

# Research - Preliminary Findings

## Preliminary Findings

**The LSP Health Care Literacy (HCL) Measure & Personal Health Literacy (PHL) Measure are reliable and may increase understanding of health literacy beyond the current focus on reading ability. More use is required to demonstrate validity.**

- The Healthcare Literacy Measure (HCL) is calculated by averaging scores on 9 selected LSP scales. Each scale shows the mother's level of functioning on an aspect of using the healthcare system in the last 6 months. The Measures are completed at intake, every 6 months and at close of service. Score of 0 = Not Applicable. 1 = dysfunction. 5 = optimal function. Target range for this Measure = 4-5. The mother in this example shows a HCL – Health Care Literacy score of 2.9 indicating inadequate healthcare literacy.
- Reliability analyses produced Cronbach's alpha statistics<sup>9</sup> for the nine Health Care Literacy scales related to health services utilization. Alpha = .75

Healthcare Literacy Progression for Parents

Item	Score	Healthcare Literacy	NA	Inadequate ← → Competent											
			0	1	1.5	2	2.5	3	3.5	4	4.5	5			
10	3	Use of Information	Refuses information from HV or HC	Uses inaccurate information from information sources	Passively accepts some information from HV and HC	Accepts/uses most information from HV or HC	Actively seeks/uses information from HV, HC & other sources								
17	2	Prenatal Care	No prenatal care	Care starts 2nd-3rd trimester. Keeps some appointments	Care starts 2nd-3rd trimester. Keeps most appointments	Starts care in 1st trimester. Keeps most appointments	Keeps postpartum appointments								
18	3	Parent Sick Care	Acute/chronic conditions go without Dx/Tx. No medical home	Seeks care only when very ill. Uses ER for care. No medical home	Seeks care inconsistently, inconsistent Tx follow-up. Unstable medical home	Seeks care appropriately. Follows Tx recommended. Has medical home	Seeks care appropriately. Cure or control obtained. Has medical home								
19	3	Family Planning	No FP method used. Lacks information about FP	FP method use rare. Limited understanding of FP	Occasional use of FP methods. Some understanding of FP	Regular use of FP methods. Good understanding of FP	Regular use of FP methods. Plans/spaces pregnancies								
20	3.5	Child Well Care	None; no medical home	Seldom; no medical home	Occasional appointments. Unstable medical home	Has annual exam only. Has stable medical home	Keeps regular CHDP/well-child appointments w/same provider								
21	3	Child Sick Care	Medical neglect. No Dx/Tx for acute or chronic conditions	Has care only when very ill. Uses ER for care	Timely care for minor illness but inconsistent Tx/fu	Timely care of minor illness. Follows Tx recommended	Obtains optimal care/control for acute or chronic conditions								
22	0	Child Dental Care <i>no teeth</i>	No dental home or care w/ serious ECC. Poor hygiene	No dental home or care with some ECC and inadequate Tx/hygiene	Has dental home and hygiene but late Tx of ECC	Has dental home. Some preventative care/timely Tx	Has dental home. Regular preventative care and timely Tx								
23	2.5	Child Immunizations	None or refused	IZ History uncertain. Records lost	IZ's begun, but no return appointment	IZ delayed, has return appointment	Complete or up-to-date IZ								
33	3	Medical/Health Insurance	None/unable to afford care or coverage	Medicaid for pregnancy or emergency only	Medicaid full-scope benefits with or without Share of Cost	State-subsidized or partial-pay coverage	Private Insurance with or without co-pay for self/others								
Average		2.9	Healthcare Literacy												

<sup>9</sup>Cronbach's alpha statistics reflect the correlation among the individual items that comprise the measure. Alpha statistics closer to 0 reflect less reliable measures because of lower correlations among the items (or fewer items), and higher alphas reflect more reliable measures because of higher correlations among the items (or more items).

- The Personal Health Literacy (PHL) Measure is calculated by averaging scores on 7 LSP scales. Each scale shows the mother's level of functioning on an aspect of maintaining and promoting personal and child health at home in the last 6 months. Target range for this Measure = 4-5. The mother in this example scores 3.3 indicating inadequate personal health literacy.
- Reliability analyses produced Cronbach's alpha statistics for the seven Personal Health Literacy scales related to maintaining health at home. Alpha = .77

