



Arizona Food, Animal, and Water Exposure Survey

Atlas of Exposures, 2016-2017



 ARIZONA DEPARTMENT
OF HEALTH SERVICES

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Demographic Characteristics of Respondents

Demographic Characteristic	Arizona N=7353	
	n	%
Sex		
Female	4737	64.4
Male	2616	35.6
Age (years)		
1-9	1023	13.9
10-13	556	7.6
14-17	510	6.9
18-34	2516	34.2
35-49	1437	19.5
50-64	1605	21.8
≥65	1204	16.4
Race		
Asian	210	2.9
African-American	367	5.0
White (non-Hispanic)	5577	75.8
Hispanic	1033	14.0
Hawaiian or Pacific Islander	28	0.4
Native American or Indigenous	273	3.7
Other	60	0.8
Other (Specified)	96	1.3
Prefer Not To Answer	104	1.4

Demographic Characteristics of Respondents (cont.)

Demographic Characteristic	Arizona N=7353	
	n	%
Household Income		
Less than \$15,000	1294	17.6
\$15,000 to \$40,000	1680	22.8
\$40,001 to \$75,000	2831	38.5
Greater than \$75,000	1548	21.1
Health Insurance		
Yes	5032	68.4
Unsure	309	4.2
No	513	6.8
Financial Assistance		
Yes	1473	20.0
Unsure	226	3.1
No	4678	63.6
Residential Setting		
Rural or on a farm	658	8.9
Town or village	878	11.9
Suburban	2654	36.1
City	3163	43.0

County Breakdown of Respondents

County	Arizona N=7353	
	n	%
Apache	133	1.8
Coconino	112	1.5
Cochise	152	2.1
Gila	146	2.0
Graham	104	1.4
Greenlee	32	0.5
La Paz	39	0.6
Maricopa	3988	66.2
Mohave	346	5.7
Navajo	79	1.3
Pima	1270	21.1
Pinal	443	7.4
Santa Cruz	78	1.3
Yavapai	281	3.9
Yuma	150	2.1

Fresh Vegetables Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Celery	2266	30.8
Mini-carrots in sealed bag	2641	35.9
Loose or bagged carrots (full sized)	1409	19.2
Cucumber	2895	39.4
Broccoli	2946	40.1
Cauliflower	1296	17.6
Green bell peppers	2027	27.6
Red bell peppers	2058	28.0
Spicy peppers (Jalapeño, habanero, etc.)	1343	18.3
Sweet Peppers	964	13.1
Asparagus	1164	15.8
Fresh corn	2000	27.2
Snow peas (in pod)	588	8.0
Green beans	2057	28.0
Brussel sprouts	687	9.3
Eggplant	370	5.0
Zucchini or Squash	1540	20.9
Hard squash (pumpkin, acorn, etc.)	391	5.3
Any onion (white, yellow, red, etc.)	3015	41.0

Fresh Vegetables Consumed in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Green onion (scallions)	1373	18.7
Leeks	151	2.1
Avocado	2611	35.5
Homegrown tomatoes	787	10.7
Store-bought tomatoes	3159	43.0
Any sliced tomatoes on burgers or sandwiches	2231	30.3
Cabbage	1150	15.6
Potatoes	4400	59.8
Yams or sweet potatoes	953	13.0
Any salad mix that came in a sealed bag	2674	36.4
Spring Mix (Mesclun lettuce)	619	8.4
Any other iceberg lettuce	2120	28.8
Romaine lettuce	1969	26.8
Other leaf lettuce	916	12.5
Any lettuce on sandwiches or burgers	2110	28.7
Spinach	1698	23.1
Other greens (collard, mustard, etc.)	673	9.2
Garlic	2606	35.4
Mushrooms	1910	26.0

Fresh Vegetables Consumed in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Beets, turnips, or radishes	452	6.1
Prickly pear cactus	90	1.2
Any organic produce	839	11.4
None	336	4.6

Fresh Fruit Consumed in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Apples	3919	53.3
Oranges	2715	36.9
Strawberries	3884	52.8
Lemons	1588	21.6
Blueberries	2167	29.5
Pears	1018	13.8
Peaches	1274	17.3
Grapefruit	561	7.6
Lime	1034	14.1
Raspberries	1236	16.8
Tangerines	574	7.8
Nectarines	637	8.7
Blackberries	1069	14.5
Apricots	289	3.9
Tangelos	280	3.8
Red or purple grapes	1854	25.2
Bananas	3802	53.1
Green grapes	1620	22.0
Any other grapes	1575	21.4

