Vermont Oxford NETWORK

Group Report for Infants Born in 2014

PQCNC Group

Vermont Oxford Network is a worldwide community of health care professionals dedicated to improving the quality and safety of medical care for newborn infants and their families through a coordinated program of research, education, and quality improvement projects.

Introduction

The Vermont Oxford Network Group Report includes characteristics, outcomes, and interventions for eligible infants born between January 1 and December 31, 2014. In 2014, the PQCNC Group registered 1,821 infants in the Very Low Birth Weight Database, of which 1,695 infants weighed 501 to 1500 grams at birth. Overall, 934 centers registered 56,838 infants weighing 501 to 1500 grams.

The group data provided include: the number of infants with the characteristic, outcome, or intervention; the total number of eligible infants; and the unadjusted percentage of the total number of cases. Additionally the group data include: the number of centers; the median value for all centers contributing data; quartile 1 (Q1; 25th percentile) and quartile 3 (Q3; 75th percentile). Of all centers in the group, 25% have rates at or below the Q1 and 25% have rates at or above the Q3. We report unadjusted percentages by birth weight and gestational age.

The Network data include the median value for all centers contributing data, quartile 1 (Q1; 25th percentile), and quartile 3 (Q3; 75th percentile). Of all centers, 25% have averages at or below the Q1 and 25% have averages at or above the Q3.

Unless otherwise stated, the figures and tables do not include infants for whom data are missing or not applicable. An asterisk in a table indicates that there were no infants that met the characteristic for that category. Some outcomes are reported as having occurred at Your Center or at Any Location. Your center refers to cases at your hospital. Any location refers to cases at your hospital or another hospital if the infant was outborn or transferred out. Due to space limitations, figures for Outcomes and Interventions are only available for groups of 35 or fewer centers.

The report contact at a center in this group may download this report as a PDF from the Report Download section of Nightingale. All centers included in this group report gave permission to be included. If you are the report contact and do not have access to Nightingale, go to https://nightingale.vtoxford.org and click on 'Need a login and password?' to send an email to your web services administrator.

When interpreting the data included in this report, please remember that the rates and other statistics presented for each center will vary from those at other centers for reasons that may not reflect true differences in the quality or appropriateness of care. The total number of infants at individual centers may be relatively small. Random variation can cause large differences in estimated rates even when no true differences exist. Additionally, unmeasured characteristics for which we cannot adjust may influence outcomes and interventions.

Given these caveats, it is appropriate to use the data in this report to target specific clinical practices and patient outcomes for further analysis with the goal of identifying potential quality improvement opportunities. These reports are intended for use as one component of a continuous quality improvement program. We encourage you to use the reports in that spirit.

For questions about this report, please contact Erika Edwards, PhD, MPH, Manager of Statistical Reporting (e-mail: nightingale@vtoxford.org). For questions about group management, please contact Bob Issenberg, Group Services Coordinator (membership@vtoxford.org).

Information contained in this report is generated for quality assessment and improvement and is subject to the VON Membership Agreement and Policy on Data Use: http://www.vtoxford.org/datause

Centers Included in this Report

Center	City
Brenner Children's Hospital at WFUBMC	Winston Salem
Cape Fear Valley Medical Center	Fayetteville
Carolinas Medical Center	Charlotte
Catawba Valley Medical Center	Hickory
Duke University	Durham
First Health Moore Regional Hospital	Pinehurst
Forsyth Memorial Hospital	Winston Salem
Gaston Memorial Hospital	Gastonia
Jeff Gordon Children's Hospital at CMC	Concord
Mission Children's Hospital	Asheville
NHRMC-Betty H.Cameron Women & Children's Hospital	Wilmington
North Carolina Children's Hospital	Chapel Hill
Onslow Memorial Hospital	Jacksonville
Presbyterian Hospital, Charlotte	Charlotte
Rex Hospital	Raleigh
Vidant Medical Center	Greenville
WAKEMED Faculty Physicians, Wake Medical Center	Raleigh
Women's Hospital of Greensboro	Greensboro

Infants 501 to 1500 Grams Born in 2014: At Birth

	Group Infants		Group Centers			All Centers		Trend
	N	%	N	Median	(Q1, Q3)	Median	(Q1, Q3)	'10 '11 '12 '13 '14
Antenatal Steroids	1,693	82.5	18	82.0	(69.8, 85.7)	82.6	(74.2, 89.1)	
Multiple Gestation	1,695	24.7	18	22.2	(18.5, 26.4)	27.2	(19.8, 34.8)	
Cesarean Section	1,695	68.8	18	68.6	(63.3, 74.3)	74.2	(67.0, 80.9)	
Any Major Birth Defect	1,695	3.2	18	2.4	(0.6, 4.0)	3.2	(0.0, 6.3)	
Small for Gestational Age	1,695	22.5	18	23.0	(21.3, 25.9)	22.9	(17.8, 29.4)	
APGAR at 1 Minute <4	1,678	32.7	18	30.6	(25.5, 36.2)	24.1	(16.7, 32.9)	
Admission Temperature <36° C	1,638	13.6	18	11.7	(5.1, 23.8)	11.1	(2.8, 22.8)	
Any Initial Resuscitation	1,693	89.9	18	90.1	(87.4, 93.3)	90.4	(84.9, 94.9)	
Chorioamnionitis	1,675	12.9	18	9.3	(5.1, 13.2)	7.8	(3.4, 16.3)	
Maternal Hypertension	1,692	34.7	18	35.8	(29.6, 40.0)	29.4	(22.2, 36.4)	

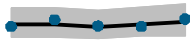
	Weight - Grams (%)				Gestational Age - Weeks (%)				
	501-750	751-1000	1001-1250	1251-1500	< 24	24-26	27-29	30-32	> 32
Antenatal Steroids	83.6	83.9	83.1	79.1	71.3	82.9	86.6	85.2	57.2
Multiple Gestation	26.0	20.6	24.4	26.2	31.9	25.1	21.9	22.7	33.8
Cesarean Section	69.2	71.3	68.8	66.2	37.2	65.5	69.6	72.8	81.4
Any Major Birth Defect	4.6	3.0	1.3	5.8	2.1	2.7	3.1	4.5	9.0
Small for Gestational Age	20.1	16.8	20.2	30.0	0.0	2.7	12.8	34.9	100.0
APGAR at 1 Minute <4	55.9	32.6	28.8	20.7	68.9	50.1	27.6	22.3	13.8
Admission Temperature <36° C	20.0	13.1	9.3	13.0	24.7	14.1	9.5	14.4	20.4
Any Initial Resuscitation	94.4	97.7	92.6	80.3	81.7	99.1	97.1	85.4	55.2
Chorioamnionitis	14.3	16.5	10.8	9.9	21.5	20.7	12.7	6.5	1.4
Maternal Hypertension	30.8	33.1	35.3	36.8	8.5	20.7	35.3	48.4	42.8

Infants 501 to 1500 Grams Born in 2014: Procedures and Interventions

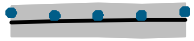
	Group Infants		Group Centers			All Centers		Trend
	N	%	N	Median	(Q1, Q3)	Median	(Q1, Q3)	'10 '11 '12 '13 '14
Surfactant at Any Time	1,695	56.9	18	53.7	(47.1, 63.3)	58.9	(47.8, 69.6)	
Any Ventilation	1,671	56.7	18	52.5	(43.0, 59.9)	59.2	(46.7, 69.4)	
Nasal CPAP before ETT Ventilation	1,379	53.2	18	61.0	(50.6, 70.7)	58.7	(42.9, 75.0)	
Inhaled Nitric Oxide	1,671	4.2	18	3.0	(0.0, 5.5)	1.9	(0.0, 5.5)	
Any ROP Exam	1,671	74.4	18	74.4	(45.0, 77.2)	73.7	(61.9, 81.8)	
ROP Surgery	1,670	2.9	18	1.5	(0.0, 3.4)	0.0	(0.0, 3.3)	
PDA Ligation	1,671	4.5	18	1.8	(0.0, 7.9)	1.7	(0.0, 5.4)	
NEC Surgery	1,671	4.1	18	0.8	(0.0, 4.0)	0.0	(0.0, 4.0)	
Other Surgery	1,671	8.9	18	2.9	(0.0, 10.1)	2.3	(0.0, 7.8)	
Cranial Imaging	1,671	87.1	18	87.8	(70.5, 91.9)	92.4	(83.8, 97.1)	

	Weight - Grams (%)				Gestational Age - Weeks (%)				
	501-750	751-1000	1001-1250	1251-1500	< 24	24-26	27-29	30-32	> 32
Surfactant at Any Time	86.3	73.8	50.0	30.7	79.8	89.7	63.9	28.9	4.1
Any Ventilation	93.2	71.2	46.3	31.9	100.0	90.5	58.4	28.9	17.5
Nasal CPAP before ETT Ventilation	21.6	47.1	63.5	73.1	6.5	22.0	61.8	77.5	69.0
Inhaled Nitric Oxide	11.3	4.4	2.0	2.2	11.7	8.2	3.5	2.6	0.0
Any ROP Exam	68.3	85.6	78.9	53.4	48.1	76.8	85.5	60.6	27.3
ROP Surgery	9.1	3.3	0.4	0.0	10.4	7.6	0.8	0.4	0.0
PDA Ligation	14.4	4.2	1.1	0.7	14.3	12.0	1.5	0.6	0.7
NEC Surgery	10.8	4.7	2.0	0.4	15.6	8.2	2.8	0.6	0.0
Other Surgery	16.4	11.3	4.0	4.3	13.0	16.3	5.6	4.5	6.3
Cranial Imaging	88.9	93.9	90.3	73.6	81.8	92.2	94.3	77.5	55.6

Infants 501 to 1500 Grams Born in 2014: At Discharge Home

	Group Infants		Group Centers			All Centers		Trend
	N	%	N	Median	(Q1, Q3)	Median	(Q1, Q3)	'10 '11 '12 '13 '14
Any Human Milk	1,361	46.5	18	47.8	(37.2, 53.7)	57.5	(42.2, 73.0)	
Oxygen	1,361	9.6	18	7.7	(4.9, 9.2)	7.5	(0.0, 15.4)	
Monitor	1,360	16.3	18	9.4	(6.0, 25.6)	10.0	(2.2, 23.3)	
Discharge Weight <3rd Pctl.	1,270	28.2	18	27.9	(22.9, 32.9)	30.0	(21.6, 42.3)	
Head Circumference <3rd Pctl.	1,241	16.5	18	14.0	(8.3, 20.0)	12.5	(6.8, 20.0)	
Discharge Weight <10th Pctl.	1,270	54.5	18	56.5	(46.9, 65.5)	55.0	(42.1, 66.7)	
Head Circumference <10th Pctl.	1,241	35.1	18	30.9	(25.0, 40.0)	29.5	(20.0, 40.0)	

	Weight - Grams (%)				Gestational Age - Weeks (%)				
	501-750	751-1000	1001-1250	1251-1500	< 24	24-26	27-29	30-32	> 32
Any Human Milk	31.7	41.0	50.0	54.6	21.4	37.4	42.3	58.0	56.6
Oxygen	34.2	9.9	6.0	1.3	50.0	21.3	7.5	2.8	1.6
Monitor	41.6	17.4	12.5	6.9	46.4	30.2	15.3	8.2	4.1
Discharge Weight <3rd Pctl.	40.0	29.6	23.9	26.0	18.2	18.9	18.5	30.5	90.7
Head Circumference <3rd Pctl.	32.9	13.7	15.5	12.9	22.7	15.0	12.1	14.9	45.2
Discharge Weight <10th Pctl.	65.9	58.6	49.2	51.2	40.9	46.2	42.9	64.1	99.1
Head Circumference <10th Pctl.	56.3	34.9	30.7	30.2	54.5	33.7	27.4	32.3	79.8

Day to Initial LOS (All Infants)	Group Infants		Group Centers			All Centers		Trend
	N	Mean	N	Median	(Q1, Q3)	Median	(Q1, Q3)	'10 '11 '12 '13 '14
Home	1,330	65.9	18	64.5	(51.5, 69.6)	60.3	(51.6, 68.6)	
Transfer	207	41.6	18	28.9	(24.4, 37.7)	34.3	(19.0, 52.8)	
Died	153	16.6	15	5.0	(2.5, 24.2)	9.0	(3.3, 17.6)	
All	1,690	58.5	18	53.0	(45.0, 61.8)	52.2	(42.4, 60.2)	

Infants 501 to 1500 Grams Born in 2014: Risk Adjusted (SMR) Outcomes

	Mortality		Mortality Excluding Early Deaths		Death or Morbidity		Periventricular Leukomalacia		Chronic Lung Disease		Chronic Lung Disease < 33 Weeks		Retinopathy of Prematurity		Severe Retinopathy of Prematurity		Severe Intraventricular Hemorrhage	
Center	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)
A	0.7	(0.4, 1.2)	0.6	(0.3, 1.1)	0.9	(0.7, 1.1)	1.0	(0.3, 2.0)	0.8	(0.5, 1.1)	0.8	(0.5, 1.1)	1.2	(0.9, 1.6)	1.2	(0.6, 2.0)	0.8	(0.4, 1.2)
B	1.0	(0.5, 1.8)	1.1	(0.4, 2.1)	1.0	(0.7, 1.3)	0.9	(0.1, 2.4)	1.0	(0.5, 1.8)	1.0	(0.5, 1.8)	0.9	(0.4, 1.7)	1.0	(0.2, 2.2)	1.0	(0.5, 1.6)
C	0.8	(0.5, 1.2)	0.8	(0.5, 1.3)	1.0	(0.9, 1.3)	0.8	(0.3, 1.6)	1.1	(0.9, 1.5)	1.1	(0.8, 1.4)	1.1	(0.8, 1.4)	0.6	(0.3, 1.2)	1.0	(0.6, 1.4)
D	0.9	(0.5, 1.5)	0.9	(0.4, 1.7)	1.0	(0.7, 1.3)	0.7	(0.1, 1.7)	0.8	(0.4, 1.4)	0.8	(0.4, 1.4)	1.1	(0.6, 1.6)	1.0	(0.3, 2.0)	0.9	(0.5, 1.5)
E	1.0	(0.5, 1.9)	1.1	(0.4, 2.2)	0.9	(0.6, 1.3)	0.9	(0.1, 2.4)	0.9	(0.4, 1.7)	0.9	(0.4, 1.7)	0.9	(0.3, 1.8)	1.0	(0.2, 2.3)	1.0	(0.5, 1.6)
F	0.9	(0.6, 1.3)	0.9	(0.6, 1.3)	1.0	(0.8, 1.2)	1.2	(0.6, 2.0)	1.0	(0.8, 1.3)	1.0	(0.7, 1.2)	0.9	(0.7, 1.2)	0.7	(0.4, 1.2)	0.8	(0.5, 1.1)
G	0.9	(0.6, 1.2)	0.8	(0.4, 1.3)	0.8	(0.6, 1.0)	1.0	(0.3, 1.9)	0.5	(0.3, 0.7)	0.5	(0.3, 0.7)	1.0	(0.7, 1.4)	1.4	(0.8, 2.3)	1.0	(0.6, 1.5)
H	0.9	(0.5, 1.4)	0.9	(0.5, 1.4)	1.1	(0.9, 1.4)	1.9	(1.0, 3.1)	1.0	(0.7, 1.4)	1.0	(0.7, 1.4)	1.1	(0.8, 1.5)	1.4	(0.8, 2.2)	1.4	(1.0, 1.9)
I	0.8	(0.5, 1.1)	0.9	(0.5, 1.3)	1.0	(0.8, 1.1)	1.0	(0.4, 1.9)	1.1	(0.8, 1.4)	1.1	(0.8, 1.4)	0.8	(0.6, 1.0)	1.1	(0.6, 1.8)	1.2	(0.8, 1.7)
J	0.9	(0.4, 1.5)	0.9	(0.4, 1.7)	0.8	(0.6, 1.1)	0.7	(0.1, 1.9)	0.9	(0.5, 1.5)	1.0	(0.5, 1.5)	0.6	(0.2, 1.1)	0.9	(0.2, 2.0)	0.9	(0.5, 1.4)
K	0.8	(0.5, 1.2)	0.7	(0.3, 1.2)	0.9	(0.7, 1.1)	0.9	(0.3, 1.8)	0.9	(0.6, 1.3)	1.0	(0.7, 1.3)	0.9	(0.6, 1.3)	0.5	(0.1, 1.0)	0.8	(0.5, 1.2)
L	0.6	(0.4, 0.9)	0.5	(0.3, 0.8)	0.8	(0.7, 1.0)	0.9	(0.3, 1.7)	0.9	(0.7, 1.2)	0.9	(0.6, 1.2)	1.2	(0.9, 1.5)	0.6	(0.2, 1.2)	1.3	(0.9, 1.8)
M	0.8	(0.5, 1.2)	0.7	(0.4, 1.2)	0.8	(0.6, 1.1)	0.7	(0.2, 1.6)	0.9	(0.6, 1.2)	0.9	(0.6, 1.2)	1.0	(0.7, 1.4)	1.1	(0.5, 2.0)	0.9	(0.5, 1.3)
N	0.7	(0.4, 1.1)	0.6	(0.3, 1.1)	0.7	(0.5, 0.9)	1.1	(0.4, 2.2)	0.4	(0.2, 0.7)	0.4	(0.2, 0.7)	1.0	(0.7, 1.4)	1.6	(0.9, 2.6)	1.0	(0.6, 1.5)
O	1.0	(0.5, 1.5)	1.0	(0.5, 1.7)	0.9	(0.7, 1.2)	0.7	(0.2, 1.7)	1.2	(0.8, 1.7)	1.2	(0.7, 1.7)	2.2	(1.6, 2.9)	1.4	(0.6, 2.6)	1.2	(0.7, 1.7)
P	0.9	(0.4, 1.7)	0.9	(0.3, 1.9)	1.0	(0.7, 1.3)	2.0	(0.7, 4.1)	0.8	(0.3, 1.6)	0.9	(0.4, 1.6)	0.8	(0.3, 1.6)	1.0	(0.2, 2.2)	1.0	(0.6, 1.6)
Q	1.0	(0.4, 1.7)	0.8	(0.3, 1.7)	0.9	(0.6, 1.3)	0.9	(0.1, 2.4)	0.9	(0.3, 1.6)	0.9	(0.4, 1.7)	2.0	(1.1, 3.2)	1.0	(0.2, 2.3)	1.1	(0.6, 1.8)
R	0.9	(0.5, 1.2)	1.0	(0.6, 1.4)	0.7	(0.5, 0.8)	0.7	(0.3, 1.5)	0.4	(0.2, 0.6)	0.4	(0.2, 0.5)	1.7	(1.3, 2.1)	1.3	(0.7, 2.1)	0.7	(0.4, 1.1)

† No eligible infants

Infants 501 to 1500 Grams Born in 2014: Risk Adjusted (SMR) - Occurred at Your Center

	Pneumothorax		Necrotizing Enterocolitis		Periventricular-Intraventricular Hemorrhage		Late Bacterial Infection		Coagulase Negative Staph Infection		Fungal Infection		Any Late Infection	
Center	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)
A	1.0	(0.5, 1.7)	1.0	(0.4, 1.7)	0.7	(0.4, 1.0)	1.1	(0.5, 1.9)	0.4	(0.1, 1.0)	0.3	(0.0, 1.9)	0.8	(0.4, 1.4)
B	0.9	(0.4, 1.8)	0.9	(0.3, 1.9)	0.9	(0.4, 1.5)	0.8	(0.1, 2.1)	0.7	(0.0, 2.5)	0.8	(0.0, 5.8)	0.7	(0.1, 1.8)
C	1.0	(0.5, 1.6)	1.6	(1.0, 2.3)	0.8	(0.6, 1.1)	0.6	(0.3, 1.1)	1.0	(0.5, 1.7)	0.8	(0.0, 2.7)	0.8	(0.5, 1.3)
D	1.1	(0.5, 1.9)	1.0	(0.4, 1.9)	1.2	(0.7, 1.7)	1.1	(0.4, 2.2)	0.7	(0.1, 1.9)	2.1	(0.1, 7.2)	1.0	(0.4, 1.9)
E	0.9	(0.4, 1.8)	0.9	(0.3, 1.9)	1.0	(0.5, 1.6)	0.9	(0.1, 2.4)	0.9	(0.0, 2.9)	0.9	(0.0, 6.7)	0.8	(0.1, 2.2)
F	1.1	(0.7, 1.7)	1.5	(1.0, 2.1)	0.8	(0.6, 1.1)	0.5	(0.3, 0.9)	0.3	(0.1, 0.7)	2.0	(0.6, 4.4)	0.6	(0.3, 0.9)
G	1.0	(0.5, 1.6)	1.0	(0.5, 1.6)	1.0	(0.7, 1.4)	0.9	(0.5, 1.5)	0.3	(0.0, 0.7)	0.2	(0.0, 1.3)	0.7	(0.4, 1.2)
H	0.9	(0.4, 1.7)	0.7	(0.3, 1.3)	0.5	(0.3, 0.8)	0.6	(0.2, 1.2)	0.7	(0.2, 1.4)	0.2	(0.0, 1.1)	0.7	(0.3, 1.2)
I	0.6	(0.3, 1.1)	0.7	(0.3, 1.2)	1.2	(0.9, 1.5)	1.0	(0.6, 1.6)	1.4	(0.8, 2.2)	0.7	(0.0, 2.5)	1.2	(0.8, 1.7)
J	1.2	(0.5, 2.1)	0.8	(0.3, 1.7)	1.1	(0.6, 1.6)	0.6	(0.1, 1.5)	0.4	(0.0, 1.4)	0.5	(0.0, 3.8)	0.5	(0.1, 1.2)
K	0.9	(0.4, 1.5)	0.7	(0.3, 1.3)	0.7	(0.4, 1.0)	0.7	(0.3, 1.3)	0.3	(0.0, 0.9)	0.2	(0.0, 1.6)	0.6	(0.3, 1.0)
L	1.0	(0.6, 1.6)	0.7	(0.4, 1.2)	0.9	(0.7, 1.2)	0.4	(0.2, 0.7)	0.4	(0.1, 0.9)	0.1	(0.0, 0.9)	0.4	(0.2, 0.7)
M	0.7	(0.3, 1.3)	0.9	(0.4, 1.6)	0.7	(0.4, 1.0)	0.7	(0.3, 1.3)	0.5	(0.1, 1.2)	0.2	(0.0, 1.6)	0.5	(0.2, 0.9)
N	1.3	(0.7, 2.1)	0.8	(0.3, 1.4)	1.2	(0.8, 1.6)	0.5	(0.2, 1.0)	0.2	(0.0, 0.6)	0.2	(0.0, 1.6)	0.4	(0.1, 0.8)
O	0.8	(0.4, 1.5)	0.6	(0.2, 1.2)	1.2	(0.8, 1.6)	0.3	(0.1, 0.8)	0.4	(0.1, 1.1)	0.3	(0.0, 2.0)	0.4	(0.1, 0.8)
P	0.9	(0.4, 1.8)	0.9	(0.3, 1.9)	0.9	(0.4, 1.5)	0.8	(0.1, 2.3)	0.8	(0.0, 2.8)	0.8	(0.0, 5.9)	0.8	(0.1, 2.0)
Q	0.9	(0.3, 1.7)	1.0	(0.4, 2.0)	1.2	(0.6, 1.9)	0.8	(0.1, 2.2)	0.8	(0.0, 2.7)	0.9	(0.0, 6.3)	0.8	(0.1, 2.0)
R	1.1	(0.6, 1.7)	0.6	(0.3, 1.1)	0.6	(0.4, 0.9)	0.4	(0.1, 0.7)	1.1	(0.6, 1.9)	0.1	(0.0, 1.0)	0.7	(0.4, 1.1)

† No eligible infants

Infants 501 to 1500 Grams Born in 2014: Risk Adjusted (SMR) - Occurred at Any Location

	Pneumothorax		Necrotizing Enterocolitis		Periventricular-Intraventricular Hemorrhage		Late Bacterial Infection		Coagulase Negative Staph Infection		Fungal Infection		Any Late Infection	
Center	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)	SMR	(LB, UB)
A	1.0	(0.5, 1.7)	0.9	(0.4, 1.7)	0.7	(0.4, 1.0)	1.1	(0.5, 1.8)	0.4	(0.1, 1.0)	0.3	(0.0, 1.9)	0.8	(0.4, 1.3)
B	0.9	(0.4, 1.8)	0.9	(0.3, 1.8)	0.9	(0.5, 1.5)	0.7	(0.1, 2.0)	0.7	(0.0, 2.4)	0.8	(0.0, 5.7)	0.7	(0.1, 1.8)
C	1.0	(0.6, 1.6)	1.6	(1.0, 2.3)	0.8	(0.6, 1.1)	0.6	(0.3, 1.1)	1.0	(0.4, 1.7)	0.8	(0.0, 2.6)	0.8	(0.5, 1.2)
D	1.0	(0.5, 1.8)	0.9	(0.4, 1.8)	1.1	(0.7, 1.6)	1.1	(0.4, 2.1)	0.7	(0.1, 1.8)	2.0	(0.1, 6.7)	1.0	(0.4, 1.8)
E	0.9	(0.4, 1.8)	0.9	(0.3, 1.9)	1.0	(0.5, 1.6)	0.9	(0.1, 2.4)	0.9	(0.0, 2.9)	0.9	(0.0, 6.6)	0.8	(0.1, 2.1)
F	1.1	(0.6, 1.6)	1.4	(0.9, 2.0)	0.8	(0.6, 1.0)	0.6	(0.3, 0.9)	0.3	(0.1, 0.7)	1.9	(0.5, 4.1)	0.6	(0.4, 0.9)
G	1.0	(0.5, 1.6)	1.0	(0.5, 1.6)	1.0	(0.7, 1.4)	0.9	(0.5, 1.5)	0.3	(0.0, 0.7)	0.2	(0.0, 1.3)	0.7	(0.4, 1.2)
H	1.0	(0.5, 1.7)	1.8	(1.1, 2.6)	1.1	(0.8, 1.4)	0.7	(0.3, 1.3)	0.7	(0.2, 1.5)	0.1	(0.0, 1.0)	0.8	(0.4, 1.3)
I	0.7	(0.3, 1.1)	0.7	(0.3, 1.2)	1.1	(0.9, 1.4)	1.0	(0.6, 1.5)	1.4	(0.8, 2.2)	0.7	(0.0, 2.4)	1.2	(0.8, 1.7)
J	1.2	(0.5, 2.0)	0.8	(0.3, 1.6)	1.1	(0.7, 1.6)	0.6	(0.1, 1.5)	0.4	(0.0, 1.4)	0.5	(0.0, 3.8)	0.5	(0.1, 1.2)
K	0.8	(0.4, 1.5)	0.7	(0.3, 1.3)	0.7	(0.5, 1.0)	0.8	(0.3, 1.4)	0.3	(0.0, 0.9)	0.2	(0.0, 1.5)	0.6	(0.3, 1.1)
L	1.0	(0.6, 1.6)	0.7	(0.3, 1.2)	0.9	(0.7, 1.2)	0.4	(0.2, 0.7)	0.4	(0.1, 0.9)	0.1	(0.0, 0.9)	0.4	(0.2, 0.7)
M	0.8	(0.3, 1.4)	0.8	(0.4, 1.5)	0.7	(0.5, 1.0)	0.7	(0.3, 1.2)	0.5	(0.1, 1.2)	0.2	(0.0, 1.5)	0.5	(0.2, 0.9)
N	1.4	(0.8, 2.2)	0.7	(0.3, 1.4)	1.2	(0.8, 1.6)	0.5	(0.2, 1.0)	0.2	(0.0, 0.6)	0.2	(0.0, 1.6)	0.4	(0.1, 0.8)
O	0.8	(0.4, 1.5)	0.6	(0.2, 1.2)	1.2	(0.8, 1.6)	0.3	(0.1, 0.8)	0.4	(0.1, 1.1)	0.3	(0.0, 2.0)	0.4	(0.1, 0.8)
P	0.9	(0.4, 1.8)	0.9	(0.3, 1.8)	1.0	(0.6, 1.6)	0.8	(0.1, 2.2)	0.8	(0.0, 2.7)	0.8	(0.0, 5.7)	0.8	(0.1, 2.0)
Q	1.0	(0.4, 1.9)	1.0	(0.4, 2.0)	1.1	(0.6, 1.8)	0.8	(0.1, 2.2)	0.8	(0.0, 2.7)	0.9	(0.0, 6.2)	0.8	(0.1, 2.0)
R	1.1	(0.6, 1.7)	0.7	(0.3, 1.2)	0.7	(0.5, 0.9)	0.4	(0.1, 0.7)	1.1	(0.6, 1.9)	0.1	(0.0, 1.0)	0.7	(0.4, 1.0)

† No eligible infants

Infants 501 to 1500 Grams Born in 2014: Risk Adjusted (O-E) Outcomes

	Mortality		Mortality Excluding Early Deaths		Death or Morbidity		Periventricular Leukomalacia		Chronic Lung Disease		Chronic Lung Disease < 33 Weeks		Retinopathy of Prematurity		Severe Retinopathy of Prematurity		Severe Intraventricular Hemorrhage	
Center	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)
A	-3	(-7, 2)	-3	(-6, 1)	-5	(-13, 5)	0	(-2, 2)	-5	(-12, 3)	-5	(-11, 3)	6	(-3, 16)	1	(-2, 5)	-1	(-3, 1)
B	0	(-1, 1)	0	(0, 1)	0	(-2, 2)	0	(0, 0)	0	(-1, 1)	0	(-1, 1)	0	(-1, 1)	0	(0, 0)	0	(0, 0)
C	-4	(-11, 4)	-3	(-8, 4)	3	(-11, 19)	-1	(-3, 3)	5	(-6, 18)	4	(-6, 17)	2	(-9, 15)	-3	(-6, 1)	0	(-4, 5)
D	-1	(-3, 3)	0	(-3, 3)	-1	(-5, 5)	0	(-1, 1)	-1	(-4, 3)	-1	(-4, 3)	1	(-4, 6)	0	(-1, 2)	0	(-2, 2)
E	0	(0, 1)	0	(0, 1)	0	(-1, 1)	0	(0, 0)	0	(-1, 1)	0	(0, 0)	0	(0, 0)	0	(0, 0)	0	(0, 0)
F	-2	(-11, 8)	-3	(-10, 6)	0	(-17, 18)	1	(-3, 6)	0	(-13, 15)	-1	(-13, 13)	-4	(-17, 11)	-4	(-8, 2)	-4	(-9, 2)
G	-3	(-9, 5)	-3	(-7, 3)	-15	(-25, -3)	0	(-2, 3)	-15	(-21, -8)	-15	(-21, -8)	1	(-9, 12)	3	(-1, 9)	0	(-3, 5)
H	-1	(-6, 5)	-1	(-6, 5)	5	(-5, 15)	3	(0, 8)	1	(-7, 9)	0	(-7, 9)	2	(-6, 12)	4	(-1, 10)	5	(-1, 11)
I	-5	(-11, 3)	-2	(-8, 5)	-4	(-17, 11)	0	(-3, 4)	4	(-7, 17)	3	(-8, 16)	-10	(-20, 2)	1	(-3, 7)	3	(-2, 10)
J	0	(-2, 2)	0	(-2, 2)	-3	(-7, 2)	0	(-1, 1)	0	(-4, 4)	0	(-4, 4)	-2	(-4, 0)	0	(0, 1)	0	(-1, 1)
K	-2	(-7, 3)	-3	(-6, 2)	-5	(-14, 5)	0	(-2, 2)	-1	(-9, 8)	-1	(-9, 8)	-2	(-11, 8)	-3	(-5, 0)	-1	(-4, 2)
L	-11	(-17, -3)	-10	(-14, -3)	-15	(-29, 1)	-1	(-3, 3)	-2	(-12, 9)	-4	(-14, 7)	7	(-4, 20)	-3	(-5, 1)	4	(-1, 10)
M	-3	(-7, 3)	-3	(-6, 2)	-7	(-16, 3)	-1	(-2, 1)	-3	(-10, 6)	-3	(-10, 6)	1	(-7, 10)	1	(-2, 5)	-1	(-4, 2)
N	-4	(-8, 1)	-4	(-7, 1)	-12	(-21, -3)	0	(-2, 3)	-14	(-18, -7)	-14	(-19, -8)	0	(-8, 10)	3	(-1, 9)	0	(-3, 3)
O	0	(-4, 4)	0	(-3, 5)	-4	(-11, 5)	-1	(-2, 2)	3	(-3, 10)	2	(-3, 9)	19	(10, 30)	1	(-1, 3)	1	(-2, 4)
P	0	(0, 0)	0	(0, 0)	0	(-1, 1)	0	(0, 1)	0	(-1, 1)	0	(-1, 1)	0	(-1, 1)	0	(0, 0)	0	(0, 0)
Q	0	(-1, 2)	0	(-1, 1)	-1	(-3, 2)	0	(0, 0)	0	(-1, 1)	0	(0, 1)	1	(0, 3)	0	(0, 0)	0	(0, 0)
R	-3	(-10, 5)	-1	(-7, 7)	-26	(-37, -13)	-1	(-4, 2)	-25	(-31, -17)	-25	(-31, -18)	24	(11, 39)	2	(-2, 7)	-4	(-8, 1)

† No eligible infants

Infants 501 to 1500 Grams Born in 2014: Risk Adjusted (O-E) - Occurred at Your Center

	Pneumothorax		Necrotizing Enterocolitis		Periventricular-Intraventricular Hemorrhage		Late Bacterial Infection		Coagulase Negative Staph Infection		Fungal Infection		Any Late Infection	
Center	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)
A	0	(-2, 3)	0	(-2, 3)	-5	(-10, 1)	1	(-3, 6)	-3	(-4, 0)	0	(-1, 1)	-2	(-6, 4)
B	0	(0, 0)	0	(0, 1)	0	(-1, 1)	0	(-1, 1)	0	(0, 1)	0	(0, 0)	0	(-1, 1)
C	0	(-3, 4)	4	(0, 11)	-5	(-14, 4)	-5	(-9, 1)	0	(-4, 6)	0	(-1, 2)	-3	(-10, 5)
D	0	(-1, 1)	0	(-1, 2)	1	(-3, 6)	0	(-2, 4)	-1	(-2, 2)	0	(0, 2)	0	(-3, 4)
E	0	(0, 0)	0	(0, 0)	0	(-1, 1)	0	(0, 0)	0	(0, 0)	0	(0, 0)	0	(0, 1)
F	1	(-3, 7)	6	(0, 14)	-10	(-20, 3)	-8	(-13, -2)	-8	(-10, -3)	2	(-1, 6)	-11	(-18, -3)
G	0	(-3, 4)	0	(-4, 5)	1	(-7, 11)	-1	(-5, 6)	-5	(-6, -2)	-1	(-1, 0)	-4	(-9, 3)
H	0	(-2, 2)	-2	(-4, 1)	-9	(-13, -3)	-3	(-6, 2)	-2	(-4, 2)	-1	(-1, 0)	-4	(-8, 2)
I	-3	(-6, 1)	-3	(-6, 2)	7	(-5, 20)	0	(-6, 8)	4	(-2, 11)	0	(-1, 2)	5	(-3, 16)
J	0	(-1, 2)	0	(-1, 1)	1	(-3, 5)	-1	(-2, 1)	-1	(-2, 1)	0	(0, 1)	-2	(-4, 1)
K	-1	(-3, 2)	-2	(-4, 1)	-7	(-12, 0)	-3	(-6, 2)	-4	(-5, -1)	-1	(-1, 0)	-5	(-9, 0)
L	0	(-4, 5)	-3	(-7, 2)	-3	(-13, 9)	-10	(-14, -5)	-6	(-9, -1)	-1	(-2, 0)	-14	(-19, -7)
M	-1	(-3, 1)	-1	(-3, 3)	-6	(-11, 1)	-3	(-6, 2)	-3	(-5, 1)	-1	(-1, 0)	-6	(-10, -1)
N	2	(-1, 5)	-1	(-4, 2)	4	(-3, 13)	-4	(-7, 0)	-4	(-5, -2)	-1	(-1, 0)	-7	(-10, -3)
O	-1	(-2, 2)	-2	(-3, 1)	4	(-4, 12)	-5	(-6, -1)	-3	(-4, 0)	0	(-1, 1)	-6	(-9, -2)
P	0	(0, 0)	0	(0, 0)	0	(-1, 1)	0	(0, 1)	0	(0, 0)	0	(0, 0)	0	(-1, 1)
Q	0	(-1, 1)	0	(-1, 1)	0	(-1, 2)	0	(0, 1)	0	(0, 1)	0	(0, 0)	0	(-1, 1)
R	1	(-3, 5)	-3	(-6, 1)	-14	(-22, -5)	-9	(-12, -4)	1	(-4, 8)	-1	(-1, 0)	-7	(-13, 1)

