

2014 Gage Awards

Reference #	7491937
Status	Complete
Name of hospital or health system	Cambridge Health Alliance
Name of project	Remote Video Interpreting
CEO name	Patrick Wardell
CEO approval	Check here to confirm that your CEO approves of this project being submitted for a 2014 Gage Award
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Within which of the two categories does your application best align?	Population Health

1. Provide a brief description of the project. (This section should resemble an abstract for a poster presentation or an abstract for a peer reviewed journal. Include an objective, data sources, study design, findings, and conclusions.)

The Cambridge Health Alliance (CHA) serves a large population of limited English proficient (LEP) patients, with 34% of outpatients and 28% of the inpatients speaking a language other than English at home. With the Remote Video Interpreting project, CHA sought to better meet the language needs of LEP patients by utilizing videoconference technology that combines the visual benefits of face-to-face interpreting with the fast access of telephone interpreting. Videoconference interpreting enables the provider and patient to see and hear the interpreter via a secure internet connection on a mobile, wifi-enabled videoconference unit. CHA introduced videoconference interpreting at hospital-based pilot sites in June 2012. Throughout the rollout of videoconference interpreting, CHA tracked utilization of face-to-face, telephone, and videoconference interpreting modalities, and monitored operating expenses and wait times to access interpreters. CHA also collected feedback on videoconference interpreting from providers and monitored patient satisfaction with interpreter services. Results demonstrated that videoconference interpreting has improved access to professional interpreters in a cost-efficient manner. The operating expense per interpreted encounter decreased by 7.4% after videoconference interpreting was introduced, and the percentage of face-to-face interpreted encounters with a delay of 15 minutes or more decreased from 3.6% to 1.7%. Further, providers have expressed satisfaction with this new interpreting modality, with 88% of surveyed providers agreeing that language needs were successfully met with videoconference interpreting. Patient experience of care surveys demonstrated that there was no decline in patient satisfaction with interpreter services after the introduction of the new videoconference interpreting modality. Overall, videoconference interpreting has enabled CHA to better serve LEP patients, and CHA's implementation strategies can be used as a model for other healthcare systems seeking to improve access to care for LEP patient populations.

2. Describe the methods use in this project. Include where, why, and how the project was accomplished.

The Remote Video Interpreting project was implemented at the Cambridge Health Alliance (CHA), a Massachusetts public health system comprising three acute care hospitals, 15 primary care sites, and a public health department. In 2012, 45,302 unique outpatients (34% of outpatients) and 2,729 unique inpatients (28% of inpatients) spoke a language other than English at home, with Portuguese, Spanish, and Haitian Creole most frequently spoken among limited English proficient (LEP) patients. There were over 190,000 interpreter requests at CHA in calendar year 2012.

Many studies have demonstrated that language barriers can adversely affect access to, quality of, and satisfaction with care [1-9]. CHA seeks to provide safe, effective, and respectful care that meets the cultural and linguistic needs of its diverse patient population. In particular, as professional medical interpreters have been found to improve clinical care and satisfaction for LEP patients [10], CHA aims to give providers the opportunity to use a professional medical interpreter for every LEP patient encounter.

With the large volume of LEP patients that CHA serves, it is not feasible to provide an in-person interpreter for every LEP patient encounter. Thus, CHA utilizes both in-person and remote interpreting modalities. Until June 2012, CHA offered professional interpreter services via face-to-face and telephone interpreting. Telephone interpreters are often accessed much more quickly than face-to-face interpreters, who need time to move between different clinical locations. However, while telephone interpreting is appropriate in many cases, some encounters benefit from the visual information provided during face-to-face interpreting. In particular, a face-to-face interpreter can respond to nonverbal cues and is necessary for languages such as American Sign Language.

Recognizing the need to combine the fast access of telephone interpreting with the visual benefits of face-to-face interpreting, CHA launched videoconference interpreting in June 2012. In a videoconference interpreting session, the provider and patient are at one clinical location, while the interpreter is located elsewhere. The interpreter is accessed through a secure internet connection on a wifi-enabled, mobile videoconference unit, which allows the interpreter and other parties to see each other. All videoconference units have a "virtual curtain" feature that can be enabled during physical exams for enhanced patient privacy.

Videoconference interpreting was implemented at CHA in three phases. In Phases 1 and 2, which occurred from June-July 2012, videoconference units were provided to emergency department and inpatient sites. In Phase 3, which occurred in December 2012, 10 videoconference units were provided to hospital-based outpatient practices. Introduction of videoconference interpreting was accompanied by trainings to familiarize clinical and interpreter staff with the videoconference

	units. Trainings demonstrated that videoconference technology enables fast and easy access to professional interpreters and emphasized that languages differences should never be a barrier to patient-provider relationships.
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3. Describe the results of the project. What data was used to support improvement results?

With the Remote Video Interpreting project, CHA introduced videoconference interpreting to hospital-based inpatient, emergency, and ambulatory locations, which account for 48% of LEP patient encounters. Videoconference interpreting has enabled CHA to increase delivery of interpretive services in a cost-effective manner. At participating hospitals, usage of videoconference interpreting increased from 7% of LEP patient encounters in July 2012 to 22% in June 2013, while face-to-face interpreting concurrently decreased from 48% to 24% of encounters. This shift in interpreter modalities resulted in shorter wait times for face-to-face interpreters. The percentage of face-to-face interpreted encounters with delays of 15+ minutes decreased from 3.6% to 1.7% from July 2012 to June 2013.

