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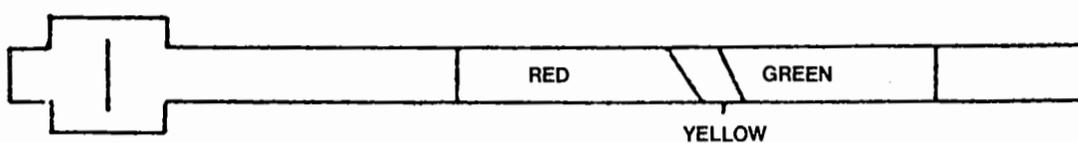
FEATURE

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THE TRI-COLORED STRIP - A SIMPLE AND EFFECTIVE HEALTH TOOL

by CAROL SUE WAHL



A thin plastic-coated cardboard strip, less than 30 centimeters long and 15 millimeters wide, has become part of the world-wide campaign to combat malnutrition among young children in developing nations. This remarkably uncomplicated health instrument is being used in a community health project run by the Rural Development Multi-Disciplinary Research Center (CIMDER), based in Cali, Colombia. Initial project findings indicate that the strip is making a significant contribution towards improving the health of children in rural areas.

Originated in Africa in the early 1970s, the strip is a tool for determining the nutritional condition of youngsters from one to six years old. It does this by measuring the brachial perimeter of the upper arm - an anthropometric measurement long employed by archeologists.

The strip, which resembles a colorful, long, slim book-mark, uses a scale according to which children are classified into three different nutritional categories: well-nourished, possibly under- or malnourished, and malnourished. Each category is represented by the symbolic colors of the traffic light - green, yellow, and red.

By using both sides and the edges, the strip can provide measurements for four different age groups. The bands of color on one side of it are placed in such a way to allow children from 12 to 23 months to be classified along one edge and those ranging from 24-47 months along the other. The two edges on the other side measure children from 48-59 and 60-71 months respectively. Because of the importance of noting any variations or differences in very young infants, a separate strip was developed for children from 0 to 11 months old. Measurements are obtained by placing the strip around the child's upper arm and then pulling one end through a slot located at the point marked zero until it tightens. The color band that appears at this point then gives the classification of the child's nutritional condition.

The CIMDER strip differs from the Shākir-Morley ribbon developed in Africa, and from which it is adapted, in that a separate strip is used for infants under a year old. By using both sides and both edges of the second strip, it is possible to measure the nutritional condition of children up to 71 months, while the Shākir-Morley ribbon was used only up to 60 months. Thus, on the CIMDER strip, the age-group scales are different from those on the Shākir-Morley ribbon and the CIMDER team has found that these provide a much more reliable indication of the child's nutritional condition.

How does this simple health tool compare with other, more traditional, instruments, such as the scale, as a means of child nutritional surveillance in developing countries?

In the first place, the strip is a highly mobile, damage-resistant instrument that can give reliable measurements wherever it is used. This durability and ease in handling contrasts with the far more delicate scale that must be periodically calibrated and is easily damaged. The use of the scale also allows a fairly high risk of human error in weighing and calculating.

The average family in rural areas of developing countries is unlikely to have a scale on hand because the use of such an instrument requires special knowledge and skills. It also tends to be expensive. On the other hand, once the measuring system of the tri-colored strip has been explained, it is easy to handle and requires no knowledge of reading or the ability to work out equivalency tables. It costs less than three Colombian pesos (less than 12 cents). Readily available, the strip is an ideal instrument for parents to use in order to regularly monitor their children's health, especially in areas far from health centers and only occasionally visited by health workers.

The strip has had an impact not only on nutrition measurement, but also on the broader areas of community health and malnutrition. It has become the cornerstone of the CIMDER health project through which groups of rural parents have been instructed in its use. This direct involvement has helped spawn and stimulate parental concern and interest in children's health, and it enabled them to participate in providing health care. By taking the measurements themselves and discovering their children's often deficient nutritional condition, parents have become strongly motivated to look into the causes of malnutrition. In this way, governments, health professionals, and members of the community are involved in confronting and seeking solutions to such problems as ignorance about children's nutritional needs, parasitism, impure water, and the lack of vaccinations.

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