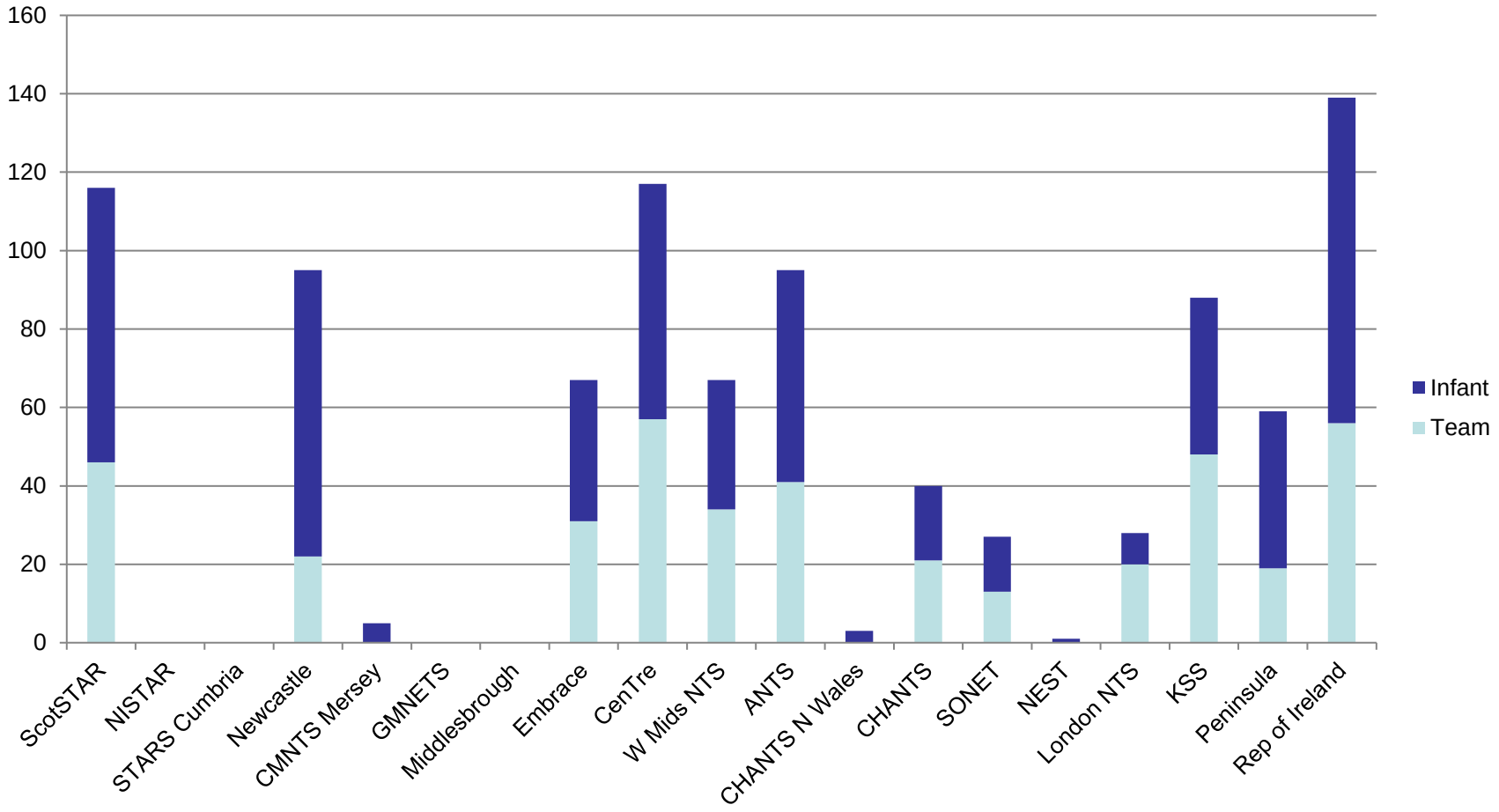
Ground travel time, team & infant, Jan-Jun 2016, all transfers



Ground travel time, team & infant, Jan-Jun 2016, all transfers



Ground journeys >2hrs Jan-Jun 2016.

