CONFLICT OF INTEREST IN THE WIC PROGRAM

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Conflicts of Interest (CoIs) occur when there is a risk that a primary interest of an individual or agency might be unduly influenced by other incompatible interests. The term is frequently used in reference to businesses, but, more commonly, CoI issues arise in relation to governmental and nongovernmental agencies that are supposed to serve the interests of the public. For example, regulatory agencies are sometimes accused of favoring private interests at the expense of the public by imposing only weak regulations.

There are cases in which government agencies join with private interests, actively helping businesses at the expense of the public. The case examined here is the U.S. government's Special Supplemental Nutrition Program for Women, Infants, and Children, commonly known as WIC. Many U.S. agencies, including WIC, support breastfeeding because it regularly leads to better health outcomes for infants and their mothers. At the same time, WIC supports feeding with infant formula on a large scale. That is a conflict of interest because promoting the use of infant formula puts infants at significantly higher risk to their health when compared with breastfeeding.

The United Nations Children's Fund is clear about this risk:

> **Formula is not an acceptable substitute for breastmilk** because formula, at its best, only replaces most of the nutritional components of breast milk: it is just a food, whereas breast milk is a complex living nutritional fluid containing anti-bodies, enzymes, long chain fatty acids and hormones, many of which simply cannot be included in formula. Furthermore, in the first few months, it is hard for the baby's gut to absorb anything other than breastmilk. Even one feeding of formula or other foods can cause injuries to the gut, taking weeks for the baby to recover (UNICEF 2017a).

In distributing massive quantities of infant formula at no cost to families, WIC faces one of the most serious forms of conflict of interest, sacrificing public health while advancing private wealth.

THE WIC PROGRAM

At the national level, WIC is based in the Food and Nutrition Service of the U.S. Department of Agriculture. State-level offices oversee local offices distributed through their cities and towns. WIC'S stated mission is "To safeguard the health of low-income women, infants, and 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 (United States Department of

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Agriculture 2017a).". In Fiscal Year 2016, of the 7.7 million people who received WIC benefits each month, approximately 3.98 million were children (up to five years old), 1.88 million were infants (up to one-year old), and 1.84 million were women (United States Department of Agriculture 2017b).

The WIC program serves close to half the infants in the United States. It provides food and health services for children up to the age of five, but formula is provided only to infants, up to one year of age. More than 90 percent of the infants in the program get some formula from WIC (Patlan and Mendelson, 2016, 32). In 2004-2006, 57-68 percent of the infant formula used in the U.S. was provided through the WIC program (Oliveira, Frazão, and Smallwood 2010, 1). Overall, WIC purchases account for more than half of domestic infant formula sales in the U.S. (Center on Budget and Policy Priorities 2017).

WIC has a breastfeeding support program that operates in parallel with its formula distribution program. The quantity of formula distributed to participating families depends on their feeding practices and the age of the infant. Complementary foods are delayed to 6 months, and juice has been eliminated. Fully breastfeeding mothers receive a greater variety and a larger quantity of food. Some WIC offices have breastfeeding peer counseling programs. Many employ International Board-certified Lactation Consultants to support new mothers. WIC has both formula distribution and breastfeeding support programs, but the formula program is much larger, in terms of WIC expenditures.

The concern here is that WIC's infant formula program favors formula manufacturers and sellers at the expense of families, in terms of their health and also their household budgets. The following sections show how this happens.

PROCUREMENT POLICY AND PRICES

WIC obtains infant formula through a bidding process under which infant formula manufacturers offer discounts, in the form of rebates, to state WIC programs. The result is that WIC pays on average only five percent of the wholesale cost of the formula (Center on Budget and Policy Priorities. 2017).

Winning a sole-source contract with WIC increases formula manufacturers' market share. One study showed that the market share increased by an average 74 percent after winning the contract. Most of this increase was due to WIC recipients switching to the new WIC contract brand. However, there was also a spillover effect in which sales of formula purchased outside of WIC also increased (Oliveira, Frazão, and Smallwood 2010, 18).

WIC participants exchange their vouchers for free formula at retail stores. WIC then reimburses the retailers based on the retail prices they charge to those consumers who pay with cash, not the wholesale prices the retailers pay their suppliers. WIC does not question the retailers pricing policies. This means the retailers have a strong incentive to bump up the prices they charge. As a result, this procurement policy leads to higher retail prices for the brands that win WIC contracts. This benefits the shop owners and hurts the paying customers, the ones who do not have WIC vouchers.