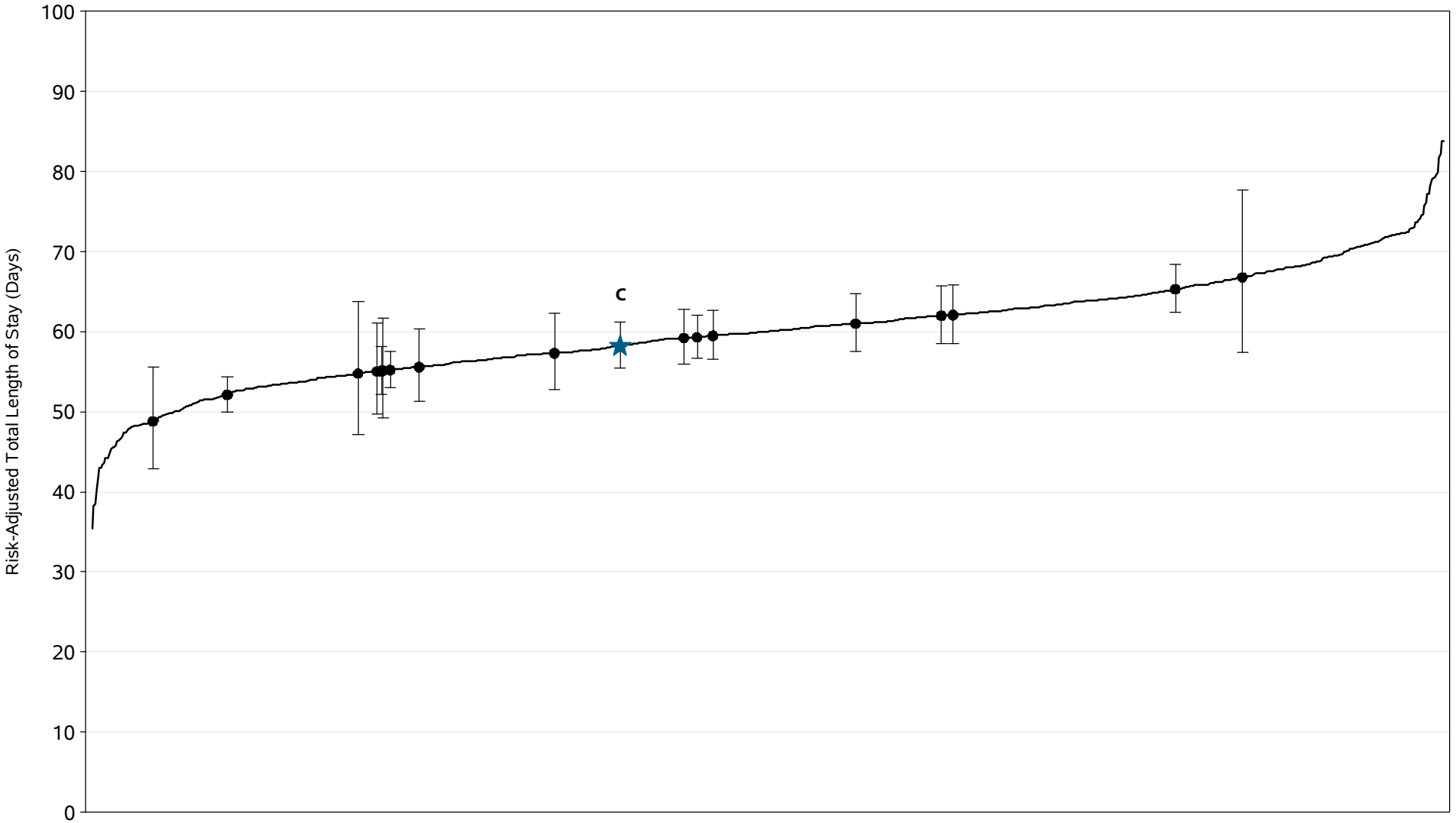
† No eligible infants

Infants 501 to 1500 Grams Born in 2014: Risk Adjusted (O-E) - Occurred at Any Location

	Pneumothorax		Necrotizing Enterocolitis		Periventricular-Intraventricular Hemorrhage		Late Bacterial Infection		Coagulase Negative Staph Infection		Fungal Infection		Any Late Infection	
Center	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)	O-E	(LB, UB)
A	0	(-2, 3)	0	(-3, 3)	-5	(-10, 1)	1	(-4, 6)	-3	(-4, 0)	0	(-1, 1)	-2	(-7, 4)
B	0	(0, 0)	0	(-1, 1)	0	(-1, 1)	0	(-1, 1)	0	(0, 1)	0	(0, 0)	0	(-1, 1)
C	0	(-3, 5)	5	(0, 11)	-6	(-14, 4)	-5	(-9, 1)	0	(-5, 6)	0	(-1, 2)	-4	(-10, 4)
D	0	(-1, 1)	0	(-2, 2)	1	(-3, 6)	0	(-2, 4)	-1	(-2, 2)	0	(0, 2)	0	(-3, 4)
E	0	(0, 0)	0	(0, 0)	0	(-1, 1)	0	(0, 0)	0	(0, 0)	0	(0, 0)	0	(0, 1)
F	1	(-4, 7)	5	(-1, 13)	-12	(-22, 0)	-8	(-13, -1)	-8	(-11, -4)	2	(-1, 6)	-11	(-18, -2)
G	0	(-3, 4)	0	(-4, 4)	1	(-7, 11)	-1	(-6, 6)	-5	(-7, -2)	-1	(-1, 0)	-4	(-10, 3)
H	0	(-2, 3)	6	(1, 12)	2	(-6, 11)	-2	(-6, 3)	-2	(-4, 3)	-1	(-1, 0)	-3	(-8, 4)
I	-3	(-5, 1)	-3	(-7, 2)	5	(-6, 18)	0	(-6, 8)	3	(-2, 11)	0	(-1, 2)	5	(-4, 15)
J	0	(-1, 2)	0	(-2, 1)	0	(-3, 4)	-1	(-2, 1)	-1	(-2, 1)	0	(0, 1)	-2	(-4, 1)
K	-1	(-3, 2)	-2	(-4, 2)	-6	(-12, 1)	-2	(-6, 3)	-4	(-5, -1)	-1	(-1, 0)	-5	(-9, 1)
L	0	(-4, 5)	-3	(-7, 2)	-3	(-13, 9)	-10	(-14, -5)	-6	(-9, -1)	-1	(-2, 0)	-14	(-19, -7)
M	-1	(-3, 2)	-1	(-3, 3)	-6	(-12, 0)	-3	(-6, 2)	-3	(-5, 1)	-1	(-1, 0)	-6	(-10, -1)
N	2	(-1, 5)	-1	(-4, 2)	4	(-3, 13)	-4	(-7, 0)	-4	(-5, -2)	-1	(-1, 0)	-8	(-11, -3)
O	-1	(-2, 2)	-2	(-3, 1)	3	(-4, 12)	-5	(-6, -1)	-3	(-4, 0)	0	(-1, 1)	-7	(-9, -3)
P	0	(0, 0)	0	(-1, 1)	0	(-1, 1)	0	(0, 1)	0	(0, 1)	0	(0, 0)	0	(-1, 1)
Q	0	(0, 1)	0	(-1, 1)	0	(-1, 2)	0	(0, 1)	0	(0, 1)	0	(0, 0)	0	(-1, 1)
R	1	(-3, 5)	-3	(-7, 2)	-12	(-21, -2)	-9	(-13, -4)	1	(-4, 8)	-1	(-1, 0)	-7	(-13, 1)

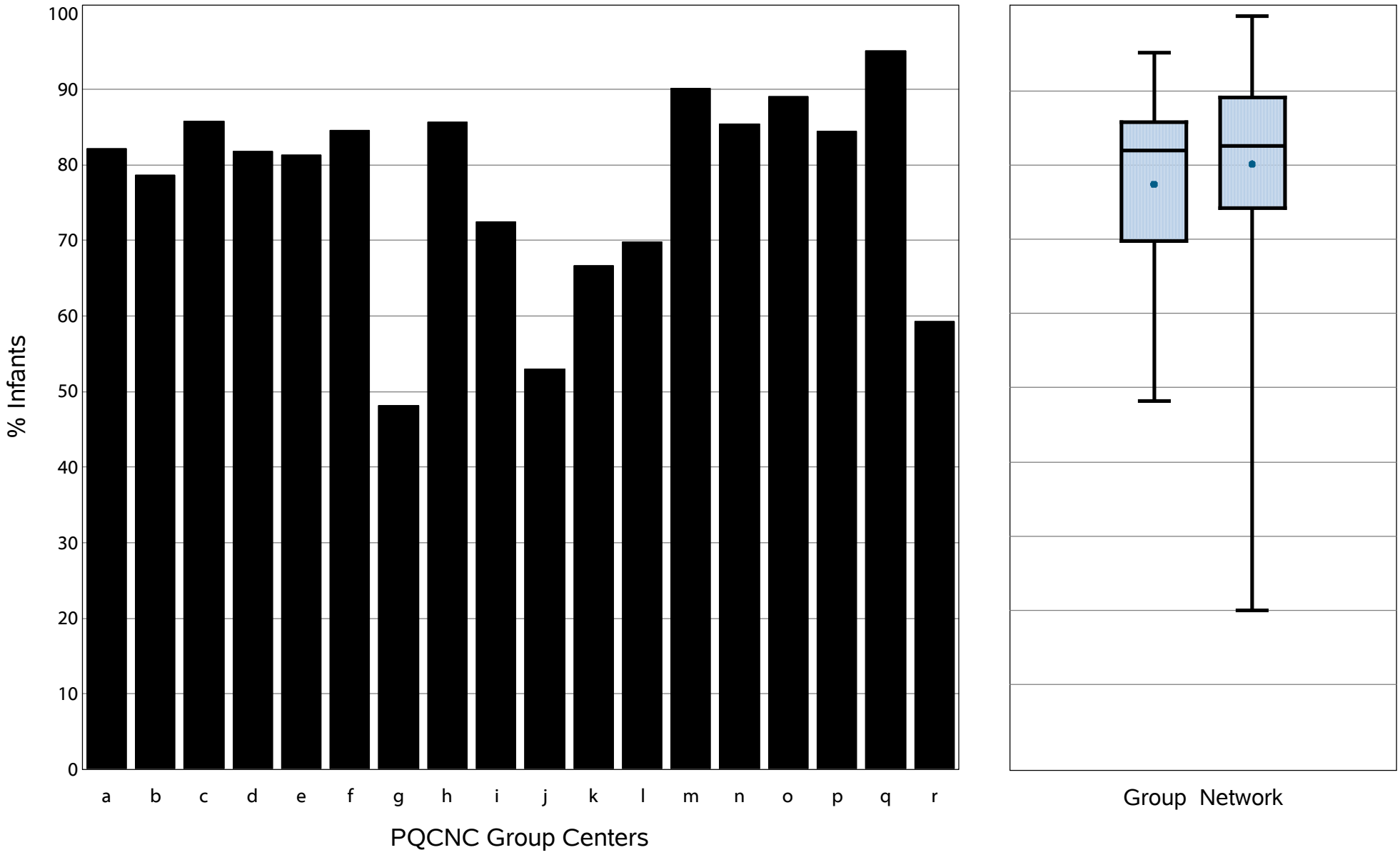
† No eligible infants

Infants 501 to 1500 Grams Born in 2014: Total Length of Stay (Days)

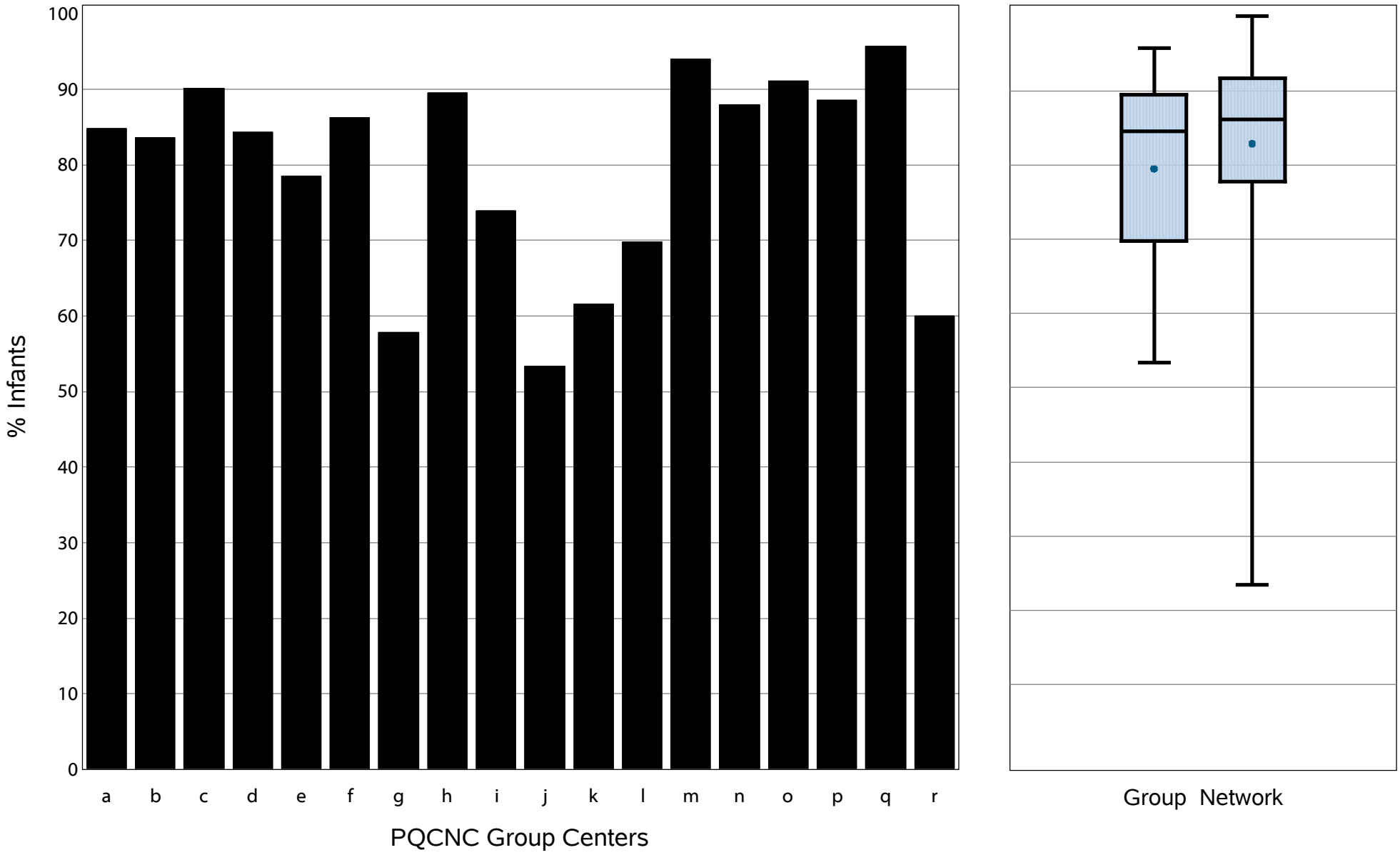


Vertical bar represents 95% confidence interval for the geometric mean

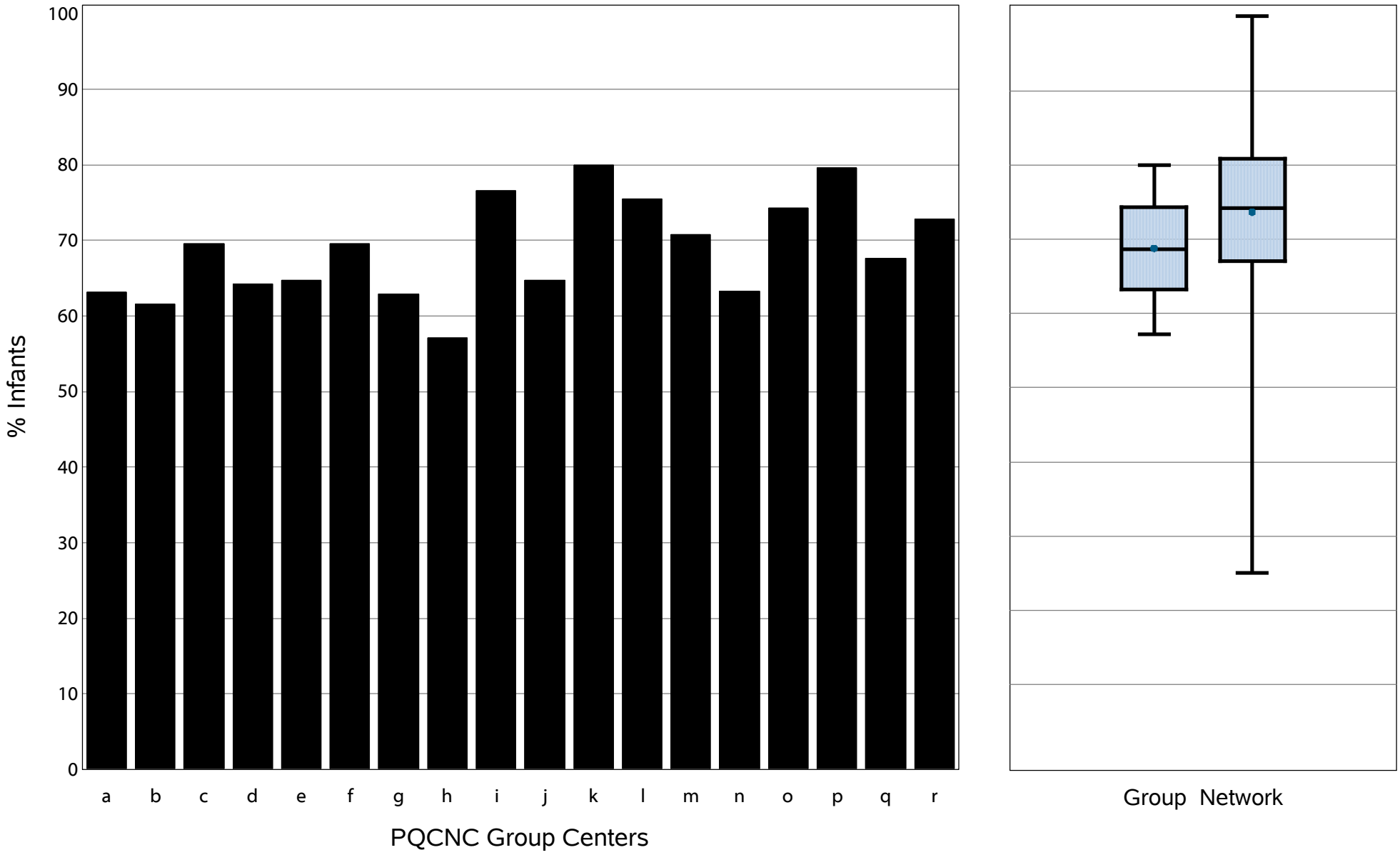
Infants 501 to 1500 Grams Born in 2014: Antenatal Steroids



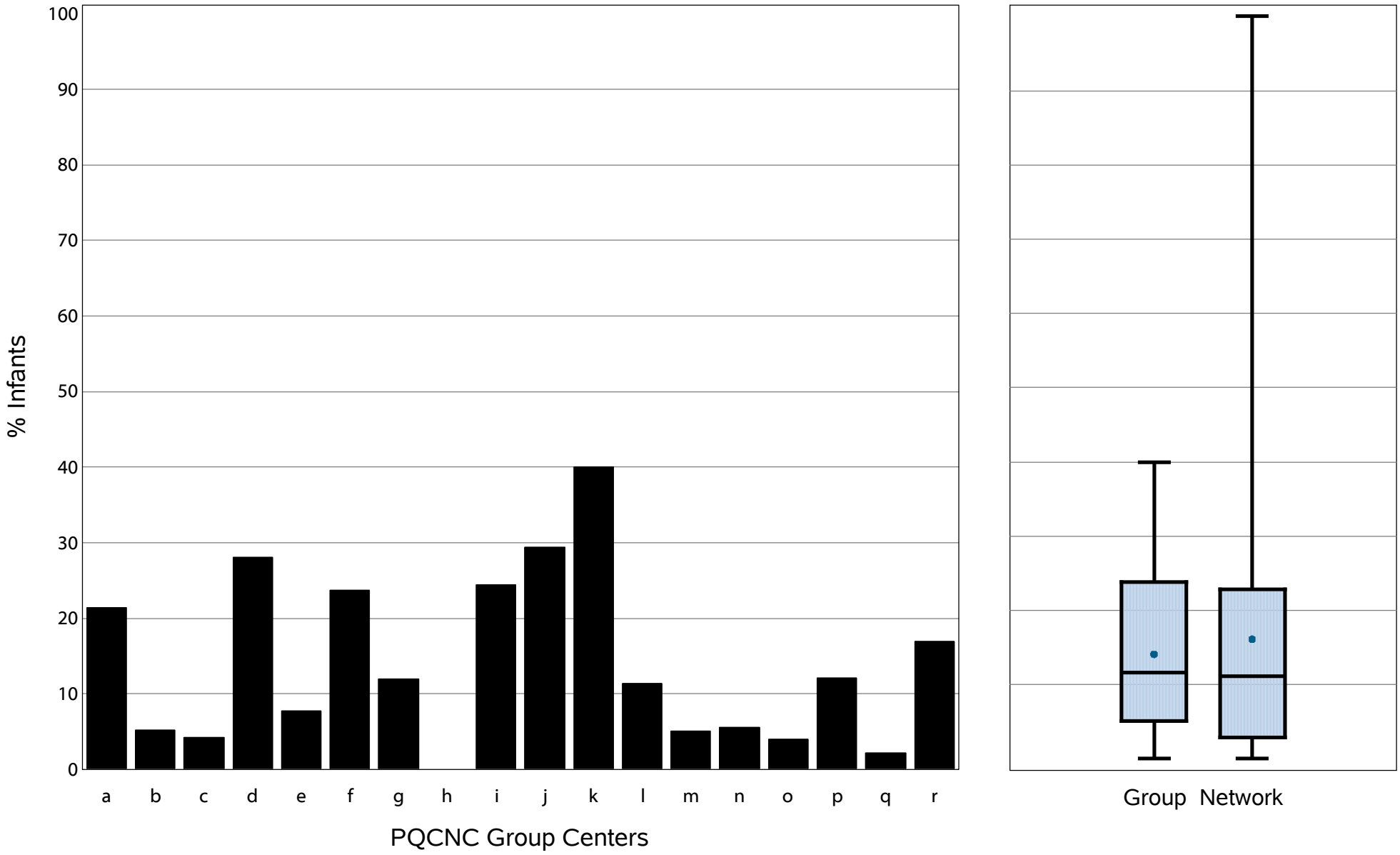
Infants 501 to 1500 Grams Born in 2014: Antenatal Steroids for Infants 24-33 Weeks GA



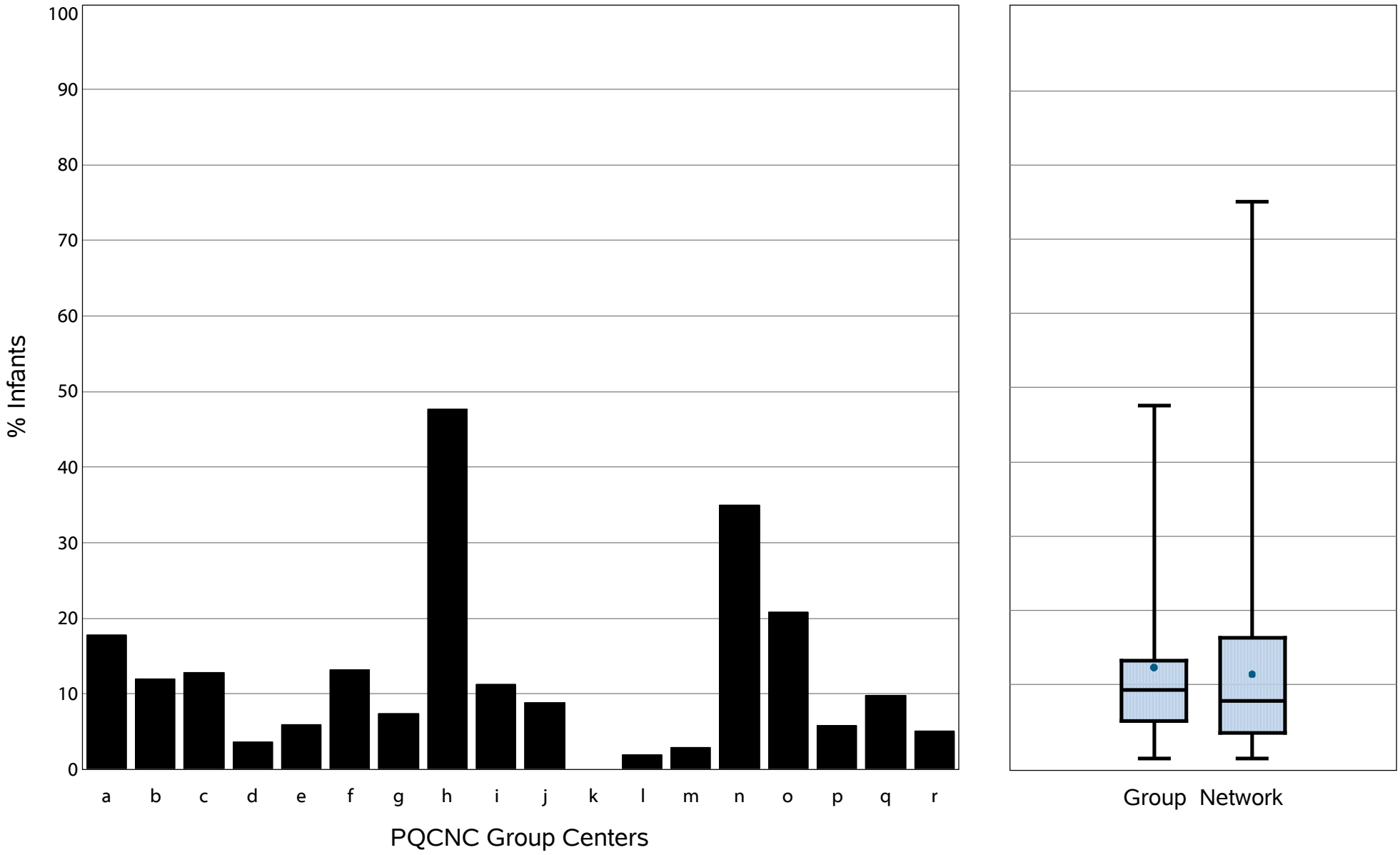
Infants 501 to 1500 Grams Born in 2014: Cesarean Section



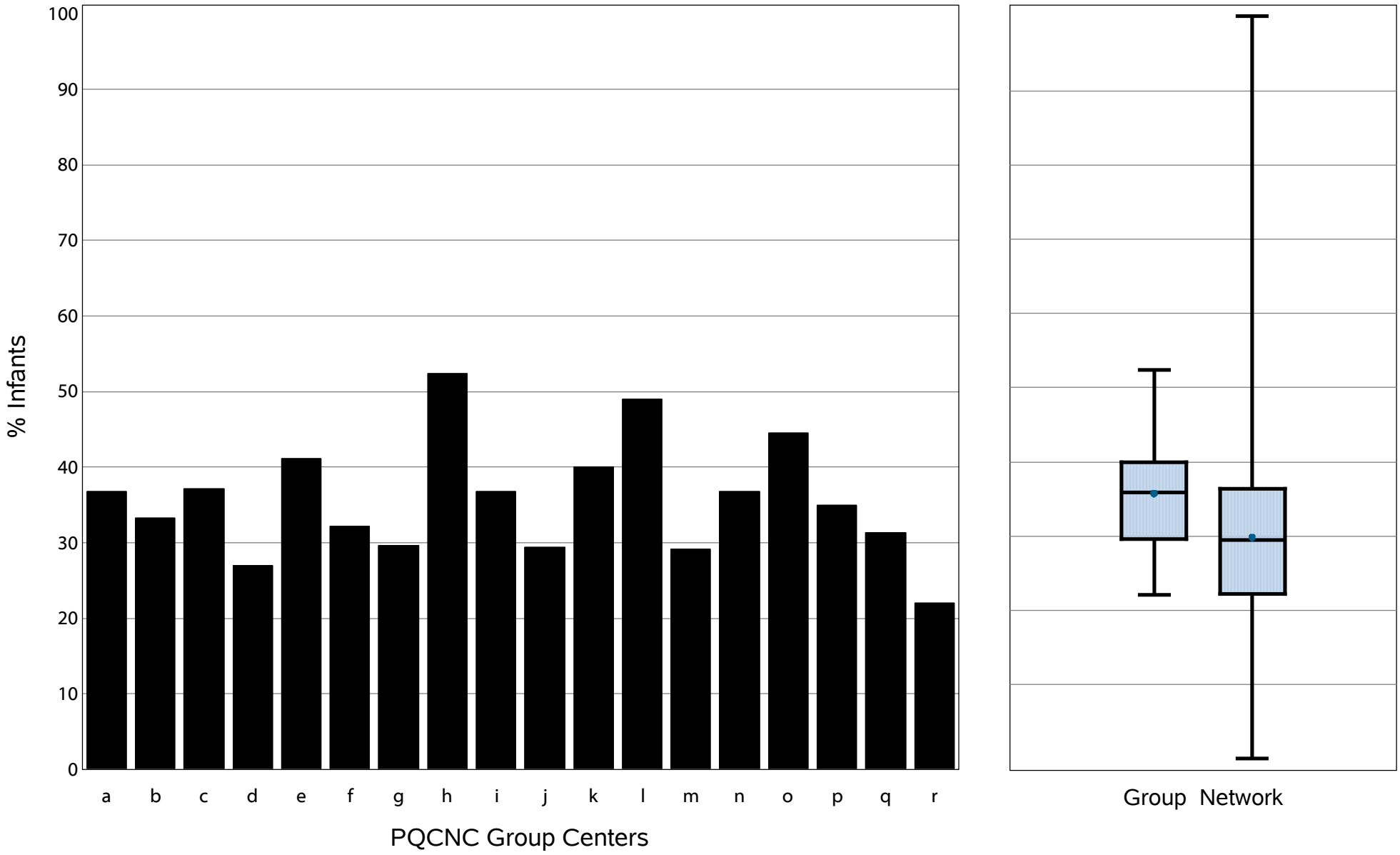
Infants 501 to 1500 Grams Born in 2014: Admission Temperature < 36°C



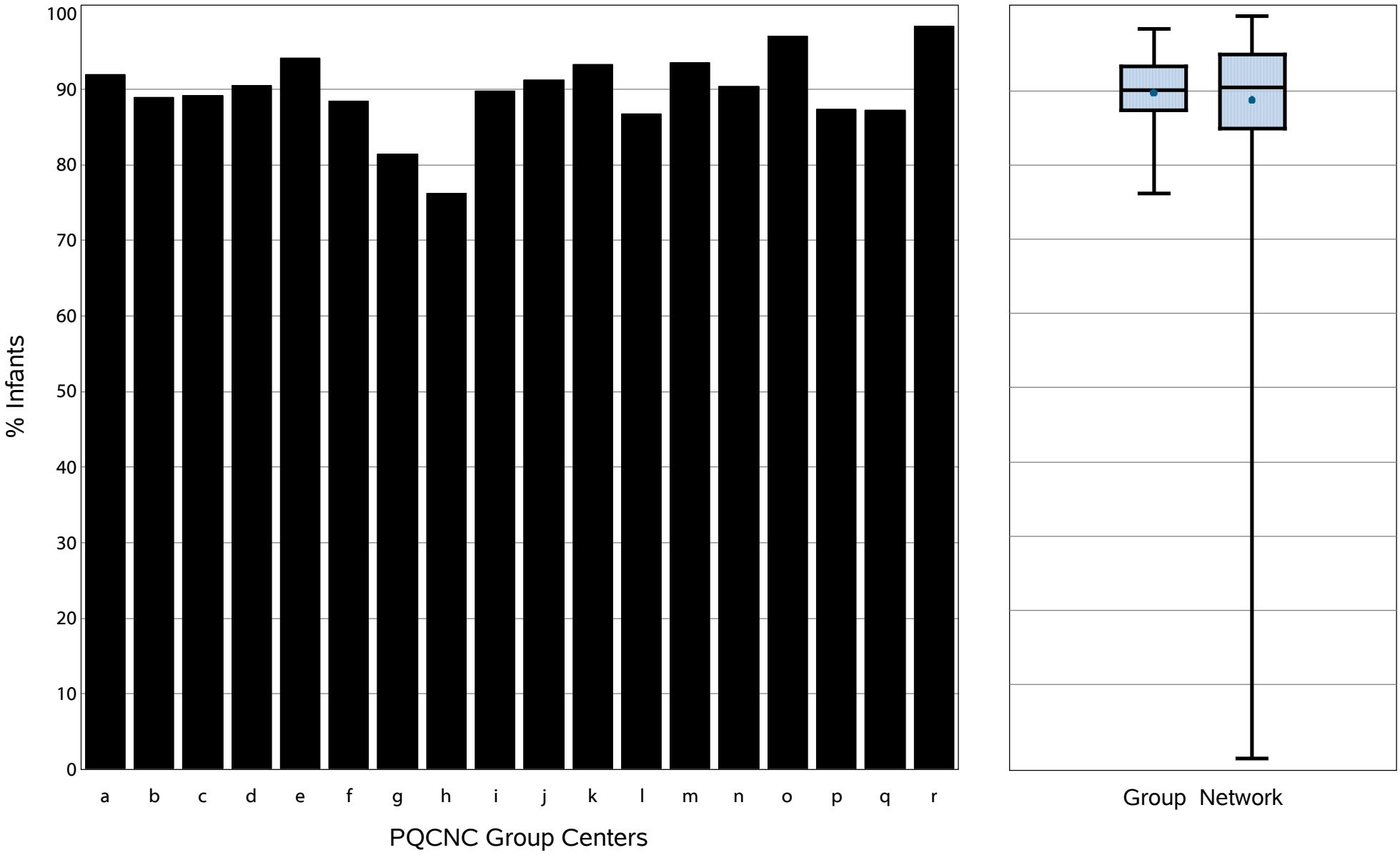
Infants 501 to 1500 Grams Born in 2014: Chorioamnionitis



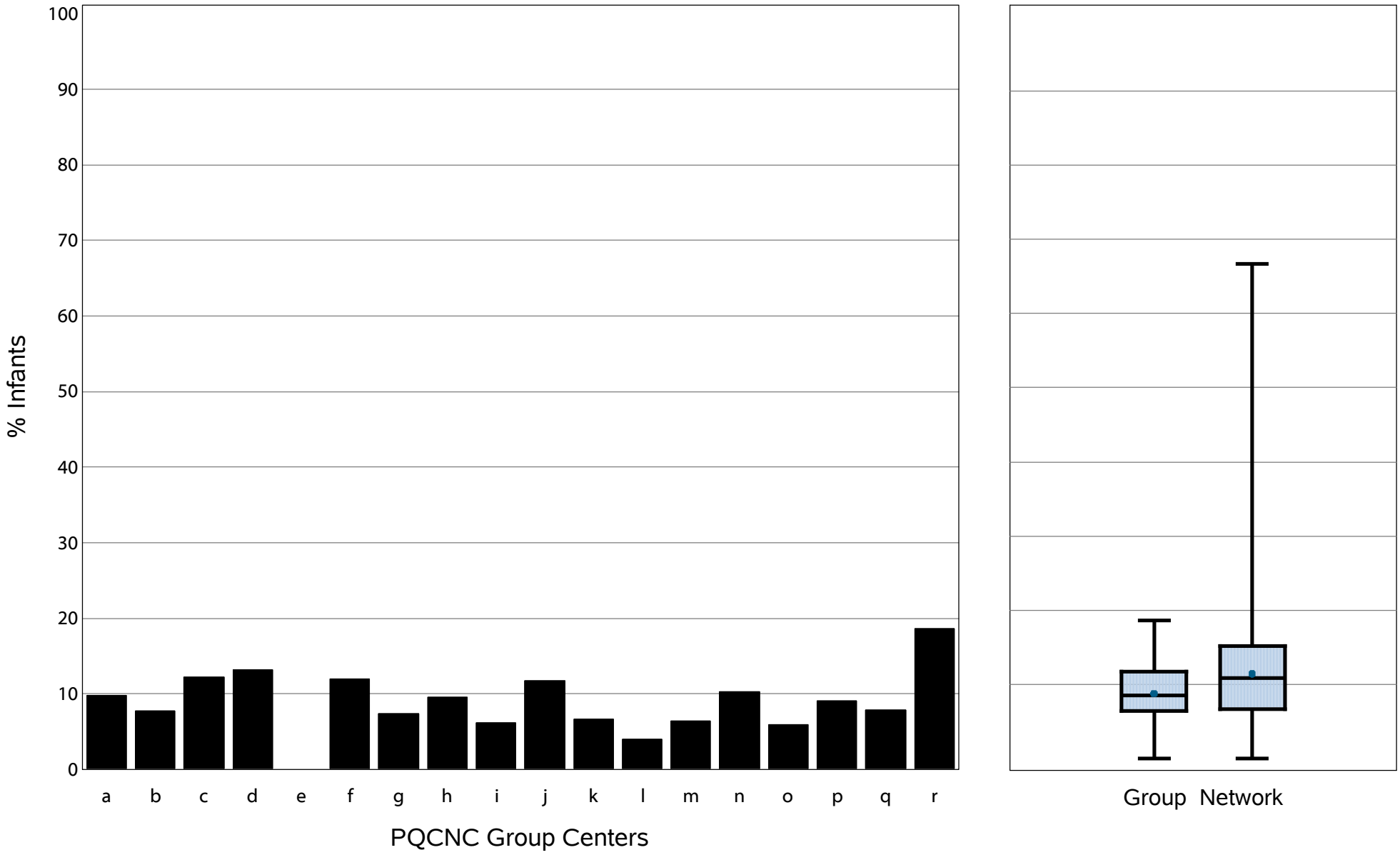
Infants 501 to 1500 Grams Born in 2014: Maternal Hypertension



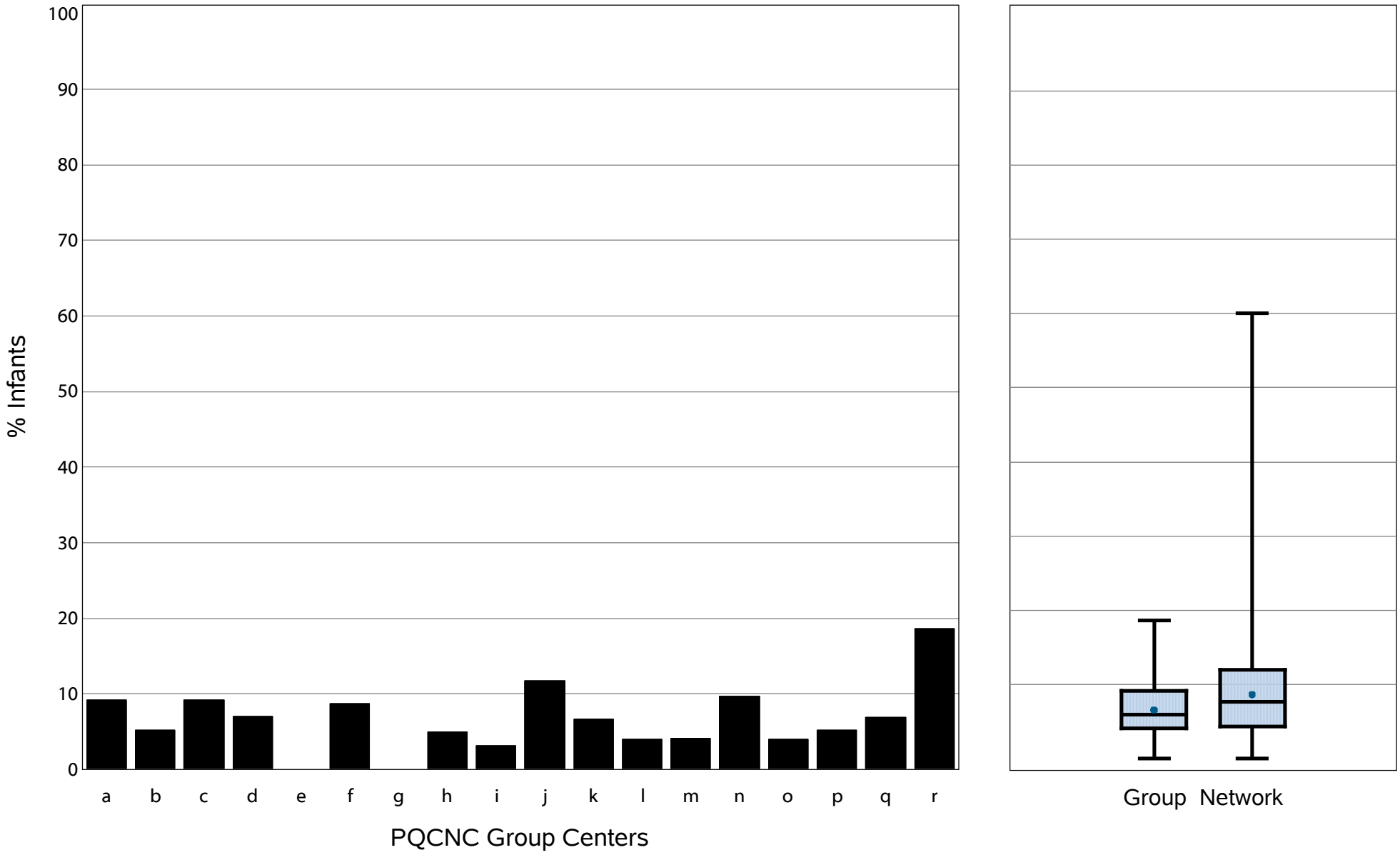
Infants 501 to 1500 Grams Born in 2014: Any Initial Resuscitation



