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# THE COLLABORATIVE RESEARCH AND SUPPORT PROGRAM

# ON

# FOOD INTAKE AND HUMAN FUNCTION

## EGYPT PROJECT

APPENDIX TO FINAL REPORT

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## PREFACE

Due to time pressures to submit the final report of the Egypt Project to the Management Entity and USAID in a timely manner, a temporary procedure was used for the energy analyses of food intake data of the Egypt Project. This procedure became necessary after some errors in the food composition database were detected in the final stages of preparation of the final report. In order to expedite the completion of the report, all data for dietary energy intake were recalculated with the use of the Atwater factors for energy. These data are included in the final report dated 15 November 1987.

Since the submission of the final report, the food composition database for the Eygpt Project has been corrected and all food intake data as well as analyses which used food intake data have been reanalyzed with the use of the corrected database. This appendix contains certain tables, figures and text that were changed, albeit in most cases only slightly, by reanalyses of the food intake data.

Page numbers used in the appendix refer to pages of the final report (dated 15 November 1987) in which changes have been made. Due to differences in type size and page breaks in the appendix compared to the final report some pages in the appendix have two numbers.

Table 5.12. Median toddler food intake (non-breast-milk) Kcal/day

| Age in Months | Males | | Females | |
|---|---|---|---|---|
| | Weaned | Not Yet Weaned | Weaned | Not Yet Weaned |
| 18 | 902 (21)** | 739 (42) | 904 (27) | 744 (26) |
| 19 | 910 (25) | 742 (32) | 914 (25) | 777 (26) |
| 20 | 1036 (29) | 819 (25) | 888 (29) | 966 (18) |
| 21 | 956 (32) | 759 (20) | 1058 (37) | 809 (14) |
| 22 | 1052 (42) | 911 (16) | 1040 (44) | 810 (8) |
| 23 | 1008 (47) | 992 (9) | 1087 (47) | 912 (5) |
| 24 | 1190 (47) | 788 (9) | 1079 (48) | 660 (1) |
| 25 | 987 (54) | 1047 (4) | 1060 (43) | 891 (2) |
| 26 | 1025 (53) | 960 (4) | 1315 (49) | |
| 27 | 1025 (55) | 1768 (1) | 1028 (48) | |
| 28 | 1118 (49) | 927 (1) | 1076 (49) | |
| 29 | 1087 (50) | | 1083 (47) | |

**(N)

Table 5.13 Median toddler food intake (non-breast milk), Kcal/Kg/day*

| Age in Months | Males | | Females | |
|---|---|---|---|---|
| | Weaned | Not Yet Weaned | Weaned | Not Yet Weaned |
| 18 | 84 (16) | 68 (36) | 96 (24) | 78 (21) |
| 19 | 91 (21) | 66 (27) | 91 (22) | 79 (21) |
| 20 | 100 (22) | 80 (22) | 99 (26) | 106 (14) |
| 21 | 91 (26) | 67 (17) | 113 (29) | 82 (12) |
| 22 | 95 (34) | 72 (15) | 109 (36) | 79 (6) |
| 23 | 89 (38) | 81 (9) | 101 (37) | 95 (3) |
| 24 | 103 (40) | 79 (8) | 97 (36) | 64 (1) |
| 25 | 83 (48) | 110 (3) | 101 (36) | 82 (2) |
| 26 | 88 (45) | 99 (3) | 112 (37) | |
| 27 | 89 (48) | 177 (1) | 94 (39) | |
| 28 | 87 (43) | 90 (1) | 90 (41) | |
| 29 | 85 (42) | | 92 (40) | |

*Estimated weight based on regression of weight on age for each subject

Table 5.14.
Energy intake of toddlers by age; least-square means, adjusted for individual effect and breast-feeding status

| Age in Months | Kcal | (SE) | Kcal/Kg* | (SE) |
|---|---|---|---|---|
| 18 | 824 | (31) | 82 | (3) |
| 19 | 882 | (32) | 89 | (3) |
| 20 | 958 | (33) | 97 | (3) |
| 21 | 929 | (34) | 93 | (3) |
| 22 | 1025 | (34) | 99 | (3) |
| 23 | 1032 | (35) | 96 | (3) |
| 24 | 1054 | (36) | 96 | (4) |
| 25 | 1006 | (37) | 90 | (4) |
| 26 | 1125 | (37) | 98 | (4) |
| 27 | 1056 | (38) | 92 | (4) |
| 28 | 1044 | (39) | 87 | (4) |
| 29 | 1076 | (39) | 86 | (4) |

*Estimated weight based on regression of weight on age for each subject

Table 5.15.
Bivariate correlations between key variables over the entire study period (sexes combined)

| Variables | Correlation Coefficient (r)+ |
|---|---|
| Average Kcal/Kg vs Intercept of Weight Regressed on Age | -.52 |
| Average Kcal/Kg vs Average Weight Z-score | -.49 |
| Average Kcal/Kg vs Average Weight | -.53 |
| Average Kcal/Kg vs Average Height Z-score | -.36 |
| Average Kcal/Kg vs Average Height | -.39 |
| Average Kcal/Kg vs Average Wt/Ht Z-scores | -.38 |
| Average Kcal/Kg vs Average Weight/Height | -.48 |
| Average Kcal/Kg vs Socioeconomic Status | -.11 ns |
| Growth* vs Average Kcal/Kg | -.09 ns |
| Growth vs Percent of Days Sick | .10 ns |
| Growth vs Percent of Days with Diarrhea | .04 ns |
| Growth vs Household Size** | .24 |
| Growth vs Socioeconomic Status | .01 ns |
| Sanitation/Hygiene Score vs Average Height Z-Scores | .32 |
| Sanitation/Hygiene vs Average Weight Z-score | .16 |
| Sanitation/Hygiene vs Socioeconomic Status | -.35 |
| Sanitation/Hygiene vs Household Size* | -.22 |
| Percent of Days Sick with SES | .06 ns |
| Percent of Days Sick with Sanitation/Hygiene | -.05 ns |
| Percent of Days Sick with Household Size | -.03 ns |
| Percent of Days Sick with Average Kcal/Kg | -.06 ns |

+All coefficients shown are significant at $p < .05$. Those in boldface are significant at $p < .001$.
*Slope of the line regressing weight on age
**Square root of number of persons in the household

**Table 5.18 continued**

II. With Food Intake (575 observations)

| Variable | df | Type I Sums of Squares | F | p |
|---|---|---|---|---|
| Sex | 1 | 64.6 | 172.2 | <.0001 |
| ID(Sex) | 126 | 1000.5 | 21.2 | <.0001 |
| Linear Effect of Age | 1 | 243.6 | 650.3 | <.0001 |
| Month of the Year | 11 | 30.6 | 7.4 | <.0001 |
| Breast-feeding Status (yes, no) | 1 | 2.1 | 5.7 | <.05 |
| Sex vs. Breast-feeding Interaction | 1 | 0.4 | 0.95 | ns |
| Kcalories/day in Previous Month | 1 | 0.6 | 1.5 | ns |

$R^2$ = .89
Root Mean Square Error = .61
Coefficient of Variation = 5.5%

Parameter Estimates (þ SE of Estimate):
Linear Effect of Age: .23 þ .01 kg
Kcal/day in Previous Month: 0.0001 þ .0001 kg

III. With Food Intake and Percent of Days with Diarrhea in Previous Month (551 observations)

| Variable | df | Type I Sums of Squares | F | p |
|---|---|---|---|---|
| Sex | 1 | 52.2 | 159.5 | <.0001 |
| ID(Sex) | 122 | 970.9 | 24.3 | <.0001 |
| Linear Effect of Age | 1 | 239.9 | 732.5 | <.0001 |
| Month of the Year | 11 | 25.5 | 7.1 | <.0001 |
| Breast-feeding Status (yes, no) | 1 | 2.6 | 8.0 | <.01 |
| Sex vs. Breast-feeding Interaction | 1 | 0.3 | 1.0 | ns |
| Kcalories/day in Previous Month | 1 | 0.7 | 2.2 | ns |
| Percent of Days in Previous with Diarrhea | 1 | 0.7 | 2.0 | ns |

$R^2$ = .90
Root Mean Square Error = .57
Coefficient of Variation = 5.1%
Parameter Estimates (þ SE of Estimate):
Linear Effect of Age: .24 þ .01 kg
Kcal/day in Previous Month: .0001 þ .0001 kg
Diarrhea in Previous Month: -.37 þ .26 kg

