Language-concordant care

Intervention in brief

System wide:	**Language-concordant care** includes services (e.g., live interpretation support, bilingual physicians) that support effective communication with patients with limited English proficiency (LEP) and/or deafness. The goal is to improve provider-to-patient communication, care plan understanding, and self-management.
Strength of evidence	 Medium The intervention is well-studied, though many articles are cohort studies and outcomes range widely.
Impact	• **Decreased cost:** Not demonstrated • **Decreased utilization (wide range):** Insignificant to 9.4 percentage point decreased 30-day readmissions; 1.73-5.06 day decreased length of stay; insignificant decreased 30-day ED use; 5.1 percentage point decreased to 3.6 increased diabetes-related ED use; 0.1-9.5 percentage point increased diabetes-related hospitalizations • **Improved quality, clinical outcomes (wide range):** 77.4% increased likelihood of receiving preventive services; 25 percentage points increased instances of informed consent; 11.7 percentage point increased likelihood of better glycemic control; 0.4 lower HbA1c levels; 1.54x greater identification of colorectal polyps; 7.2 percentage point decreased to 6.2 increased in share of HbA1c levels above 9.0 • **Increased access (wide range):** Insignificant decreased to 60% improved screening rates; 81.9% increased likelihood of receiving a flu vaccine • **Improved stakeholder satisfaction:** Not demonstrated
How to succeed	To offer effective language-concordant care: • Educate patients, caregivers, and providers who believe they can get by on informal translation on its drawbacks and potential dangers (e.g., confusion on care plan next steps, imprecise terminology, reticence of sharing "bad news" with family members) • Collect and analyze demographic data to identify commonly spoken languages in the community and the scope of language-support needs • Build programming around primary languages spoken and American Sign Language for Deaf patients, but ensure patients who speak less common languages have a viable and reliable alternative to in-person support (e.g., virtual interpretation) • Create standardized processes in the EMR for identifying in-need patients and referring to services, as ad hoc staff referrals limit program reach and threaten ROI • Connect patients with internal or outsourced language-concordant care, including a language-concordant provider, in-person or telephonic interpretation, and translated patient forms To learn more about developing an evidence-based approach, check out page 27 of our Integrating Psychosocial Risk Factors into Ongoing Care whitepaper here and a profile of Providence Health & Services' video interpretation program here.

Source: Population Health Advisor research and analysis.

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Demonstrated impact

Literature review summary

Title: Use of Interpreters by Physicians for Hospitalized Limited English Proficient Patients and Its Impact on Patient Outcomes
Publication: Journal of General Internal Medicine
Date: 2015
Type: Retrospective cohort study
Study population: 564 LEP patients, 66 years old on average, 49.3% on Medicare and 27% on Medicaid
Major findings: Patients either had no interpreter, an interpreter with a hospitalist present, an interpreter with a physician present, or an interpreter without a physician present. Reductions in 30-day readmissions and 30-day ED use were insignificant across all interventions. This may be because referral patterns were unstandardized (i.e., reliant on care team referrals) or because LEP patients were using informal interpretation instead (e.g., family members).
Source: Full article here.

Title: Professional Language Interpretation and Inpatient Length of Stay and Readmission Rates
Publication: Journal of General Internal Medicine
Date: 2012
Type: Case control study
Study population: 3,071 LEP patients (65.4% Spanish speakers) admitted to a tertiary care hospital with a length of stay between one and 85 days
Major findings: Patients either received no interpretation services, interpretation at either admission or discharge, or interpretation at both admission and discharge. Interpretation resulted in:

- Shortened length of stay for patients receiving interpretation at admission and discharge (2.57 days), patients receiving interpretation only at admission (2.82 days), and only at discharge (3.33 days) compared with those who didn't receive any interpretation (5.06 days)
- Lowered 30-day readmissions for patients receiving interpretation at admission and discharge (14.9%), patients receiving interpretation only at admission (16.9%), and only at discharge (17.6%) compared with those who didn't receive any interpretation (24.3%)

Source: Full article here.

Source: Population Health Advisor research and analysis.

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Title: Exploring the Impact of Language Services on Utilization and Clinical Outcomes for Diabetics
Publication: PLOS One
Date: 2012
Type: Retrospective cohort study
Study population: 1,425 patients with limited English proficiency in the Cambridge Health Alliance diabetes registry
Major findings: Patients received combinations of formal interpretation and language-concordant providers at primary care visits over a nine month period. **Bolded results indicate improvement compared to the control.**

