

Predicting Total Body Water in Infants Aged 0.5 - 24 Months and the Implications for Measuring Breast Milk Intake: A Secondary Analysis of Isotope Dilution Data

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Supplementary Material 1: Data availability of variables related to reported feeding practices by country.

The tables in this file provide an overview of information available on reported feeding practices and the number of excluded records from the Multicenter Infant Body Composition Reference Study (MIBCRS) sample (1, 2). The initial MIBCRS sample consisted of 4,077 records, of which 3,844 records remained after applying the first set of exclusion criteria. Records from the remaining sample were excluded when we could verify or had strong belief that the infant was not breastfed at the respective measurement point. There was no information on reported feeding practices available from Australia, India, and a subset of the infants from South Africa (n rows = 219). Age groups were defined as follows: 3 mo ($>2 - \leq 4.5$), 6 mo ($>4.5 - \leq 7.5$), 9 mo ($>7.5 - \leq 10.5$), 12 mo ($>10.5 - \leq 16.5$), 18 mo ($>16.5 - \leq 20.5$), 24 mo (> 20.5)

Brazil

Age group	n	'Are you currently breastfeeding?' ¹	'How often do you give breast milk?' ²	'How often do you give formula?' ³	Freq. of giving breast milk in the last 28 days = 'never'	Freq. of giving breast milk in the last 28 days = '1-3 times a week' & currently breastfeeding = 'no'	Freq. of giving breast milk last in the 28 days = NA ⁴ & Freq. of formula feeding last 28 days = '>3x a day'	Freq. of giving breast milk in the last 28 days = NA ⁴ & Freq. of formula feeding last 28 days = '1-3x a day'	Record of the same infant at 3 or 6 mo was excluded
		n available records			n excluded records				
3	194	186	194	193	21	1	0	0	-
6	175	163	175	175	40	0	0	0	0
9	186	165	186	186	64	0	0	0	0
12	166	136	166	166	74	0	0	0	0
18	170	124	170	170	107	0	0	0	0
24	164	129	164	163	118	0	0	0	0
Total	1055	903	1055	1053	424	1	0	0	0

¹'Yes' or 'No'

²'>3 times a day' or '1 – 3 times a day' or '>3 times a week' or '1 – 3 times a week' or 'Never'

³'>3 times a day' or '1 – 3 times a day' or '1 – 3 times a month' or '>3 times a week' or '1 – 3 times a week' or 'Never'

⁴NA = missing value

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Pakistan

Age group	n	'Are you currently breastfeeding?'' ¹	'How often do you give breast milk?'' ²	'How often do you give formula?'' ³	Freq. of giving breast milk in the last 28 days = 'never'	Freq. of giving breast milk last in the 28 days = NA ⁴ & Freq. of formula feeding last 28 days = '>3x a day'	Freq. of giving breast milk in the last 28 days = NA ⁴ & Freq. of formula feeding last 28 days = '1-3x a day'	Record of the same infant at 3 or 6 mo was excluded
		<i>n</i> available records			<i>n</i> excluded records			
3	148	145	148	148	3	0	0	-
6	149	147	149	149	2	0	0	4
9	129	124	129	129	5	0	0	2
12	125	116	125	125	9	0	0	2
18	109	0	0	0	0	0	0	3
24	108	0	0	0	0	0	0	2
Total	768	532	551	551	19	0	0	13

¹'Yes' or 'No'

²'>3 times a day' or '1 – 3 times a day' or '>3 times a week' or '1 – 3 times a week' or 'Never'

³'>3 times a day' or '1 – 3 times a day' or '1 – 3 times a month' or '>3 times a week' or '1 – 3 times a week' or 'Never'

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South Africa

Age group	<i>n</i>	‘Are you currently breastfeeding?’ ¹	‘How often do you give breast milk?’ ²	‘How often do you give formula?’ ³	Freq. of giving breast milk in the last 28 days = ‘never’	Freq. of giving breast milk last in the 28 days = NA ⁴ & Freq. of formula feeding last 28 days = ‘>3x a day’	Freq. of giving breast milk in the last 28 days = NA ⁴ & Freq. of formula feeding last 28 days = ‘1-3x a day’	Record of the same infant at 3 or 6 mo was excluded
		<i>n</i> available records			<i>n</i> excluded records			
3	199	167	194	187	17	2	0	-
6	175	135	173	171	31	1	1	2
9	173	139	172	169	31	1	0	4
12	337	169	229	220	59	0	0	24
18	101	0	0	0	0	0	0	14
24	138	0	0	0	0	0	0	19
Total	1123	610	768	747	138	4	1	63

