

# **High incidence of shingles among children with prior chickenpox: an inadvertent consequence of the universal varicella vaccination program?**

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## **Abstract**

Active surveillance for herpes zoster (HZ) was conducted during three years, 2000-2002, in a geographically distinct high desert region known as Antelope Valley, California among 53,756 children aged 1 to 9 years during which time 92 cases were reported with an estimated 50% reporting completeness based on capture-recapture methods. The ascertainment-corrected crude (population) HZ incidence rate is 114 per 100,000 person-years (184/161,268). The cumulative (2000-2002) true HZ incidence rate is 481 per 100,000 person-years based on an ascertainment-corrected 156 cases during an observation time of 32,410 person-years among children with a previous history of natural varicella. By comparison, a survey conducted among school children in the same study area with nearly 100% enumeration of HZ cases yielded an estimated crude and true HZ incidence rates of 72 and 145 cases, respectively, per 100,000 person-years in the pre-licensure era. The postulate is presented that the high crude HZ incidence among children with a previous history of natural varicella in the post-licensure period corresponds to a dramatic 70-80% decrease in varicella cases since 1995 and concomitant loss of exogenous re-exposures (boosts) that previously served to suppress the reactivation of HZ.

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