Rubella immunization strategies in the state of São Paulo, Brazil

Editor – In a recent issue of the *Bulletin*, Sheila Davey comments on the strategy to tackle vaccine-preventable diseases (1). She highlights the fact that key operational and scientific issues should be taken into consideration when choosing an immunization policy.

In Brazil, a major immunization campaign targeting all children 1–10 years of age was launched in the state of São Paulo in 1992, through which the measles–mumps–rubella (MMR) vaccine was delivered to 96% of the target population. This was followed by the inclusion of MMR vaccine in the routine immunization programme at 15 months of age (2).

Since then, the total number of rubella and congenital rubella syndrome (CRS) cases in the state of São Paulo has decreased considerably. However, the majority of rubella cases previously occurred in the age groups 10–14 years and 15–19 years and now occurs at ages 15–19 years and 20–29 years: in 2000, 58.5% of rubella cases in the state of São Paulo occurred in individuals aged 20–29 years (3). This demographic modification increases the chances of rubella in pregnant women, thus increasing the risk of CRS cases.

Mothers accompanying children to the Paediatric Emergency Unit of the Hospital of the Federal University of São Paulo in June–November 2000 were invited to participate in a study to assess the prevalence of rubella IgG antibodies in women of childbearing age. Seven out of eighty mothers (8.7%) did not have protective IgG antibody levels against rubella (above 13 IU/mL), as assessed by a commercial enzyme immunoassay kit (BioChem Immuno-Systems, Italy). All the women who were susceptible to rubella were over 18 years of age.

These results reveal an impressive percentage of women of childbearing age who were not targeted by the immunization programme launched in 1992. In fact, the figure is not very different from the 9.2% of susceptible women between 20 and 34 years of age in the state of São Paulo before the launching of the programme (4). In 1997, Robertson et al. had already highlighted that it was essential to include vaccination of women of childbearing age in any rubella control strategy because childhood vaccination alone might pose a risk of an increase in CRS cases (5).

Much has been said about missed opportunities in rubella immunization strategies. Situations such as premarital, postpartum, postabortal and occupational opportunities have always been considered moments to vaccinate susceptible individuals, especially women of childbearing age. However, this approach has not always proved to be effective. Other strategies such as mass vaccination campaigns targeting both male and female adults might be necessary to avoid CRS cases and, eventually, to eradicate rubella.

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