Table 5.31. Energy and protein intakes of pregnant and lactating women (longitudinal data)

| | Kcal per day | Kcal per Kg body weight[a] | Total protein % of Kcal | Total protein g/d | Animal protein g/d | Plant protein g/d |
|---|---|---|---|---|---|---|
| Pregnancy, trimester | | | | | | |
| 2 | 1965 + 445[b,e,f] | 31.9 + 8.9[e,f] | 12.9 + 1.7[e,f] | 63.0 + 15.2[e,f] | 21.5 + 12.7[e,f] | 41.5 + 9.6[e] |
| | (1991)[c] | (31.0) | (13.0) | (60.0) | (19.0) | (41.0) |
| | 967 - 3109[d] | 16 - 57 | 10 - 19 | 32 - 111 | 0 - 58 | 20 - 65 |
| 3 | 1924 + 399[e] | 29.8 + 7.5[e] | 12.4 + 1.7[e] | 60.3 + 15.7[e] | 19.1 + 10.9[e] | 41.3 + 10.9[e] |
| | (1928) | (29.0) | (12.0) | (60.0) | (18.0) | (40.0) |
| | 895 - 2660 | 14 - 49 | 7 - 16 | 23 - 96 | 0 - 49 | 19 - 75 |
| 2 & 3 | 1948 + 381 | 30.8 + 7.6 | 12.7 + 1.2 | 62.0 + 13.6 | 20.5 + 9.7 | 41.4 + 8.7 |
| | (1938) | (29.0) | (13.0) | (61.0) | (18.0) | (40.0) |
| | 1019 - 2988 | 17 - 54 | 11 - 16 | 37 - 108 | 2 - 55 | 21 - 58 |
| Lactation, mo | | | | | | |
| 0-3 | 2083 + 378[f] | 34.4 + 8.5[f] | 13.1 + 2.7[f] | 67.9 + 16.8[g] | 24.2 + 17.5[f] | 43.7 + 11.1[e,f] |
| | (2096) | (33.0) | (12.0) | (66.0) | (21.0) | (44.0) |
| | 1244 - 2885 | 16 - 54 | 10 - 28 | 32 - 128 | 0 - 108 | 11 - 69 |
| 3-6 | 2053 + 326[f] | 33.7 + 7.4[f] | 12.7 + 1.4[e,f] | 65.2 + 12.5[f,g] | 20.3 + 9.7[e,f] | 45.1 + 8.2[f] |
| | (2007) | (33.0) | (13.0) | (64.0) | (19.0) | (44.0) |
| | 1246 - 2778 | 19 - 51 | 10 - 17 | 35 - 96 | 6 - 47 | 25 - 66 |
| 0-6 | 2089 + 257 | 34.7 + 7.2 | 12.9 + 1.4 | 67.1 + 10.5 | 22.1 + 9.8 | 45.1 + 7.1 |
| | (2060) | (33.0) | (13.0) | (65.0) | (21.0) | (44.0) |
| | 1522 - 2724 | 20 - 58 | 10 - 19 | 44 - 100 | 6 - 59 | 32 - 68 |

[a] n=62-75; all other columns n=79
[b] Mean ± SD
[c] Median
[d] Range
[e-g] Means in columns with different superscripts differ significantly ($p<0.05$).

Table 5.32. Frequency distribution of energy intake and percent of energy intake as protein during pregnancy and lactation (longitudinal data)

| | Kcal/d | | | | | |
|---|---|---|---|---|---|---|
| | <1000 | 1000-1499 | 1500-1999 | 2000-2499 | 2500-2999 | >3000 |
| Pregnancy, trimester | | | % of women[a] | | | |
| 2 | 1.3 | 13.9 | 38.0 | 35.4 | 8.9 | 2.5 |
| | (1)[b] | (11) | (30) | (28) | (7) | (2) |
| 3 | 1.3 | 12.7 | 40.5 | 39.2 | 6.3 | 0 |
| | (1) | (10) | (32) | (31) | (5) | (0) |
| 2 & 3 | 1.2 | 11.4 | 41.8 | 40.5 | 6.3 | 0 |
| | (1) | (9) | (33) | (32) | (5) | (0) |
| Lactation, mo | | | | | | |
| 0-3 | 0 | 6.3 | 31.6 | 48.1 | 13.9 | 0 |
| | (0) | (5) | (25) | (38) | (11) | (0) |
| 3-6 | 0 | 3.8 | 45.6 | 44.3 | 6.3 | 0 |
| | (0) | (3) | (36) | (35) | (5) | (0) |
| 0-6 | 0 | 0 | 38.0 | 54.4 | 7.6 | 0 |
| | (0) | (0) | (30) | (43) | (6) | (0) |

| | Kcal/Kg body weight | | | | |
|---|---|---|---|---|---|
| | <20 | 20-29.9 | 30-39.9 | 40-49.9 | >50 |
| Pregnancy, trimester | | | % of women[c] | | |
| 2 | 6.8 | 34.2 | 39.7 | 15.1 | 4.1 |
| | (5) | (25) | (29) | (11) | (3) |
| 3 | 7.7 | 46.1 | 36.9 | 9.2 | 0 |
| | (5) | (30) | (24) | (6) | (0) |
| 2 & 3 | 5.3 | 45.3 | 34.6 | 13.3 | 0 |
| | (4) | (34) | (26) | (10) | (0) |
| Lactation, mo | | | | | |
| 0-3 | 1.5 | 26.5 | 44.1 | 22.1 | 5.9 |
| | (1) | (18) | (30) | (15) | (4) |
| 3-6 | 1.6 | 33.9 | 38.7 | 24.2 | 1.6 |
| | (1) | (21) | (24) | (15) | (1) |
| 0-6 | 0 | 22.7 | 54.7 | 20.0 | 2.7 |
| | (0) | (17) | (41) | (15) | (2) |

| | Total protein, % of Kcal | | | | |
|---|---|---|---|---|---|
| | <12 | 12-13.9 | 14-15.9 | 16-17.9 | >18 |
| Pregnancy, trimester | | | % of women[a] | | |
| 2 | 19.0 | 48.1 | 27.8 | 2.5 | 2.5 |
| | (15) | (38) | (22) | (2) | (2) |
| 3 | 26.6 | 49.4 | 16.5 | 7.6 | 0 |
| | (21) | (39) | (13) | (6) | (0) |
| 2 & 3 | 13.9 | 63.3 | 21.5 | 1.3 | 0 |
| | (11) | (50) | (17) | (1) | (0) |
| Lactation, mo | | | | | |
| 0-3 | 15.2 | 54.4 | 20.3 | 7.6 | 2.5 |
| | (12) | (43) | (16) | (6) | (2) |
| 3-6 | 20.3 | 60.8 | 13.9 | 5.1 | 0 |
| | (16) | (48) | (11) | (4) | (0) |
| 0-6 | 8.9 | 62.0 | 25.3 | 2.5 | 1.3 |
| | (7) | (49) | (20) | (2) | (1) |

[a]n=82; [b]Number of subjects; [c]n=68-82

Table 5.33. Frequency distribution of total, animal, and plant protein intakes during pregnancy and lactation (longitudinal data)