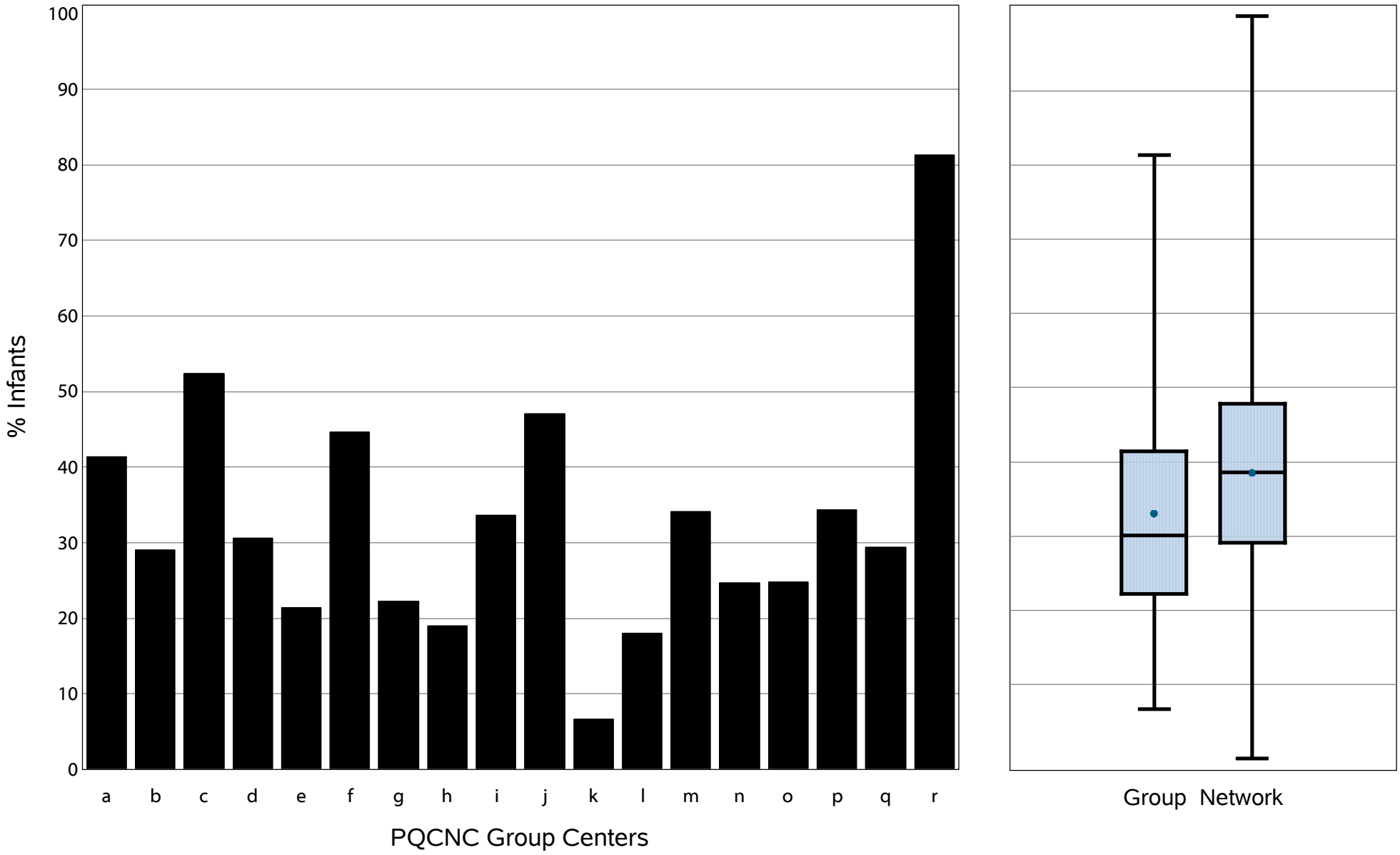
Infants 501 to 1500 Grams Born in 2014: Mortality Overall



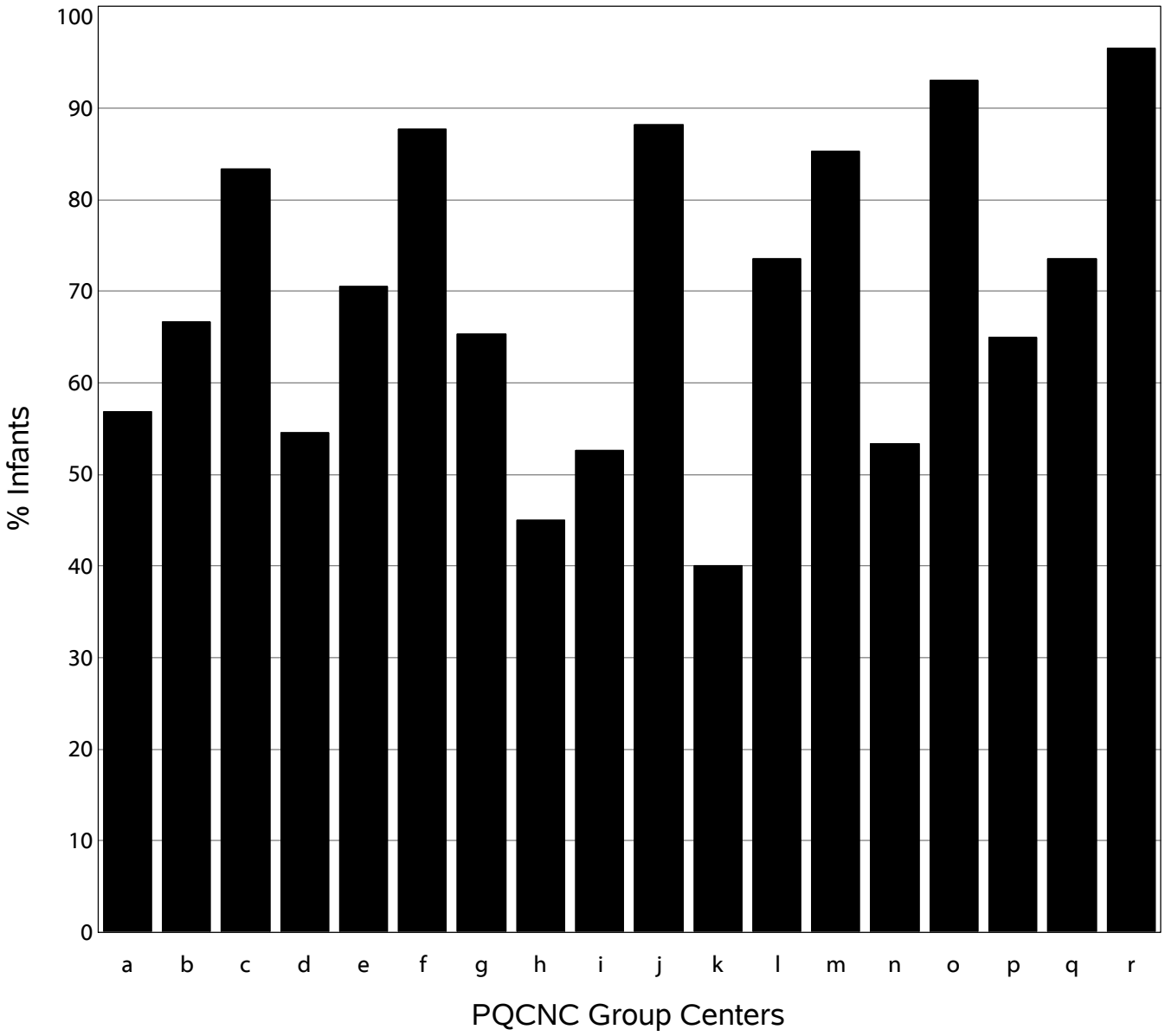
Infants 501 to 1500 Grams Born in 2014: Mortality Excluding Early Deaths

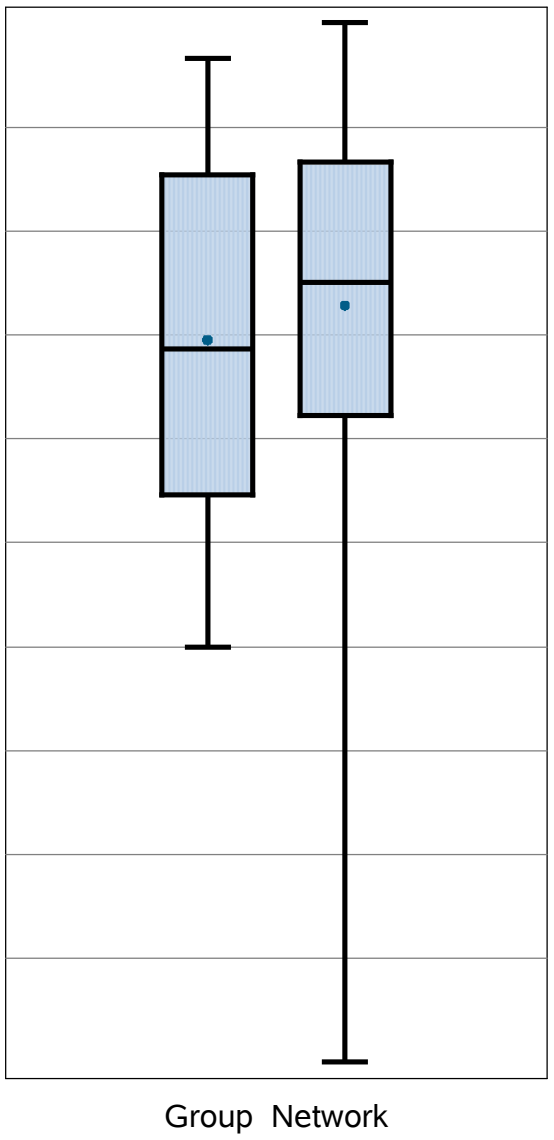


Infants 501 to 1500 Grams Born in 2014: Death or Morbidity

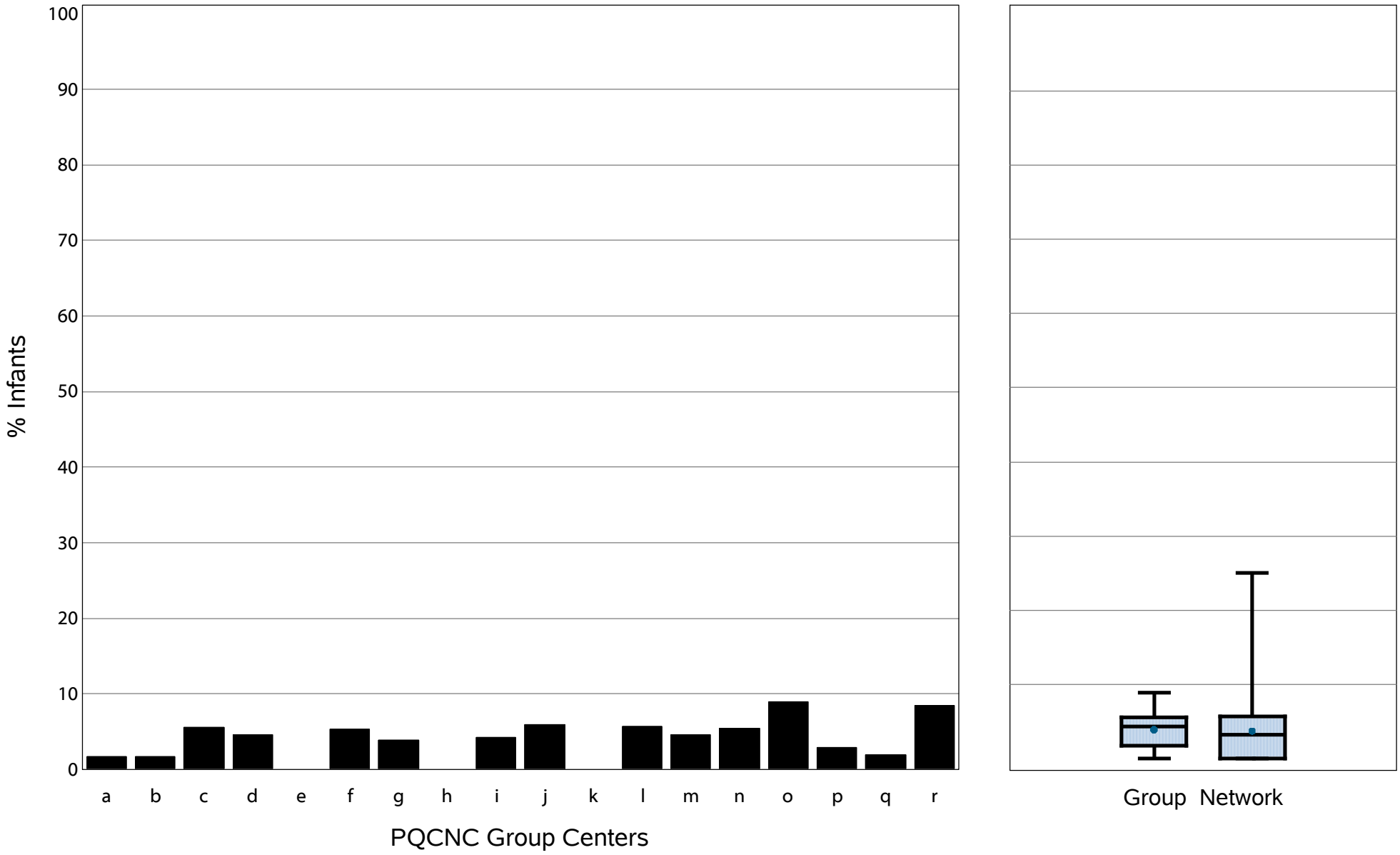


Infants 501 to 1500 Grams Born in 2014: Respiratory Distress Syndrome

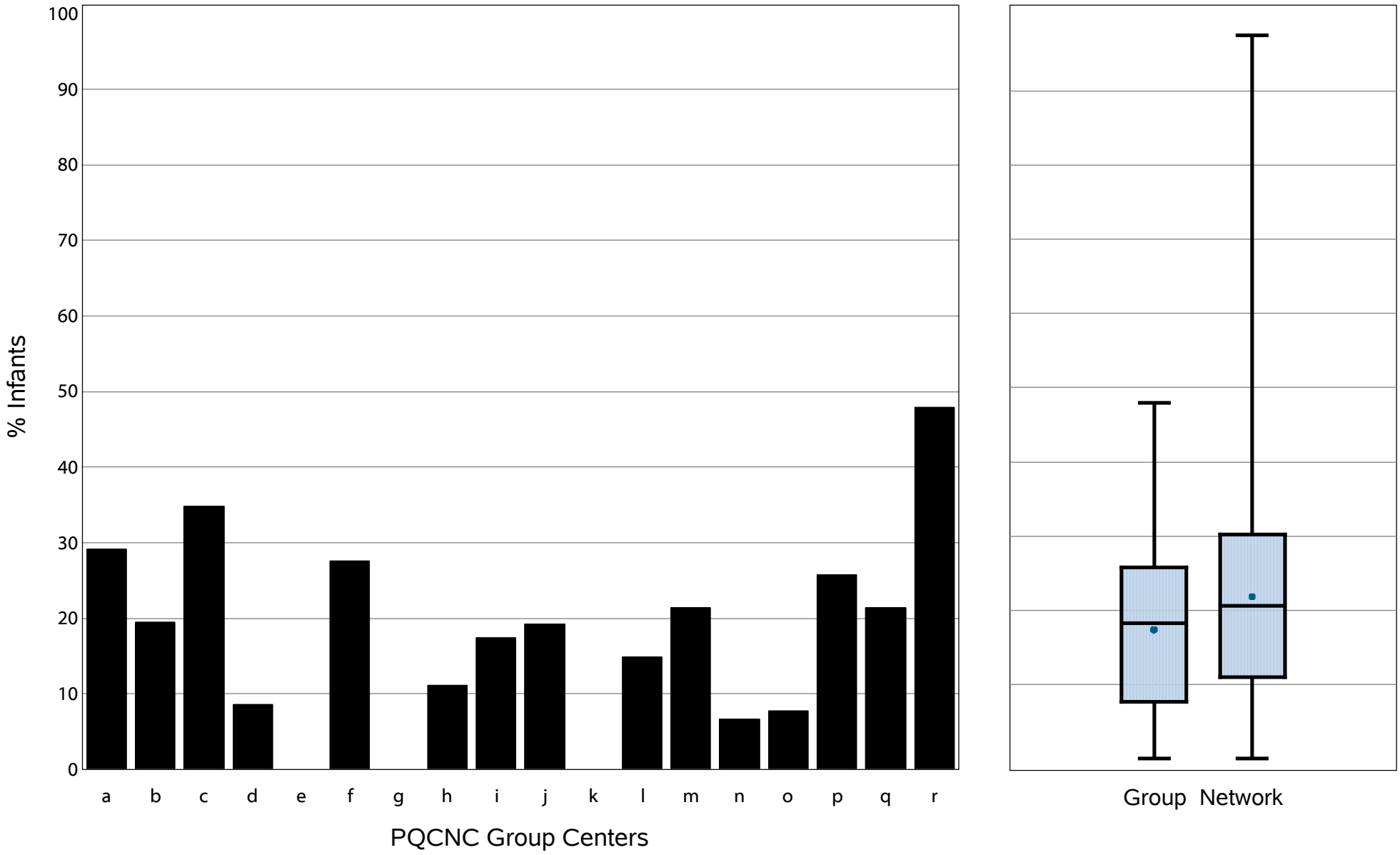




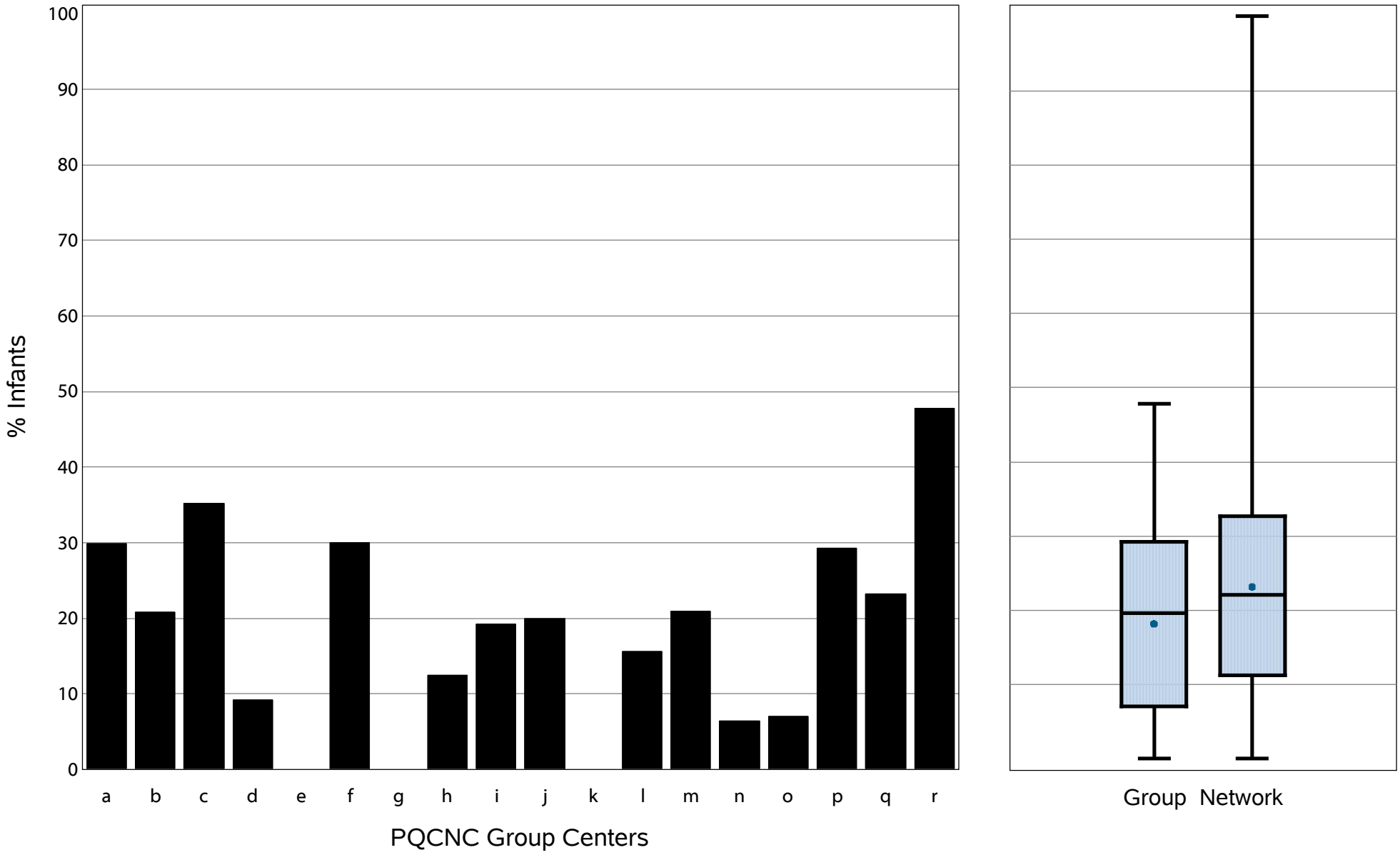
Infants 501 to 1500 Grams Born in 2014: Pneumothorax



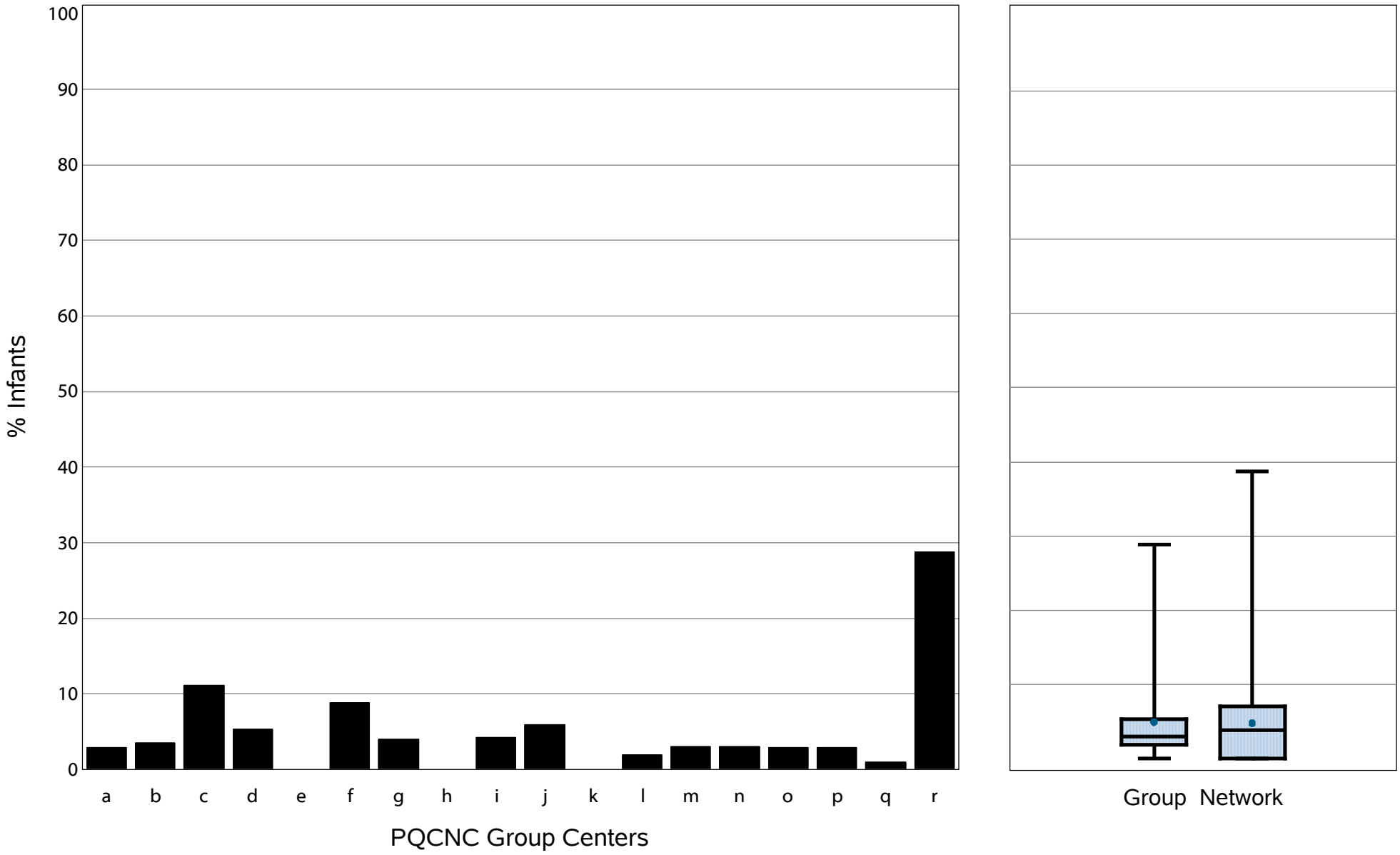
Infants 501 to 1500 Grams Born in 2014: Chronic Lung Disease at 36 Weeks



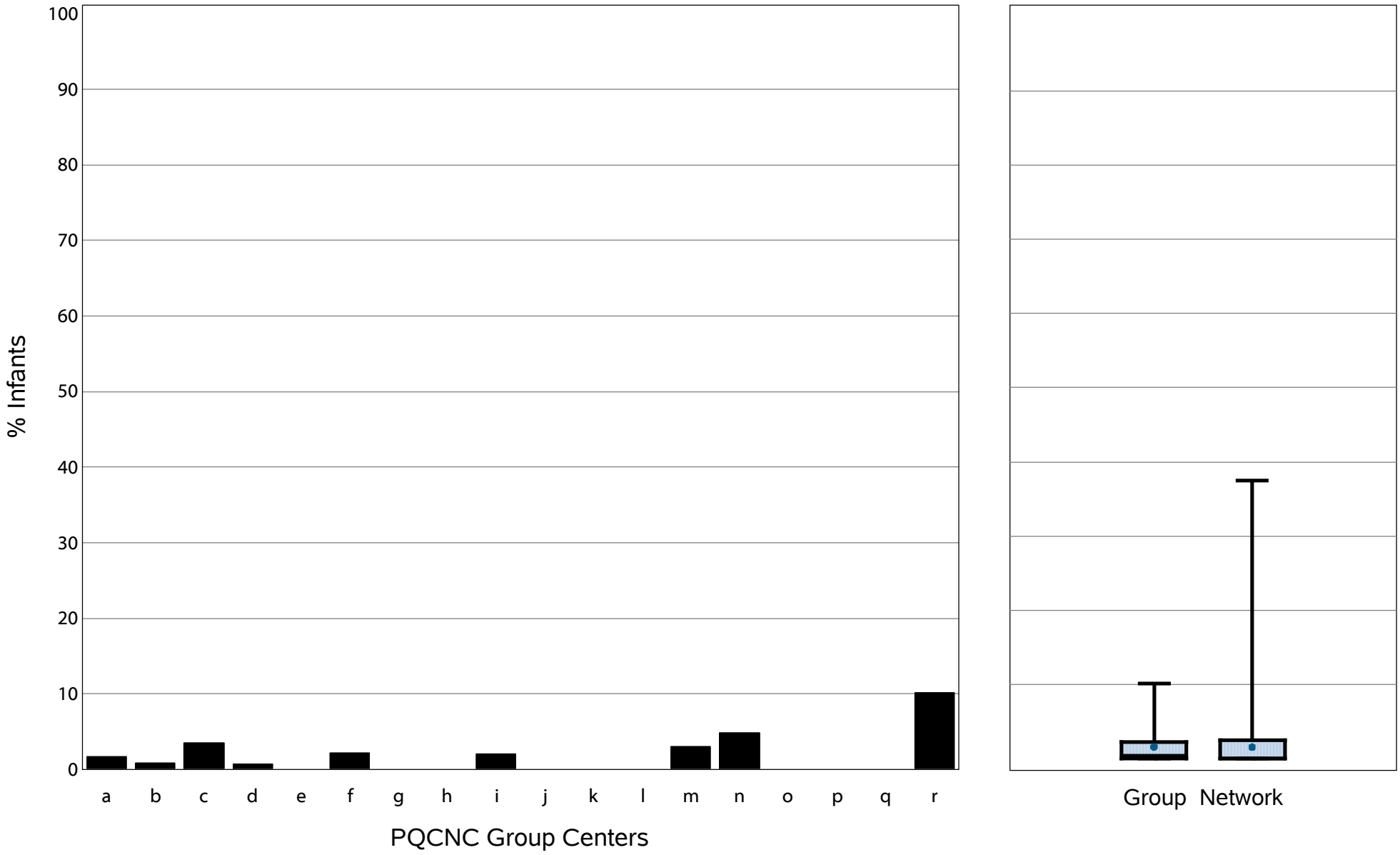
Infants 501 to 1500 Grams Born in 2014: Chronic Lung Disease at 36 Weeks for Infants < 33 Weeks GA



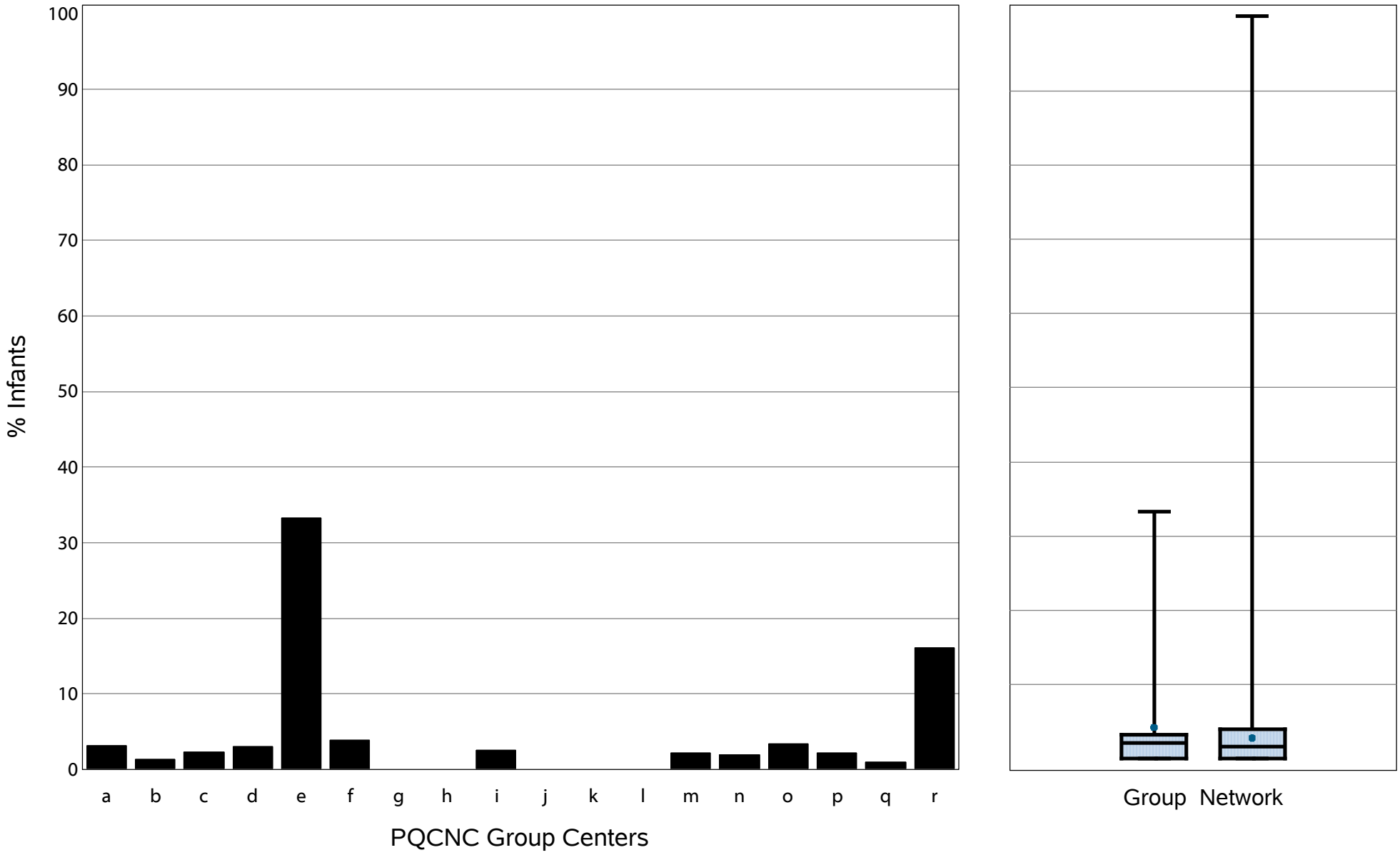
Infants 501 to 1500 Grams Born in 2014: Necrotizing Enterocolitis



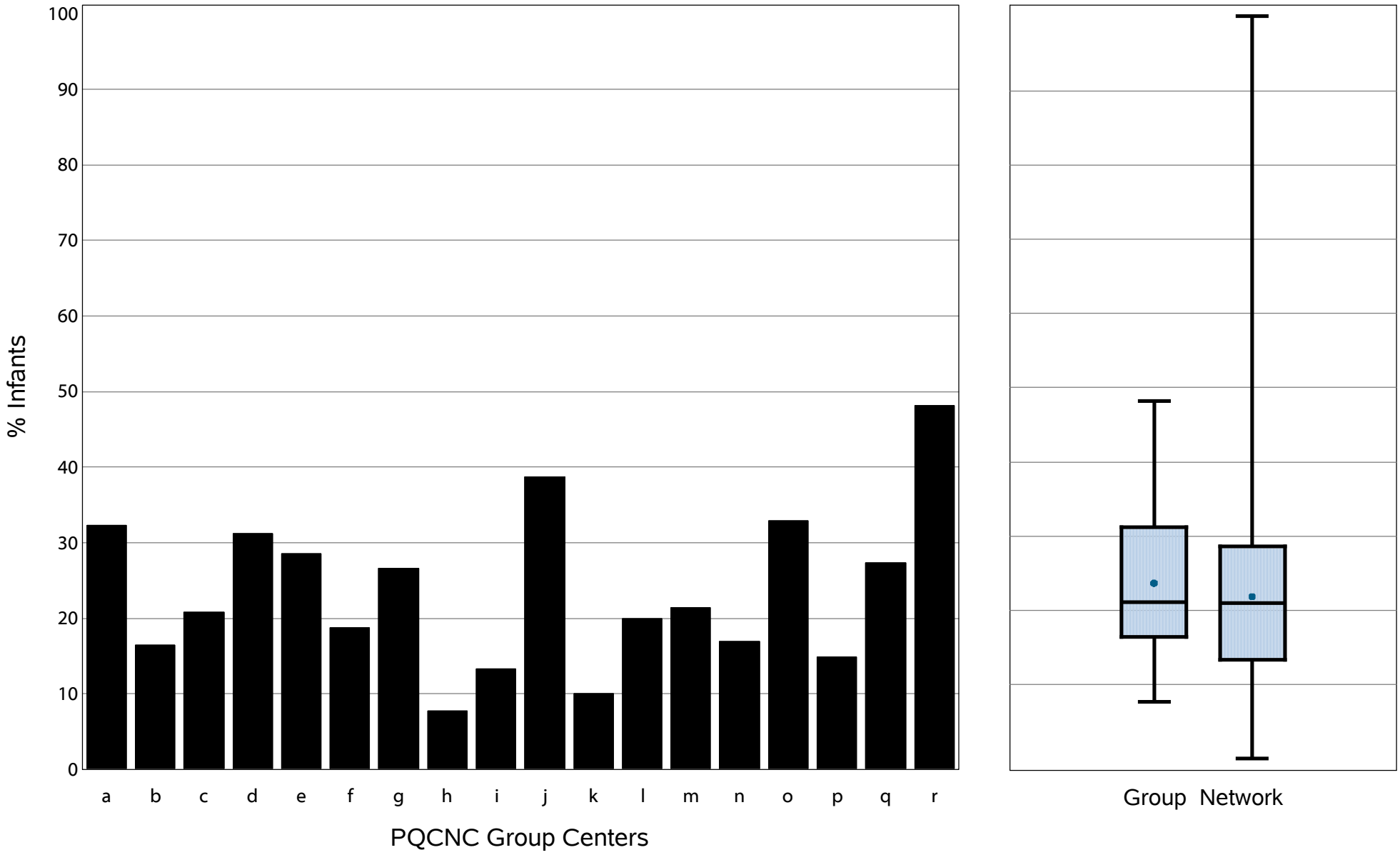
Infants 501 to 1500 Grams Born in 2014: Focal Intestinal Perforation



