

Prevalence and socio-demographic distributions of meeting RMI Guidelines for Healthy Living among elementary school children in Majuro, Republic of Marshall Islands: A cross-sectional population-based survey

SUPPLEMENTARY MATERIAL

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Movement And Dietary Behaviour Survey

Physical Activity

Physical activity is any activity that increases your heart rate and makes you get out of breath some of the time. Physical activity can be done in sports, school activities, playing with friends, or walking to school.

Some more examples of physical activity include recreational swimming, social tennis, fast walking, dancing or bike riding; jogging, aerobics, fast cycling, circuit training, or organised sports like basketball or soccer.

1. For this question add up all the time you spent in physical activity each day. Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?

0	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Some examples of activities which strengthen your muscles and bones include push ups, sit-ups, lifting weights, lunges and squats; dance; martial arts or aerobics class. During the past 7 days, on how many days did you do activities to strengthen your muscles and bones?

0	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sedentary Behaviour

Sitting or lying down, (with the exception of sleeping), are what we call ‘sedentary’ behaviours. You can be sedentary at school, at home, when travelling or during leisure time. Sedentary behaviours require little energy expenditure. Examples of sedentary behaviour include:

- Sitting or lying down while watching television or playing electronic games.
- Sitting while being a passenger in a vehicle, or while travelling on a bus or train.
- Sitting or lying down to read, study, write, or work at a desk or computer.

For this question add up all the time you spent watching TV/ videos/Internet (including on a smart phone or tablet) or playing video or computer games for entertainment each day.

3. Over the past 7 days, on how many days did you watch TV/ videos/ Internet (including on a smart phone or tablet) or play video or computer games for entertainment for less than two hours while sitting or lying down?

0	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sleep

4a. What time did you go to bed and turn the lights out to go to sleep last night?

_____ : _____ pm

4b. What time did you wake up today?

_____ : _____ am

<p>5a. Do you have a consistent bedtime?</p> <p><input type="checkbox"/> Yes, bedtime does not vary by more than 30 minutes each day</p> <p><input type="checkbox"/> No, bedtime can vary more than 30 minutes each day</p>	<p>5b. Do you have a consistent wake-up time?</p> <p><input type="checkbox"/> Yes, wake-up time does not vary by more than 30 minutes each day</p> <p><input type="checkbox"/> No, wake-up time can vary more than 30 minutes each day</p>
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6. On a scale of 1 to 7, with the higher number indicating higher quality, how would you rate the quality of your sleep?
 1 would indicate you find it very difficult to settle, wake many times during the night for prolonged periods and are very restless (tosses and turns, throw off bedclothes) while 7 would indicate you settle and drift off to sleep with a few minutes, sleep right through the night, and have a very sound, deep sleep)

1 2 3 4 5 6 7

7. Do you use electronic screen devices (e.g. TV, video game, computer, tablet or smartphone) in the 2 hours before bedtime on a daily basis?

Yes No

If Yes, how close to bedtime do you usually use these devices?

Closer than 30 minutes before bedtime

30 mins to less than 1 hour before bedtime

Between 1 and 2 hours before bedtime

8. Do you have electronic screen devices in the room where you sleep (e.g. TV, video game, computer, tablet or smartphone)?

Yes No

Dietary Behaviours

Food Sources							
9. Do you take any food to school for: (Please tick all that apply)							
<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch <input type="checkbox"/> Dinner <input type="checkbox"/> Snacks <input type="checkbox"/> None							
If Yes , on how many days per week? _____ days							
10. Do you ever get money to buy food?							
<input type="checkbox"/> Yes <input type="checkbox"/> No							
If Yes , on how many days per week? _____ days							
Dietary Diversity							
11. This section asks about food that you eat on a typical day or in a typical week. A typical day/week means a ‘normal’ day/week when the family diet is not affected by cultural, religious, or other events. How often did you eat:							
	Every day	More than 3 times a week	Twice a week	Once a week	Never	Don’t know	
Grains, roots and tubers (e.g. Bread, cereals, noodles, pasta, potatoes, rice)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Legumes and nuts (e.g. Beans, peas, lentils, walnuts, or seeds)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dairy/milk products (e.g. Cheese, curd, custard, ice-cream, kefir, milk and yogurt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	Exception of butter and sour cream)						
	Fresh foods (e.g. meat, fish, poultry and liver/organ meats)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Eggs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Vitamin-A rich fruits and vegetables (e.g. green leafy vegetables, yellow and orange inside vegetables and orange non-citrus fruits)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other fruits and vegetables (e.g. Apple, banana, orange, pear)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Eating Behaviours At Home