¹Yes’ or ‘No’

²>3 times a day’ or ‘1 – 3 times a day’ or ‘>3 times a week’ or ‘1 – 3 times a week’ or ‘Never’

³>3 times a day’ or ‘1 – 3 times a day’ or ‘1 – 3 times a month’ or ‘>3 times a week’ or ‘1 – 3 times a week’ or ‘Never’

⁴NA = missing value

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Sri Lanka

Age group	n	'Are you currently breastfeeding?' ¹	'How often do you give breast milk?' ²	'How often do you give formula?' ³	Freq. of giving breast milk in the last 28 days = 'never'	Freq. of giving breast milk last in the 28 days = NA ⁴ & Freq. of formula feeding last 28 days = '>3x a day'	Freq. of giving breast milk in the last 28 days = NA ⁴ & Freq. of formula feeding last 28 days = '1-3x a day'	Record of the same infant at 3 or 6 mo was excluded
		<i>n</i> available records			<i>n</i> excluded records			
3	137	137	137	137	0	0	0	-
6	119	119	119	119	1	0	0	0
9	106	106	106	106	2	0	0	0
12	78	77	77	77	2	0	0	0
18	51	0	0	0	0	0	0	1
24	47	0	0	0	0	0	0	1
Total	538	439	439	439	5	0	0	2

¹Yes' or 'No'

²'>3 times a day' or '1 – 3 times a day' or '>3 times a week' or '1 – 3 times a week' or 'Never'

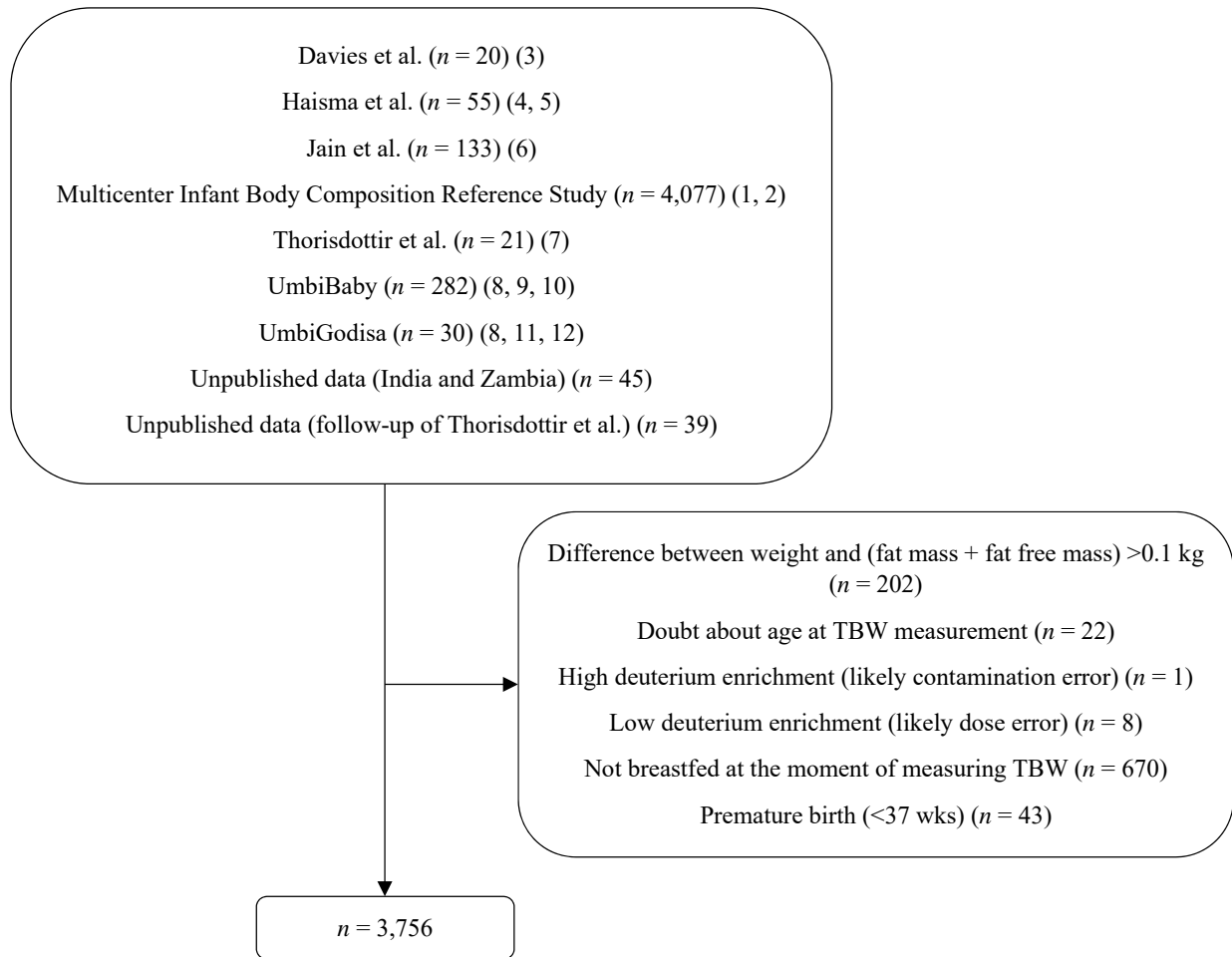
³'>3 times a day' or '1 – 3 times a day' or '1 – 3 times a month' or '>3 times a week' or '1 – 3 times a week' or 'Never'