| | Total protein, g/d | | | | |
|---|---|---|---|---|---|
| | 20-39 | 40-59 | 60-79 | 80-99 | >100 |
| Pregnancy, trimester | % of women[a] | | | | |
| 2 | 7.6 | 41.8 | 34.2 | 15.2 | 1.3 |
| | (6)[b] | (33) | (27) | (12) | (1) |
| 3 | 10.1 | 38.0 | 44.3 | 7.6 | 0 |
| | (8) | (30) | (35) | (6) | (0) |
| 2 & 3 | 3.8 | 39.2 | 45.6 | 10.1 | 1.3 |
| | (3) | (31) | (36) | (8) | (1) |
| Lactation, mo | | | | | |
| 0-3 | 2.5 | 32.9 | 44.3 | 15.2 | 5.1 |
| | (2) | (26) | (35) | (12) | (4) |
| 3-6 | 1.3 | 30.4 | 51.9 | 16.5 | 0 |
| | (1) | (24) | (41) | (13) | (0) |
| 0-6 | 0 | 21.5 | 65.8 | 11.4 | 1.3 |
| | (0) | (17) | (52) | (9) | (1) |
| | Animal protein, g/d | | | | |
| | <10 | 10-29 | 30-49 | >50 | |
| Pregnancy, trimester | % of women[a] | | | | |
| 2 | 16.5 | 58.2 | 24.1 | 1.3 | |
| | (13) | (46) | (19) | (1) | |
| 3 | 16.5 | 65.8 | 17.7 | 0 | |
| | (13) | (52) | (14) | (0) | |
| 2 & 3 | 7.6 | 72.2 | 19.0 | 1.3 | |
| | (6) | (57) | (15) | (1) | |
| Lactation, mo | | | | | |
| 0-3 | 15.2 | 57.0 | 22.8 | 5.1 | |
| | (12) | (45) | (18) | (4) | |
| 3-6 | 12.7 | 70.9 | 16.5 | 0 | |
| | (10) | (56) | (13) | (0) | |
| 0-6 | 5.1 | 74.7 | 17.7 | 2.5 | |
| | (4) | (59) | (14) | (2) | |
| | Plant protein, g/d | | | | |
| | 10-19 | 20-29 | 30-39 | 40-49 | >50 |
| Pregnancy, trimester | % of women[a] | | | | |
| 2 | 0 | 11.4 | 31.6 | 36.7 | 20.3 |
| | (0) | (9) | (25) | (29) | (16) |
| 3 | 1.3 | 8.9 | 38.0 | 26.6 | 25.3 |
| | (1) | (7) | (30) | (21) | (20) |
| 2 & 3 | 0 | 10.1 | 38.0 | 32.9 | 19.0 |
| | (0) | (8) | (30) | (26) | (15) |
| Lactation, mo | | | | | |
| 0-3 | 1.3 | 6.3 | 21.5 | 45.6 | 25.3 |
| | (1) | (5) | (17) | (36) | (20) |
| 3-6 | 0 | 1.3 | 22.8 | 44.3 | 31.6 |
| | (0) | (1) | (18) | (35) | (25) |
| 0-6 | 0 | 0 | 25.3 | 46.8 | 27.8 |
| | (0) | (0) | (20) | (37) | (22) |

[a]n=82; [b]Number of subjects

Table 5.34. Energy intake and percent of energy intake as protein for pregnant and lactating women classified by household socioeconomic status (longitudinal data)

| | Household socioeconomic status | | | |
|---|---|---|---|---|
| | High | Upper Intermediate | Lower Intermediate | Low |
| | n=15 | n=12 | n=30 | n=22 |
| **Pregnancy, trimester** | | **Kcal/d** | | |
| 2 | 1992 ± 537[a] (2010)[b] | 1873 ± 346 (1960) | 2021 ± 453 (2030) | 1921 ± 432 (1865) |
| 3 | 1766 ± 409 (1824) | 1850 ± 296 (1857) | 1914 ± 394 (1934) | 2087 ± 411 (2102) |
| 2 & 3 | 1869 ± 448 (1838) | 1830 ± 237 (1789) | 1989 ± 393 (2015) | 2011 ± 378 (1988) |
| Lactation, mo | | | | |
| 0-3 | 2048 ± 280 (2136) | 2021 ± 444 (2014) | 2103 ± 414 (2098) | 2113 ± 366 (2110) |
| 3-6 | 2069 ± 330 (2007) | 2142 ± 276 (2249) | 2012 ± 312 (1979) | 2050 ± 374 (2000) |
| 0-6 | 2095 ± 172 (2092) | 2106 ± 251 (2115) | 2083 ± 260 (2047) | 2085 ± 316 (2012) |
| **Pregnancy, trimester** | | **Kcal/Kg body weight[c]** | | |
| 2 | 33.9 ± 13.4 (29) | 32.4 ± 6.5 (33) | 31 5 ± 8.4 (31) | 31.0 ± 7.4 (31) |
| 3 | 27.7 ± 9.0 (26) | 29.8 ± 5.3 (28) | 29.2 ± 8.5 (29) | 32.1 ± 6.1 (31) |
| 2 & 3 | 31.5 ± 11.3 (31) | 30.6 ± 4.6 (28) | 29.9 ± 7.7 (29) | 31.6 ± 5.7 (30) |
| Lactation, mo | | | | |
| 0-3 | 35.1 ± 7.9 (34) | 36.3 ± 8.9 (36) | 32.5 ± 9.8 (31) | 34.9 ± 7.3 (32) |
| 3-6 | 32.3 ± 7.1[d] (31) | 38.3 ± 4.8[e] (40) | 32.7 ± 8.1[d] (33) | 33.2 ± 7.1[d] (31) |
| 0-6 | 35.9 ± 8.6[d,e] (35) | 37.6 ± 4.9[d] (37) | 32.9 ± 7.6[e] (32) | 34.6 ± 6.4[d,e] (32) |
| **Pregnancy, trimester** | | **Total protein, % of Kcal** | | |
| 2 | 13.7 ± 1.9 (14) | 12.7 ± 1.6 (12.5) | 12.9 ± 1.7 (13) | 12.6 ± 1.3 (12.5) |
| 3 | 12.9 ± 1.8[d] (13) | 12.7 ± 1.9[d] (12) | 12.7 ± 1.7[d] (12.5) | 11.6 ± 1.6[e] (12) |
| 2 & 3 | 13.4 ± 1.5[d] (13) | 12.7 ± 1.2[d,e] (12) | 12.8 ± 1.1[d,e] (13) | 12.3 ± 1.0[e] (12) |
| Lactation, mo | | | | |
| 0-3 | 13.1 ± 1.4 (13) | 12.6 ± 1.8 (12.5) | 13.4 ± 2.7 (12.5) | 13.0 ± 3.6 (12) |
| 3-6 | 12.9 ± 1.9 (13) | 13.1 ± 1.9 (13) | 12.7 ± 1.3 (13) | 12.4 ± 1.4 (12) |
| 0-6 | 12.9 ± 1.0 (13) | 13.2 ± 1.5 (13) | 12.9 ± 1.3 (13) | 12.9 ± 1.8 (12) |

[a]Mean ± SD; [b]Median; [c]n ranges from 12-15, 11-12, 23-28 and 15-24 for high, upper intermediate, lower intermediate and low SES groups, respectively; [d,e]Means in rows with different superscripts differ significantly ($p<0.05$).

Table 5.35. Total, animal and plant protein intakes of pregnant and lactating women classified by household socioeconomic status (longitudinal data)

| | Household socioeconomic status | | | |
|---|---|---|---|---|
| | High | Upper Intermediate | Lower Intermediate | Low |
| | n=15 | n=12 | n=30 | n=22 |
| Pregnancy, trimester | | **Total protein, g/d** | | |
| 2 | 67.3 ± 16.9[a] (67)[b] | 59.2 ± 14.4 (56) | 64.3 ± 14.9 (61) | 60.5 ± 14.8 (56) |
| 3 | 56.4 ± 12.9 (58) | 59.3 ± 16.8 (52) | 61.9 ± 16.6 (59) | 61.2 ± 16.2 (64) |
| 2 & 3 | 61.6 ± 13.8 (61) | 57.9 ± 10.9 (54) | 64.1 ± 14.9 (61) | 61.7 ± 13.1 (61) |
| Lactation, mo | | | | |
| 0-3 | 66.4 ± 11.6 (68) | 64.8 ± 19.9 (67) | 69.8 ± 18.2 (65) | 67.9 ± 16.6 (63) |
| 3-6 | 66.1 ± 11.4[c,d] (64) | 69.8 ± 10.9[c] (70) | 64.3 ± 13.7[c,d] (64) | 63 4 ± 12.4[d] (63) |
| 0-6 | 67.5 ± 7.6 (68) | 68.7 ± 10.8 (68) | 67.3 ± 10.5 (64) | 65.8 ± 12.3 (61) |
| Pregnancy, trimester | | **Animal protein, g/d** | | |
| 2 | 26.9 ± 12.0[c] (27) | 21.6 ± 14.0[c,d] (16) | 21.9 ± 12.8[c,d] (18) | 17.1 ± 11.3[d] (15) |
| 3 | 19.7 ± 6.4[c,d] (19) | 21.3 ± 14.7[c] (19) | 20.9 ± 11.8[c] (19) | 14.8 ± 8.7[d] (14) |
| 2 & 3 | 23.2 ± 8.2[c] (22) | 21.1 ± 10.3[c,d] (18) | 22.1 ± 10.7[c] (18) | 16.3 ± 8.0[d] (14) |
| Lactation, mo | | | | |
| 0-3 | 23.9 ± 12.4 (22) | 24.9 ± 17.1 (21) | 26.3 ± 18.9 (21) | 21.1 ± 19.2 (18) |
| 3-6 | 21.1 ± 6.9[c,d] (21) | 24.3 ± 12.5[c] (22) | 20.0 ± 10.3[c,d] (18) | 17.8 ± 8.8[d] (15) |
| 0-6 | 22.7 ± 7.9 (22) | 25.3 ± 11.9 (24) | 22.4 ± 8.6 (21) | 19.5 ± 11.2 (16) |
| Pregnancy, trimester | | **Plant protein, g/d** | | |
| 2 | 40.5 ± 9.6 (45) | 37.4 ± 5.9 (37) | 42.3 ± 11.6 (43) | 43.3 ± 7.9 (41) |
| 3 | 36.9 ± 10.2 (36) | 37.9 ± 6.0 (37.5) | 40.9 ± 10.5 (38) | 46.5 ± 12.5 (45) |
| 2 & 3 | 38.4 ± 9.2[c,d] (38) | 36.9 ± 4.2[c] (38) | 41.9 ± 9.1[c,d] (40) | 45.3 ± 8.3[d] (44) |
| Lactation, mo | | | | |
| 0-3 | 42.6 ± 9.0 (44) | 39.8 ± 11.1 (38) | 43.4 ± 10.7 (43) | 46.9 ± 12.6 (48) |
| 3-6 | 45.1 ± 9.0 (44) | 45.7 ± 9.3 (43) | 44.3 ± 8.4 (42) | 45.6 ± 7.3 (46) |
| 0-6 | 44.7 ± 6.0 (45) | 43.6 ± 8.1 (41) | 44.9 ± 7.4 (44) | 46.4 ± 7.1 (47) |