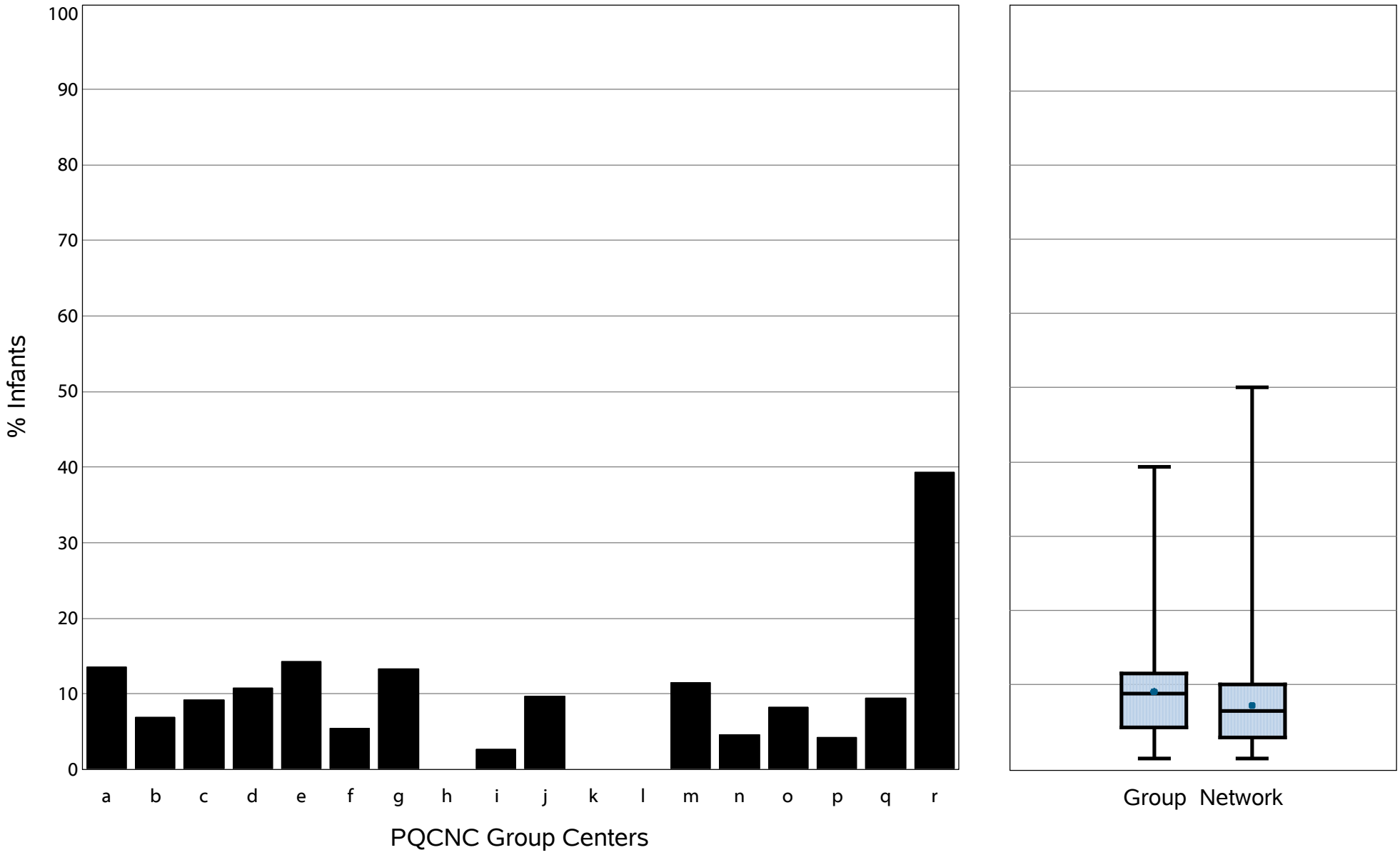
Infants 501 to 1500 Grams Born in 2014: Periventricular Leukomalacia



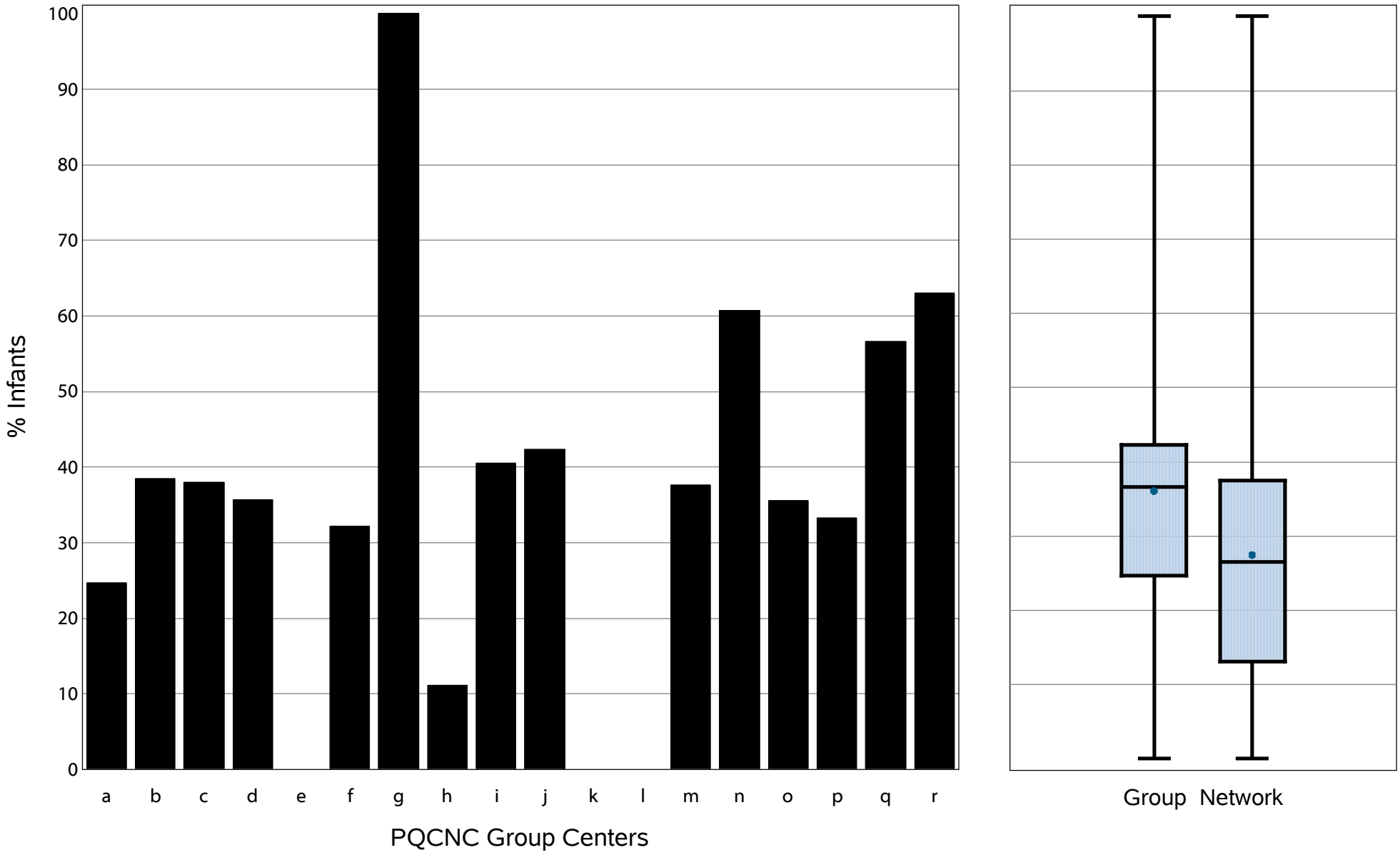
Infants 501 to 1500 Grams Born in 2014: Periventricular-Intraventricular Hemorrhage



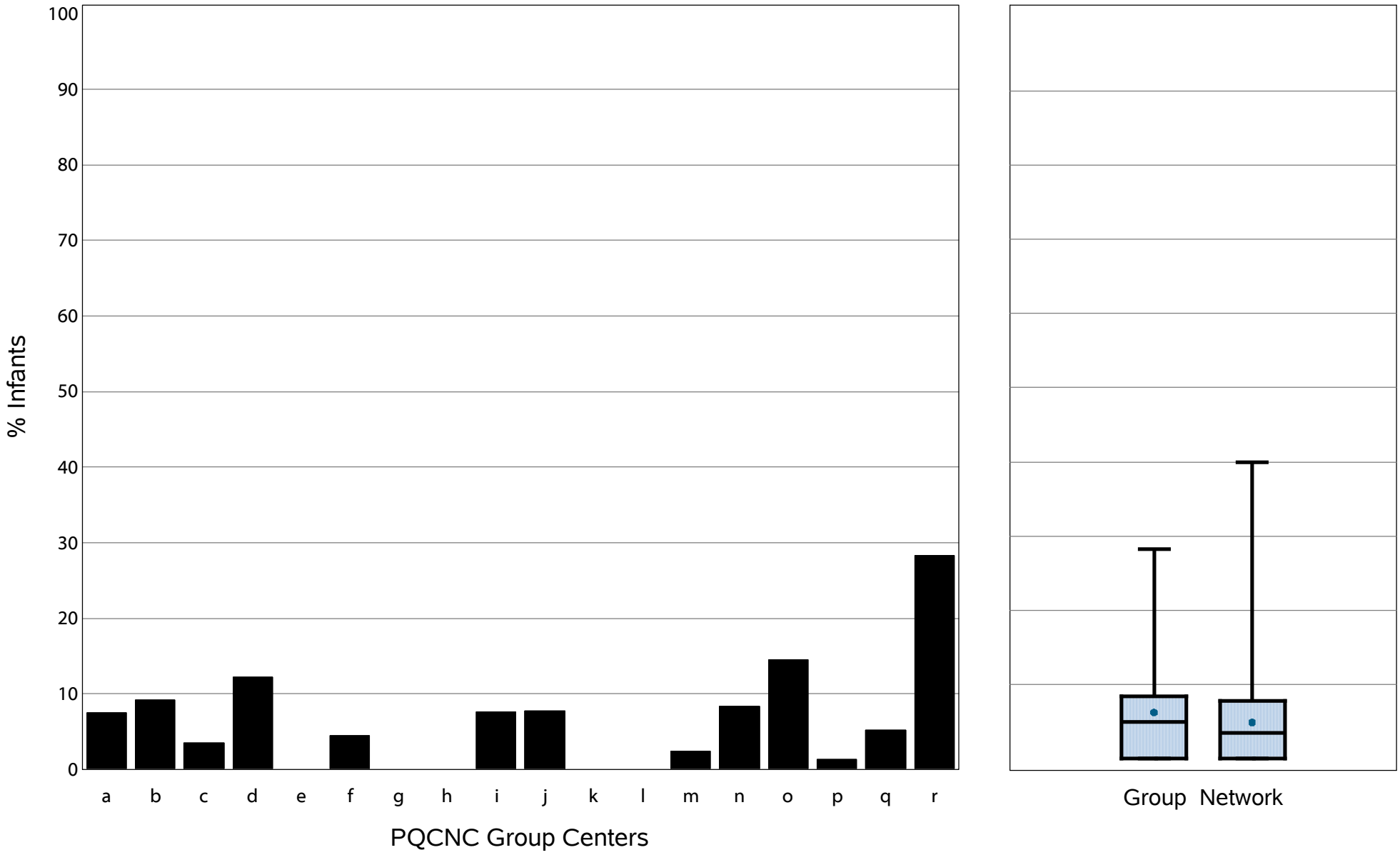
Infants 501 to 1500 Grams Born in 2014: Severe Intraventricular Hemorrhage



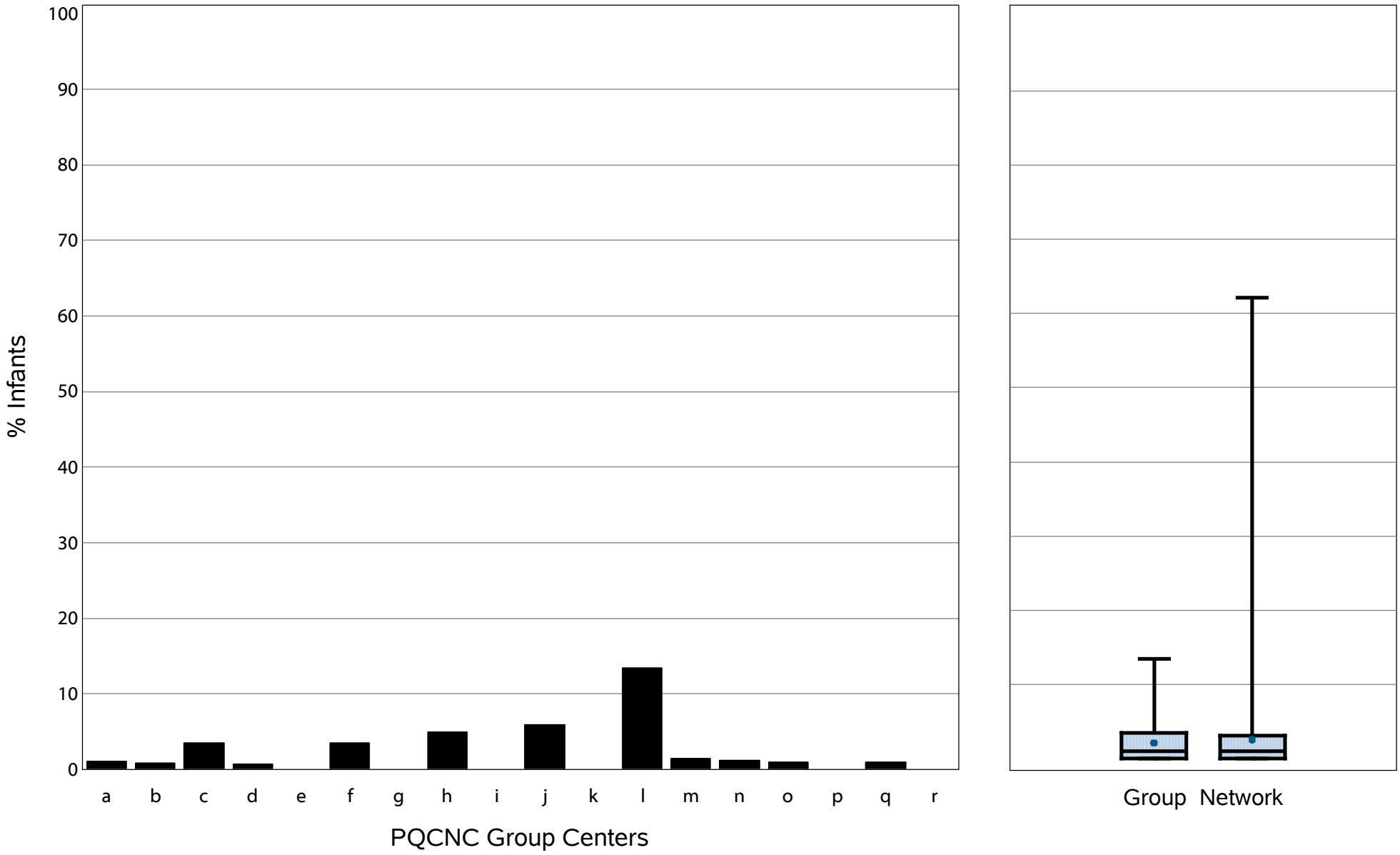
Infants 501 to 1500 Grams Born in 2014: Retinopathy of Prematurity



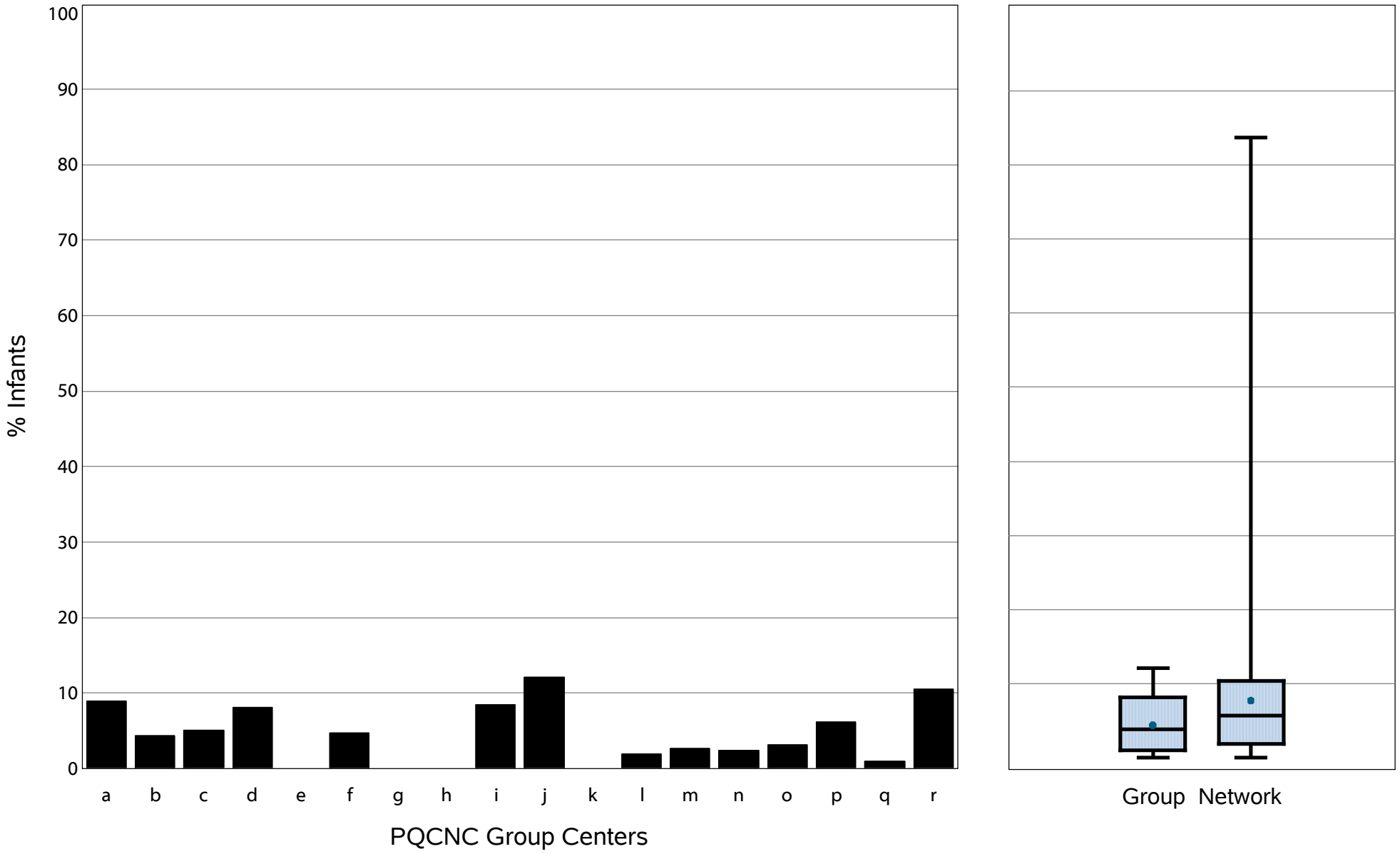
Infants 501 to 1500 Grams Born in 2014: Severe Retinopathy of Prematurity



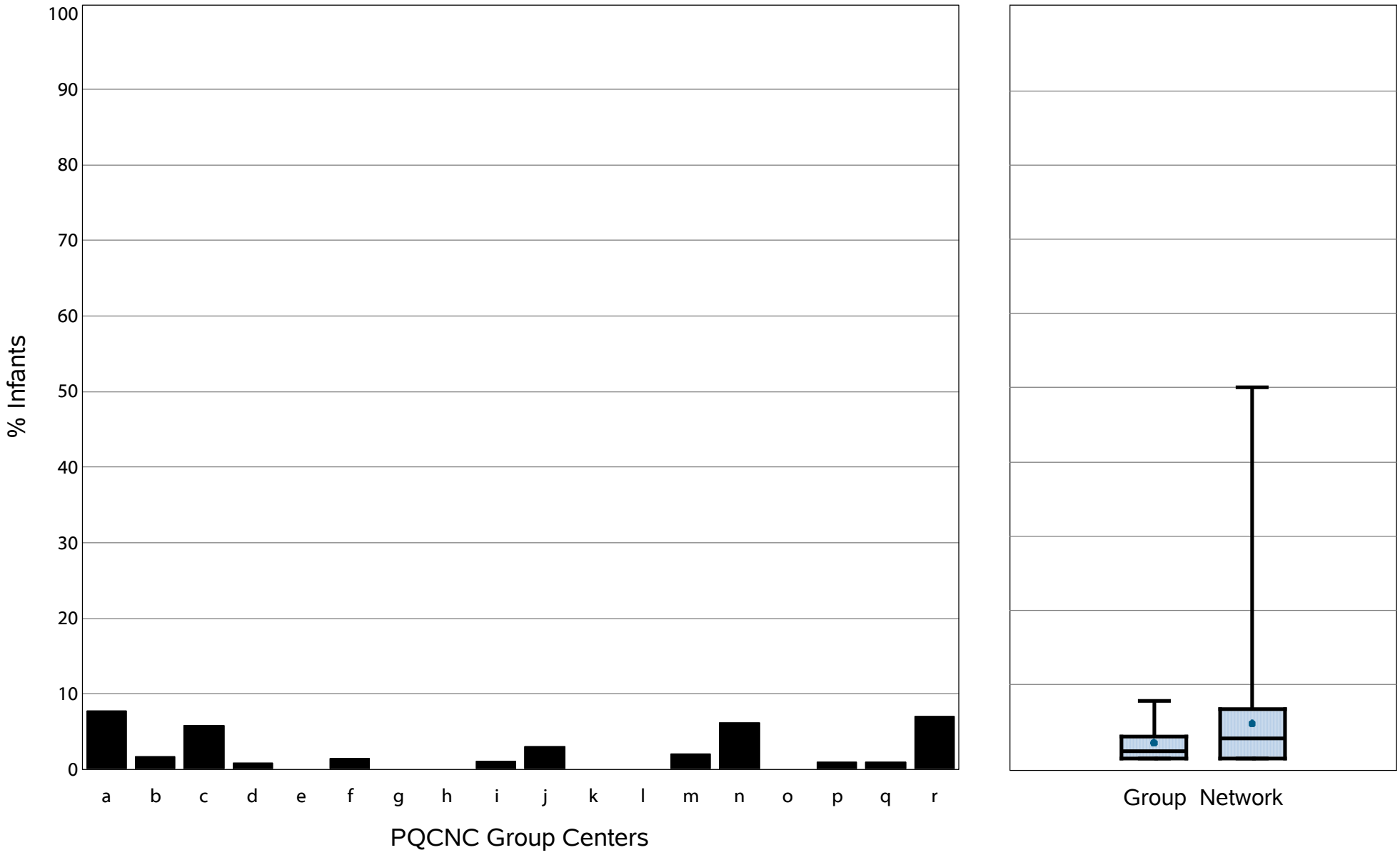
Infants 501 to 1500 Grams Born in 2014: Early Bacterial Infection



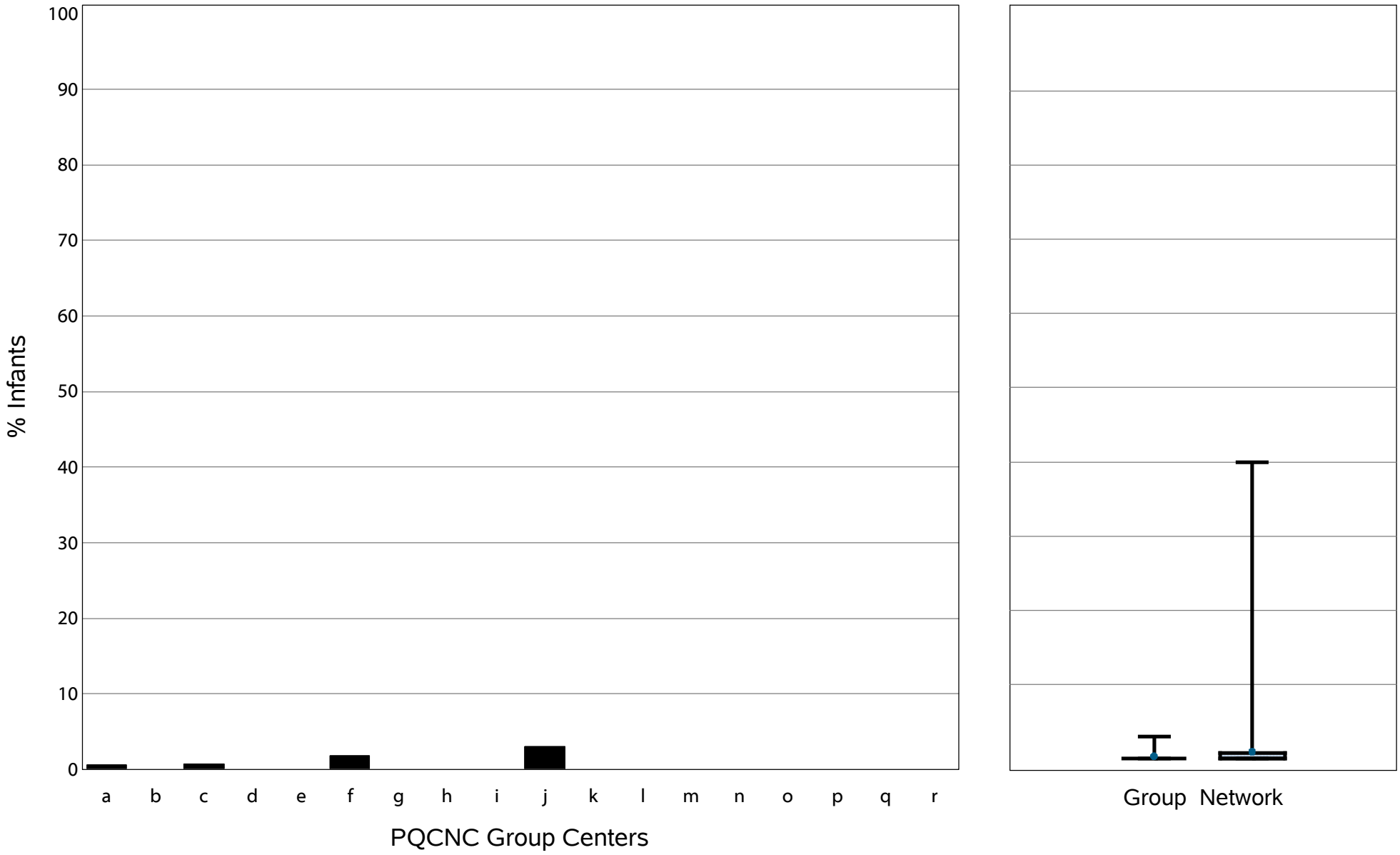
Infants 501 to 1500 Grams Born in 2014: Late Bacterial Infection



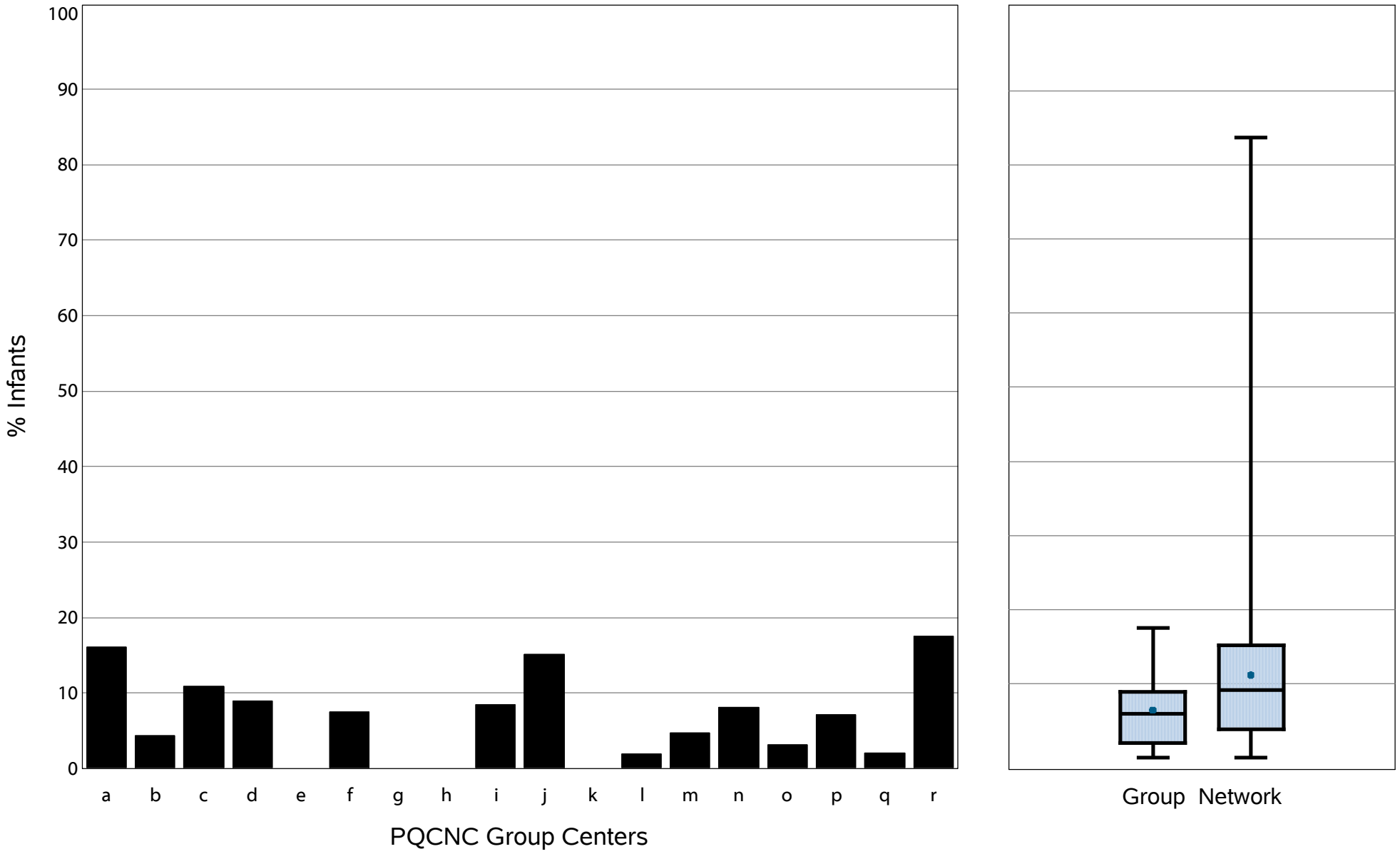
Infants 501 to 1500 Grams Born in 2014: Coagulase Negative Staph Infection



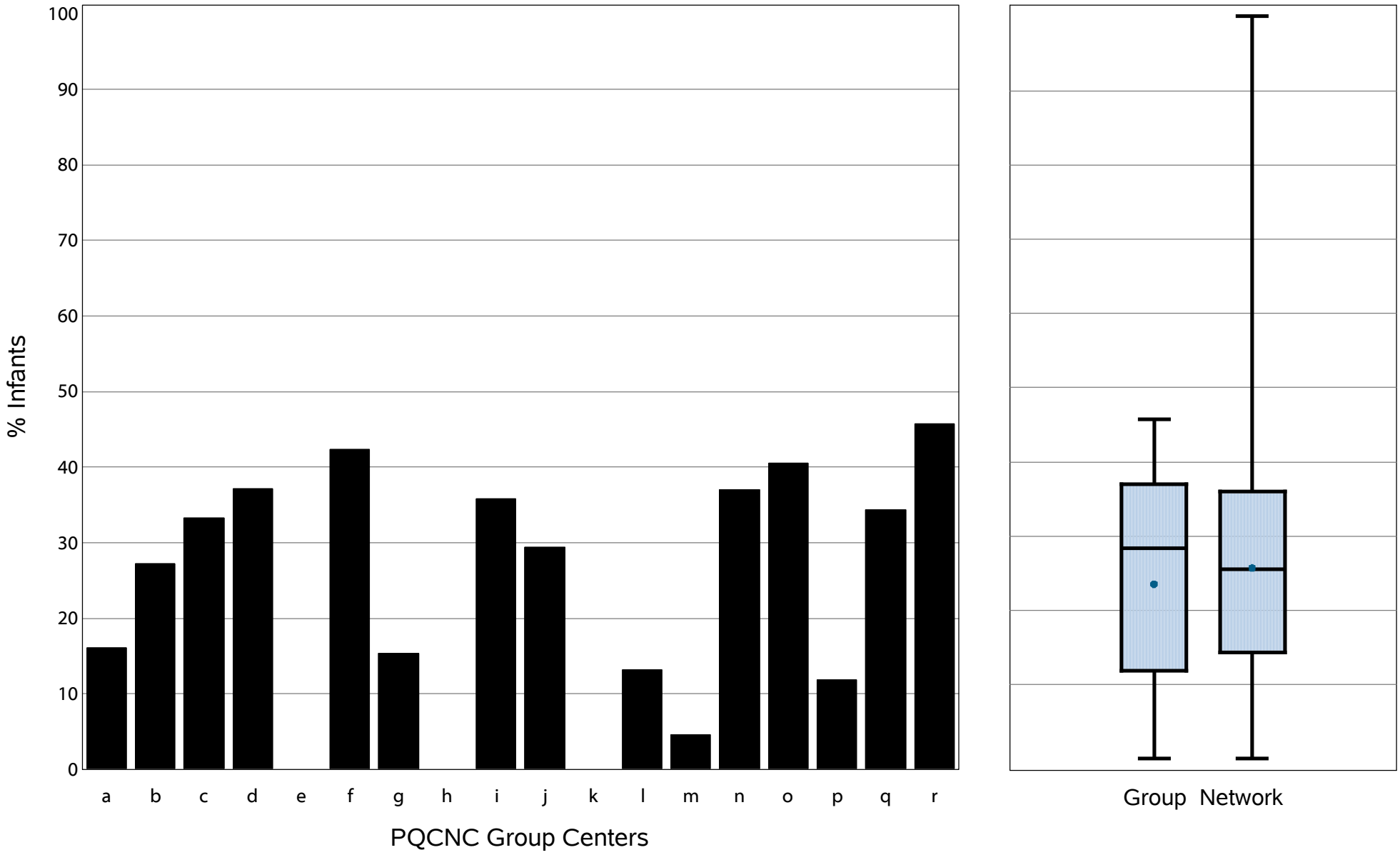
Infants 501 to 1500 Grams Born in 2014: Fungal Infection



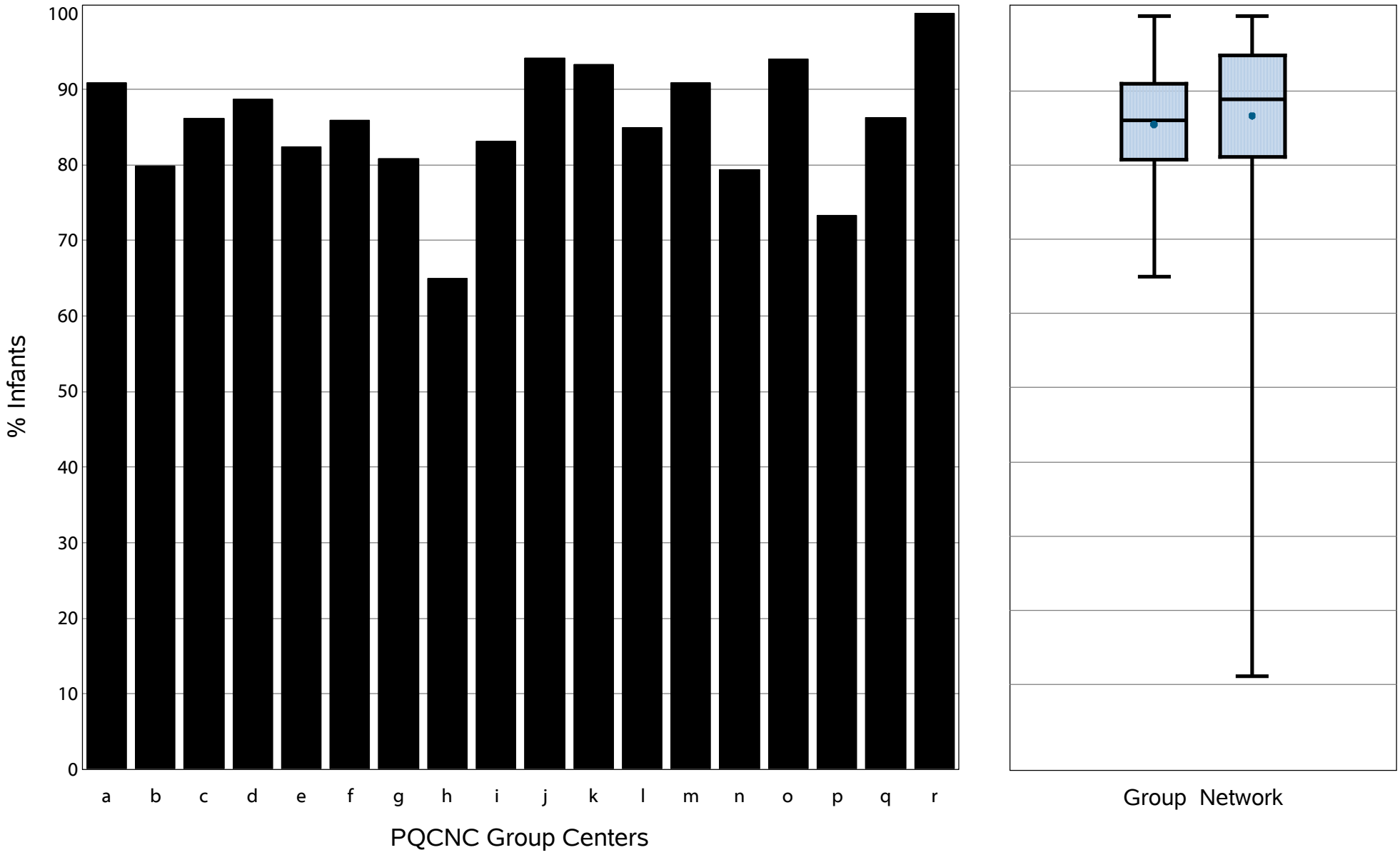
Infants 501 to 1500 Grams Born in 2014: Any Late Infection