The process has been described this way:

> Over half of the infant formula sold in the United States is purchased with WIC benefits. By providing low-income families with free formula, WIC essentially replaces price-sensitive consumers from the infant formula market with price-insensitive consumers. As a result, both manufacturers and retailers raise their prices (Oliveira and Frazão 2015b).

This price increase affects WIC participants who use more infant formula than WIC provides, those who are no longer eligible for free formula, and all other purchasers of the formula brand that had the local WIC contract. As the retail prices of these name brand formulas become extra high, the profit margins for sellers and manufacturers also become extra high.

Many families don't get enough formula from WIC to meet their infants' needs. When they exhaust their free supplies, they purchase formula in the regular open market. If they stay with the brand they had gotten free from WIC, they would spend more than they would by buying generic "store brand" formula. As explained below, the WIC formula program has the effect of winning strong loyalty to particular brands.

QUESTIONABLE ADDITIVES

Under the procurement rules, so long as the formula that is offered meets basic requirements, WIC cannot evaluate alternative formula products, and it cannot negotiate. As Maureen Minchin explains:

> . . . legislation in 2004 removed WIC's ability to determine which formulas it wanted from a tendering company; companies could decide what formula they offered to WIC, at what price, provided the formula met the specifications for WIC use. If companies offered only the most expensive or novel brands, WIC had no choice but to become the inadvertent marketer of such products, without proof of the many advertising claims. In every state, WIC acceptance of any infant formula tender means massive increases in sales of the chosen brand. (Minchin 2016)

If all the bidders raise their prices because some new additive has been introduced, WIC cannot challenge their claims about the supposed benefits from those additives (Neuberger 2010). There may be questions about whether the additives are effective, and also about whether the benefits warrant the increased costs. Few health and nutrition claims relating to infant formula have been tested adequately (Crawley and Westland 2016; Hughes, Landa, and Scharfstein 2017; Jasani et al. 2017; Kent 2014; Kent 2017a, 123-140).

According to a 2010 report, "WIC appears to be spending more than $90 million extra annually — or more than 10 percent of its total spending on infant formula — to provide formulas with ingredients that neither USDA nor the FDA has assessed with regard to their benefits." It makes no sense to have "WIC spend extra taxpayer funds on ingredients without considering whether

they provide health or development benefits. This position is not responsible (Neuberger 2010, 2).” WIC’s uncritical procurement policy favors the formula companies at the expense of all families that pay more for formula with additives with questionable effectiveness.

PROMOTING FORMULA

Some WIC supporters insist the program simply complies with new mothers’ wishes, but there is no doubt that it has the effect of promoting the use of infant formula. The basic policy is that for participants, “WIC State agencies provide infant formula for mothers who choose to use this feeding method (United States Department of Agriculture 2017b).” With this easy access, it is no surprise that, “Prenatal WIC participation is associated with a greater likelihood of providing babies infant formula rather than breastmilk after birth (Ziol-Guest and Hernandez 2010; also see Ryan and Zhou 2006).”

There are reasons to doubt whether WIC always lets participants choose on their own. According to one study, “African American women were more likely to report having been advised by WIC staff to bottle feed and less likely to report being advised by WIC staff to breastfeed (Johnson et al. 2005, 51).”

WIC enrollees tend to be women who would be less likely to breastfeed even in the absence of the WIC program. They might have different attitudes about formula feeding and breastfeeding. Nevertheless, making formula available for free certainly makes it more likely that mothers will use formula, regardless of what their initial inclinations might be.

The economic incentives for WIC participants to feed their infants with formula are clear:

> For exclusively or partially breastfed infants and their mothers, this value is estimated to be $1,368 and $1,734, respectively; for formula-fed infants and their mothers, this value is estimated to be $2,211. This difference in value may influence women's choice regarding how to feed their infants, and thus conflicts with WIC's stated support for BF. (Rasmussen et al., 2017, S199)

The fact that many families drop out of the WIC program after their infants’ first birthdays supports the idea that many come to WIC mainly because of the free formula that is available only up to the infant’s first birthday. The proportion of children enrolled as WIC participants decreases steadily after their first year (Center on Budget and Policy Priorities 2017).