[a]Mean ± SD; [b]Median; [c,d]Means in rows with different superscripts are significantly different ($p<0.05$).

Table 5.37. Anthropometry of pregnant women (longitudinal data)

| | Stage of gestation | |
|---|---|---|
| | 3 months[a] | 9 months[b] |
| 9 months[b] | | |
| | (n=63) | |
| Height, cm | 155.3 ± 5.0[c]<br>(155.5)[d]<br>143.7 - 167.4[e] | --- |
| Body weight, kg | 60.9 ± 10.2<br>(58.6)<br>44.8 - 92.4 | 68.8 ± 10.1<br>(69.0)<br>49.6 - 95.5 |
| % Ideal weight for height[f] | 114 ± 18.0<br>(111)<br>90 - 168 | 129 ± 17.0<br>(127)<br>99 - 174 |
| Body mass index | 25.2 ± 4.0<br>(24.4)<br>19.6 - 37.0 | --- |
| Body weight change[g], kg | --- | 7.9 ± 3.7<br>(7.5)<br>-0.9 - 17.8 |
| Arm circumference[h], cm | 25.8 ± 3.6<br>(25.4)<br>21.0 - 37.0 | 25.9 ± 2.8<br>(25.5)<br>21.0 - 32.5 |
| Biceps skinfold[i], mm | 9.8 ± 5.5<br>(9)<br>4 - 25 | 10.5 ± 6.7<br>(10)<br>4 - 34 |
| Triceps skinfold[i], mm | 18.3 ± 7.7<br>(18)<br>7 - 36 | 19.4 ± 8.3<br>(20)<br>7 - 44 |

[a]Birth - 190 ± 30 days
[b]Birth - 15 ± 15 days
[c]Mean ± SD
[d]Median
[e]Range
[f]Jelliffe, D.B. The Assessment of the Nutrition Status of the Community. World Health Organization, Geneva, 1966;240-1.
[g](Birth - 15 ± 15 days) - (Birth - 190 ± 30 days)
[h]n=33
[i]n=31

Table 5.46. Frequency distribution of infants by percentiles of weight at different ages (longitudinal data)

| Sex and age | Percentiles of weight (NCHS)[a] | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | <5 | 5-10 | 10-25 | 25-50 | 50-75 | 75-90 | 90-95 | >95 |
| | | | | % of infants | | | | |
| **Male** | | | | | | | | |
| Birth | 2.5 | - | 20.0 | 20.0 | 37.5 | 15.0 | 5.0 | - |
| (40)[b] | (1) | - | (8) | (8) | (15) | (6) | (2) | - |
| 1 month | 2.5 | 2.5 | 10.0 | 32.5 | 27.5 | 17.5 | 5.0 | 2.5 |
| | (1) | (1) | (4) | (13) | (11) | (7) | (2) | (1) |
| 3 months | 5.0 | 5.0 | 10.0 | 32.5 | 35.0 | 12.5 | - | - |
| | (2) | (2) | (4) | (13) | (14) | (5) | - | - |
| 6 months | 15.0 | 17.5 | 25.0 | 22.5 | 15.0 | 5.0 | - | - |
| | (6) | (7) | (10) | (9) | (6) | (2) | - | - |
| | | | | % of infants | | | | |
| **Female** | | | | | | | | |
| Birth | 3.0 | 3.0 | 21.2 | 27.3 | 21.2 | 9.1 | 12.1 | 3.0 |
| (33) | (1) | (1) | (7) | (9) | (7) | (3) | (4) | (1) |
| 1 month | - | - | 15.2 | 30.3 | 30.3 | 15.2 | 9.1 | - |
| | - | - | (5) | (10) | (10) | (5) | (3) | - |
| 3 months | 3.0 | 3.0 | 15.2 | 36.4 | 21.2 | 9.1 | 9.1 | 3.0 |
| | (1) | (1) | (5) | (12) | (7) | (3) | (3) | (1) |
| 6 months | 12.1 | 18.2 | 24.2 | 37.3 | 12.1 | 6.0 | - | - |
| | (4) | (6) | (8) | (9) | (4) | (2) | - | - |

[a]National Center for Health Statistics
[b]Number of infants

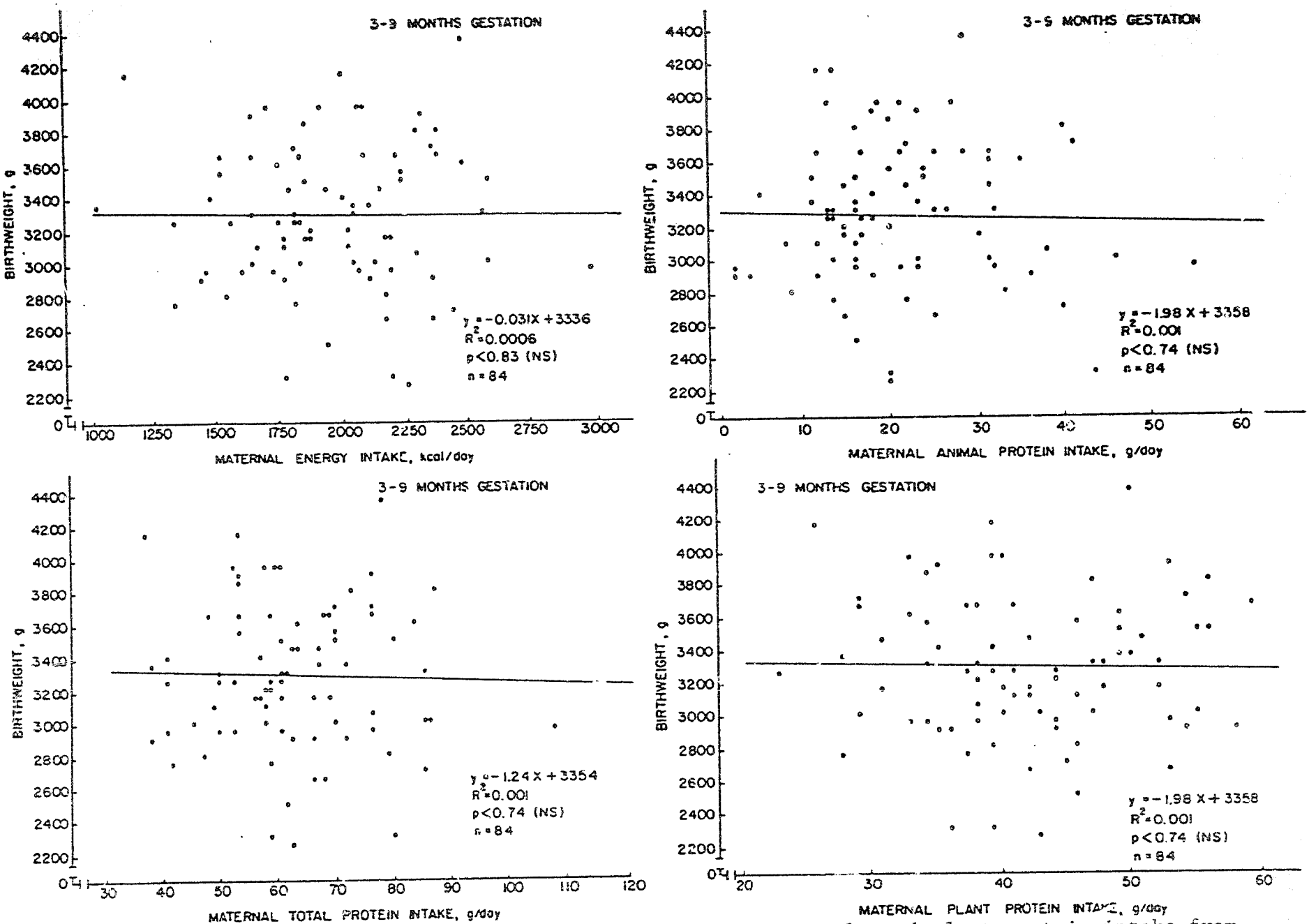
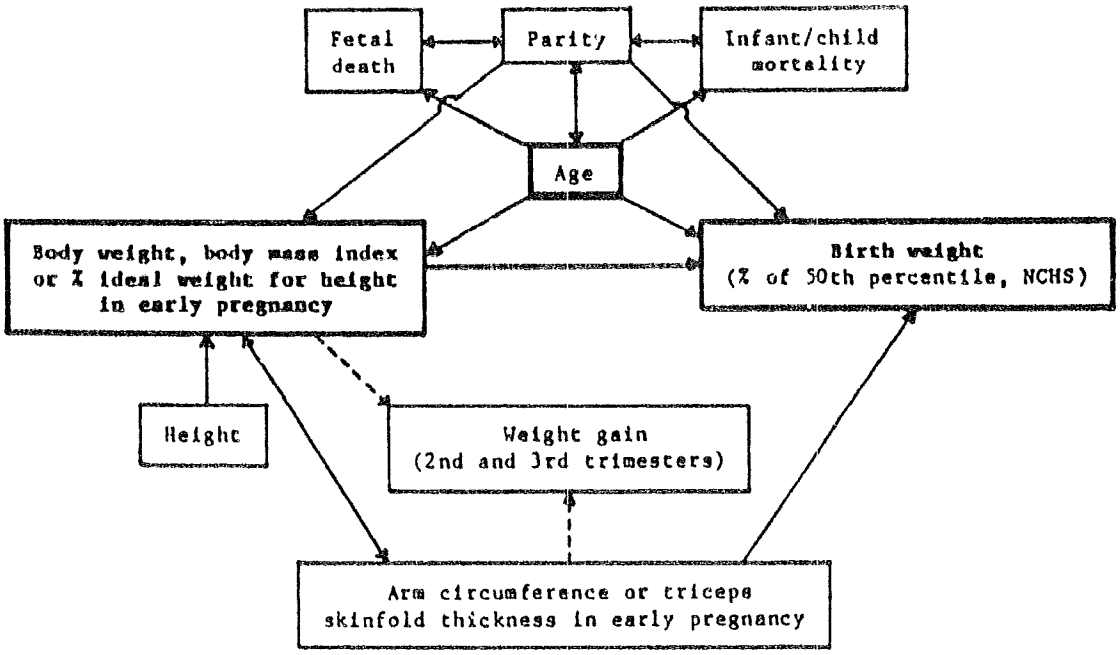



