

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD RECORDS (FR) or DIET HISTORY (DH)</b>				
Marshall, et al., 2003 (114)  Iowa Fluoride Study (IFS)	642 infants  Followed longitudinally from birth through age 5  49% M; 81% HHs with HS education; 13% income <\$19,000.  Iowa	3d Estimated FRs  1 weekend and 2 week days  Iowa Fluoride Study (IFS) Questionnaire (includes beverage FFQ) with each Food Record	<u>Objective:</u> Longitudinal investigation of the relationship of dietary and non-dietary fluoride exposures and the relationship between fluoride exposures and dental fluorosis and caries. <u>Design:</u> Starting in 1992, parents mailed IFS questionnaire and 3d FR at 6 wks, 3, 6, 9, and 12 mo. every 4 mo. until 3yrs and then every 6mo through 5yrs. IFS questionnaire collected information on child's beverage intake, general health, and oral health behaviors. Dental examinations at 4 and 7yrs. <u>Supplement Intake:</u> Questions on IFS questionnaire. <u>BM Intake:</u> Not specified <u>Child Care Input:</u> Not specified <u>Instrument Selection Rationale:</u> Not specified	Energy intake and intake of 21 nutrients, dairy products, sugared beverages, and sugar-free beverages.  Dental caries at 1, 2, 3, 4, 5 years.  Fluoride supplement use during infancy reported in Levy and Guha-Chowdhury, 1999. (130)
Ryan et al., 2002 (106)  Gerber Products Company 1994 Survey	1,658 infants up to 24 mo.  51% M; 94% white, 50% w/ HH incomes \$25,000- \$59,000; 34% of infants in some day care.  US	4d Estimated FR	<u>Objective:</u> Survey to assess how infant-feeding practices have changed during the last 15yr and how they conform to expert recommendations at those times. <u>Design:</u> Cross-sectional mailed survey in fall of 1994. Recruited mothers (38.4% of HHs contacted) completed 4-d FR. <u>Supplement Intake:</u> Recorded in FR <u>BM Intake:</u> Estimated by assuming that published amounts of BM intakes of infants of the same weight applied to the sample and further that totally BF infants nursed for at least 121min. per day. The number of minutes the mother actually BF was divided into the total number of ounces of BM the infant should theoretically consume based on weight. <u>Child Care Input:</u> Foods eaten at day care included; caregivers given detailed written instructions on recording amounts consumed. <u>Instrument Selection Rationale:</u> Not specified	Energy intake and 11 nutrients (protein, iron, zinc, calcium, phosphorus, ascorbic acid, thiamin, riboflavin, niacin, and vitamins B6 and A).

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD RECORDS (FR) or DIET HISTORY (DH), CONTINUED</b>				
Emmett et al., 2002; Northstone et al., 2002; Rogers and Emmett, 2002 (109;111;112)  Avon Longitudinal Study of Pregnancy and Childhood (ALSPAC) Children in Focus (CIF) substudy	18 mo. = 1,026 (77% response rate)  43 mo. = 863 (69.1% response rate)  UK	3d Estimated FR  1 weekend and 2 weekdays not necessarily consecutive	<u>Objectives:</u> To investigate food and nutrient intake in toddlers and preschoolers. To examine types of drinks consumed by children at 18 mo., to determine an associations with sociodemographic characteristics, and to investigate the use of the bottle for providing these drinks. <u>Design:</u> Parents sent FR one week before clinic visit. Mothers recorded all drinks consumed in a 3dFR and containers for drinks. Data analyzed for first 24h period. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> Record breastfeeding; 2.4% at least one BF at 18 mo. <u>Child Care Input:</u> Not specified <u>Instrument Selection Rationale:</u> Not specified	Kcal; CHO; starch, sugar, non-milk energy sugar; protein; PUFA; MUFA; P:S ratio; cholesterol; 15 vitamins and minerals
Habibian et al., 2001 (122)	163 infants  Followed longitudinally at 6, 12, and 18 mo.  51% M; community-based volunteer sample; 84% from middle-high SES HHs, 96% Caucasian  UK	3d Estimated FR  1 weekend and 2 week days	<u>Objective:</u> Describe the dental health of infants and toddlers relative to their dietary habits and oral hygiene behavior over the first 18 mo of life. <u>Design:</u> Longitudinal dietary data obtained by mailed 3-d FR at 6, 12, and 18 mo. Parents completed and returned FR by mail. Dental examinations at 12 and 18mo. Demographic and feeding and oral hygiene questionnaire completed at 18 mo. dental exam. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> Not specified <u>Child Care Input:</u> Not specified <u>Instrument Selection Rationale:</u> Not specified	Number of eating occasions, frequency of consumption of 19 food/drink categories, tooth eruption, plaque accumulation, dental caries