WIC’s large-scale provision of infant formula at no cost to the families promotes the use of formula. This goes against WIC’s own recommendations and those of many government agencies (United States Department of Health and Human Services 2011; United States Centers for Disease Control and Prevention 2017a, 2017b, 2017c) and also non-governmental agencies (American Academy of Pediatrics 2012; National Alliance for Breastfeeding Advocacy 2017; United States Breastfeeding Committee 2017). More are listed by the Centers for Disease Control (United States Centers for Disease Control 2017b).

THE ADDICTION MODEL

Why do the manufacturers provide their formula to the government at such low cost? Why do the manufacturers seem so generous?

In the United States, the formula market is dominated by Abbott, maker of the Similac product line, Mead Johnson, maker of the Enfamil line, and Nestlé/Gerber, maker of the Good Start line. Outside WIC, the name brand companies provide free samples of infant formula and other baby foods through maternity hospitals, obstetricians' offices, and other channels. The following image shows the type of gift pack women often receive during pregnancy and at hospital discharge.

Figure 1. Free Samples for New Mothers.

Largely because of the Baby Friendly Hospital Initiative, there has been progress in limiting the distribution of such hospital discharge packs (Strader 2016; UNICEF 2017b), but the progress has been uneven.

Here is one mother's insight on why the manufacturers provide free samples:

> Parents who buy infant formula and stick with the brand the hospital distributed are paying tons of money for those "free" samples — $700+ per year over the cost of generic formula. The reason the formula companies include all these freebies in their advertising budgets is because it generates huge profits! (KellyMom 2017)

Others put it this way:

> *There is always free cheese in a mousetrap.* Free samples of infant formula, coupons, and hospital discharge packs are pervasive in the United States. (Lazarov and Evans 2000, 18)

The distribution of these free products promotes the use of infant formula. More importantly, it has the effect of endorsing specific brands.

The distribution of free formula through the WIC program serves the manufacturers' interests in much the same way as the hospital discharge packs. Both methods draw families into favoring specific brands of baby food.

Considering only the short-term impact of the increased retail prices underestimates the benefits to the manufacturers of gaining WIC contracts. There is also a considerable long-term benefit because people who start with a major brand are likely to stay with it when they buy follow-on formula and other baby foods in later years, for their current children also their future children. Though not as visible as the short-term benefits, these long-term benefits to the manufacturers are important in their calculations.

Only manufacturers of the well-known brands bid for WIC contracts. Other manufacturers such as PBM Nutritionals (GoodGuide 2011) that produce generic or "store brands" do not bid. Since they do not have well-known lines of baby food that children might use over several years, the manufacturers of generic formula cannot build up a long-term loyal following by distributing free samples.

The analogy of cigarette samples explains the system. Older readers might remember when little packs of four cigarettes were given away in airplanes and various public places. The object was to draw people not just to smoking, but to specific brands. It was worthwhile for the companies to hand out free samples in the hope that takers would become their customers for a long time.

Figure 2. Viceroy Cigarettes Distributed by Aloha Airlines in the 1950s

Source: https://www.etsy.com/listing/52245381/vintage-1957-viceroy-cigarette-samples

Others have noted that "the common thread between formula feeding and smoking is consumption patterns":

> They both follow the addiction model: It's easy to get hooked, and then you've gotta have it . . . During World War II, soldiers were issued with free cigarettes, courtesy of the tobacco companies, whereas today formula companies gatecrash maternity wards. (The Alpha Parent. 2015)

As Virginia Thorley put it, "soldiers who were previously nonsmokers began smoking since it cost them nothing, seduced into smoking in the same way as breastfeeding mothers are induced to use AIM [artificial infant milk] (Thorley 2015)."

Just as no formula maker is motivated to hand out samples of generic formula, no cigarette maker is motivated to hand out generic cigarettes.

The distribution of free infant formula and other products to new mothers, whether through maternity wards in hospitals, through mailings to new mothers, through doctors' offices, or

through the WIC program is driven by commercial interests similar to those that once drove the distribution of free cigarettes.