FIG 5.21. Relationship of maternal energy intake and of total, animal, and plant protein intake from 3 to 9 months gestation to birthweight

Table 5.53. Multiple regression analysis for predicting early pregnancy weight and weight gain during the second and third trimesters

| Independent variable | Regression coefficient | SE | p | $R^2$ |
|---|---|---|---|---|
| **Dependent variable: Early pregnancy weight, kg (n=72)** | | | | |
| Age, years | 0.66 | 0.17 | 0.0003 | 0.25 |
| Height, cm | 0.59 | 0.21 | 0.004 | |
| Intercept | -48.3 | 32.8 | | |
| **Dependent variable: Weight gain, kg (n=63)** | | | | |
| Age, years | -0.32 | 0.11 | 0.004 | 0.17 |
| Parity | 0.88 | 0.25 | 0.05 | |
| Intercept | 12.6 | 2.2 | | |

(A) SIMPLE REGRESSIONS




(B) MULTIPLE REGRESSION

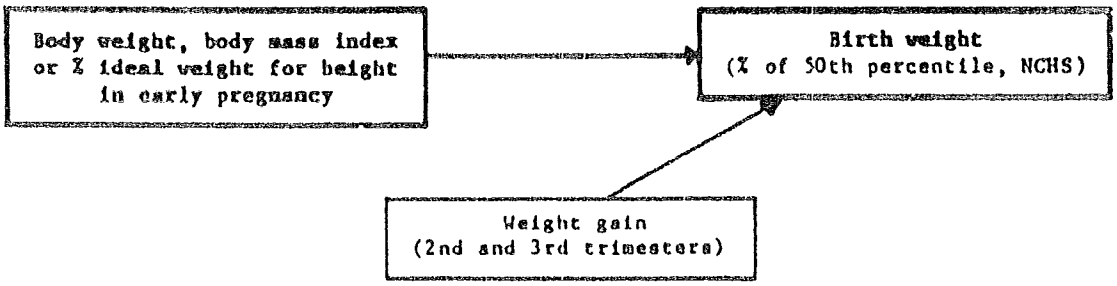



FIG 5.23. Summary of variables related to birth weight by simple regression (A) and multiple regression (B) analyses. ——— significant effect ($p<0.05$); - - - trend ($p<0.10$)

## 2. Maternal Food Intake

Maternal mean energy intake (total Kcal/day) during the first 6 months of lactation (Figure 5.27) was significantly related to infant weight at 6 months of age, expressed as percent of the 50th percentile ($R^2$=0.12, $p<0.003$). Maternal energy intake from only fat and carbohydrate sources (Kcal/day) also had a significant effect ($R^2$=0.13, $p<0.001$) on infant weight at 6 months (Figure 5.27). Maternal plant protein intake, which had a significant effect on infant weight at 6 months ($R^2$=0.09, $p<0.009$), appeared to be a proxy for energy intake. Animal protein intakes from 0 to 6 months, were not related significantly to infant weight (Figure 5.27). Maternal total protein intake also had a significant effect on infant weight at 6 mo ($R^2$=0.14, $p<0.001$). Multiple regression models for predicting infant weight at 6 months of age (Section 0) showed that the best two-variable model included either the diarrhea or SES variable and maternal plant protein intake (g/day) during the first 6 months of lactation. In other models, the use of either maternal plant protein intake or energy intake for predicting weight at 6 months did not change the predictive power. Clearly maternal energy and/or plant protein intake during lactation were associated with infant weight at 6 months of age.

Table 5.63. Relationship of certain household and maternal variables to household sanitation by simple regression analyses

| Independent variable | n | Regression coefficient | SE | p | $R^2$ |
|---|---|---|---|---|---|
| **Household** | | | | | |
| Socioeconomic status[a] | 107 | -1.17 | 0.03 | 0.0001 | 0.18 |
| Intercept | | 3.90 | 0.11 | | |
| **Mother** | | | | | |
| Education, yrs | 107 | 0.04 | 0.02 | 0.04 | 0.04 |
| Intercept | | 3.39 | 0.04 | | |
| Food intake, 0-6 mo postpartum | | | | | |
| Kcal/d | 88 | 0.00002 | 0.00016 | 0.91(NS) | 0.0002 |
| Intercept | | 3.40 | 0.34 | | |
| Total protein, g/d | 88 | 0.005 | 0.004 | 0.21(NS) | 0.02 |
| Intercept | | 3.10 | 0.27 | | |
| Animal protein, g/d | 88 | 0.01 | 0.004 | 0.001 | 0.11 |
| Intercept | | 3.12 | 0.10 | | |
| Plant protein, g/d | 88 | -0.012 | 0.006 | 0.03 | 0.06 |
| Intercept | | 4.01 | 0.25 | | |
| Hematology, 0-3 mo postpartum | | | | | |
| Hemoglobin, g/dl | 62 | 0.06 | 0.03 | 0.07 | 0.06 |
| Intercept | | 2.75 | 0.37 | | |
| Ferritin, ug/dl | 57 | 0.005 | 0.002 | 0.05 | 0.07 |
| Intercept | | 3.28 | 0.08 | | |