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD RECORDS (FR) or DIET HISTORY (DH), CONTINUED</b>				
Alexy et al., 1999; Alexy et al., 1998; and Kersting et al., 1998 (124;125;116)  DONALD Study (Dortmund Nutritional and Anthropometric Longitudinally Designed Study)	3-36 mo. = 354  Followed longitudinally at @ 3, 6, 9, 12, 18, 24, and 36 mo.  46% M; upper SES volunteer sample  Germany	3d Weighed FR @ 3, 6, 9, 12, 18, 24, and 36 mo.	<u>Objective:</u> The DONALD Study is a cohort collecting detailed data on diet, metabolism, growth and development from healthy subjects between infancy and adulthood (once a year for subjects older than 2 yrs). ( <a href="http://www.fke-do.de/donald.html">http://www.fke-do.de/donald.html</a> ) <u>Design:</u> Cohorts of 30 to 40 infants recruited each year from 1985-96. Parents kept 3d FR of all food and fluids consumed as well as leftovers using electronic scale. Product wrappers are kept. Dietary records evaluated with dietitian. Infant weighed (BM intake) on infant weighing scales. Semi-quantitative recording was allowed if weighing not possible. More than 90% of the recorded food items were weighed in 87% of records. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> Test weighing pre and post feeds. <u>Child Care Input:</u> Not specified <u>Instrument Selection Rational:</u> Not discussed	Growth, energy and nutrient intake, food groups, breastfeeding rates, meal patterns
Wharf et al., 1997 (93)	181 healthy full-term infants age 4, 8, 12, or 18 mo.  56% M; 56% non-manual HHs, non-representative sample  Norwich, UK	DH (assessment of overall pattern of eating coupled with a 24HR)	<u>Objective:</u> To determine the effects of dietary, physiological or environmental factors on body iron levels in infants aged 4-18 mo. <u>Design:</u> Nutritionist administered (mother or father) DH using a standardized question sheet in the infant's home. Capillary blood sample taken. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> DH standardized questions. <u>Child Care Input:</u> Not specified <u>Instrument Selection Rational:</u> DH method selected for this study because infants have a limited range of foods and it was a relatively easy and non-invasive procedure for the mothers. DH form printed in Table 1 of article. No discussion of assessment of supplement intake.	Hb, Hct, MCV, zinc protoporphyrin, plasma ferritin, daily iron intakes

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD RECORDS (FR) or DIET HISTORY (DH), CONTINUED</b>				
Boulton et al., 1995 (117)  Adelaide Nutrition Study Cohort	Birth-2 yrs. = 140  Followed longitudinally at 3, 6, 12, and 24 mo.; and 4, 6, and 8 yrs.  South Australia	7d Weighed FR @ 3, 6, 12 and 24 mo.	<u>Objective:</u> This study re-examined data collected in the 1980s on food energy and nutrient intake and somatic growth measured at intervals throughout infancy to 8 years. <u>Design:</u> Children randomly selected by birth order and followed longitudinally from birth to mid-teenage. Up to 2 yrs. 7d Weighed FR kept before each study visit. A 3d Weighed FR kept at 4 yrs., and a 4d Weighed FR at 6 and 8 yrs. <u>Supplement Intake:</u> Not specified <u>Child Care Input:</u> Not specified <u>Instrument Selection Rational:</u> Not specified	Food energy, nutrient intake, and somatic growth.
Heinig et al., 1993 (119)  The DARLING Study	Breastfed = 73 Formula fed = 46  Followed longitudinally at 3, 6, 9, 12, 15, and 18 mo.  Mean maternal age = 30 yrs., 87% Caucasian, 48% BF and 70% FF >\$30,000/yr.  University of California, Davis, US	4d weighed FR at 3, 6, 12, 15, and 18 mo.  Test weighing of BM intake.  BM samples collected over 24h on the day after 4d FR.  Duplicate samples collected for food mixtures or family recipes.	<u>Objective:</u> To compare intake and growth between matched cohorts of infants either BF or FF until > 12 mo. of age. <u>Design:</u> BR infants recruited 1986-87; FF recruited 1987-89. Stratified matching ensured that FF infants were comparable by SES, ethnic group, maternal anthropometrics, and infant sex and birth weight. Mothers kept 4d weighed FR of infant intake at 3, 6, 9, 12, 15, and 18 mo. BM intake determined by test weighing. <u>Supplement Intake:</u> Not specified. <u>BM Intake: Test weighing.</u> Because feeding times were often irregular, milk intake per 24h was calculated by summing volumes during the interval from the beginning of the first feed of the first day to the beginning of the first feed occurring after that time on the last day, dividing by the interval (in hours), and multiplying by 24. <u>Child Care Input:</u> Not specified. <u>Instrument Selection Rational:</u> Not specified	Infant weight and length monthly 1-18 mo.; infant morbidity collected weekly; infant activity level assessed at 9 and 18 mo. (by sleeping diary for 7d and by 30min observation daily for 3d).  Milk intake and composition; energy and protein intake.