Most addictions are linked to the chemistry of specific substances, such as recreational drugs, tobacco, alcohol, sugar, salt, and fat (Moss 2013). Attachment to specific brands of baby foods is different, but it can work in a comparable ways and lead to harmful results. Infant formula is special because it is many people's first ultra-processed food, a point of entry or gateway to other ultra-processed foods later in life (Kent 2012; Monteiro 2011). The long-term effect can be inter-generational (Minchin 2016).

Children do not become hooked on brands, but their parents do. One leader in the business observed, "People don't switch brands in baby food unless their baby is not well. Brand loyalty is passed on from mother to daughter; price is never an issue (The Economist 2006)."

Attracting women to a specific brand can benefit manufacturers well beyond the time when the supply of free formula from WIC comes to an end. For some, that supply shortage can occur each month. As Molly Ginty put it, "the habits and brand loyalty formed by the WIC rebate system can hook women on paying retail prices for formula once their stipend runs out each month (Ginty 2011)."

The manufacturers that bid for WIC contracts do that not because the contracts are immediately profitable or because of their deep compassion for the poor, but because the WIC program attracts people to their brands over the long term.

The cigarette companies had to pay people to distribute their free samples, but the infant formula manufacturers get the national government to do the job for them. The WIC contracts are so lucrative, the companies might find it in their interest to give rebates of 100 percent or just give WIC the products free. Having the formula companies provide the product to WIC at no cost would eliminate the task of managing the rebate program

Some might protest that WIC's handing out free formula is done out of respect for women's free choice about how they will feed their infants. However, the government's handing out any product for free is likely to be viewed as the government's endorsing its use. WIC's formula program conveys the impression that the U.S. government supports the use of infant formula, even while other parts of WIC and other branches of government actively promote breastfeeding.

Business people know very well that handing out products for free can be a good way to recruit regular users. Having it handed out by prestigious professionals such as health care workers or by agencies of the government is even better. The major formula companies have had a great deal of experience with that practice, handing out their products in maternity wards and obstetricians' offices and through the mail. Now they do it through their arrangements with WIC.

PHASE OUT WIC'S FREE FORMULA PROGRAM

WIC's large-scale distribution of free infant formula results in having more infants use formula, rather than breastfeed. The formula manufacturing industry benefits at the expense of infants, a

blatant conflict of interest for the U.S. government. The best remedy would be for the government to carefully phase out WIC's distribution of free infant formula.

The phase-out could be done over a period of years (Tuttle 2000; Wood 2011). It could be replaced with cash or food grants of comparable value. WIC is intended to be a supplemental program, not a source for the entire diet. Families would still be free to use their own funds to purchase infant formula. Separate programs could be created to help the small number of low-income families that need special kinds of infant formula.

During the phase-out period, WIC could require its participants to pay for infant formula, but at reduced prices, so it would not be quite as easy a choice as when it was completely free (Greiner 2012).

Britain's Healthy Start program provides vouchers that can be exchanged for various foods, including infant formula. WIC could follow that practice, offering vouchers of specific cash value that could be used for many different types of groceries. With that approach, there would be no distinct incentive to use infant formula. If participants had good alternatives regarding how they allocate their subsidy, many would skip the formula and choose something else instead.

If WIC does provide infant formula, it could make contracts only for generic ("store brand") formula that meets specific nutritional and safety requirements. Brand information would not be conveyed, and the rebate program would be ended. The net cost to WIC might be higher, but the net cost to families that buy formula would be lower (Oliveira, Frazão, and Smallwood 2010; Oliveira and Frazão 2015a.). If generic formula was used, rather than the well-known brands, WIC contracts would not bump up market prices as much, and families would be more likely to choose cheaper generic formula after the supply from WIC came to an end.

The U.S. government could reposition WIC by having it promote breastfeeding more vigorously. If it is needed, WIC could offer the alternative of banked human milk. The supply could be increased by paying women for the milk they provide, under well-regulated conditions. Human milk would be costlier to WIC than formula, but it would be better for children's health. It would be likely to reduce their health care costs. WIC's supporting the provision of human milk for WIC participants could drive down the cost of human milk for all, and not only for WIC participants.

WIC's primary mission is to promote health, so it should be willing to pay a share of increased costs associated with replacing name brand formula with generic formula or with human milk. Health insurance programs could help.

