BACTERIAL CONTAMINATION OF HEALTHCARE STUDENTS' MOBILE PHONES: IMPACT OF SPECIFIC ABSORPTION RATE (SAR), USERS' DEMOGRAPHICS AND DEVICE CHARACTERISTICS ON BACTERIAL CHARGES.

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Supplementary Material

Table of contents

Table S1: Full results for HPC at 37 °C, HPC 22 °C, Gram negative organisms or enterics, Enterococci and Staphylococci in relation to questionnaire' variables.

			HPC 37°C (CFU/dm²)	HPC 22°C (CFU/dm²)	Gram negative (CFU/dm²)	Enterococci (CFU/dm²)	Staphylococci (CFU/dm²)
Whole sample	**(n=83)**	**Mean**	411	247	5	82	432
		Median	253	100	0	19	238
		SD	466	396	19	169	504
		Q1	88	42	0	0	60
		Q3	589	302	0	65	562
Gender	**Female**	**Mean**	391	235	6	82	420
	(n=65)	**Median**	274	83	0	18	238
		SD	442	402	22	175	499
		Q1	105	26	0	0	62
		Q3	522	296	0	66	536
	Male	**Mean**	485	292	2	84	476
	(n=18)	**Median**	214	106	0	28	221
		SD	553	380	4	151	530
		Q1	76	71	0	0	57
		Q3	888	335	0	57	858
Age (mean = 21,29y)	**Below average**	**Mean**	407	231	5	90	426
	(n=65)	**Median**	228	83	0	25	238
		SD	475	364	21	185	479
		Q1	88	26	0	0	60
		Q3	555	296	0	61	567
	Above average	**Mean**	427	305	3	55	453
	(n=18)	**Median**	320	152	0	16	222
		SD	443	503	13	89	600
		Q1	118	69	0	0	50
		Q3	630	351	0	92	578
Study course	**Nursing**	**Mean**	385	265	5	95	416
	(n=59)	**Median**	206	112	0	19	213
		SD	479	374	22	191	506
		Q1	88	54	0	0	60
		Q3	462	352	0	70	530
	Obstetrics	**Mean**	369	97	1	54	323
	n=(13)	**Median**	321	43	0	18	301
		SD	284	128	2	90	284
		Q1	163	18	0	0	38
		Q3	607	140	0	53	509
	Other	**Mean**	599	331	7	50	645
	(n=11)	**Median**	595	82	0	19	405
		SD	554	644	16	93	658
		Q1	77	32	0	0	95
		Q3	867	338	9	43	1051
Place of training	**Ambulatory care**	**Mean**	255	43	0	11	88
	(n=3)	**Median**	77	42	0	0	95
		SD	338	32	0	20	49
		Q1	44	11	0	0	35
		Q3			0		
	Medical Unit	**Mean**	482	305	10	122	490

	(n=33)	**Median**	281	121	0	30	287
		SD	538	488	30	230	553
		Q1	116	56	0	0	49
		Q3	798	354	8	89	779
	Surgical Unit	**Mean**	371	216	1	55	408
	(n=43)	**Median**	228	95	0	17	292
		SD	423	326	4	104	472
		Q1	88	43	0	0	60
		Q3	520	293	0	44	530
	Intensive care	**Mean**	279	66	0	40	179
	(n=2)	**Median**	279	66	0	40	179
		SD	112	65	0	42	83
		Q1	200	20	0	11	120
		Q3	.	.	0	.	.
Training frequency	**1 to 3 days/week**	**Mean**	607	224	3	28	922
	(n=4)	**Median**	703	219	0	12	942
		SD	388	196	5	40	701
		Q1	200	40	0	3	246
		Q3	919	413	8	68	1577
	4 to 5 days/week	**Mean**	393	230	4	56	344
	(n=14)	**Median**	272	58	0	19	210
		SD	506	579	14	106	474
		Q1	67	17	0	0	55
		Q3	506	151	0	37	446
	6 to 7 days/week	**Mean**	394	243	5	88	406
	(n=64)	**Median**	225	110	0	18	227
		SD	464	356	21	182	478
		Q1	91	49	0	0	51
		Q3	509	314	0	66	521
Smartphone age							
(mean 18,78m)	**Below average**	**Mean**	385	246	7	94	359
	(n=45)	**Median**	156	82	0	14	152
		SD	504	442	26	201	459
		Q1	76	29	0	0	34
		Q3	497	257	0	50	506
	Above average	**Mean**	443	249	2	69	518
	(n=38)	**Median**	294	118	0	24	302
		SD	421	339	5	122	546
		Q1	169	44	0	10	148
		Q3	602	343	0	67	683
	No cleaning						
Cleaning method	**method**	**Mean**	630	378	16	152	470
	(n=11)	**Median**	144	78	0	0	92
		SD	774	639	49	333	662
		Q1	63	11	0	0	33
		Q3	1552	552	8	91	804
	Disinfectants	**Mean**	322	206	5	65	358
	(n=27)	**Median**	222	75	0	18	158
		SD	396	443	12	113	515
		Q1	77	18	0	0	29
		Q3	383	166	0	43	417
	Water	**Mean**	398	248	0	64	525
	(n=26)	**Median**	291	120	0	16	320
		SD	362	272	2	119	505
		Q1	132	54	0	7	155
		Q3	662	344	0	57	832
	Dry towel	**Mean**	429	230	3	92	387

	(n=19)	**Median**	281	114	0	32	303
		SD	453	296	8	162	389
		Q1	77	61	0	0	133
		Q3	589	357	0	108	481
Cleaning frequency	**Daily to weekly cleaning (n=20)**	**Mean**	442	270	7	84	401
		Median	349	119	0	23	319
		SD	441	480	15	147	420
		Q1	101	56	0	0	80
		Q3	600	333	6	81	531
	Weekly to yearly cleaning (n=47)	**Mean**	367	228	2	73	450
		Median	217	114	0	25	227
		SD	397	294	4	126	524
		Q1	100	43	0	0	60
		Q3	589	302	0	66	571
	Less than yearly cleaning (n=16)	**Mean**	502	275	11	108	419
		Median	227	58	0	10	98
		SD	664	545	40	280	564
		Q1	64	20	0	0	34
		Q3	731	106	0	44	648
Last cleaning	**Never so far (n=11)**	**Mean**	630	378	16	152	470
		Median	144	78	0	0	92
		SD	774	639	49	333	662
		Q1	63	11	0	0	33
		Q3	1552	552	8	91	804
	1 day to 1 week before (n=24)	**Mean**	388	236	6	73	376
		Median	314	109	0	19	282
		SD	429	444	14	136	406
		Q1	71	38	0	0	56
		Q3	511	313	6	62	531
	1 week to 1 year before (n=41)	**Mean**	391	242	1	79	470
		Median	244	114	0	30	287
		SD	402	303	4	131	535
		Q1	109	43	0	10	95
		Q3	590	357	0	70	571
	1 year of more before (n=5)	**Mean**	217	56	0	7	286
		Median	284	47	0	9	213
		SD	116	35	0	6	296
		Q1	102	31	0	0	15
		Q3	299	84	0	12	594
Cover type	**No case/cover (n=7)**	**Mean**	338	235	1	78	401
		Median	312	32	0	0	405
		SD	323	322	3	132	480
		Q1	44	11	0	0	35
		Q3	524	389	0	150	494
	Flip-Cover (n=3)	**Mean**	600	187	3	46	741
		Median	520	69	0	32	804
		SD	322	218	5	40	346
		Q1	326	54	0	14	368
		Q3	n.d.	n.d.	n.d.	n.d.	n.d.
	Case (n=73)	**Mean**	410	251	5	84	422
		Median	228	105	0	19	227

		SD	483	410	21	176	512
		Q1	88	44	0	0	60
		Q3	590	296	0	61	553
Screen protector	**No screen protector (n=31)**	**Mean**	376	252	4	57	370
		Median	222	100	0	10	227
		SD	459	436	12	110	451
		Q1	75	61	0	0	40
		Q3	383	289	0	44	481
	Tempered glass (n=35)	**Mean**	431	247	7	100	436
		Median	284	83	0	14	213
		SD	487	402	28	220	517
		Q1	88	42	0	0	76
		Q3	595	302	0	70	562
	Plastic film (n=17)	**Mean**	435	239	1	92	538
		Median	321	118	0	30	310
		SD	458	323	3	137	576
		Q1	94	18	0	10	151
		Q3	589	371	0	127	832
Usual means of transport	**Usually - Public transport (n=35)**	**Mean**	519	348	3	84	573
		Median	312	189	0	29	329
		SD	517	474	9	135	591
		Q1	132	43	0	0	132
		Q3	867	438	0	87	833
	Usually - Private transport (n=48)	**Mean**	332	174	6	82	329
		Median	214	82	0	14	168
		SD	412	313	24	191	405
		Q1	75	28	0	0	40
		Q3	434	161	0	50	469
Means of transport in the day of sampling	**Today - Public transport (n=28)**	**Mean**	577	392	3	98	600
		Median	397	212	0	31	339
		SD	559	520	10	155	620
		Q1	141	58	0	0	107
		Q3	853	453	0	133	1015
	Today - Private transport (n=53)	**Mean**	329	174	5	75	347
		Median	200	81	0	14	170
		SD	397	299	23	180	420
		Q1	72	25	0	0	44
		Q3	409	155	0	44	500
	Today - Both public and private transport (n=2)	**Mean**	265	167	4	55	316
		Median	265	167	4	55	316
		SD	67	191	6	16	126
		Q1	217	32	0	43	227
		Q3	n.d.	n.d.	n.d.	n.d.	n.d.
Use with gloves	**No (n=64)**	**Mean**	451	264	5	94	449
		Median	287	83	0	29	296
		SD	501	442	22	179	484
		Q1	102	28	0	0	95
		Q3	618	301	0	82	603
	Yes	**Mean**	241	233	2	23	428

	(n=10)	**Median**	143	186	0	10	153
		SD	234	169	4	43	654
		Q1	88	75	0	0	52
		Q3	456	391	2	22	630
	Yes, changing gloves (n=9)	**Mean**	314	140	5	68	316
		Median	144	105	0	0	79
		SD	359	136	11	178	504
		Q1	61	45	0	0	26
		Q3	531	236	5	30	504
Health status	**Ill (n=14)**	**Mean**	520	347	15	168	521
		Median	286	82	0	37	258
		SD	617	538	43	302	523
		Q1	104	37	0	7	166
		Q3	871	524	9	195	929
	Healthy (n=68)	**Mean**	389	227	3	65	414
		Median	228	105	0	14	238
		SD	431	362	9	123	501
		Q1	83	37	0	0	49
		Q3	556	300	0	51	536
European Head SAR (Mean = 0.86 W/kg)	**Above average (n=50)**	**Mean**	507	301	6	101	515
		Median	294	103	0	26	302
		SD	531	487	24	199	548
		Q1	126	44	0	7	78
		Q3	791	341	0	74	811
	Below average (n=33)	**Mean**	266	165	2	54	306
		Median	170	83	0	10	170
		SD	296	164	7	104	403
		Q1	76	24	0	0	31
		Q3	361	296	0	45	458

Radar Plots showing the bacterial charges across the 15 selected user's demographics and devices characteristics

