A NURADHA HARINARAYAN always planned to breastfeed her baby but expected that her graduate school schedule would mean giving way to bottles of formula. Then she heard Helen Armstrong, a Tufts lecturer, Armstrong is an articulate and persuasive speaker on the myriad health benefits of breastfeeding. Now Harinarayan holds her first child, four-month-old Shashank, in her arms. It has not been easy, but she intends to keep breastfeeding.

"The commitment paid off as I saw him grow," says Harinarayan, who will use her joint master's from the School of Nutrition Science and Policy and the Fletcher School to work with mothers and infants in her native India. "Helen was right about the emotional benefits of breastfeeding, and there is no doubt that nutritionally it was the best decision."

That is good news for Armstrong and for Dora Gutiérrez, who work for the nutrition section of UNICEF New York.
on the joint WHO/UNICEF Baby-Friendly Hospital Initiative (BFHI). Through this seven-year-old program, over 13,000 hospitals in 117 countries have changed their maternity practices and generated community-based support for breastfeeding. The Tufts contribution strengthens and updates technical knowledge among health professionals, and builds communication skills with new mothers, promoting breast milk as the ideal food to protect children against illness and disease. The program advocates exclusive breastfeeding for the first six months of life, and sustained breastfeeding, along with other foods, up to the age of two and beyond.

For Armstrong, who works with UNICEF offices and breastfeeding specialists throughout the world, and Gutiérrez, who focuses on hospitals in Latin America, Harinarayan's experience confirms what nutritionists have known for years: among its many benefits to mother and child, breast milk is an inexpensive and unparalleled source of nutrients. Breastfeeding provides a continuous household supply of easily digested milk, a perfect nutrient balance as well as a source of critical antibodies that give a child immunological protection. According to a December 1997 statement of the American Pediatric Association, breastfeeding is also positively associated with cognitive development. Responsive nursing also creates a bond between mother and child, an intimacy valued especially in the professional staffs of maternity hospitals in lactation management and maternal support. The School of Nutrition Science and Policy of the United States, and later in Kenya, where she lived for 16 years and helped to found the Breastfeeding Information Group.

"La Leche League groups are run by accredited volunteer leaders. Women who are pregnant or nursing their babies get together once a month and have a conversation that's truly informative," says Armstrong. "They've been going 40 years and it was the first time women had said 'We won't rely only on doctors; we'll learn about this ourselves.' I was very struck with that self-reliance, and I still think the resulting woman-to-woman help is very powerful."

Baby-Friendly Hospitals foster a similar approach through community networks. "Ninety-five percent of what happens in breastfeeding does not require a medical answer," says Armstrong. "It requires only the help of someone experienced and reassuring. The 5 percent that might require medical treatment can then get very good help because the professional's time is well used for these special cases."

Cultural contexts
Working with senior-level health trainers, Armstrong and Gutiérrez have developed training guides. "Essentially we are empowering health care professionals so that they can be support mothers to breastfeed," says Gutiérrez.

But effective breastfeeding training must...
take into account the mother's cultural context. In Malawi, for instance, data show that mothers tend to feed their infants water plus cereal or other food, a combination that interferes with breastmilk production and can result in sicker babies. A more ideal pattern exists in Rwanda, where 90 percent of babies are fed only breastmilk in the first months.

The differences, says Armstrong, are "partly cultural and partly commercial. Rwanda has not been strongly targeted by the formula companies, whereas Malawi has experienced heavy marketing and women have come to believe that their breastmilk isn't enough, that they have to give something else. Yet in most of sub-Saharan Africa, an adequate supply of infant formula costs between 35 percent and 150 percent of the urban minimum wage. Some families can afford formula, but a lot can only afford to buy a bottle and then fill it with water or a flavored sugar drink. Some stop breastfeeding when they go back to work, not realizing that they can do both."

**Making Progress**

Those misconceptions may eventually give way under the growing influence of retrained health workers. But the improved health of young children may ultimately be the program's best selling point. In Panama, the Ministry of Health reported a 58 percent reduction in respiratory infections and a 15 percent decline in diarrhea in infants in just one year in a Baby-Friendly Hospital. In Brazil, the Acari Hospital credits BFHI with dramatic cost savings from decreased hospitalization of infants and reduced fatalities.

"A girl or woman who sees the robust growth of exclusively breastfed babies among her neighbors is learning something important about her own capacities," says Armstrong. "As more and more infants are protected from the drawbacks of infant formula and the dangers of bottle feeds, the whole standard of health changes in a community. In Haiti, a UNICEF health officer told us that the diarrhoea clinics were having to close in areas where the BFHI had taken hold; they were simply redundant. Nothing is more gratifying than knowing we have had a share in this restoration of women's capacities to give their babies optimal health."

Yet continued progress toward reducing infant illness and death is an ongoing challenge. The World Alliance for Breastfeeding Action, founded in 1991, unites breastfeeding groups whose advocacy goes beyond hospital walls. That community support is critical, says Armstrong. "When the mother goes home she will often tend to let cultural norms and misconceptions tell her what to do, and here the BFHI is put to its toughest test.

"We need to work much harder on community support, on community networks. We hope that when a mother reaches for water, the other women will say, 'Oh, don't give him that! Look at my baby; he's four months and beautiful, and he's not had a drop of water. When he's thirsty, I give him my milk.'"