

Health literacy support

▶ Intervention in brief

<p>System wide</p>	<p>Health literacy support includes a range of educational interventions aimed at improving patients' understanding of their diagnoses and care plans. The goal is to improve patients' abilities to self-manage their conditions throughout their day-to-day lives.</p>
<p>Strength of evidence</p>	<p> High</p> <p>Although current research doesn't indicate an association with decreased costs, health literacy support has been well-studied and proven to impact KPIs across utilization, quality and clinical outcomes, access, and stakeholder satisfaction.</p>
<p>Impact</p>	<ul style="list-style-type: none"> • Decreased cost: Not demonstrated • Decreased utilization: 30 percentage point decreased ED use among children with asthma; 0-15 percentage point decreased hospitalizations; 19 percentage point decreased death or hospitalization rate • Improved quality, clinical outcomes: <ul style="list-style-type: none"> • <i>Health literacy:</i> 12 percentage point increased label-reading skills; improved health literacy in 73% of studies; 2.45x greater odds of health literacy improvement post-intervention; 18 percentage point increased understanding of medication dosage regimen; 3.24 points greater recognition of HIV terms and 4.25 points greater understanding of HIV terms on a 17-item survey • <i>Behavior change:</i> 1.91x greater odds of improved patient adherence post-intervention; improved smoking, nutrition, alcohol, physical activity and weight (SNAPW) in 75% of studies; 2.3 percentage points greater reduction in percent of calories from total fat; 572.15 mg reduced sodium intake; 5-9 mmHg decreased blood pressure • <i>Behavioral health:</i> 4 points decreased depression score on the PHQ-9 • Increased access: 8.9 percentage point increased colorectal screenings • Improved stakeholder satisfaction: 0.44 point increased hypertension management self-confidence using the REALM assessment; 4.17 point increased perceived quality of communication with doctors and nurses
<p>How to succeed</p>	<p>To build an effective health literacy support program:</p> <ul style="list-style-type: none"> • Build a baseline understanding of the scope of health illiteracy across patient populations • Communicate findings with the care team and train staff on techniques to identify patients with low literacy and numeracy levels (e.g., asks few questions, unable to name medications) • Prioritize longer term, face-to-face interactions (10 hours total vs. a one time session), including group classes, to make the greatest impact on ingrained health behaviors • Select location of intervention based on the primary goals (e.g., increasing physical activity is most effective in the community, support smoking cessation is most effective in primary care) • Convey only the most essential information on care plans <ul style="list-style-type: none"> • Use visual representations instead of text when possible, though traffic light colors and Harvey Balls have not been proven effective • Use patient narratives to add nuance for sensitive or overwhelming treatment choices • Report data so high numbers always indicate better quality (e.g., nurses per patients vs. patients per nurse) and ensure data uses the same denominators • Track medication adherence to measure short term impact, as behavior change takes longer <p>To learn more about developing an evidence-based approach, check out slides 2-17 of Setting the Foundation for Patient-Care Team Communication here, part of the How to Engage Patients 101 webconference series here. Then download chronic disease action plans tailored for educating patients with health literacy challenges from the Patient Education Toolkit here.</p>

Health literacy support

▶ Demonstrated impact

Literature review summary

Title: Interventions for Individuals with Low Health Literacy: A Systematic Review

Publication: Journal of Health Communication

Date: 2011

Type: Systematic review

Study population: Patients across 38 studies including 22 randomized controlled trials of fair or good quality

Major findings:

- Reduced ED use (30 percentage points) among children with asthma
- Insignificant to reduced hospitalizations (between zero and 15 percentage points, -0.39x lower post-intervention)
- Improved label-reading skills (12 percentage points)

Source: Full article [here](#).