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD RECORDS (FR) or DIET HISTORY (DH), CONTINUED</b>				
Noble and Emmett, 2001 (113)  ALSAP	8 mo. = 1,131  55% M  Avon, UK	3d Estimated FR  (2 weekday and 1 weekend day, not necessarily consecutive)	<u>Objective:</u> To characterize the diets of 8mo. old infants born in 1992 and compare their nutrient and food intakes with those from the 6 to 9mo. old groups of the National Diet and Nutrition Survey. <u>Design:</u> A week before the clinic appointment three 1-d dietary diaries and an instruction leaflet were sent to the caregiver. At the clinic a trained assistant went through the completed FR with the caregiver to clarify any anomalies. <u>Supplement Intake:</u> Vitamin/mineral supplement questionnaire. <u>BM Intake:</u> Duration of each feed documented in FR; duration was used to estimate volume of milk (10ml per minute). <u>Child Care Input:</u> Not specified <u>Instrument Selection Rationale:</u> Not specified	Energy intake and 17 nutrients.  Length and weight.  Under and over-reporting estimated by comparing predicted energy expenditure (PEE) with observed energy intake (OEI).
Sanjur et al., 1990(123)	12- 24 mo. = 90  49% M, mean age 21 mo.; 66% Mexican American; low SES  Denver, Colorado, US	3d Estimated FR three times 3-6 mo. apart.	<u>Objective:</u> To examine the diet and nutrient intake of children 1 to 2 years old. <u>Design:</u> Toddlers were part of double blind randomized trial of supplement intake. 3d FR collected at 3 study periods over 6 mo. Records reviewed by nutritionist. <u>Supplement Intake:</u> Participants part of randomized trial with 5 supplement treatment groups. <u>BM Intake:</u> Not specified <u>Child Care Input:</u> Not specified.	Meal patterns, energy, protein, fat, CHO, calcium, iron, vitamins A and C, thiamin, riboflavin, niacin, sodium, phosphorous, potassium, and magnesium

