



Determinants of Bacillus Calmette–Guérin (BCG) vaccination among Québec children



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ABSTRACT

Objectives. To identify determinants of Bacillus Calmette–Guérin (BCG) vaccination among children born in Québec, Canada, in 1974, the last year of the systematic vaccination campaign.

Method. A retrospective birth cohort was assembled in 2011 through probabilistic linkage of administrative databases ($n = 81,496$). Potential determinants were documented from administrative databases and by interviewing a subset of subjects ($n = 1643$) in 2012. Analyses were conducted among subjects with complete data, 71,658 (88%) birth cohort subjects and 1154 (70%) interviewed subjects, then redone using multiple imputation. Determinants of BCG vaccination during the organized vaccination program (in 1974), and after the program (1975 onwards) were assessed separately. Logistic regression with backward elimination was used to estimate odds ratios (ORs) and 95% confidence intervals (CIs).

Results. Overall, 46% of subjects were BCG vaccinated, 43% during the program and 4% after it ended. BCG vaccination during the program was associated with parents' birthplace and urban or rural residence. BCG vaccination after the organized program was only related to ethnocultural origin of the child's grandparents.

Conclusion. Different factors were related to vaccination within and after the organized program. Determinants of BCG vaccination in Québec, Canada, have never been studied and will be useful for future research and vaccination campaigns.

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