

20th ATDS Supplementary Information

Part 1

Background Data

Table 1: Foods sampled in the 20th ATDS

Table 2: ATDS foods and corresponding NNS food

Table 3: Mean consumption of each food in the 20th ATDS for each age-gender group

Table 4: Average body weights in kilograms for each age-gender category examined (1995 NNS)

Table 5: Pesticides and metabolites tested for in the 20th ATDS

Table 6: Acceptable daily intakes (ADIs) for pesticides

Table 7: Tolerable limits for metals

Table 1. Foods sampled in the 20th ATDS**Notes on Table:**

1. C = Core Food. Four retail samples make up each composite sample.
2. N = National Food. Three retail samples make up each composite sample.
3. R = Regional Food. Three retail samples make up each composite sample.

Beverages, alcoholic	Leg ham (R)
Wine, white (R)	Liver pate (chicken) (R)
Beverages, non-alcoholic	Sausages, meat, thick (R)
Coffee, instant (N)	Nuts and seeds
Orange juice (C)	Almonds (N)
Soft drink (N)	Peanut butter (N)
Cereal and cereal products	Snack foods
Biscuits, savoury (N)	Potato chips (N)
Biscuits, sweet, plain (N)	Sugar/confectionery
Bran, wheat, processed (N)	Milk chocolate (N)
Bread, white (C)	Sugar, white (N)
Bread, multigrain (R)	Vegetables
Breakfast cereal, mixed grain (N)	Baked beans (N)
Breakfast cereal, single grain (N)	Beans, green, raw (N)
Lamingtons (N)	Broccoli (R)
Oats, rolled (N)	Capsicum (R)
Pasta, mixed (N)	Carrots (R)
Rice, white (N)	Celery (R)
Condiments	Lettuce (R)
Tomato Sauce (N)	Mushrooms (R)
Dairy products	Onions (R)
Cheese, cheddar (R)	Peas, frozen (N)
Ice Cream, Vanilla (N)	Potato (C)
Milk, full fat (C)	Pumpkin (R)
Egg and egg products	Tomatoes (C)
Eggs (C)	Infant foods
Fats and oils	Infant cereal, mixed (N)
Margarine, table spread (C)	Infant dessert (N)
Fish, seafood and fish products	Infant dinner, strained (N)
Fish fillets, raw, unfrozen (R)	Infant formula (N)
Fish portion (R)	
Prawns (R)	
Tuna, canned (N)	
Fruit	
Apples (R)	
Bananas (N)	
Grapes (R)	
Kiwifruit (N)	
Nectarines (R)	
Oranges (R)	
Strawberries (R)	
Sultanas (N)	
Watermelon (R)	
Meat and meat products	
Bacon (R)	
Beef, minced (C)	
Chicken breasts (R)	
Dim sims (R)	
Hamburgers (R)	
Lamb chops (R)	

Table 2. ATDS foods and corresponding NNS foods

FOOD CATEGORY	ATDS FOODS ANALYSED	NNS FOODS REPRESENTED
Beverages, alcoholic	Wine, white	All alcoholic beverages
Beverages, non-alcoholic	Coffee, instant	All tea, coffee and coffee substitutes
	Orange juice	All fruit juices and drinks (except vegetable juices, fruit based cordials and fruit-flavoured drink bases and cordial bases), fruit based drinks, and infant juices
	Soft drink	Soft drinks, flavoured mineral waters and electrolyte drinks, fruit based cordials, and fruit flavoured drink and cordial bases
Cereal and cereal products	Biscuits, savoury	Savoury biscuits, pastry and croissants
	Biscuits, sweet, plain	Sweet biscuits
	Bran, wheat, processed	Processed and unprocessed brans
	Bread, multigrain	Wholemeal, rye, and mixed grain breads, English style muffins, crumpets, flat breads, fancy breads and pancakes
	Bread, white	White bread, english-style muffins, crumpets, flat breads, buns and yeast-based products, doughnuts, pancakes and crepes, and bread-based stuffings
	Breakfast cereal, mixed grain	All cereal flours, cereal grains (except rice and oats), mixed grain breakfast cereals and muesli, tortilla, taco shells, and corn bread
	Breakfast cereal, single grain	Single grain corn- or rice- or wheat-based breakfast cereals, and semolina
	Lamington	Cakes, muffins, scones, slices, and plain dumplings
	Oats, rolled	Oats
	Pasta, mixed	Pasta (except filled pasta) and noodles (except rice based)
	Rice	Rice, rice products, rice noodles and ground rice
Condiments	Tomato Sauce	Tomato and tomato-based sauces, tomato salsa, savoury sauces, pickles, chutneys, relishes and vinegar
Dairy products	Cheese, cheddar	Cheese
	Ice cream, vanilla	Frozen milk products
	Milk, full fat	Milk, flavoured milks, dairy fats, yoghurt and cream
Egg and egg products	Eggs	Eggs, quiches, soufflés
Fats and oils	Margarine, table spread	Margarine, vegetable oils and non-dairy fats

