

Goodness-of-fit test statistics and Akaike Information Criterion for distribution fitting of data for sources and ingestion rates. Green shaded means the data best fit to the distribution function.

Distribution functions												
		Normal	Logistic	Weibull	Gamma	Exponent ial	Lognormal	Log- logistic	Skew- normal	Skew- <i>t</i>	Skew- cauchy	Normal Mixture
<i>Sources</i>												
Cf	<i>D</i>	0.036	0.018						0.022	0.023	0.14	0.006
	<i>p</i> -value	0	0.004						0	0	0	0.796
	AIC	34484.66	34335.5						34200.44	34149.69	37128.66	34106.78
Cm	<i>D</i>	0.055	0.026						0.024	0.017	0.16	
	<i>p</i> -value	0	0						0	0	0	
	AIC	292818.4	290970.4						286141.2	286003.7	319145.1	
Ccr	<i>D</i>	0.035	0.037						0.025	0.025	0.166	0.008
	<i>p</i> -value	0	0						0	0	0	0.289
	AIC	44260.91	44676.37						44122.82	44122.82	49064.57	43487.88
Ctw	<i>D</i>	0.162	0.143						0.117	0.117	0.322	0.062
	<i>p</i> -value	0	0						0	0	0	0
	AIC	82298.04	84439.21						78175.66	78175.66	85103.02	69112.1
Cbw	<i>D</i>	0.055	0.057						0.061	0.061	0.236	0.023
	<i>p</i> -value	0	0						0	0	0	0
	AIC	220308.7	224596.6						219615.6	219615.6	255846.5	215603.1
Cs	<i>D</i>	0.035	0.035						0.021	0.021	0.171	0.009
	<i>p</i> -value	0	0						0	0	0	0
	AIC	455858.7	460528.6						453605.4	453605.4	510240	451826.9
Cb	<i>D</i>	0.034	0.038						0.031	0.031	0.127	0.013
	<i>p</i> -value	0	0						0	0	0	0.022
	AIC	35283.75	36026.23						35251.89	35251.89	41704.67	34773.66
Cmk	<i>D</i>	0.06	0.05						0.039	0.039	0.242	0.014
	<i>p</i> -value	0	0						0	0	0	0
	AIC	50710.73	52022.62						48956.49	48956.49	59282.81	48223.83
Ca	<i>D</i>	0.177	0.172						0.227	0.227	0.31	0.199
	<i>p</i> -value	0	0						0	0	0	0
	AIC	31311.02	31672.67						27424.18	27424.18	34891.54	26214.14

(continued)

Distribution functions												
		Normal	Logistic	Weibull	Gamma	Exponent ial	Lognormal	Log- logistic	Skew- normal	Skew- <i>t</i>	Skew- cauchy	Normal Mixture
Physiological data												
Irfad ult	<i>D</i>	0.153		0.065	0.077				0.104	0.095	0.249	
	<i>p</i> -value	0.014		0.756	0.561				0.199	0.291	0	
	AIC	650.73		590.07	590.08				595.76	592.66	616.23	
Irfch ild	<i>D</i>	0.153					0.078	0.07				
	<i>p</i> -value	0.014					0.645	0.76				
	AIC	650.73					398.96	400.59				
Irma dult	<i>D</i>	0.108		0.31	0.346				0.121	0.121	0.266	
	<i>p</i> -value	0.945		0.027	0.009				0.884	0.885	0.084	
	AIC	44.33		43.29	41.28				44.82	44.82	50.72	
Irmc hild	<i>D</i>						0.163	0.148				
	<i>p</i> -value						0.696	0.799				
	AIC						11.44	11.33				
Ircad ult	<i>D</i>	0.153		0.065	0.077				0.104	0.095	0.249	
	<i>p</i> -value	0.014		0.756	0.561				0.199	0.291	0	
	AIC	650.73		590.07	590.08				595.76	592.66	616.23	
Ircch ild	<i>D</i>			0.099	0.097	0.094		0.125				
	<i>p</i> -value			0.615	0.634	0.675		0.313				
	AIC			98.54	98.55	96.56		106.74				
Irtw adult	<i>D</i>	0.145		0.087	0.098				0.093	0.092	0.203	
	<i>p</i> -value	0.056		0.533	0.381				0.455	0.465	0.002	
	AIC	1195.89		1180.85	1184.68				1185.97	1185.99	1213.38	
Irtw child	<i>D</i>	0.082		0.103	0.124				0.073	0.078	0.274	
	<i>p</i> -value	0.511		0.241	0.093				0.657	0.573	0	
	AIC	1334.22		1314.48	1317.3				1306.83	1305.3	1349.6	
Irbw adult	<i>D</i>	0.089							0.097	0.097	0.294	
	<i>p</i> -value	0.565							0.451	0.451	0	
	AIC	194.87							192.77	192.77	227.33	

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Distribution functions												
		Normal	Logistic	Weibull	Gamma	Exponential	Lognormal	Log-logistic	Skew-normal	Skew- $t$	Skew-cauchy	Normal Mixture
Irbw child	$D$	0.091							0.113	0.111	0.304	
	$p$ -value	0.643							0.369	0.391	0	
	AIC	129.4							118.71	117.76	152.49	
Irsadult	$D$			0.104	0.081	0.263		0.119				
	$p$ -value			0.158	0.424	0		0.071				
	AIC			316.99	315.76	395.32		336.72				
Irschild	$D$			0.105	0.122	0.345		0.11				
	$p$ -value			0.136	0.051	0		0.102				
	AIC			184.22	193.91	299.58		188.09				
Irb	$D$						0.052	0.05				
	$p$ -value						0.671	0.711				
	AIC						1754.32	1762.14				
Irmk adult	$D$			0.081	0.066	0.173		0.107				
	$p$ -value			0.087	0.257	0		0.009				
	AIC			2224.64	2219.37	2266.37		2272.86				
Irmk child	$D$			0.064	0.072	0.199		0.071				
	$p$ -value			0.24	0.138	0		0.141				
	AIC			2628.08	2628.67	2693.81		2662.01				