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD RECORDS (FR) or DIET HISTORY (DH), CONTINUED</b>				
Stuff et al., 1986 (94)	5 and 6 mo. = 9 6 and 7 mo. = 8  All exclusively BF for 5 mo.	5d Infant Test weighing (pre and post BF) and weighed FR for complementary foods	<u>Objective:</u> To examine between-individual variation (BIV) and day-to-day variation (DDV) of total caloric intakes and milk intake during the transition from exclusive BF to BF with complementary foods. <u>Design:</u> Test weighing for 5 consecutive 24h periods. Complementary food weights measured by mother and weighed again in laboratory, <u>Supplement Intake:</u> Not assessed <u>BM Intake:</u> Test weighing <u>Child Care Input:</u> Not applicable <u>Instrument Selection Rational:</u> Not specified	<u>BM Intake</u> BIV at 5, 6, and 7 mo. = 8.8, 14.7, 37.0. DDV at 5, 6, and 7 mo. = 16.6, 18.3, and 20.0.  <u>Total Caloric Intake</u> BIV at 5, 6, and 7 mo. = 8.8, 14.7, and 37.0 DDV at 5, 6, and 7 mo. = 16.6, 18.3, 20.0
Black et al., 1983 (95)	<u>Breastfed</u> = 48 Followed longitudinally from 6 wks-7.5mo  <u>Fully weaned</u> = 37 Followed from 10- 18mo.  UK	BF infants: 4d test weighing infant before and after each feed and weighed record of all other food and drink kept monthly  FF infants 4d weighed FR	<u>Objective:</u> To examine the day-to-day variation in energy intake of BF and fully weaned infants. <u>Design:</u> During 1978-1981 mothers of 48 BF infants kept 4-day FRs each month from 6wks to 7.5mo. Mothers of 37 fully weaned infants kept 4-day FRs at 10, 12, 15, and 18mo. <u>Supplement Intake:</u> Not specified. <u>BM Intake:</u> Test weighing before and after each feed. <u>Child Care Input:</u> Not specified. <u>Instrument Selection Rational:</u> Not specified	Pooled within-subject coefficient of variation (CVw) at 1-3, 3-5, 5-7, 10 + 12, and 15 + 18 mo. was 10.6, 10.6, 12.0, 13.6, 18.1%. Between-subject coefficient of variation (CVb) was 20.1, 19.3, 16.9, 19.4 and 23.3% at these ages. Some individuals were more variable than others; the range of CVw at each age was wide; at 2-4 and 15-18 mo. it was 1-21 and 6-30% respectively. The number of days of food records needed for BF infants is 4d and for toddlers is 7d.

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>24-HOUR RECALL (24HR)</b>				
<p>Devaney et al., 2004 (107)</p> <p>Feeding Infants and Toddler Study</p>	<p>3,022 infants and toddlers: 4-6 mo. – 29% 7-11 mo. – 38% 12-24 mo. - 33% (50% M)</p> <p>12% Hispanic; 20% nonwhite; 27% on WIC; higher distribution of middle income than a national distribution</p> <p>National random sample</p> <p>US</p>	<p>Telephone 24HR with 2 dimensional food measurement booklet.</p> <p>2nd 24HR on a sub-sample of 703</p>	<p><u>Objective:</u> To assess the nutrient adequacy of US infants and toddlers 4 to 24 mo. of age.</p> <p><u>Design:</u> In March through July 2002, three telephone interviews:</p> <ol style="list-style-type: none"> <li>1. Recruitment and HH interview;</li> <li>2. 24HR with supplementary questions on growth, development and feeding patterns;</li> <li>3. 2nd 24HR on random subset.</li> </ol> <p><u>Supplement Intake:</u> 24HR</p> <p><u>BM Intake:</u> Duration of each feed in minutes. For exclusively BF infants under 7 mo., assumed intake of 780ml breast milk per day, and for infant receiving both breast and formula, subtracted amount of formula from 780 ml. For infants over 7 mo., assumed intake of 600 ml breast milk per day.</p> <p><u>Child Care Input:</u> Parent or interviewer called childcare provider for out-of-home intake information.</p> <p><u>Instrument Selection Rationale:</u> Nutrition Data System for Research (NDS-R) from the University of Minnesota Nutrition Coordinating Center for the 24HR because includes "a well-tested, computerized, 24-hour dietary recall collection linked to a comprehensive food and nutrient database."</p>	<p>Energy (kcal), protein, carbohydrate, fat, saturated fat, cholesterol; vitamins A, C, D, and K, B-6, B-12; beta carotene, thiamin, riboflavin, niacin, folate, calcium, phosphorus, magnesium, iron, zinc, sodium; dietary fiber; and caffeine</p>

