

# The high price of infant formula in the United States

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Why is infant formula so expensive in the United States? Curiously, it is partly because the federal government provides about half of it free. How can that be? I have reviewed the health consequences of using infant formula and other economic impacts elsewhere. Here the focus is on just one question: why is the price of infant formula in the supermarkets so high? More than half the infant formula used in the United States is provided to mothers at no cost through the federal government's Special Supplemental Nutrition Program for Women, Infants, and Children, commonly known as WIC. WIC is intended to serve low-income women, infants, and children who are at nutritional risk, but it reaches almost half of all US infants. Launched in 1974, the WIC program is administered by the Food and Nutrition Service of the US Department of Agriculture. It "serves to safeguard the health of low-income women, infants, & children up to age 5 who are at nutritional risk by providing nutritious foods to supplement diets, information on healthy eating, and referrals to health care". Pregnant, breastfeeding and postpartum women, infants, and children up to 5 years of age are eligible if: 1) they are individually determined by a competent professional to be in need of the special supplemental foods supplied by the program because of nutritional risk; and 2) meet an income standard, or receive or have certain family members that receive benefits under the Food Stamp, Medicaid or Temporary Assistance for Needy Families Program. In fiscal year 2004, the WIC program had 7,904,000 participants. Program costs were US\$3,561,200,000 for food, and US\$1,276,200,000 for nutrition services and administrative costs, for a total of US\$4,890,200,000. The average monthly food cost per person was US\$37.54. In 2004 the US Department of Agriculture published an article on "Sharing the Economic Burden: Who Pays for WIC's Infant Formula?" It explained that WIC clients get the formula free. WIC, and thus the US Treasury, pays for it. However, WIC negotiates contracts with the formula companies under which WIC gets rebates from the manufacturers. The rebates are quite large: "Rebates per can of formula also vary across States and ranged from 85 to 98 percent of the manufacturer's wholesale price in fiscal 2000. As a result, the highest net price a manufacturer received for WIC-provided infant formula was only 15 percent of the wholesale price. Net prices in September 2000 ranged from 76.5 cents (per can of milk-based liquid concentrate) in Florida to 44.7 cents in Nebraska and South Dakota. For the US as a whole, net prices averaged 18 cents per can in fiscal 2000 (2)." As a result, "With rebates from the formula manufacturers, the cost of the formula to taxpayers is a small fraction of its wholesale price (2)". This sounds good. But then what is the answer to the question posed in the study's title: Who pays for WIC's formula? If it is not the clients who are paying, and the taxpayers cover only a small portion of the cost, who is

paying? And why? It appears that the manufacturers are paying most of the actual cost of the product itself, which is not very much. US taxpayers are paying to distribute it, which is a substantial cost. Four factors seem to explain this curious situation: low product cost, inflated retail prices, brand loyalty, and expanded reach.

## Low Product Cost

It may be that there is really little or no loss to the manufacturers as a result of the rebates. The rebates are a large percentage of the wholesale price (85 to 98 percent), but that price may be much higher than the actual cost of manufacturing the product. This view is supported by a 1998 report from the US government's General Accounting Office, which concluded, "wholesale prices of infant formula appear to be high in relation to the costs of production indicating the likelihood of high profit margin (8)". In 1994, retail prices were estimated to be as much as five times the cost of manufacture (4). Apparently the companies can give large rebates because their costs are much lower than the wholesale prices.

## Inflated Retail Prices

The retail price of formula is high. Significantly, the retail price is higher where WIC is most active. Grocers and other merchants know that WIC will cover the retail price of formula sold through WIC vouchers, so they are motivated to push the price up. The pattern is well documented (2). This also allows the wholesale price to creep up. Even if these price increments were relatively modest, added up across the country, they would produce a significant increase in cash flow to the manufacturers over what they could have obtained in a genuinely competitive market. WIC's involvement produces upward pressure on retail prices. This does not affect WIC clients immediately and directly, but it does mean the price is pressed upward for those who are not WIC clients. There is in a way a cross subsidy, with non-WIC clients helping to fund formula supplies for WIC clients. Families get free formula from WIC for only a limited time. They must face the inflated retail prices when they leave the WIC program. The inflation of retail prices due to WIC involvement is demonstrated with great clarity in the WIC-only stores. These are "retail stores that predominantly serve WIC participants and in which the vast majority of, if not all, store revenue comes from the redemption of WIC vouchers for WIC food items." In fiscal year 2002 they accounted for 9 percent of WIC sales nationwide. Market forces and competitive pricing help to limit prices in ordinary stores serving the general public, but... "WIC-only stores, on the other hand, have no need to attract non-WIC customers and, as a result, have no incentive to set prices that are determined by market forces. Because the same market forces that have long

contained costs in the WIC program for price-competitive stores do not apply to WIC-only stores, the WIC program spends considerably more for the same food items when WIC vouchers are redeemed at WIC-only stores than if those vouchers are redeemed at the average prices charged by competitive grocery stores (5)." In California, where over 600 WIC-only stores operate, it has been estimated that WIC food costs were about US\$33 million higher than they would have been if the vouchers had been redeemed at regular grocery stores (5). Thus, WIC-only stores are free to inflate their prices because their clients do not have to pay them, and they are guaranteed reimbursement through WIC. Most WIC food products do not produce rebates from their manufacturers to WIC, so it is US taxpayers who cover these inflated costs.