⁴NA = missing value

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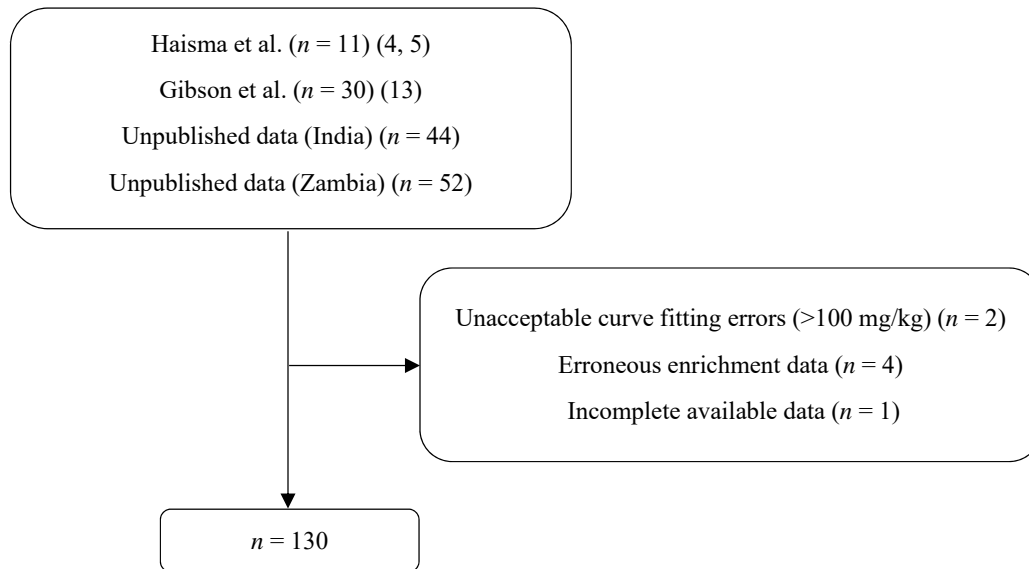
Supplementary Figure 1: Flowchart of the sample of total body water measurements.



