Figure 2_Data for Publication

Time (mins)		BP_fitted	BP	BP	BP	BP	BP	BP	BP	BP	BP		MAP_fitted	MAP	MAP	MAP	MAP	MAP	MAP	MAP	MAP	MAP	MAP		HR_Fitted	HR	HR	HR	HR	HR	HR	HR	HR	HR		Rectal Temp_Fitted	Rectal Temp	Rectal Temp	Rectal Temp	Rectal Temp	Rectal Temp	Rectal Temp	Rectal Temp
0		51.48621	52	53	55	60	45	53	50	55	46		6.497667	7.1	7.9	4.8	4.3	5.3	6.2	4.4	7	7.3	5.5		105.0808	86	95	110	101	89	121	93	102	97	95		33.6	33.6	33.5	33.6	33.5	33.4	33.5	33.5
5		51.17865	54	59	54	61	47	51	48	53	46		6.509967	7.4	7.6	5.1	4.3	5.5	6.4	4.2	7.3	7.5	5.8		102.7425	80	104	108	103	93	117	89	103	102	98		33.6	33.6	33.4	33.5	33.5	33.4	33.5	33.5
10		50.8711	49	58	54	65	46	50	45	53	48		6.522267	7.3	7.1	4.9	4.4	5.3	6.8	4.3	6.9	7.1	5.5		100.4043	83	110	105	99	90	123	93	100	101	98		33.6	33.6	33.4	33.4	33.4	33.4	33.5	33.5
15		50.56355	48	45	52	65	45	51	46	51	45		6.534567	7	7.1	4.8	4.1	6	6.4	4.2	7.3	7	5.6		98.06605	84	100	115	103	93	123	87	103	101	94		33.6	33.6	33.5	33.8	33.5	33.4	33.5	33.5
20		50.25599	50	37	50	59	45	56	43	54	46		6.546867	7.1	7.5	5	4.5	5.9	6.2	4.1	7	7.2	5.9		95.7278	80	90	104	103	92	113	90	104	104	91		33.6	33.7	33.5	33.8	33.5	33.4	33.5	33.5
25		49.94843	49	39	48	55	42	56	48	50	45		6.559167	7.1	7.7	5.3	4.4	6	6.1	4.4	7.1	8.3	5.5		93.38955	78	86	103	104	96	103	91	105	100	91		33.6	33.6	33.5	33.7	33.4	33.4	33.4	33.5
30		50.32453	40	40	47	52	44	56	47	49	44		6.558969	7.2	7.8	4.8	4.4	7	6.6	4.3	7.4	7.1	6.5		93.62608	97	83	107	105	106	96	93	106	96	92		33.6	33.6	33.5	33.6	33.4	33.5	33.5	33.5
35		50.89595	48	41	54	51	47	56	46	47	49		6.555201	7	8.2	4.8	4.7	6	6.9	4.2	6.5	7.3	5.2		94.59826	83	83	107	97	91	101	86	101	95	93		33.5	33.6	33.5	33.6	33.4	33.4	33.5	33.4
40		51.46738	49	49	55	49	44	57	44	49	47		6.551433	7.1	8	4.9	4.6	5.2	7	4.5	6.2	7.6	5.6		95.57043	80	85	100	98	91	100	88	98	98	93		33.5	33.5	33.5	33.8	33.4	33.4	33.5	33.4
45		52.0388	45	40	54	54	41	56	42	50	51		6.547665	6.8	7.6	5	4.2	5.3	6.2	4.2	6.8	8	5.6		96.54262	91	88	104	105	88	96	83	92	100	92		33.5	33.5	33.5	33.8	33.5	33.4	33.5	33.4
50		52.61022	45	40	56	64	45	56	46	47	53		6.543896	7	7.7	4.7	4.3	5.8	6.9	4.3	7.3	8.1	5.6		97.51479	83	89	105	99	90	108	85	97	108	85		33.4	33.5	33.5	33.9	33.5	33.5	33.5	33.3