The shift in interpreter modalities also increased efficiency, as videoconference interpreters do not require time to physically move between sites and do not spend time waiting for patients who are late to appointments. Thus, videoconference interpreters can spend more of their paid time interpreting. Reflecting this increased efficiency, the CHA overall operating expense per interpreted encounter decreased from \$22.74 in fiscal year 2012 (July 2011–June 2012) to \$21.06 in fiscal year 2013 (July 2012–June 2013). Over this same time period, the total number of interpreted encounters increased from 90,017 to 90,228 at CHA hospitals that participated in the project. For hospitals with inpatient sites, which received the most videoconference units, the total number of interpreted encounters increased from 64,299 to 67,305.

Videoconference technology provides fast access to professional interpreters, and CHA call center data show that a videoconference interpreter can generally be accessed within 45 seconds. Providers have embraced videoconference interpreting, expressing that “The video interpreting is much more personal than plain telephone interpreting. It allows for interaction during the visit”. Further, in a provider survey conducted after Phase 2 of the project, 75% of respondents agreed that the process of connecting to a video interpreter was very easy, and 88% agreed with the statement, “My patient’s language needs and my own language needs were successfully met through video interpreting.”

Patients have also reacted positively to videoconference interpreting. One CHA interpreter described her patient’s first video interpreting experience as, “The patient, whom I had assisted by phone on several occasions, recognized my voice and expressed that it was finally great to meet me in person – to put a face to a familiar voice.” Further, data from CHA’s patient experience of care surveys show no decline in mean scores for patient satisfaction with interpreter services after the introduction of videoconference interpreting.

Videoconference interpreting has become especially popular in the emergency

	<p>departments, where quick access to an interpreter is critical for triage purposes. From July 2012 to July 2013, videoconference interpreting increased from 26% to 69% of interpreted encounters in the emergency departments.</p>
<p>3A. Attachment, if applicable (Only graphically displayed data such as charts will be accepted. Data should include baseline and improvement data)</p>	<p>References.pdf (7k)</p>

4. Describe what happened as a result of the project. Was the improvement related to the intervention? Can the project be duplicated by other organizations?

The Remote Video Interpreting project at the Cambridge Health Alliance introduced an interpreting modality that offers quick access to a professional interpreter while retaining the visual benefits of face-to-face interpreting. This new mode of service delivery has given CHA the capacity to increase access to professional medical interpreters while decreasing operating expenses by 7.4%. It has been shown that professional medical interpreters can improve clinical outcomes for LEP patients to a level comparable with English-proficient patients [10]. Thus, the increased access to professional medical interpreters enabled by videoconference interpreting is likely to be associated with improved health outcomes for LEP populations in the communities served by CHA. In addition, disparities in access to healthcare exist in Massachusetts, with Hispanic populations having poorer access than white populations [11]. Hispanic patients account for 20% of outpatients and 17% of inpatients at CHA, and increasing access to professional medical interpreters can reduce barriers to care for this population and help decrease disparities.

The introduction of videoconference interpreting was achieved without compromising the quality of interpretation or negatively impacting provider and patient satisfaction. Furthermore, CHA has observed reductions in interpreter services operating expenses after implementing videoconference interpreting. While these cost reductions are due to a variety of factors, the increased efficiency of videoconference interpreting as compared to face-to-face is an important contributor.

With U.S. Census data demonstrating rapid growth of the LEP population in the United States [12, 13], it is becoming increasingly important for healthcare organizations to ensure that they can meet the language needs of LEP patients during clinical encounters. The Remote Video Interpreting project at the Cambridge Health Alliance can be used as a model for other healthcare organizations seeking to utilize technology that enables safe, high-quality medical interpretation in an efficient and cost-effective manner. While the project requires an initial investment to purchase videoconference units, the increased efficiency of videoconference interpreting as compared to face-to-face interpreting will help offset these costs over time.

The strategies employed by CHA can provide guidance to other hospitals implementing videoconference interpreting for the first time. In particular, for large hospital systems with multiple sites, it is recommended that videoconference interpreting be implemented in phases, beginning with a small set of pilot sites. This will allow for troubleshooting of any technical problems as well as an opportunity to collect and respond to provider and/or patient feedback. A pilot phase will also ensure that the new delivery model will not cause a large disruption to interpreter services at the organization overall. Finally, introduction of videoconference interpreting

	should be accompanied by training and demonstration to ensure that providers, staff, and interpreters become comfortable with using the video units in advance of rollout.
5. Describe how patients, families, and if appropriate, community was included in the work.	CHA collects patient experience of care data via surveys that are sent to patients after visits to CHA clinical sites. Survey data enable patient satisfaction to be quantified and monitored over time to assess the impact of system or service changes. The emergency department survey includes a question assessing patient satisfaction with interpreter services, and responses to this question were used to monitor patient experience of care during the implementation of the videoconference interpreting project. Mean scores demonstrated that there has been no decline in patient satisfaction with interpreter services after videoconference interpreting was introduced in the emergency departments. Furthermore, some interpreters have received qualitative feedback from patients during or after clinical encounters. Interpreters have reported that patient feedback on videoconference interpreting has been positive and that patients appreciate the more personal nature of videoconference interpreting as compared to telephone interpreting.
5A. Attachment, if applicable (Applicable attachments include documents created for patients, families, or community members or by them as a result of the project)	References.pdf (7k)
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