[a]1=high and 4=low SES groups

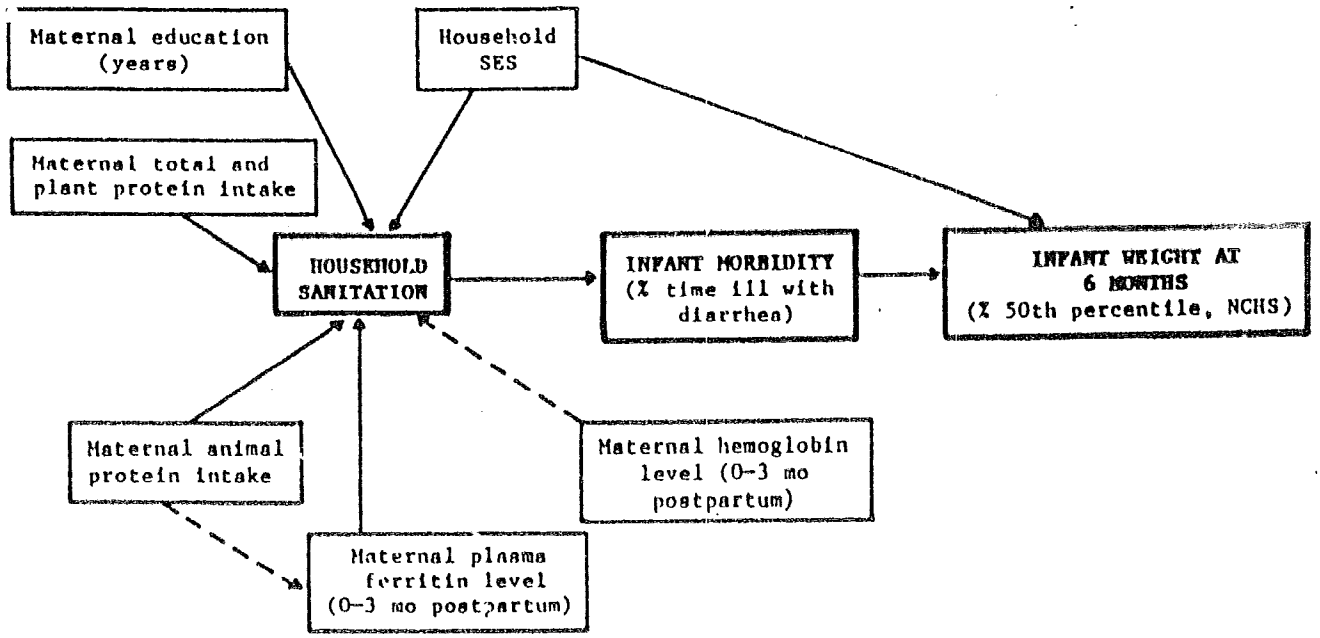



FIG 5.26. Summary of variables related to household sanitation and the relationship of these to infant morbidity and weight at 6 months by simple regression analyses. ——— significant effect ($p<0.05$); - - - trend ($p<0.10$)

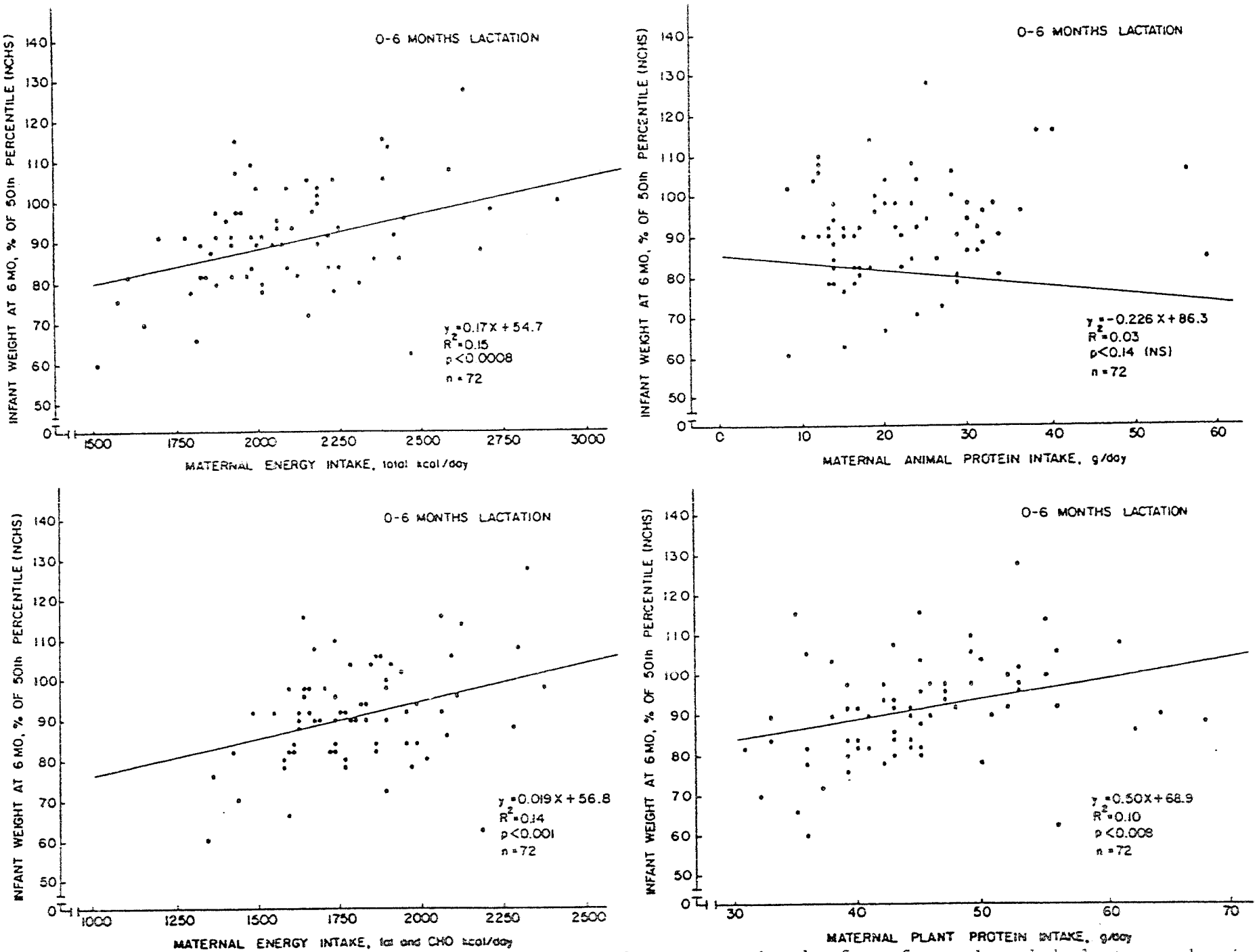



FIG 5.27. Relationship of maternal total energy intake, energy intake from fat and carbohydrate, and animal and plant protein intake during the first 6 months of lactation to infant weight at 6 months of age

Table 5.65. Comparison of growth, morbidity, and selected variables for infants classified into three categories of weight at 6 months

| | Classification of infant weight at 6 months % of 50th percentile (NCHS)[a] | | |
|---|---|---|---|
| | <90 | 90-100 | >100 |
| **Infant weight** | (n=34) | (n=26) | (n=14) |
| | | **% of 50th percentile** | |
| Birth | 95.2 ± 11.1[b,c] | 103.2 ± 10.9[d] | 103.1 ± 10.0[d] |
| | 69 -120[g] | 86 - 123 | 85 - 117 |
| 1 month | 94.6 ± 10.4[c] | 107.3 ± 10.8[d] | 106.8 ± 9.9[d] |
| | 71 - 115 | 90 - 138 | 89 - 124 |
| 3 months | 90.6 ± 10.0[c] | 103.3 ± 8.5[d] | 109.6 ± 8.5[e] |
| | 69 - 108 | 84 - 126 | 96 - 124 |
| 6 months | 80.9 ± 6.6[c] | 94.4 ± 3.5[d] | 107.2 ± 4.8[e] |
| | 60 - 89 | 90 - 99.9 | 100 - 116 |
| | | **Change in % of 50th percentile** | |
| 0 to 6 months | -14.2 ± 12.0[c] | - 8.7 ± 10.3[c] | 4.1 ± 10.4[d] |
| | -37.7 - 14.8 | -27.1 - 13.4 | -16.6 - 24.0 |
| | (n=28) | (n=23) | (n=11) |
| | | **% time sick** | |
| Diarrheal illness | 5.09± 6.2 | 3.76± 4.73 | 1.95± 3.44 |
| 0 to 6 months | 0 - 21.0 | 0 - 14.9 | 0 - 10.7 |
| Respiratory illness | 6.09± 6.9 | 4.16± 5.94 | 4.67± 6.65 |
| 0 to 6 months | 0 - 24 | 0 - 19 | 0 - 22 |
| **Supplementation** | (n=28) | (n=20) | (n=11) |
| | | **Number of foods** | |
| 0 to 3 months | 0.82± 1.19 | 0.55± 0.89 | 0.36 ± 0.92 |
| | 0 - 4 | 0 - 3 | 0 - 3 |
| 3 to 6 months | 2.86± 3.60 | 3.40± 5.11 | 1.73± 1.79 |
| | 0 - 14 | 0 - 22 | 0 - 5 |
| 0 to 6 months | 3.68± 4.29 | 3.95± 5.11 | 2.09± 2.30 |
| | 0 - 17 | 0 - 22 | 0 - 6 |
| **Household** | | | |
| Sanitation index | 3.40± 0.43 | 3.44± 0.40 | 3.42± 0.41 |
| | 2.69- 4.30 | 2.74- 4.48 | 2.66- 4.18 |
| Socioeconomic status[f] | 3.12± 0.91[c] | 2.65± 1.09[c,d] | 2.21± 0.70[d] |
| | 1 - 4 | 1 - 4 | 1 - 4 |
| **Maternal food intake, 0-6 months** | (n=26) | (n=24) | (n=13) |
| Animal protein, g/day | 22.5 ± 10.5 | 21.9 ± 7.5 | 23.2 ± 14.1 |
| | 8 - 59 | 12 - 36 | 8 - 56 |
| Plant protein, g/day | 43.1 ± 8.3 | 45.9 ± 6.1 | 47.3 ± 8.0 |
| | 31 - 68 | 33 - 56 | 35 - 61 |
| Kcal/day | 2147 ± 281 | 2081 ± 292 | 2192 ± 206 |
| | 1522 - 2683 | 1700 - 2927 | 1931 - 2588 |

