The objective of this preliminary analysis is to examine how growth, as a general indicator of cognitive processes, such as memory and encoding speed, that underlie general intelligence and intellectual performance. However, micronutrients and energy supplements can have beneficial effects on growth and development during infancy.

The purpose of the study is to assess the relation between visual information processing (VIP) and growth in a sample of predominantly breastfed infants at age 3 months. The VIP paradigm measured novelty preference (short term memory) and encoding speed. Growth measurements were converted to z-scores using WHO Anthro software (v 3.05). Birth weight, current weight, length and head circumference are all associated with growth and visual information processing in developing countries. Rose found that growth measures were associated with short term memory. Anthropometric indices in 3-month-old infants were associated with short term memory. The positive association between weight and memory was in the expected direction that better growth has been found to be positively associated with better performance in intelligence testing. This finding also supports previous work in the developing world suggesting that the development of memory is affected by growth status (5, 6). Given the typical head circumference results, the negative association between head size and novelty quotient is unexpected. This may be a result of the small sample size, or another unexamined variable.

The expected association between growth and processing speed was not observed. This may be due to the small sample size, however it may also be that processing speed may be less sensitive to growth differences.

The development of cognitive processes in infancy is an active field of research and further research to determine how growth and nutrition affects the developmental progress of these processes is warranted.