

**IMPLEMENTING PROVIDER-BASED SAMPLING FOR THE NATIONAL
CHILDREN'S STUDY: OPPORTUNITIES AND CHALLENGES**

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Introduction: Recruiting a large and representative sample of women early in pregnancy through household sampling has proven challenging. This report describes the rationale, methodological challenges, and recommendations for sampling prenatal provider settings as an alternative that can successfully integrate the clinical and population objectives of the NCS.

Methods: Ten NCS Study Sites have been piloting the recruitment of women into the NCS through provider offices. The investigators have produced a consensus document based on their collective experiences.

Results: Provider-based sampling requires a substantial departure from the present provider-based recruitment efforts being piloted as an alternate recruitment strategy. The current strategy requires working with all prenatal providers in each county, but selecting only those women who meet address eligibility consistent with the previous household sampling approach. In larger counties this may involve hundreds of providers but a very small portion (1-5%) of pregnant women per provider office. A central challenge for provider-based sampling is how to balance: 1) the number of provider groups sampled within a county or PSU; 2) the proportion of patients sampled within each provider group; 3) the approach used to sample patients within a provider group; 4) impacts of these decisions on the geographic clustering of NCS participants; and 5) the need to minimize the number of hospitals involved. These parameters affect cost-efficiency and certain analytic objectives of the NCS. There may be no single optimal solution to reach the target sample for each county.

Conclusions: In smaller counties, recruiting a fixed fraction of pregnancies in all provider practices, and in large counties, recruiting in a stratified sample of practices, can accommodate the two critical needs of the NCS - to recruit women effectively early in pregnancy and to constrain the N of hospitals so that birth collections can be completed efficiently