

Family Use of Dairy Products

study of Oakland and Los Angeles families shows how milk, cream, cheese, butter were used in survey period

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The first of a series of reports of a survey on the consumption of dairy products in urban areas of California made co-operatively by the Department of Home Economics, University of California, California State Department of Agriculture, and United States Department of Agriculture under the authority of the Research and Marketing Act.

A seven-day survey of 424 Oakland families and 513 Los Angeles families revealed that approximately 75% of the fluid milk purchased was used as a beverage.

The Oakland families drank an average of 7.5 quarts and the Los Angeles families 8.6 quarts during the week. Most of this was whole milk of some kind. The Oakland families drank 6.8 quarts and the Los Angeles families 7.7 quarts of homogenized, plain, multi-vitamin, and extra-fat milks.

Homogenized milk was by far the most popular beverage among the fluid milks. It was used by 60% to 70% of the families. From 6% to 16% of the families drank either buttermilk, chocolate milk, or non-fat milk.

All the chocolate milk purchased, 86% to 89% of the non-fat milk, and 76% to 88% of the buttermilk were consumed as beverages.

Individual persons in Oakland drank an average of 2.5 quarts during the week of the survey and those in Los Angeles drank 2.9 quarts. The largest quantities were consumed by boys from 13 to 20 years of age. This group drank an average of 5.1 quarts in Oakland and 5.7 quarts in Los Angeles. The next largest group of milk drinkers was that of children from one through 12 years with an average of about 5 quarts a week. The amount increased as age increased.

Age and sex affected the amount of milk used as a beverage. Persons 21 years and over averaged only about one third as much milk as those under 21 years. Women and girls drank only about two thirds as much as men and boys in the same age groups.

Age	Oakland	Los Angeles
Females		
13-20	3.5	3.9
21-40	1.7	1.8
41-60	0.9	1.3
Males		
13-20	5.1	5.7
21-40	2.5	2.7
41-60	1.5	1.9

Age and sex also reflected the kind of milk drunk, especially the low-calorie

milks. Non-fat milk and buttermilk averaged about 7% of the milk drunk at home by all individuals. Children from one to 12 years and boys from 13 through 20 years drank only 2% or less of their total milk consumption as low-calorie milk. The figures were 4% to 5% for girls 12 through 20 years; 8% to 10% for men 21 years and over; and 18% to 19% for women 21 years and over.

About one fifth of the persons in the survey drank some milk away from home. More than one half drank milk only at home. From 38% to 42% of the children one to 12 years and 34% to 36% of the youths 13 through 20 years drank some milk away from home. About 11% of the persons over 21 years—7% of women

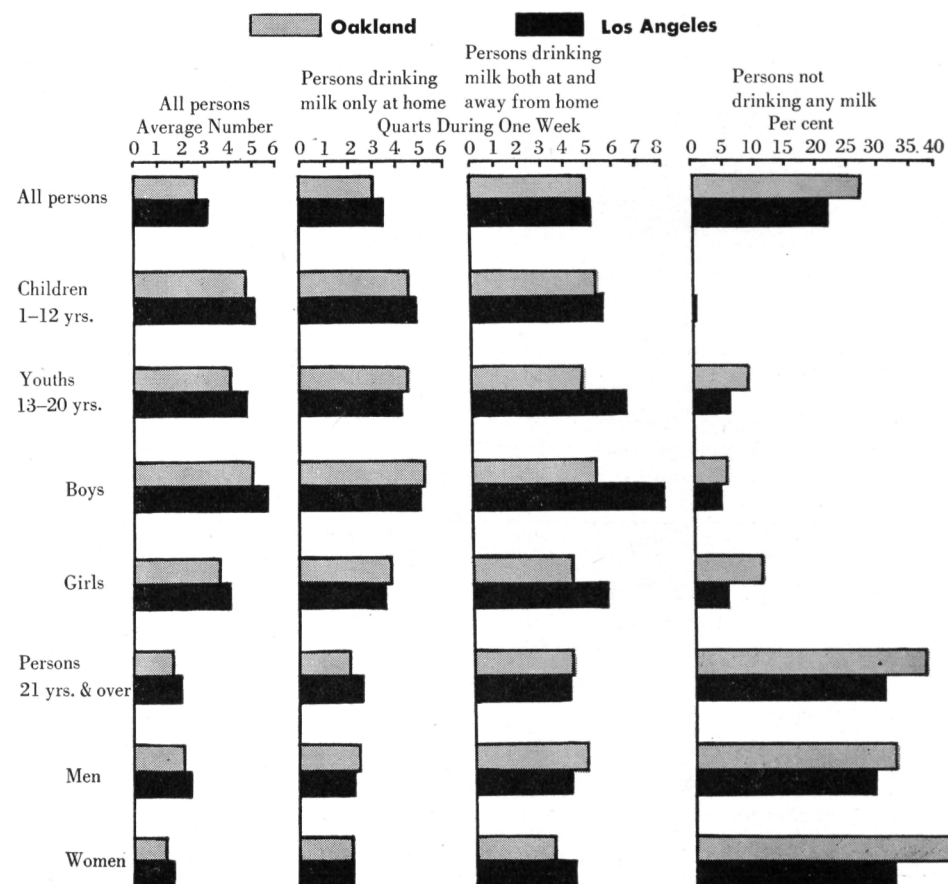
and 16% of men—also drank some milk away from home.