Table 2 (cont'd). ATDS foods and corresponding NNS foods

FOOD CATEGORY	ATDS FOODS ANALYSED	NNS FOODS REPRESENTED
Fish, seafood and fish products	Fish fillets, raw, unfrozen	Battered, crumbed or uncoated fin fish (except canned)
	Fish portion	Fish roe, and fish and seafood products (e.g. fish cakes, seafood sticks)
	Prawns	Canned, battered or crumbed crustacea and molluscs
	Tuna, canned	Canned fish and seafood (except crustacea and molluscs)
Fruit	Apples	Pome fruit and apple sauce
	Bananas	Bananas
	Grapes	Grapes
	Kiwifruit	Tropical fruit (except bananas), other fruit (except grapes and melons), and avocado
	Nectarines	Stone fruit
	Orange	Citrus fruit
	Strawberries	Berry Fruit
	Sultanas	Dried and preserved fruit
	Watermelon	Melons
Meat and meat products	Bacon	Pork and bacon
	Beef, minced	Beef, veal, game and other carcass meats
	Chicken breasts	Poultry and feathered game
	Dim sim	Pastry rolls and triangles, spring roll, dim sim, chiko roll, wonton, pork bun, and single and double crust savoury pastries (except quiches)
	Hamburgers	Filled rolls and hamburgers
	Lamb chops	Lamb
	Leg ham	Ham and processed meat
	Liver pate (chicken)	Organ meats and offal products and dishes
	Sausages, meat, thick	Sausages, frankfurts and saveloys
	Nuts and seeds	Almonds
Peanut butter		Peanuts and peanut products
Snack foods	Potato chips	All snack foods (includes chips, crisps, popcorn etc)
Sugar/confectionery	Milk chocolate	Chocolate and chocolate confectionery, chocolate spreads, cocoa powder, cocoa drinks, and carob powder
	Sugar, white	Sugar, honey, syrups, jam, toppings, sweet spreads (except chocolate), sugar-based desserts and ice confections, icings, and confectionery
Vegetables	Baked beans	Legumes and pulse products and dishes, milk substitutes, and broad, butter and kidney beans
	Beans, green, raw	Green beans and snake beans
	Broccoli	Cauliflower and similar brassica vegetables except cabbage

Table 2 (cont'd). ATDS foods and corresponding NNS foods

FOOD CATEGORY	ATDS FOODS ANALYSED	NNS FOODS REPRESENTED
	Carrots	Carrot and similar root vegetables, carrot juice and mixed vegetable juice, root and similar brassica vegetables
	Capsicum	Other fruiting vegetables (except mushrooms and avocado), and other vegetables
	Celery	Leaf and stalk vegetables (except lettuce), and celery juice
	Mushrooms	Mushrooms and fungi
	Onions	Onion, leek and garlic
	Lettuce	Lettuce
	Peas, frozen	Green peas and snow peas
	Potato	Potatoes
	Pumpkin	Pumpkin, squash, zucchini
	Tomatoes	Tomato and tomato products, and tomato juice
Infant foods	Infant cereal, mixed	Infant cereal
	Infant custard, chocolate	Infant custard, yoghurt and gels
	Infant dinner, canned	Infant dinners
	Infant formula	Infant formula

Table 3. Mean consumption of each food in the 20th ATDS for each age-gender group in grams per day, derived from the 1995 NNS