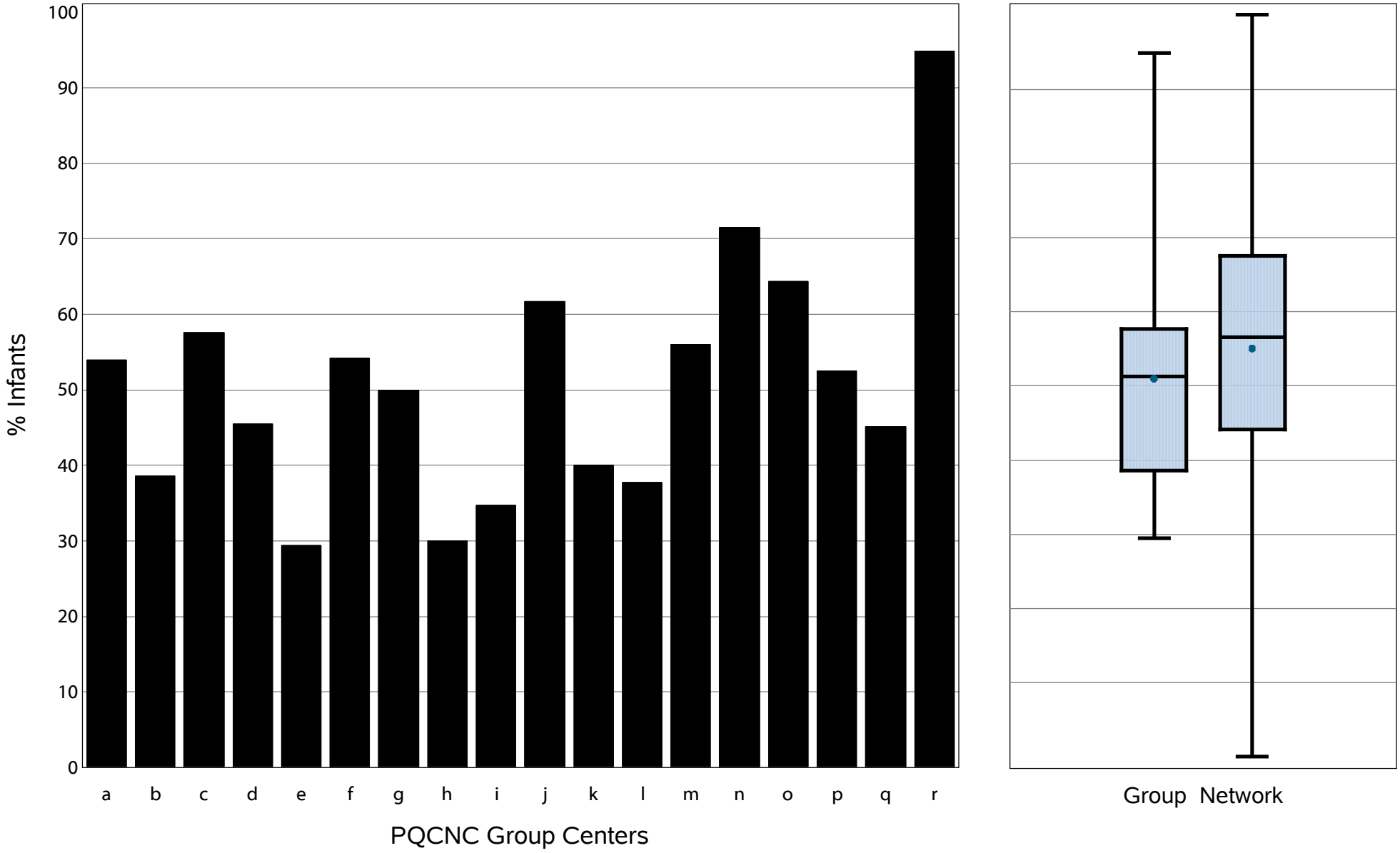
Infants 501 to 1500 Grams Born in 2014: Patent Ductus Arteriosus



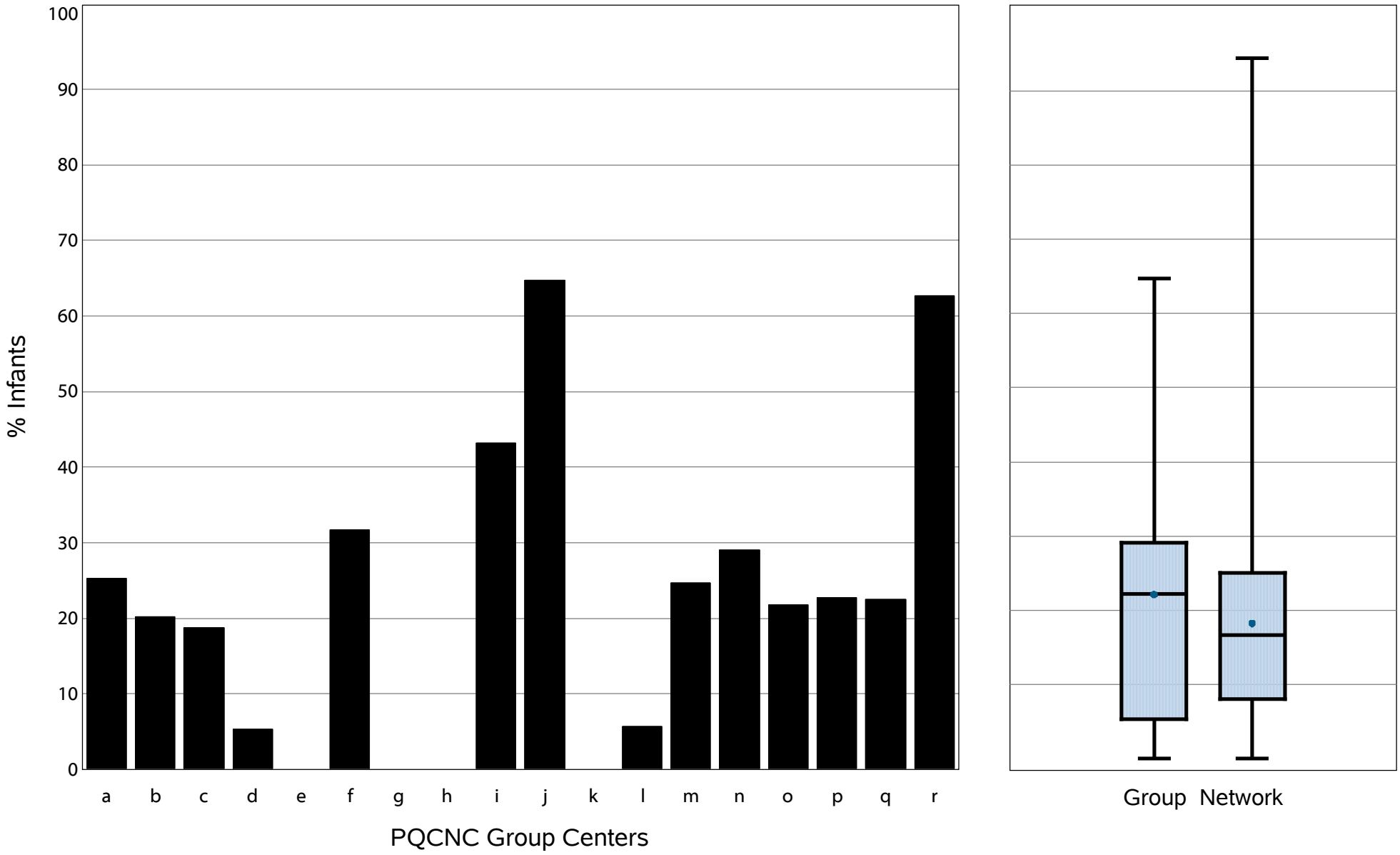
Infants 501 to 1500 Grams Born in 2014: Oxygen



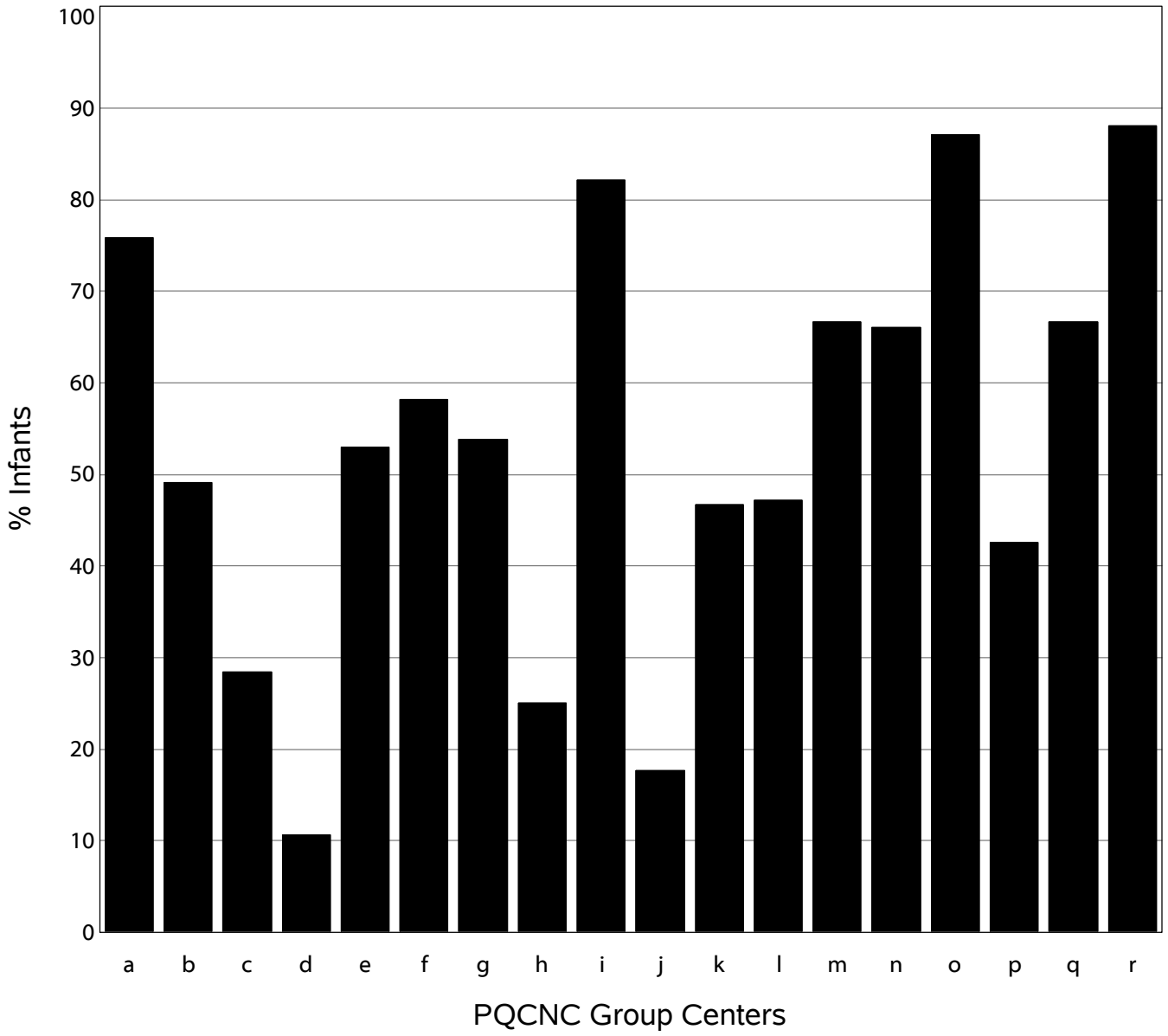
Infants 501 to 1500 Grams Born in 2014: Conventional Ventilation

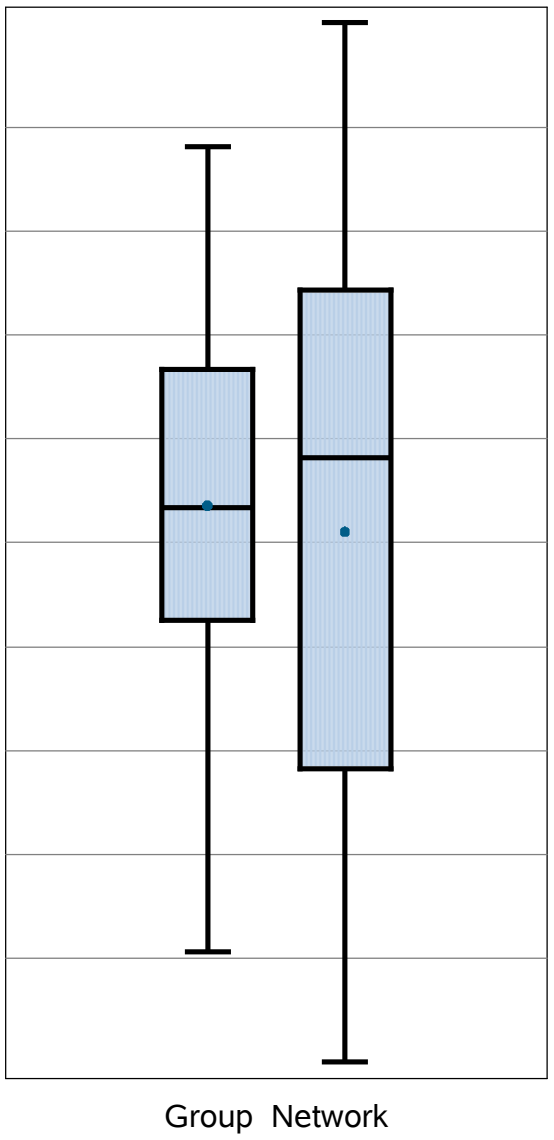


Infants 501 to 1500 Grams Born in 2014: High Frequency Ventilation

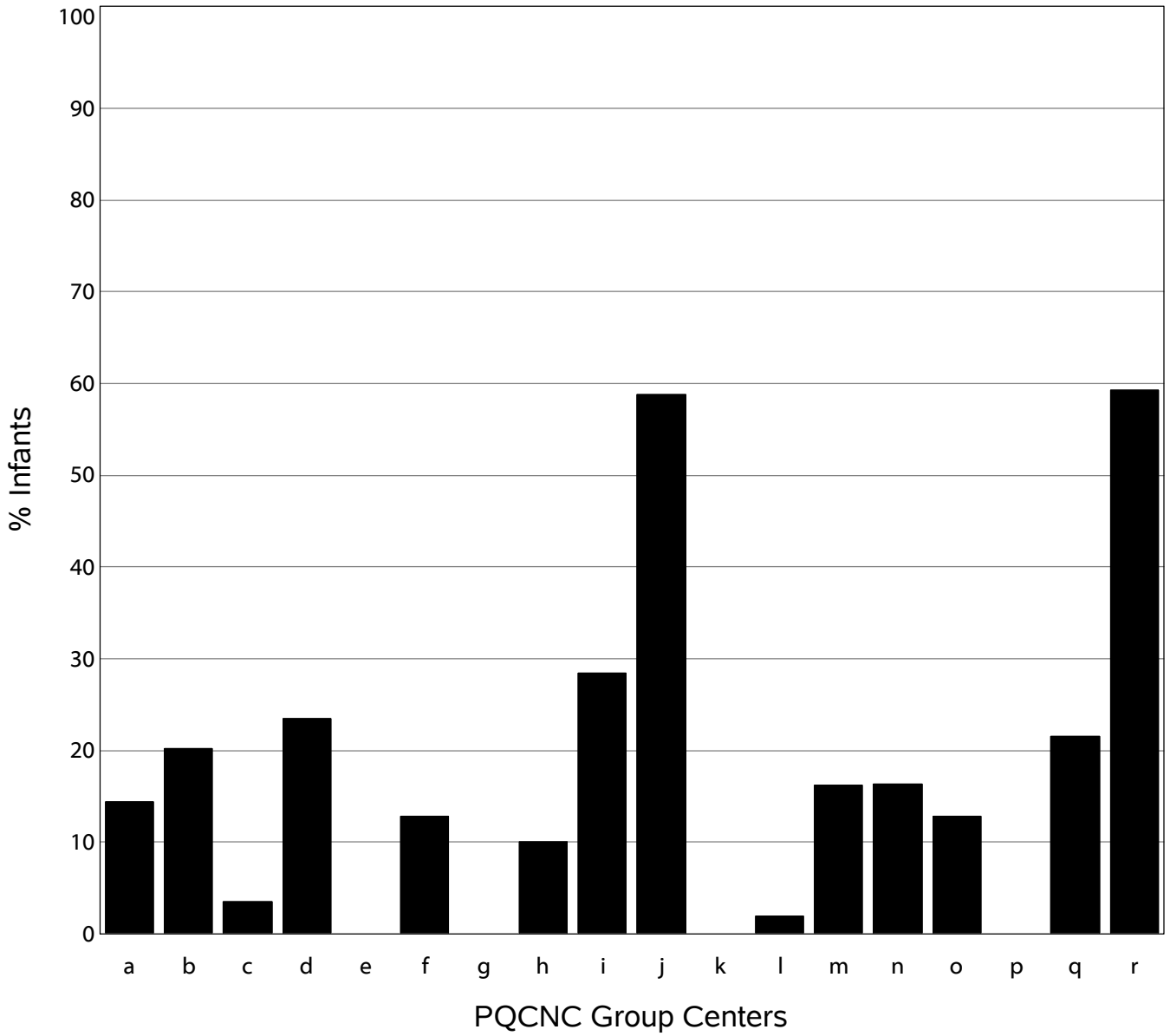


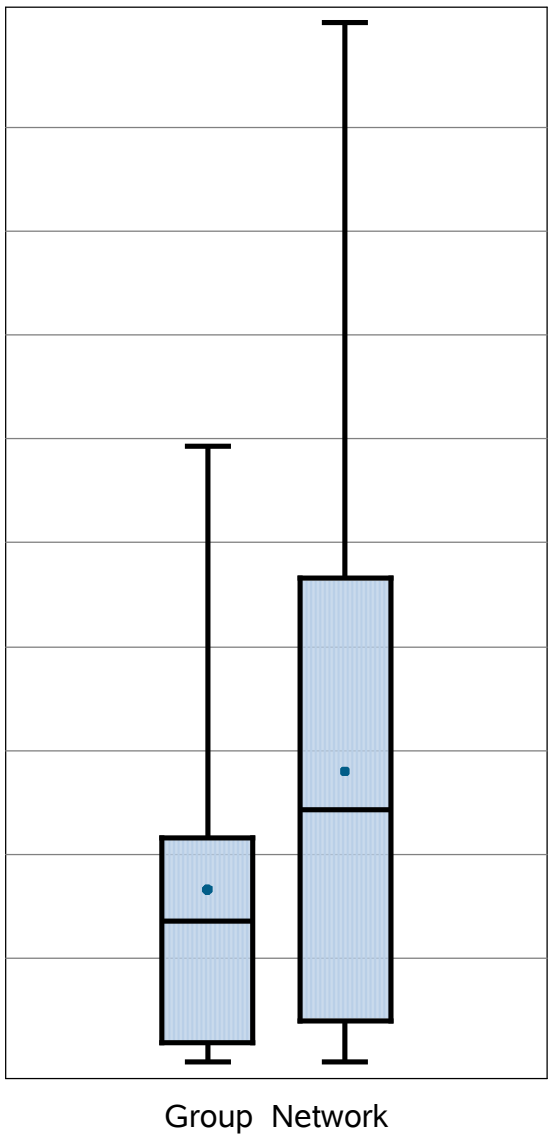
Infants 501 to 1500 Grams Born in 2014: High Flow Nasal Cannula



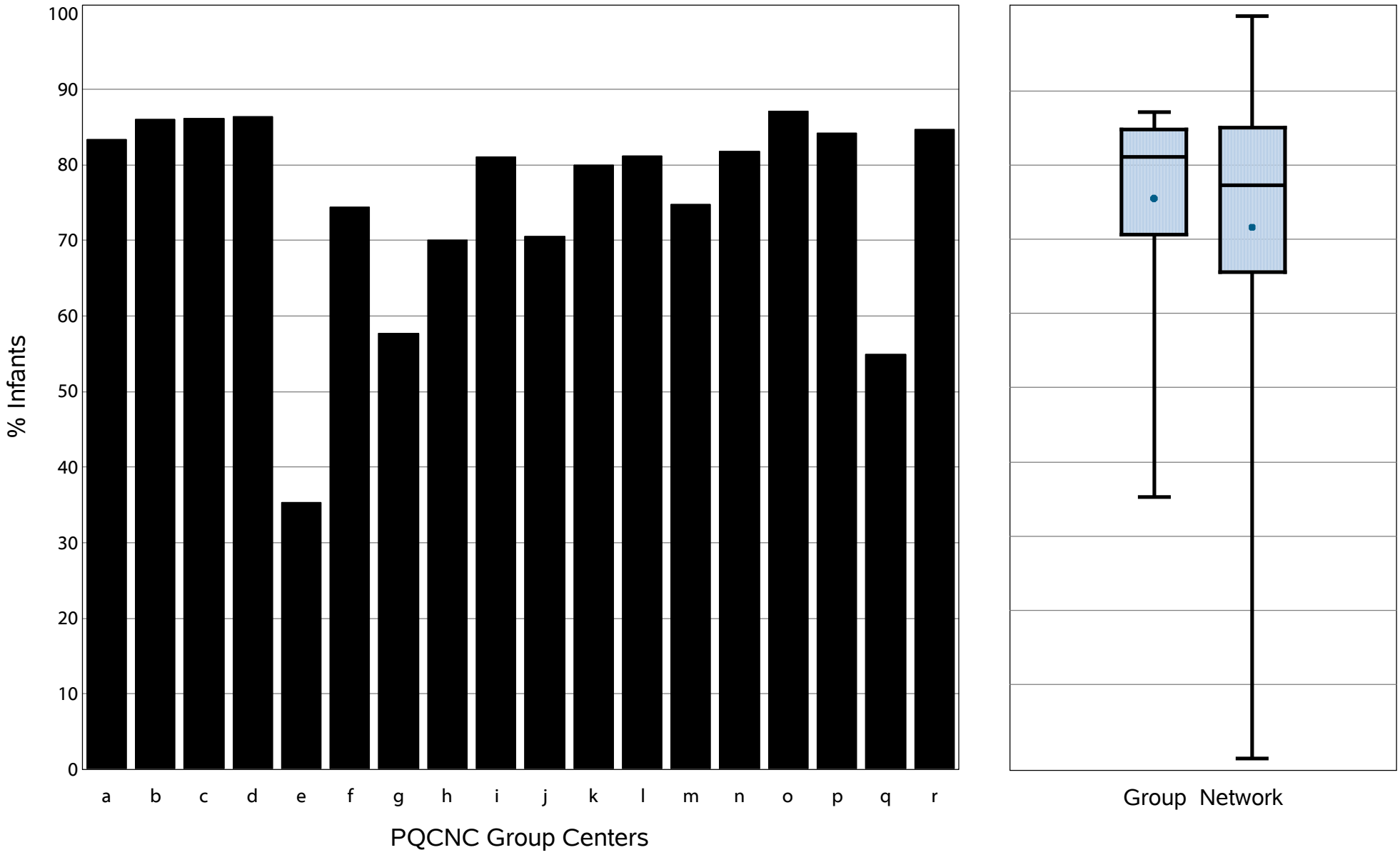


Infants 501 to 1500 Grams Born in 2014: Nasal IMV or SIMV

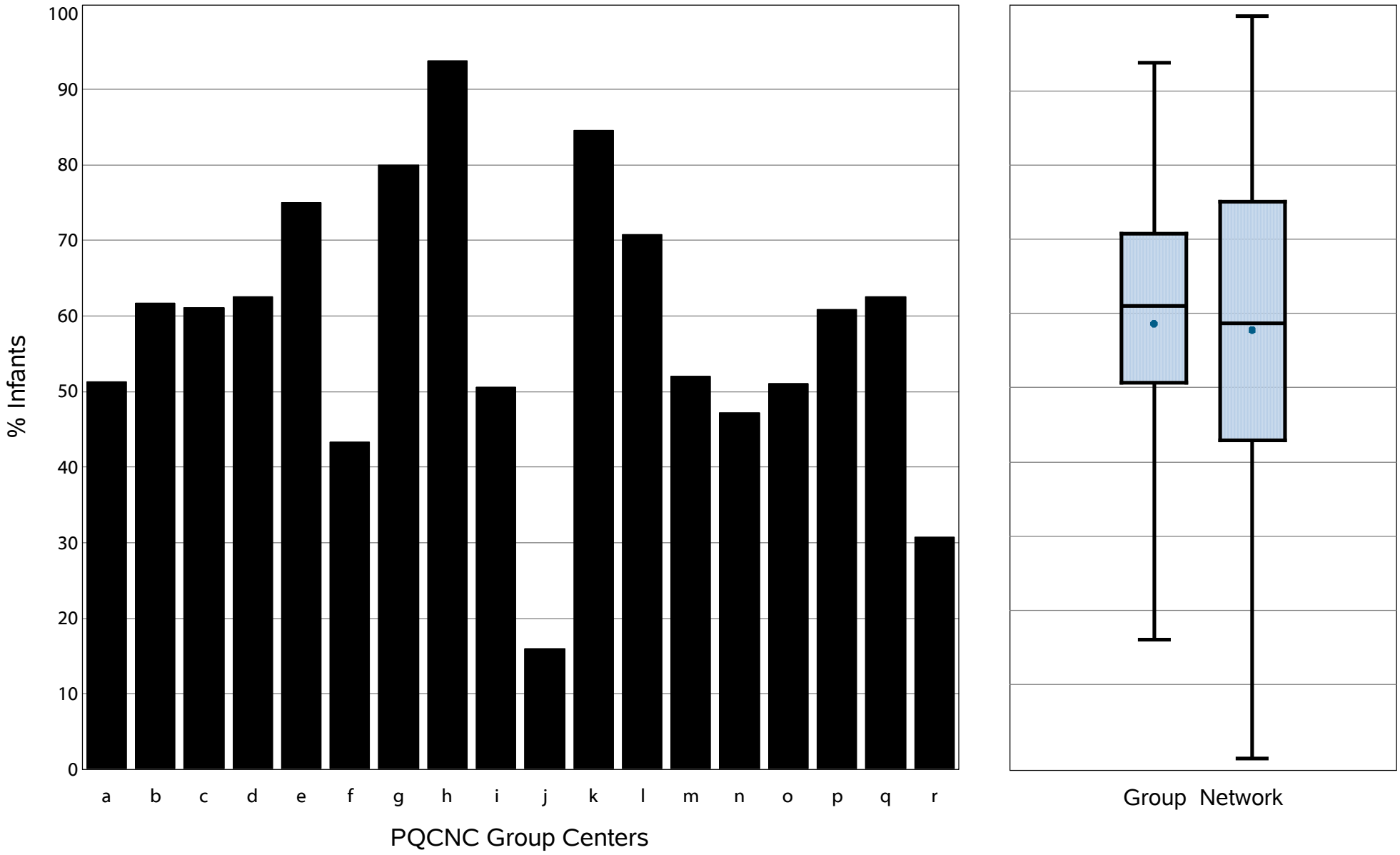




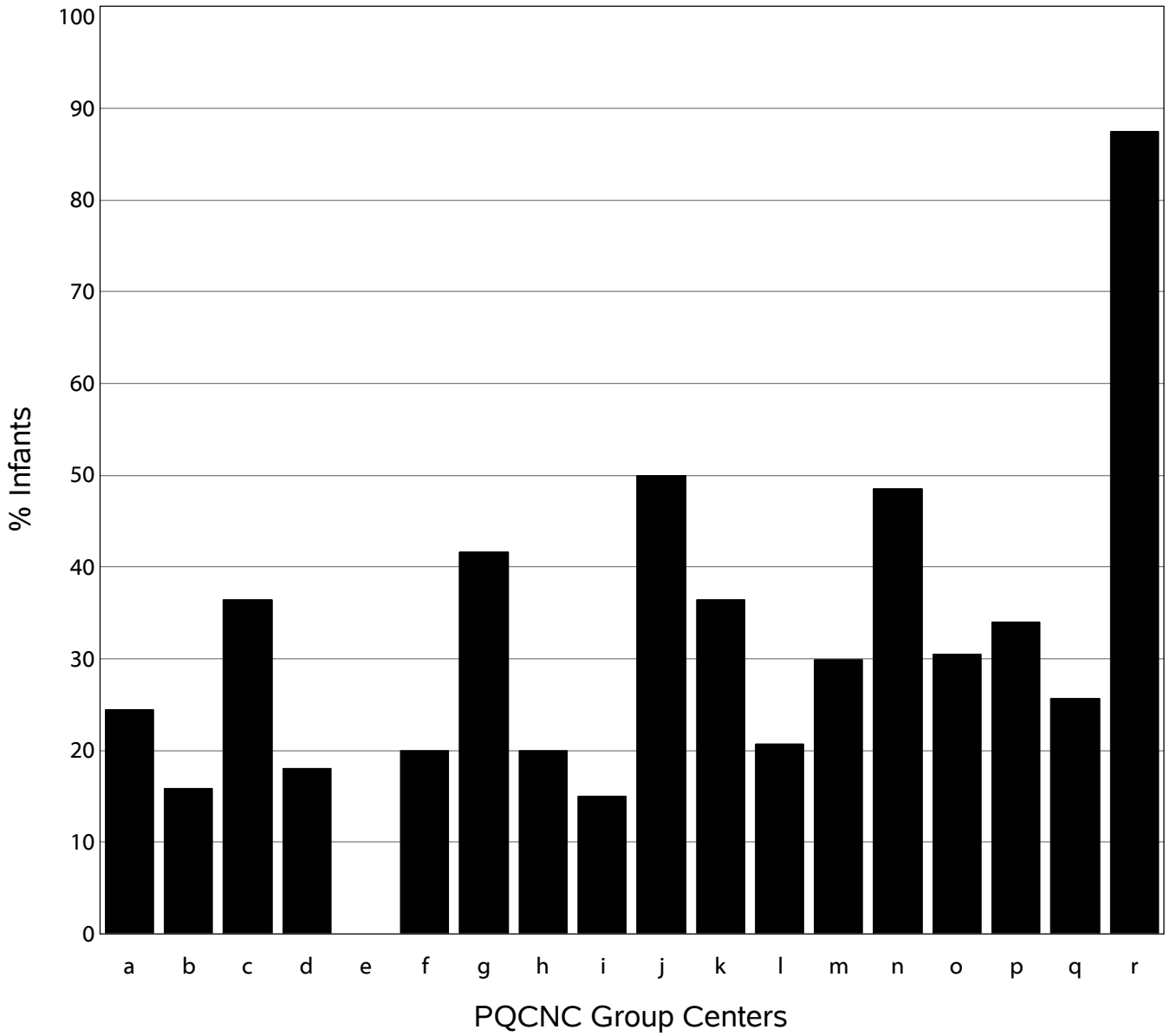
Infants 501 to 1500 Grams Born in 2014: Nasal CPAP

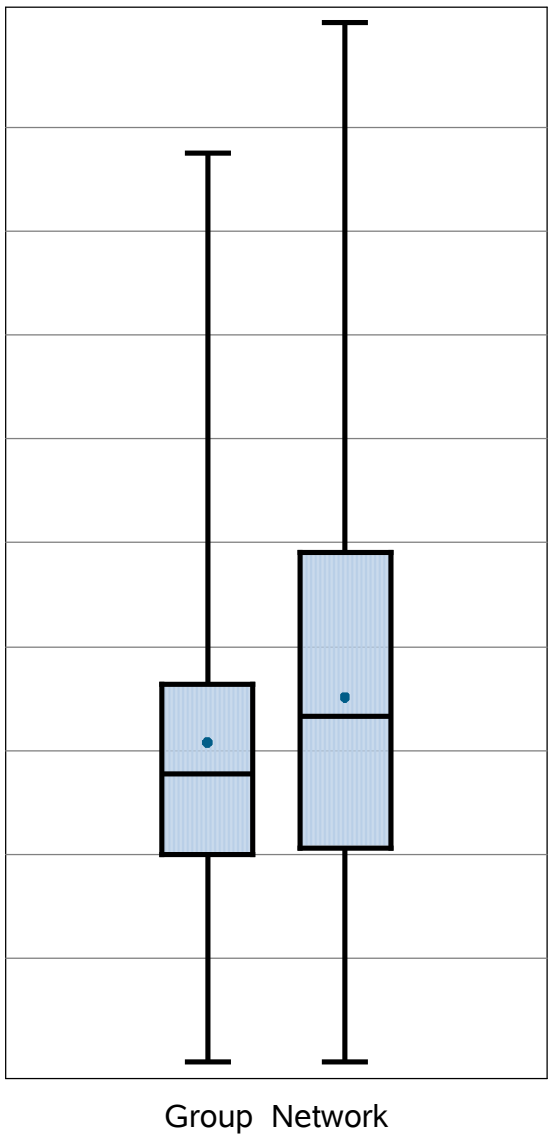


Infants 501 to 1500 Grams Born in 2014: CPAP Before or Without Ever Having ETT Ventilation

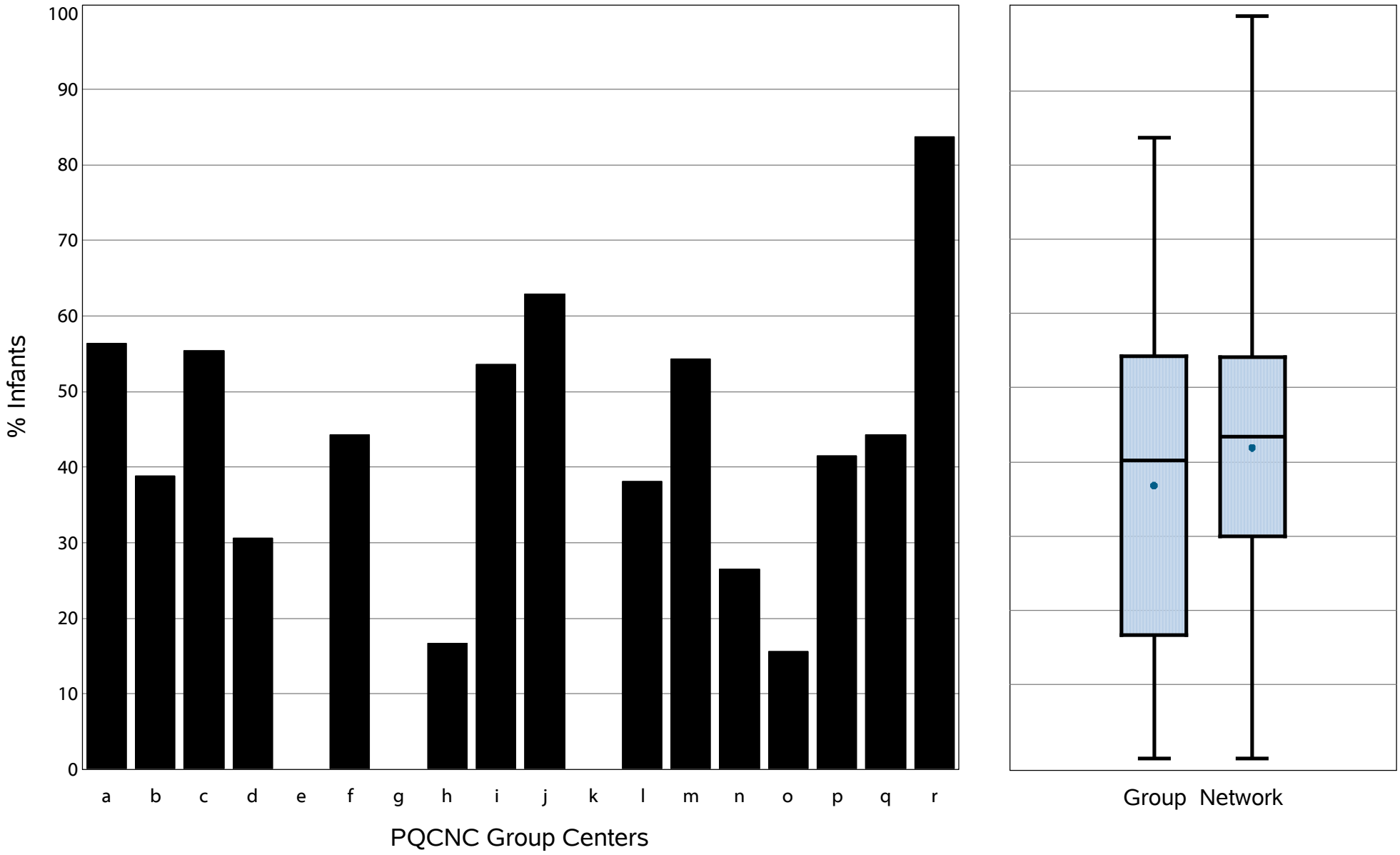


Infants 501 to 1500 Grams Born in 2014: Ventilation After Early CPAP

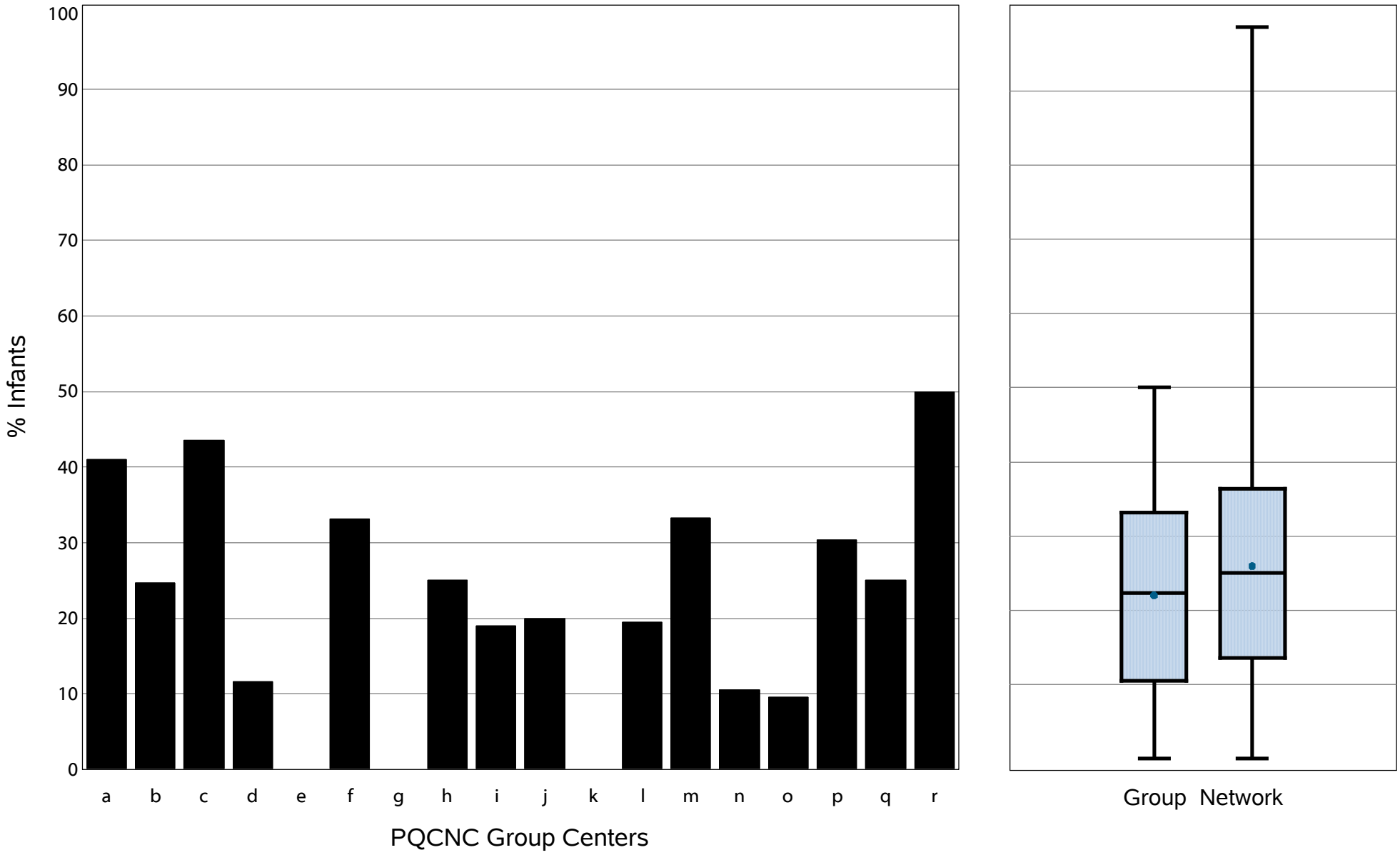




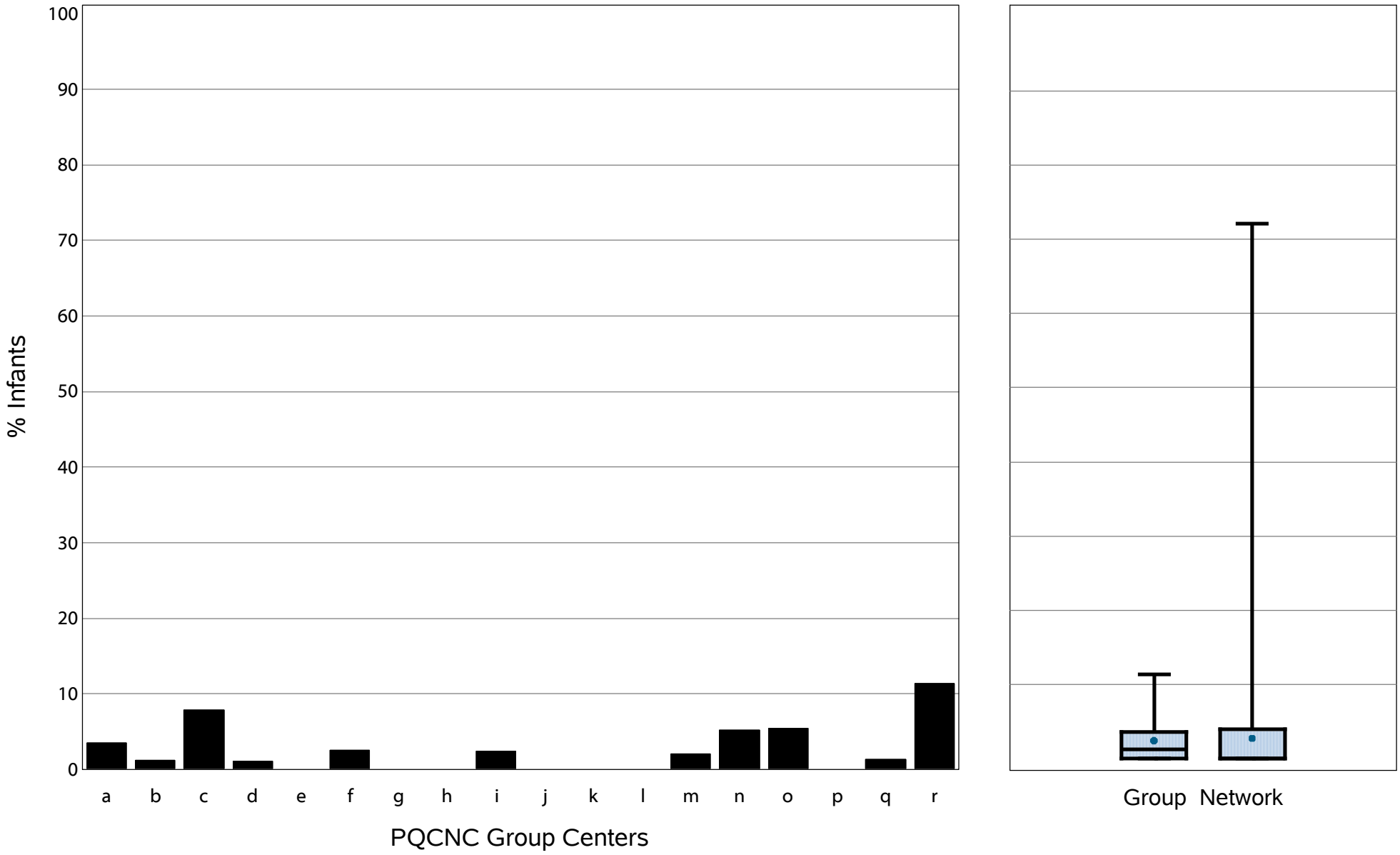
Infants 501 to 1500 Grams Born in 2014: Oxygen at 28 Days