Figure S1: Radar plot for Gender

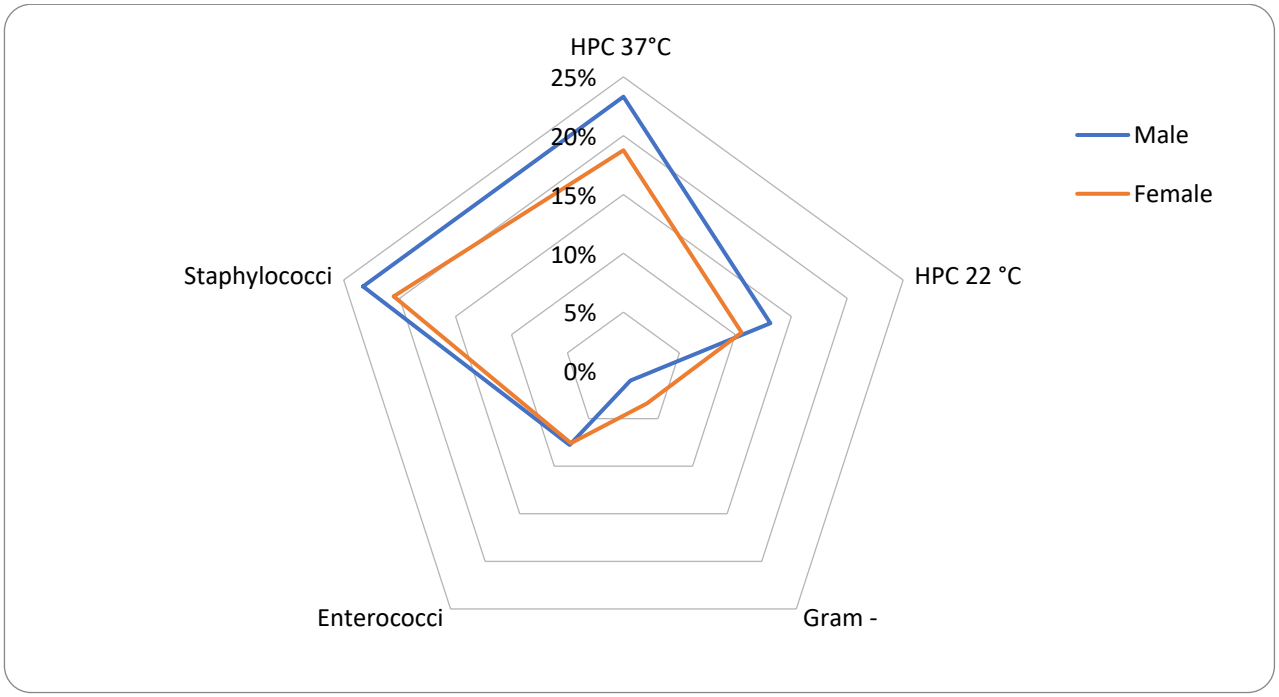


Figure S2: Radar plot for User's Age

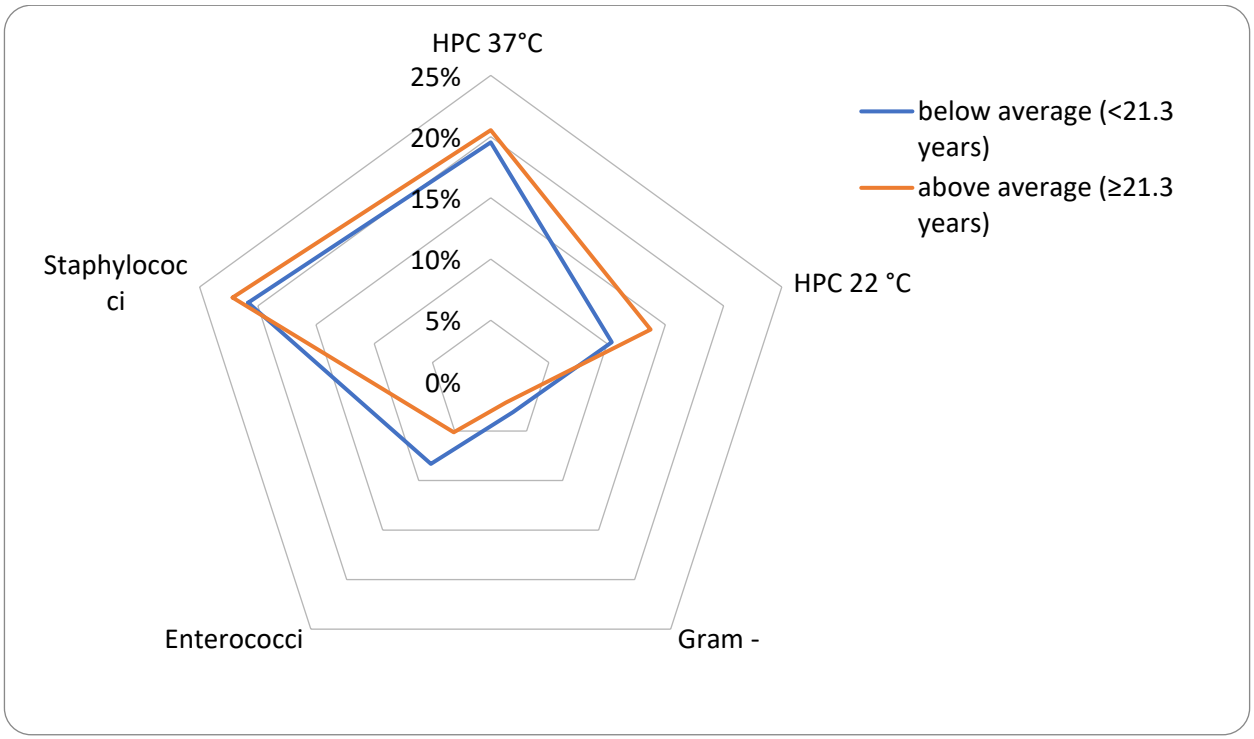


Figure S3: Radar plot for Place of training

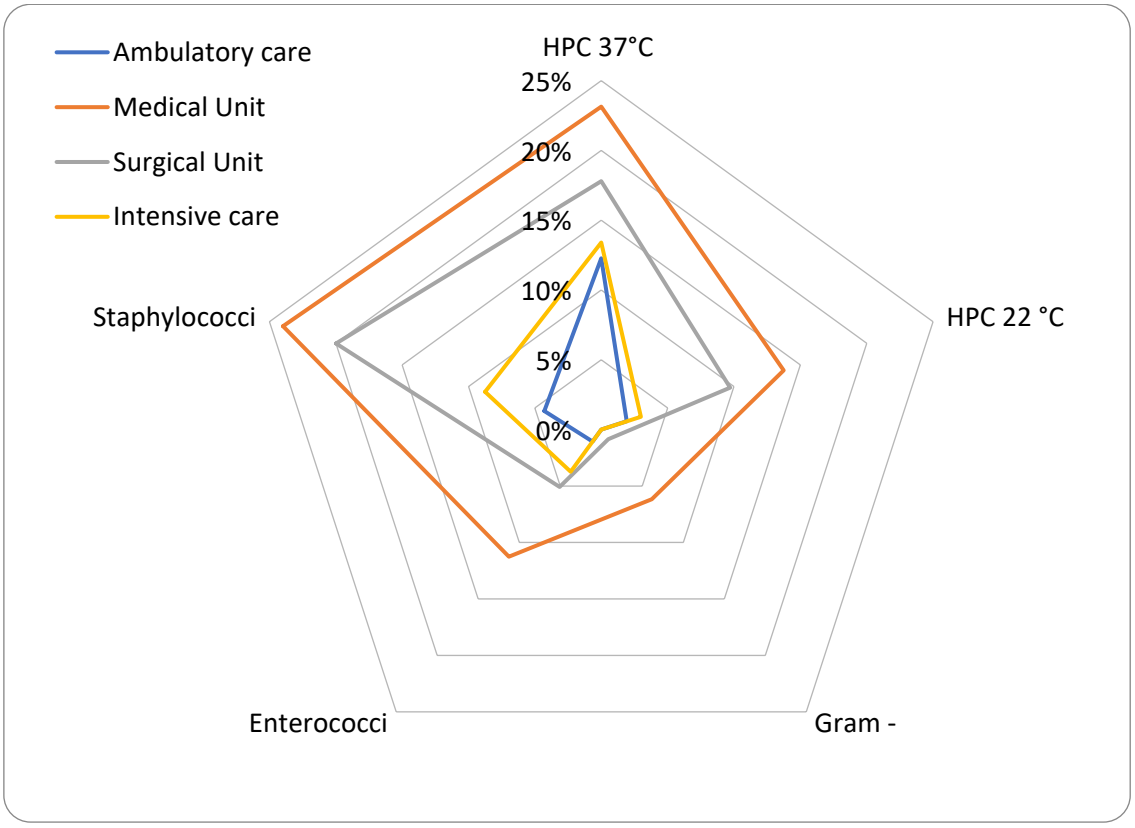


Figure S4: Radar plot for Training frequency

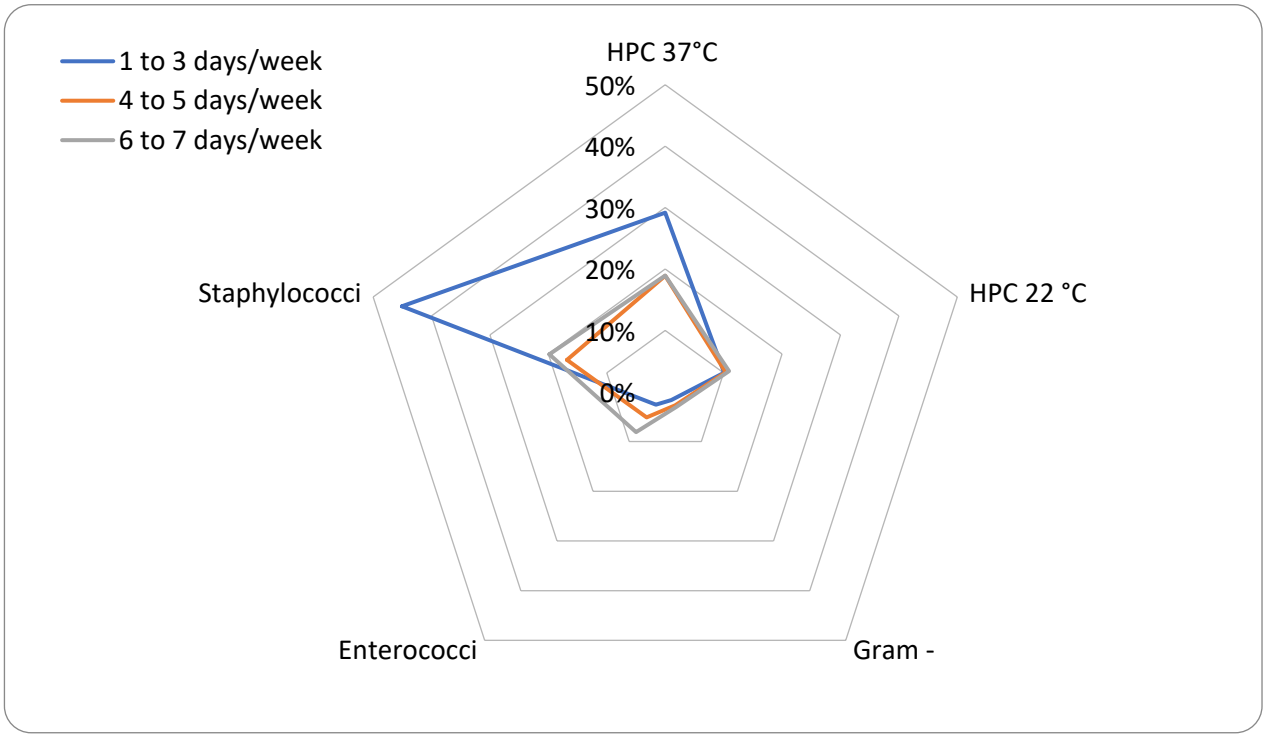


Figure S5: Radar plot for European Head SAR

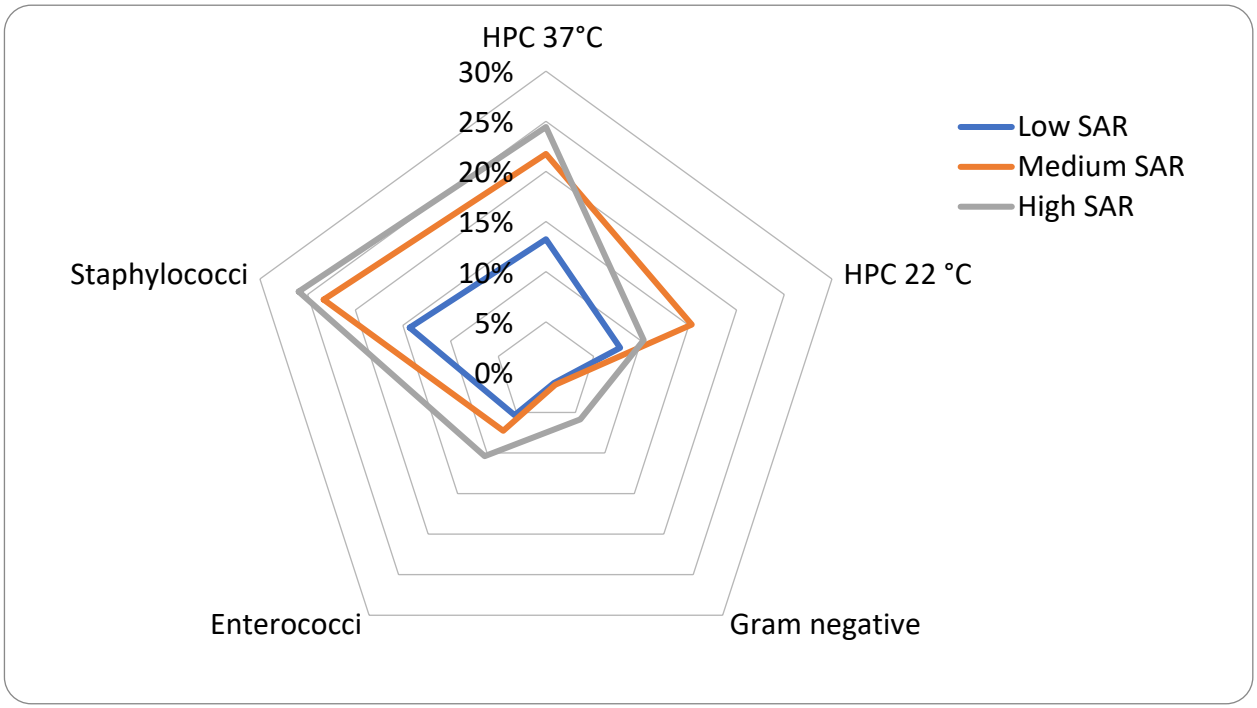


Figure S6: Radar plot for Smartphone age

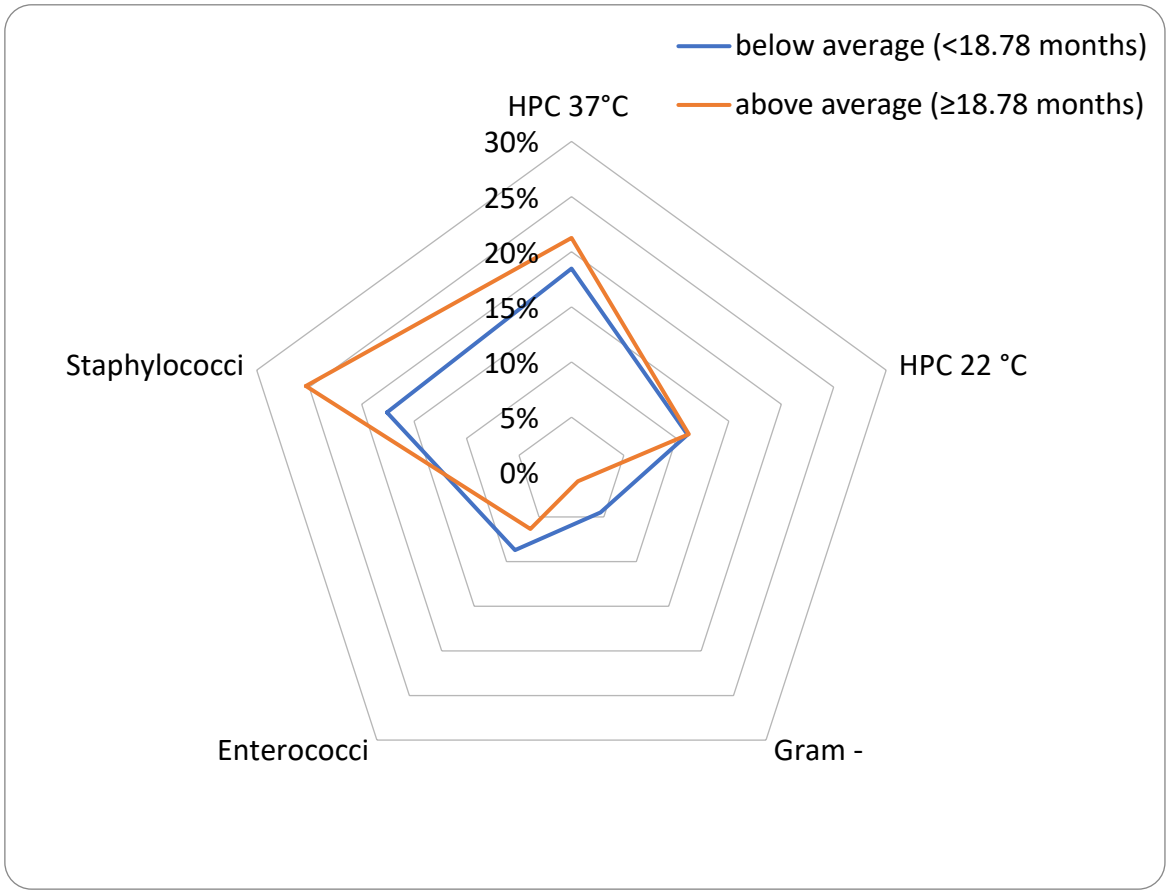


Figure S7: Radar plot for Cover type

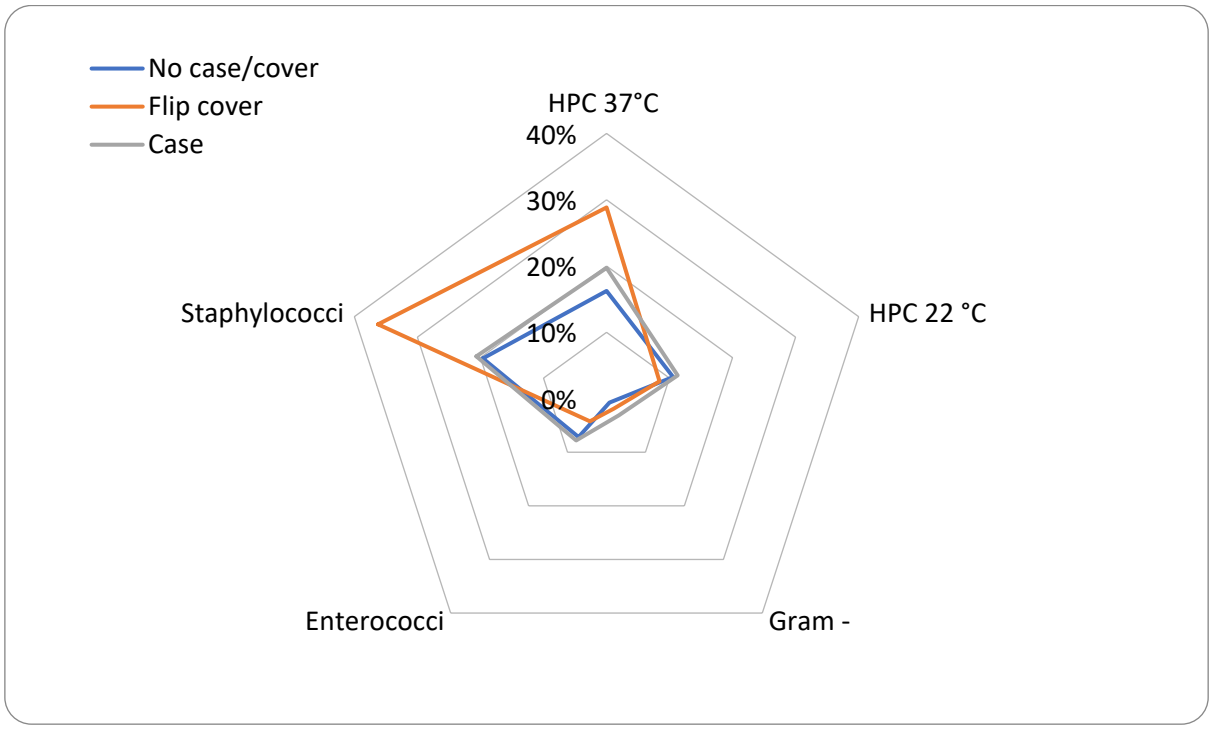


Figure S8: Radar plot for Screen protector

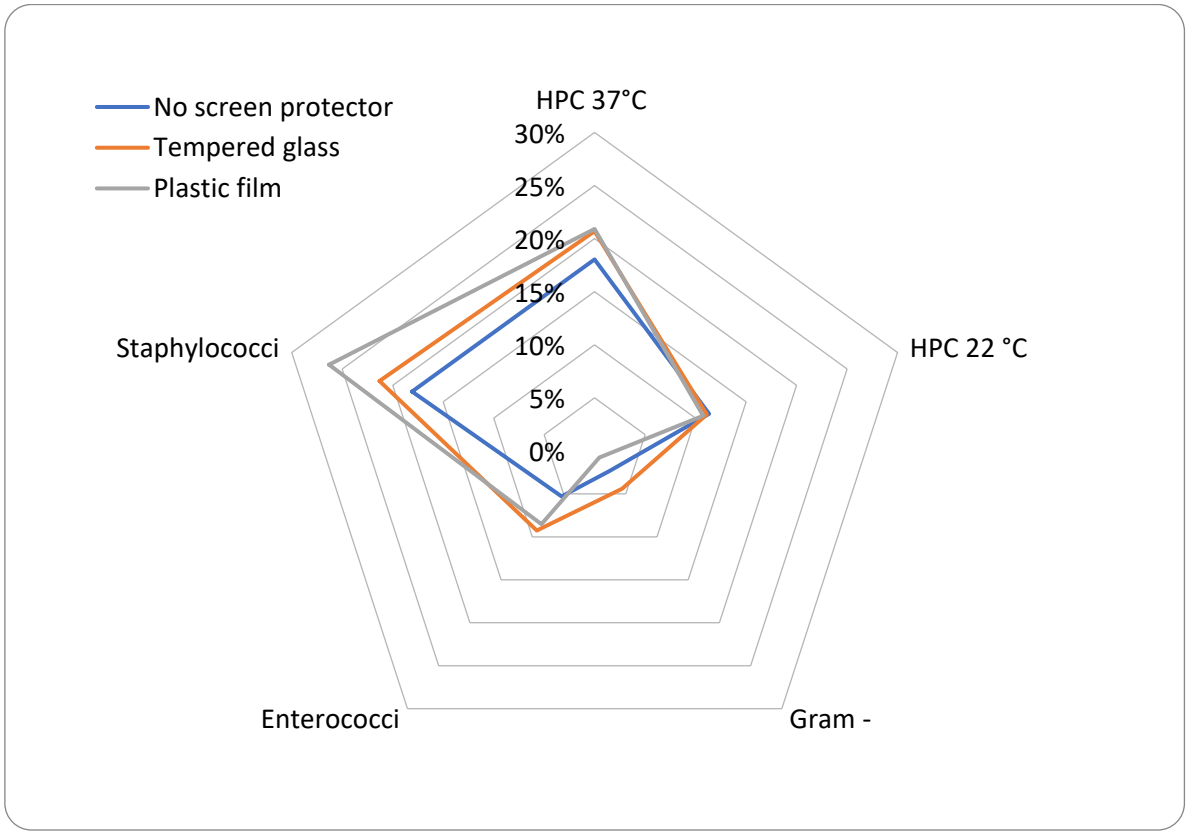


Figure S9: Radar plot for Health status