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) population, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>24-HOUR RECALL (24HR), CONTINUED</b>				
Carruth et al 2000; and Skinner et al., 1999. (120;157)	94 healthy, full-term white infants  Followed longitudinally until 24 mo.  52%M; recruited with mothers; mothers >18 yrs; 50% college degrees; middle or upper SES families.  Tennessee, US	24HR and usual food intake interviews at 2, 3, 4, 6, 8, 10, 12, 16, 20, and 24mo.	<u>Objective:</u> To determine the nutrient and food intakes of healthy, white infants from middle and upper SES families and to compare intakes to current recommendations. <u>Design:</u> In 1992-94, using incomplete random block design, 98 mother-infant pairs were interviewed longitudinally in mother's home, collecting 24HR, usual food intake, and food likes and dislikes. <u>Supplement Intake:</u> 24HR <u>BM Intake:</u> a value of 750ml breast milk/day was used to compute energy and nutrient intakes/day for totally BF infants. No changes in the estimated amount of BM were made as the infant aged or as foods were added to the diet. For infants who had both formula and BM reported on 24HR, the volume of formula consumed was subtracted from 750ml to obtain BM estimate. <u>Child Care Input:</u> Not specified. <u>Instrument Selection Rational:</u> Not available	Intakes of energy, carbohydrate, protein, fat, calcium, iron, magnesium, phosphorus, potassium, sodium, zinc; vitamins A, D, E, K, C, B6, B12; thiamin, riboflavin, niacin, folate, and pantothenic acid.  Introduction of complementary foods.  Weight, length, and head circumference.
Kohlmeier et al., 1998 (108)  Russian Longitudinal Monitoring Survey	0-6 yrs. = 746  48% M; recruited from a probability sample of 7,200 HHs.	24HR	<u>Objective:</u> Russian Longitudinal Monitoring Survey is designed to monitor social, economic, and health conditions in Russia using interview-administered questionnaires, 24HR, and anthropometric measurements. This study evaluated iron sufficiency in the Russian diet. <u>Design:</u> In 1992 through 1994, four rounds of interviewer-administered 24HR of a nationally representative longitudinal survey of 10,548 women and children. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> Not specified <u>Child Care Input:</u> Not specified <u>Instrument Selection Rational:</u> Not specified	Total iron, heme, and bioavailable iron in diet.

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>24-HOUR RECALL (24HR), CONTINUED</b>				
<p>Webber et al 1987 (118)</p> <p>The Bogalusa Newborn-Infant Cohort Study</p>	<p>440 infants born 1/1/1974 through 6/30/1975</p> <p>48%M; 50% Black</p> <p>Bogalusa, LA</p>	<p>Mailed Infant Feeding Practices Questionnaire with food checklist at 1, 2, 3, and 4mo.</p> <p>Interviewer- administered Infant Feeding Practices Questionnaire at 6 mo. and 1 mo.</p> <p>24HR on subsample of infants at 6 (n=125), 12 (n=99), and 24 mo. (n=135); and at 3 (n=106) and 4yr (n=219).</p>	<p><u>Objective:</u> To describe distributions, interrelationships, and trends throughout time for selected anthropometric measurements, BP levels, serum lipid and lipoprotein concentrations, and dietary intake patterns in longitudinal cohort from birth through 7 yrs.</p> <p><u>Design:</u> Infants recruited at birth in 1974 and 1975. When children were 1, 2, 3, 4, and 6 mo. of age, Infant Feeding Practices questionnaires mailed to parents. When the children were 6mo. and 1, 2, 3, and 4 yrs. of age, replicate cardiovascular disease examinations were performed.</p> <p><u>Supplement Intake:</u> Multivitamin (Vi-Daylin F) provided as incentive.</p> <p><u>BM Intake:</u> Infant Feeding Practices Questionnaire</p> <p><u>Child Care Input:</u> Not specified.</p> <p><u>Instrument Selection Rationale:</u> Not specified</p>	<p>Birthweight, any complications, Apgar scores, morbidity, serum lipid levels, length, weight, blood pressure, energy, and 11 nutrients.</p>