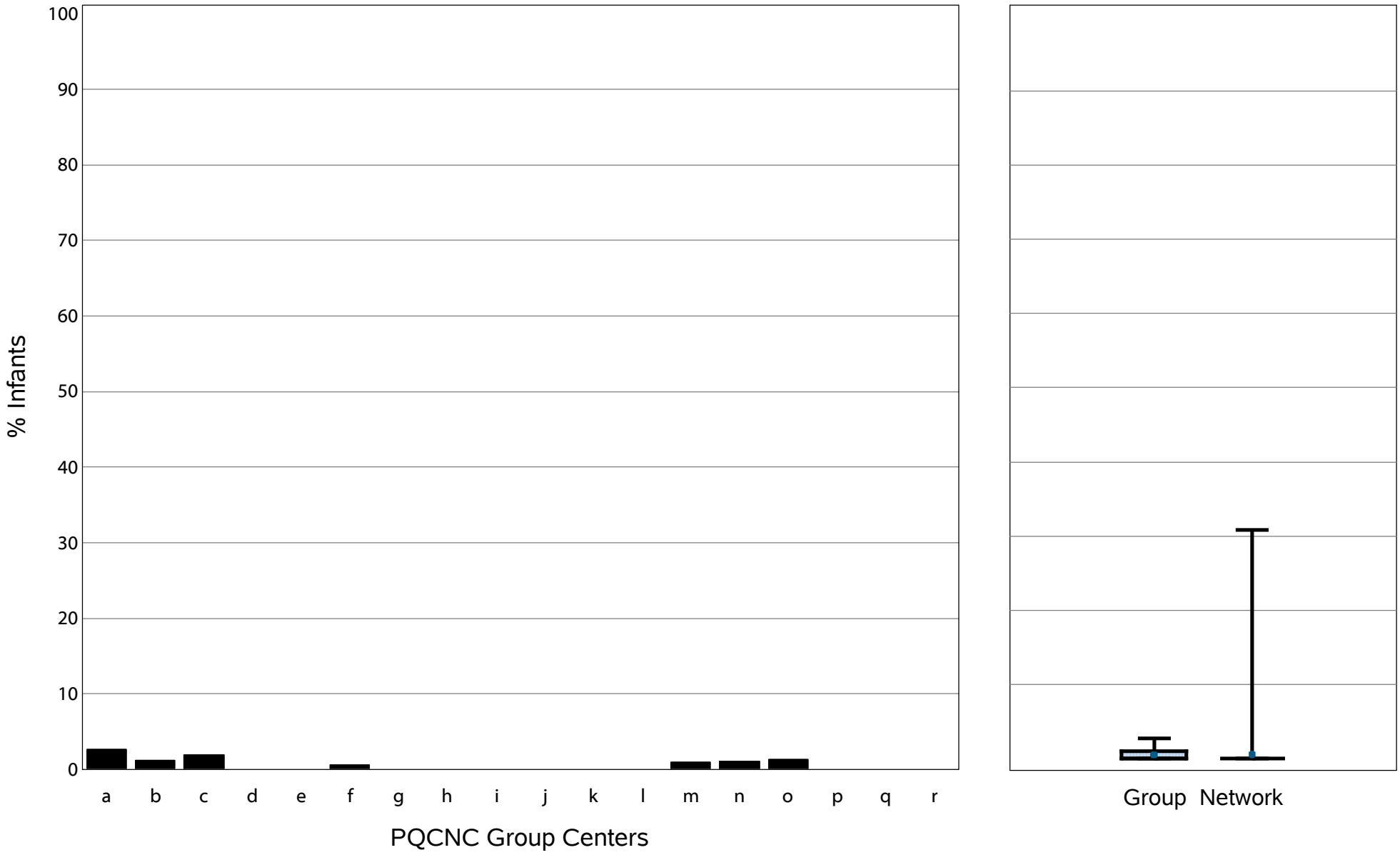
Infants 501 to 1500 Grams Born in 2014: Oxygen at 36 Weeks



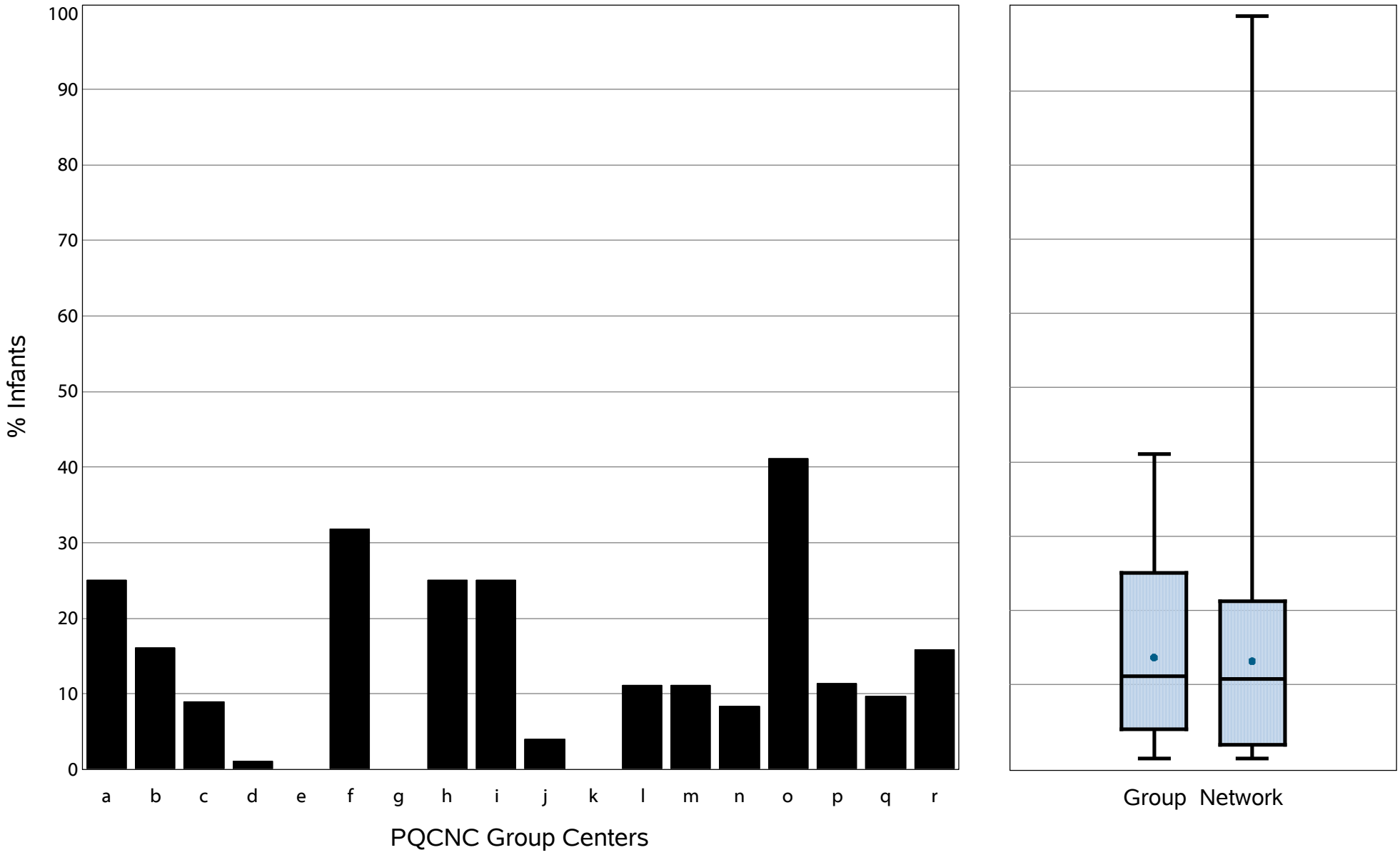
Infants 501 to 1500 Grams Born in 2014: Conventional Ventilation at 36 Weeks



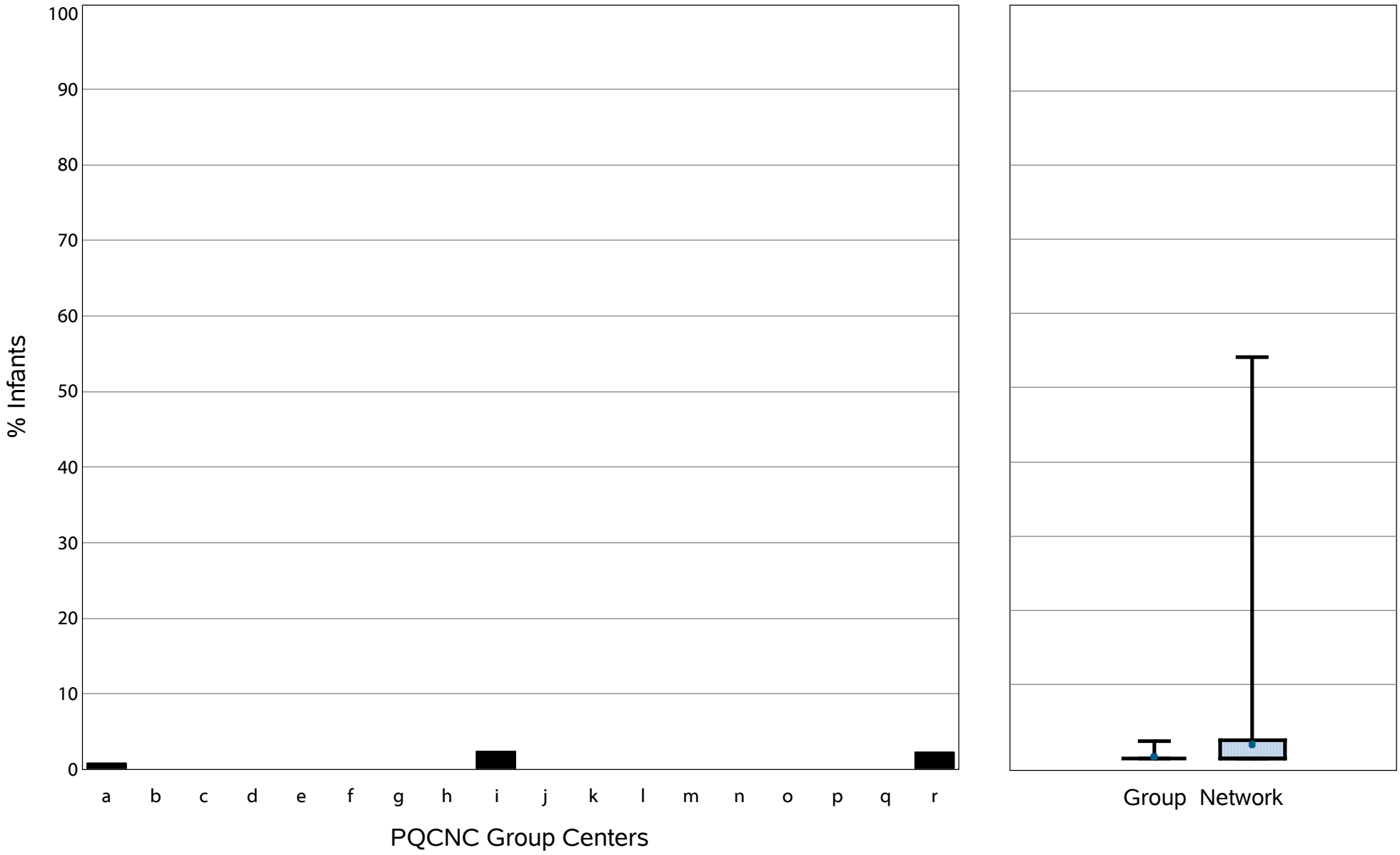
Infants 501 to 1500 Grams Born in 2014: High Frequency Ventilation at 36 Weeks



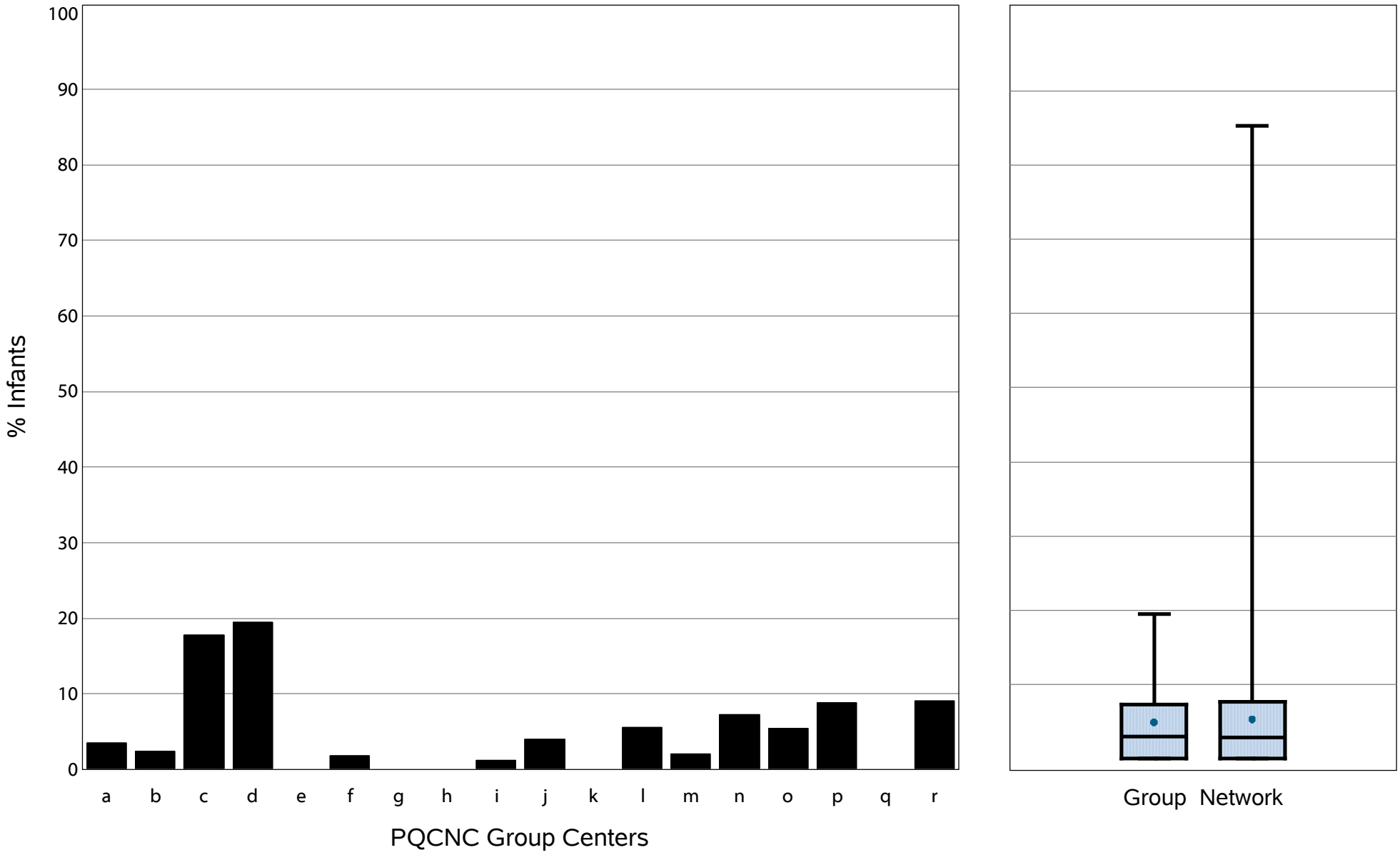
Infants 501 to 1500 Grams Born in 2014: High Flow Nasal Cannula at 36 Weeks



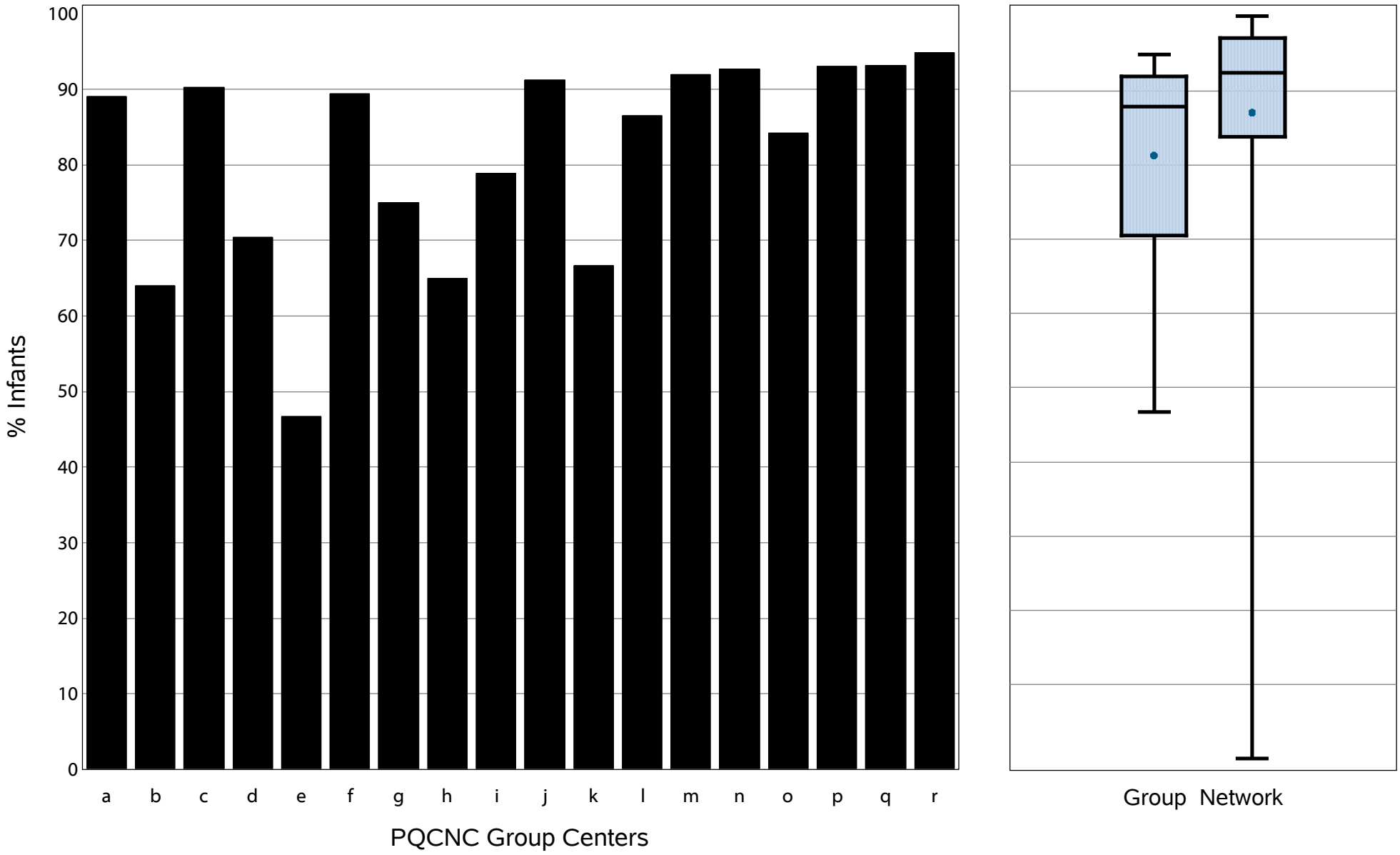
Infants 501 to 1500 Grams Born in 2014: Nasal IMV or SIMV at 36 Weeks



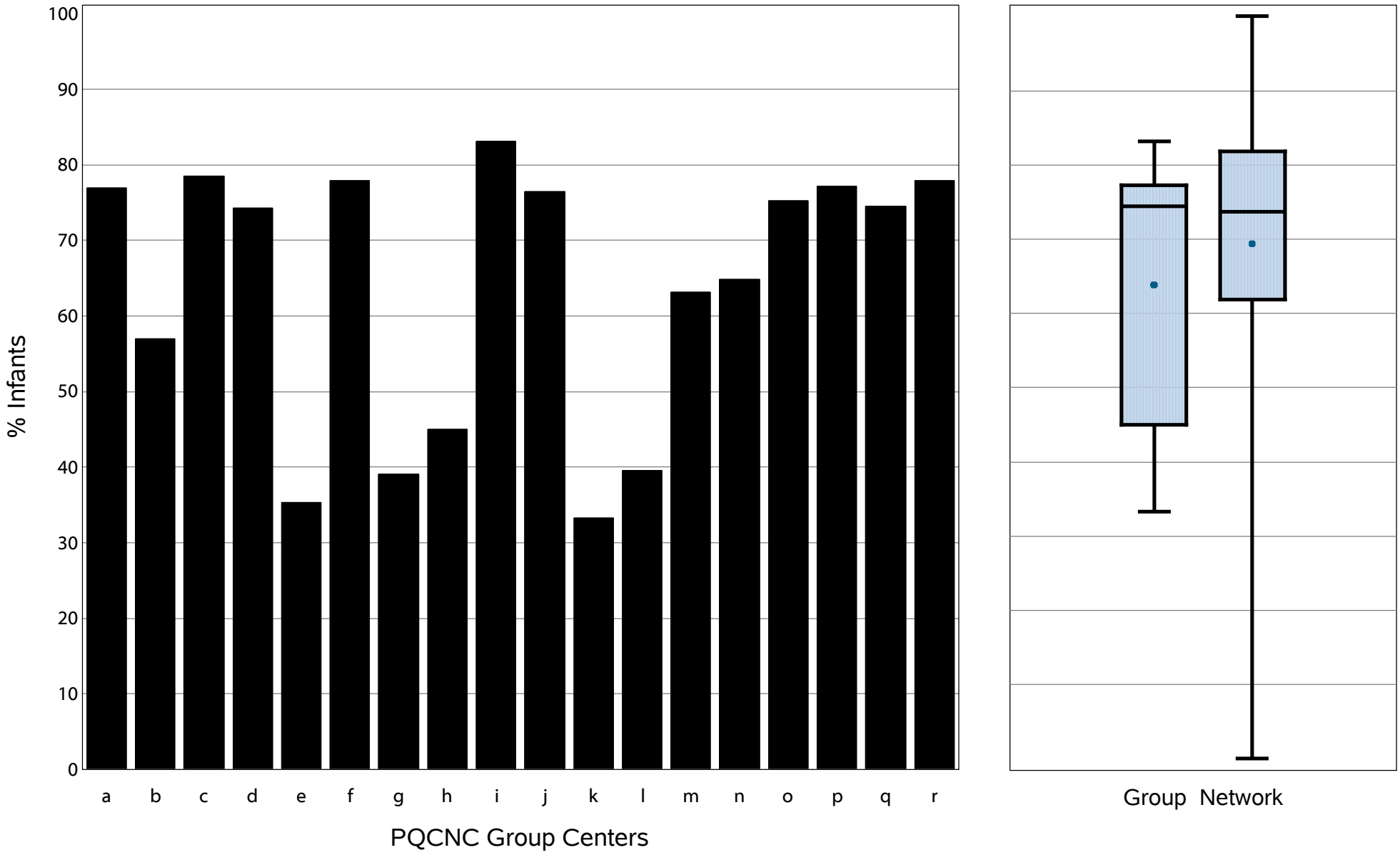
Infants 501 to 1500 Grams Born in 2014: Nasal CPAP at 36 Weeks



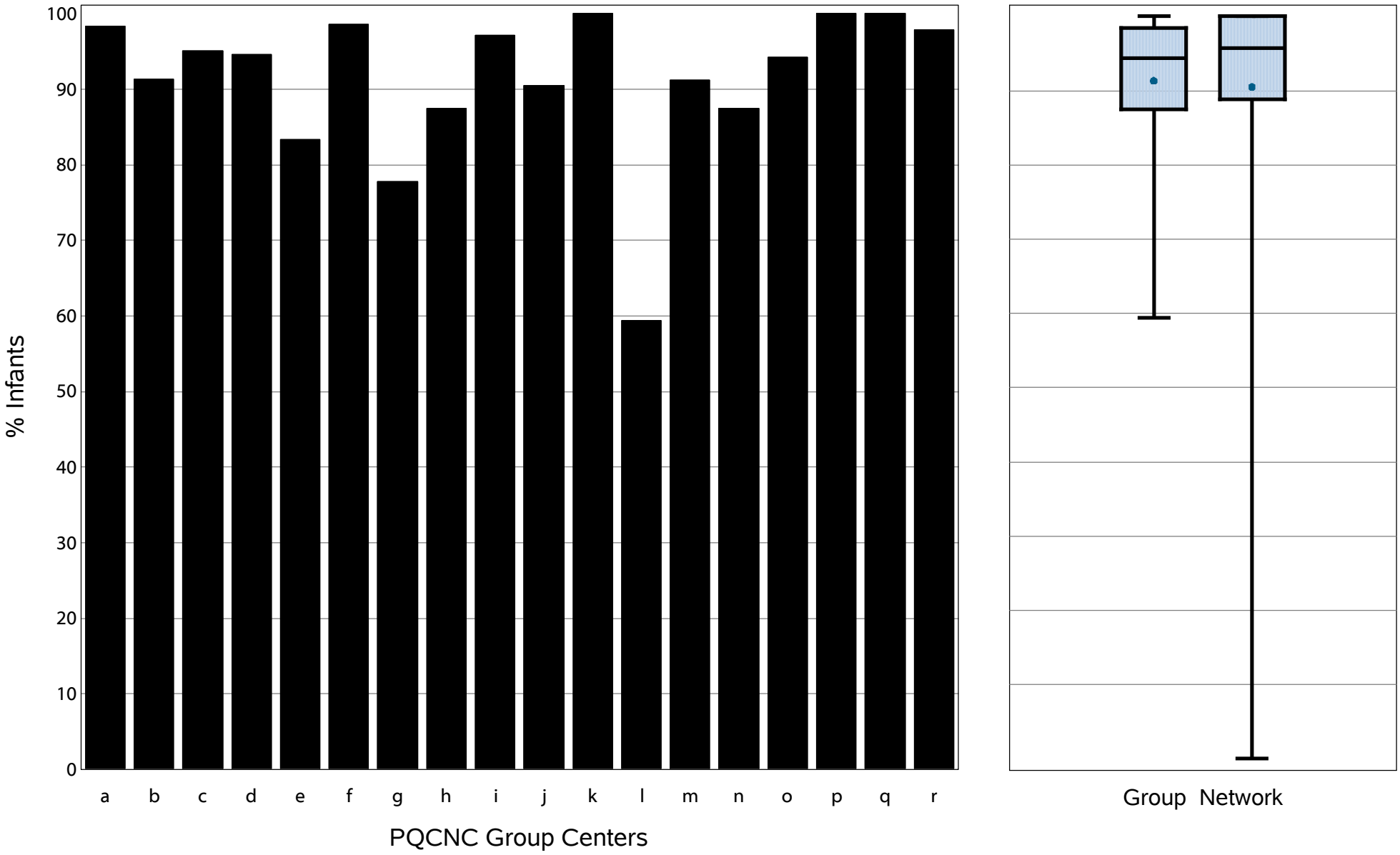
Infants 501 to 1500 Grams Born in 2014: Cranial Imaging



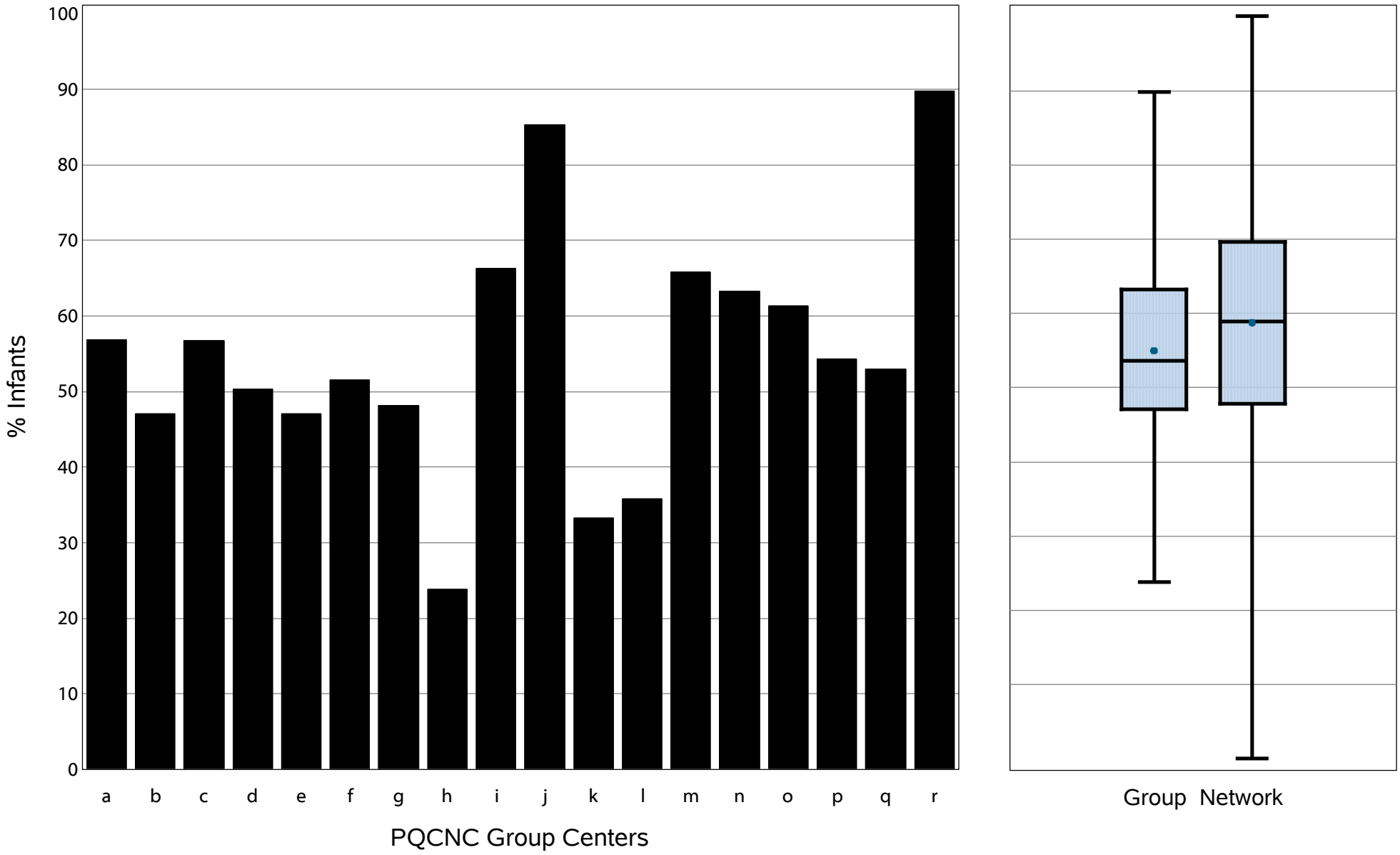
Infants 501 to 1500 Grams Born in 2014: Retinal Exam



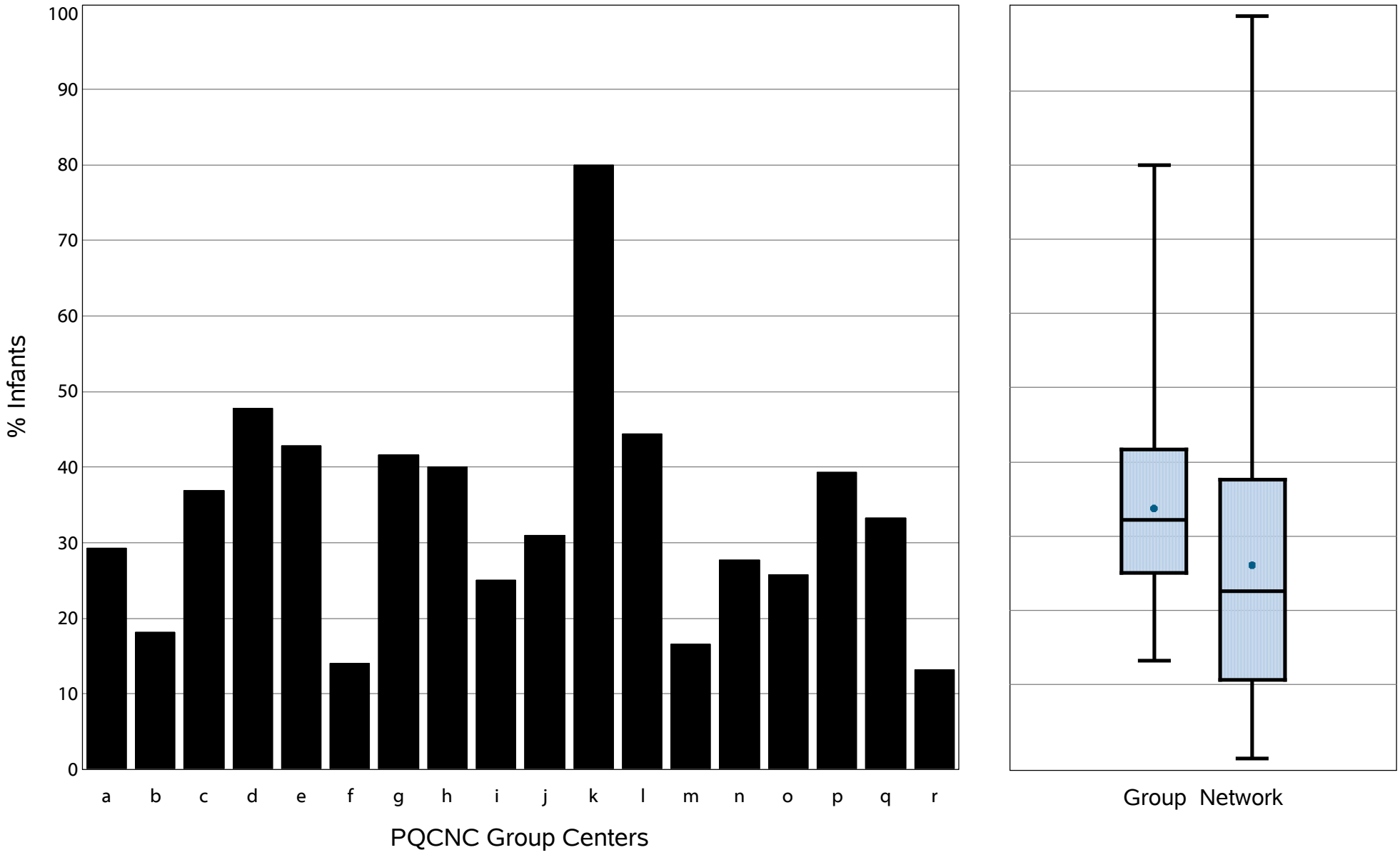
Infants 501 to 1500 Grams Born in 2014: Retinal Exam at Recommended Age



