

VULNERABILITY ON THE EDI



HOW IS VULNERABILITY DEFINED IN HELP'S RESEARCH?

As a research institute that focuses on population health, our definition of child vulnerability is statistical and population-based. It refers to the portion of the population which, without additional support and care, may experience future challenges in school and society. The Human Early Learning Partnership (HELP) uses the Early Development Instrument (EDI) in B.C. to understand the vulnerability of populations of B.C. children. The determination of vulnerability is based on EDI scores. Children who score below the vulnerability cut-off on an EDI scale are said to be vulnerable on that scale of development. Vulnerability scores most often reported by HELP show the proportion of children who are vulnerable on one or more scales of the EDI.

WHAT IS A VULNERABILITY CUT-OFF?

A vulnerability cut-off is set at the level of development below which a child would be at increased risk of encountering difficulties in the school years and beyond.

At the start of the EDI project, clinical practitioners and developmental psychologists created a profile of a child that would be likely to experience challenges as they entered kindergarten. The profile included a range of age-appropriate indicators that reflected the development of the whole child: including such things as being able to hold a pencil, cooperate with their classmates, tell a short story of their day, or follow simple instructions.

Once the national pilot EDI data had been collected, analysis showed that, on each of the EDI scales, approximately 10% of the children fitted this profile. Using these data, the cut-off for each of the EDI scales was determined using the range of actual scores collected and setting the cut-off at the score that represented the lowest 10% of that range. In B.C., the cut-offs were set at the end of the first province wide data collection using the same process was used nationally, but basing the cut-offs on the scores of B.C. children.

Over the last 10 years, B.C. research has demonstrated that the cut-offs have tremendous predictive capability. Being below the cut-off in kindergarten has a direct relationship to children's scores in the later grades.

FIG 1: THE VULNERABILITY CUT-OFF



To be vulnerable means that a child is at increased risk of encountering difficulties in the school years and beyond.



WHAT DO WE MEAN WHEN WE SAY THAT SOME VULNERABILITY IS AVOIDABLE?

At birth, approximately 3-5% of children have congenital or diagnosable conditions that limit their development. For example, a child with autism, or other developmental delay, is vulnerable at school entry due to their medical condition. This vulnerability cannot be eliminated solely through support in early years.

In practice, over the ten years that EDI data have been collected, in over 2000 neighbourhoods across Canada, we have seen many neighbourhoods that have had a vulnerability rate of less than 10%. By creating environments in which children thrive—establishing family friendly policies, planning to address children’s needs, investing wisely, and collaborating for children’s benefit—we can ensure that the vast majority of children develop optimally and that we keep vulnerability levels low. And so, we consider vulnerability rates that are greater than 10% as avoidable.

WHY ARE LOWER “VULNERABILITY” RATES SOMETIMES REPORTED?

HELP and the Offord Centre at McMaster University collaborate on their EDI research. Both institutes calculate and report the vulnerability rate in exactly the same way. HELP has used provincial B.C. data to establish its cut-offs and Offord typically uses a broader Canadian database (which includes B.C., and most other provinces).

HELP and the Offord Centre both report the proportion of children who experience vulnerability on more than one of the EDI scales and sometimes on two or more scales for each community. The Offord Centre also provides a “multiple challenge index”, which indicates a percentage of children whose challenges cross several developmental areas. The percentage of children reported using these more stringent requirements is naturally lower. From a population perspective, the most useful measure remains “vulnerable on one or more scale”.

WHERE IS INFORMATION ABOUT VULNERABILITY AVAILABLE ON-LINE?

More information about child vulnerability can be found in local and regional maps and summaries on the HELP website.

Additionally, information about the national data set and vulnerability reporting can be found at www.offordcentre.com.



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