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>24-HOUR RECALL (24HR), CONTINUED</b>				
<p>Hoffmans et al., 1986 (121)</p> <p>The Leiden Preschool Children Study</p>	<p>124 infants</p> <p>Followed longitudinally at 4, 16, and 28 mo.</p> <p>50%M; community based population sample</p> <p>Netherlands</p>	<p>24HR</p>	<p><u>Objective:</u> To characterize the food and nutrient intake of a community-based population of children from 4 to 28 mo.</p> <p><u>Design:</u> Infants born in 1979 and 1980 were followed longitudinally. Body weight and length and 24HR were obtained at 4, 16, and 28 mo. of age in the spring of each year.</p> <p><u>Supplement Intake:</u> Not specified</p> <p><u>BM Intake:</u> Infants weighed by mother before and after each feed to estimate intake to nearest 0.1kg.</p> <p><u>Child Care Input:</u> Not specified</p> <p><u>Instrument Selection Rational:</u> 24HR is considered to be fairly accurate if the day-to-day variation is limited. Dietary habits of infants are characterized by regularity and limited variation in the kind and amount of food. When complementary foods are introduced and the pattern of family eating is emerging, the within-subject coefficient of variation increases(95). For groups of children however, it has been demonstrated that the 24HR and a 7-d record method gave comparable results (128).</p>	<p>Energy intake and 13 nutrients.</p> <p>Length and weight.</p>

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>FOOD FREQUENCY QUESTIONNAIRE</b>				
Lande et al., 2003 (115)	6 mo. = 2,383  53% M  Norway	Mailed semi- quantitative 40 item FFQ	<p><u>Objective:</u> To describe and evaluate infant feeding practices during the first 6 mo. of life in relation to recommendations and maternal and infant characteristics.</p> <p><u>Design:</u> In October through December 1998, mailed FFQ 2wks before infants turned 6 mo. of age. Parents completed FFQ and took questionnaire to 6 mo. check up for measurement of length and weight. Parents returned questionnaire by mail.</p> <p><u>Supplement Intake:</u> FFQ included categories and amounts for vit./min. supplements.</p> <p><u>BM Intake:</u> Question on if infant ever BF and frequency in six categories from one to 10 times or more in 24h period. Question on when BF stopped.</p> <p><u>Child Care Input:</u> Not specified</p> <p><u>Instrument Selection Rational:</u> Not specified</p>	<p>Categories of complementary foods.</p> <p>Self-reported length and weight as measured at 6-mo. examination.</p>
<b>OTHER QUESTIONNAIRES</b>				
Thom et al., 2003 (131)	8-13 mo. = 81  Low birthweight infants; 56% preterm average for gestational age  Dunedin Hospital, Dunedin, New Zealand	Questionnaire on infant feeding practices	<p><u>Objective:</u> To determine the iron status of a selected group of low birth weight infants at approximately 9 mo., and examine feasibility of predicting iron status by examining history of supplementary iron intake.</p> <p><u>Design:</u> Between November 1995 and September 1996 questionnaire (not specified if mailed or interviewer administered) to caregiver on infant feeding practices; collection of 1ml blood sample.</p> <p><u>Supplement Intake:</u> Questions on study questionnaire</p> <p><u>BM Intake:</u> Questions on BF frequency and duration on study questionnaire.</p> <p><u>Child Care Input:</u> Not specified</p> <p><u>Instrument Selection Rational:</u> Instrument provides a easy method to screen for iron deficiency anemia.</p>	Hb, Hct, serum ferritin, transferrin saturation.

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>OTHER QUESTIONNAIRES, CONTINUED</b>				
Ryan et al., 2002 (29)  Ross Laboratories Mothers Survey (RLMS)	Probability sample from commercial list  1.7 million questionnaires mailed; >33,000 completed each mo. (28% response rate).	Questionnaire  (Type of milk in hospital, at 1 week of age, in the last 30 days, and most often in last week; employment; and WIC program participation.)	<u>Objective:</u> To update reported rates of breastfeeding and exclusive breastfeeding through 2001 and to compare rates in 2001 to those from 1996. <u>Design:</u> 117,000 questionnaires mailed each month to mothers until infant was 12 mo. of age. 1.7 million questionnaires mailed in 2001. Sample was a probability sample of new mothers selected from a database of names supplied by Experian. Questionnaire asks mothers to recall type of milk fed to their infant in the hospital, and during each month of age. <u>Supplement Intake:</u> Not collected. <u>BM Intake:</u> Two categories of BF were considered: BM or a combination of human milk and formula or cow's milk and exclusive BF (only human milk). <u>Child Care Input:</u> Whether mother's employed collected. <u>Instrument Selection Rational:</u> Maintained consistency with previous questionnaires since 1954)	US BF initiation rates and rates at 6 mo.
Northstone et al., 2001(110)  Substudy of Avon Longitudinal Pregnancy and Childhood study (ALSPAC)	9,694 infants  Followed at 6 mo. and 15 mo.      Avon, UK	Mailed questionnaire completed by mother  (Questionnaire on food and drinks consumed by the infant and any feeding difficulties)	<u>Objective:</u> To determine the variety of foods given to infants at both 6 and 15 mo. of age according to the age at which lumpy solids were introduced and to determine the mother's perception of difficulty in feeding her child at 15mo. <u>Design:</u> In 1991 infant's mother completed mailed questionnaire at 6 and 15mo. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> Questions on consumption of listed beverages (including BM), age introduced, and current frequency of consumption. <u>Child Care Input:</u> Not specified. <u>Instrument Selection Rational:</u> Not specified.	Age of introduction of specific foods and beverages and reported feeding difficulties.