Food	Adult males (25-34y)	Adult females (25-34y)	Boys (12y)	Girls (12y)	Toddler (2y)	Infant* (9 months)
	g/day	g/day	g/day	g/day	g/day	g/day
Almonds	6	4	1	3	2	0
Apples	47	42	89	65	55	26
Bacon	14	8	9	10	2	1
Baked beans	14	14	13	6	25	12
Bananas	24	22	11	14	26	12
Beans, green, raw	5	5	5	3	1	<1
Beef, minced	64	30	51	32	9	4
Biscuits, savoury	9	8	7	6	4	2
Biscuits, sweet, plain	10	7	14	7	6	3
Bran, processed wheat	<1	1	<1	<1	<1	0
Bread, multigrain	33	25	16	8	12	6
Bread, white	111	72	122	103	45	21
Breakfast cereal, mixed grain	24	15	30	18	11	0
Breakfast cereal, single grain	10	6	26	5	8	4
Broccoli	17	17	11	12	7	3
Capsicum	21	19	10	12	8	4
Carrots	27	22	10	17	9	4
Celery	6	8	4	3	1	<1
Cheese, cheddar	25	18	25	14	10	5
Chicken breasts	54	37	19	22	16	8
Coffee, instant	646	709	25	71	11	0
Dim sim	35	17	21	18	11	5
Eggs	13	9	4	6	6	3
Fish fillets, raw, unfrozen	10	6	7	4	2	1
Fish portions	1	<1	<1	0	0	0
Grapes	6	7	5	10	7	4
Hamburgers	20	7	11	7	0	0
Infant cereal, mixed	0	<1	0	0	0	5
Infant dessert	0	<1	0	0	2	6
Infant dinner, strained	0	<1	0	2	1	6
Infant formula	0	0	0	0	0	698
Kiwifruit	15	12	6	7	10	5
Lamb chops	15	7	2	17	2	1
Lamington	15	15	13	17	6	3
Leg ham	18	9	9	11	7	4
Lettuce	10	9	7	6	2	1
Liver pate (chicken)	<1	<1	1	0	<1	0
Margarine, table spread	18	12	14	13	6	3
Milk chocolate	10	9	16	11	6	3
Milk, full fat	434	331	532	294	464	0
Mushrooms	4	3	5	4	1	<1
Nectarines	12	14	7	8	10	5
Oats, rolled	1	3	<1	<1	3	1
Onions	23	15	11	11	5	2
Orange	14	16	19	18	24	11

20th ATDS Supplementary Information – Part 1

Table 3 (cont'd). Mean consumption of each food in the 20th ATDS for each age-gender group in grams per day, derived from the 1995 NNS

Food	Adult males (25-34y)	Adult females (25-34y)	Boys (12y)	Girls (12y)	Toddler (2y)	Infant* (9 months)
	g/day	g/day	g/day	g/day	g/day	g/day
Orange juice	101	91	112	137	143	67
Pasta, mixed	15	12	11	15	7	3
Peanut butter	3	2	2	<1	1	0
Peas, frozen	14	9	15	12	4	2
Potato	75	46	60	49	26	12
Potato chips	7	6	13	11	6	3
Prawns	6	4	2	<1	<1	<1
Pumpkin	13	11	8	5	5	2
Rice, white	19	16	8	13	8	4
Sausages, meat, thick	16	7	13	20	8	4
Soft drink	444	233	387	343	186	88
Strawberries	2	3	<1	2	3	1
Sugar, white	24	19	38	31	15	7
Sultanas	3	3	4	3	4	2
Tomato sauce	24	18	14	14	4	2
Tomatoes	61	46	41	41	13	6
Tuna, canned	3	3	1	3	<1	<1
Vanilla ice cream	27	15	60	64	15	7
Watermelon	7	7	10	10	6	3
White wine	459	108	0	0	<1	0

* Infant consumption figures were adjusted from average toddler consumption as the 1995 NNS did not study infants < 2years of age. (See discussion of infant diet in main report.)

Table 4. Average body weights in kilograms for each age-gender category examined (1995 NNS)

Age group	<u>Average weight</u>
	kg
Adult males (25-34y)	82
Adult females (25-34y)	66
Boys (12y)	49
Girls (12y)	52
Toddler (2y)	14
Infant (9mth)*	9.2

*50th percentile weight of a 9 month old male, WHO 1983 Measuring change in nutritional status.