55		52.75249	45	57	56	60	45	52	45	50	51		6.541516	7.1	8.8	4.7	4.3	5.8	6.2	5	7.1	7.9	5.5		97.7073	85	88	111	99	97	104	75	90	107	87		33.4	33.4	33.5	33.8	33.5	33.4	33.5	33.4
60		52.55142	44	41	59	51	42	66	47	56	47		6.540246	7.1	7.5	5.1	4.3	6.4	6.4	5.3	6	6.5	5.7		97.27605	86	85	111	91	95	85	92	86	111	87		33.4	33.4	33.4	33.6	33.5	33.5	33.5	33.2
65		52.35036	42	41	59	49	43	62	41	52	47		6.538975	6.8	7.9	4.7	4.7	6.7	6.5	4.9	7.3	6.9	5.7		96.84481	80	85	107	93	98	89	98	87	103	88		33.5	33.4	33.4	33.6	33.5	33.6	33.5	33.3
70		52.14929	43	71	56	57	40	62	32	48	42		6.537705	6.9	8.3	4.9	4.2	6	6	5.5	7	6.7	5.4		96.41357	81	97	112	102	108	95	91	93	100	89		33.5	33.4	33.5	33.7	33.4	33.6	33.6	33.2
75		51.94823	45	68	54	55	43	63	36	51	42		6.536435	7.3	7.5	5	4.2	6.3	6.4	5	6.9	6.4	5.3		95.98233	78	107	112	101	97	95	94	96	99	90		33.5	33.4	33.5	33.8	33.5	33.6	33.6	33.2
80		51.53892	44	60	52	53	40	57	39	54	43		6.540902	7.2	7.2	5.1	4.5	6	6.3	5.1	7.4	6.7	5.5		95.70403	79	111	121	105	101	97	91	96	96	95		33.5	33.4	33.5	33.8	33.6	33.6	33.6	33.2
85		50.71311	43	61	51	48	43	55	37	50	44		6.556843	7	7.6	4.9	4.4	7	6.4	5	7.3	6.4	5.5		95.73163	79	108	111	108	101	104	93	99	101	90		33.5	33.6	33.5	33.8	33.6	33.6	33.6	33.3
90		49.88731	41	39	48	46	42	55	34	48	44		6.572785	7.2	7.5	4.8	4.3	7.2	6.4	5.4	8.4	6.7	5.7		95.75922	72	101	108	109	98	90	90	103	96	88		33.5	33.6	33.5	33.6	33.6	33.6	33.6	33.4
95		49.0615	46	44	47	46	40	49	33	49	43		6.588726	7.2	7.5	5.1	4.3	6.2	6.4	5.3	8.2	6.2	5.1		95.78682	76	104	111	110	95	89	95	102	95	86		33.5	33.6	33.6	33.5	33.6	33.6	33.6	33.3
100		48.23569	45	43	46	50	43	52	35	48	43		6.604668	7.1	7.1	4.9	4.2	6.2	6.3	5.2	7.6	6.8	5.5		95.81441	78	82	103	110	89	76	87	92	98	87		33.4	33.6	33.4	33.3	33.6	33.6	33.6	33.4
105		47.54382	47	42	42	51	40	58	39	49	45		6.616347	7.2	7.1	4.9	4.4	5.6	6.7	5	7.3	6.1	5.5		95.84283	77	97	108	115	81	77	96	91	101	88		33.4	33.6	33.5	33.2	33.6	33.6	33.6	33.4
110		47.92339	48	44	38	49	38	60	33	48	45		6.59393	7.1	7.7	4.9	4.5	5.2	6.6	4.5	7.7	6.7	5.8		95.87785	75	93	103	114	90	80	86	92	100	87		33.4	33.6	33.6	33.4	33.6	33.6	33.6	33.4
115		48.30295	44	45	44	47	41	57	33	47	43		6.571513	7.2	7.4	5	4.7	5.1	6.7	5.6	7	6.5	5.8		95.91286	77	90	110	112	79	83	88	94	94	88		33.4	33.4	33.5	33.5	33.6	33.6	33.6	33.4
