Béatrice Larroque and Monique Kaminski are with the Epidemiologic Research Unit on Women and Children's Health, INSERM (National Institute for Health and Medical Research), Villejuif, France.

Requests for reprints should be sent to Béatrice Larroque, MD, PhD, INSERM U149, 16 Ave Paul Vaillant Couturier, 94807 Villejuif Cedex, France.

References

1. EUROMAC. A European Concerted Action: maternal alcohol consumption and its relation to the outcome of the pregnancy and child development at 18 months. *Int J Epidemiol.* 1992;2(suppl 1):572–578.
2. Jacobson JL, Jacobson SW, Sokol RJ, Martier SS, Ager JW, Kaplan-Estrin MG. Teratogenic effects of alcohol on infant development. *Alcohol Clin Exp Res.* 1993;17:174–183.
3. Streissguth AP, Barr HM, Sampson PD. Moderate prenatal alcohol exposure: effects on child IQ and learning problems at age 7½ years. *Alcohol Clin Exp Res.* 1990;14:662–669.
4. Little RE, McGillivray I. Abstinence from alcohol before pregnancy and reproductive outcome. *Paediatr Perinat Epidemiol.* 1995; 9:105–108.

The Quality of Data Reported on Birth Certificates

The publication of the paper by Watkins et al. on the utility of the revised birth certificate for surveillance of birth defects could not be more timely.[1] Although the "accuracy" and "completeness" of reporting of clinical data on birth and fetal death certificates have been assessed before,[2–4] rarely are these data held to the more scientific standards of validity and reliability.[5,6] Although no previous validation studies focused on reported congenital anomalies in the peer-reviewed literature, many public health professionals and advocates continue to believe that birth defects can be monitored with the use of birth certificate data. For example, a case–control study of gestational diabetes as a risk factor for birth defects used congenital anomalies reported on birth certificates as the outcome measure.[7] More instructive is an analysis that documents the limited contribution of birth certificates in the context of a multisource birth defects registry.[8]

Watkins et al. review several factors responsible for the poor showing of birth defect reporting on vital records. Although one might expect that we could anticipate a gradual improvement as the new birth certificate forms become more familiar and as electronic birth certificate reporting systems proliferate, the situation has instead probably worsened in recent years. Electronic birth certificate reporting has some paradoxical effects where data quality are concerned. Because numerous edit checks are now applied to birth certificate data before these are filed by the birthing hospital, state vital statistics offices provide considerably less scrutiny of the clinical data than they formerly did. These agencies have suffered draconian budget cuts in recent years and no longer have the staff necessary to implement and maintain programs to continuously improve data quality. Also, decreasing newborn lengths of stay will lead to the diagnosis of fewer birth defects prior to the filing of the birth certificate, further reducing the probability that a potentially identifiable birth defect present at birth will be reported on the birth certificate. As a case in point, in the state of Wisconsin, birth defects were reported for 16.9/1000 live births in 1988 on the old certificate form, and this increased to 24.2/1000 in 1989 on the revised certificate form. The proportion of live-born infants with congenital anomalies reported on their birth certificates decreased in each subsequent year; by 1994, only 12.4/1000 live-born infants had birth defects reported, a proportion lower than in any of the 6 years preceding the implementation of the checkbox question.[9] The findings reported by Watkins et al. may actually represent a best-case scenario, given the extensive interaction between Centers for Disease Control and Prevention (CDC) staff and both the Georgia Department of Human Resources and the various hospitals and health care facilities routinely visited by Metropolitan Atlanta Congenital Defects Program staff.

Data quality should be a paramount concern for any state or national agency responsible for the collection and analysis of population-based health data. Until the reliability and validity of natality data collected through the checkbox format has been demonstrated, I propose that this and other peer-reviewed journals impose a moratorium on the publication of statistical analyses based on these data. ☐

Russell S. Kirby, PhD, MS

Russell S. Kirby is with the Department of Obstetrics and Gynecology, Milwaukee Clinical Campus, University of Wisconsin–Madison Medical School, Milwaukee, Wisc.

Requests for reprints should be sent to Russell S. Kirby, PhD, MS, Department of Obstetrics and Gynecology, Milwaukee Clinical Campus, University of Wisconsin–Madison Medical School, Sinai Samaritan Medical Center, West Campus, 2000 West Kilbourn Ave, Rm W327, PO Box 342, Milwaukee, WI 53201-0342.

References

1. Watkins ML, Edmonds L, McClearn A, Mullins L, Mulinare J, Khoury M. The surveillance of birth defects: the usefulness of the revised US standard birth certificate. *Am J Public Health.* 1996;86:731–734.
2. O'Reilly MP. A birth certificate audit program in Pennsylvania. In: *Proceedings of the 1991 Public Health Conference on Records and Statistics.* Hyattsville, Md: National Center for Health Statistics; 1991: 57–62.
3. Ethen MK, Selwyn BJ, Borders SB. Hospital reporting practices and their impact on Texas birth certificate data quality. In: *Proceedings of the 25th Public Health Conference on Records and Statistics.* Hyattsville, Md: National Center for Health Statistics; 1996:405–410.
4. Buescher PA, Taylor KP, Davis MH, Bowling JM. The quality of the new birth certificate data: a validation study in North Carolina. *Am J Public Health.* 1993;83: 1163–1165.
5. Piper JM, Mitchel EF, Jr., Snowden M, Hall C, Adams M, Taylor P. Validation of 1989 Tennessee birth certificates using maternal and newborn health records. *Am J Epidemiol.* 1993;137:758–768.
6. Parrish KM, Holt VL, Connell FA, Williams B, LoGerfo JP. Variations in the accuracy of obstetric procedures and diagnoses in birth records in Washington state, 1989. *Am J Epidemiol.* 1993;138:119–127.
7. Janssen PA, Rothman I, Schwartz SM. Congenital malformations in newborns of women with established and gestational diabetes in Washington state, 1984–91. *Paediatr Perinat Epidemiol.* 1996;10:52–63.
8. Olsen CL, Polan AK, Cross PK. Case ascertainment for state-based birth defects registries: characteristics of unreported infants ascertained through birth certificates and their impact on registry statistics in New York state. *Paediatr Perinat Epidemiol.* 1996;10:161–174.
9. *Maternal and Child Health Statistics, Wisconsin, 1994.* Madison, Wisc: Wisconsin Department of Health and Social Services, Division of Health, Center for Health Statistics; 1995.

Cultural Orientation: An Individual- or Group-Level Variable?

In his editorial, "Paradox as Paradigm—The Health Outcomes of Mexican Americans,"[1] Scribner draws a distinction between group and individual variables that appears unjustified. For instance, he states at the outset that "Hispanic health [as exemplified by favorable birth outcomes] represents a group-level correlation between ethnicity and mortality that cannot be explained in terms of an individual-level model." But