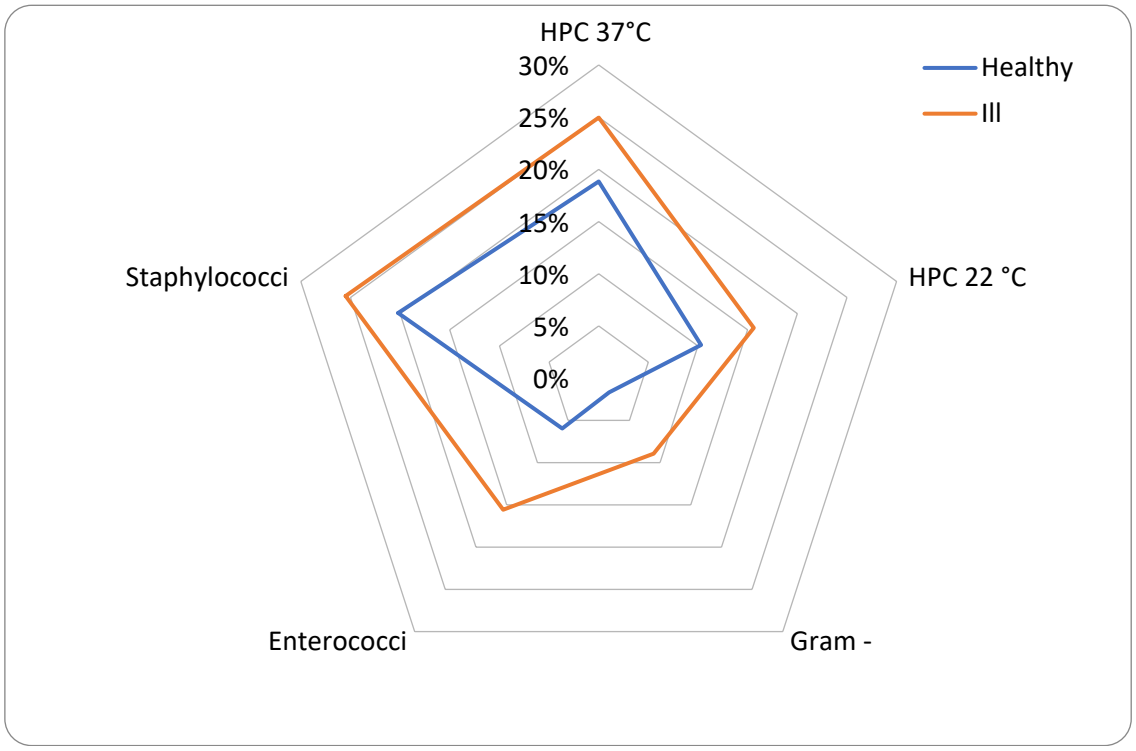


Figure S10: Radar plot for Cleaning frequency

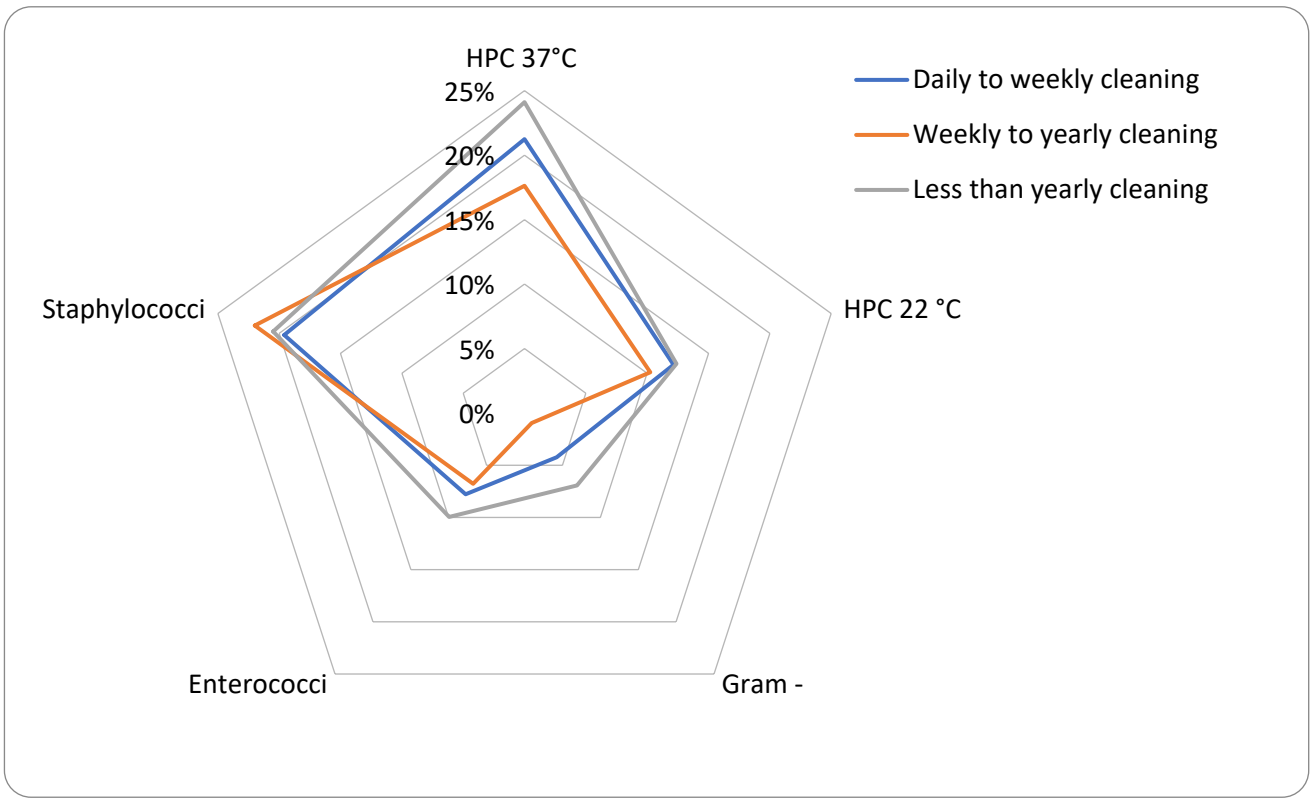


Figure S11: Radar plot for Cleaning method

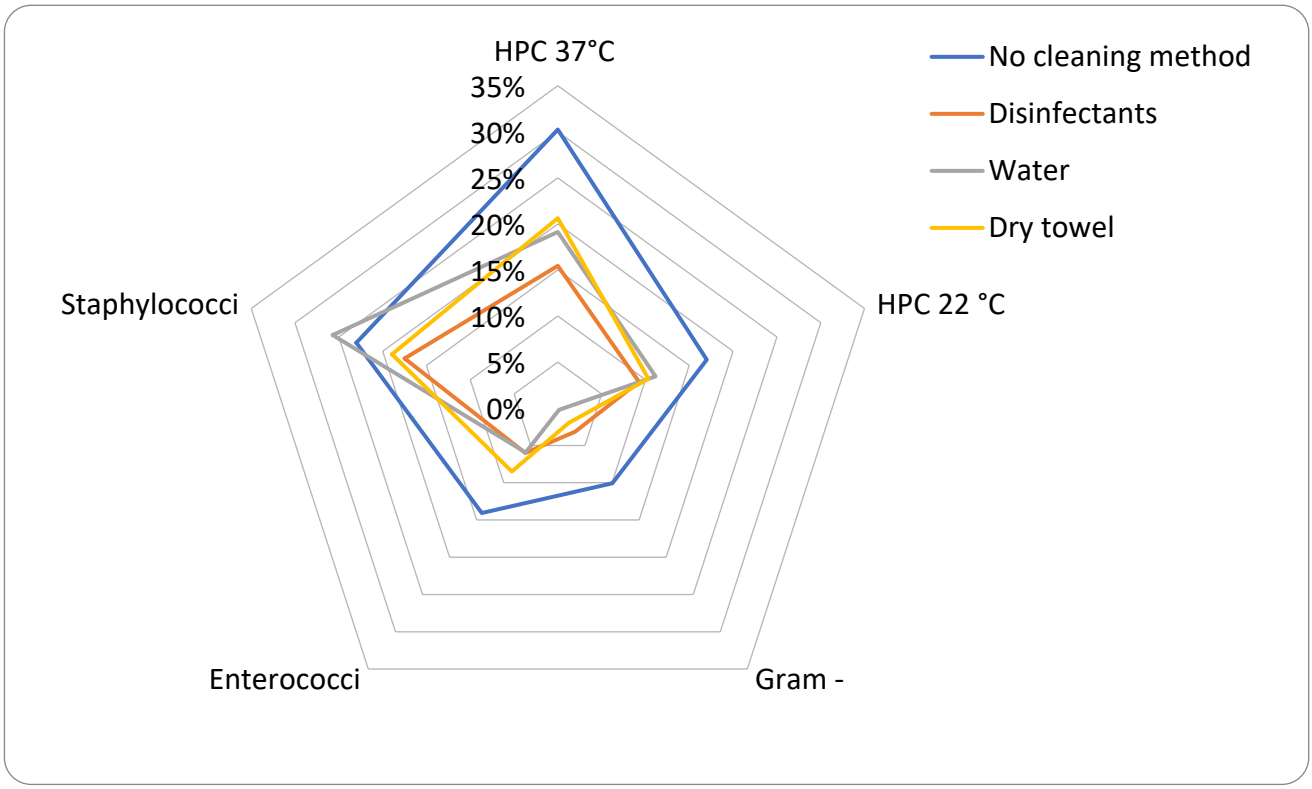


Figure S12: Radar plot for Last cleaning

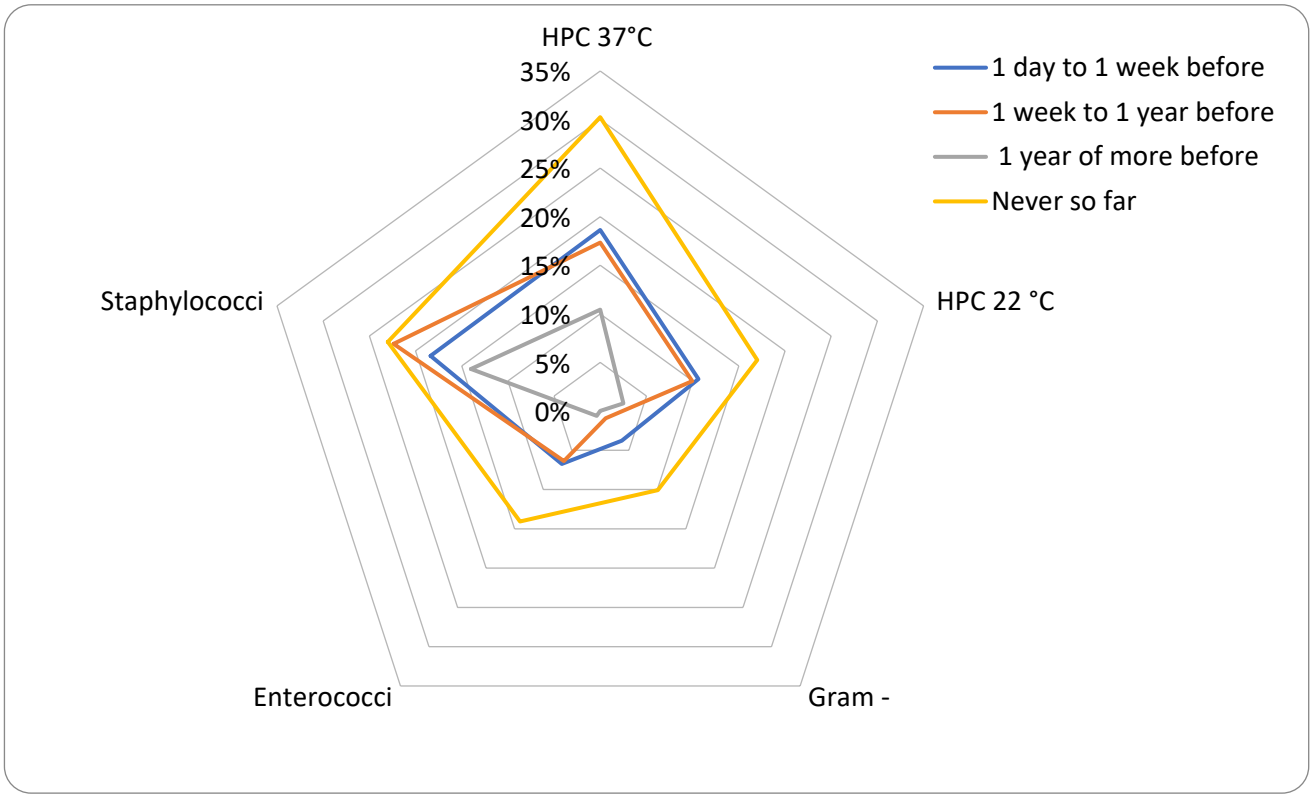


Figure S13: Radar plot for Use with gloves

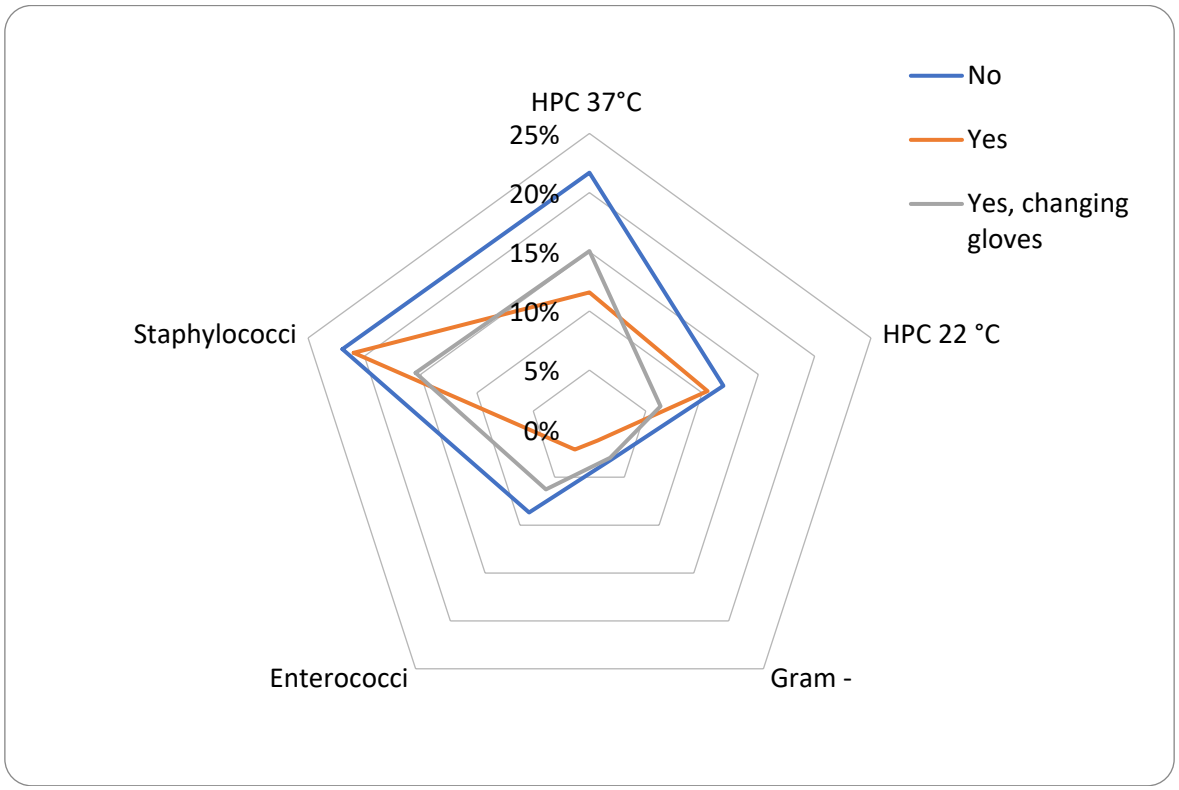


Figure S14: Radar plot for Usual means of transport

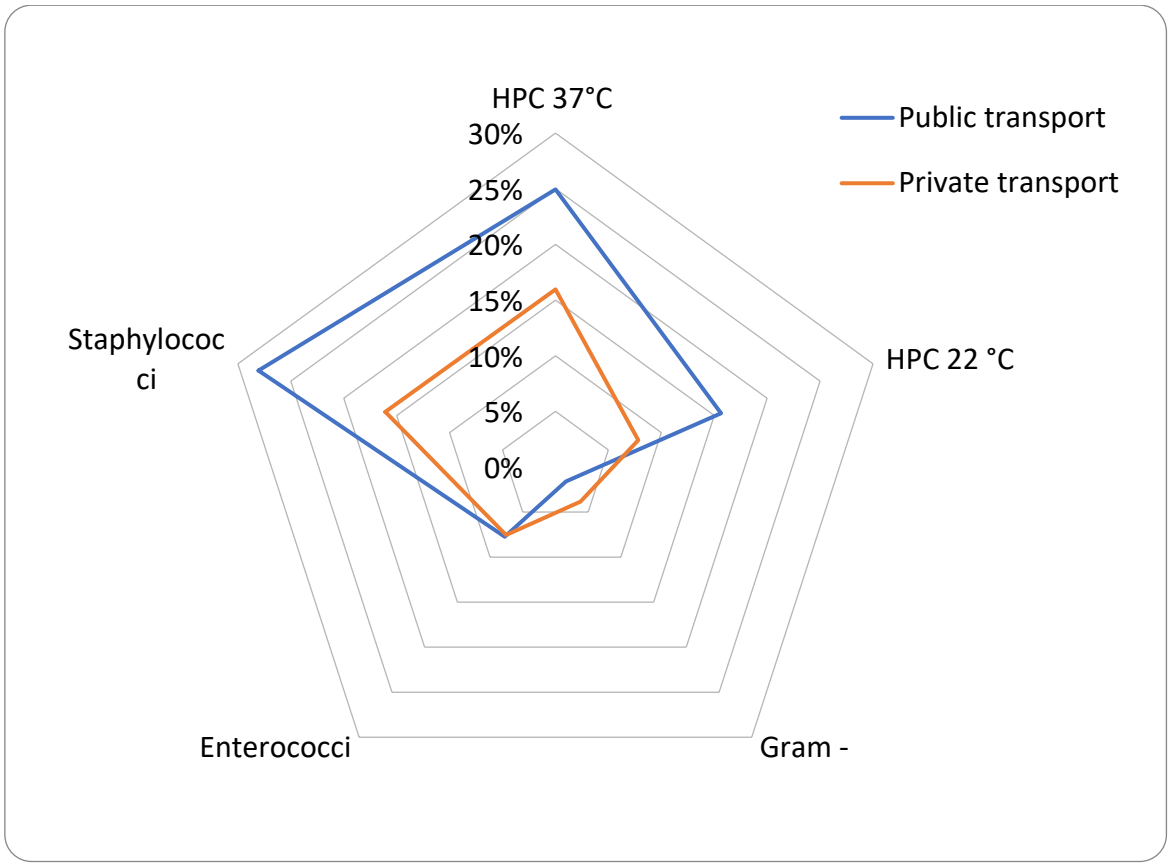
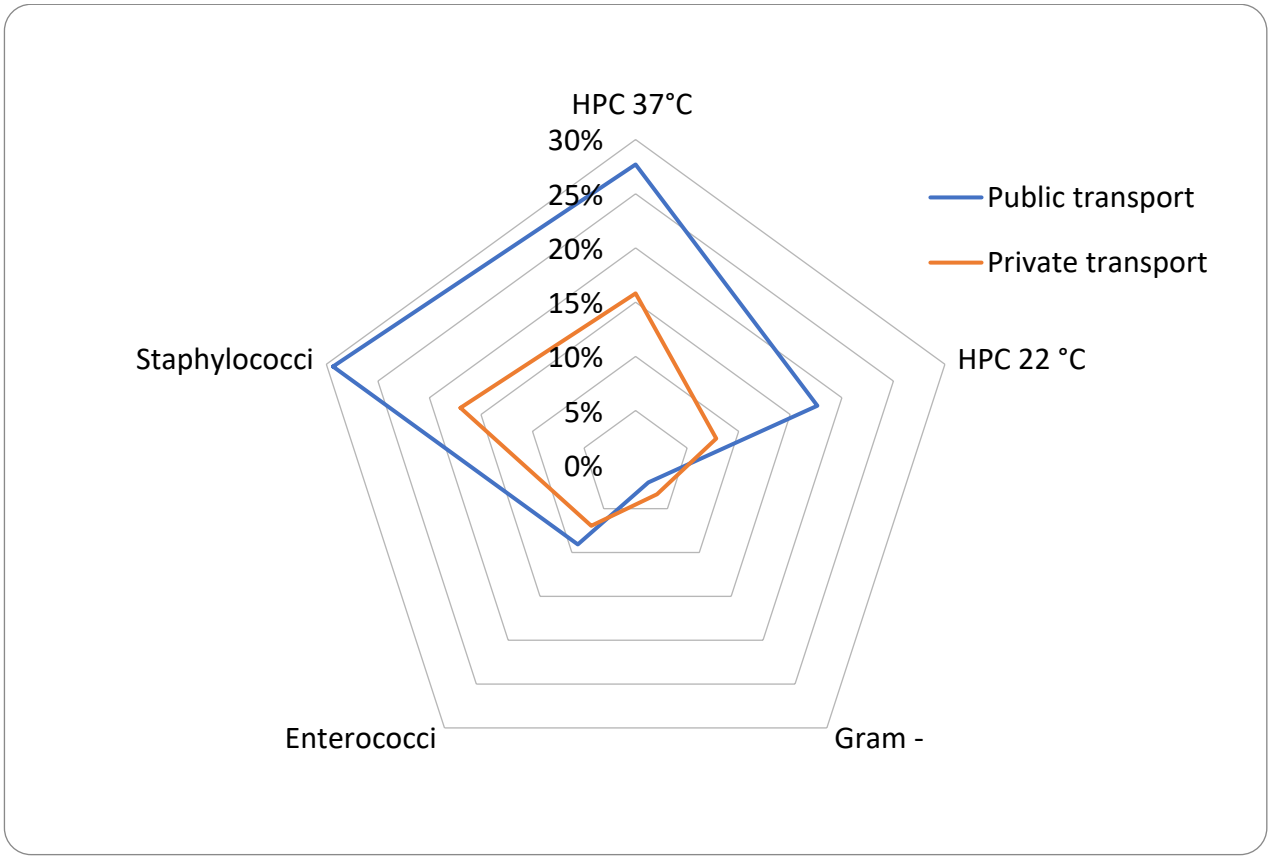


Figure S15: Radar plot for Means of transport in the day of sampling



Scatter Plots comparing mean HPCs 37 °C and HPCs 22 °C across the selected variables