Good food can be costly, but it should be viewed as an investment in good health. The results of economic analyses depend on how they are framed. Free or highly discounted infant formula might look like a good bargain. However, with a more inclusive analytic framework, taking account of the impacts on health, health care costs, and the costs to families of long-term commitment to famous brands, the findings are likely to be different.

Providing generic formula or human milk rather than name brand formula would increase the cost to WIC for each infant that is served, but the number served could be sharply reduced by tightening the eligibility criteria. There is no good reason for the U.S. government to provide free infant formula to about half the infants in the country. WIC's current infant formula distribution program should be phased out.

It is important to understand that this is not a proposal to abandon needy families. One response to my proposal for phasing out WIC's distribution of formula (Kent 2017b) was

> . . . there will still be families who choose formula for a variety of reasons. For low-income mothers in particular, there are many barriers to breastfeeding including a lack of paid maternity leave, inflexibility at work to breastfeed or express milk, and a lack of family/social support of breastfeeding. The provision of infant formula by WIC in these circumstances is of clear benefit. (Hughes, Landa, and Sharfstein 2017b)

That is all true. The key point here, however, is that in the long term, WIC and other agencies should do what they can to overcome those obstacles to breastfeeding, and make sure that all families have better options than infant formula for feeding their infants. Over time, free infant formula should be phased out, and not actively promoted. Families with low incomes can be helped in many ways, by WIC and by the country as a whole, in ways that do not have to include providing them with free formula.

Analysts of WIC's breastfeeding support efforts rarely consider that WIC's formula distribution program might be pushing in the opposite direction, and that limiting it could result in more breastfeeding. This pattern was evident in the special issue of the *Journal of Nutrition Education and Behavior* that focused on WIC.

However, the journal's article on opportunities for breastfeeding promotion in WIC did acknowledge that in its 2017 report, the Committee to Review WIC Food Packages agreed "the provision of formula by WIC should be reconsidered at the time of the next review, because the global evidence indicated that this is a major disincentive for BF, especially among low-income women, and is inconsistent with the World Health Organization Code for Marketing of Breast Milk Substitutes (Rasmussen et al. 2017, S200)."

This was the National Academies' recommendation:

> The fact that WIC currently meets nearly 100 percent of young infants' needs for infant formula as well as the perceived value of that formula may influence women's choices to breastfeed . . .The committee received comments suggesting that reducing the perceived value of the infant packages by reducing the amount of formula provided would result in a shift in women's breastfeeding choices. In the absence of pilot studies demonstrating that this would be the outcome from such a change, paired with uncertainty that the infrastructure currently exists to ensure that all women have the support needed to breastfeed, the committee considered it important to ensure that all needs of young infants continue to be

> met. In accordance with the recommendation in this report that protection, promotion, and support of breastfeeding should be evaluated and fully supported, it may be warranted for USDA-FNS to consider reducing the amount of formula provided to infants once there is sufficient evidence to do so, and there is adequate support in place for WIC participants who choose breastfeeding. (National Academies of Sciences, Engineering, and Medicine 2017, Chapter 1, p. 14)

It is not clear what they meant by meeting all needs. Feeding with formula consistently results in worse health outcomes for infants than breastfeeding, which shows that it does not meet all needs. Also, many WIC participants feel they must purchase additional formula during the infant's first year because the amount supplied by WIC is not enough. None is provided after the infant's first birthday. The National Academies did not say when or how the studies would be done. What studies need to be done?

Some people might feel that, rather than *promoting*, WIC only *facilitates* the use of infant formula, in the sense that it supports families in doing what they have decided to do to feed their infants. Facilitating means making it easier. The argument here, however, is that the combination of providing formula at no cost, together with the appearance of government endorsement of certain brands of formula, makes it more likely that families will choose to feed with formula. There is no easy way to measure the impact, but there is no doubt that providing the product for free encourages its use.

If WIC did no more than make it easier for families to implement choices they would have made anyway, the formula manufacturers would not be so interested in providing massive quantities of formula to WIC at practically no cost. If the program did not have this impact, what would explain these huge rebates to WIC from the manufacturers?

WIC's large-scale participation in supporting the provision of free infant formula is in direct conflict with its primary mission of safeguarding the health of low-income women, infants, and children. It should be ended.

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