

# Improving Quality & Safety for Diverse Populations:



## An Innovative Interprofessional Curriculum



MGH INSTITUTE OF HEALTH PROFESSIONS  
A graduate school founded by Massachusetts General Hospital

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### Background

#### Objective

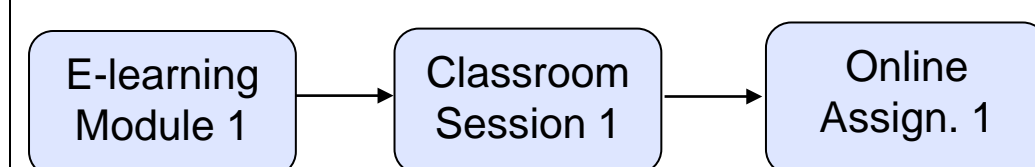
To design and pilot test an interprofessional curriculum for medical and nursing students on providing safe, effective care for patients with limited English proficiency (LEP).

#### Introduction

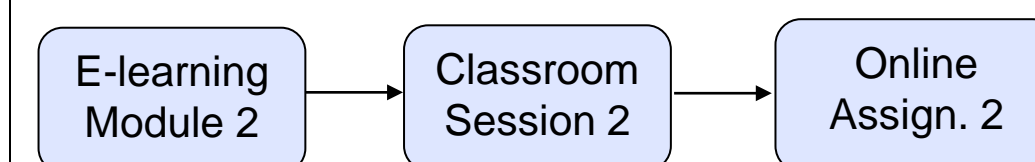
- 9% of US residents have difficulty speaking English,<sup>1</sup> and there was an 80% increase in residents with LEP between 1990 and 2010.<sup>2</sup>
- Patients with LEP are more likely to suffer adverse events than English-speaking patients.<sup>3</sup>
- Adverse events result in more serious consequences, including physical harm, for patients with LEP.<sup>3</sup>
- Patients with LEP are more likely to experience medical errors due to communication problems.<sup>3</sup>
- Health professions students report feeling inadequately prepared to care for patients with LEP.<sup>4</sup>

#### Curriculum Map

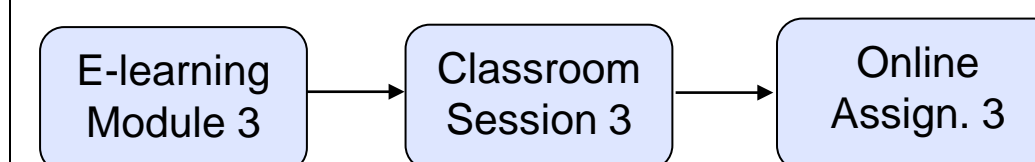
**Module 1 Learning Goal:** Understand the evidence for disparities and high rate of medical errors for patients with LEP.



**Module 2 Learning Goal:** Work effectively with interpreters and other care team members to ensure safe, high-quality care for patients with LEP.



**Module 3 Learning Goal:** Explore the ways that systems of care can be improved to ensure quality and safety for patients with LEP in a team environment.



### Methods

#### Implementation

- The curriculum was implemented with an interprofessional group of Harvard Medical students (N=8) and MGH Institute of Health Professions nursing students (N=8) in July 2013.
- Faculty advisors (N=7) participated through direct observation and by facilitating small group discussions.
- The classroom sessions and group assignments reinforced content delivered in the e-learning program and provided an interprofessional learning environment to explore key issues.

