

## “Windshield Tour” – A Journey Towards Cultural Competency

D. Kay Taylor, PhD, Laura Carravallah, MD, Melissa Hamp, MD,  
James Buterakos, MSA, and Ramin Motarjemi, MD

Hurley Medical Center, Flint, MI and  
Michigan State University College of Human Medicine,  
East Lansing, MI

### *Abstract*

**Purpose:** Medical educators are directing greater attention to the promotion of cultural competency when prioritizing educational program goals. An innovative educational approach is described here in a community hospital where nearly one-third of its citizens fall below the poverty level. The intent was to provide a very personal, first-hand learning experience via witnessing living conditions of patients from poverty-stricken neighborhoods.

**Method:** Hospital educators worked with the community organization FACED (Faith Access to Community Economic Development). This grassroots group developed an educational driving excursion—entitled the “Windshield Tour”—of the city hospital’s poorest areas. A knowledge/attitude questionnaire was administered as a pre- and post-test to 80 residents and medical students.

**Results:** Significant changes were observed in participants’ understanding of personal/financial hardships faced by their patients, perceptions of availability of resources, understanding of issues related to health care benefits, and rankings of patient/physician characteristics deemed important.

**Conclusion:** Hospital educators have met with FACED leaders to explore future collaborative projects that would increase exposure to the community for the residents and students.

Cultural competency for health care providers can be defined as those learned skills that serve to advance the understanding of cultural differences and facilitate communication between people who have different ways of understanding sickness and the body—and often possess dissimilar resources in managing their health. There is an increasing recognition of the link between health care provider cultural competency and racial/ethnic disparities in health care.<sup>1</sup> The effect is more pronounced when it intersects with low socioeconomic factors. Enhancing cultural competency is increasingly recognized as a key tactic to reduce racial/ethnic disparities in health care utilization.<sup>2</sup> Based upon recent studies in such areas as obesity and diabetes,<sup>3-4</sup> an expert panel formed by the Office of Minority Health, Department of Health and Human Services to identify strategies for enhancing providers’ cultural competency has urged the introduction of cultural competence education before, during and after clinical training.

Medical educators are thus directing greater attention to the promotion of cultural competency when prioritizing educational program goals. Developing skills for interacting with patients from a wide variety of backgrounds is a growing area of importance in medical education.<sup>5</sup> It is generally agreed that programs need to provide opportunities both in the classroom and in the clinical

arena.<sup>6</sup> There are numerous studies that detail efforts with nursing students,<sup>7-10</sup> medical students,<sup>11-14</sup> and other health care providers.<sup>15-16</sup> While the number of program descriptions have increased in the literature, there has been limited information regarding the evaluation of the effectiveness of such program efforts. There are also few published reports that detail efforts with resident physicians. This study describes a novel approach utilizing a community organization known as FACED (Faith Access to Community Economic Development). This grassroots group developed an educational driving excursion, entitled the “Windshield Tour”, of the city hospital’s poorest areas. The intent was to provide a very personal, first-hand learning experience in which participants would witness the living conditions of patients from poverty-stricken neighborhoods.

### **Methods**

**Setting** - Hurley Medical Center is a 463-bed teaching hospital located in Flint, Michigan. The hospital provides acute and tertiary care primarily in a five-county region with a population of approximately 500,000. Its major clinical affiliation is with Michigan State University’s College of Human Medicine.

The automobile industry was the primary economic base for the city of Flint. With its decline, area residents suffered. Many of the families seen at Hurley face considerable stress stemming from socioeconomic factors such as financial difficulties, single parent households, and high neighborhood crime rates. Twenty-seven percent of its citizens are categorized as living below the poverty level.

**Cultural Competency Training in Residency Programs** - The hospital's current curriculum components that target cultural competency enhancement are fairly "typical". These include lectures with small group discussions. There is an emphasis on general themes such as the importance of good communication in the doctor-patient relationship, the influence of socioeconomic factors on health behaviors, and disparities in health care. Residents are also provided key demographic data about the Flint and surrounding communities. They also receive instruction in the hospital's Standards of Behavior and Values that emphasize the qualities of understanding, respect and courtesy. Finally, some of the residency programs also offer opportunities to participate in community health-related projects. But the residency program directors expressed concern that their physicians-in-training needed to gain a better understanding of the patient population. The goal was to identify an innovative addition to the curriculum on cultural competency.

