OBJECTIVE: To evaluate the frequency of accidental home deliveries (AD) and to analyze the care before, during, and after delivery, in relation to maternal and neonatal outcomes.

METHODS: A case-control study carried out in the city of São Paulo, Brazil. Cases were mothers of newborns who died at home or were sent back to hospital after delivery. Controls were mothers of newborns who died in hospital or who were sent back to hospital after delivery, all of whom were born in the city. The sample was chosen by systematic random sampling for birth weight-paired controls. Mothers were interviewed regarding care provided before, during, and after delivery, and the place of delivery. Survivors were also selected as birth weight-paired controls.

RESULTS: The frequency of home deliveries was 0.2%, underestimated in the live births (0.6%). Mothers who delivered at home reported fewer antenatal care visits (3.5 compared to 5.0) and lower frequency of delivery in a hospital (57.1% compared to 97.7%). Neonatal outcome was worse in home deliveries: 80.3% of the neonatal deaths were of low birth weight (p<0.05) and 40.3% of the neonatal deaths occurred in the first hour of life. There were no differences in maternal outcomes.

DISCUSSION: Though rare events in urban areas, accidental home deliveries should be studied. More attention and effort should be directed to this type of delivery, since during planned deliveries the home temporarily becomes an extension of the healthcare facilities for delivery but had been sent back home. Two of these cases were newborns with low birth weight, and both had respiratory distress syndrome. These cases were in agreement with the literature that the risk of perinatal death is increased in accidental home deliveries.

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Accidental home deliveries are often considered unusual and exceptional. However, this study presents data that can contribute to understanding the causes and implications of home deliveries. The results suggest that home deliveries are associated with worse neonatal outcomes, which highlights the need for better planning and support for women planning to deliver at home.