Figure S16: HPCs 37 °C and HPCs 22 °C based on Age

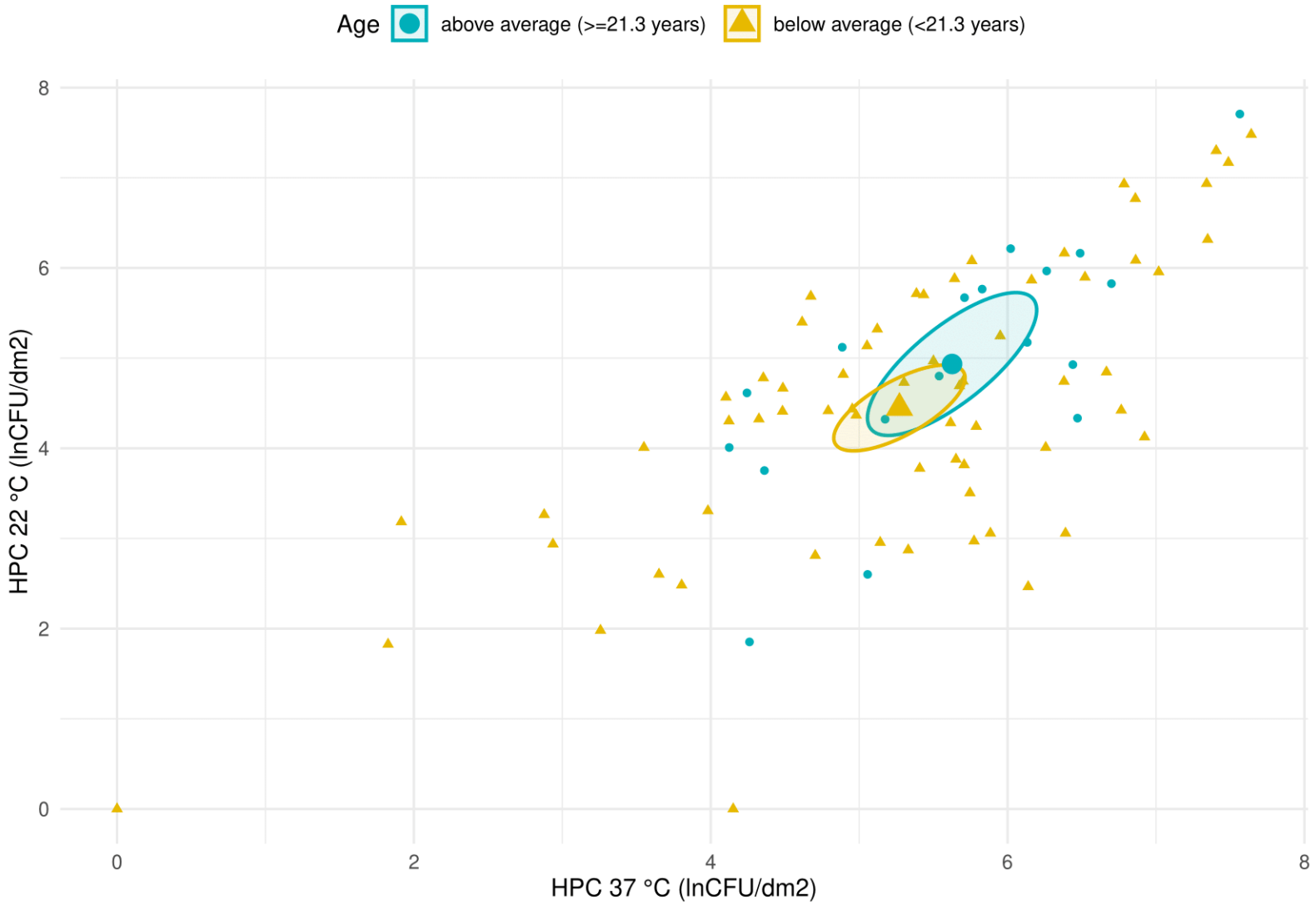


Figure S17: HPCs 37 °C and HPCs 22 °C based on Cleaning frequency

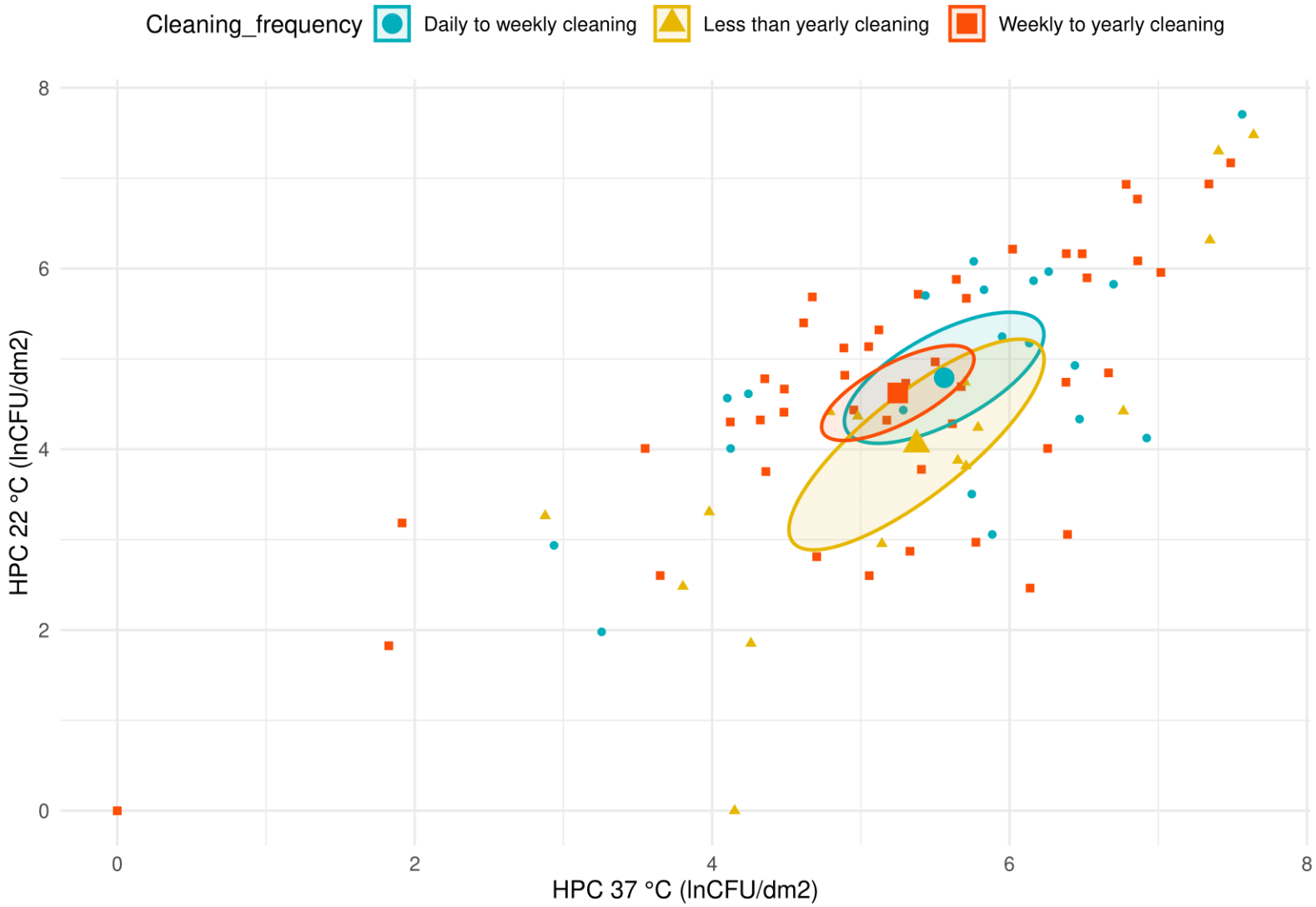


Figure S18: HPCs 37 °C and HPCs 22 °C based on Cleaning method

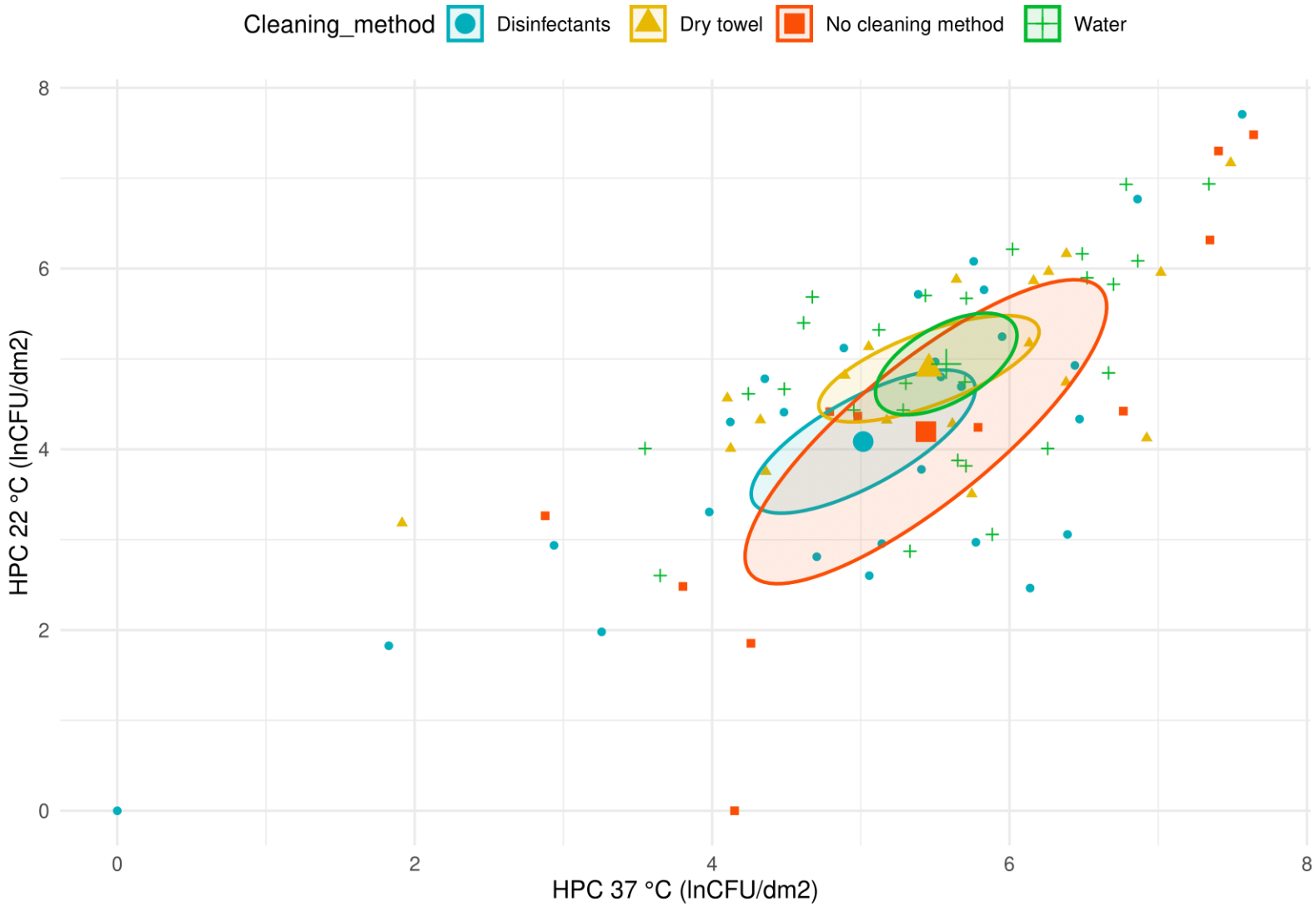


Figure S19: HPCs 37 °C and HPCs 22 °C based on Cover type

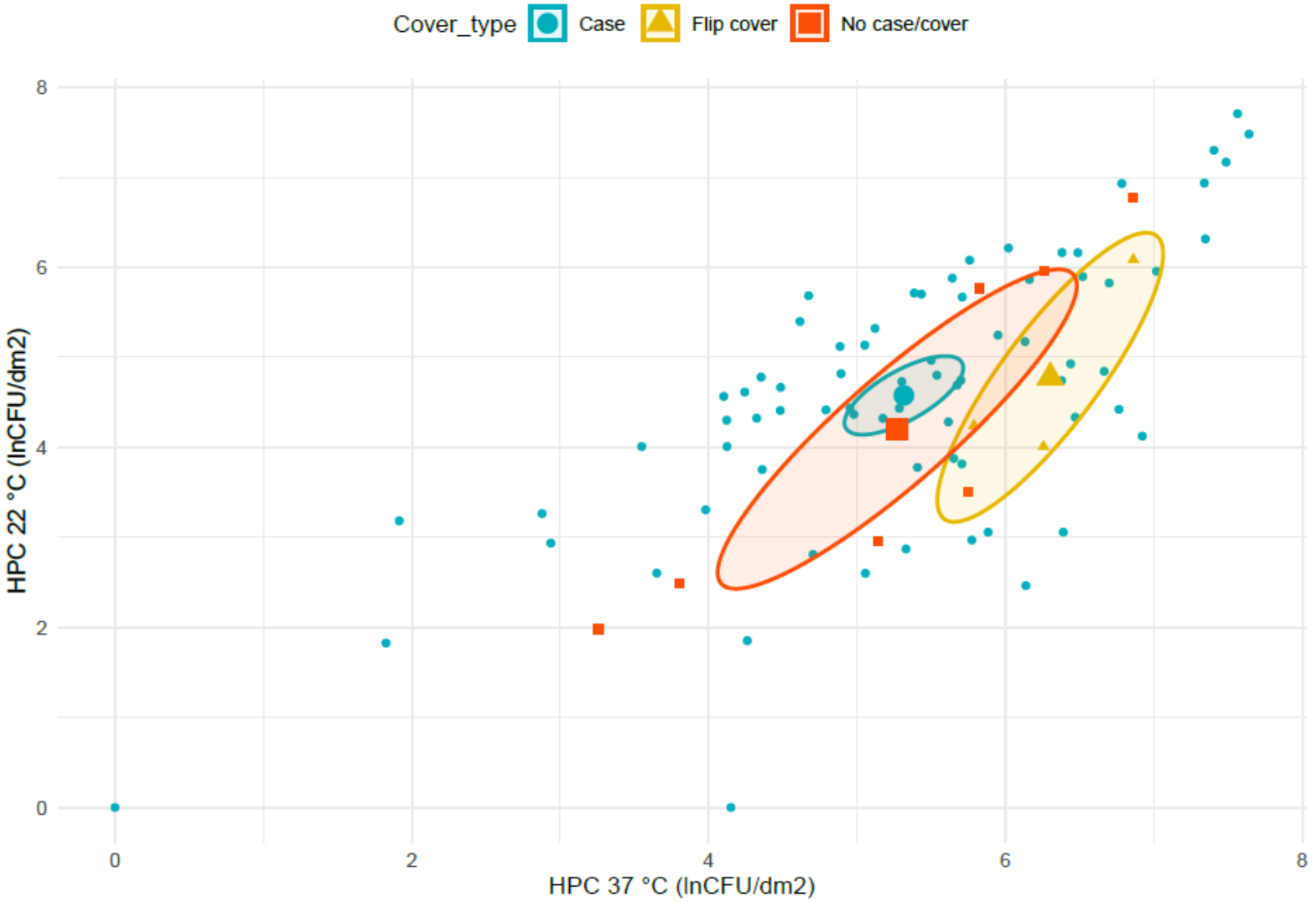


Figure S20: HPCs 37 °C and HPCs 22 °C based on European Head SAR (W/kg)