Fresh Fruit Consumed in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Cantaloupes	1232	16.8
Pineapples	1567	21.3
Watermelons	1838	25.0
Honeydews	566	7.7
Cherries	978	13.3
Mangos	934	12.7
Plums	441	6.0
Kiwis	516	7.0
Plantains	94	1.3
Papayas	177	2.4
None	556	7.6

Fresh Herbs Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Basil	1784	24.3
Parsley	1431	19.5
Cilantro	2142	29.1
Mint	582	7.9
None	3841	52.2

Sprouts Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Alfalfa sprouts	260	3.5
Bean sprouts	691	9.4
Other sprouts (clover, mixed)	191	2.6
None	6355	86.4

Eggs Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Eggs from the grocery store	5971	81.2
Eggs from the farmer's market/ farm	547	7.4
Any eggs that were runny	554	7.5
Anything that had raw eggs	227	3.1
Anything eaten raw that is nor- mally cooked containing raw eggs	723	9.8
None	1031	14.0

Dairy Products Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Any pasturized (regular) milk	4939	67.2
Ice cream	4444	60.4
Butter (not margarine)	4369	59.4
Store-bought yogurt	2676	36.4
Sour cream	2674	36.4
Ice cream bars or frozen dairy desserts	2065	28.1
Whipped cream	1542	21.0
Frozen yogurt	975	13.3
Buttermilk (fluid, not powdered)	228	3.1
Any egg substitutes ('Egg-Beat-ers', etc.)	243	3.3
Pre-made pudding or custard	564	7.7
None	329	4.5

Unpasteurized Milk Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Yes	317	4.3
Unsure	421	5.7
No	6536	88.9

Cheese Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Any cheese sold as or cut from solid blocks	1204	16.4
Cheddar	4382	59.6
American	4142	56.3
Any cheese on a deli-style sandwich	1459	19.8
Parmesan or Romano	2338	31.8
Cream cheese	2063	28.1
Swiss	1465	19.9
Cottage cheese	1392	18.9
String cheese	1863	25.3
Mozzarella	3403	46.3
Blue-veined cheese (Bleu, Gorgonzola)	356	4.8
Feta	587	8.0
Gourmet cheese	450	6.1
Ricotta	521	7.1
Any cheese spread	348	4.7
Any cheese made from goat or sheep milk	311	4.2
Mexican	2096	28.5
None	406	5.5

Mexican-Style Cheese and Cheese Prepared with Unpasteurized Milk Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Store-bought Mexican-style soft cheese (made with raw milk)	815	11.1
Store-bought Mexican-style shredded cheese	2857	38.9
Homemade Mexican-style cheese (made with raw milk)	169	2.3
Any cheese made from raw milk	471	6.4
None	3662	49.8

Beef Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Pre-frozen hamburger patties eaten at home	1611	21.9
If yes, was it pink on the inside?	227	3.1
Fresh hamburger patties at home	2000	27.2
If yes, was it pink on the inside?	426	5.8
Anything made with ground beef at home	3859	52.5
Any other beef (steaks, roasts, etc.)	3376	45.9
None	1475	20.1

Meat and Poultry Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Any chicken prepared at home	5089	69.2
Whole chicken prepared at home	899	12.2
If yes, was the whole chicken frozen?	433	5.9
Pre-cut chicken parts prepared at home	1844	25.1
If yes, were the pre-cut chicken parts frozen?	1007	13.7
Any chicken prepared/eaten away from home	1784	24.3
Ground chicken	418	5.7
Ground turkey	1013	13.8
Turkey (whole or in parts)	910	12.4
Duck or game hen	65	0.9
Veal	72	1.0
Pork (ribs, pork chops, etc.)	2756	37.5
Ham (not deli slices)	1113	15.3
Lamb	217	3.0
Any kind of game (vension, pheasant, etc.)	107	1.5
None	876	11.9

Cooked or Processed Meats Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Bacon	4058	55.2
Any pre-packaged sliced deli meats	2099	28.5
Pepperoni/Salami	2025	27.5
Hot dogs	3008	40.9
Any other sliced deli meats	1434	19.5
Breakfast sausage	2022	27.5
Any other sausage (e.g. bratwurst)	978	13.3
Bologna	1121	15.2
Store-bought meat sticks/jerky	702	9.5
Corn dogs	940	12.8
Chorizo	965	13.1
None	997	13.6

Seafood Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Smoked or dried fish (e.g. lox)	261	3.5
Fresh fish (store-bought)	947	12.9
Shrimp/Prawns	1588	21.6
Oysters	176	2.4
If yes, were the oysters raw?	94	1.3
Crab	508	6.9
Other shellfish	144	2.0
If yes, was the shellfish raw?	32	0.4
Other fish	1028	14.0
Lobster	281	3.8
None	4316	58.7