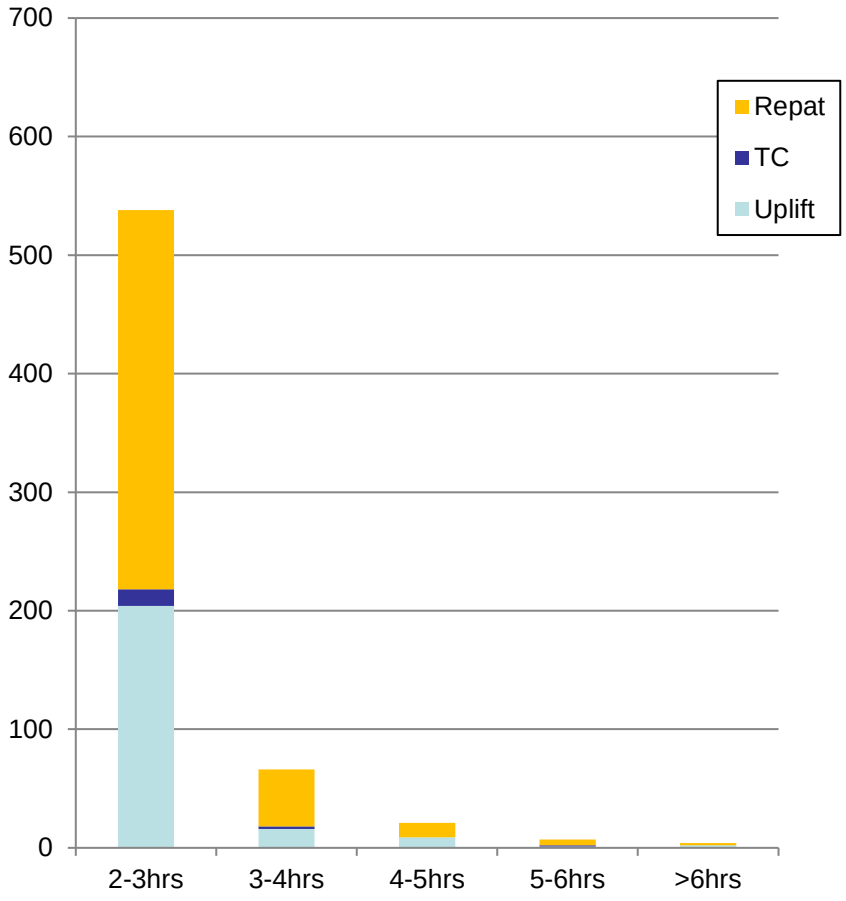


Ground travel time, team & infant, Jan-Jun 2016, all transfers

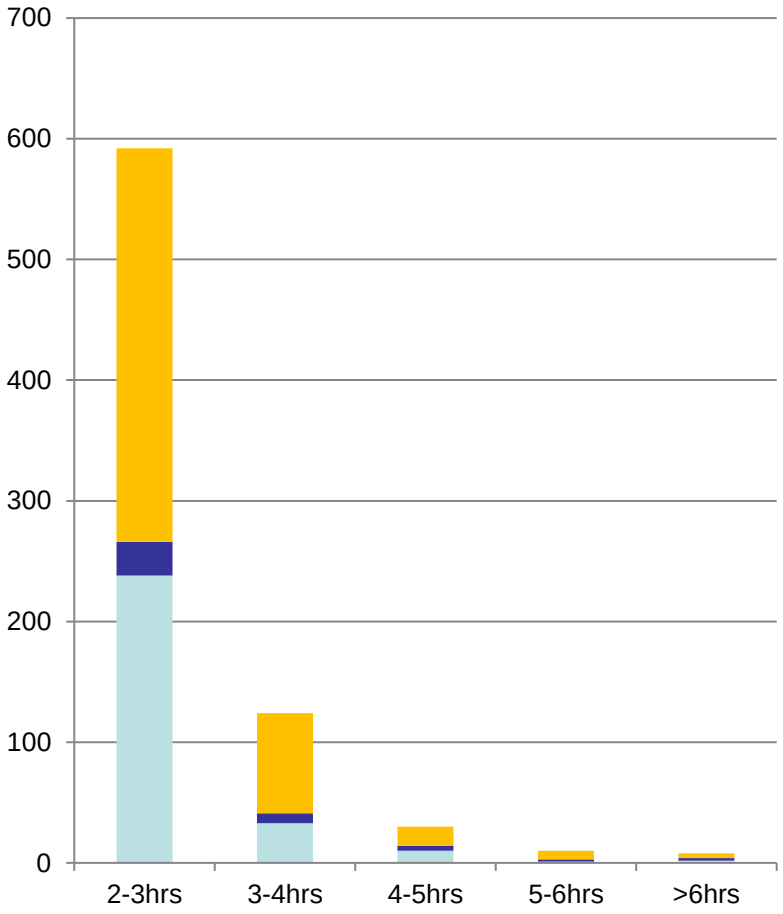
	Team only	Infant	Total
>2hrs, UK	352	456	808
>2hrs, excl. Scotland	306	386	692
>3hrs, UK	61	112	173
>3hrs, excl. Scotland	50	98	148

Ground transfer times. Jan-Jun 2016, UK.