### Brand Loyalty

Why are the formula manufacturers willing to give such large rebates to the WIC program? Perhaps the history of handing out free samples is relevant. "During the seventies, one company paid a million dollars to the City of New York for the privilege of donating free formula to all of the City hospitals. In 1989, Abbott Laboratories and Bristol Myers got into a bidding war in Canada over the exclusive right to supply free formula to Canada's largest maternity hospital (6)." Once a woman starts feeding her infant with formula, she is likely to become dependent on it, for the current infant, and possibly for future infants as well. Moreover, the manufacturer's hope is that the consumer will stay with the same brand, not only for formula but also for follow-on foods. The rebates may mean the companies lose money on their products during the period that the women are WIC clients, but they are likely to more than recover that loss if the women remain loyal to the brand after leaving WIC. Participation in the WIC program drops off rapidly after the first year (1). If the client is served by WIC for, say, one year, and remains a loyal customer for formula for several years after that, the investment by the manufacturer might be very worthwhile. It may be possible for the companies to give large rebates because their costs really are much lower than the wholesale prices. Even if the rebates mean the companies suffer some loss because the net payment they receive for each can is smaller than its cost, the companies might view that loss as a cost of doing business, comparable to the cost of giving out free samples.

### Expanded Reach

Historically, infant formula has been produced and marketed by pharmaceutical companies. Their approach to marketing was based on their well-established routines of "medical detailing," the practice of contacting hospitals and medical practitioners directly, providing them with free or discounted products, and encouraging health workers to recommend their brands (3). However, this method of marketing is quite expensive. The manufacturers of infant formula saw that a government nutrition assistance program could fulfil the same functions at much lower cost. Thus the formula manufacturers were among the strong advocates for creation of the WIC program in the 1970s. WIC now handles the logistics of distribution at little cost to the companies. As Cynthia Tuttle put it, "The establishment of the WIC program provided formula manufacturers with a new, very direct avenue of marketing to one of their target audiences, and they were quick to take advantage of this opportunity (7)". In the early 1980s, many WIC offices purchased infant formula at full retail prices. However, as formula prices rose more rapidly than the prices of other foods, and formula accounted for nearly 40 percent of total WIC food costs, WIC began to explore ways to limit its formula costs. In 1988 a law was passed requiring all State WIC agencies to explore cost containment procedures. Competitive bidding systems produced great savings,

apparently because of the lack of strong price competition in the infant formula industry (3). The generous rebates are used by WIC to expand its reach, so that it can service more clients. The effect has been dramatic: "From 1982 through 1996, the percentage of infants in WIC grew from 18 percent of infants born in the United States to 46 percent". By 1997, the rebates totalled US\$1.3 billion, adding 1.9 million participants to WIC, roughly one quarter of the program's entire caseload and one third of its appropriated funding (8)". Under the rules, the additional funds could not be used to adjust benefits or services, but had to be used to expand participation. From the manufacturers' perspective, WIC has become an effective alternative to medical detailing. The expanded reach has helped to get more infants started on formula. The important issue here may not be the competition among the manufacturers for market share, but the fact that they collectively tend to displace the share going to mothers' milk (4). The WIC program helps to displace that option. WIC does have a breastfeeding promotion program, but its positive impact is diluted by WIC's infant formula program. It is difficult to see how offering free formula could fail to be an incentive to use formula. The inducement is not simply that something of value is being offered at no cost. Even if it is unspoken, there is the implicit message of endorsement: if a government agency is handing out this product, it must be good. This issue must be examined not only in terms of incentives faced by the clients but also in terms of incentives faced by WIC staff members. WIC staff people are very dedicated. They want to provide services to as many eligible people as possible. Unfortunately, the federal government's funding for the WIC program often has been short, so their offices have not been able to service as many clients as they would like. However, the rebate money from formula has gone a long way toward closing this funding gap. Rebate money now covers the cost of services to about one out of four WIC clients. WIC seemed pleased that in 2001, "the WIC Program realized over US\$1.4 billion in savings generated by infant formula rebates, which allowed over 2.0 million additional participants to be served with the WIC grant (3)". It appears that WIC was highly motivated to get these rebates and thus extend WIC's reach. This motivation may help to explain why "in the mid-1990s, several States began awarding their contracts to the bidder offer the highest total rebate" rather than to the bidder offering the lowest net costs. This provided an incentive to manufacturers to push up their wholesale prices. As a result, a law enacted in November 1997 required that, except under special conditions, the contracts must be awarded to the bidder offering the lowest net price (3). WIC staff members have an incentive to encourage the use of formula. Doing so increases the budget they have available to do the work they want to do. This is likely to tip the staff in favour of encouraging clients to select the formula option. The companies are not giving free formula to mothers directly; instead, they are doing that through the WIC program by providing incentives to the program itself. The WIC program appears to be serving the manufacturers of infant formula very well, providing a mechanism through which many families get started on formula, and continue to use it well beyond their time in the WIC program. The "free samples" approach to marketing makes it possible to charge high prices to people who are not in the program.

### ACKNOWLEDGMENT

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