We thank Dr. Davis (1) for his interest in our study (2). Dr. Davis questions our interpretation of the results and states that genetics may well be critical, but only given exposure. We previously reported that exposure to Streptococcus pneumoniae appears to be almost ubiquitous in Denmark (3). Most children appear to become infected in the first year of life, and those who escape infection will most likely acquire it soon thereafter (e.g., at a day-care center). Since everyone in Denmark is exposed early in life, one would suppose that invasive pneumococcal disease (IPD) would cluster within families if genetics were of great importance.

As we stressed in our article (2), analysis of national population-based data is not appropriate to determine whether genetic factors can be important within particular families. Elsewhere, we and others have reported strong associations between IPD and specific genetic conditions that result in structural or immunologic abnormalities (4–8). However, we feel confident that these genetic predispositions are too infrequent to play a major role in determining the risk of IPD at the population level. Thus, IPD risk in populations appears to be dominated by environmental exposures. For example, concurrent infections with other respiratory agents may establish a milieu in which S. pneumoniae infection can become established as an invasive condition (9).

ACKNOWLEDGMENTS
Conflict of interest: none declared.

REFERENCES

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DOI: 10.1093/aje/kwn226; Advance Access publication August 19, 2008