120		48.68252	49	44	38	47	41	55	31	52	42		6.549095	7.2	7.5	5.1	4.2	5.5	6.8	5.3	9.1	6.5	5.6		95.94788	79	90	106	112	88	81	85	95	98	93		33.4	33.3	33.6	33.6	33.6	33.6	33.6	33.6
125		49.06209	44	56	39	44	40	50	34	47	46		6.526678	6.9	7.2	5.1	4.5	5.1	6.7	5.3	9.3	5.5	5.8		95.98289	78	92	108	112	82	73	97	95	97	88		33.4	33.6	33.6	33.6	33.6	33.6	33.7	33.5
130		49.44165	48	55	47	49	39	52	36	44	43		6.504261	7.3	7.8	5	4.3	5.8	6.7	5.4	9.3	6.9	5.9		96.0179	81	92	106	110	87	84	87	96	94	87		33.5	33.1	33.5	33.7	33.6	33.6	33.6	33.6
135		49.09875	48	46	42	47	42	57	37	47	45		6.505724	7.3	7.7	4.8	4.6	5.8	6.6	5.4	9.1	6.1	6		95.9854	80	94	104	112	93	78	86	98	95	88		33.5	33.1	33.5	33.7	33.6	33.6	33.6	33.5
140		48.66554	46	46	45	48	45	51	36	44	47		6.510173	7.7	7.3	5.1	4.1	6.6	6.7	5.1	8.9	6.9	6		95.94447	83	89	105	110	94	90	82	97	90	89		33.5	33.1	33.5	33.6	33.6	33.6	33.6	33.6
145		48.23233	51	48	47	49	43	50	38	51	45		6.514622	8	7.7	5	4.4	6.7	6.6	5.9	8.7	6.4	6.1		95.90354	79	90	107	108	88	85	83	98	94	88		33.4	33.2	33.5	33.4	33.6	33.6	33.5	33.5
150		47.79912	47	46	42	44	45	52	37	54	44		6.51907	7.3	7.4	5	4.1	5.6	6.4	4.6	8.7	5.5	6.2		95.8626	76	88	108	110	88	78	91	98	95	86		33.5	33.3	33.6	33.3	33.6	33.6	33.6	33.5
155		47.36591	50	42	36	46	44	57	39	52	47		6.523519	7	7.4	5.2	4.2	5.2	6.5	5	8.8	5.9	6.1		95.82167	76	88	105	114	88	83	89	95	94	88		33.5	33.4	33.5	33.3	33.6	33.5	33.6	33.5
160		47.9519	48	39	45	47	42	56	39	58	43		6.52856	7	8.1	5	4.5	5.6	6.4	5.3	9.5	6.3	6.4		95.94782	76	91	104	108	83	73	86	96	98	94		33.6	33.5	33.6	33.4	33.6	33.5	33.6	33.6
165		49.0475	46	43	44	47	42	52	35	56	46		6.533896	7	8.3	5	4.2	6.2	6.3	5.2	8.6	6.3	6.1		96.15751	76	85	104	106	89	81	86	91	91	90		33.6	33.6	33.5	33.6	33.6	33.6	33.6	33.6
170		50.1431	46	41	40	44	44	47	35	56	47		6.539234	6.9	7.3	5.1	4.2	6.1	6.5	4.9	9	5.9	6.3		96.3672	83	85	100	103	88	78	90	90	92	87		33.6	33.6	33.5	33.6	33.5	33.5	33.6	33.6
175		51.2387	49	38	38	41	37	51	35	58	48		6.544571	7.3	8	5	4.4	6.3	6.8	5.6	8.9	6.3	6		96.57688	80	85	98	105	85	74	93	92	93	86		33.6	33.6	33.5	33.6	33.5	33.5	33.6	33.4
180		52.3343	48	40	50	46	57	55	52	52	72		6.549908	7.2	7.3	4.9	4.2	6.2	7.1	5.3	8	7.3	5.7		96.78657	78	96	105	99	98	70	88	99	98	104		33.6	33.5	33.4	33.4	33.6	33.6	33.5	33.6
