# Early signs of autism spectrum disorders in infancy and early childhood from a community sample of Victorian children

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Prior and Bavin are members of a multidisciplinary team studying the natural course of language development in a sample of almost 2000 children recruited via maternal and Child Health Centres across metropolitan Melbourne: the Early Language in Victoria Study (ELVS). The children were recruited at around 8 months of age and have been followed up each year using both maternal ratings on questionnaires and face to face assessments focused on social and communicative development. The study is continuing until the children are 7 years of age and in their second year of school.

Within this community sample, children with a diagnosis of Autism Spectrum Disorders (ASD) given independent autism clinicians began to emerge from approximately 2 years of age. Since we had data from infancy we were able to track the development of the children both before and since diagnosis. Hence at four years of age, we were able to identify early social communication features that could differentiate between typically developing (TD) children and children with ASD, a group with Developmental Delay (DD), and another group diagnosed with Specific Language Impairment (SLI). The social communication skills examined included early communicative behaviours, gesture production, speech sound and vocabulary development, and functional and symbolic play behaviours, in addition to socio-demographics and information on family history of speech and language impairment.

Prospective questionnaire data were collected at ages 8, 12, and 24 months, including measures of early social communication and symbolic development: the *Communication and Symbolic Behavior Scale, Developmental Profile (CSBS DP) – Infant Toddler Checklist*, and the *Actions and Gestures* section of the *MacArthur-Bates Communicative Development Inventory (CDI): Words & Gestures*. These measures were used to compare the four groups to identify whether any early behaviours could predict diagnosis at 4 years.

We found that the children with ASD differed from TD children on most social communicative measures by 12 months of age. However gesture scores on the CDI at 12 months and the CSBS at 24 months were the only social communication characteristic which could distinguish between the children with ASD from all other groups. So while significant markers of ASD could be seen at an early age, discrimination between clinical groups at these ages was rarely evident, suggesting that we need to further research those behaviours which are *specific* markers of risk for ASD.

It was also found that at 8 and again at 12 months, parents of the four groups did not differ in their level of concern about the development of their infants. But by 24 months of age, 70 % of parents of children with ASD reported a much higher level of concern about social communication and speech development than did parents in any other group. Data from this study suggest a prevalence rate of one child in a hundred with ASD, a figure which contributes to the growing concern about the prevalence of ASD across the world. The children's development is being followed up to 7 years to look at response to treatment, stability of diagnosis, and outcomes at school age.