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During the October-November 1985 Brookhaven medical team visit to the Republic of the Marshall Islands, a new stop for the Liktanur III was the island of Mejato, Kwajalein atoll. Many persons previously residing on Rongelap are now on this island. It was the impression of team physicians that more children than usual were not maintaining their positions on growth charts. These charts, which provide a graphic record of annual weight and height changes, have been maintained for several years. They permit an estimate of an individual's cumulative growth pattern than is not apparent from a single weight/height measurement.

To determine if there might be a new element which has been affecting the growth of children on Mejato, a review of growth curves was performed. The results were compared to results of a similar review of charts of Utirik children. The results of the growth chart review of children over two years of age are shown in Table 1. There is a certain amount of subjectivity in interpreting the growth curves because it is the visual estimate of a change in growth rather than a numerical value which is the basis for deciding whether or not a child has attained his or her expected increase in weight or height. In addition, the accuracy of graphing a child's weight and height may vary according to the physician or nurse who is doing the recording. Nevertheless, the results are disturbing and suggest that a problem with adequate nutrition in children has been existing on Mejato. The percent of children on Mejato whose charts were reviewed revealed a relative decrease in weight or height gain in the past year that was about double that found on

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Utirik. It is important to note that these data compare a child's weight and height in October 1985 with his/her weight and height in 1983 or 1984. Therefore, it appears possible that the growth in the past year of Rongelap children now residing on Mejato has not been as satisfactory as Utirik children. This difference is not present if only the 1985 data are examined. Table 2 shows that the weight and height of children on Mejato and Utirik are similar, although both groups may be somewhat smaller, especially in weight, than children that the team examined on Majuro and Ebeye. If the growth charts had not been in use, the findings regarding the Mejato children probably would not have been detected.

These findings are clearly qualitative rather than quantitative, and they do not permit the assumption that significant childhood malnutrition, presumably caloric, is present on Mejato. However, they certainly raise the possibility of such an event. It is at this point, therefore, that some corrective action should be taken so that if clinical evidence of widespread malnutrition is just now becoming manifest it can be stopped before it can be documented with certainty. It is for this reason that the Mayor of Mejato was told of the concerns of the medical team at the time of the October visit.

Table 1: Comparison of recent growth patterns of Mejato and Utirik children

| Mejato | | | Utirik | | |
|--------------------------------|-----|--------------|--------------------------------|---|--------------|
| <u>Height</u> | | | | | |
| 10* | 0** | 18.5%*** | 29 | 0 | 48.3% |
| 10 | + | 18.5% | 11 | + | 18.3% |
| <u>34</u> | - | <u>63.0%</u> | <u>20</u> | - | <u>33.3%</u> |
| 54 | | 100.0% | 60 | | 100.0% |
| 37% stayed same or increased | | | 66.6% stayed same or increased | | |
| <u>Weight</u> | | | | | |
| 4 | 0 | 7.4% | 19 | 0 | 32.2% |
| 14 | + | 25.9% | 17 | + | 28.8% |
| <u>36</u> | - | <u>66.7%</u> | <u>23</u> | - | <u>39.0%</u> |
| 54 | | 100.0% | 59 | | 100.0% |
| 33.3% stayed same or increased | | | 61% stayed same or increased | | |

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- * = Number of children's charts evaluated in each group.
 - ** 0 = Maintained previous growth pattern.
 - + = Increased over previous growth pattern.
 - = Decreased in comparison with previous growth pattern.
 - *** = Percent of evaluable charts.

Table 2: Comparison of October, 1985 heights and weights of children from Mejato, Utirik, and Majuro/Ebeye (combined values of boys and girls)

| <u>Percentile*</u> | <u>Mejato</u> | | <u>Utirik</u> | | <u>Majuro/Ebeye</u> | |
|--------------------|---------------|----------|---------------|-------|---------------------|-------|
| | <u>Height</u> | | | | | |
| < 5% | 49** | 54.4%*** | 44 | 49.4% | 83 | 45.3% |
| 10-49% | 30 | 33.3% | 28 | 31.5% | 77 | 42.1% |
| <u>> 50%</u> | 1 | 1.1% | 0 | 0.0% | 15 | 8.2% |
| | <u>Weight</u> | | | | | |
| < 5% | 29 | 30.3% | 28 | 32.2% | 36 | 19.7% |
| 10-49% | 50 | 56.2% | 47 | 54.0% | 127 | 69.4% |
| <u>> 50%</u> | 9 | 10.1% | 3 | 3.4% | 36 | 19.7% |

* = Percentile of height or weight of the normal growth curve determined for U.S. children.

** = Number of children in each group.

*** = Percent of children in each group.