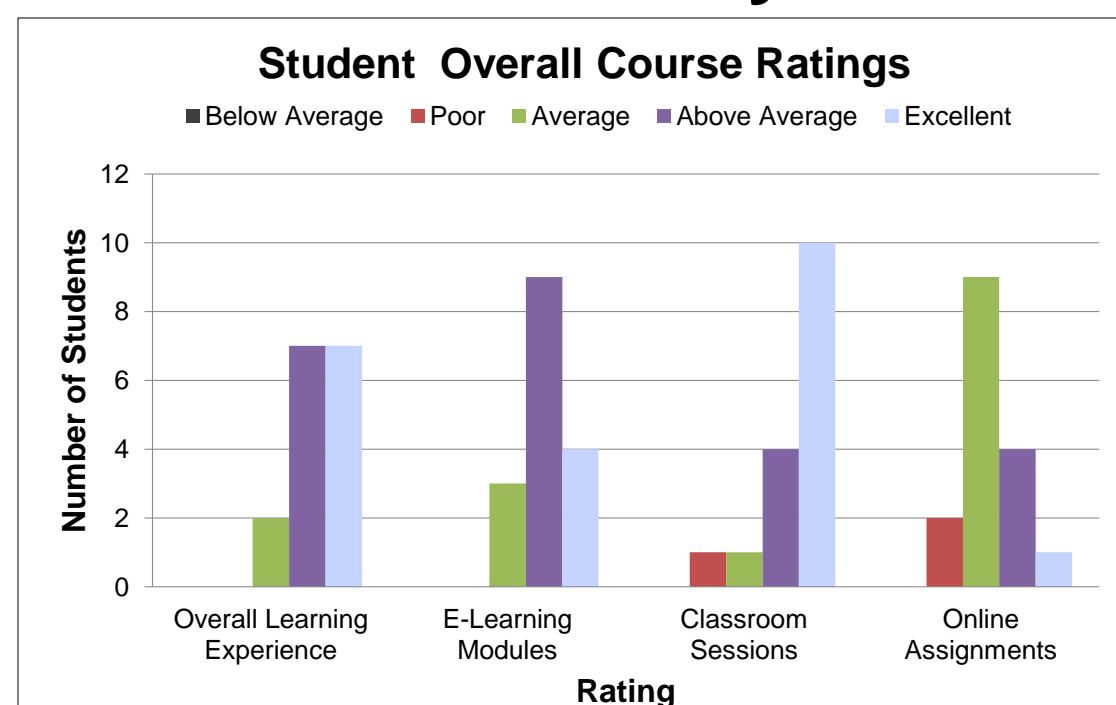
#### Evaluation

- 28 item pre/post-test to assess knowledge, skills, and attitudes related to key concepts of safety and interprofessional care for patients with LEP
- End-of-course faculty and student evaluation surveys
- Interprofessional focus groups (3) with students and faculty advisors

### Quantitative Results

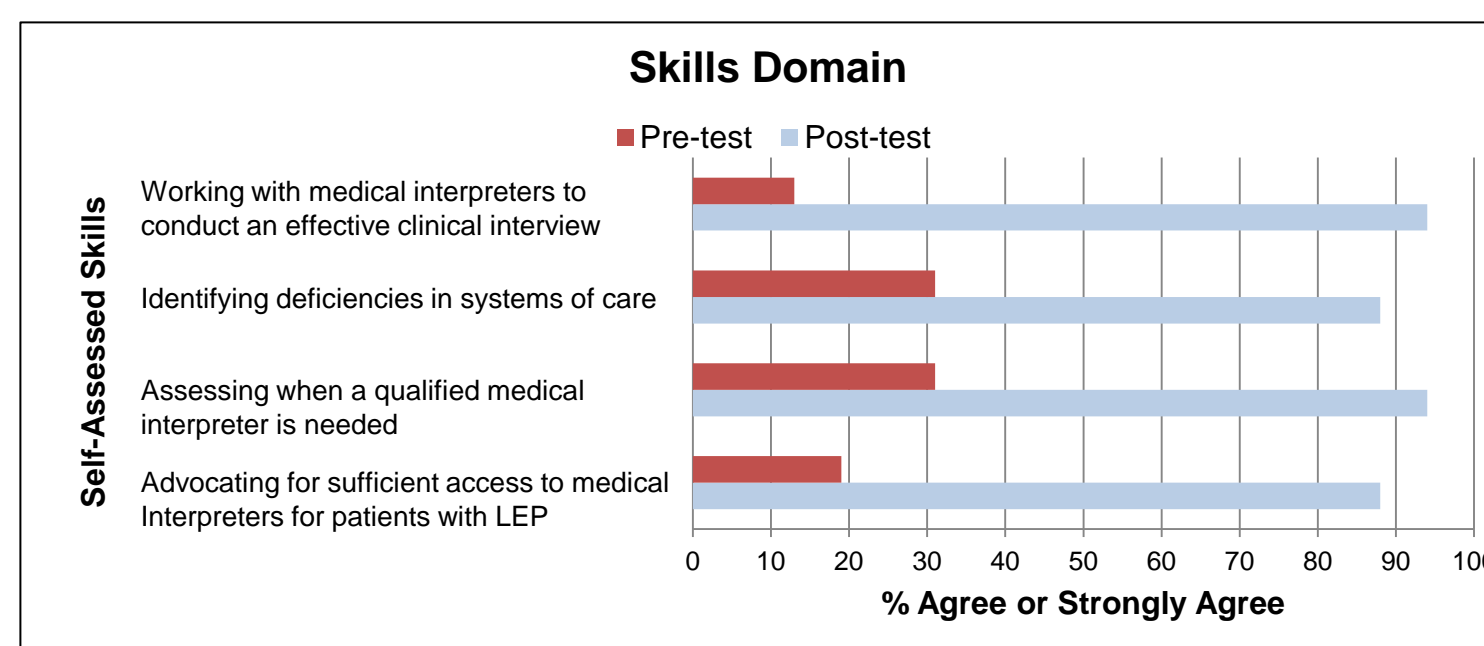
#### Faculty & Student Evaluation Surveys

