



Frequently Asked Questions Vulnerability

What is HELP?

HELP is a multi-disciplinary academic consortium of people committed to improving the lives of children and families. Its faculty, staff and affiliates represent every discipline engaged in developmental research from neurogenomics to social policy and much in between.

What is “vulnerability” as defined by HELP?

As a research institute that focuses on population health, our definition of vulnerability is statistical and population-based. It describes the portion of a population which, without additional support and care, may experience challenges and which may not function as well in school and society. HELP uses the Early Development Instrument (EDI) in B.C. to understand the vulnerability of populations of BC 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 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 the level of development below which we would consider a child to be at increased risk of encountering difficulties in the school years and beyond.

Vulnerability cut-offs were set after the first EDI pilot in 1998. At the start of the EDI project, clinical practitioners and developmental psychologists created a profile of a child that would be considered 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 first 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 cutoff for each of the EDI scales was determined using the range of actual scores collected and setting vulnerability at the score that represented the lowest 10% of that range. The same vulnerability cut-off scores have remained consistent since they were first calculated.

Our research over the last 10 years has demonstrated that our cut offs have tremendous predictive capability: they do explain children’s school experience, and are highly correlated with adolescent and adult health and well-being measures as well.

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, other developmental delay, or ADHD is vulnerable at school entry, due to their medical condition. This vulnerability cannot be prevented through support in early years, and sets a lower limit to developmental vulnerability in society.

In practice, over the ten years that EDI data have been collected, in over 2000 neighbourhoods across Canada, we have seen some neighbourhoods that have been able to reduce their rate of vulnerability substantially, in some cases to just 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 much 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 BC data to establish its cut-offs and Offord typically uses a broader Canadian database (which includes BC, and also most other provinces).

Sometimes, HELP and the Offord Centre report the proportion of children who experience vulnerability on more than one of the EDI scales. For example, both HELP and Offord report on percentages of children experiencing vulnerability 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 include several developmental scales. 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?

A definition of vulnerability is provided in each of our annual regional community summaries:
<http://www.earlylearning.ubc.ca/maps-and-data/regional-maps/>

A definition is also included in the Atlas of Child Development (2005):
<http://www.earlylearning.ubc.ca/resources/publications/>