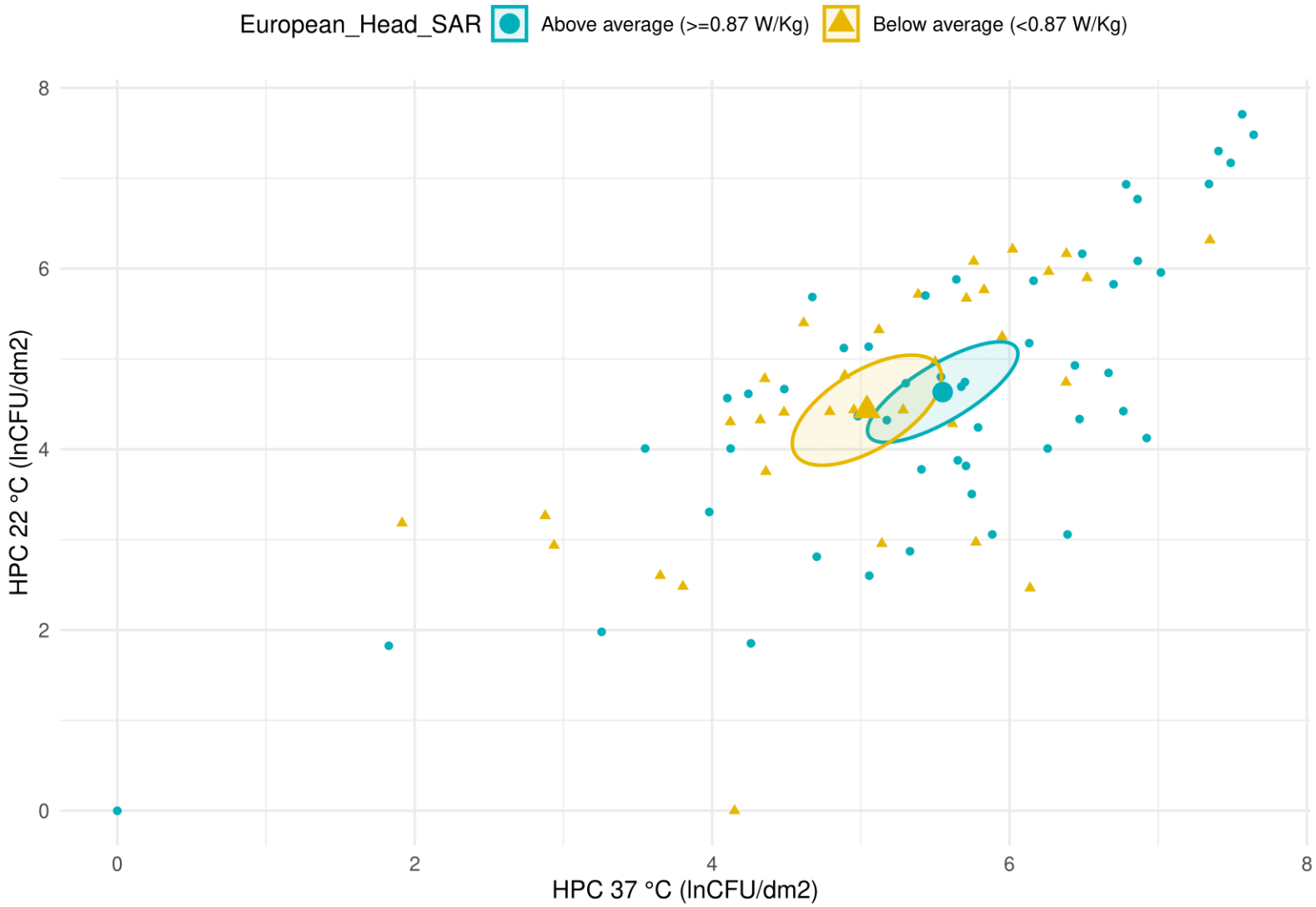


Figure S21: HPCs 37 °C and HPCs 22 °C based on Gender

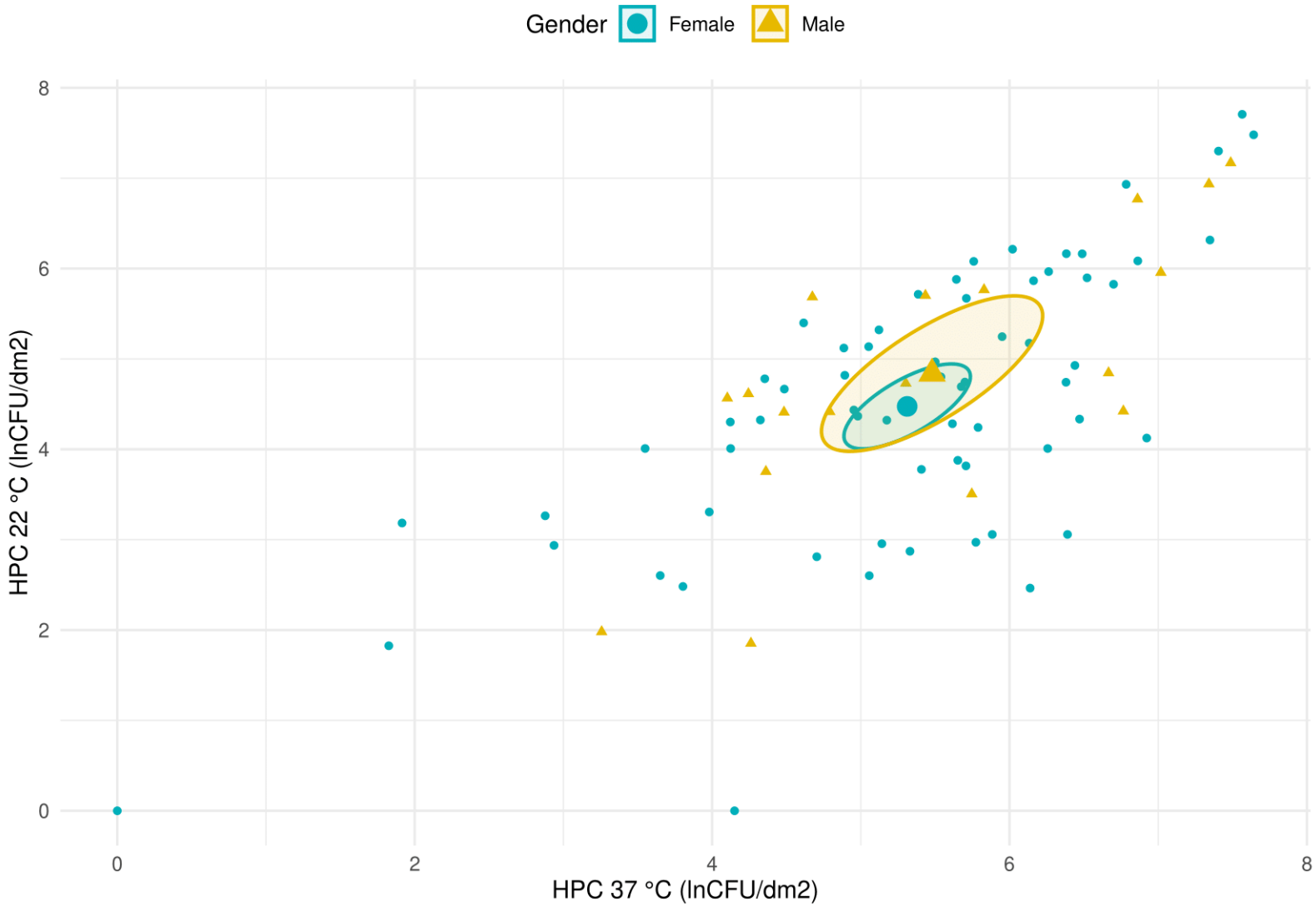


Figure S22: HPCs 37 °C and HPCs 22 °C based on Health Status

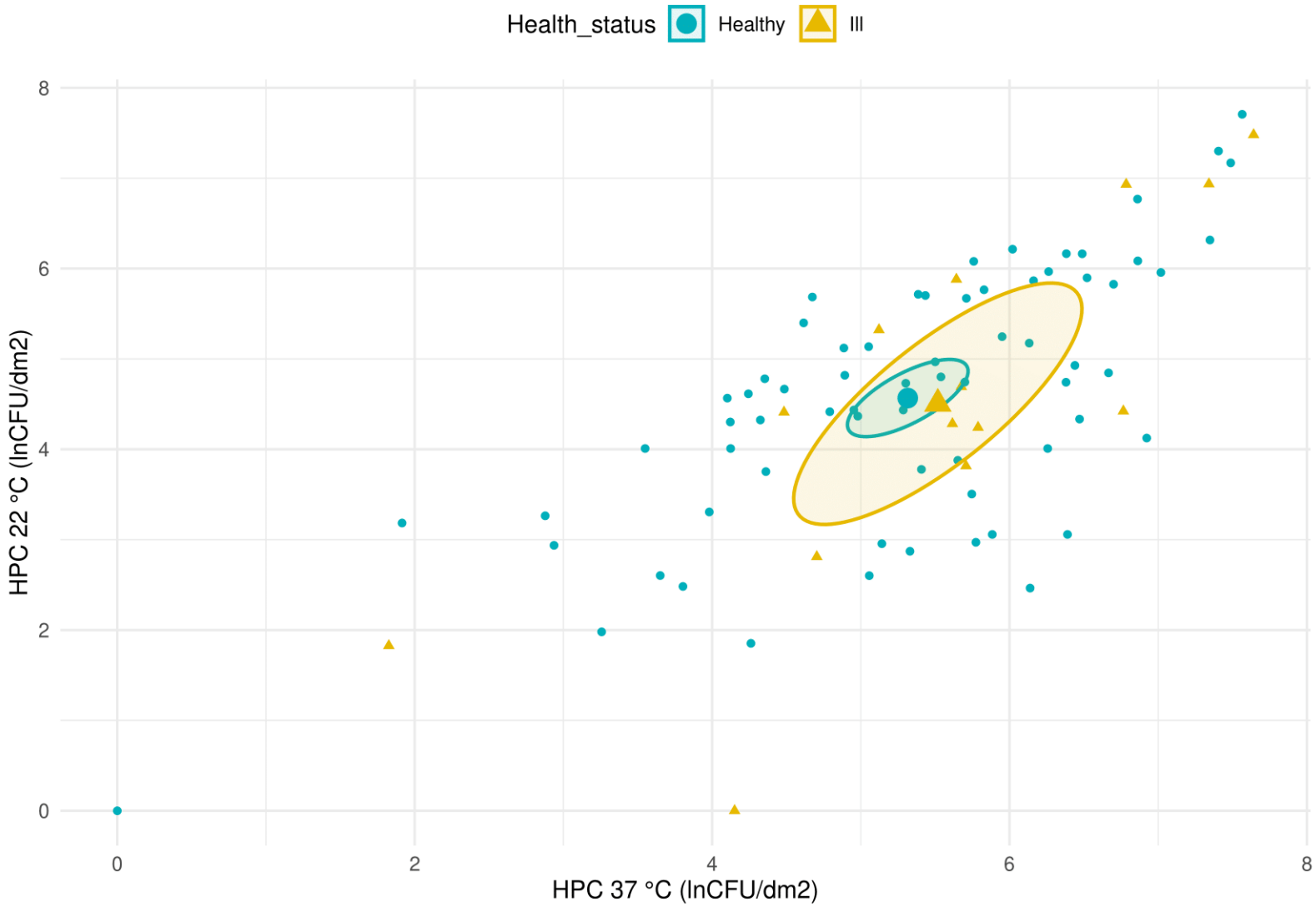


Figure S23: HPCs 37 °C and HPCs 22 °C based on Last Cleaning

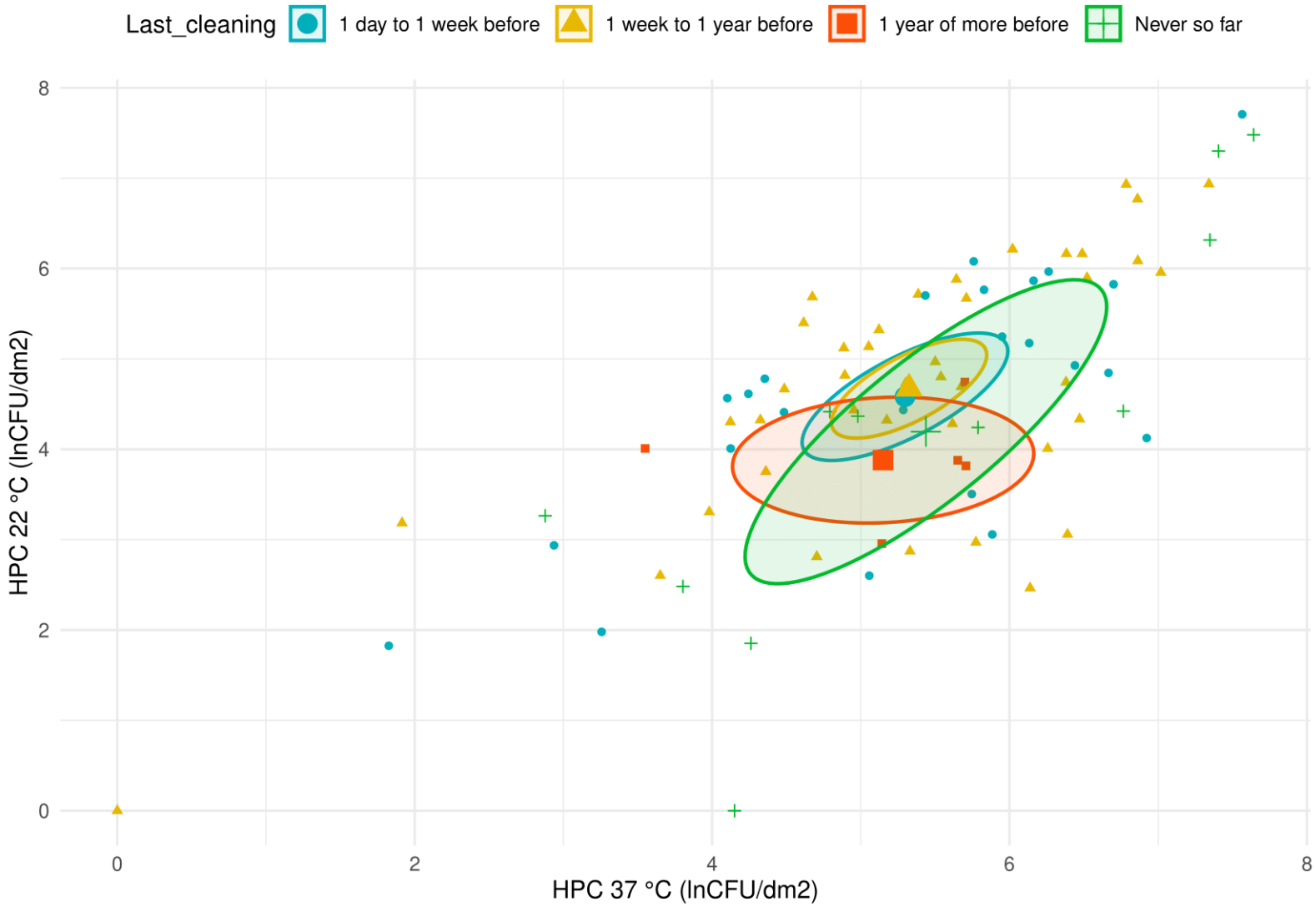


Figure S24: HPCs 37 °C and HPCs 22 °C based on Means of transport in the day of sampling