185		53.03108	50	45	51	49	54	59	54	66	71		6.545043	7.2	8	4.7	4.3	5.7	6.8	5.5	7	6.6	5.6		96.81187	80	114	101	100	93	66	86	98	93	94		33.5	33.5	33.4	33.5	33.6	33.4	33.4	33.6
190		53.22933	49	42	50	46	50	51	47	72	67		6.527425	7.1	7.5	5	4.7	5.5	6.4	5	6.8	6.5	6		96.6067	79	96	99	103	95	72	90	97	97	93		33.5	33.4	33.4	33.5	33.6	33.4	33.2	33.6
195		53.42759	51	46	49	48	49	45	46	65	66		6.509808	7	7.9	4.8	4.5	6	6.4	5.2	7.6	6.5	6.4		96.40153	79	86	99	99	100	57	96	98	108	96		33.6	33.5	33.4	33.5	33.5	33.4	33.2	33.6
200		53.62584	47	39	47	46	51	51	49	65	60		6.492191	7	9	4.9	4.6	6.2	6.4	5.3	8.1	6.6	5.5		96.19635	78	87	104	103	99	80	83	101	96	99		33.5	33.5	33.3	33.5	33.5	33.4	33.2	33.6
205		53.8241	51	48	47	47	51	50	46	62	63		6.474573	7.7	8.7	4.8	4.4	5.6	6.5	4.5	7	6.2	5.5		95.99117	70	92	104	96	94	71	91	101	97	103		33.4	33.5	33.3	33.6	33.4	33.4	33.2	33.6
210		53.9951	47	56	53	46	46	56	45	55	59		6.457304	7.1	8.8	4.9	4.5	6.4	6.7	4.4	8	6.7	5.8		95.81557	73	98	100	94	92	72	88	102	97	100		33.4	33.5	33.3	33.6	33.4	33.4	33.1	33.6
215		54.07072	48	46	53	51	43	59	44	55	57		6.44125	7.1	9.3	5.1	4.3	6.1	6.2	4.5	7.3	6.7	5.8		95.74344	73	98	96	92	101	78	82	101	95	96		33.4	33.5	33.3	33.6	33.4	33.4	33.1	33.6
220		54.14635	46	40	52	50	51	54	40	61	56		6.425197	7	8.4	4.8	4.3	6.6	6.1	5.1	6.6	6.5	5.5		95.67132	77	91	102	96	98	76	84	97	97	99		33.4	33.4	33.3	33.5	33.4	33.4	33.1	33.6
225		54.22197	51	41	51	48	53	54	47	68	55		6.409144	7	8.4	4.9	4.3	6.1	6.9	5	6.5	6.2	5.4		95.5992	78	85	100	96	96	69	80	102	101	100		33.3	33.5	33.3	33.4	33.3	33.4	33.2	33.6
230		54.2976	48	42	53	43	45	55	46	67	51		6.393091	7	8.3	4.8	4.2	6.4	6.6	4.9	6.6	5.7	5.6		95.52707	78	96	100	99	92	56	87	103	93	102		33.4	33.5	33.3	33.2	33.4	33.4	33.3	33.6
235		54.37322	46	40	53	47	52	56	43	63	53		6.377037	6.9	9.8	4.6	4.5	5.6	7.5	4.8	6.5	6.6	6		95.45495	76	87	100	93	84	76	81	104	100	102		33.4	33.4	33.3	33.2	33.3	33.4	33.3	33.7

Rectal Temp	Rectal Temp		ET_CO2_Fitted	ET_CO2	ET_CO2	ET_CO2	ET_CO2	ET_CO2	ET_CO2	ET_CO2	ET_CO2	ET_CO2	ET_CO2		NIRS_Fitted	NIRS	NIRS	NIRS	NIRS	NIRS	NIRS	NIRS	NIRS	NIRS	NIRS
33.4	33.2		4.639932	4.5	5.5	5.1	5.6	5.1	5.6	4	3.8	5.6	4.1		85.11382	92	89	86	85	81	85	87	88	85	81
33.4	33.5		4.643093	5.1	5.7	5.3	5.6	5.1	4.6	4.3	3.7	5.5	4.3		85.1532	92	86	86	84	81	86	86	85	81	81