**Table 5. Pesticides and metabolites tested for in the 20th ATDS
(Substances marked with an “*” were reported as not detected in all foods)**

Carbamates	Demeton-S-methyl*
Aldicarb*	Diazinon*
Carbaryl	Dichlorvos*
Fenoxycarb	Dimethoate
Pirimicarb	Dioxathion*
Fungicide	Ethion*
Bupirimate*	Fenamiphos*
Captan	Fenchlorphos*
Chlorothalonil	Fenitrothion
Dicloran*	Fenthion
Difenoconazole*	Formothion*
Dimethomorph*	Malathion/Maldison
Diphenylamine	Methacrifos *
Flusilazole*	Methamidophos
Hexaconazole*	Methidathion
Imazalil*	Mevinphos*
Iprodione	Monocrotophos*
Metalaxyl	Omethoate*
Myclobutanil*	Parathion*
o-Phenylphenol	Parathion-methyl
Procymidone	Phorate*
Propiconazole	Phosalone*
Pyrimethanil	Phosmet*
Tebuconazole*	Pirimiphos-methyl
Triadimefon*	Thiometon*
Triadimenol*	Trichlorfon*
Vinclozolin	Vamidothion*
Chlorinated Organic Pesticides	Synthetic pyrethroids
Aldrin*	Bifenthrin
BHC (total: α,β,γ [Lindane], δ)*	Bioresmethrin
Chlordane*	Cyfluthrin*
Total DDT ¹	Cyhalothrin*
Dicofol*	Cypermethrin*
Dieldrin*	Deltamethrin*
Endosulfan	Fenvalerate & Esfenvalerate*
Endrin*	Flumethrin*
Heptachlor*	Permethrin
Hexachlorobenzene*	Synergist
Tetradifon	Piperonyl butoxide
Organophosphorus Pesticides	Other
Acephate	Coumatetralyl*
Azinphos ethyl*	Methoprene
Azinphos-methyl	Oxyfluorfen*
Bromophos-ethyl*	Pendimethalin*
Carbophenothion*	Propargite
Chlorfenvinphos	Tebufenpyrad
Chlorpyrifos	
Chlorpyrifos-methyl	
Coumaphos*	

¹ Total DDT is the sum of p,p' & o,p' DDD, p,p' & o,p' DDE, and p,p' & o,p' DDT

Table 6. Acceptable daily intakes (ADIs) for pesticides (Commonwealth Department of Health and Ageing, Therapeutic Goods Administration December 2001)

Pesticide	ADI
	mg/kg body weight/day
Acephate	0.003
Azinphos methyl	0.001
Bifenthrin	0.01
Bioresmethrin	0.03
Captan	0.1
Carbaryl	0.004
Chlorfenvinphos	0.0005
Chlorothalonil	0.01
Chlorpyrifos	0.003
Chlorpyrifos-methyl	0.01
DDT	0.002
Dimethoate	0.02
Diphenylamine	0.02
Endosulfan	0.006
Fenitrothion	0.002
Fenoxycarb	0.05
Fenthion	0.002
Iprodione	0.04
Maldison	0.02
Metalaxyl	0.03
Methamidophos	0.0006
Methidathion	0.01
Methoprene	0.4
Parathion methyl	0.0002
Permethrin	0.05
o-Phenylphenol	0.02
Piperonyl Butoxide	0.1
Pirimicarb	0.002
Pirimiphos-methyl	0.02
Procymidone	0.05
Propiconazole	0.04
Propargite	0.002
Pyrimethanil	0.2
Tebufenpyrad	0.002
Tetradifon	0.02
Vinclozolin	0.01

Table 7. Tolerable limits for metals

Metal	Tolerable dose	Reference	Tolerable limits µg/kg bodyweight /day	Tolerable limits µg/kg bodyweight /week
Antimony	0.4 µg/kg bw/day	US EPA ¹	0.4	2.8
Arsenic (inorganic)	0.003 mg/kg bw/day	ANZFA ²	3	21
Cadmium	7 µg/kg bw/week	JECFA, 1996 ³	1	7
Copper	0.2 mg/kg bw/day	FAO/IAEA/WHO, 1996 ⁴	200	1400
Lead	25 µg/kg bw/week	JECFA, 2000 ⁵	3.6	25
Mercury	0.3 mg/person/week	JECFA, 1989 ⁶	0.7	5
Selenium	750 µg/person/day	ANZFA ²	12.5	87.5
Tin	14 mg/kg bw/week	JECFA, 1989 ⁷	2000	14000
Zinc	45 mg/person/day	WHO, 1996 ⁸	1000	7000

Refer to the References Section of the main report for details on these references

¹ (USEPA 1991)

² (ANZFA 1999)

³ (WHO 2001b)

⁴ (WHO 1996)

⁵ (WHO 2000a)

⁶ (WHO 1989b)

⁷ (WHO 1989c)

⁸ (WHO 1996)