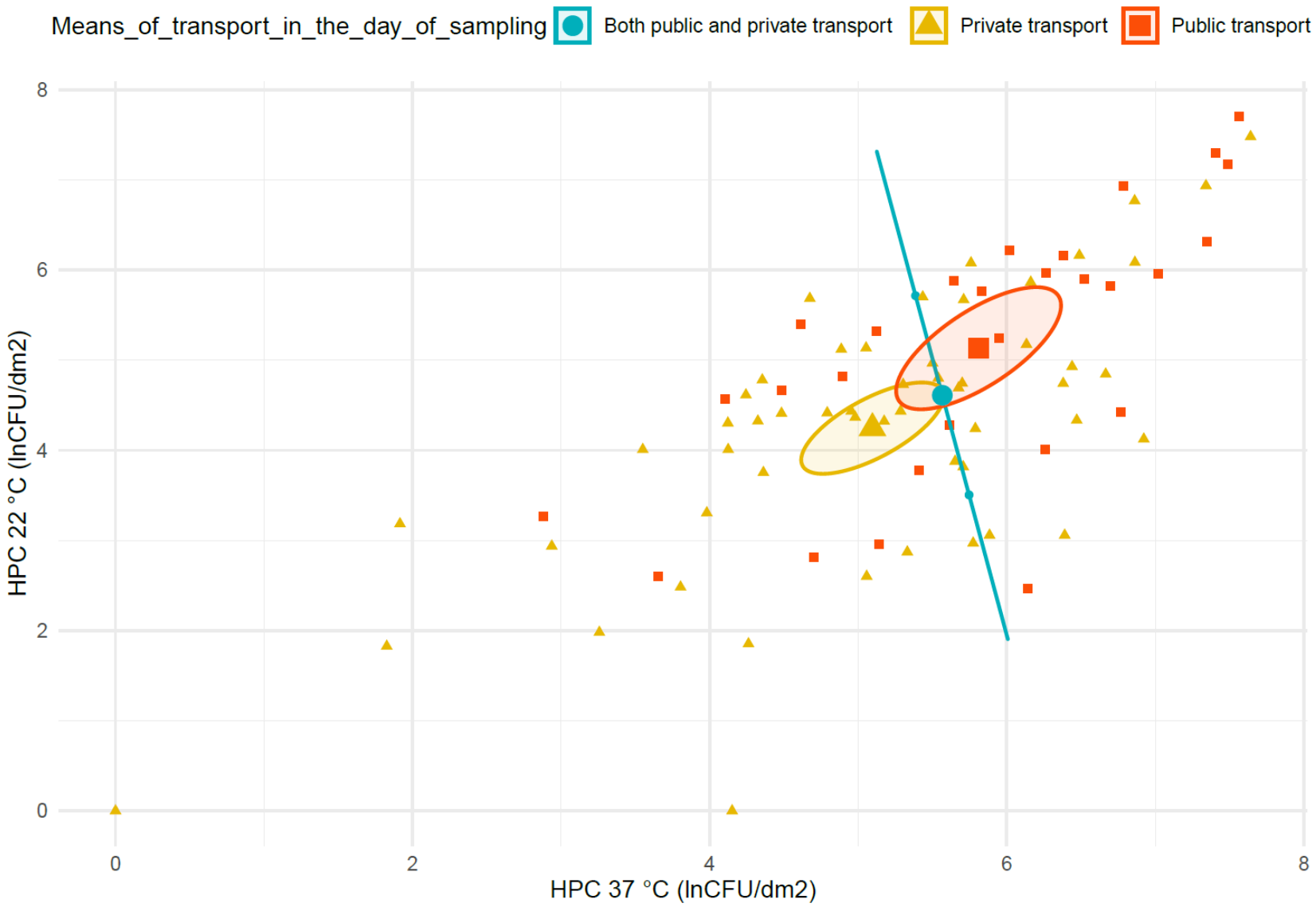


Figure S25: HPCs 37 °C and HPCs 22 °C based on Place of training

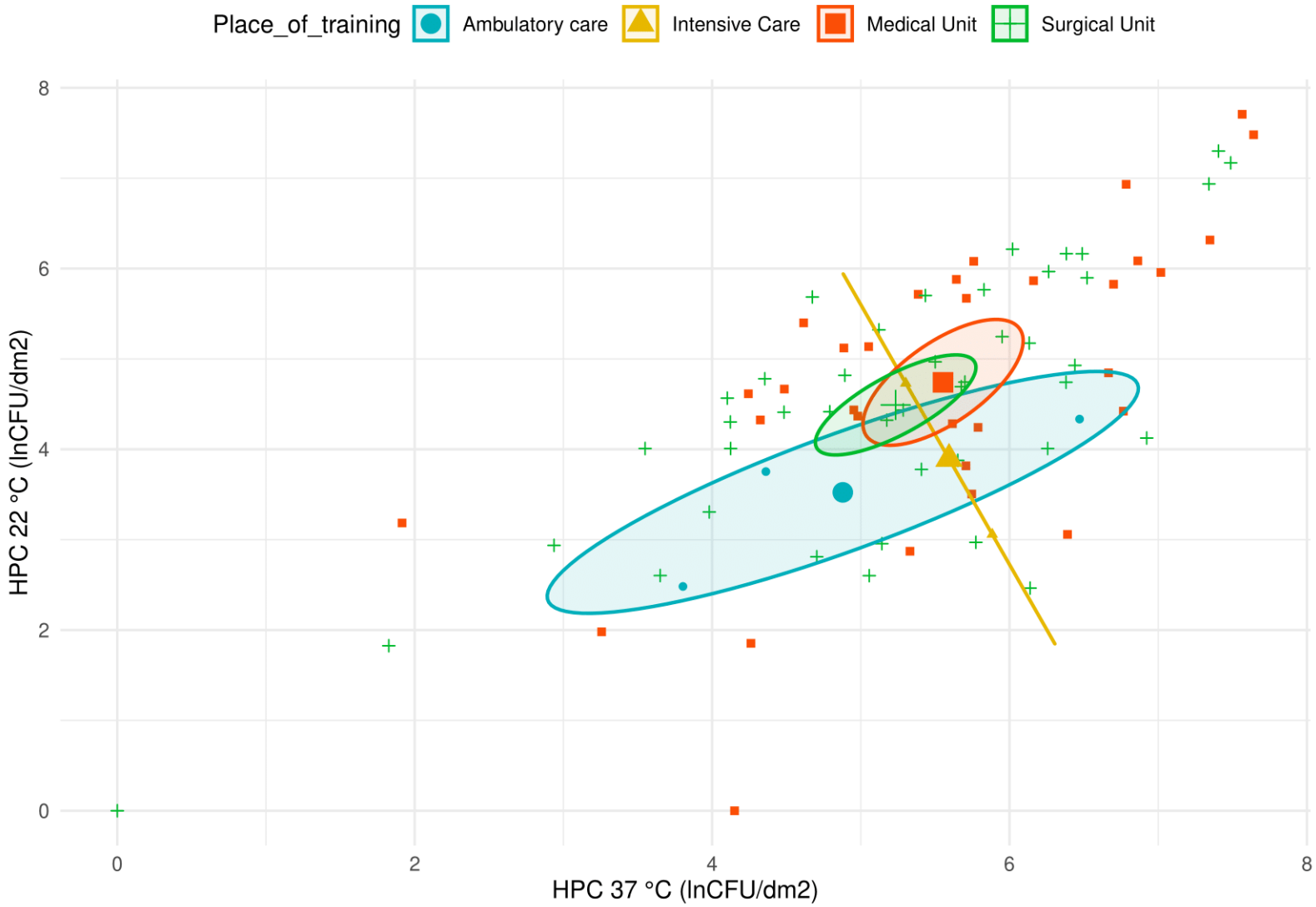


Figure S26: HPCs 37 °C and HPCs 22 °C based on Screen protector

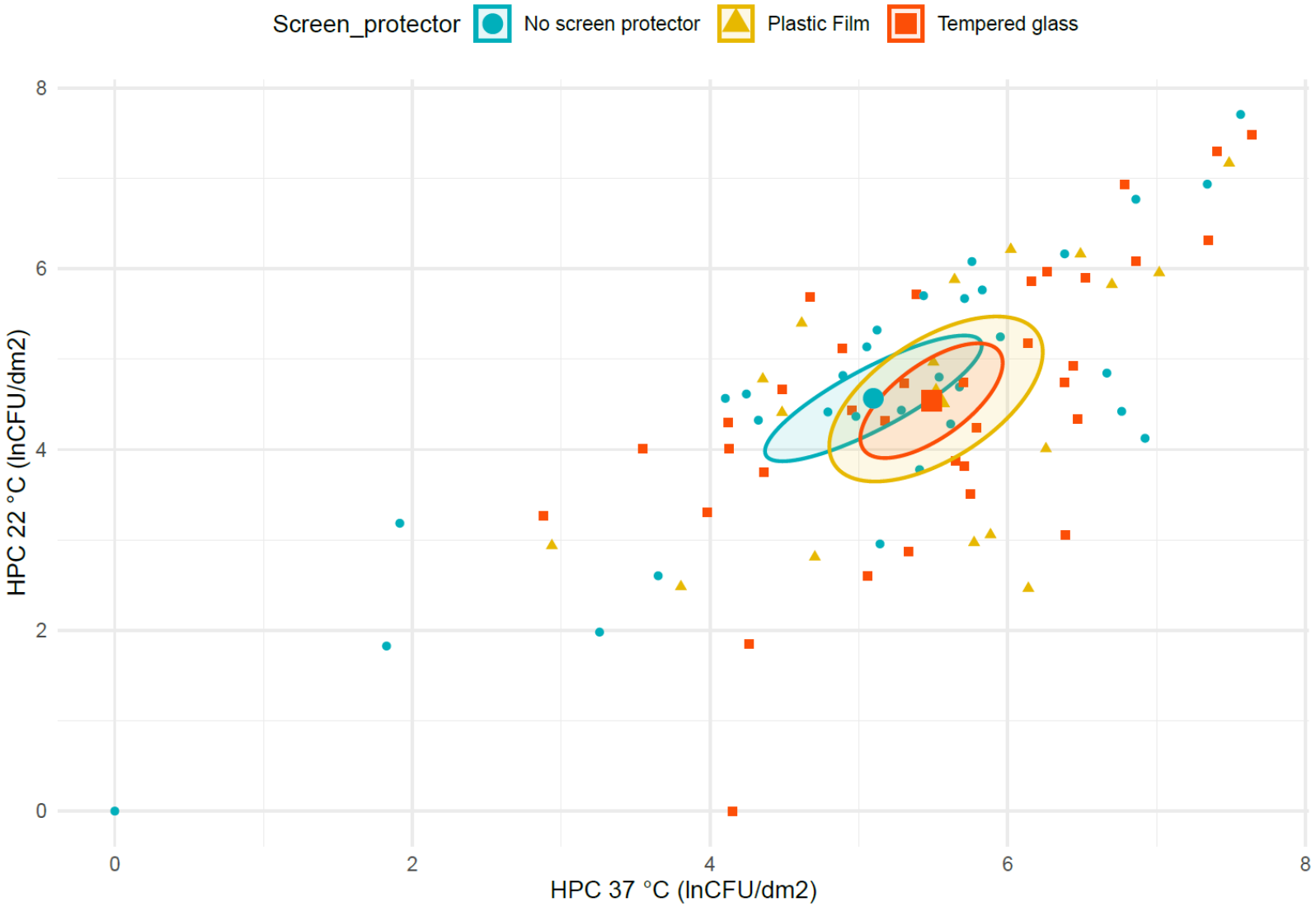


Figure S27: HPCs 37 °C and HPCs 22 °C based on Smartphone age

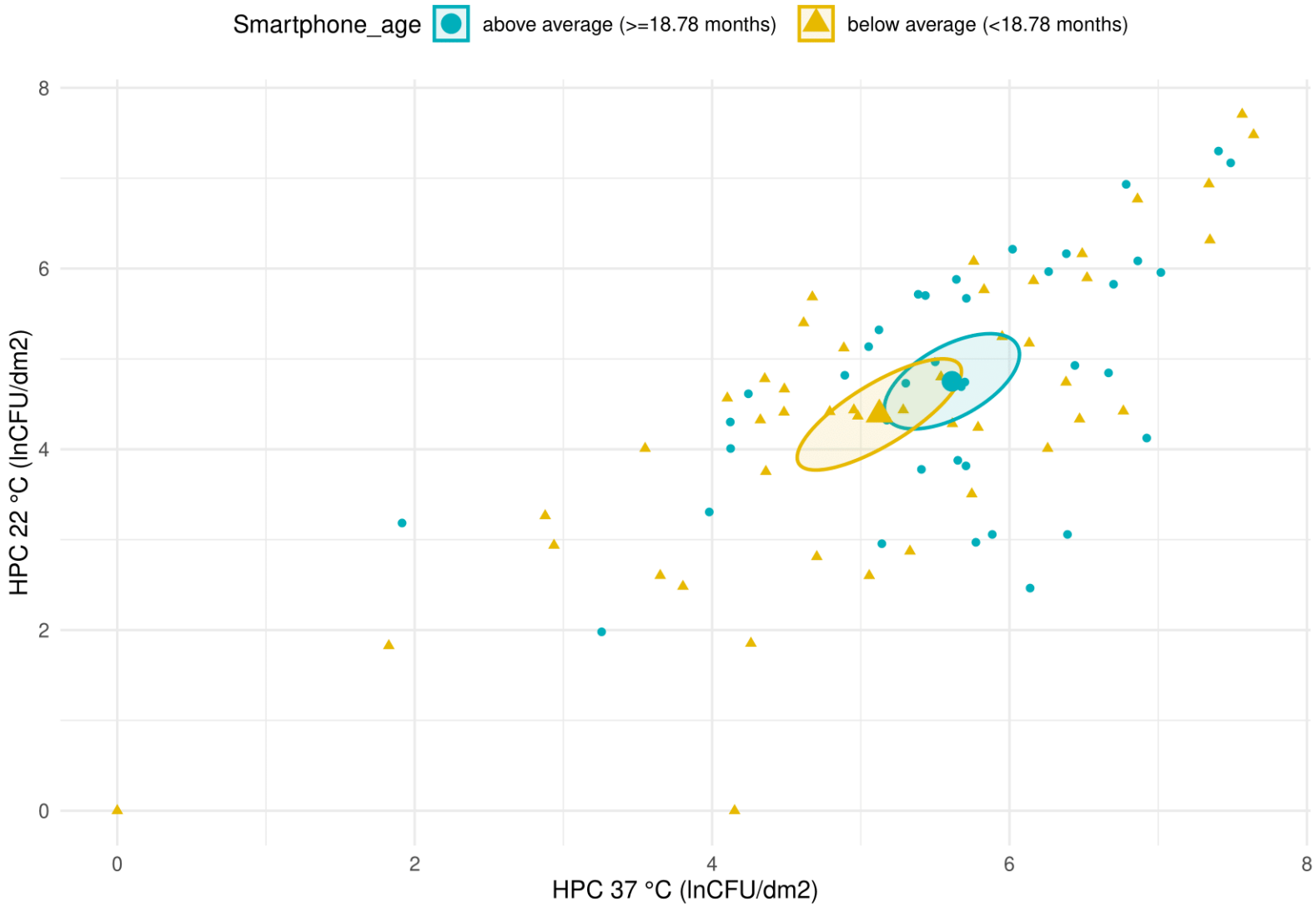


Figure S28: HPCs 37 °C and HPCs 22 °C based on Training frequency

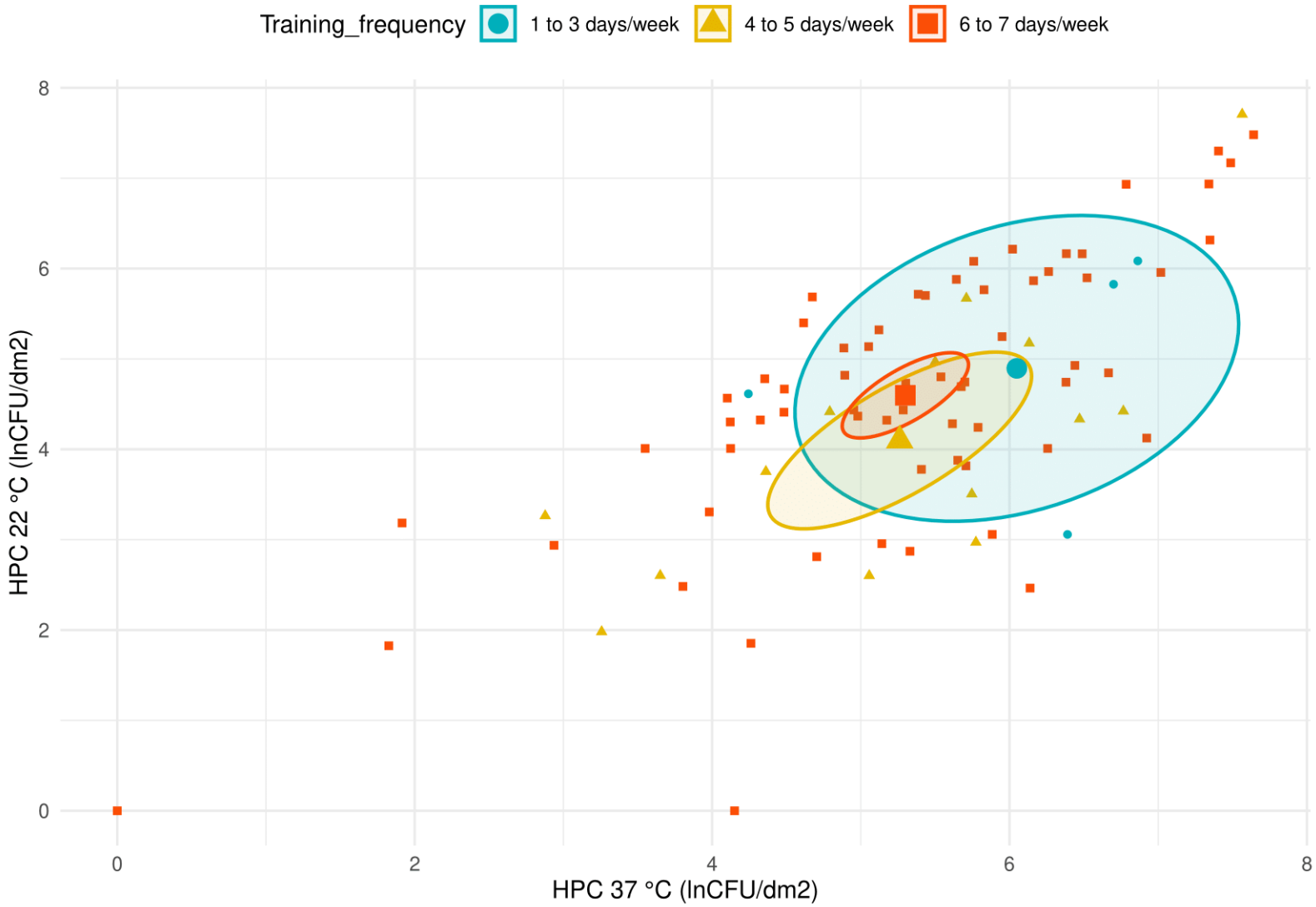


Figure S29: HPCs 37 °C and HPCs 22 °C based on Use with gloves

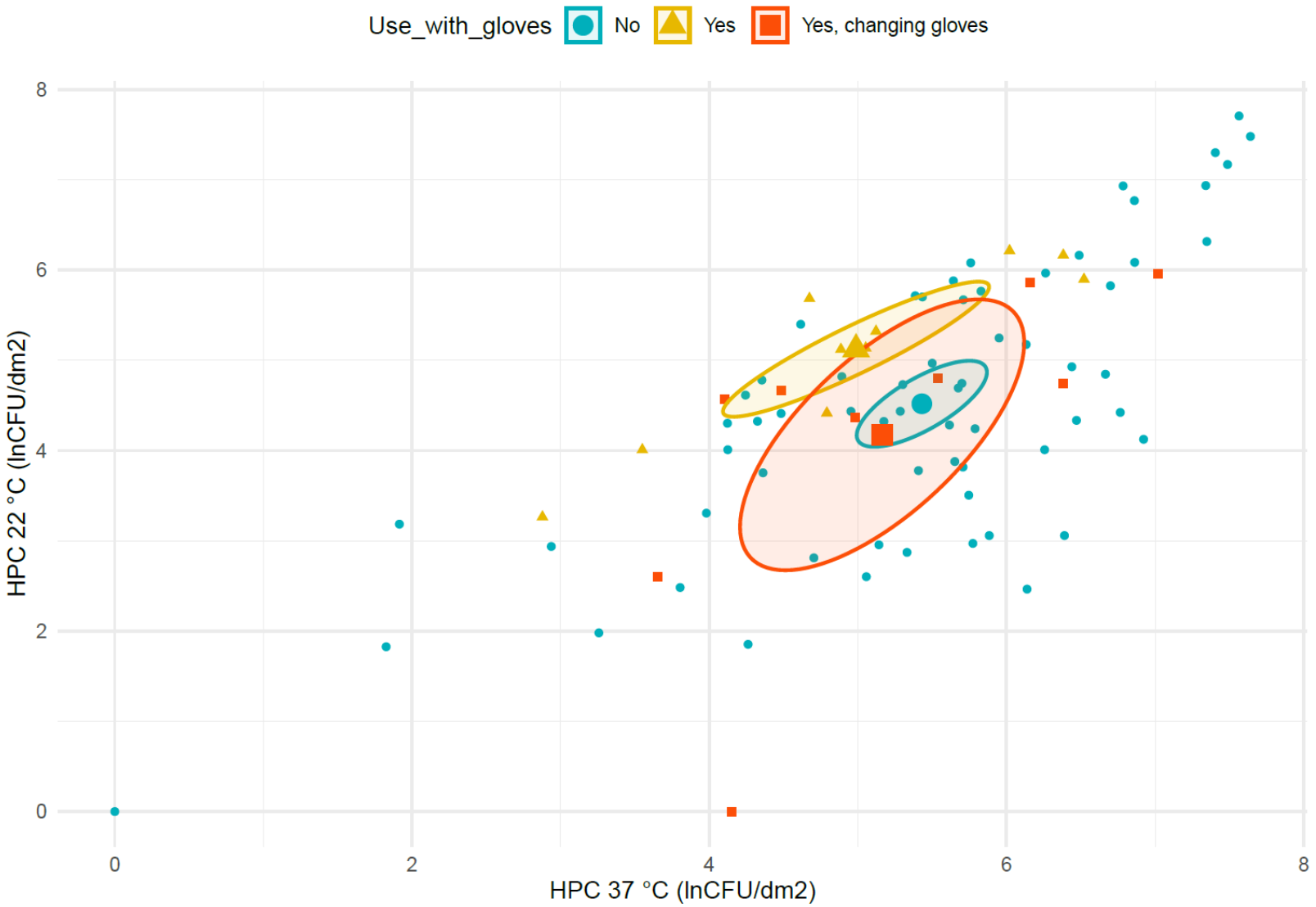
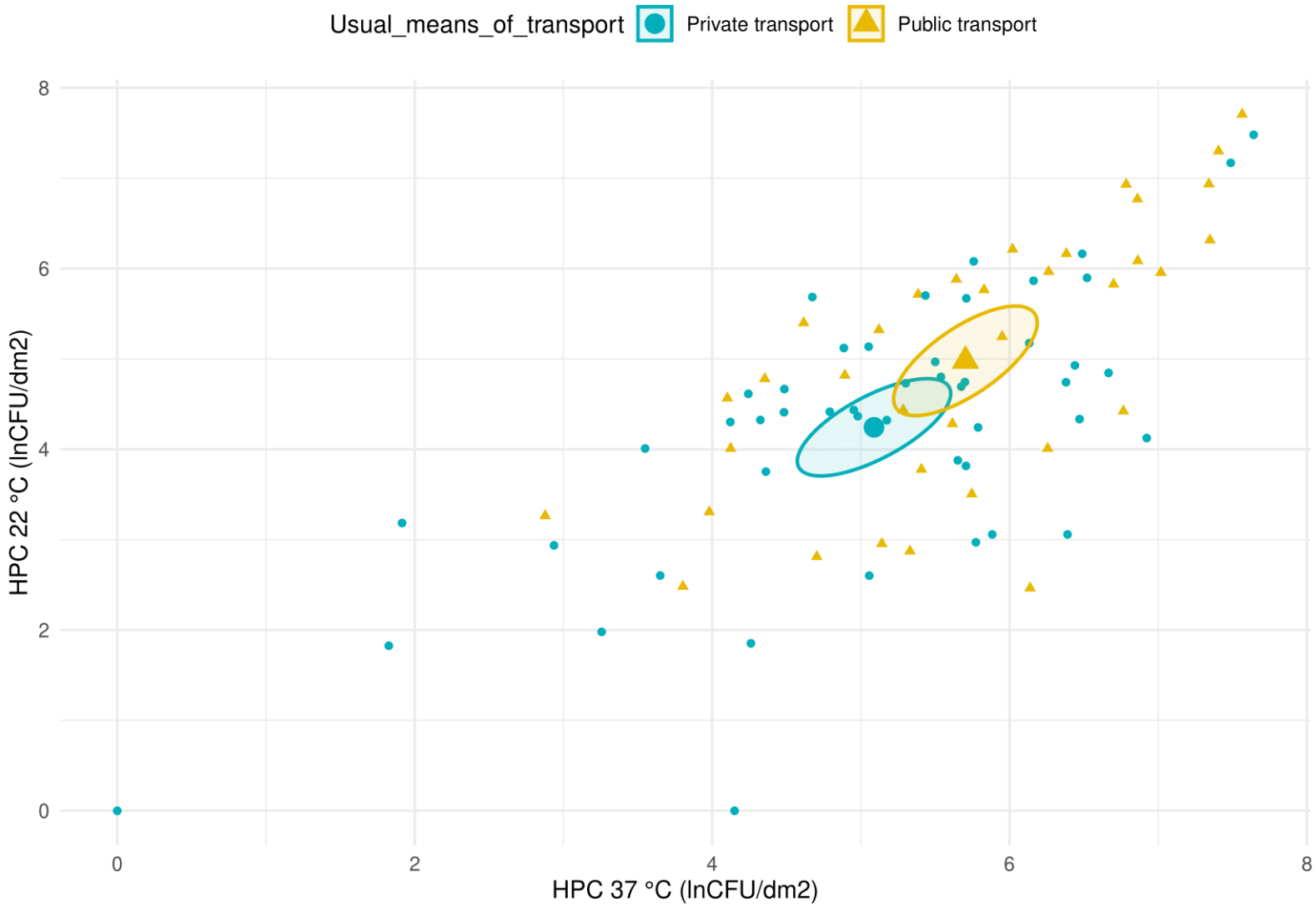


Figure S30: HPCs 37 °C and HPCs 22 °C based on Usual mean of transport



Scatter Plots comparing mean Staphylococci and Enterococci charges across the selected variables

Figure S31: mean Staphylococci and Enterococci charges based on Age

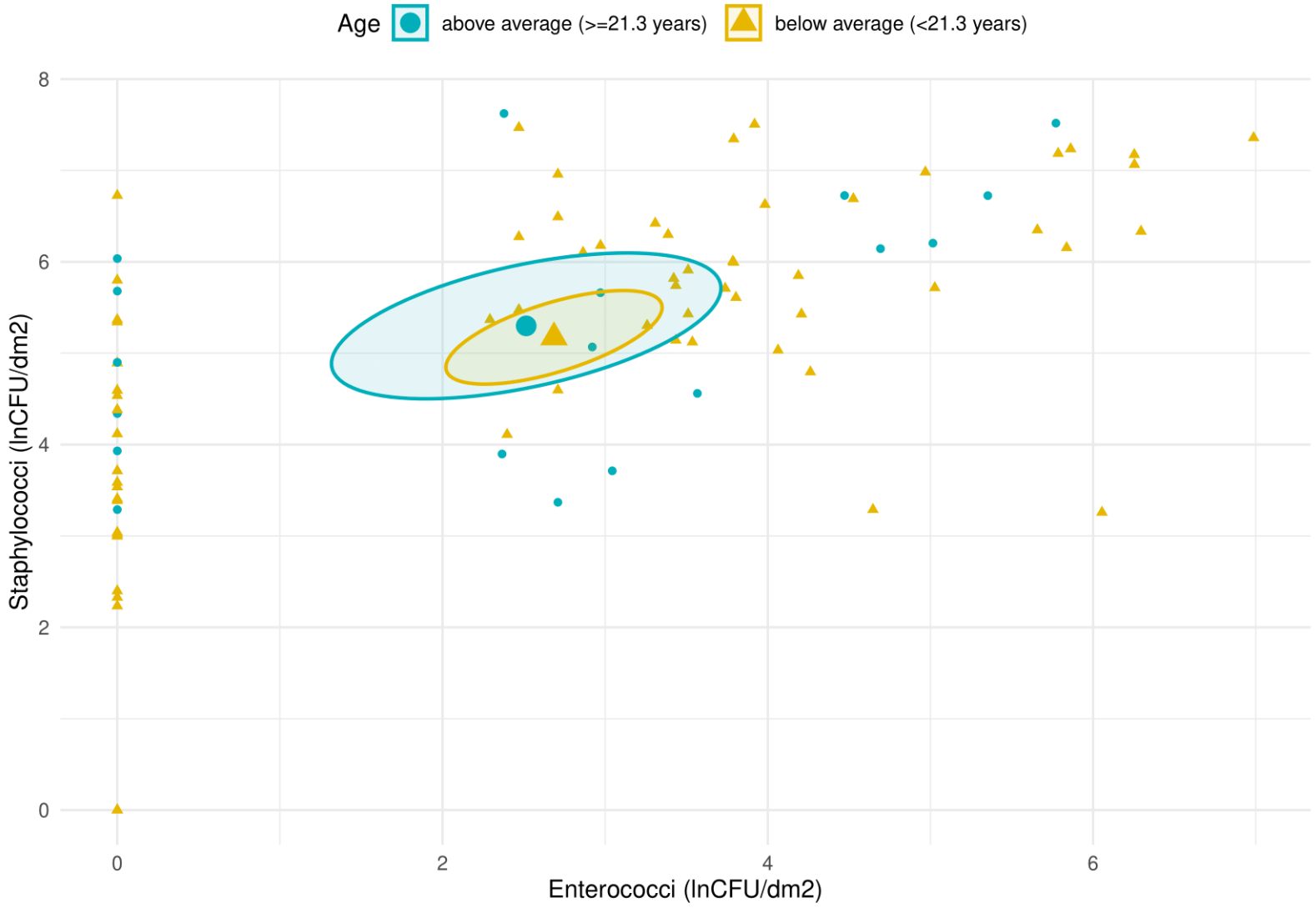


Figure S32: mean Staphylococci and Enterococci charges based on Cleaning frequency

