How Do Screening Tests Perform in Settings Serving At-risk Populations?
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Background
- Quality screens are standardized on a sample of children and families whose socio-economic and demographic characteristics represent those of an entire nation (e.g., in the US by creating a normative group that reflects Census Bureau population parameters). Standardization of tests on such a sample defines what is typical performance and, in the case of screening tests, predicted frequencies of referral rates.

Objective
- To determine differences in referral rates based on a standardized developmental screening test between at-risk groups compared with those expected based on national norms.

Methods
- Referral rates based on national norms for Parents Evaluation of Developmental Status (PEDS) (N=771) were compared to those from 2 sources:
  - Pediatric clinics serving mostly Medicaid patients in Milwaukee, Wisconsin (N=744)
  - 211LA, a ‘warm line’ serving mostly ethnic minority families (47% Latino and 30% African-American) in non-medical crisis (e.g., housing or food instability)(N = 257).

Results
- The gray column shows nationally representative data for PEDS (a sample that included African-Americans, Hispanics, Native Americans, Pacific Islanders, and Asians, in proportion to their presence in the US population).
- In turquoise, are findings on PEDS from a low-income, mostly Medicaid clinic in the Northwest serving mostly minority families.
- In green, are PEDS results from 211LA which is a ‘warm-line’ focused on families in crisis (e.g., food/housing instability).
- Chi-square comparisons among the groups revealed that clinics serving families with elevated rates of psychosocial risk had significantly higher rates of children with problematic performance on PEDS (p < .0001). These results are corroborated by other studies of at-risk children administered different screening tests.
- The comparison illustrates that psychosocial risk in families leads to strikingly larger frequencies of children at developmental risk.

Discussion
- The impact of psychosocial risk on development is well-known. Providers working with families with numerous risk factors should expect elevated rates of problematic performance on developmental- behavioral screens and more frequent referrals to early intervention and other social services.
- Helping trainees and generalist pediatricians anticipate increased referral rates when working with at-risk populations is needed.
- Screening test authors should help by reporting, not only the frequency of problematic performance on nationally representative samples, but also frequencies for various at-risk populations (e.g., children in foster-care, NICU follow-up, etc.).