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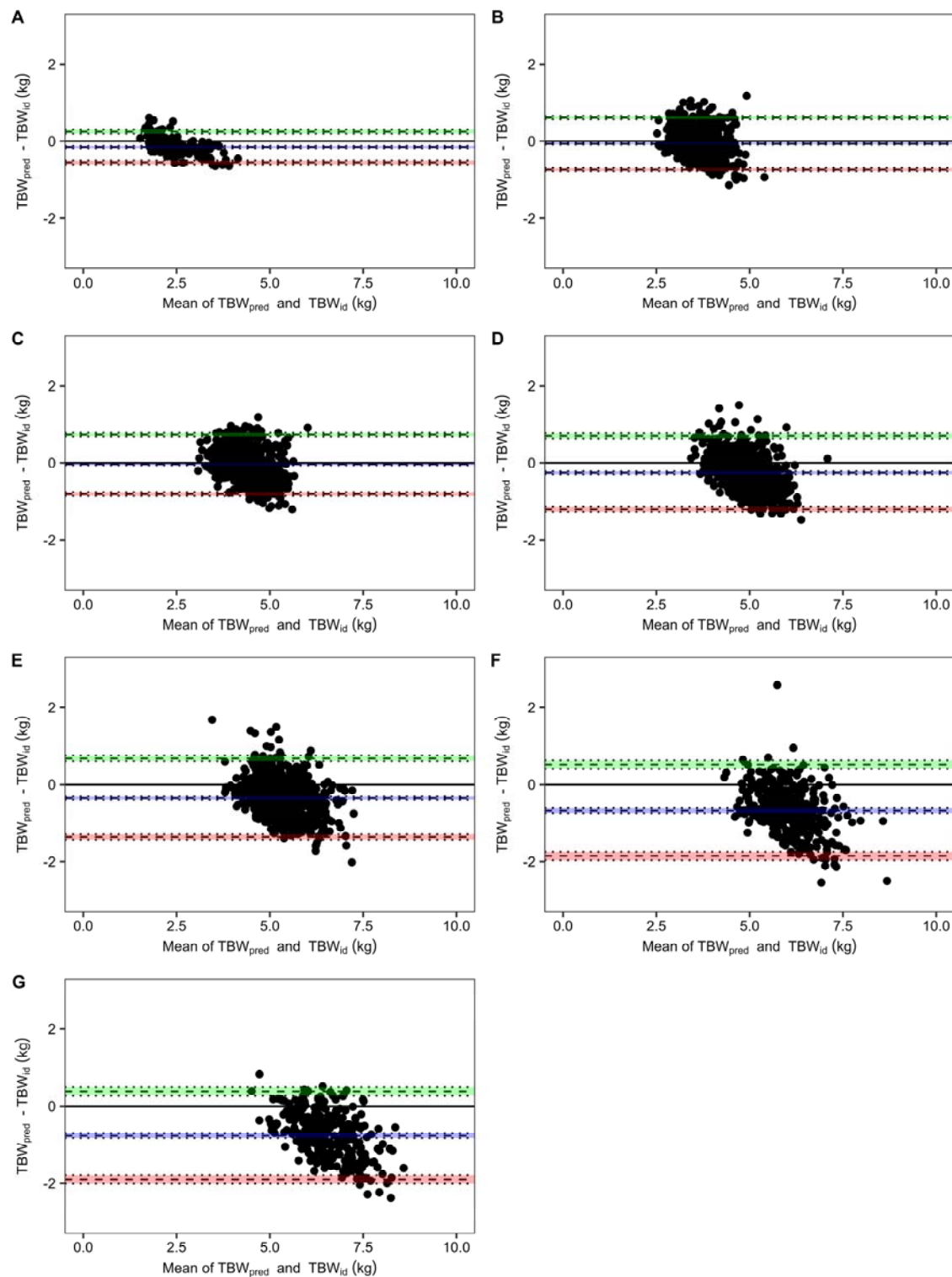
Supplementary Figure 2: Flowchart of the sample of breast milk and non-milk water intake measurements.