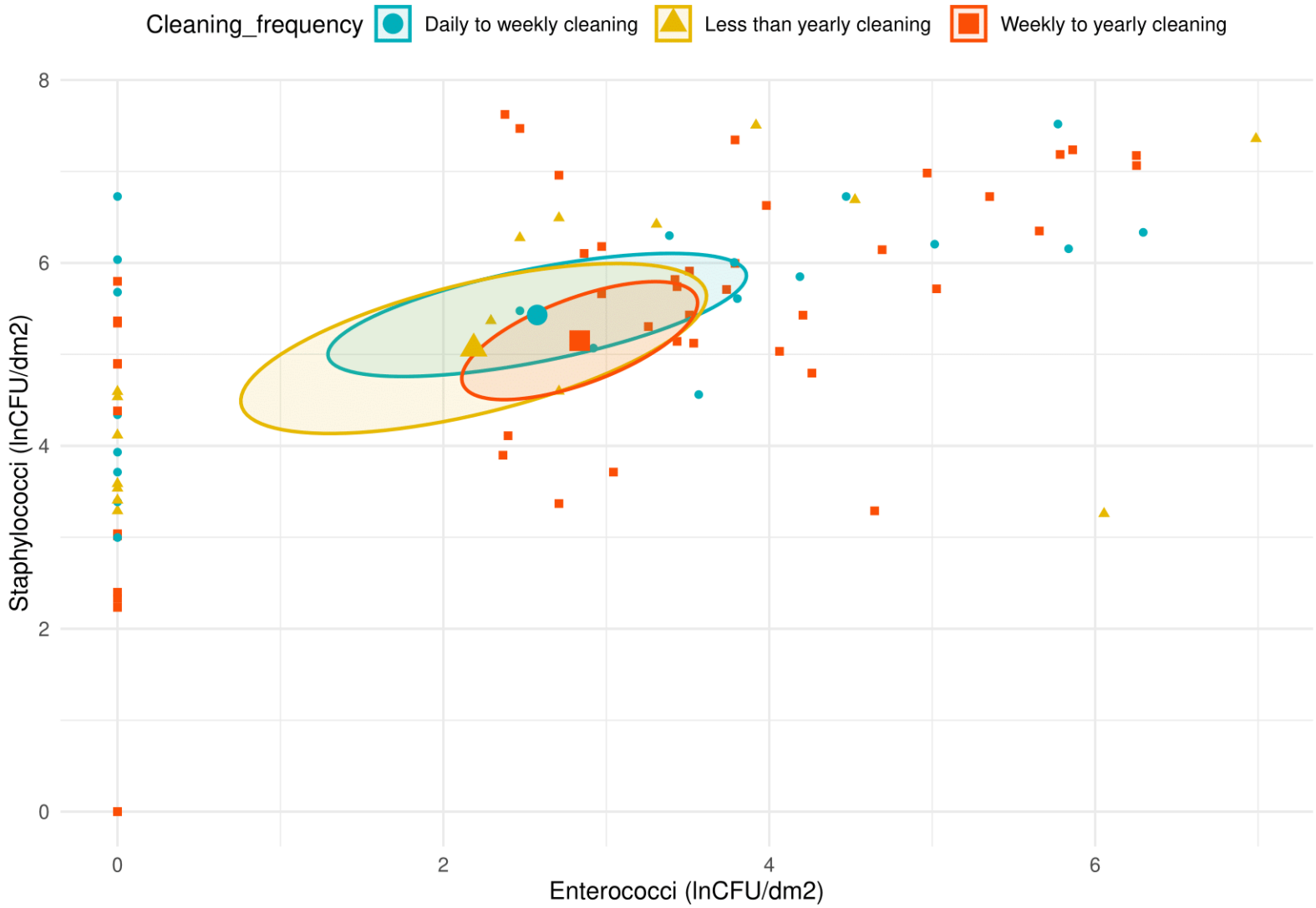


Figure S33: mean Staphylococci and Enterococci charges based on Cleaning method

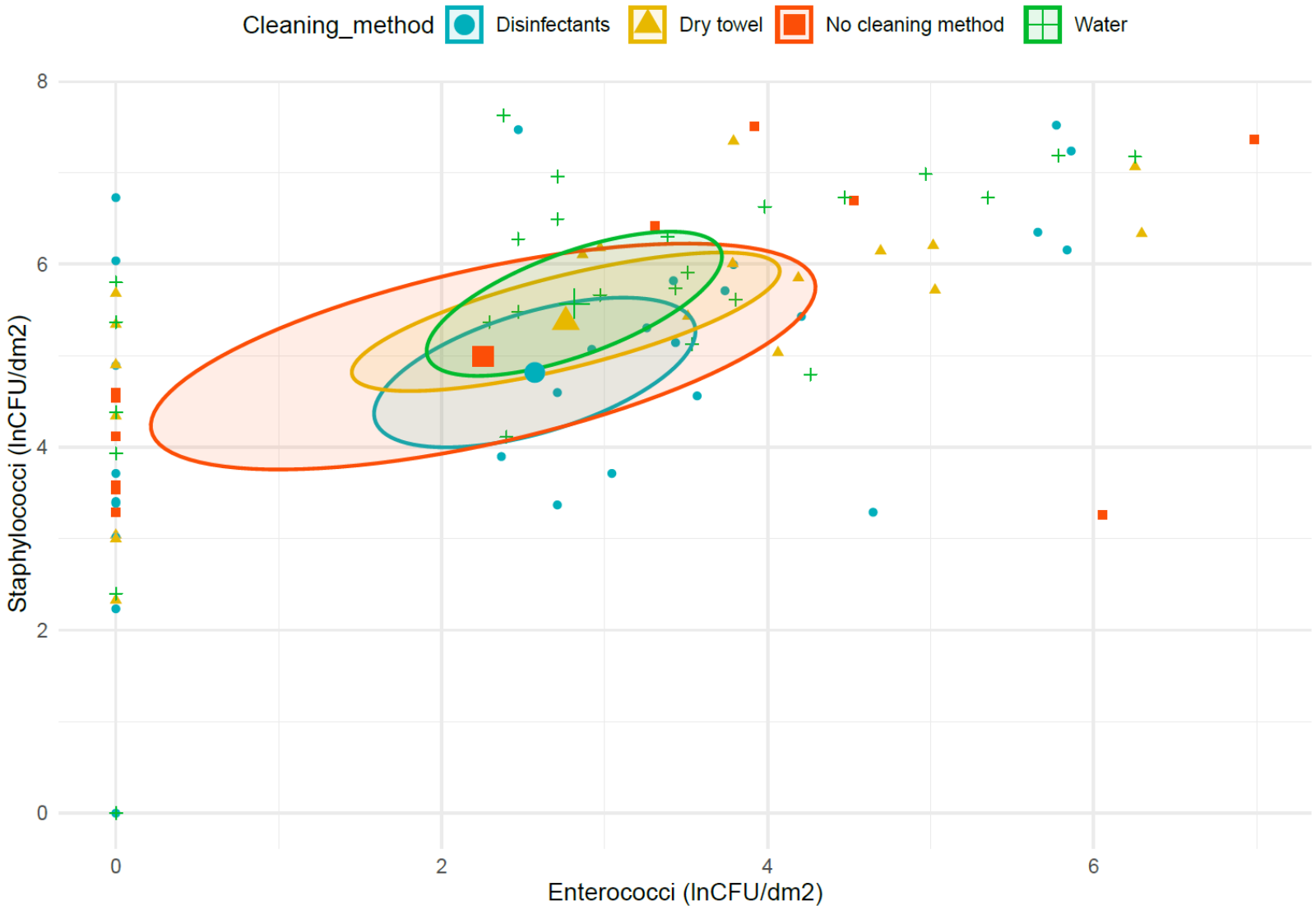


Figure S34: mean Staphylococci and Enterococci charges based on Cover type

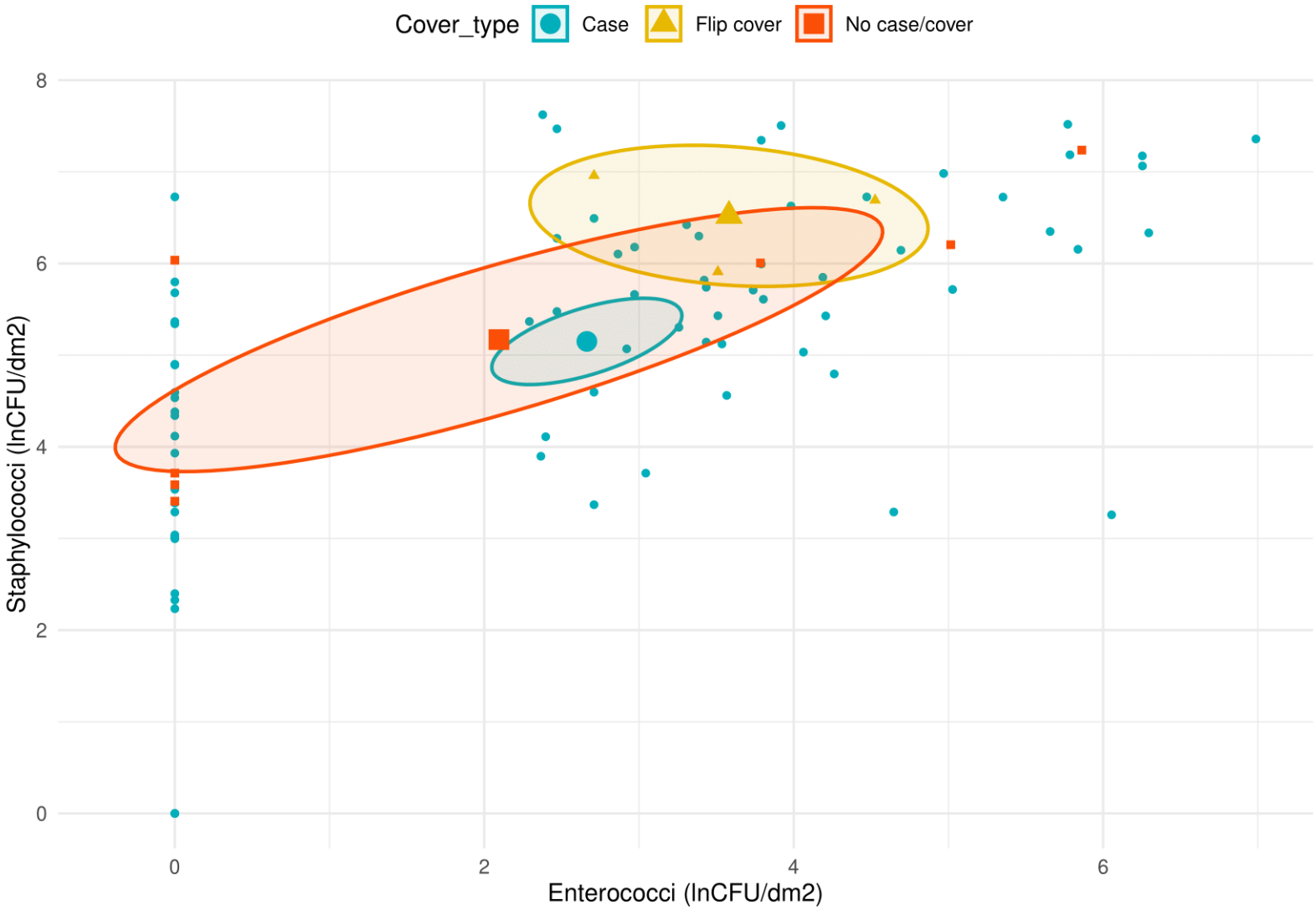


Figure S35: mean Staphylococci and Enterococci charges based on European Head SAR

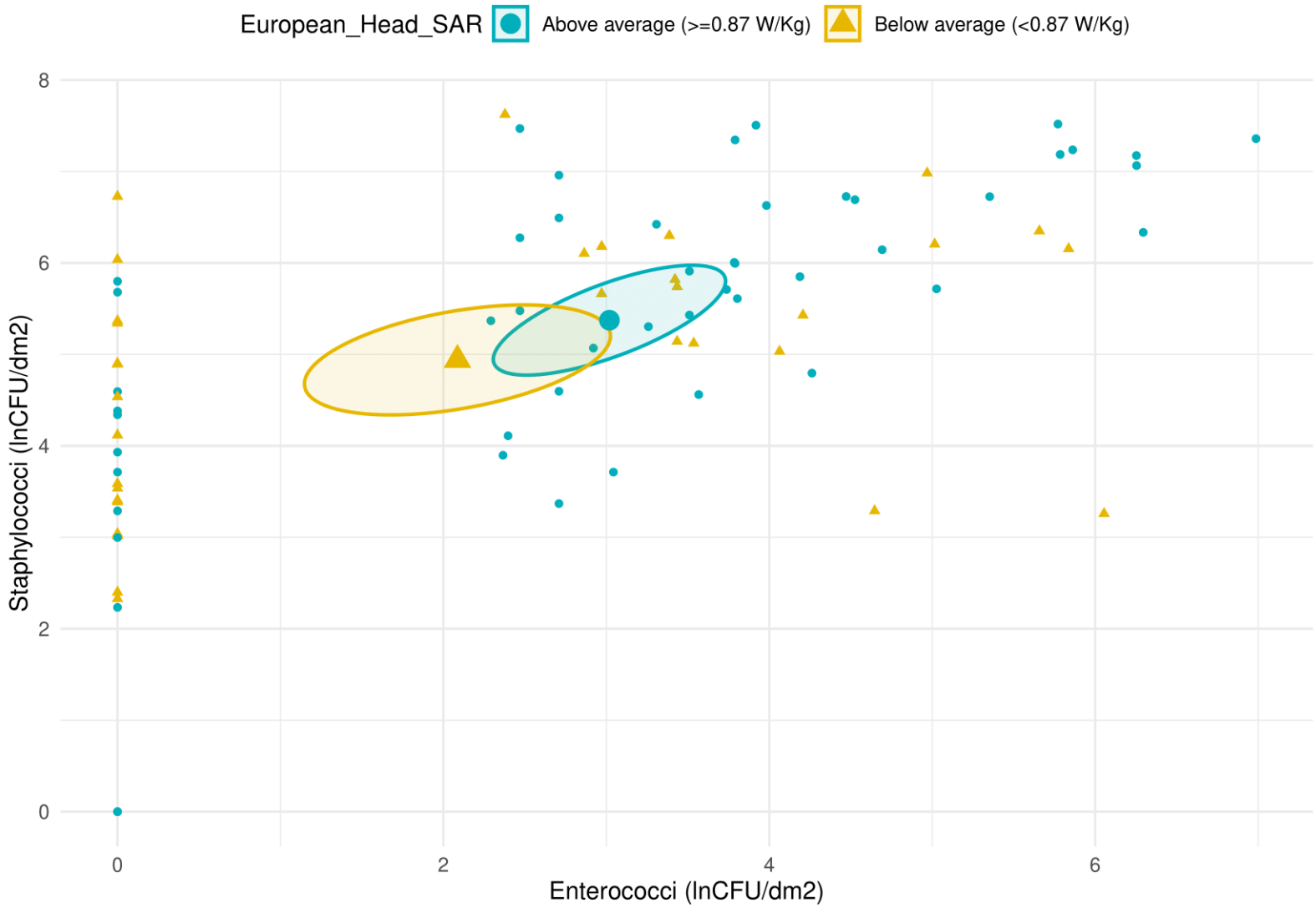


Figure S36: mean Staphylococci and Enterococci charges based on Gender

Figure S37: mean Staphylococci and Enterococci charges based on Health Status

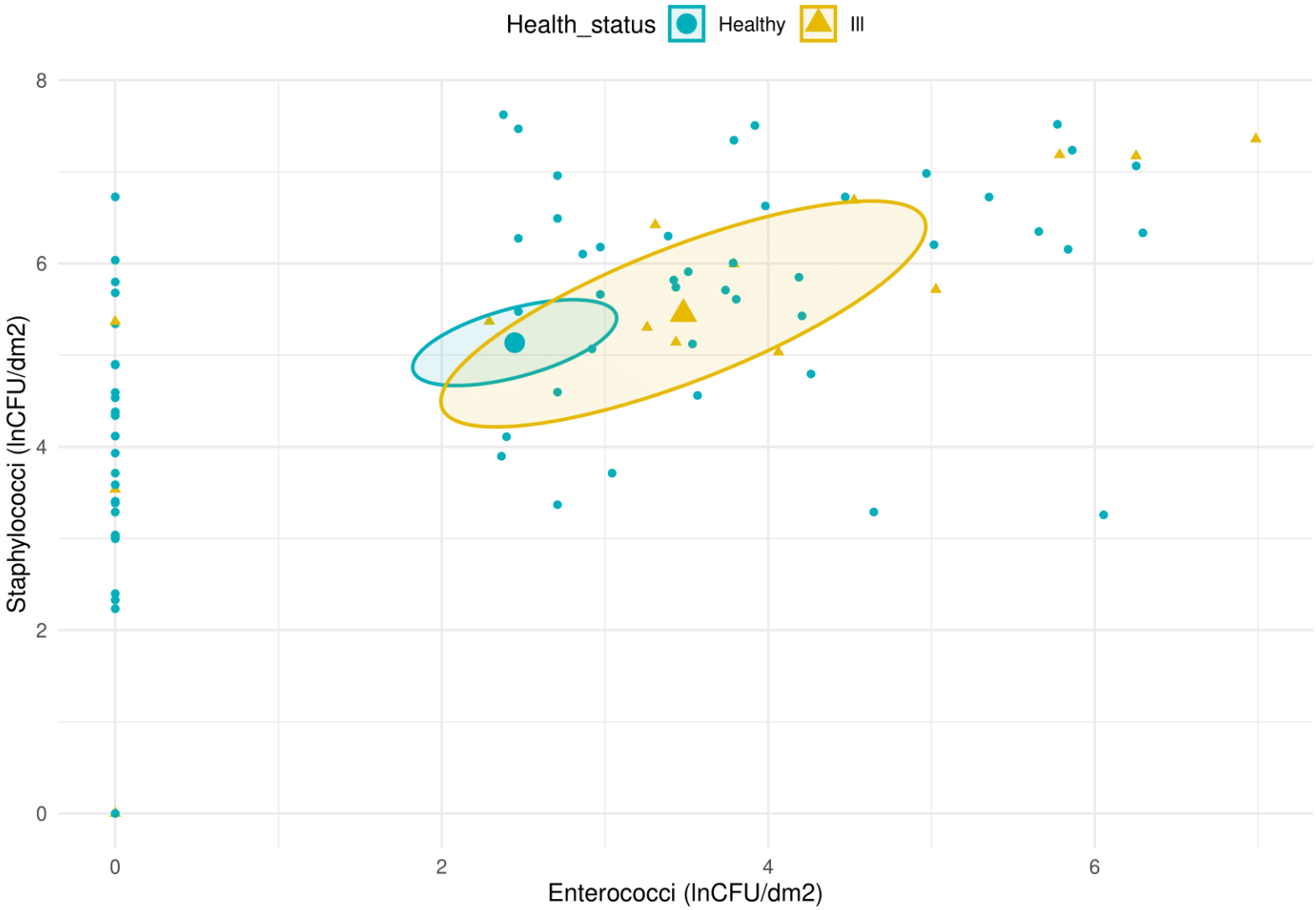


Figure S38: mean Staphylococci and Enterococci charges based on Last Cleaning

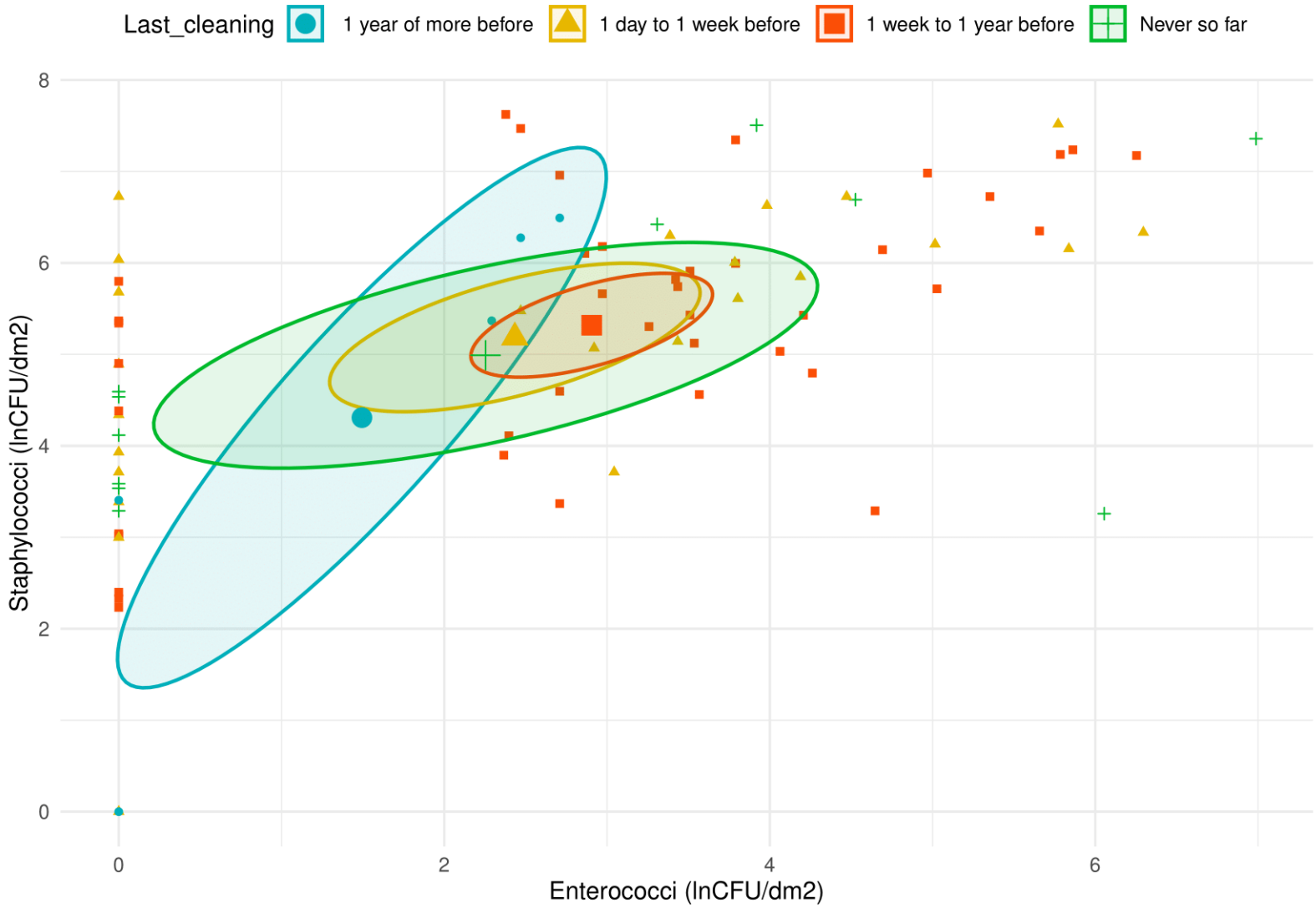


Figure S39: mean Staphylococci and Enterococci charges based on Means of transport in the day of sampling

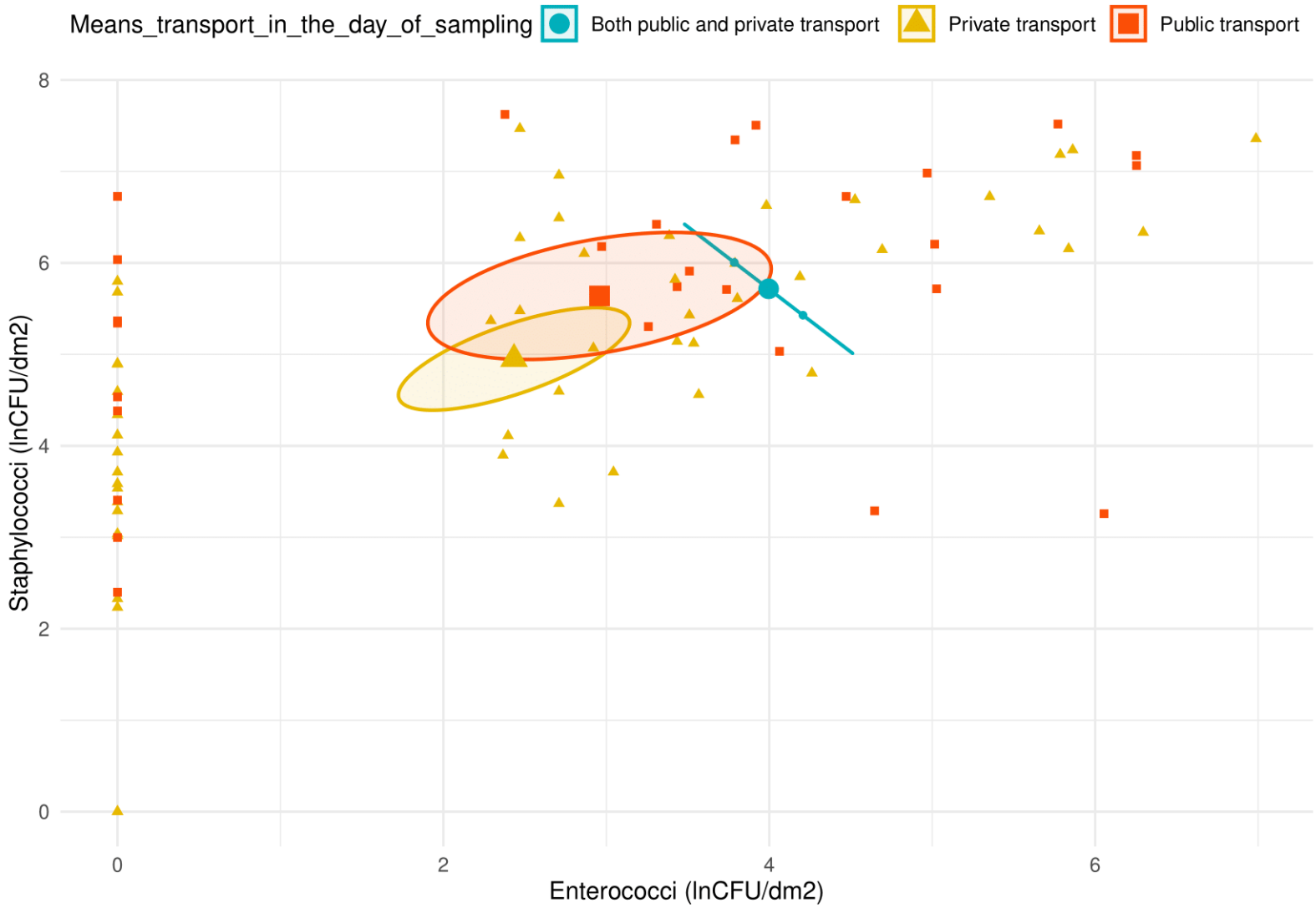


Figure S40: mean Staphylococci and Enterococci charges based on Place of training