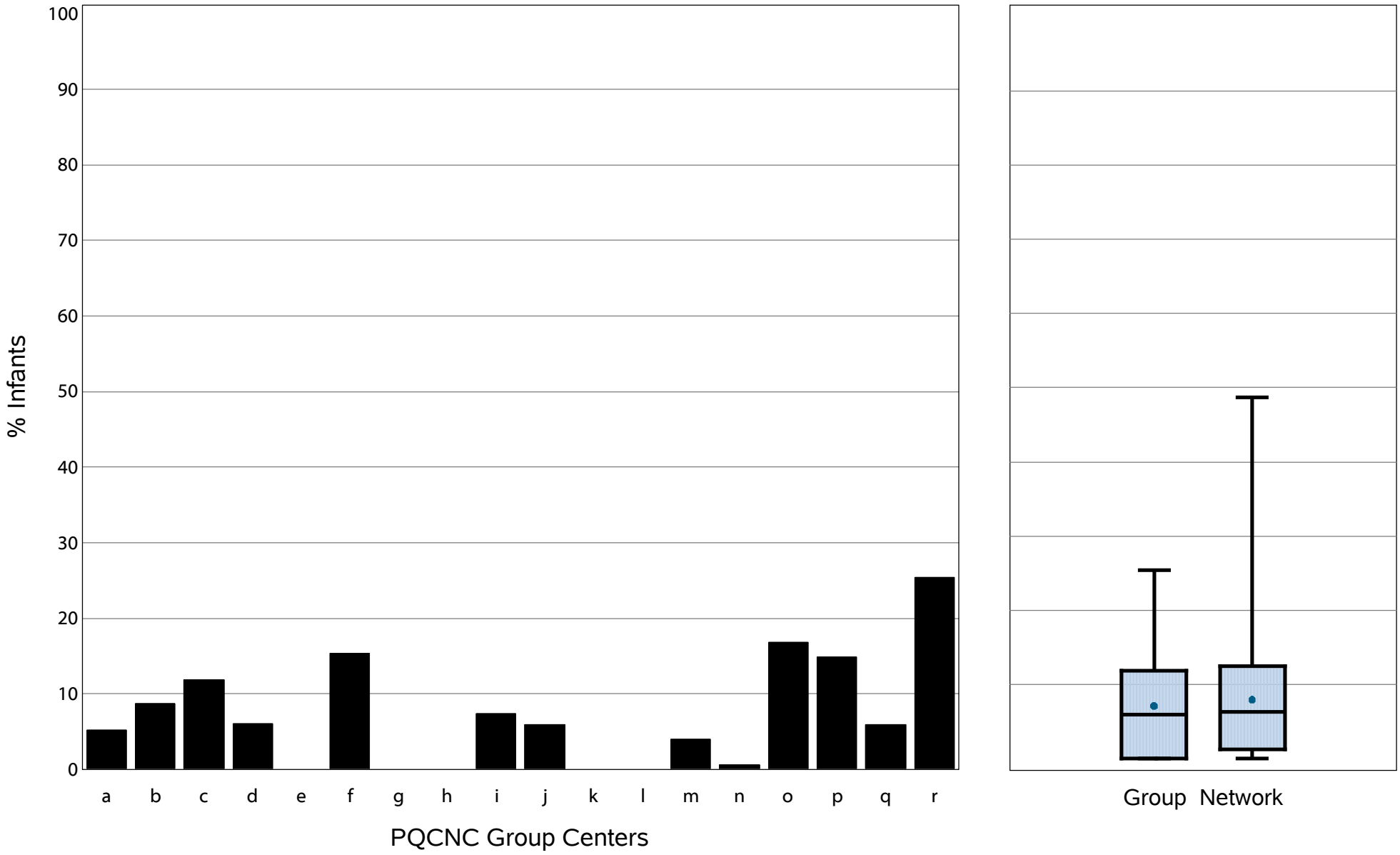
Infants 501 to 1500 Grams Born in 2014: Any Surfactant



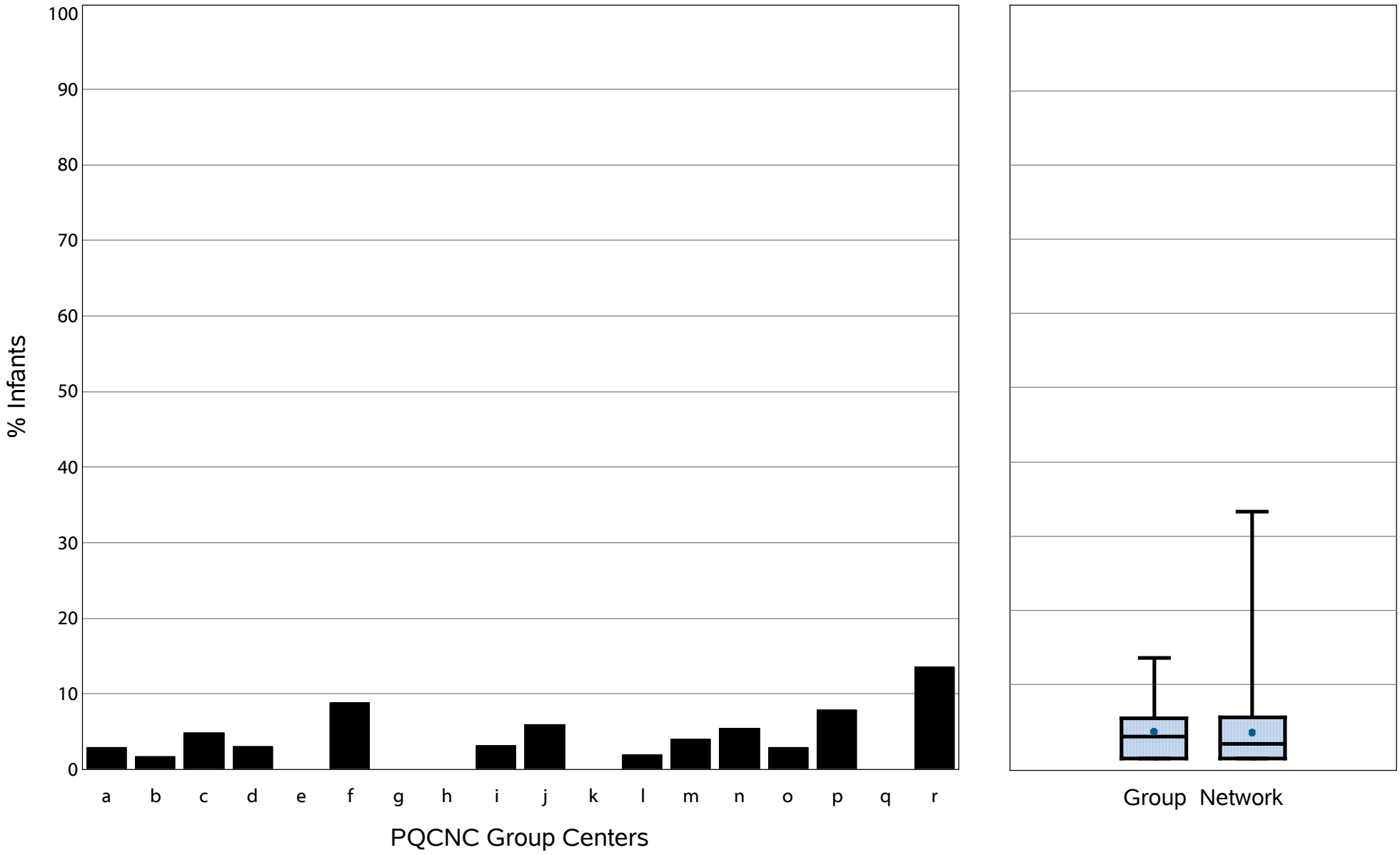
Infants 501 to 1500 Grams Born in 2014: First Dose of Surfactant after 2 Hours



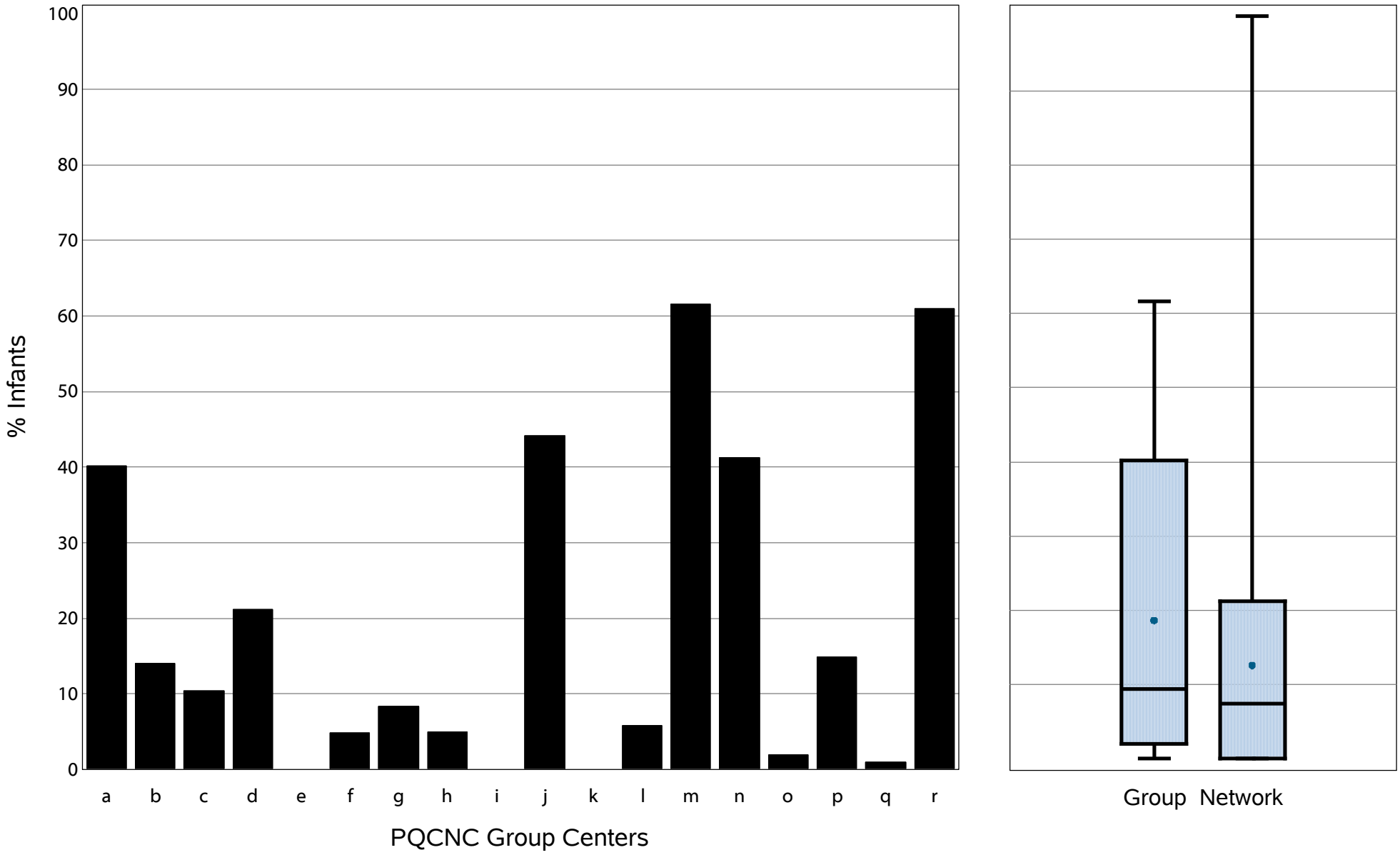
Infants 501 to 1500 Grams Born in 2014: Steroids for Chronic Lung Disease



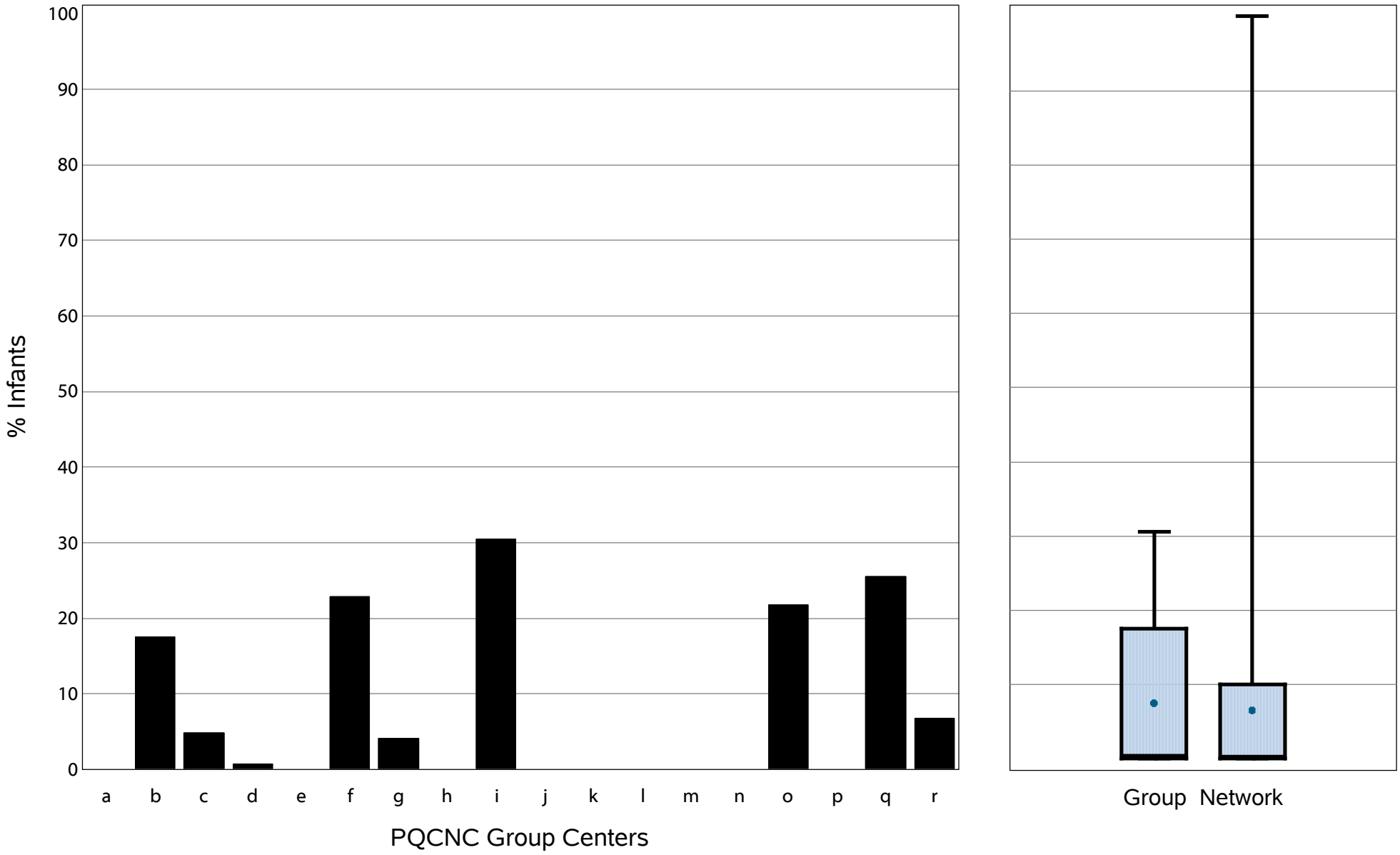
Infants 501 to 1500 Grams Born in 2014: Inhaled Nitric Oxide



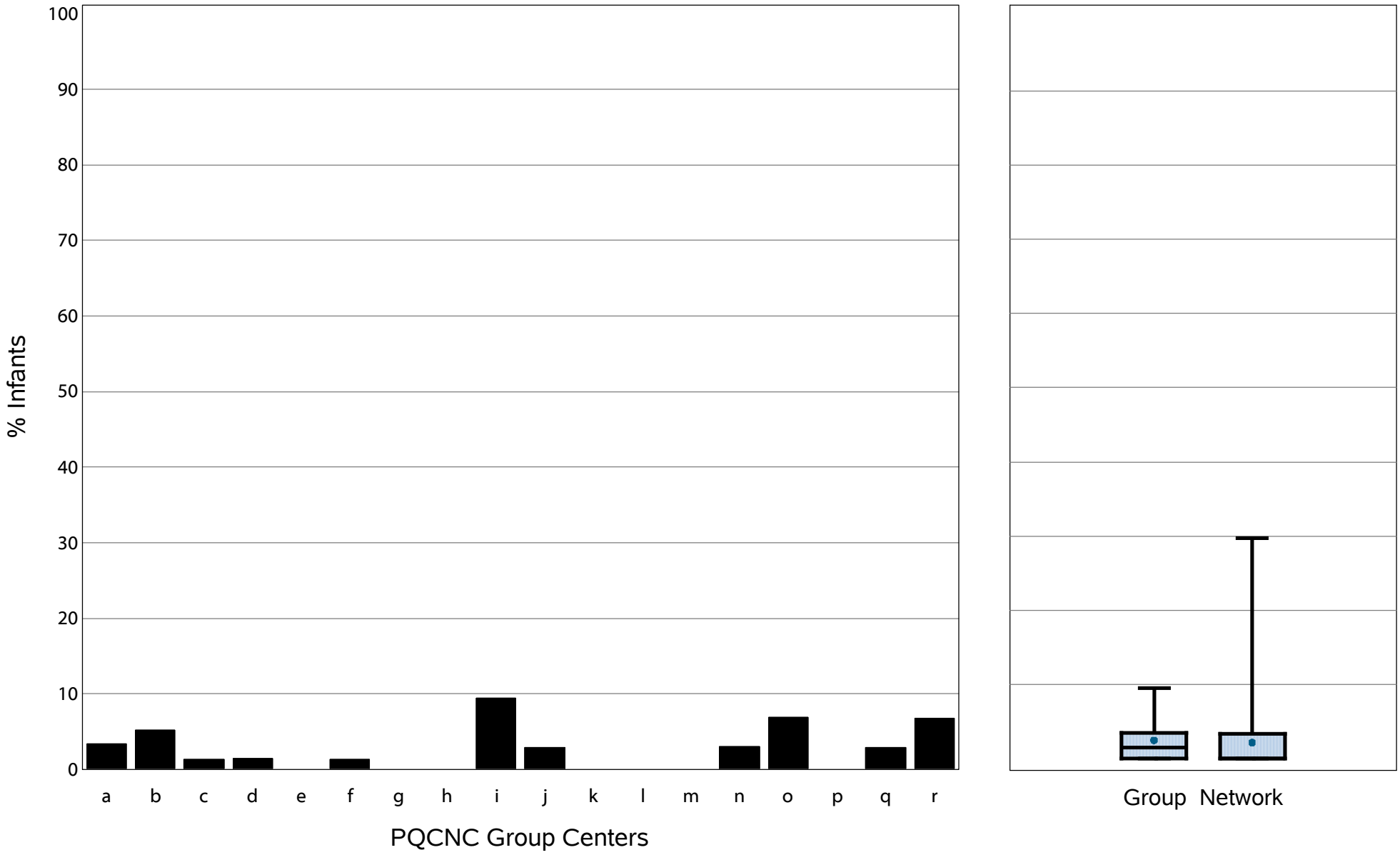
Infants 501 to 1500 Grams Born in 2014: Indomethacin



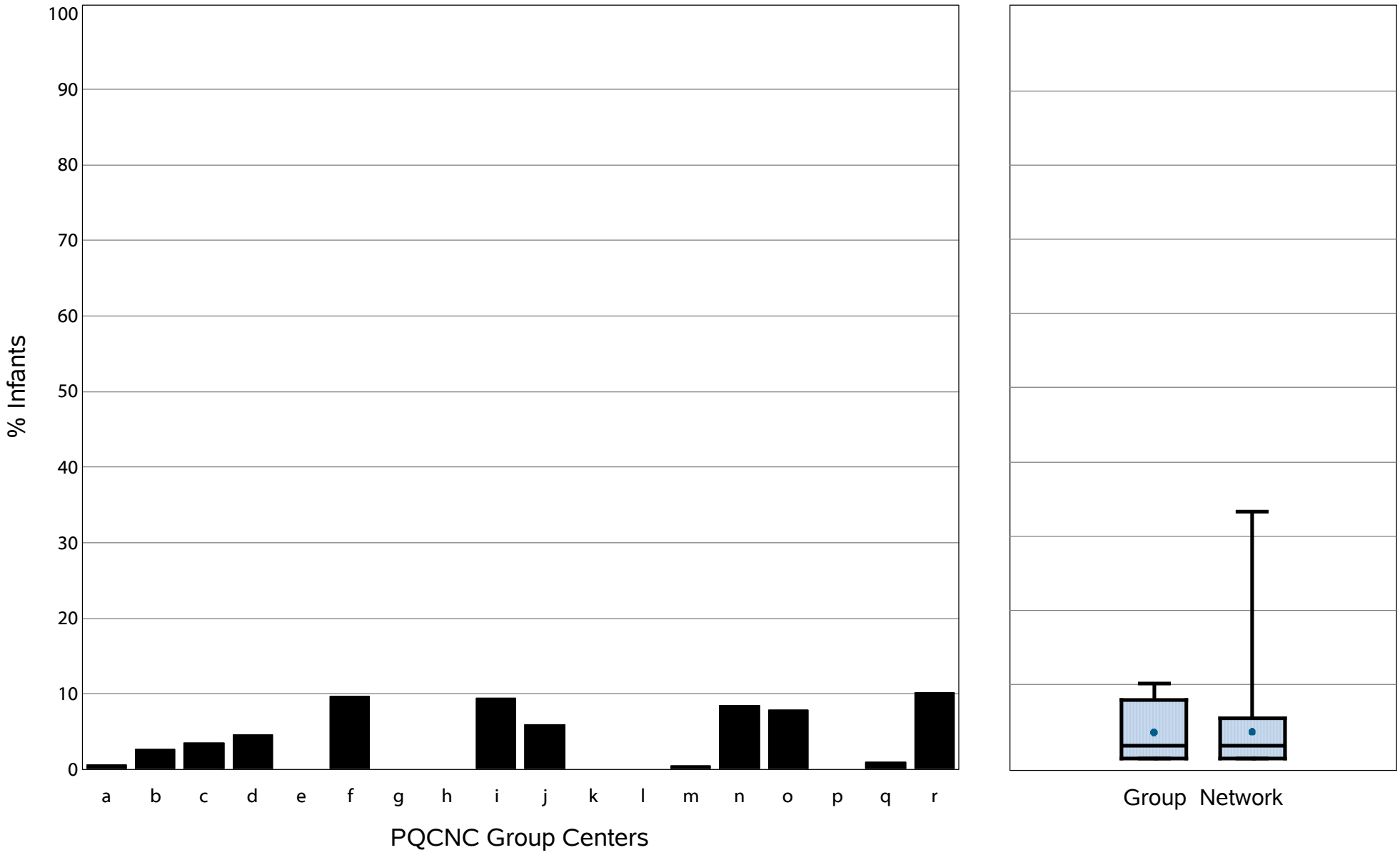
Infants 501 to 1500 Grams Born in 2014: Ibuprofen for PDA



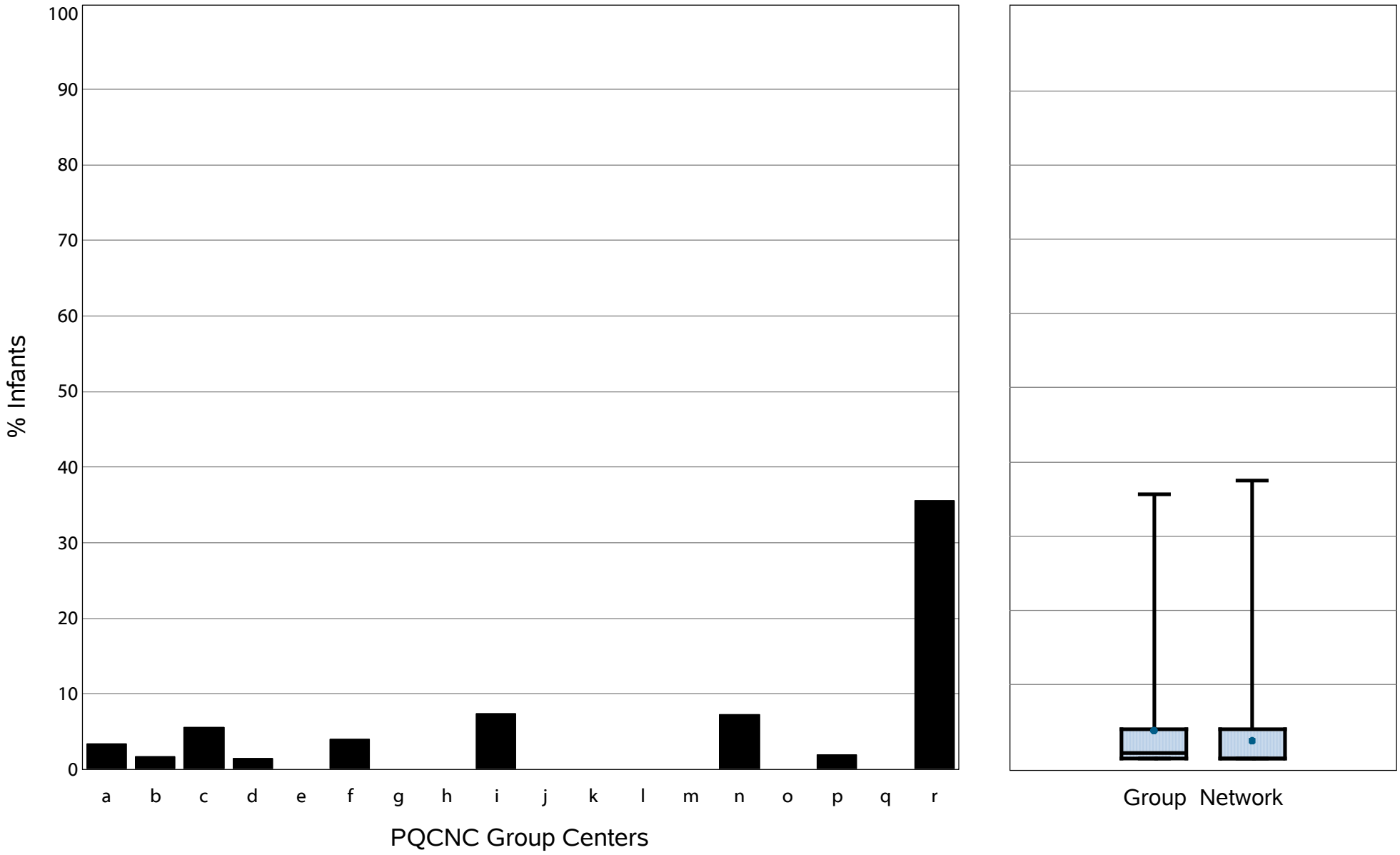
Infants 501 to 1500 Grams Born in 2014: Retinopathy of Prematurity Surgery



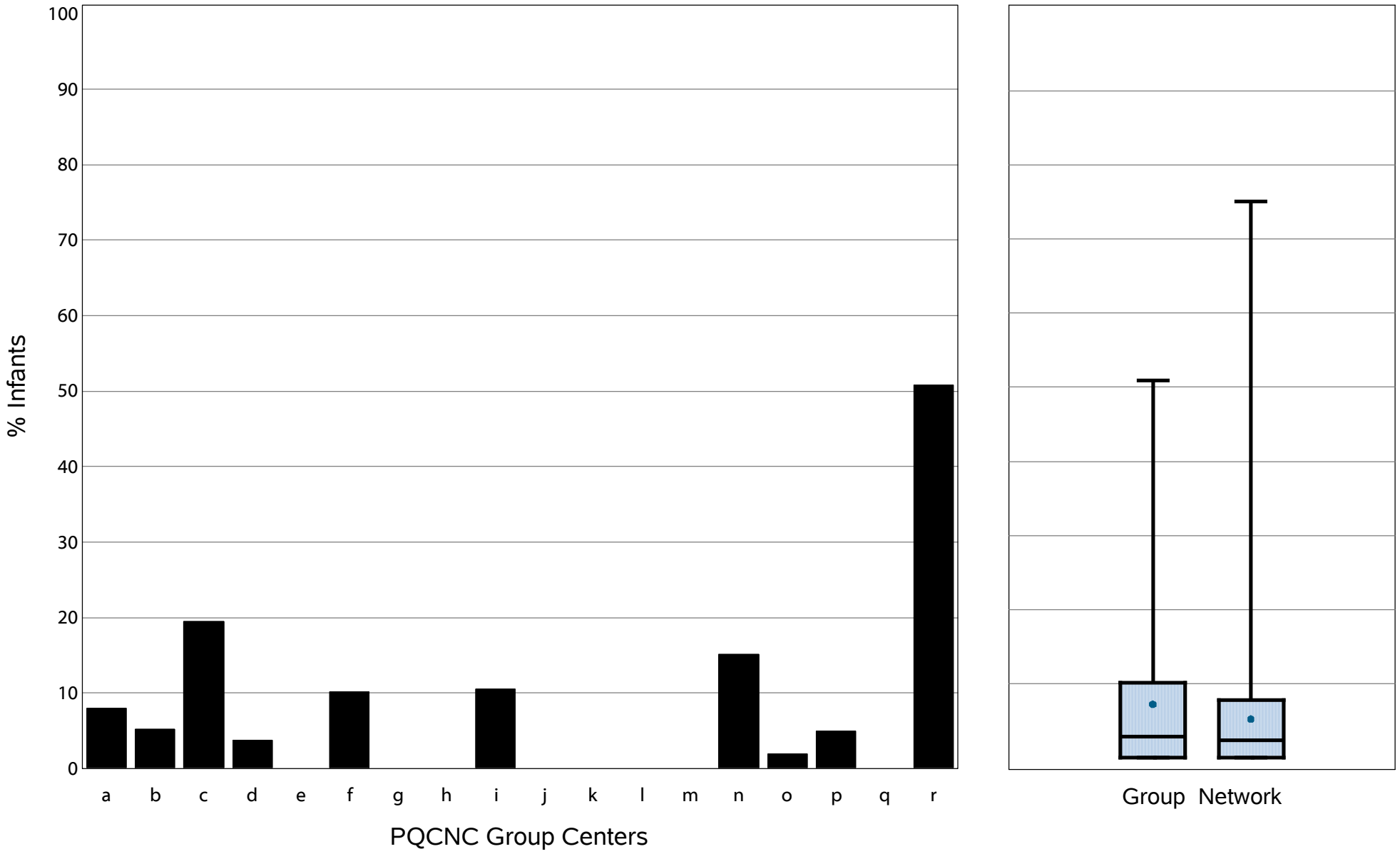
Infants 501 to 1500 Grams Born in 2014: PDA Ligation



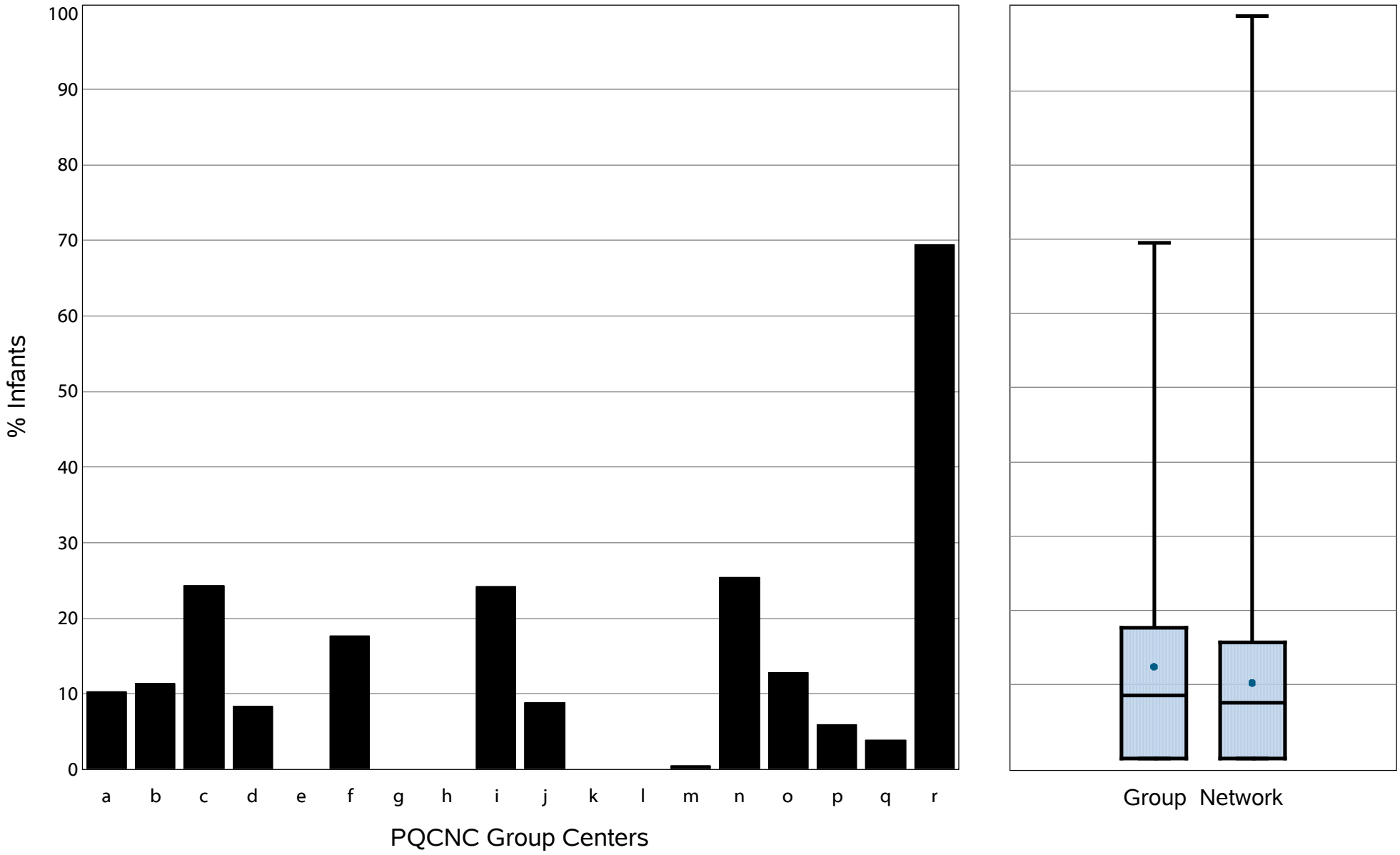
Infants 501 to 1500 Grams Born in 2014: Necrotizing Enterocolitis Surgery



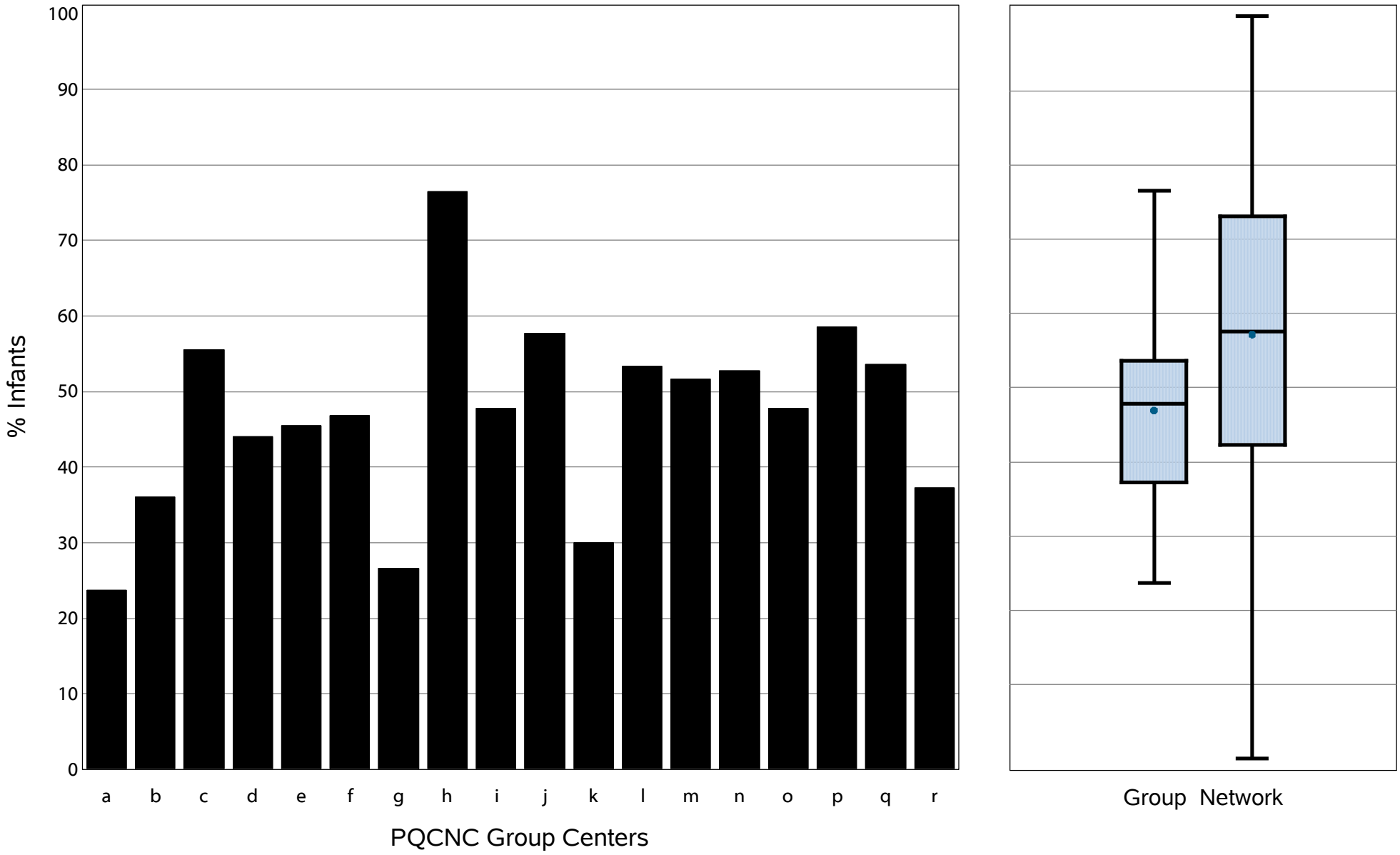
Infants 501 to 1500 Grams Born in 2014: Other Surgery



