needed for the care of children who are excluded from day care centers because of illness. □

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Day Care, Infant Feeding, and Ear Infections

In their article in the September 1993 issue of this Journal, Hardy and Fowler demonstrate the relationship between out-of-home child care and repeated ear infections in young children.[1] We were quite surprised that infant feeding was neither mentioned nor controlled as a variable potentially associated with ear infections. Breast-feeding has been shown tc protect children against recurrent otitis media for at least their first year of life.[2–4] A recent study showed that exclusive breast-feeding for 4 months was protective against otitis media even when day care use was controlled for.[5] Another study, which found that being in a day care center presented the highest risk for developing recurrent ear infections, also found there was an independent risk associated with a short duration of breast-feeding.[6] Research using data from an earlier Child Health Supplement of the National Health Interview Survey found that breast-feeding is associated with decreased incidence of otitis media and that the early introduction of formula may have a separate and negative effect.[4]

Because the method of infant feeding is associated with the risk of ear infections and is also likely to be correlated with the use of out-of-home child care, it should be controlled for in an analysis of this type. The method of infant feeding could be confounding the results presented by Hardy and Fowler since those in day care are less likely to be breast-fed.

Breast-feeding protects the health of young children, even those in developed countries, in several ways.[7] Thus, it is misleading to draw conclusions concerning otitis media in a day care setting when other factors known to have a direct effect on infections, especially on otitis media, are not included in the model or in the discussion. □

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Hardy and Fowler Respond

Visness and her colleagues point out a potential shortcoming in our study of child care arrangements and repeated ear infections in young children[1]: exclusion of information on breast-feeding. In our study, we used data from the 1988 National Health Interview Survey of Child Health to examine the relationship between repeated ear infections and various characteristics of child care. No data on feeding practices were collected in this survey, so we could not control for these in our logistic regression models. However, while a number of previous studies have demonstrated the association between being in child care and being at increased risk for ear infections,[2–4] several other studies that have examined both child care and breast-feeding still demonstrate a significant association between ear infection and child care that is independent of feeding practices.[5–7]

Given this association between child care and repeated ear infections, the main thrust of our study was to explore child care in more detail to see what aspects of that service were associated with this condition. We felt this was important since many parents in the United States must use some form of child care for their young children. We were able to demonstrate with our data that group size and type of setting were associated with an increased risk of repeated ear infections while amount of time in child care was not. As we stated in our conclusions,

> Given the increasing use of child care in this country, future studies should continue to examine the specific aspects of child care that are associated with repeated ear infections and other infectious diseases to identify both high-risk characteristics and protective factors.[1(p1325)]

Since child care likely influences feeding practices, including type of nourishment (breast milk or formula), method (breast-feeding, bottle, and/or cup), position of infant during feeding, and age at intro-