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>OTHER QUESTIONNAIRES, CONTINUED</b>				
Bogen et al., 2000 (105)	9-30 mo. = 282  53% F; 91% black, 62% on Medical Assistance; attending inner city well child clinics  Baltimore, MD.	15-item self- administered questionnaire of risk factors for iron deficiency anemia (IDA) (Infant diet, beverage intake, solid food intake, vitamin/mineral supplementation, and WIC program participation)	<u>Objective:</u> To evaluate a parent-completed diet and health history as the first stage of 2-stage screening for iron deficiency anemia. <u>Design:</u> Cross-sectional survey conducted in inner-city clinics in children 9-30 mo. old having routine anemia screening as part of regularly scheduled visit. Parents completed self-administered questionnaire and children had venous blood sampling. <u>Supplement Intake:</u> Question on questionnaire <u>BM Intake:</u> Question on questionnaire <u>Child Care Input:</u> Not applicable <u>Instrument Selection Rational:</u> Questionnaire was developed from review of literature concerning risk factors for IDA and expert opinion	Hemoglobin, ferritin < 10 ug/L, and MCV >14.5%
Baydar et al., 1997 (25a)  WIC Infant Feeding Practices Study	874 maternal- infant pair WIC program participants  51%M; 20% black; 20% Hispanic; nationally representative WIC Program sample  US	15-minute computer assisted telephone interview (or in-person interview in non- telephone HHs) monthly 1 through 7mo and at 9 and 12mo.	<u>Objective:</u> To provide a nationally representative description of infant feeding practices among WIC program participants and to identify attitudes and practices of WIC program participants associated with the initiation and continuation of breastfeeding. <u>Design:</u> Between August 1994 and December 1995, a nationally representative WIC Program sample mother-infant pairs participated in 15min computer-assisted telephone interview in telephone HHs and in-person computer assisted interview in non-telephone HHs monthly through 7mo of age and then again at 9 and 12mo. <u>Supplement Intake:</u> Not specified <u>BM Intake:</u> Interview questions on initiation, duration, and factors affecting BF. <u>Child Care Input:</u> Mother or caretaker interviewed; information on child care collected. <u>Instrument Selection Rational:</u> Questionnaire based on FDA survey of infant feeding practices questionnaire.	Breast feeding initiation rates, patterns, and practices; patterns of introduction of complementary foods and beverages.

Table 3.4. Nutrient and/or food intake surveys in infant/toddler (0-24 months) populations, continued

Reference/ Survey Name	Study Population	Diet Assessment Method	Objective and Design Overview	Nutrients and Outcomes Assessed
<b>OTHER QUESTIONNAIRES, CONTINUED</b>				
O'Malley et al., 1991 (132)	6-23 mo. = 49  Migrant Head Start families in northern Colorado.	Interview with questionnaire on infant feeding practices.	<p><u>Objective:</u> To provide descriptive information on migrant farm laborers' infant feeding practices in northern Colorado.</p> <p><u>Design:</u> Non-randomized convenience sample of 49 families with infants 6 to 23mo. Location of interview not specified.</p> <p><u>Supplement Intake:</u> Not specified</p> <p><u>BM Intake:</u> Questions on questionnaire.</p> <p><u>Child Care Input:</u> Not specified</p> <p><u>Instrument Selection Rational:</u> Questionnaire developed from NHANES, CSFII, and migrant farm worker survey questionnaires.</p>	Breastfeeding practices, introduction of complementary foods and liquids, participation in food programs, and treatment practices for constipation and diarrhea.