12a	How often is the TV or an electronic screen device on during meal or snack time? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Once a week <input type="checkbox"/> Most days <input type="checkbox"/> Every day <input type="checkbox"/> Don't know
12b	How often does a parent sit with you during meals? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Once a week <input type="checkbox"/> Most days <input type="checkbox"/> Every day <input type="checkbox"/> Don't know
12c	How often do all of the family sit together during a main meal? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Once a week <input type="checkbox"/> Most days <input type="checkbox"/> Every day <input type="checkbox"/> Don't know
12d	How often do you eat or drink different foods and beverages to what your parent eat during meal and snack times? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Once a week <input type="checkbox"/> Most days <input type="checkbox"/> Every day <input type="checkbox"/> Don't know
12e	How often do you have snacks like chips, biscuits, cakes, candies, chocolate, pastries, and sweets between meals? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Once a week <input type="checkbox"/> Most days <input type="checkbox"/> Every day <input type="checkbox"/> Don't know
12f	How often do you drink sugary drinks (e.g. Cordials, flavoured milk, fruit juice, soda, soft drink)? <input type="checkbox"/> Never <input type="checkbox"/> Rarely <input type="checkbox"/> Once a week <input type="checkbox"/> Most days <input type="checkbox"/> Every day <input type="checkbox"/> Don't know

Food Insecurity

13a	In the past 12 months, were there times when members of your household skipped a meal or ate less because of lack of money or other resources to get food? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/> Refuse to answer
13b	If Yes , how often did the shortage of food happen in your household in the past 12 months? <input type="checkbox"/> Every month <input type="checkbox"/> Every three months <input type="checkbox"/> Every six months <input type="checkbox"/> Only once in the last year

Table S1 Descriptive statistics of the guideline measures for the analytical samples