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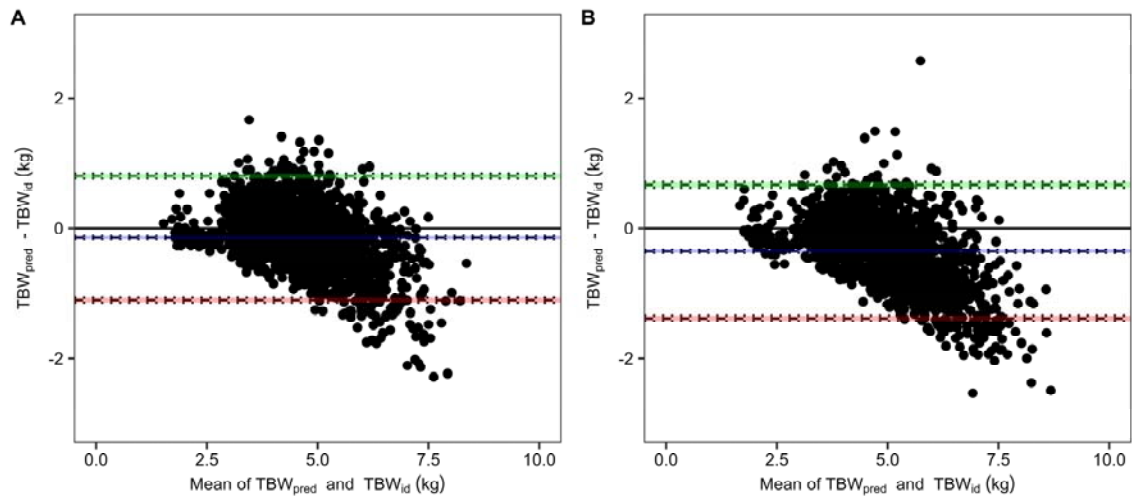
Supplementary Figure 3: Bland-Altman plots per age group 0.5 mo (≤ 2), 3 mo ($> 2 - \leq 4.5$), 6 mo ($> 4.5 - \leq 7.5$), 9 mo ($> 7.5 - \leq 10.5$), 12 mo ($> 10.5 - \leq 16.5$), 18 mo ($> 16.5 - \leq 20.5$), 24 mo (> 20.5) to examine bias of total body water (TBW) estimated from body weight using the Cambridge equation ($TBW = 0.84 * \text{weight}^{0.82}$) (TBW_{pred}) relative to TBW measured with isotope dilution (TBW_{id}).



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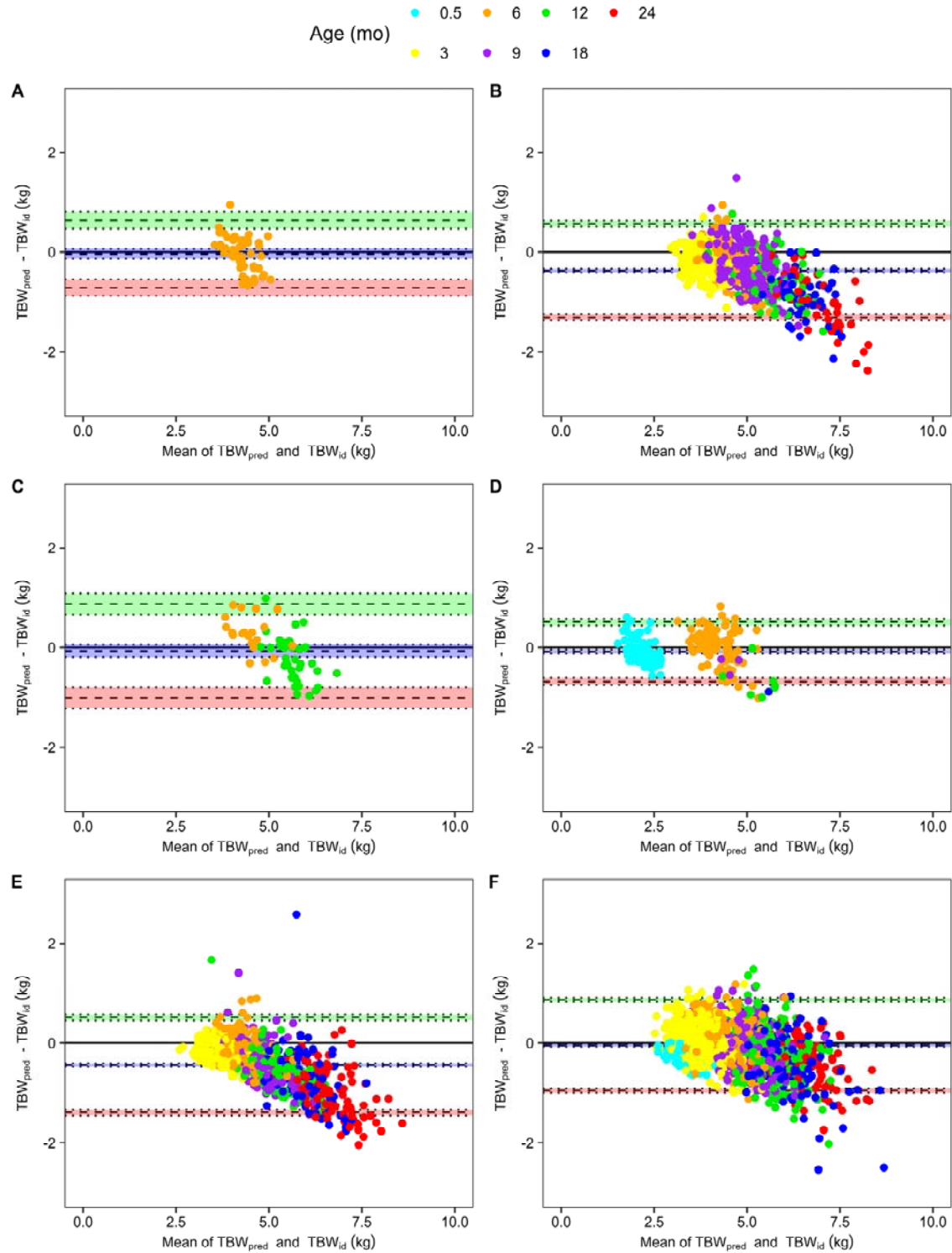
Supplementary Figure 4: Bland-Altman plots for (A) female and (B) male infants to examine bias of total body water (TBW) estimated from body weight using the Cambridge equation ($TBW = 0.84 * \text{weight}^{0.82}$) (TBW_{pred}) relative to TBW measured with isotope dilution (TBW_{id}).