[a]National Center for Health Statistics; [b]Mean ± SD; [c-e]Means in rows with different superscripts differ significantly ($p<0.05$); [f]1=high and 4=low SES groups; [g]Range

Table 5.71. Simple regressions of independent variables with infant weight at 6 months expressed as percent of the 50th percentile (NCHS)

| Independent variable | n | Regression coefficient | SE | p | $R^2$ |
|---|---|---|---|---|---|
| **Mother** | | | | | |
| Height, cm | 77 | 0.56 | 0.28 | 0.05 | 0.05 |
| Intercept | | 4.20 | 43.5 | | |
| Weight, 6 mo postpartum, kg | 52 | 0.27 | 0.15 | 0.07 | 0.07 |
| Intercept | | 74.9 | 9.6 | | |
| Arm circumference, 6 mo postpartum, cm | 55 | 1.04 | 0.45 | 0.03 | 0.09 |
| Intercept | | 64.6 | 12.3 | | |
| Biceps skinfold thickness, 6 mo postpartum, mm | 55 | 0.48 | 0.24 | 0.05 | 0.07 |
| Intercept | | 86.3 | 3.5 | | |
| Total protein intake, 0-6 mo postpartum, g/day | 72 | 0.41 | 0.12 | 0.001 | 0.14 |
| Intercept | | 63.7 | 8.5 | | |
| Plant protein intake, 0-6 mo postpartum, g/day | 72 | 0.50 | 0.18 | 0.008 | 0.10 |
| Intercept | | 69.0 | 8.4 | | |
| Energy intake, 0-6 mo postpartum | | | | | |
| Total, Kcal/d | 72 | 0.02 | 0.005 | 0.0008 | 0.15 |
| Intercept | | 54.7 | 10.6 | | |
| Fat and CHO, Kcal/d | 72 | 0.02 | 0.006 | 0.001 | 0.14 |
| Intercept | | 56.8 | 10.5 | | |
| **Infant** | | | | | |
| Birth weight, % of 50th percentile (NCHS)[a] | 74 | 0.36 | 0.11 | 0.002 | 0.13 |
| Intercept | | 55.0 | 11.0 | | |
| % time ill with diarrhea | 62 | -0.77 | 0.25 | 0.004 | 0.13 |
| Intercept | | 94.0 | 1.68 | | |
| **Household** | | | | | |
| Socioeconomic status[b] | 83 | -2.89 | 1.29 | 0.03 | 0.06 |
| Intercept | | 98.7 | 3.81 | | |

[a]National Center for Health Statistics
[b]1=high and 4=low SES groups

Table 5.72. Multiple regression models for predicting household sanitation from certain household and maternal variables

| Independent variable | n | Regression coefficient | SE | p | $R^2$ |
|---|---|---|---|---|---|
| **Model 1** | | | | | |
| Socioeconomic status[a] | 88 | -0.17 | 0.04 | 0.0001 | 0.29 |
| Maternal animal protein intake, g/day, 0-6 mo postpartum | | 0.011 | 0.004 | 0.004 | |
| Intercept | | 3.65 | 0.15 | | |
| **Model 2** | | | | | |
| Socioeconomic status | 57 | -0.17 | 0.05 | 0.0002 | 0.26 |
| Maternal plasma ferritin status, ug/dl, 0-3 mo postpartum | | -0.004 | 0.002 | 0.09 | |
| Intercept | | 3.78 | 0.16 | | |

[a]1=high and 4=low SES groups

1. Infant Weight At 3 Months

In constructing the multiple regression model for the prediction of infant weight at 3 months, initially 32 cases and all 15 variables were used, resulting in an $R^2$ of 0.59. Due to the relatively small number of cases and large number of variables, overfitting was likely. The CP criterion indicated that percent of the 50th percentile weight (NCHS) at birth was the best single predictor ($R^2$=0.35) of infant weight at 3 months and that maternal plant protein intake during the first 3 months postpartum was the next best single predictor ($R^2$=0.21). The CP criterion pointed to the best prediction model as one which contained two variables: percent of the 50th percentile weight at birth and maternal plant protein intake ($R^2$=0.43). When these two variables were used in the model, the number of cases was increased to 52 and $R^2$ increased to 0.47 (Table 5.73). When maternal total Kcal intake or Kcal intake from fat and carbohydrate was substituted in the model for plant protein intake, the $R^2$ dropped to 0.30-0.31 after each substitution in the model. Simple regressions also demonstrated a higher predictive power of maternal plant protein intake than Kcal intake for infant weight at 3 months.

2. Infant Weight At 6 Months

Initially in this analyses, 34 cases and all of the 15 variables described previously were used in the model resulting in an $R^2$ of 0.69. Again, overfitting was likely. The CP criterion suggested examination of a number of two-, three- and four-variable models with $R^2$ ranging from 0.43 to 0.56. Maternal plant protein intake was the best single predictor ($R^2$=0.30) of infant weight at 6 months, and the next best predictor was household SES ($R^2$=0.23). The best two-variable combination included maternal plant protein intake and percent of time the infant was ill with diarrhea ($R^2$=0.43) and were included in virtually all reasonable models that included more than two variables. The second best two-variable predictor model for infant weight at 6 months included socioeconomic status instead of diarrhea ($R^2$=0.39).

Table 5.73. Multiple regression models for predicting infant weight expressed as percent of the 50th percentile (NCHS)[a] at 3 and 6 months of age

| Independent variable | Regression coefficient | SE | p | $R^2$ |
|---|---|---|---|---|
| | | n=52 | | |
| | | **Weight at 3 months** | | |
| **Model 1** | | | | |
| Birth weight, % of 50th percentile | 0.58 | 0.13 | 0.0001 | 0.47 |
| Maternal plant protein intake, g/d[b] | 0.59 | 0.13 | 0.0001 | |
| Intercept | 15.9 | 13.8 | | |
| **Model 2** | | | | |
| Birth weight, % of 50th percentile | 0.56 | 0.14 | 0.0003 | 0.31 |
| Maternal energy intake from fat and CHO, Kcal/d[b] | 0.0102 | 0.0040 | 0.02 | |
| Intercept | 25.0 | 16.0 | | |
| **Model 3** | | | | |
| Birth weight, % of 50th percentile | 0.55 | 0.14 | 0.0004 | 0.30 |
| Maternal energy intake, total Kcal/d[b] | 0.0089 | 0.0037 | 0.02 | |
| Intercept | 25.5 | 16.0 | | |
| | | **Weight at 6 months** | | |
| **Model 1** | | | | |
| Birth weight, % of 50th percentile | 0.42 | 0.12 | 0.001 | 0.43 |
| % time sick with diarrhea | -0.60 | 0.25 | 0.02 | |
| Socioeconomic status[c] | -3.00 | 1.33 | 0.03 | |
| Maternal plant protein intake, g/d[b] | 0.48 | 0.17 | 0.007 | |
| Intercept | 38.5 | 14.4 | | |
| **Model 2** | | | | |
| Birth weight, % of 50th percentile | 0.44 | 0.13 | 0.004 | 0.39 |
| % time sick with diarrhea | -0.63 | 0.25 | 0.02 | |
| Socioeconomic status[c] | -3.17 | 1.38 | 0.03 | |
| Maternal energy intake from fat and CHO, Kcal/d[b] | 0.010 | 0.005 | 0.05 | |
| Intercept | 44.0 | 15.0 | | |
| **Model 3** | | | | |
| Birth weight, % of 50th percentile | 0.39 | 0.13 | 0.006 | 0.39 |
| % time sick with diarrhea | -0.61 | 0.25 | 0.02 | |
| Socioeconomic status | -3.15 | 1.37 | 0.03 | |
| Maternal energy intake, total Kcal/d[b] | 0.01 | 0.005 | 0.04 | |
| Intercept | 43.1 | 15.0 | | |