- Mixed impact on diabetes-related ED use (control is 7.9%)
    - **No interpreter services, language-concordant providers at 100% of visits (2.8%)**
    - **No interpreter services, language-concordant providers at less than 100% of visits (7.1%)**
    - **Interpreter services at less than 50% of visits, without language-concordant providers (4.7%)**
    - Interpreter services at 50-100% of visits, without language-concordant providers (8.8%)
    - Interpreter services at less than 50% of visits, language-concordant providers at less than 100% of visits (10.2%)
    - Interpreter services at 50-100% of visits, language-concordant providers at less than 100% of visits (11.5%)
- Mixed impact on diabetes-related hospitalizations (control is 4.0%)
    - No interpreter services, language-concordant providers at 100% of visits (4.1%)
    - No interpreter services, language-concordant providers at less than 100% of visits (6.1%)
    - Interpreter services at less than 50% of visits, without language-concordant providers (7.7%)
    - Interpreter services at 50-100% of visits, without language-concordant providers (6.8%)
    - Interpreter services at less than 50% of visits, language-concordant providers at less than 100% of visits (13.5%)
    - Interpreter services at 50-100% of visits, language-concordant providers at less than 100% of visits (9.6%)
- Mixed impact on share of HbA1c levels above 9.0 (control is 20.7%)
    - **No interpreter services, language-concordant providers at 100% of visits (13.5%)**
    - No interpreter services, language-concordant providers at less than 100% of visits (21.2%)
    - Interpreter services at less than 50% of visits, without language-concordant providers (21.8%)
    - Interpreter services at 50-100% of visits, without language-concordant providers (23.5%)
    - **Interpreter services at less than 50% of visits, language-concordant providers at less than 100% of visits (18.6%)**
    - Interpreter services at 50-100% of visits, language-concordant providers at less than 100% of visits (26.9%)

Source: Full article here.

Title: A Culturally Tailored Navigator Program for Colorectal Cancer Screening in a Community Health Center: A Randomized, Controlled Trial
Publication: Journal of General Internal Medicine
Date: 2009
Type: Randomized controlled trial
Study population: 1,223 patients overdue for a colorectal cancer screening between 52-79 years old at an urban community health center serving a low-income, ethnically diverse population
Major findings: Language-concordant navigators identified and addressed patient-centered barriers to screening by offering education, appointment scheduling, transportation assistance, and insurance coverage support, resulting in:

- Increased likelihood of undergoing screening vs. the control group (27% vs. 12%)
- Increased identification of colorectal polyps vs. the control group (10.5 per 100 patients vs. 6.8 per 100 patients)

Source: Full article here.

Source: Population Health Advisor research and analysis.

Language-concordant care

Title: Navigating Language Barriers: A Systematic Review of Patient Navigators' Impact on Cancer Screening for Limited English Proficient Patients
Publication: Journal of General Internal Medicine
Date: 2016
Type: Systematic review
Study population: Patients across 15 studies and 15 language populations
Major findings: 14 studies showed language-concordant patient navigators offering education and interpretation resulted in improved cancer (breast, colorectal, and cervical) screening rates for patients with limited English proficiency (between 7-60%).
Source: Full article here.

Title: Language Barriers, Physician-Patient Language Concordance, and Glycemic Control among Insured Latinos with Diabetes: The Diabetes Study of Northern California (DISTANCE)
Publication: Journal of General Internal Medicine
Date: 2011
Type: Cross-sectional study
Study population: 6,738 patients self-identified as Latino or white, of which 510 Latino patients were considered to have LEP[1]
Major findings: Patients with limited English proficiency with language-concordant providers were more likely than those without to have better glycemic control (16.1% vs. 27.8%) and lower HbA1c levels (7.6 vs. 8.0).
Source: Full article here.

Title: Increased Access to Professional Interpreters in the Hospital Improves Informed Consent for Patients with Limited English Proficiency
Publication: Journal of General Internal Medicine
Date: 2017
Type: Prospective cohort study
Study population: 152 LEP patients (Chinese and Spanish speakers) hospitalized for invasive procedures on the cardiovascular, general surgery, or orthopedic surgery floors
Major findings: Dual-handset phones at every bedside enabling immediate access to professional interpreters resulted in increased likelihood in meeting criteria for informed consent (from 29% to 54%), though still less likely than English speakers (74%).
Source: Full article here.

Title: Patient-Physician Language Concordance and Primary Care Screening among Spanish-Speaking Patients
Publication: Medical Care
Date: 2012
Type: Retrospective cohort study
Study population: 101 Spanish-speaking patients in the language concordant group and 205 in the language discordant group, between 35-75 years old across two primary care clinics in Boston
Major findings: Receiving care from a language-concordant PCP resulted in an insignificant change in screening rates for hyperlipidemia, diabetes, cervical cancer, and breast cancer and decreased screening for colorectal cancer.
Source: Full article here.

1) English proficiency was assessed by asking, "How often do you have difficulty understanding or speaking English?" Patients who responded "usually" or "often" were considered to have limited English proficiency, while those who responded "sometimes," "rarely," or "never" were designated as English-speaking.

Source: Population Health Advisor research and analysis.

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Title: Impact of Communication on Preventive Services Among Deaf American Sign Language Users
Publication: American Journal of Preventive Medicine
Date: 2011
Type: Cross-sectional study
Study population: 89 deaf respondents between 50-75 years of age
Major findings: Language-concordant care resulted in a greater number of preventive services (77.4%) and a greater odds of receiving a flu vaccine (81.9%).
Source: Full article here.

Source: Population Health Advisor research and analysis.

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Appendix

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Source: Population Health Advisor research and analysis.