Team moves

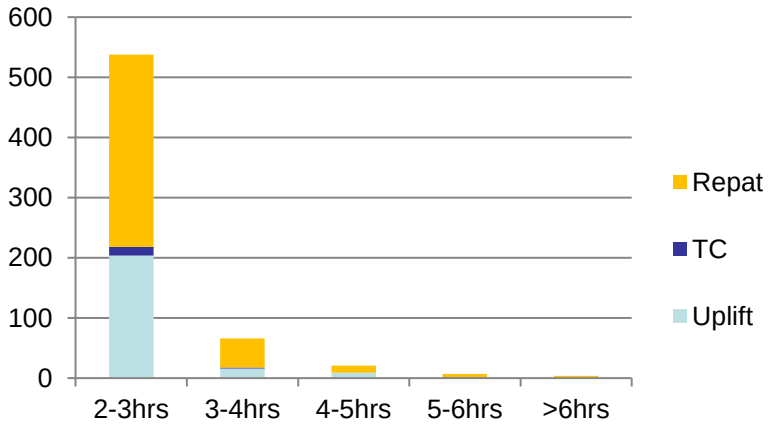


Infant moves

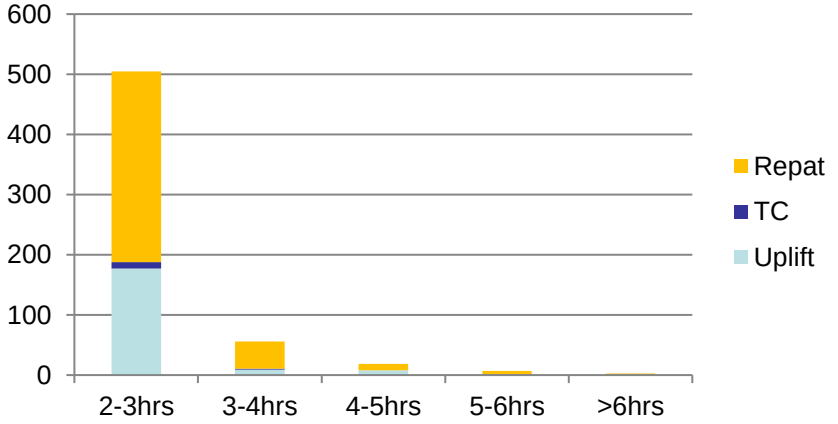


Ground transfer times. Jan-Jun 2016, UK excl. Scotland.