Dishes Prepared with Raw Fish Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Sushi/Sashami	627	8.5
Ceviche	298	4.1
Any other dishes with raw fish or shellfish	113	1.5
None	6430	87.4

Dried Food Products Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Peanuts (loose or in shell)	2670	36.3
Processed (store-bought) peanut butter	2633	35.8
Fresh-ground natural peanut butter	463	6.3
Almonds	2236	30.4
Walnuts	1215	16.5
Cashews	1689	23.0
Pistachios	1143	15.5
Sunflower seeds	1385	18.8
Raisins or Craisins	1886	25.6
Other dried fruits	754	10.3
Other raw nuts	520	7.1
None	1535	20.9

Pre-Packaged Foods Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Cold cereals (e.g. Cheerios)	4721	64.2
Granola	1690	23.0
Hot Cereals (oatmeal, grits, etc.)	1954	26.6
Chips (corn potato, etc.)	4940	67.2
Pretzels	2002	27.2
Crackers	3836	52.2
Cookies	3868	52.6
None	344	4.7

Baby Food and Formula Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Baby formula purchased as a liquid	111	1.5
Baby formula purchased as a powder	248	3.4
Store-bought pureed baby food	172	2.3
Breast milk from someone besides mom (e.g. donated, purchased)	44	0.6
None	6973	94.8

Any of the Following Foods Eaten in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Unwrapped bulk chocolate	444	6.0
Tofu or other meat substitutes	399	5.4
Edamame (fresh or frozen)	394	5.4
None	6297	85.6

Store-bought, Prepared Foods Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Fruit Salad	594	8.1
Pasta Salad	610	8.3
Potato Salad	1097	14.9
Egg Salad	315	4.3
Cole Slaw	730	9.9
None	5319	72.3

Mexican-Style Foods Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Fresh Salsa (not jarred or bottled)	1855	25.2
Hard Taco Shells	1550	21.1
Flour Tortillas	3655	49.7
Corn Tortillas	2386	32.4
Guacamole	1929	26.2
If yes, was the guacamole store-bought?	740	10.1
If yes, was the guacamole homemade?	1188	16.2
None	2181	29.7

Mexican-Style Meats Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Barbacoa	300	4.1
Carne Asada	1653	22.5
Carnitas	655	8.9
None	5319	72.3

Frozen Foods Consumed in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Vegetables in a bag	3218	43.8
Dinners/entrees	1942	26.4
Pizza	3036	41.3
Vegetables in a box	334	4.5
Chicken strips or nuggets (at home)	1807	24.6
Fish Products	945	12.9
Shrimp, frog legs, lobster, or crab	659	9.0
Berries	1069	14.5
Other chicken products	605	8.2
Vegetarian Products (e.g. garden burger)	333	4.5
Mexican-style products (e.g. taquitos)	1061	14.4
Stuffed chicken products (e.g. chicken kiev, chicken cordon bleu)	204	2.8
Rolls/wraps	580	7.9
None	1277	17.4

Foods Consumed in Commercial Establishments in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Burger or ground beef at a fast food place/restaurant	3404	46.3
Other burger or ground beef away from home	1058	14.4
Any other beef away from home	892	12.1
Any deli-type sandwich	1920	26.1
Any sandwich with sprouts on it	269	3.7
Any sandwich/burger garnished with tomato	1718	23.4
Anything from a salad bar	826	11.2
Any salad made with lettuce or greens	2697	36.7
Anything with raw tomatoes	2252	30.6
Pizza from a fast food place/restaurant	2682	36.5
Any kind of burrito or wrap	2003	27.2
None	1032	14.0

Grocery Stores Shopped at Regularly in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Albertsons	1569	21.3
Bashas'	1391	18.9
City Market	71	1.0
Costco	1830	24.9
El Super	229	3.1
Food City	1106	15.0
Fry's Food and Drug	4744	64.5
Los Altos Ranch Market	167	2.3
Safeway	3066	41.7
Sam's Club	1066	14.5
Sprouts	1389	18.9
Target	1348	18.3
Trader Joe's	888	12.1
Wal-Mart	4618	62.8
Whole Foods Market	433	5.9
WinCo Foods	826	11.2
None	6	0.1
Other	583	7.9

Fast Food Restaurants Eaten From Regularly in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Arby's	1142	15.5
Burger King	1952	26.5
Carl's Jr.	947	12.9
Chick-fil-A	1242	16.9
Chipotle	1015	13.8
Church's Chicken	395	5.4
Culver's	641	8.7
Del Taco	620	8.4
Filibertos	671	9.1
Firehouses Subs	356	4.8
Five Guys	487	6.6
In-N-Out	1616	22.0
Jack in the Box	1915	26.0
Jimmy John's	555	7.5
KFC	1194	16.2
McDonald's	3213	43.7
Panda Express	1770	24.1
Pei Wei	389	5.3