LSP Parental Functional Selfcare Literacy Scale

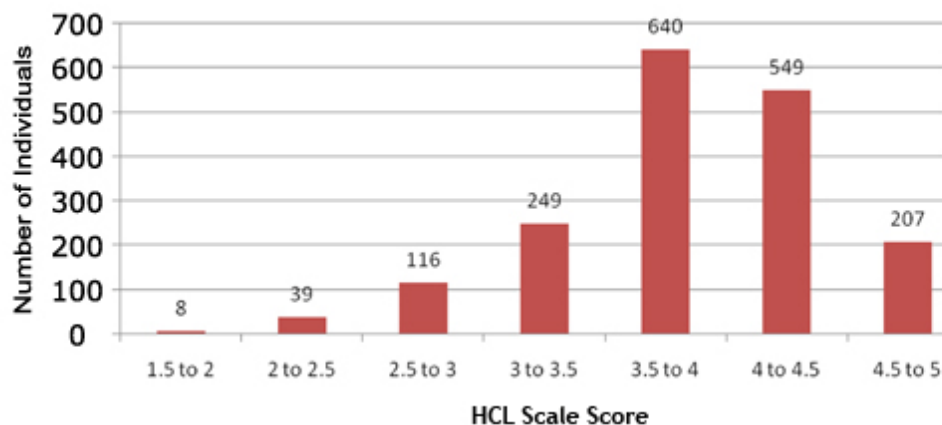
Item	Score	Functional Selfcare Literacy	NA 0	Inadequate ← → Competent									
				1	1.5	2	2.5	3	3.5	4	4.5	5	
4	0	Attitudes to Pregnancy	✓ Unplanned and unwanted. Abortion or adoption plan	Unplanned, ambivalent, fearful. Coerced to keep child	Unplanned and accepted	Planned but unprepared	Planned, prepared, welcomed						
7	2.5	Support of Development	Poor knowledge of child development. Unrealistic expectations. Ignores or refuses information	Limited knowledge of child development. Limited interest in development. Passive parental role	Open to child development information. Provides some toys, books and play for age	Applies child development ideas. Interested in child's development skills, interests and play	Anticipates child development changes. Uses appropriate toys/books; plays & reads w/child daily						
8	3	Safety	Hospitalized for Tx of unintentional injury. Has permanent damage	Outpatient/ER Tx of unintentional injury to child. No permanent damage	No unintentional injury to child. Home/Car unsafe; not childproofed	No unintentional injury to child. Home partially safe. Uses car seat. Uses information	Child protected, no injury. Home/car safe. Teaches safety. Seeks/uses information for age						
11	2.5	Use of Resources	Resource needs unrecognized. Community resources not used or refused; hostile	Resource needs unrecognized. Limited use when assisted by others. Misses most appointments	Accepts help to identify needs; uses resources when assisted by others. Keeps some appointments	Identifies needs. Uses resources with little assistance. Keeps most appointments	Identifies needs. Uses resources independently. Keeps or reschedules appointments						
24	5	Substance Use or Abuse	Chronic Hx drug and/or alcohol abuse with addiction	Drug/alcohol binge or intermittent use, without apparent addiction	Rare or experimental use of drugs or clean. In recovery group or Tx program	Occasional use of legal substances; stops if pregnant	No Hx or current use/abuse						
25	5	Tobacco	Chain smokes; >2 pks/day; uses smokeless; heavy second-hand exposure	Non-chain use or some second-hand exposure	Decreases amount when pregnant. Controls second-hand exposure	No use or second-hand exposure in past six months or current pregnancy	None or never						
28	2	Self-Esteem	Poor; self-critical. Anticipates criticism from others. Rarely initiates; avoids trying new skills	Copes sometimes; but w/limited competence and flat affect. Limited initiative for learning new skills	Irritable/defensive. Makes excuses, blames others. Initiates/starts using new skills but gives up easily	Beginning to actively initiate. Develops skills & recognizes own competence. Emerging confidence visible	Confident in skill & ability to learn. Expresses pride in achievements & successes						
Average	3.3	Personal Health Literacy											

The LSP Parental Functional Selfcare Scale reflects a parent's capacity to function in health contexts at home.

**Fewer than half of mothers entering home visitation services are functioning adequately in the healthcare system.**

- At entry into home visitation services, only about 4 in 10 mothers (42%) demonstrate Maternal Healthcare Literacy in the target range (N =1808). This graph shows the Health Care Literacy at intake. Score of 1 =dysfunctional. Score of 5 = optimal functioning. Target range 4-5.