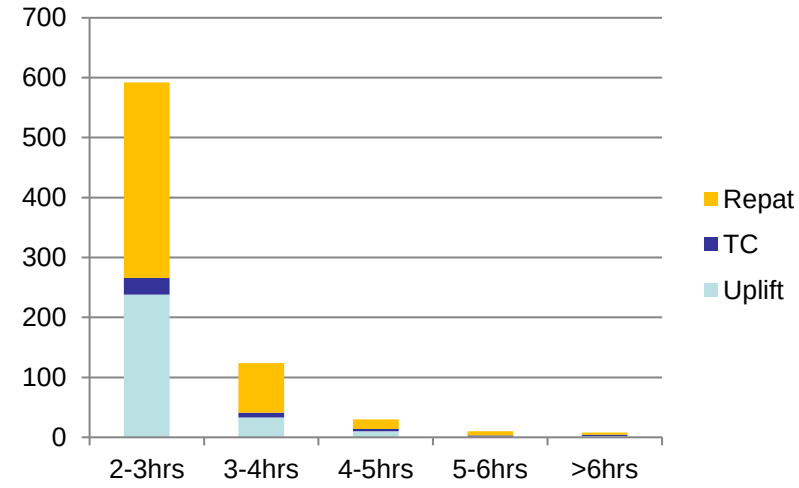
Team moves, all



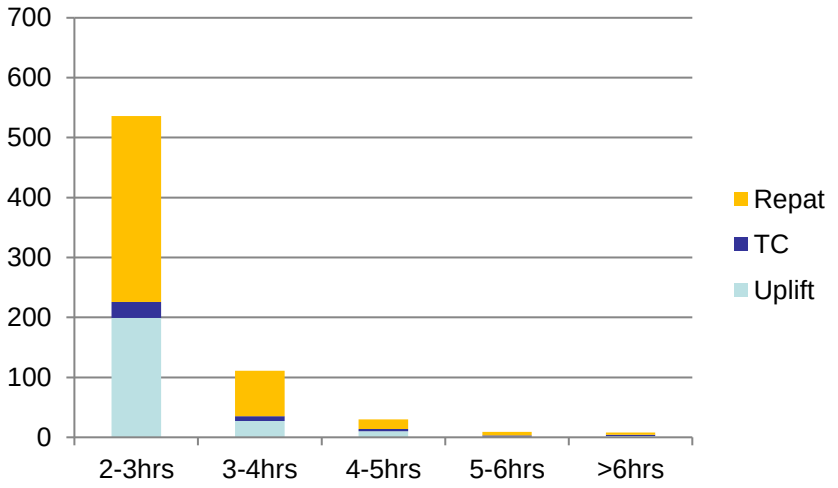
Team moves, excl. Scotland



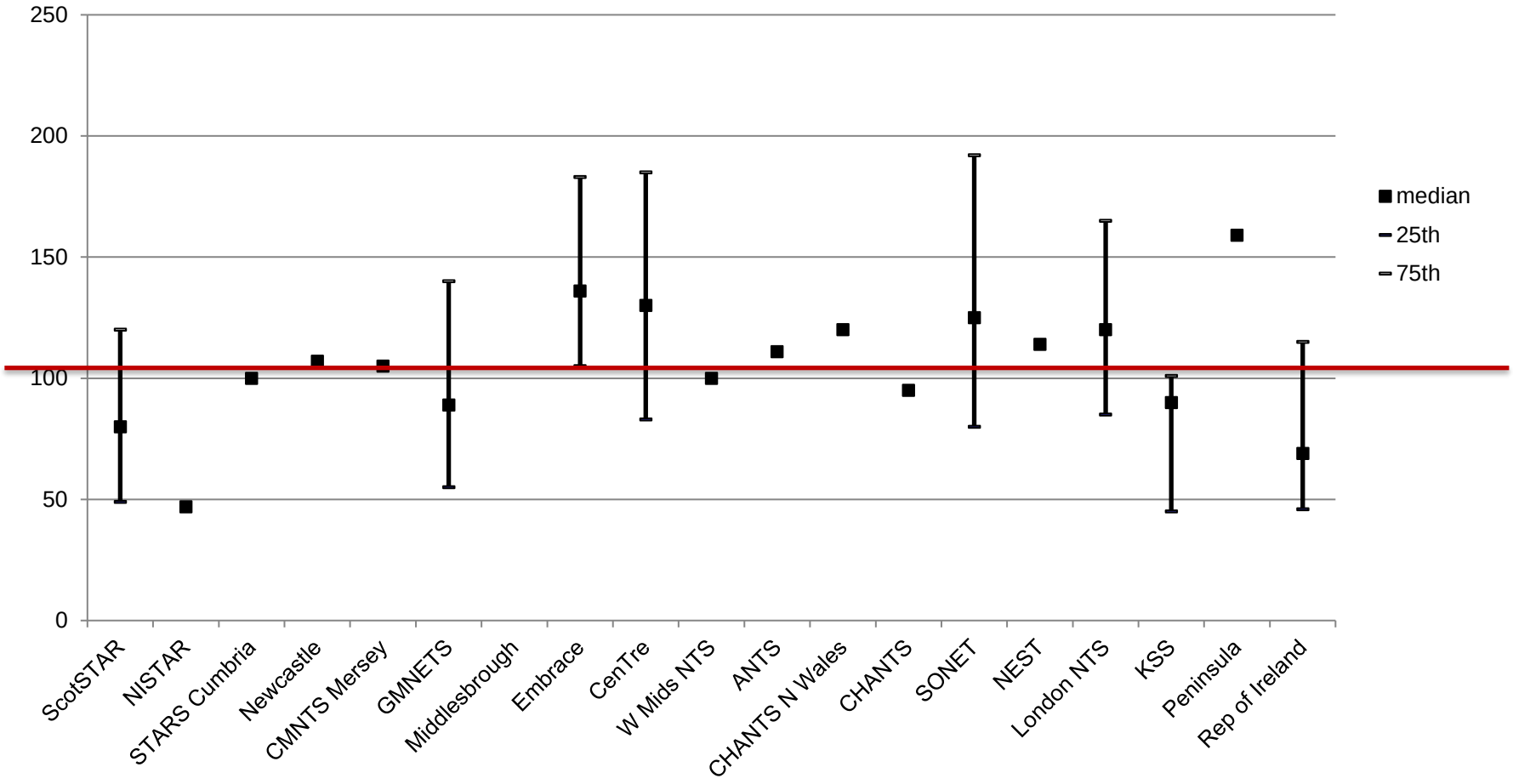
Infant moves, all



Infant moves, excl. Scotland



Stabilising time (minutes), Jan-Jun 2016,
Median (+/- 25th & 75th centiles)



Discussion

- Thanks for your data.
- Welcome RoI!
- Good set of benchmarks becoming established & useful(?).
- Showing change over time.
- Interesting new benchmarks.
- Topic-specific responsiveness (BSV, air).

Discussion

- Questions?
- Ideas for topic areas?
- Better benchmarks?