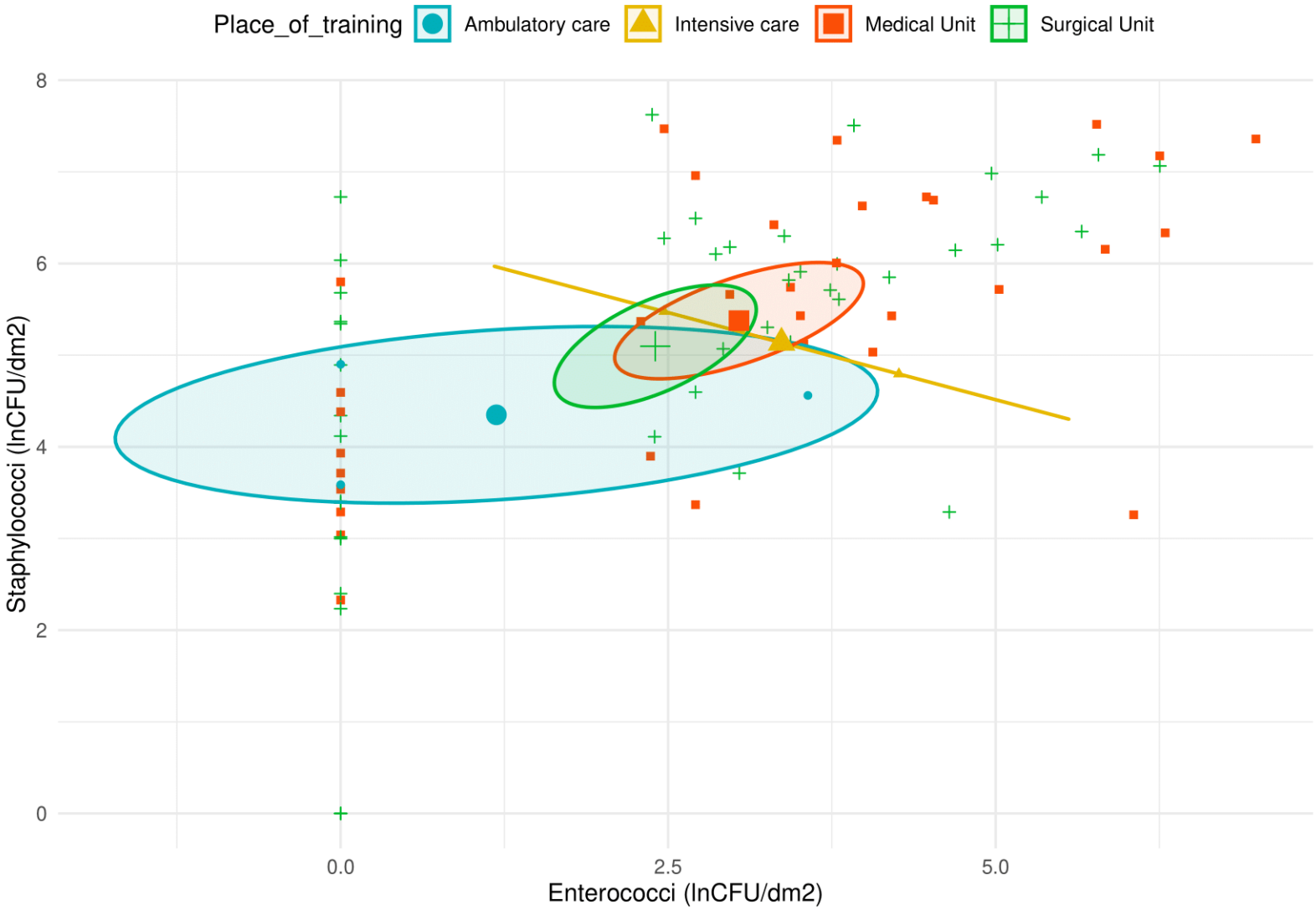


Figure S41: mean Staphylococci and Enterococci charges based on Screen protector

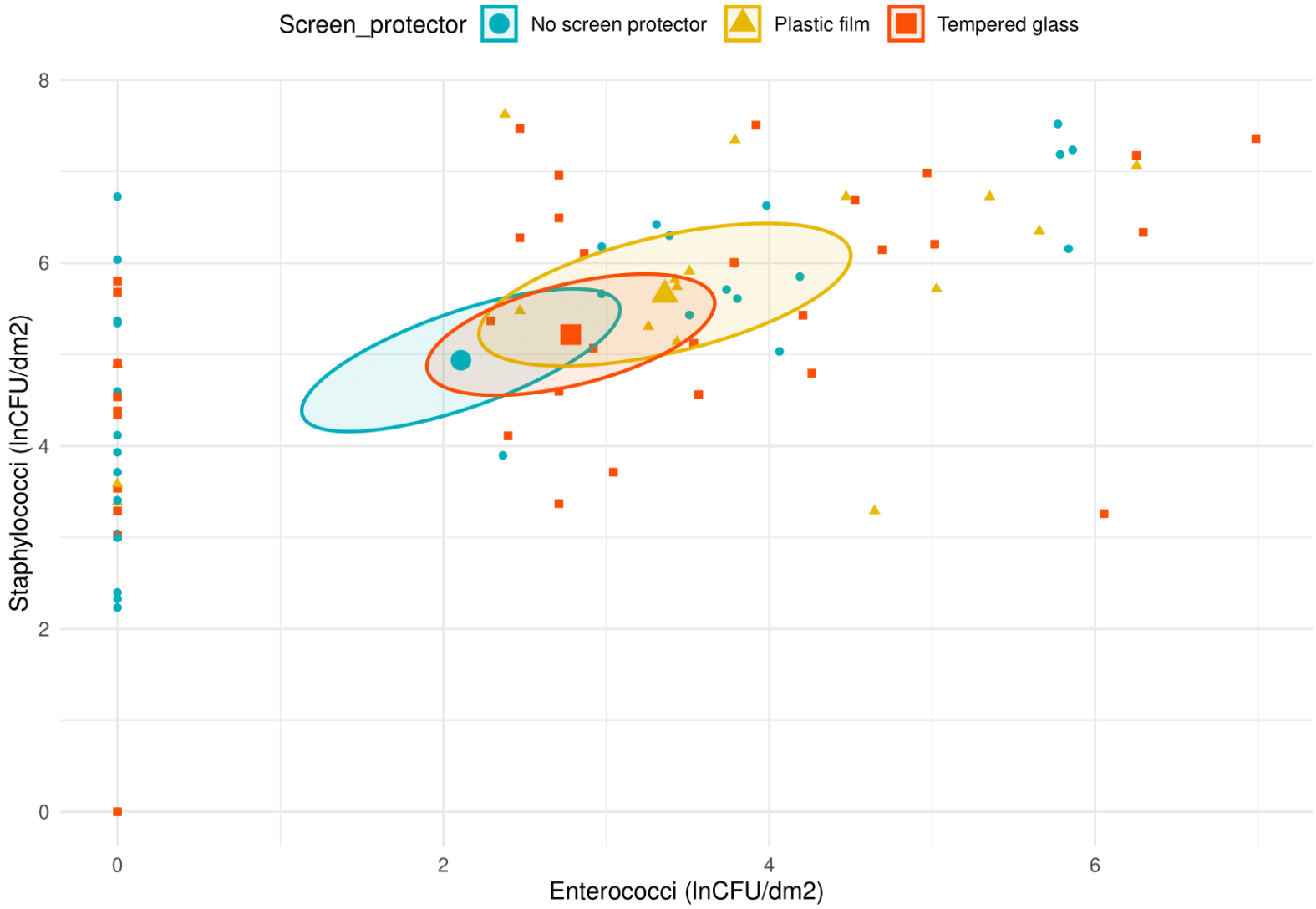


Figure S42: mean Staphylococci and Enterococci charges based on Smartphone age

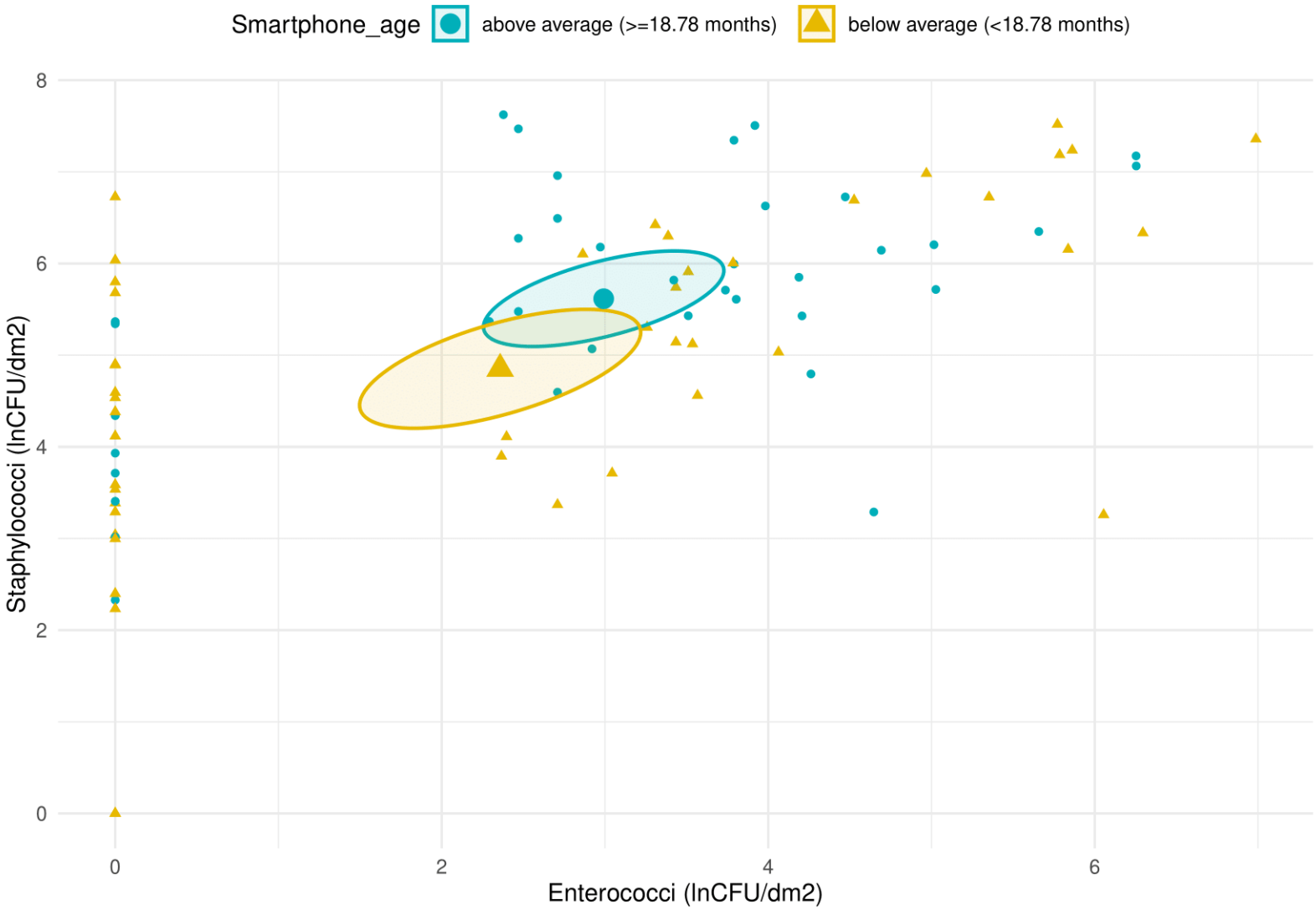


Figure S43: mean Staphylococci and Enterococci charges based on Training frequency

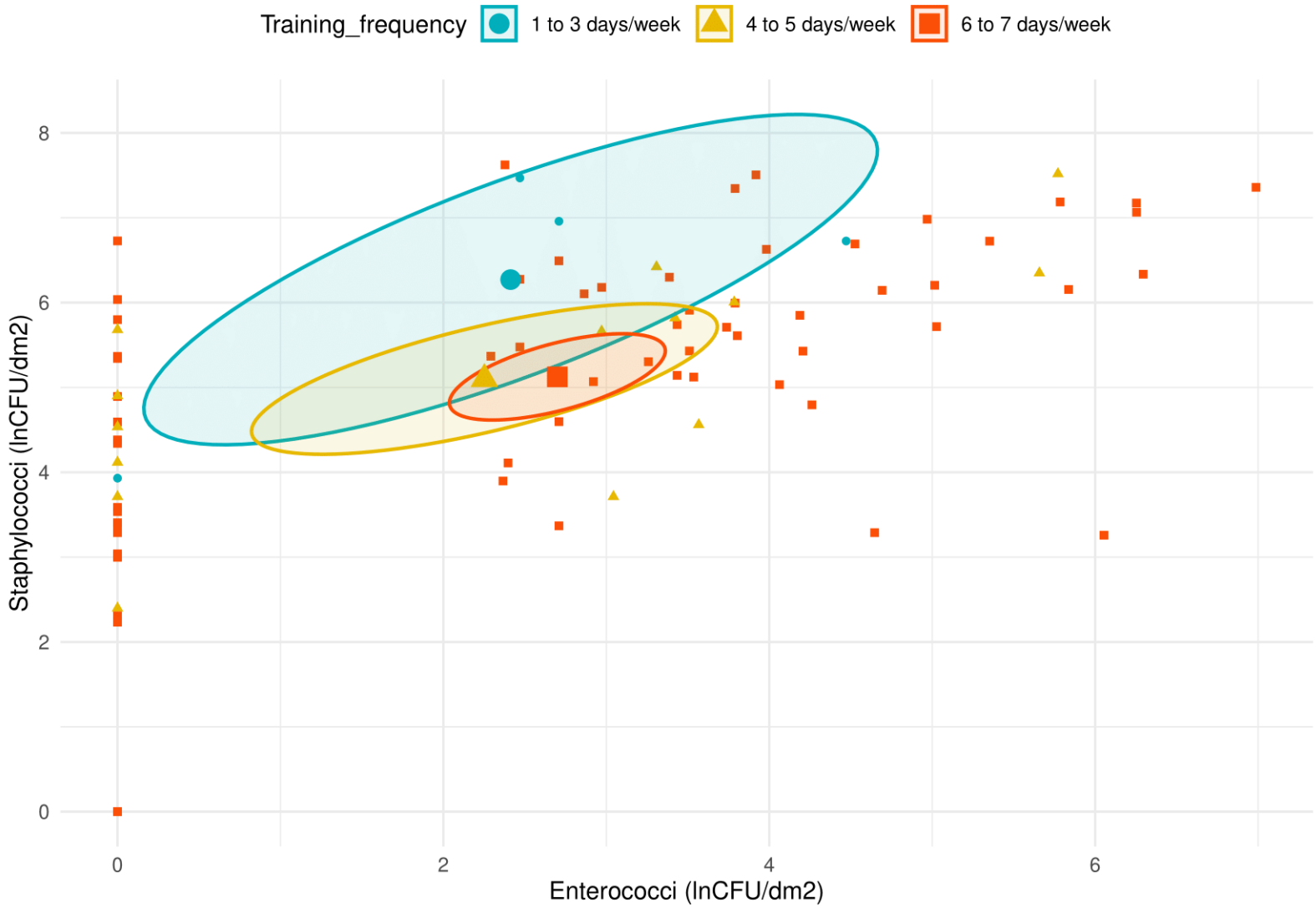


Figure S44: mean Staphylococci and Enterococci charges based on Use with gloves

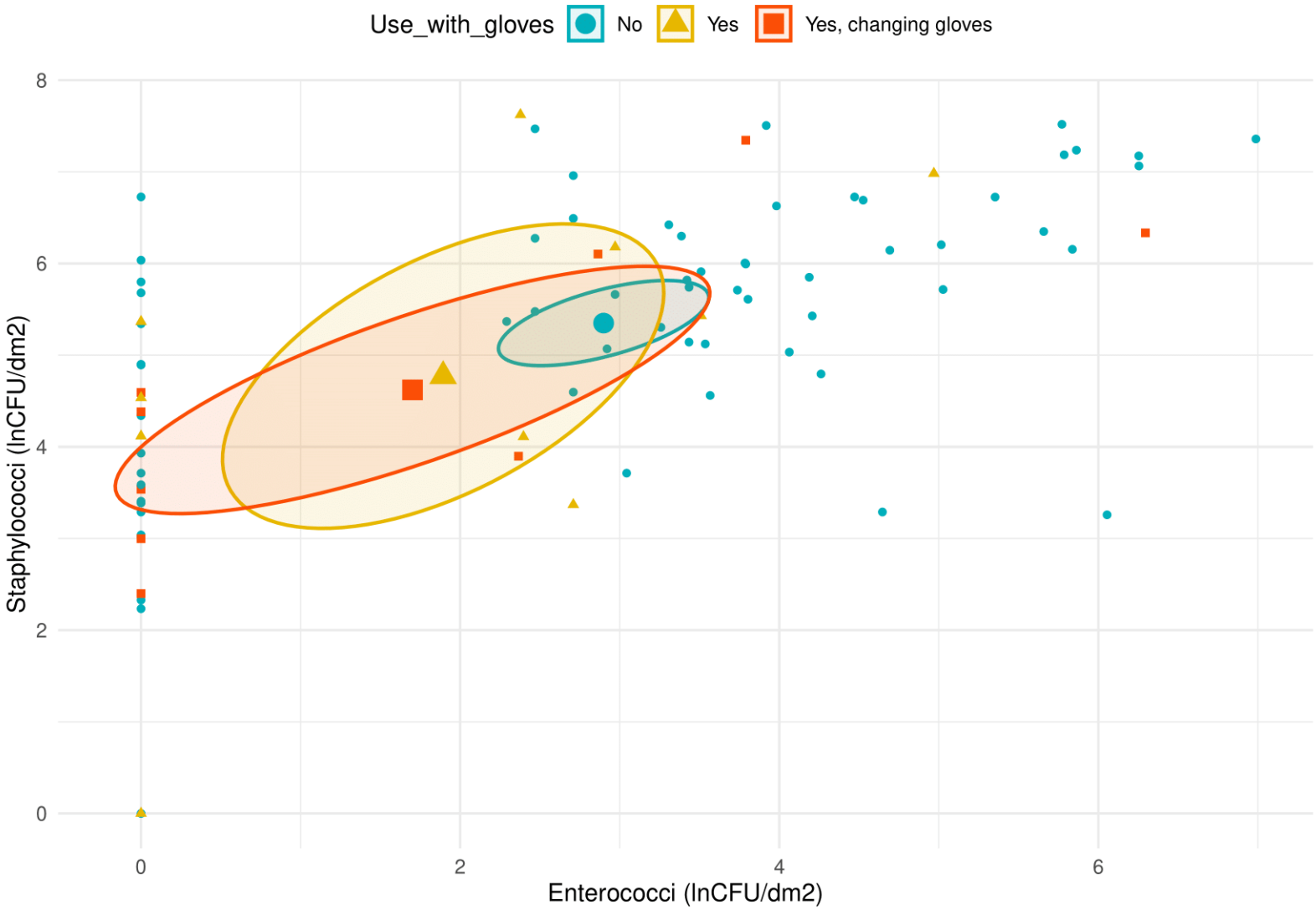


Figure S45: mean Staphylococci and Enterococci charges based on Usual mean of transport