33.6	33.5		4.646253	5.1	5.3	5.1	4.9	5	4.4	4.3	3.6	5.6	4.5		85.19257	91	85	87	86	81	85	86	84	81	82
33.7	33.4		4.649414	5.8	4.9	5.2	4.5	5.3	4.8	4.5	3.6	4.2	4.7		85.23194	90	83	86	87	82	84	86	84	80	82
33.6	33.4		4.652575	5.5	5.1	5.2	3.9	5.3	5	3.9	3.8	5.6	4.7		85.27132	90	82	85	85	82	88	84	83	81	83
33.6	33.4		4.655735	5.9	5.6	4.9	5.5	5.1	4.9	4.5	3.7	5.4	4.4		85.31069	90	82	83	85	82	88	84	84	82	83
33.6	33.4		4.67185	5.1	5.6	5.1	5.3	4.7	4.9	4.5	3.7	5.5	4.6		85.31609	91	82	88	89	81	88	86	82	83	82
33.6	33.4		4.691666	5	5.3	4.8	5.8	4.5	5	4	3.4	4	4.4		85.31178	90	82	86	86	81	88	84	83	84	82
33.8	33.3		4.711481	5.2	5.5	5.6	5.5	5.1	4.9	3.9	2.8	3.2	4.3		85.30747	90	81	86	87	81	83	86	83	82	81
33.8	33.3		4.731297	5.5	5.8	4.6	5.5	5.2	4.7	3.9	3.5	5.6	4.2		85.30316	90	81	85	87	82	84	85	85	81	81
33.8	33.3		4.751112	6.2	6.5	5.4	5	5.2	5	4.1	3.7	3.6	4.9		85.29885	90	82	87	87	82	84	84	84	83	82
33.9	33.4		4.7673	5.2	6.7	5	3.3	5.2	5.1	4.1	4	4.1	4.6		85.21222	90	83	87	87	81	84	85	85	81	83
33.6	33.4		4.780585	5.8	5.7	5.6	5.6	5	4.9	4.4	3.9	6.2	4		85.05972	88	84	83	87	81	90	87	85	85	79
33.6	33.4		4.79387	5.5	6.1	5.1	5.8	4.1	4.5	4.4	3.4	5.7	4.1		84.90722	90	82	83	87	82	88	89	87	84	80
33.6	33.5		4.807155	6	5.7	5.2	5	4.8	4.4	4.1	4.3	5.1	4.1		84.75472	89	84	81	88	81	84	85	88	84	80
33.5	33.4		4.82044	4.6	5.9	6	5.5	4.8	4.7	3.9	4.5	6.1	4.1		84.60223	89	82	82	87	80	87	86	88	83	80
33.5	33.4		4.82477	4.9	5.7	5.2	3.5	4.8	4.6	4	5	5.9	3.9		84.5335	88	80	82	87	79	87	86	88	82	78
33.6	33.4		4.811191	5.7	5.5	5.2	5.5	4.7	4.6	4.2	4.2	5.9	4		84.63232	88	79	82	86	80	85	89	87	82	80
33.6	33.3		4.797611	4.4	5.4	5.1	5.1	4.8	4.7	4.1	4.6	4.6	4		84.73114	88	79	79	85	81	84	89	87	82	80
33.6	33.3		4.784032	6	5.4	5.1	5.7	4.8	4.9	4.2	4.3	5.8	3.9		84.82996	88	79	82	86	82	87	89	85	83	79
33.6	33.3		4.770452	5	6.1	5.6	5.4	4.6	4.9	3.9	4.3	5.9	3.9		84.92878	85	79	82	86	80	89	87	87	83	79
33.6	33.3		4.757588	5.9	5.7	5.4	4.3	4.8	4.8	3.6	4.3	5.2	3.9		85.01205	88	75	80	85	81	88	86	86	83	79
33.5	33.3		4.75045	5.2	5.3	5.3	4.3	4.6	5.2	3.5	4	5.1	3.8		84.97094	86	83	82	86	80	88	87	86	82	79
33.4	33.3		4.743312	5.6	4.8	6	5.7	4.5	4.8	3.7	4.1	5.8	3.8		84.92983	86	84	82	86	79	88	82	87	83	79
33.5	33.4		4.736174	5.3	5.6	4.8	5.1	4.5	4.8	4.3	3.9	5.4	3.9		84.88872	90	84	83	85	79	87	85	84	82	79
