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Predicting the use Literacy Interventions Using a Pre-School Health and Developmental Screen: Evidence from New Zealand's Integrated Data Infrastructure (IDI)

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Early literacy attainment is a key progression towards advanced learning. All New Zealand schools offer interventions for children who are farthest from standard in literacy, although these interventions typically do not commence until the child has been in school for one year. Considerable evidence demonstrates that literacy interventions can be effective, if implemented as early as possible. As such there is significant benefit in quickly identifying those most at risk of failing to meet the literacy standard.

In New Zealand all children are expected to get a Before School Check (B4SC) between their fourth birthday and prior to entering school. These checks are generally conducted by public health nurses, with children's health and developmental status being divided into seven categories.

Data linkage across government collected administrative data files can be conducted in the Statistics New Zealand Integrated Data Infrastructure (IDI). The IDI provides a whole of population inter-departmental architecture to link individuals. In this study, we link individual's B4SC records to school interventions data as well as to birth and census records.

Using a time-to-event approach, we find that there is significant predictive value in using B4SC to identify children who are at risk of requiring a literacy intervention.

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