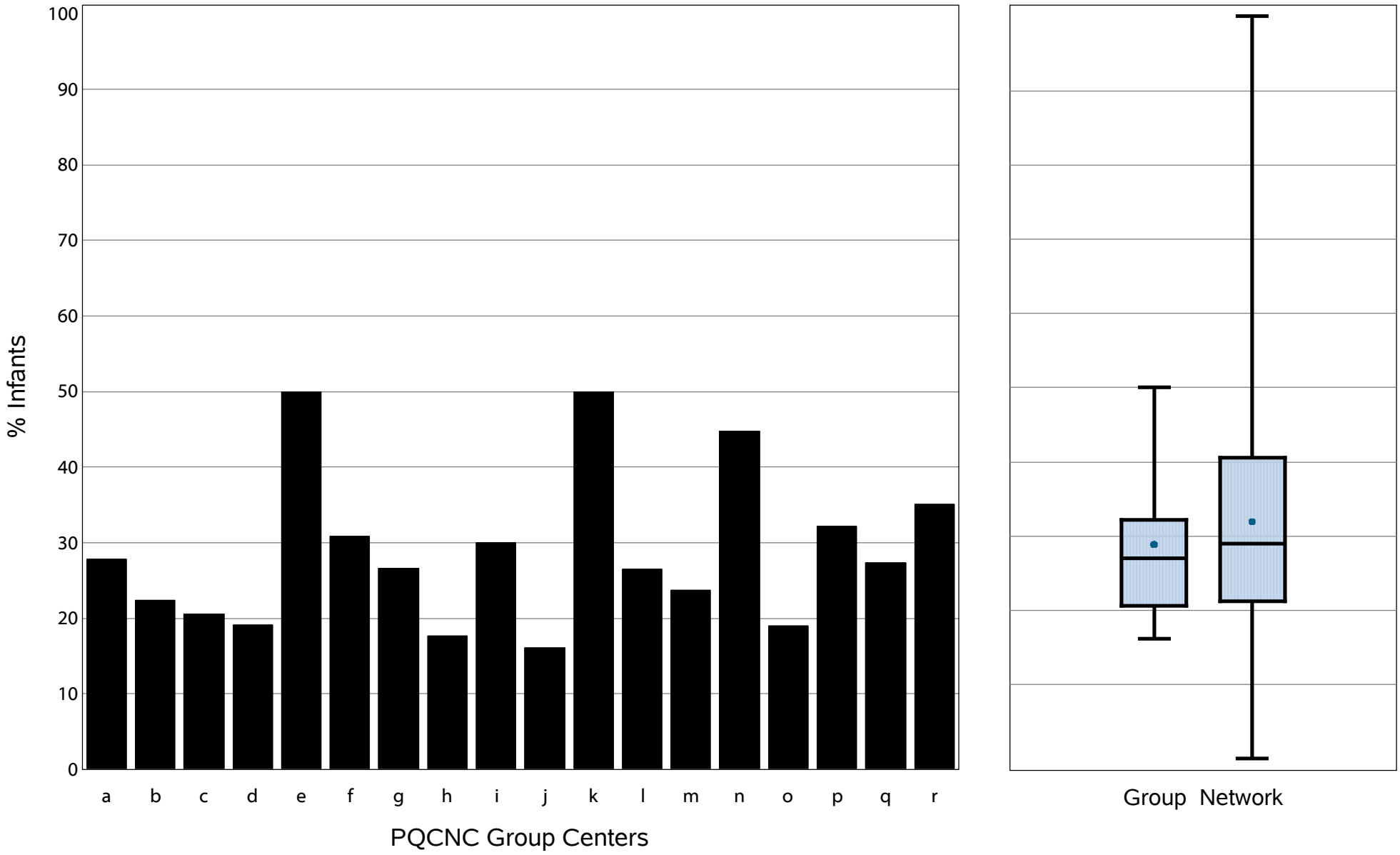
Infants 501 to 1500 Grams Born in 2014: Any Major Surgery



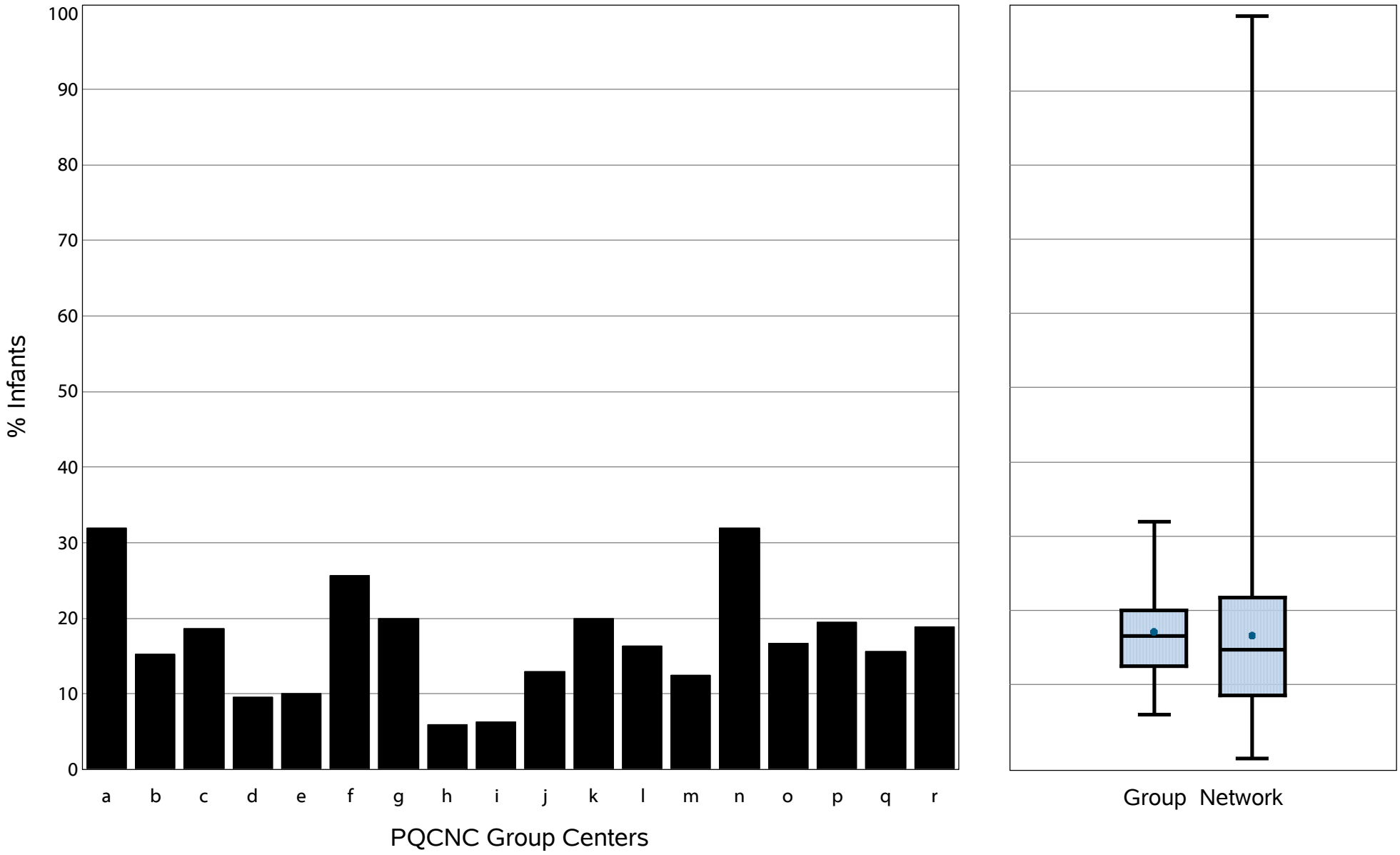
Infants 501 to 1500 Grams Born in 2014: Any Breast Milk at Discharge Home



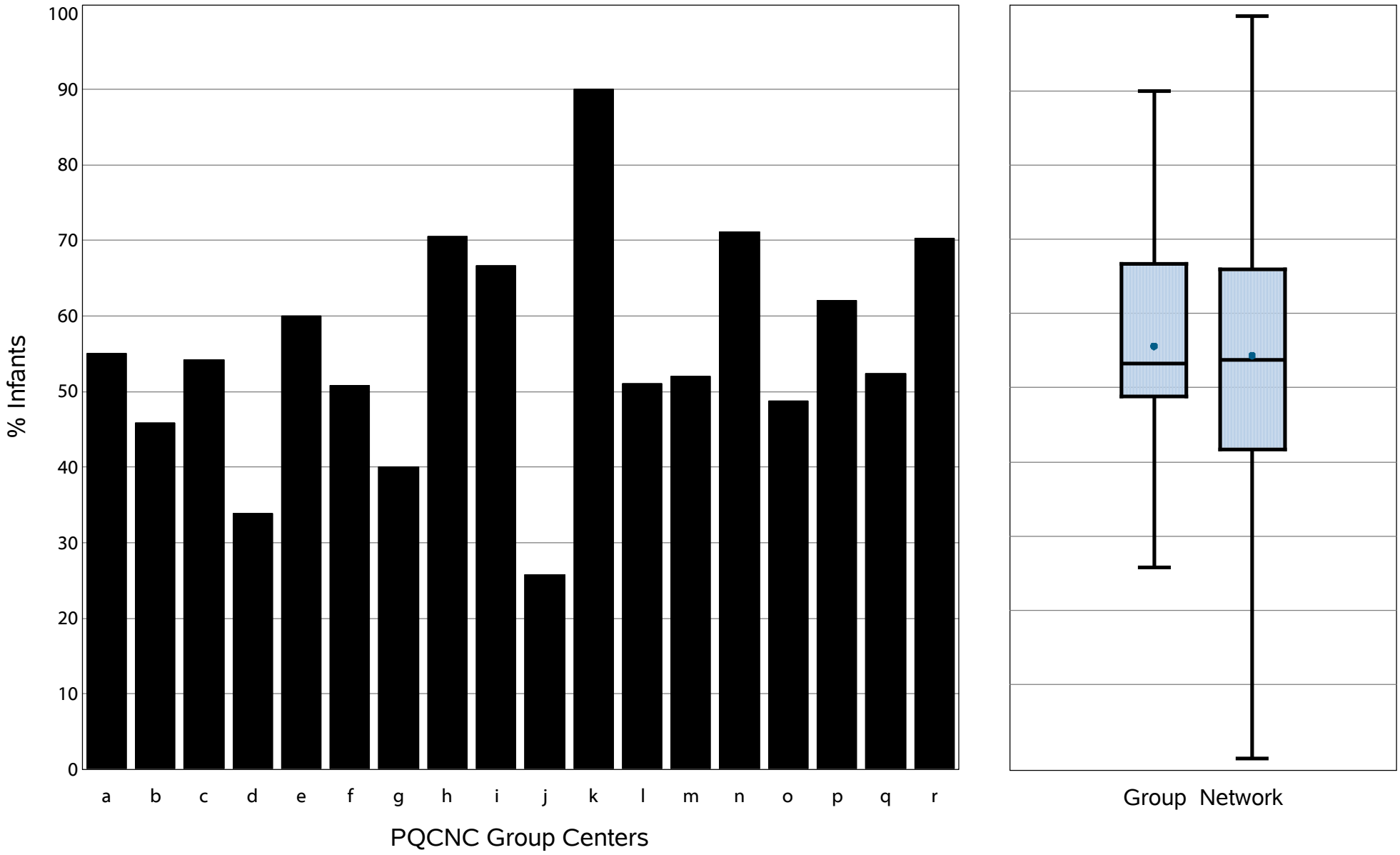
Infants 501 to 1500 Grams Born in 2014: Discharge Weight <3rd Pctl.



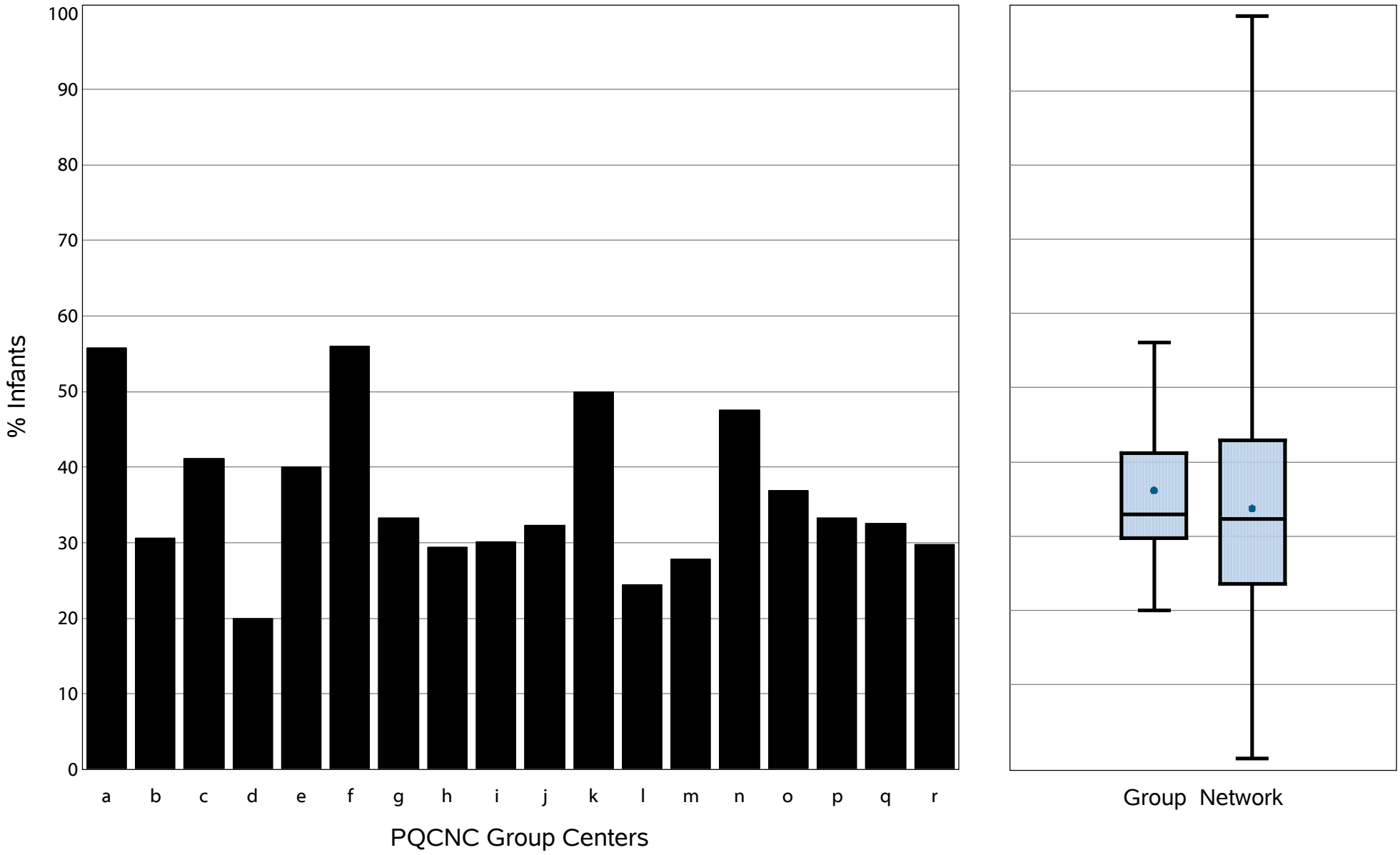
Infants 501 to 1500 Grams Born in 2014: Head Circumference <3rd Pctl.



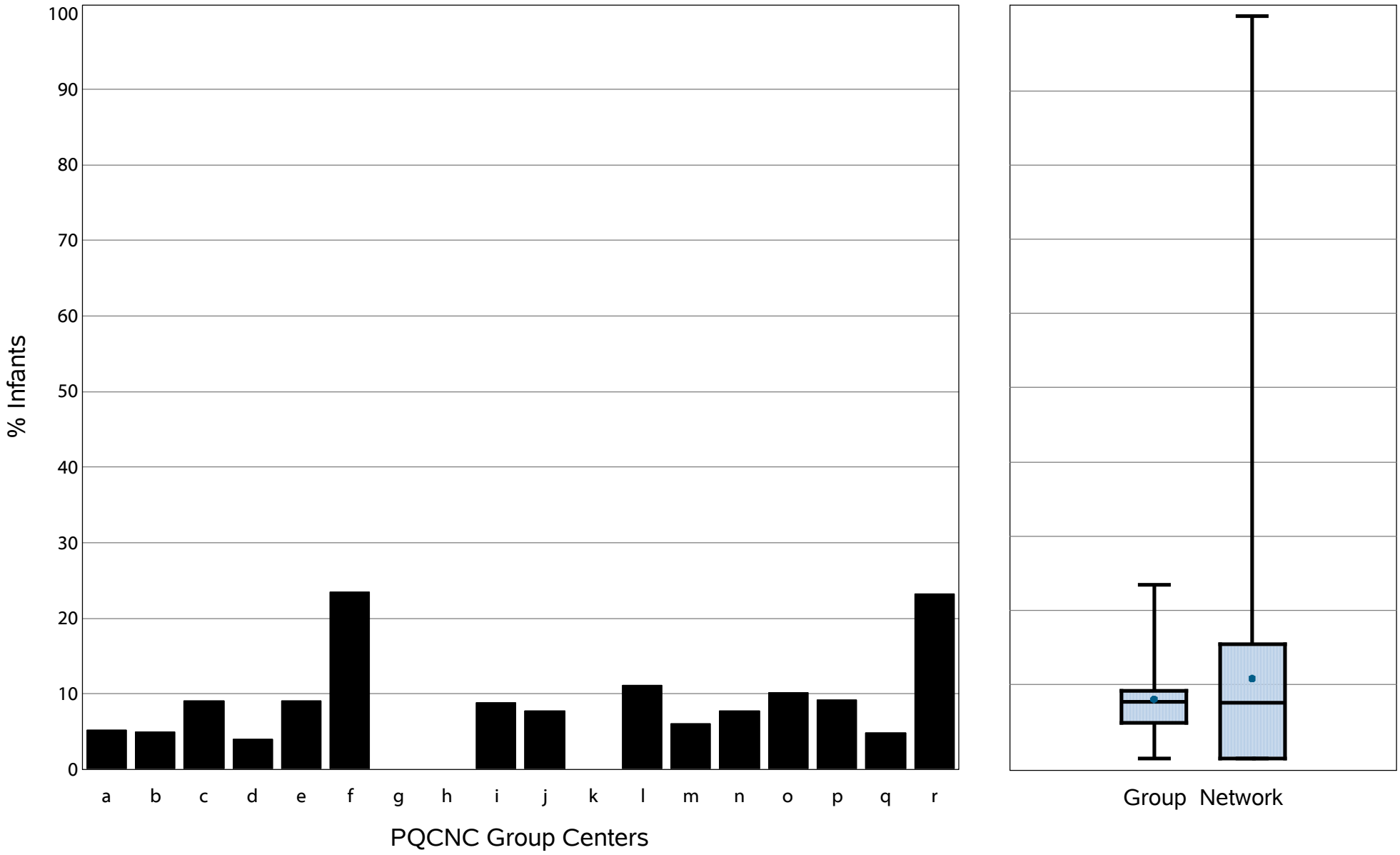
Infants 501 to 1500 Grams Born in 2014: Discharge Weight <10th Pctl.



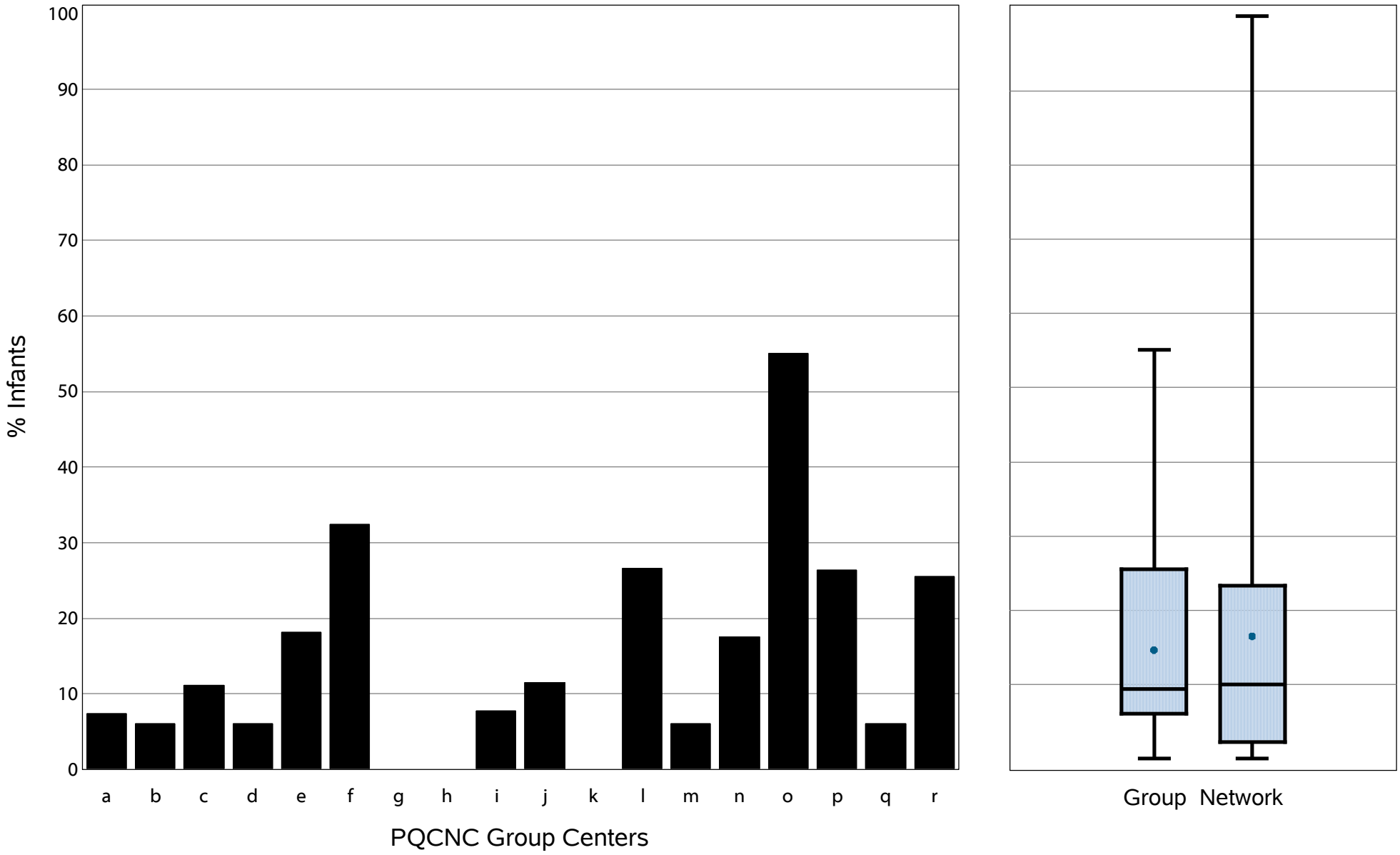
Infants 501 to 1500 Grams Born in 2014: Head Circumference <10th Pctl.



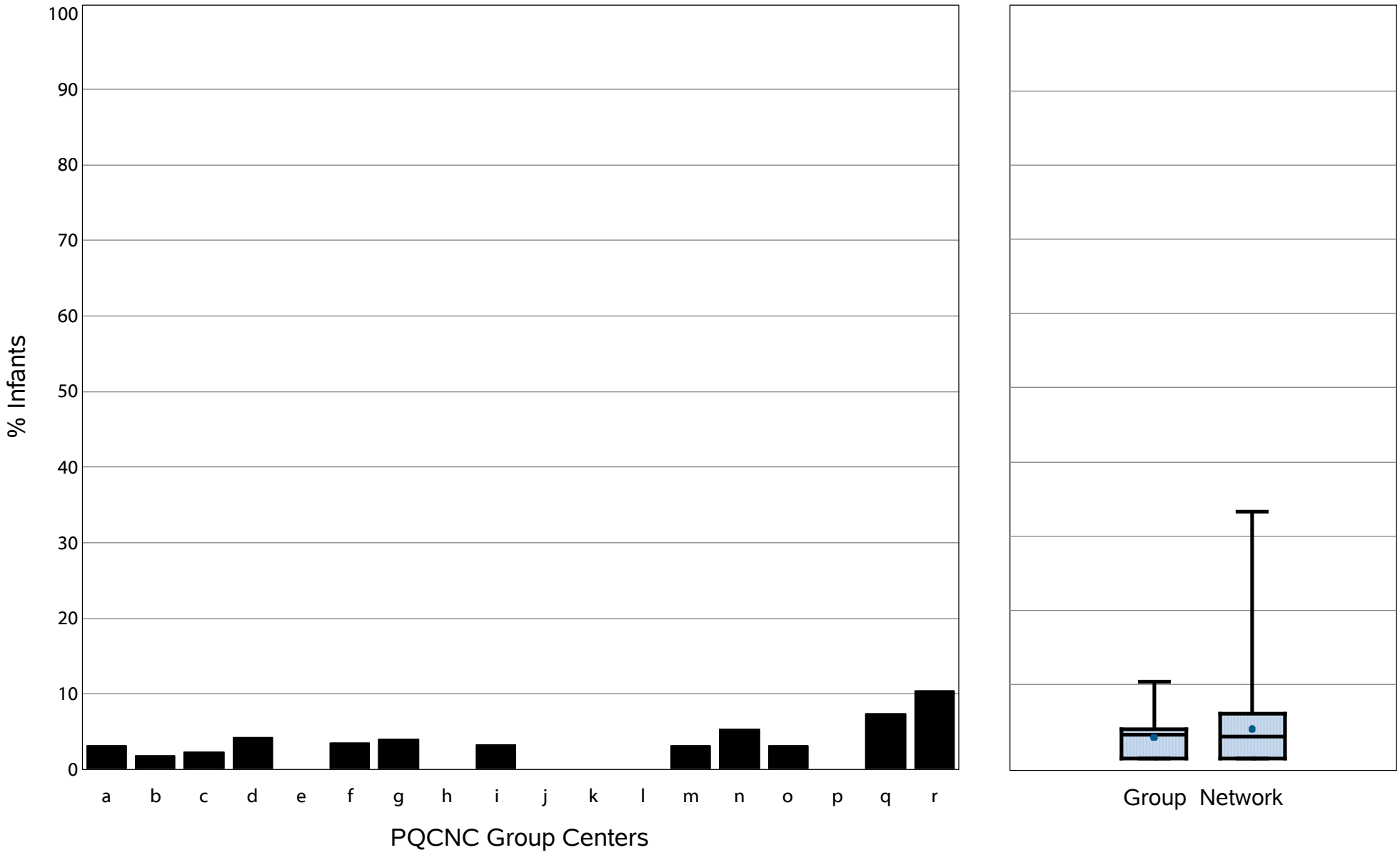
Infants 501 to 1500 Grams Born in 2014: Oxygen at Discharge Home



Infants 501 to 1500 Grams Born in 2014: Monitor at Discharge Home



Infants 501 to 1500 Grams Born in 2014: Extreme Length of Stay



Data Definitions

% (percent): Cases divided by N multiplied by 100; average

Admission Temperature <36°C: Core body temperature in degrees centigrade to the nearest tenth of a degree if measured and recorded within the first hour after NICU admission; missing if temperature was not measured or recorded

Antenatal Steroids: Corticosteroids administered IM or IV to the mother during pregnancy at any time prior to delivery

Antenatal Steroids for Infants 24-33 Weeks GA: Corticosteroids administered IM or IV to the mother during pregnancy at any time prior to delivery and gestational age is between 24 and 33 weeks at birth

Any Human Milk: Any human milk alone or in combination with fortifier or formula in the 24 hour period prior to discharge home

Any Initial Resuscitation: At least one of the following interventions in the delivery room or initial resuscitation area: face mask ventilation; cardiac compression; delivery room surfactant; epinephrine; ETT ventilation; nasal CPAP; oxygen

Any Late Infection: Late bacterial infection or coagulase negative staph or fungal infection after day 3 or life

Any Major Birth Defect: One or more birth defects from the Birth Defect Codes List, or lethal or life threatening birth defects entered into one of the Other Birth Defects categories (Please see Appendix C of the 2014 Vermont Oxford Network Manual of Operations Part 2)

Any Ventilation: Conventional ventilation or high frequency ventilation

APGAR at 1 Minute <4: APGAR score at 1 minute of life between 0 and 3, as noted in the Labor and Delivery record

Birth Weight: In grams, from the Labor and Delivery record if available and judged to be accurate; if unavailable or judged to be inaccurate, weight on admission to the neonatal unit or weight obtained on autopsy (if the infant died within 24 hours of birth)

Cases: Number of infants with the data item (numerator)

Cesarean Section: Any cesarean delivery (elective or emergent)

Chorioamnionitis: Recorded in the maternal or infant medical record

Chronic Lung Disease at 36 Weeks: Oxygen requirement at 36 weeks or, for infants between 34 and 36 weeks, transferred or were discharged home on oxygen

Chronic Lung Disease at 36 Weeks for Infants <33 Weeks GA: Chronic lung disease among infants who survive 36 weeks or to discharge home or first birthday and whose gestational age is 32 weeks or less at birth

Cranial Imaging: At least one cranial ultrasound, cranial CT or MRI performed on or before day 28

Coagulase Negative Staph Infection: Coagulase negative staphylococcus recovered from blood or cerebrospinal fluid culture obtained after day 3 and one or more signs of generalized infection and treatment with 5 or more days of intravenous antibiotics

Conventional Ventilation: Intermittent positive pressure ventilation through an endotracheal tube with a conventional ventilator (IMV rate <240/minute) after leaving the delivery room/initial resuscitation area

Conventional Ventilation at 36 Weeks: Intermittent positive pressure ventilation through an endotracheal tube with a conventional ventilator (IMV rate <240/minute) after leaving the delivery room/initial resuscitation area at any time on the date of week 36

Data Definitions

Death or Morbidity: Death or known to have one or more of the following: severe intraventricular hemorrhage (SIVH); chronic lung disease (CLD); necrotizing enterocolitis (NEC); pneumothorax; any late infection; or cystic periventricular leukomalacia (PVL)

Discharge Weight <3rd Pctl. and Discharge Weight <10th Pctl.: Percentage of infants who were discharged home between 15 and 367 days after birth who had no major birth defect, whose post-menstrual age at discharge was between 22 and 50 weeks, and whose weight at discharge falls below the third or tenth percentile values for the gestational age per the Fenton Growth Chart: Fenton TR, Kim JH. 'A systematic review and meta-analysis to revise the Fenton growth chart for preterm infants,' BMC *Pediatrics*, 2013; 13:59

Early Bacterial Sepsis: Bacterial pathogen recovered from blood or cerebrospinal fluid culture obtained on day 1, 2, or 3

Extreme Length of Stay: Total hospital stay is greater than the 90th percentile of the predicted value calculated by a multivariable risk adjustment model

Focal Intestinal Perforation: Focal intestinal perforation separate from necrotizing enterocolitis based on visual inspection of the bowel at the time of surgery or post-mortem examination

Fungal Infection: Fungus recovered from blood culture obtained from a central line or peripheral blood sample after day 3

Gestational Age: Best estimate of gestational age in weeks and days using the following hierarchy: obstetrical measures based on last menstrual period, obstetrical parameters, and prenatal ultrasound as recorded in the maternal chart; or neonatologist's estimate based on physical criteria, neurologic examination, combined physical and gestational age exam (Ballard or Dubowitz), or examination of the lens

Head Circumference <3rd Pctl. and Head Circumference <10th Pctl.: Percentage of infants who were discharged home between 15 and 367 days after birth who had no major birth defect, whose post-menstrual age was between 22 and 50 weeks, and whose head circumference at initial disposition falls below the third or tenth percentile values for the gestational age per the Fenton Growth Chart

High Flow Nasal Cannula: Air oxygen at a flow rate of one liter per minute or more via nasal cannula after leaving the delivery room/initial resuscitation area

High Flow Nasal Cannula at 36 Weeks: Air oxygen at a flow rate of one liter per minute or more via nasal cannula at any time on date of week 36

High Frequency Ventilation: High frequency ventilation (IMV rate ≥240/minute after leaving the delivery room/initial resuscitation area

High Frequency Ventilation at 36 Weeks: High frequency ventilation (IMV rate ≥240/minute at any time on the date of week 36

Ibuprofen for PDA: Ibuprofen administered any time after birth for the prevntion or treatment of PDA, even without meeting the definition of patent ductus arteriosus

Indomethacin for Any Reason: Indomethacin administered after birth for any reason, even without meeting definition of patent ductus arteriosus

Inhaled Nitric Oxide: At your hospital or other hospital

Initial Length of Stay: Number of days from admission to date of initial discharge, transfer or death; infants who die on the day of birth have an initial length of stay of 1 day

Late Bacterial Infection: Bacterial pathogen recovered from blood or cerebrospinal fluid culture obtained after day 3

Maternal Hypertension: Chronic or pregnancy-induced, with or without edema and proteinuria, recorded in the maternal or infant medical record, or a maternal blood pressure above 140 systolic or 90 diastolic recorded prior to or during the present pregnancy

Data Definitions

Median: After ordering all the centers' averages from highest to lowest, value at 50th percentile

Monitor at Discharge: Discharged home or transferred on an apnea monitor or cardio-respiratory monitor

Mortality: All deaths, including in the delivery room or initial resuscitation area or within 12 hours of NICU admission

Mortality Excluding Early Deaths: Excludes deaths in the delivery room/initial resuscitation area or within 12 hours of NICU admission

Multiple Gestation: Two or more live fetuses documented at any time during the pregnancy

N : All infants to whom the data item applies (denominator)

Nasal CPAP: Continuous positive airway pressure applied through the nose after leaving the delivery room/initial resuscitation area

Nasal CPAP at 36 Weeks: Continuous positive airway pressure applied through the nose at any time on the date of week 36

Nasal CPAP before ETT Ventilation: Continuous positive airway pressure applied through the nose without having previously received intermittent positive pressure breaths through an endotracheal tube; applies only when the answer to nasal CPAP is yes

Nasal IMV or SIMV: Intermittent mandatory ventilation or synchronized intermittent mandatory ventilation applied through the nose after leaving the delivery room/initial resuscitation area

Nasal IMV or SIMV at 36 Weeks: Intermittent mandatory ventilation or synchronized intermittent mandatory ventilation applied through the nose at any time on the date of week 36

Necrotizing Enterocolitis: Necrotizing enterocolitis diagnosed at surgery, at postmortem examination, or clinically and radiographically

NEC Surgery: Surgery for necrotizing enterocolitis at your hospital or other hospital

O-E: Observed minus Expected represents the number of cases at your center minus the number of cases expected at your center based on your center's case mix. The numbers in parentheses represent the lower bound (LB) and upper bound (UB) of the 95% confidence limit around the O-E estimate. The number of expected cases is based on a multivariable risk adjustment model, and the O-E values have been corrected to account for random variation.

Other Surgery: Surgical procedure other than PDA ligation, ROP surgery, or NEC surgery

Oxygen: Supplemental oxygen after leaving the delivery room/initial resuscitation area

Oxygen at 36 Weeks: Any supplemental oxygen at any time on the date of week 36

Oxygen at Discharge: Dicharged home or transferred on supplemental oxygen

Oxygen on Day 28: Any supplemental oxygen any time on the date of day 28

Patent Ductus Arteriosus: At least one of the following: left to right or bidirectional ductal shunt on Doppler echo, systolic or continuous murmur; and at least two of the following: hyperdynamic precordium, bounding pulses, wide pulse pressure, pulmonary vascular congestion, cardiomegaly

PDA Ligation: Surgical ligation of the ductus arteriosus in the operating room or NICU

Data Definitions

Perventricular-Intraventricular Hemorrhage: Grade 1, 2, 3, or 4 periventricular-intraventricular hemorrhage on or before day 28 among infants with a cranial image

Pneumothorax: Extrapleural air diagnosed by chest radiograph or needle thoracentesis

Periventricular Leukomalacia: Evidence of cystic periventricular leukomalacia on a cranial ultrasound, CT, or MRI obtained at any time

Q1: After ordering all the centers' averages from highest to lowest, value at 25th percentile

Q3: After ordering all the centers' averages from highest to lowest, value at 75th percentile

Respiratory Distress Syndrome: Within the first 24 hours of life, PaO2 <50 mmHg in room air, central cyanosis in room air, supplemental oxygen to maintain PaO2 >50 mmHg, or supplemental oxygen to maintain pulse oximeter saturation over 85% and a chest radiograph consistent with reticulogranular appearance to lung fields with or without low lung volumes and air bronchograms

Retinopathy of Prematurity: Stage 1, 2, 3, 4, or 5 retinopathy of prematurity, among those examined

Retinal Exam: Indirect ophthalmologic examination for retinopathy of prematurity performed at any time

Retinal Exam at Recommended Age: Indirect ophthalmologic examination for retinopathy of prematurity performed at the postmenstrual age recommended by the American Academy of Pediatrics: *Pediatrics*, 2013: 131(1): 189-95

ROP Surgery: Retinal cryosurgery and/or laser surgery performed for retinopathy of prematurity

Severe Periventricular-Intraventricular Hemorrhage: Grade 3 or 4, on or before day 28

Severe ROP: Stage 3, 4, or 5

Small for Gestational Age: 10th percentile or less for birth weight, based on gestational age, maternal race, and infant gender

SMR: A shrunken standardized standardixed morbidity or mortality ratio and its upper and lower bounds indicate whether your center has more or fewer infants with the outcome than would be expected given your center's case mix

Surfactant at Any Time: Exogenous surfactant at any time, including in the delivery room/initial resuscitation area

Surfactant after 2 hours: First dose of surfactant after two hours of age among infants who received surfactant

Steroids for Chronic Lung Disease: Systemic corticosteroids were used after birth to treat or prevent bronchopulmonary dysplasia or chronic lung disease

Total Length of Stay: The number of days from the date the infant was first admitted to your hospital until the date of Final Discharge or Death.

Trend: Group average (dot) in relation to the Network median (line) and the range between Q1 and Q3 (gray bar) over time

Ventilation after Early CPAP: Continuous positive airway pressure via nasal prongs prior to endotracheal tube ventilation with subsequent conventional or high frequency ventilation

The Vermont Oxford Network is a worldwide voluntary collaboration of health care professionals established in 1988. Today, the Network is comprised of over 950 Neonatal Intensive Care Units around the world.

Mission: to improve the quality and safety of medical care for newborn infants and their families through a coordinated program of research, education and quality improvement projects.

Vision: to establish a worldwide community of practice, dedicated to providing all newborn infants and their families with the best possible and ever improving perinatal and neonatal care.

Vermont Oxford NETWORK

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