	Overall	Grade 1		Grade 3		Grade 5	
		Boys	Girls	Boys	Girls	Boys	Girls
Accelerometry sample (n=762)							
Number of days of valid wear, M (SD)	5.9 (1.0)	5.7 (0.9)	5.6 (1.0)	5.9 (0.8)	5.8 (0.9)	6.0 (1.2)	6.1 (1.1)
Valid wear time (h/day), M (SD)	23.8 (0.4)	23.8 (0.5)	23.8 (0.5)	23.8 (0.4)	23.8 (0.4)	23.9 (0.3)	23.9 (0.4)
Sleep duration (min/day), M (SD)	489.8 (46.0)	488.7 (54.9)	503.2 (45.3)	493.1 (48.9)	493.3 (41.0)	476.8 (41.8)	485.2 (43.6)
MVPA (min/day), M (SD)	98.3 (32.9)	118.2 (34.7)	95.2 (29.7)	111.8 (33.4)	87.6 (25.0)	105.1 (35.1)	80.0 (24.3)
Questionnaire sample (n=753)							
Number of days/week spent doing bone- and muscle-strengthening activities ^a , M (SD)	5.3 (1.9)	6.0 (1.8)	6.0 (1.4)	5.8 (1.5)	5.6 (1.7)	4.6 (1.9)	4.4 (2.1)
Number of days/week with < 2 hours of recreational screen time ^b , M (SD)	4.2 (2.3)	4.5 (2.5)	4.5 (2.4)	3.9 (2.3)	4.3 (2.2)	4.1 (2.3)	4.3 (2.2)
Having consistent bedtime (not vary by more than 30 min each day) ^c , n (%)							
Yes	528 (70.4)	53 (69.7)	74 (67.3)	94 (68.1)	107 (78.7)	100 (69.0)	100 (69.0)
No	222 (29.6)	23 (30.3)	36 (32.7)	44 (31.9)	29 (21.3)	45 (31.0)	45 (31.0)
Having consistent wake-up time (not vary by more than 30 min each day) ^c , n (%)							
Yes	507 (67.6)	50 (65.8)	71 (64.5)	83 (60.6)	104 (75.9)	105 (72.4)	94 (64.8)
No	243 (32.4)	26 (34.2)	39 (35.5)	54 (39.4)	33 (24.1)	40 (27.6)	51 (35.2)
Screen time before bed ^d , n (%)							
No	203 (27.4)	19 (25.3)	21 (19.3)	34 (25.0)	44 (32.8)	40 (27.8)	45 (31.3)
< 30 minutes before bedtime	256 (34.5)	32 (42.7)	49 (45.0)	39 (28.7)	41 (30.6)	44 (30.6)	51 (35.4)
30 minutes to < 1 hour before bedtime	142 (19.1)	10 (13.3)	24 (22.0)	36 (26.5)	24 (17.9)	30 (20.8)	18 (12.5)
Between 1 and 2 hours before bedtime	128 (17.3)	13 (17.3)	13 (11.9)	24 (17.6)	24 (17.9)	28 (19.4)	26 (18.1)
Don't know	13 (1.8)	1 (1.3)	2 (1.8)	3 (2.2)	1 (0.7)	2 (1.4)	4 (2.8)
Screens in bedroom ^e , n (%)							
Yes	498 (66.3)	52 (68.4)	73 (66.4)	80 (58.0)	91 (66.4)	99 (68.3)	103 (71.0)
No	253 (33.7)	24 (31.6)	37 (33.6)	58 (42.0)	46 (33.6)	46 (31.7)	42 (29.0)
Frequency of sugary drink consumption ^f , n (%)							
Never	41 (5.5)	-	6 (5.5)	9 (6.6)	9 (6.6)	5 (3.4)	12 (8.3)
Rarely	289 (38.6)	36 (47.4)	55 (50.0)	69 (50.7)	66 (48.2)	34 (23.4)	29 (20.0)
Once a week	143 (19.1)	15 (19.7)	20 (18.2)	23 (16.9)	30 (21.9)	28 (19.3)	27 (18.6)
Most days	158 (21.1)	15 (19.7)	19 (17.3)	19 (14.0)	16 (11.7)	45 (31.0)	44 (30.3)
Every day	61 (8.1)	6 (7.9)	5 (4.5)	5 (3.7)	5 (3.6)	20 (13.8)	20 (13.8)
Don't know	57 (7.6)	4 (5.3)	5 (4.5)	11 (8.1)	11 (8.0)	13 (9.0)	13 (9.0)
Frequency of highly processed snacks consumption ^f , n (%)							
Never	33 (4.4)	5 (6.6)	5 (4.5)	2 (1.5)	6 (4.4)	9 (6.2)	6 (4.1)
Rarely	217 (29.0)	29 (38.2)	44 (40.0)	55 (40.4)	49 (35.8)	23 (15.9)	17 (11.7)
Once a week	141 (18.8)	15 (19.7)	16 (14.5)	15 (11.0)	24 (17.5)	28 (19.3)	43 (29.7)
Most days	215 (28.7)	15 (19.7)	27 (24.5)	31 (22.8)	39 (28.5)	49 (33.8)	54 (37.2)
Every day	96 (12.8)	8 (10.5)	15 (13.6)	21 (15.4)	11 (8.0)	28 (19.3)	13 (9.0)
Don't know	47 (6.3)	4 (5.3)	3 (2.7)	12 (8.8)	8 (5.8)	8 (5.5)	12 (8.3)
Frequency of other fruits and vegetables consumption on a typical day/in a typical week ^f , n (%)							
Every day	313 (41.8)	21 (27.6)	46 (41.8)	49 (36.0)	46 (33.6)	68 (46.9)	83 (57.2)
More than 3 times a week	219 (29.2)	32 (42.1)	39 (35.5)	37 (27.2)	40 (29.2)	34 (23.4)	37 (25.5)
Twice a week	95 (12.7)	6 (7.9)	10 (9.1)	20 (14.7)	19 (13.9)	22 (15.2)	18 (12.4)
Once a week	61 (8.1)	9 (11.8)	12 (10.9)	15 (11.0)	12 (8.8)	10 (6.9)	3 (2.1)
Never	13 (1.7)	1 (1.3)	-	3 (2.2)	4 (2.9)	4 (2.8)	1 (0.7)
Don't know	48 (6.4)	7 (9.2)	3 (2.7)	12 (8.8)	16 (11.7)	7 (4.8)	3 (2.1)
Frequency of vitamin A-rich fruits and vegetables consumption on a typical day/in a typical week ^g , n (%)							
Every day	188 (25.1)	12 (15.8)	24 (21.8)	22 (16.3)	30 (21.9)	45 (31.0)	55 (37.9)
More than 3 times a week	155 (20.7)	16 (21.1)	24 (21.8)	25 (18.5)	26 (19.0)	29 (20.0)	35 (24.1)
Twice a week	119 (15.9)	9 (11.8)	15 (13.6)	18 (13.3)	18 (13.1)	33 (22.8)	26 (17.9)
Once a week	98 (13.1)	7 (9.2)	16 (14.5)	24 (17.8)	23 (16.8)	15 (10.3)	13 (9.0)
Never	52 (7.0)	9 (11.8)	6 (5.5)	13 (9.6)	10 (7.3)	10 (6.9)	4 (2.8)
Don't know	136 (18.2)	23 (30.3)	25 (22.7)	33 (24.4)	30 (21.9)	13 (9.0)	12 (8.3)

Abbreviation: M mean; SD standard deviation; MVPA moderate- to vigorous-intensity physical activity.

Variable-specific missing data for full questionnaire sample: ^an=6, ^bn=8, ^cn=3, ^dn=11, ^en=2, ^fn=4, ^gn=5.