The practice of drinking milk away from home as well as at home affected considerably the total amount consumed. Those drinking milk only at home drank only about 60% as much as those who drank milk both at home and away from home.

Although considerably over 90% of the families used milk as a beverage, not all persons in all the families drank milk. Twenty-seven per cent of the persons surveyed in Oakland and 21% in Los Angeles did not drink milk during the week.

About 97% of these persons not drinking milk were 21 years and over. About

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MILK

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1% of the children one to six years old did not drink any milk. All the children from seven to 12 drank milk, as did all the girls and most of the boys from 13 to 15 years. In the 16-to-20-year group about 8% of the boys and girls in Los Angeles and 7% of the boys and 17% of the girls in Oakland did not drink milk.

Of persons 21 years and over, an average of over one third did not drink any milk. The proportion of women who did not drink milk was larger than that for men.

If those who did not drink milk during the survey period had drunk the average amounts the per capita consumption of milk as a beverage would be increased 52 quarts per year in Oakland and 42 quarts in Los Angeles.

Other Uses

Almost 90% of the families studied used fluid milk in food preparation. From 10% to 15% of the different whole milks purchased was used in this way. The largest proportion—2% to 5%—was used in baked goods. From 1% to 3% was used for sauces, gravies, and in casserole dishes. About 1% of fluid milk was used for seasoning vegetables, and from 1% to 3% in ice creams, puddings and the like.

About two thirds of the families used 10% of the milk on cereal.

Approximately one fifth of the families used milk in their tea and coffee, thus consuming about 2% to 3% of the total milk.

Half-and-half milk seems to have almost replaced table cream. Whereas 28% of the families in Oakland and 38% in

Los Angeles bought half-and-half, only about 7% bought table cream during the week studied.

From 15% to 21% of the families used half-and-half on cereals but less than 2% used table cream. Almost 10% used half-and-half in food preparation, and less than 2% used table cream.

Slightly over one half pint of half-and-half was used on the average by Oakland families and more than three fourths pint by the Los Angeles families. The average of table cream used was only 0.06 pints.

About 45% of the half-and-half was used in tea and coffee, about 37% on cereal, and 7% in food preparation.

Whipping cream was used by more families than table cream. In Oakland the amount of whipping cream was almost twice that of table cream. Practically all of it was used in food preparation and on fruits and desserts at the table.

Evaporated milk was used by 46% of the families in Oakland and 36% of those in Los Angeles.

From 23% to 30% of the families used evaporated milk in tea and coffee; 4% to 5% on cereal at the table; 2% to 3% as a beverage; and 17% to 22% in food preparation.

About one third of the evaporated milk used was used in tea and coffee; almost one fourth in infant feeding; 7% on cereals; 6% to 9% as a beverage; 20% in food preparation; and 7% to 12% for pet food.