HCL Scale at First LSP

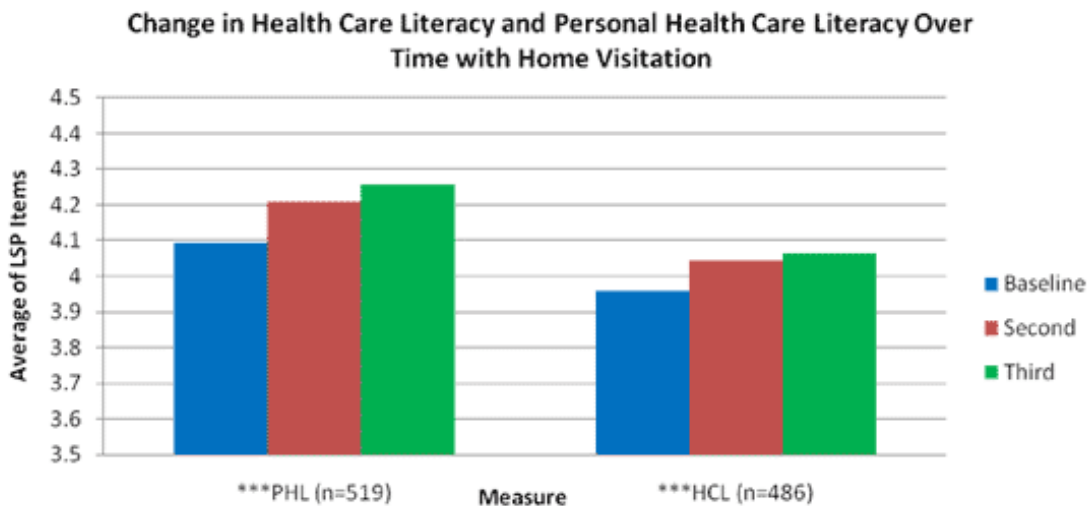


- About 6 in 10 (58%) show Personal Health Literacy in the target range. (N = 2014). This suggests just over half of mothers are functioning adequately in health contexts at home when they enter home visitation service.

- A measure of health literacy as reading skill in a medical setting estimates about 3 in 10 read at or below 6th grade level. This suggests that improvement in health literacy occurs with home visitation among mothers with inadequate literacy skills.

**Maternal Health Literacy improves over time with home visitation.**

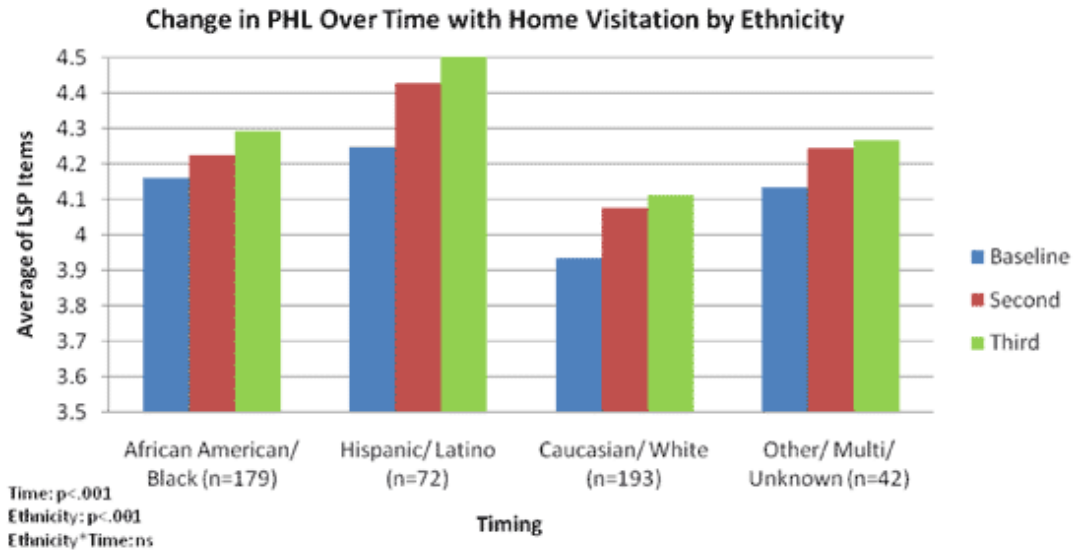
- Mothers demonstrate a statistically significant linear stepwise progress over time on both the Healthcare Literacy and Personal Health Literacy measures. (N = 1005; Time in Service = 18 months)
- Of particular interest is a significant improvement in the first six months of service.
- Health Literacy continues to improve after mothers reach the target range (adequate to optimal functioning).



\*\*\* Time: p<.001

**Mothers of all ethnicities improve at about the same rate, but with different patterns. (N=444)**

- Of particular interest: Whites have the lowest Personal Health Literacy at entry while Latinas have the highest and continue to improve. Research suggests that Latina personal health deteriorates with aculturation, particularly mental health, asthma, and high blood pressure. Perhaps home visitation prevents some of that decline.



These findings were presented to the ZERO TO THREE National Training Institute December 2007 and to the Association of Maternal Child Health Programs March 2008.

For more information, contact Sandra Smith, MPH, PhD  
<mailto:sandras@beginningguides.net> 800-444-8806