33.2	33.4		4.729035	5.4	5.4	4.8	5.5	4.4	4.9	4.4	4	4.4	4		84.84761	89	83	81	87	78	88	88	86	81	79
33.5	33.4		4.721897	5	4.3	5.5	5.5	4.4	4.9	4.4	3.9	4.6	4		84.8065	90	83	85	87	78	87	88	86	81	79
33.5	33.4		4.749098	6	5.6	5.2	4.4	4.6	4.9	4.2	3.8	5.3	3.9		84.75059	90	84	81	84	79	88	86	87	81	80
33.5	33.4		4.780592	5	5.7	5.7	5.3	4.6	5	3.9	4.3	5.2	4		84.69283	85	84	83	85	80	88	84	87	81	81
33.6	33.5		4.812087	5.2	5.6	5.8	5.1	4.8	4.5	3.9	4.2	5	4		84.63506	90	84	81	84	80	85	83	87	80	79
33.6	33.5		4.84358	4.9	5.4	5.2	5.1	4.5	4.9	4.2	4.1	5	4.1		84.5773	86	84	83	88	79	87	83	89	82	80
33.6	33.5		4.875074	5.4	5.4	5.8	5.2	4.6	4.6	4.3	3.8	4.9	3.9		84.51954	85	82	84	88	80	86	85	88	81	81
33.6	33.6		4.885529	4.9	5.6	5.7	5.3	4.6	4.8	4.1	4.1	5.6	4		84.5497	90	83	82	87	79	87	82	88	81	80
33.4	33.6		4.885465	5.5	5.9	5.3	5.2	4.7	4.8	4	4	4.9	4		84.62382	86	83	81	88	80	87	81	87	80	80
33.4	33.6		4.8854	5.3	5.9	5.3	5.2	4.6	4.9	4	4	4.9	4.4		84.69794	84	82	83	87	80	86	82	87	81	81
33.4	33.6		4.885336	5.4	6	5.5	5.1	4.5	5	3.8	4	4.7	4.4		84.77206	85	83	83	88	79	86	82	87	81	82
33.6	33.6		4.885272	5.7	5.7	5.9	5.4	5.1	5.4	4.4	4	5.9	4.1		84.84618	90	85	85	87	81	87	84	87	86	83
33.5	33.7		4.889279	5.6	5.7	5.2	5	5.2	5	4.1	4.1	5.4	4.5		84.90919	89	85	85	85	82	88	84	88	83	83
33.5	33.6		4.898376	5.3	5.3	5.8	5.3	5.1	5.2	4.3	4.2	6	4.2		84.95834	88	85	86	85	82	88	85	86	82	82
33.4	33.6		4.907473	5.8	6.5	5.1	4.5	5.1	5	4.3	3.1	4.6	4.6		85.00749	89	84	85	85	80	86	85	86	82	81
33.4	33.5		4.91657	5.6	5.4	5.8	5.2	4.6	5.4	4.3	4.1	6	4.2		85.05664	85	82	82	86	81	87	85	87	80	81
33.4	33.5		4.925667	5.2	4.5	5.4	5.4	5	5.7	4.1	4.1	5.9	4.4		85.10579	90	82	85	87	79	86	84	87	85	81
33.4	33.5		4.934485	5.6	5.9	5.4	4.9	5.3	4.6	4.2	4.1	5.8	4.6		85.15433	88	83	84	85	82	85	86	86	85	81
33.4	33.4		4.942327	4.4	5.6	5.3	4.4	5.7	5	4.2	3.9	4.8	4.8		85.2007	87	84	85	85	83	86	84	87	84	82
33.4	33.6		4.950169	5.7	6.5	6.1	5	5.4	4.7	4.3	3.9	5.9	4.5		85.24707	86	84	86	85	83	85	84	88	83	80
33.4	33.6		4.958011	5.4	6.2	5.7	4.5	4.5	5	4.3	4	5.7	4.6		85.29344	88	82	85	85	82	86	85	88	84	81
33.4	33.6		4.965853	5.6	5.8	6.1	5.3	5.3	5	3.8	3.7	5.7	4.5		85.33982	88	83	84	85	82	86	85	88	84	81
33.5	33.4		4.973695	5.6	4.8	5.2	5.3	5.4	4.9	3.4	4.2	5.5	4.7		85.38619	87	83	83	86	84	86	85	89	81	80