[a]National Center for Health Statistics
[b]Mean, 0-6 months postpartum
[c]1=high and 4=low SES groups

When the candidate models were tested using multiple regression analysis, the sample size was increased to 52 and the $R^2$ value decreased. In the first model that included percent of time the infant was sick with diarrhea and maternal plant protein intake, the $R^2$ value dropped to 0.27. The addition of socioeconomic status and birth weight, expressed as percent of the 50th percentile, to the model which included percent of time the infant was ill with diarrhea and maternal plant protein intake, increased the $R^2$ from 0.27 to 0.43 (Table 5.73). When either maternal total Kcal intake or Kcal intake from non-protein sources was substituted for maternal plant protein intake in the model, an $R^2$ of 0.39 resulted. Thus the use of either maternal plant protein intake or energy intake for predicting infant weight at 6 months did not change the predictive power of the model. Animal protein intake, however, was not related to infant weight at 6 months in this model. Although simple regression analysis showed significant relationships between maternal anthropometric measures at 6 months postpartum and infant weight, these measures were not significant in multiple regression analysis. This is due, in part, to the significant relationship between maternal anthropometry and birth weight and the presence of birth weight in the model. These results clearly indicated that morbidity of the infant (or the percent of time the infant was ill with diarrhea), birth weight, household socioeconomic status, and maternal food intake, either energy or plant protein, were associated in the expected directions with the weight of the infant at 6 months.

## P. Other Multiple Regression Models Related to Infant Weight

To study the effect of different variables on infant weight change over the first 6 months, the same sets of independent variables listed in the previous section were regressed with change in weight percentiles from birth to six months of age. In this analysis, the same variables which were significant predictors of weight at 6 months (Table 5.73) were also significant predictors of change in weight percentiles (Table 5.74). The latter analysis explained a higher percentage of variation in the dependent variable ($R^2$=0.52 to 0.55) than the former analysis. The negative relationship observed between birth weight (% of the 50th percentile) and weight change, shown by multiple regression analysis, was shown previously by simple regression.

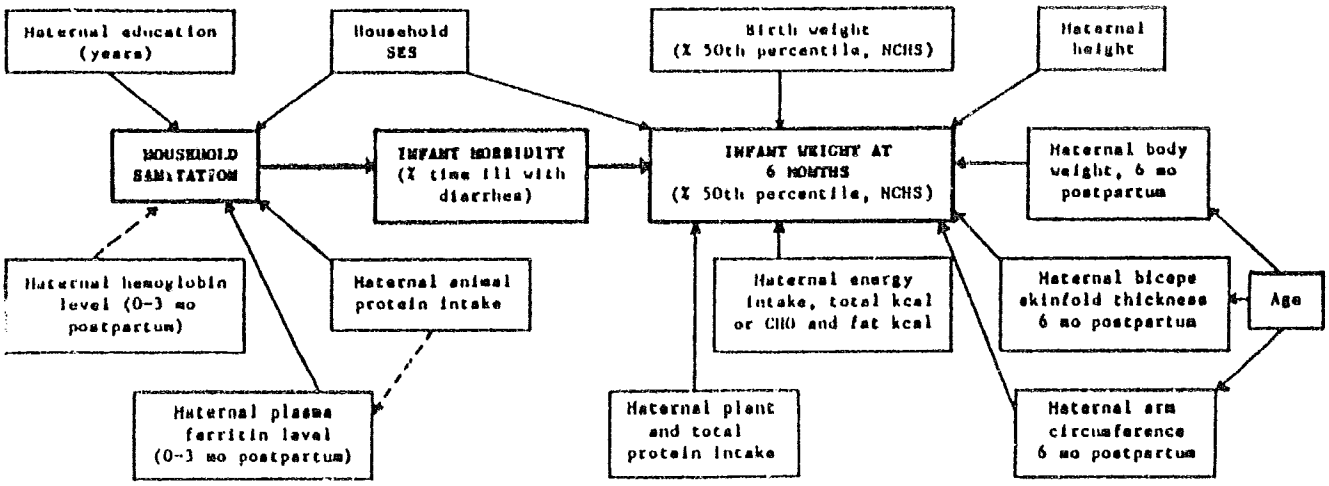
A summary of all simple and multiple regression analyses of various independent variables (discussed in this section) with household sanitation, infant morbidity, and infant weight at 6 months is presented in Figure 5.31.

Table 5.74. Multiple regression models for predicting change in infant weight expressed as percent of the 50th percentile (NCHS)[a] from birth to 6 months of age

| Independent variable | Regression coefficient | SE | p | $R^2$ |
|---|---|---|---|---|
| | Change in weight percentile, birth to 6 months (n=52) | | | |
| **Model 1** | | | | |
| Birth weight, % of 50th percentile | -0.58 | 0.12 | 0.0001 | 0.55 |
| % time sick with diarrhea | -0.60 | 0.25 | 0.02 | |
| Socioeconomic status[b]a | -3.00 | 1.33 | 0.03 | |
| Maternal plant protein intake, g/d[c] | 0.48 | 0.17 | 0.007 | |
| Intercept | 38.5 | 13.9 | | |
| **Model 2** | | | | |
| Birth weight, % of 50th percentile | -0.60 | 0.13 | 0.0001 | 0.52 |
| % time sick with diarrhea | -0.63 | 0.25 | 0.02 | |
| Socioeconomic status[b] | -3.17 | 1.38 | 0.03 | |
| Maternal energy intake from fat and CHO, Kcal/d[c] | 0.010 | 0.005 | 0.05 | |
| Intercept | 44.0 | 15.0 | | |
| **Model 3** | | | | |
| Birth weight, % of 50th percentile | -0.61 | 0.13 | 0.0001 | 0.52 |
| % time sick with diarrhea | -0.61 | 0.25 | 0.02 | |
| Socioeconomic status[b] | -3.15 | 1.37 | 0.03 | |
| Maternal energy intake, Kcal/d[c] | 0.010 | 0.005 | 0.04 | |
| Intercept | 43.1 | 15.0 | | |

[a]National Center for Health Statistics
[b]1=high and 4=low SES groups
[c]0-6 months postpartum

(A) SIMPLE REGRESSIONS




(B) MULTIPLE REGRESSION

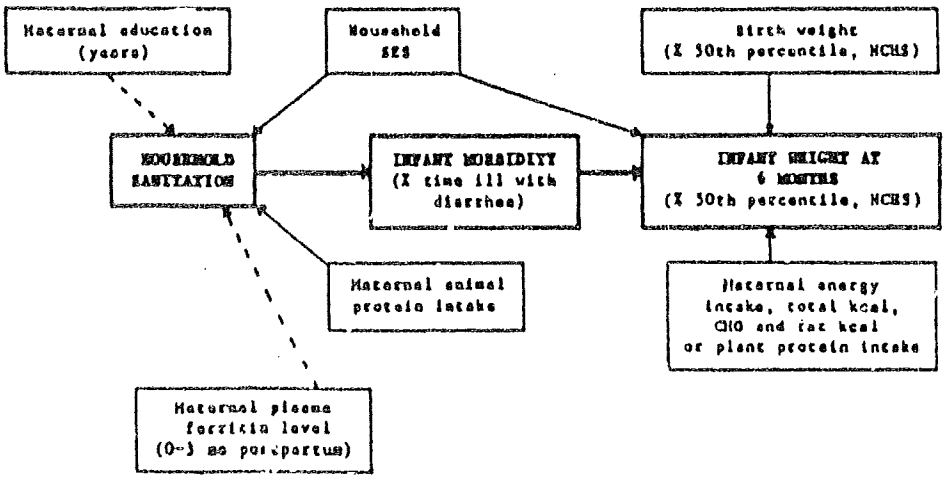



FIG 5.31. Summary of variables related to infant weight at 6 months of age by simple regression (A) and by multiple regression (B) analyses. ——— significant effect ($p<0.05$); - - - trend ($p<0.10$)