Average Overall Course Ratings 1-5 Likert Scale, with 1 being the least positive and 5 being the most positive response		
	Faculty (N=7)	Students (N=16)
Overall Learning Experience	4.5	4.3
E-Learning Modules	4.3	4.0
Classroom Sessions	4.5	4.4
Online Assignments	4.4	3.2



#### Student Pre-Post Test

- Students showed at least a 19% change in the desired direction on six out of twelve 5-point Likert scale questions in the attitudes domain.
- Students showed at least a 19% improvement on four out of twelve multiple-choice, case-based questions in the knowledge domain. Pre-test scores for most knowledge-related questions were high, resulting in a ceiling effect.
- Students showed at least a 48% change in the desired direction on all four 5-point Likert scale questions in the skills domain.



### Qualitative Comments

#### Course Effectiveness

*I loved the online modules, and... I learned a lot by having such a diverse group of people present: seasoned faculty, med students, professional interpreters, nursing students, etc. The discussions were excellent, and I learned so much by hearing the case studies and trying to communicate myself through interpreters. – Student*

#### Interprofessional Education (IPE)

*I think team-based interprofessional learning is a powerful venue for the topic and will be helpful to these medical and nursing students as they mature and look back on the experience. – Faculty advisor*

#### Systems of Care

*I think [making systems-level changes] will be easier once we have longevity in a particular setting and we sort of have the respect of our colleagues to enact some of those changes or get more into leadership roles. But I think I'm aware enough now to sort of know how we can introduce systems changes, like flagging patients. – Student*

### Conclusion

- The blended learning approach combining e-learning with in-class sessions and online activities offers an innovative approach to IPE.
- Students placed a high value on formal training related to caring for patients with LEP in a team-based environment.

#### References

- U.S. Census Bureau. 2011 American Community Survey. [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_11\\_1YR\\_S1601&prodType=table](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_1YR_S1601&prodType=table)
- Migration Policy Institute. *LEP Individuals in the United States: Number, Share, Growth, and Linguistic Diversity*. National Center on Immigrant Integration Policy; December 2011.
- Divi C, Koss RG, Schmalz SP, Loeb JM. Language Proficiency and Adverse events in US Hospitals: A Pilot Study. *Int J Qual Health Care*. Apr 2007;19(2):60-67.
- Rodriguez F, Cohen A, Betancourt J, Green A. Evaluation of Medical Student Self-Rated Preparedness to Care for Limited English Proficiency Patients. *BMC Medical Education*. June 2011;11(26):1-8.

#### Acknowledgements

This curriculum was made possible by a grant from the Josiah Macy, Jr. Foundation.

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