Only about 3% of the families used either non-fat or whole dry milk, a larger proportion using the former. Non-fat dry milk was used in food preparation, as a beverage, as pet food and, in Los Angeles, on cereal.

Cottage cheese was used by 60% to 68% of the families surveyed. Families in Oakland consumed almost three-fourths pound and those in Los Angeles, almost one pound.

About 37% of the families used cottage cheese in salads and salad dressings. Over 31% in Oakland and 45% in Los Angeles served it alone at the table. About 2% used it in food preparation.

American cheddar cheese was used in sandwiches by almost half of the families; was served at the table by nearly 20% of the families; and was used in food preparation—sauces, gravies, casserole dishes—by 20% to 25% of the families.

About 55% of the total cheddar cheese used went into sandwiches, 22% to 24% was served at the table and 20% to 23% went for food preparation.

In addition to American cheddar cheese Oakland families used an average of 0.13 pound of other hard cheese and cream and other soft cheese. The Los Angeles families used an average of 0.2 pound of these cheeses during the week. Like the cheddar cheese the most popular use was in sandwiches.

Although some cheddar cheese was used in salads and salad dressing, from two to three times as much other hard cheese and from three to four times as much cream cheese was used in this way.

About 52% of the families surveyed used butter. The average quantity used by all families surveyed was a little more than one half pound per family.

Two thirds or more of the butter was used at the table; about 8% in sandwiches; about one fourth in food preparation; and 1% to season vegetables.

Butter was used as a spread at the table by about half of the families, i.e., by nearly all who used butter in any way; to season vegetables at the table by 27% to 32% of the families; sandwiches by 21% to 28% of the families; and in food preparation by almost 42% of the families.

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PENETRATION

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3½ times that of the compacted strips.

Samples 11 and 12 were taken from an old irrigated pasture on Cajon clay loam. Water penetration had been normal at the time of planting but compaction was caused by grazing on wet soil.

Infiltration rates were measured by determining the rate of drop of the water surface in the cylinders. These cores did not transmit any water. The condition was so severe that water grass and other water-loving weeds crowded out pasture plants.

Samples 13 to 20 were taken in San Joaquin County, and are examples of difficulties with heavier soil types. The samples were taken in tomato fields in the bottom of irrigation furrows, a level 5" or 6" below the ground surface before the beds were formed.

Samples 13 and 14 were obtained from the first foot of a dense layer of Rincon clay extending to a depth of about 22". Sample 15 was secured from the friable soil below this depth. The friable soil had an infiltration rate 7½ times that of the compacted layer.

Samples 16 to 18 came from Sorrento silty clay which had a dense layer at least 16" deep, and a very low infiltration rate. Probing and digging indicated that the layer was approximately 22" thick.

Samples 19 and 20 were taken in a Stockton clay adobe. The soil was very dense considering its heavy texture, and the infiltration rate was very low. Below the 24" depth there was an extremely heavy clay with a density of 1.68.

Excavations were made in all tomato fields and roots were examined. A heavy mass of large and small roots was found

Milk and Cream Used on Cereals

	Oakland	Los Angeles
Total weekly consumption	1.1 qt.	1.3 qt.
Homogenized	61.8%	52.2%
Other whole milk	22.9	30.2
Half and half	8.3	10.4
Evaporated	5.9	4.2
Other	1.1	3.0

Milk and Cream Used in Food Preparation

	Oakland	Los Angeles
Total weekly consumption	1.5 qt.	1.3 qt.
Homogenized	56.7%	50.7%
Other whole milk	20.2	29.2
Evaporated	12.3	10.2
Buttermilk	4.9	2.6
Other	5.9	7.3

Milk and Cream Used in Tea and Coffee

	Oakland	Los Angeles
Total weekly consumption	0.45 qt.	0.5 qt.
Half and half	26.7%	36.1%
Evaporated	31.5	23.2
Homogenized	23.6	24.2
Other whole milk	9.3	10.0
Table cream	4.1	3.0
Other	4.8	3.5