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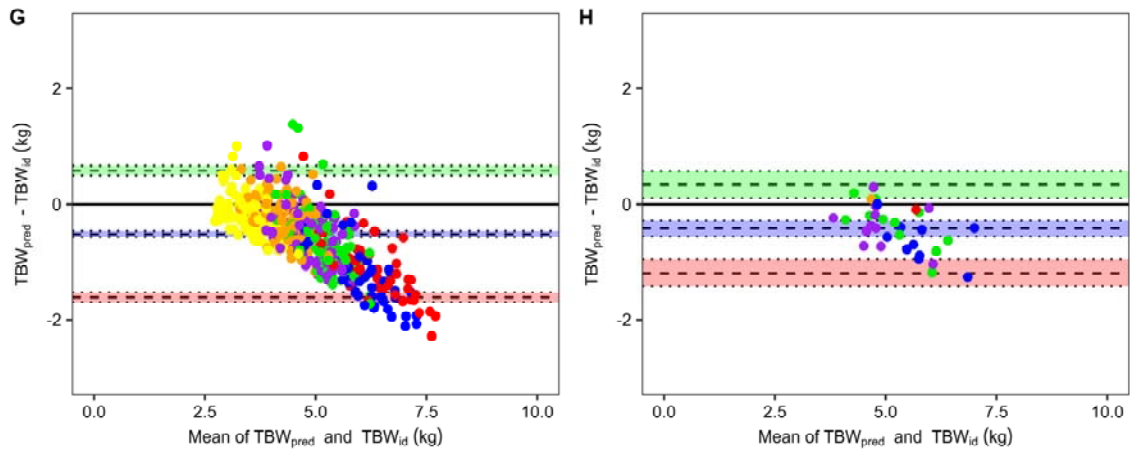
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Supplementary Figure 5: Bland-Altman plots per country (A = Australia; B = Brazil; C = Iceland; D = India; E = Pakistan; F = South Africa; G = Sri Lanka; H = Zambia) to examine bias of total body water (TBW) predicted from body weight using the Cambridge equation ($TBW = 0.84 * \text{weight}^{0.82}$) (TBW_{pred}) relative to TBW measured with isotope dilution (TBW_{id}).



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