Fast Food Restaurants Eaten From Regularly in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Pollo Loco	343	4.7
Raising Cane's	405	5.5
Rally's	106	1.4
Smashburger	339	4.6
Sonic	1102	15.0
Subway	2586	35.2
Sweet Tomatoes	303	4.1
Taco Bell	2301	31.3
Wendy's	1494	20.3
Whataburger	531	7.2
None	1125	15.3
Other	248	3.4

Dine-In Restaurants Eaten From Regularly in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Buffalo Wild Wings	969	13.2
Cheba Hot Toasted Subs	135	1.8
Chili's	1316	17.9
Duck and Decanter	46	0.6
Joe's Crab Shack	238	3.2
Lo-Lo's Chicken and Waffles	206	2.8
Maggiano's Little Italy	97	1.3
Olive Garden	1930	26.2
Oregano's	525	7.1
Panera Bread	743	10.1
Pita Jungle	402	5.5
Red Lobster	867	11.8
Red Robin	1031	14.0
SomeBurros!	161	2.2
Squid Ink Sushi	57	0.8
Texas Roadhouse	1049	14.3
The Cheesecake Factory	638	8.7
The Vig	70	1.0

Dine-In Restaurants Eaten From Regularly in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Tom's BBQ	101	1.4
None	2753	37.4
Other	806	11.0

Any Foods Consumed from the Following Places in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Grocery Store (Fry's, Bashas', Walmart, etc.)	5861	79.7
Latin food market (Ranch Market, El Super, etc.)	398	5.4
Health foods store (Sprouts, Trader Joe's, etc.)	1183	16.1
Other ethnic food stores (Indian, Asian, etc.)	281	3.8
Specialty meat store (Halal, Carnecería, etc.)	122	1.7
Dollar store or discount store (99 Cents Only, Dollar Tree, etc.)	1609	21.9
Convenience store (QT, Circle K, etc.)	1911	26.0
Pharmacy (CVS, Walgreens, etc.)	720	9.8
Warehouse store (Sam's Club, Costco, etc.)	1506	20.5
Farmer's Market	423	5.8
Gifted Food (food bank, charity, church, or school)	471	6.4
Perishable food delivered to the home, by mail or truck or clubs	219	3.0
Food sold door-to-door or in a parking lot (queso, tamales, etc.)	127	1.7

Any Foods Consumed from the Following Places in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
Cottage food (foods made and sold from a private residence)	84	1.1
Food or candy brought from Mexico or another country to sell or to share	295	4.0
Fast food restaurant (McDonald's, Del Taco, etc.)	4327	58.8
Sit-down restaurant (Olive Garden, Red Lobster, etc.)	2316	31.5
Food Truck	230	3.1
None	469	6.4
Other	57	0.8

Animal Exposure in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Bird	689	9.4
Kitten (less than 6 months)	377	5.1
Cat	2781	37.8
Chicken	383	5.2
Baby chicks	101	1.4
Cow, bull, or steer	86	1.2
Calf	38	0.5
Puppy (less than 6 months)	521	7.1
Dog	4976	67.7
Goat	134	1.8
Sheep, Lamb	76	1.0
Horse	266	3.6
Pig	129	1.8
Reptile (snakes, iguanas, lizards turtles)	384	5.2
Amphibians (frogs, toads, etc.)	74	1.0
Turkey	73	1.0
Tropical fish	264	3.6
Handled dog treats (pig ears, rawhide chews, etc.)	1001	13.6

Animal Exposure in the Past 7 Days (cont.)

Exposure	Arizona N=7353	
	n	%
None	1355	18.4
Other	128	1.7

Locations of Animal Exposure in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Visited a petting zoo or farm	205	2.8
Visited a fair at which there were animals	160	2.2
Visited other events where animals were present	287	3.9
None	6746	91.7
Other	69	0.9

Water Feature Exposure in the Past 7 Days

Exposure	Arizona N=7353	
	n	%
Any type of pool (public, private, home, kiddie, etc.)	2103	28.6
Any type of hot tub, spa, whirlpool, or Jacuzzi	808	11.0
Any splash pad or spray pool	248	3.4
Any other water feature	448	6.1
Any irrigation/secondary water (canal, etc.)	462	6.3
Any lake or pond (natural or man-made)	535	7.3
Any river or ocean	419	5.7
None	4209	57.2
Other	67	0.9

Source of Drinking Water

Exposure	Arizona N=7353	
	n	%
Bottled water	4989	67.8
Filtered water (e.g. osmosis system)	3026	41.2
Tap water	2672	36.3
Well water or other fresh water	483	6.6
None	40	0.5
Other	26	0.4