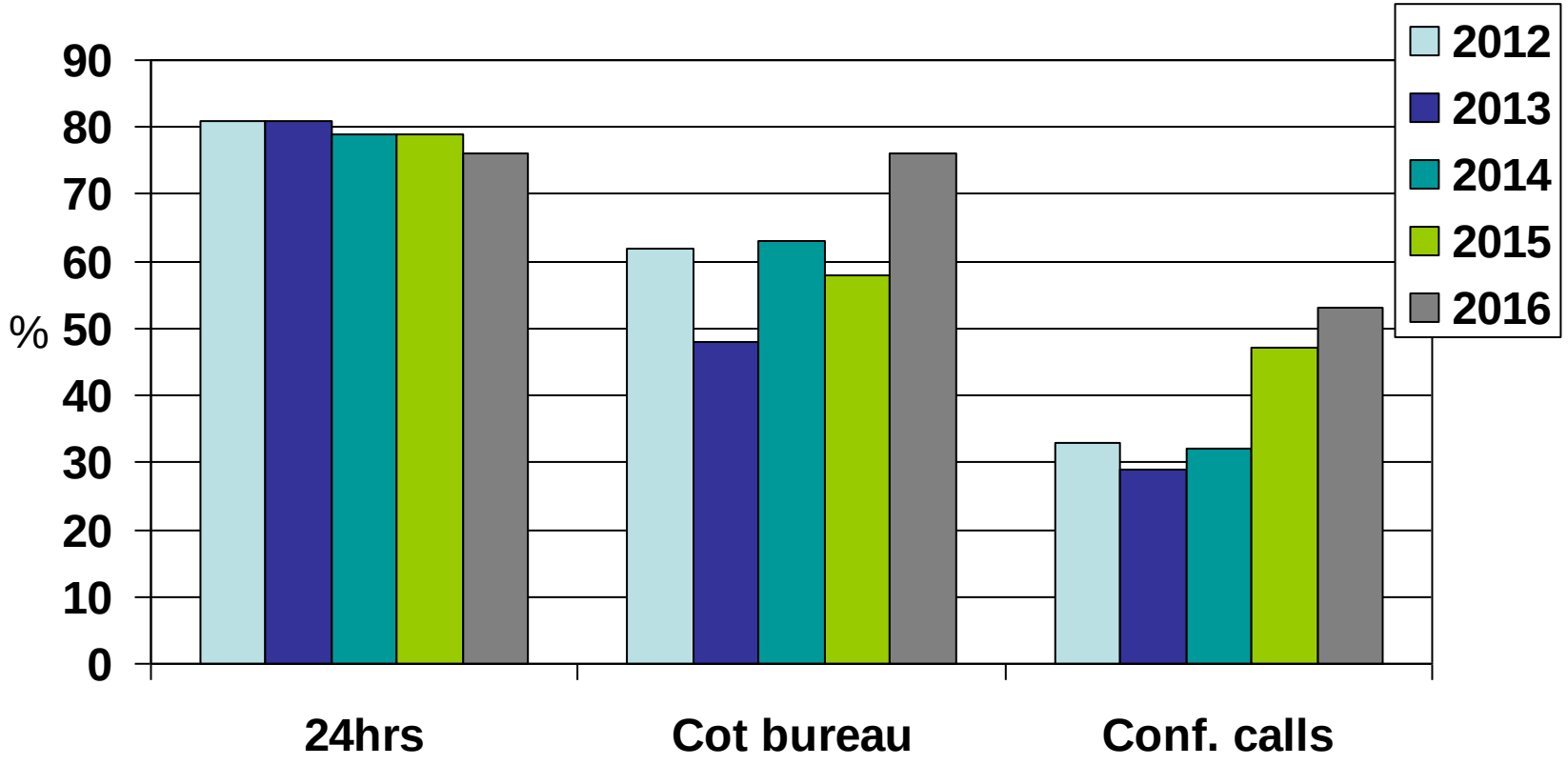
IUT

Do you offer support for locating appropriate maternal and neonatal beds for in-utero transfers?

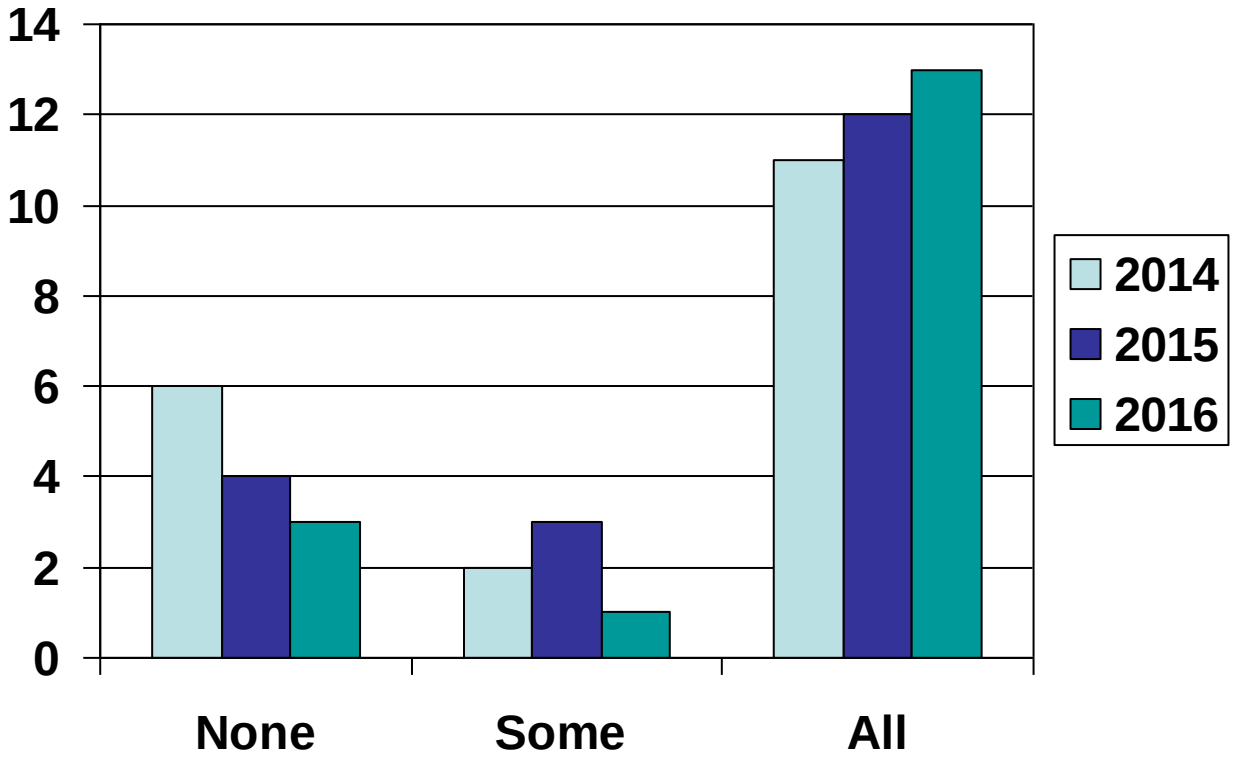
Yes: 14

No: 3

Service Characteristics



Dedicated vehicles, 2016.



Consultants

- Consultant availability **to attend transfers:**
  - Scheduled, all of the time.
  - Scheduled, some of the time
  - Maybe available, ad-hoc.
  - Never available to attend.