

APPENDIX 1: METHODS FOR INSTRUMENT REVIEW

The following principles guided the inclusion of specific instruments in the review:

- 2006 American Academy of Pediatrics statement on screening.
- Availability of manual or detailed information on Web site to describe instrument standardization and validity as well as facilitate utilization.
- Potential utility in primary-care pediatric practice to screen infants and young children ages 0-36 months for developmental problems.
- Scientific validity of instruments based on data from instrument manuals, and studies published in the peer-reviewed literature. Primary emphasis was placed on sensitivity and specificity of the instruments for detection of developmental problems for infants and young children ages 0-36 months.
- Current version of instrument.

What data were included in the review?

- Review of instrument manuals and relevant information on instrument Web site.
- A systematic literature search of peer-related literature using key search terms in the MEDLINE and PsycINFO databases. Based on this search, a list of relevant screening instruments suitable to detect developmental problems in infants and young children ages birth to three years was identified.
- Information from the manuals and published studies of the instruments were summarized in detail in the following areas: sampling methods, population, sample characteristics, study design, reliability, validity studies (e.g., sensitivity and specificity), methods and measures used to establish validity, findings, and conclusions.
- Published studies that reported validity of the instruments were reviewed and rated in accord with the Standards for Reporting Studies of Diagnostic Accuracy, (STARD) (Bossuyt et al., 2003).
- The following criteria were used to select specific studies of instrument validity:
 - ❖ Inclusion of sample of children in the age range of 0-36 months.
 - ❖ Data concerning validation of screening instrument based on a valid criterion measure of developmental outcome (e.g., a standardized psychosocial test such as the Bayley Scale or objective assessment of clinical diagnosis (e.g., autism).
 - ❖ Validity data concerning sensitivity and specificity to detect developmental problems.
 - ❖ Cross sectional or short-term (e.g., 3 month) prospective study design. Data from long-term prospective studies do not directly pertain to concurrent decision making concerning screening in primary care in practice settings.