Title: Complex Interventions to Improve the Health of People with Limited Literacy: A Systematic Review

Publication: Patient Education and Counseling

Date: 2009

Type: Systematic review

Study population: Patients aged 50 years and older across nine articles

Major findings: Compared to the control, health literacy interventions resulted in:

- Decreased death or hospital admission rate (42% vs. 61%)
- Improved quality, clinical outcomes:
 - Greater reduction in percent of calories from total fat (-2.8% vs. -0.5%)
 - Decreased sodium intake (2,545.97 mg vs. 3,118.12 mg)
 - Increased understanding of medication dosage regimen (88% correct vs. 70%)
 - Decreased systolic (-7 mmHg vs. 2 mmHg) and diastolic blood pressure (-4 mmHg vs. 1 mmHg)
 - Improved recognition (4.66 vs. 1.24) and understanding (6.16 vs. 1.91) of HIV terms on a 17-item survey
 - Decreased depression score on the PHQ-9 (6 vs. 10 points)
- Increased colorectal screening rate (41.3% vs. 32.4%)
- Increased satisfaction:
 - Increased mean change in hypertension management self-confidence (0.33 vs. -0.10 on the Rapid Estimate of Adult Literacy in Medicine assessment)
 - Increased perceived quality of communication with doctors and nurses (5.28 vs. 1.11)

Source: Full article [here](#).

Title: A Systematic Review of Interventions in Primary Care to Improve Health Literacy for Chronic Disease Behavioral Risk Factors

Publication: BMC Family Practice

Date: 2012

Type: Systematic review

Study population: Adult patients across 52 studies regarding health literacy and changes in smoking, nutrition, alcohol, physical activity, and weight (SNAPW)

Major findings: Health literacy interventions (group education, written materials, individual counseling, telephonic support, computer support) used a range of assessments (Rapid Estimate of Adult Literacy in Medicine, Wide Range Achievement Test, Test of Functional Health Literacy in Adults, Health Activity Literacy Scale, Newest Vital Sign, Short Assessment for Spanish Speaking Adults, Diabetes Care Profiles), resulting in:

- Improved health literacy (73% of studies) across outcomes (knowledge, skills, self-efficacy, stage change, other)
- Improved SNAPW (75% of studies)

Source: Full article [here](#).

Health literacy support

Title: Health Literacy and Adherence to Medical Treatment in Chronic and Acute Illness: A Meta-Analysis

Publication: Patient Education and Counseling

Date: 2017

Type: Meta-analysis

Study population: Patients across 220 published articles with various reasons for nonadherence (e.g., cognitive dysfunction) and various types of treatment (e.g., medication)

Major findings:

- Improved health literacy (22% reduced risk of low health literacy post-intervention; 2.45x greater odds of having higher health literacy for intervention group vs. control), especially for low-income patients
- Improved patient adherence (15% reduced risk of poor adherence post-intervention; 1.91x greater odds of improved adherence for intervention group vs. control), especially for patients with a cardiovascular disease with non-medication treatment

Source: Full article [here](#).

Health literacy support

Appendix

- Sheridan S, et al., “Interventions for Individuals with Low Health Literacy: A Systematic Review,” *Journal of Health Communication*, 16, (2011), <https://www.tandfonline.com/doi/full/10.1080/10810730.2011.604391>.
- Clement S, et al., “Complex Interventions to Improve the Health of People with Limited Literacy: A Systematic Review,” *Patient Education and Counseling*, 75, no. 3 (2009), <https://www.ncbi.nlm.nih.gov/pubmed/19261426>.
- Taggart J, et al., “A Systematic Review of Interventions in Primary Care to Improve Health Literacy for Chronic Disease Behavioral Risk Factors,” *BMC Family Practice*, 13, no. 49 (2012), <https://bmcfampract.biomedcentral.com/articles/10.1186/1471-2296-13-49>.
- Miller T, “Health Literacy and Adherence to Medical Treatment in Chronic and Acute Illness: A Meta-Analysis,” *Patient Education and Counseling*, 99, no. 7 (2017), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4912447/>.