**Addition: Windshield Tour** - The Windshield Tour provides an in-depth look at community characteristics such as housing, health care facilities, schools, public transportation, recreation facilities, grocery and drug stores. The particular focus is on those areas in the community that lack vital resources. The tour is narrated by two of FACED's health advocates. Questions are encouraged. The advocates, who have personally conducted extensive mapping of certain zip code areas in the city, sometimes on foot, are knowledgeable about key indicators of health such as infant mortality. The tour is approximately two hours in length. Groups are generally 10-12 in number. Participants remain seated inside the van throughout the tour. In the months of August, September, and October 2005, a total of 80 residents and medical students participated in this educational offering.

**Evaluation** - Study team members (consisting of two residency Program Directors, the Research Director, the Director of Graduate Medical Education, and a resident physician) developed a two-page knowledge and attitude questionnaire (Appendix A) to be administered as a pre- and post-test to residents and medical students. The tool was designed to assess cultural competency with respect

to the awareness of day-to-day realities for patients in the hospital's poverty areas that impact on the management of their health. Knowledge items targeted their understanding of both the availability and appearance of neighborhood resources. Additionally, questions were asked about health care coverage for these community members. Attitude items targeted their perceptions of the link between socioeconomic factors and health behaviors. Additionally, questions were posed about their views on establishing a good patient-physician relationship. These questions were included to further assess their appreciation or recognition of the influence of poverty on managing health. Item format varied including Likert-scale, ranking, and open-ended questions. The perception of accuracy of pre-test answers was also addressed on the post-test measure. Finally, the perceived value or benefit of the educational program component was assessed.

## Results

**Knowledge** - Participants reported an improved understanding of issues related to health care benefits (increasing from 71% on the pre-test measure to 85% on the post-test measure), the employment profile of the community (increasing from 23% to 32%), and awareness of programs to assist lower income patients in obtaining health care coverage (increasing from 63% to 79%).

Participants were asked to rate both the availability and appearance of neighborhood characteristics such as homes, schools, rental units, grocery and drug stores, parks/recreation, public transportation and health care facilities (using descriptors of excellent, good, fair or poor). There were no observed differences on the appearance ratings from pre- to post-test; there were, however, significant changes in perceptions of availability of resources. Prior to the tour, 19% of participants rated the availability of services in the lower-economic areas of the city as being good, 35% as being fair, and 23% as being poor, with 23% stating that they did not know. Following the tour, positive ratings were reduced, with only 6% rating availability as being good, 24% as being fair, and 64% as being poor, with 6% stating that they did not know.

**Attitudes** - Participants expressed an increased understanding of the personal and financial hardships faced by many of their patients and their families following the tour, increasing from 69% on the pre-test measure to 90% on the post-test measure. They also reported a greater recognition of the link between characteristics of a neighborhood and a person's ability to manage their health or their children's health, increasing from 78% to 100%.

Participants were also asked to weigh or rank seven patient variables in their importance to establishing a good patient-physician relationship. These included the patient's intellectual capabilities, education level, motivation, financial resources, personal/family support, willingness to trust the physician, and cultural/religious beliefs. Although the highest two rankings were similar on the pre and post-test assessments, there was a significant shift on other factors. Patient's willingness to trust the physician was selected by 39% on the pre-test and 27% on the post-test, and patient's level of motivation was selected by 29% on the pre-test and 34% on the post-test. However, whereas patient's financial resources were selected by only 5% on the pre-test, it was selected by 20% on the post-test; patient's intellectual capabilities were selected by 12% on the pre-test and only 5% on the post-test.

Participants were also asked to rank seven physician variables in their importance to establishing a good patient-physician relationship. These included the physician's medical knowledge base, experience base, adaptability, knowledge of the community, listening skills, level of compassion, and verbal skills. Again, the highest two rankings were similar on the pre and post-test assessments but there was a significant shift on one key factor. Physician's listening skills were selected by 45% on the pre-test and 31% on the post-test, and physician's level of compassion was selected by 15% on the pre-test and 19% on the post-test. However, whereas physician's knowledge of the community was selected by only 6% on the pre-test, it was selected by 15% on the post-test.

**Perception of Accuracy** - On the post-test measure, participants were asked to judge the accuracy of their original assessments of both the appearance and availability of key services in the city's lower-economic areas. (The rating scale included the descriptors of very accurate, accurate, somewhat accurate, and not accurate.) Participants' estimates of their original perceptions concerning appearance generally fell between accurate and somewhat accurate, whereas their perceptions concerning service availability ranged between somewhat accurate and not accurate.

**Value of Program** - The majority of participants reported that the "Windshield Tour" was a beneficial experience for the health care professional. It was felt that participation would serve to aid communication with their patients (91%), assist them in gaining stronger compliance from patients (87%), and help them to develop strategies to enhance a patient's overall health status (94%). Finally, they agreed that the tour increased their

recognition of hurdles or obstacles in providing optimal care to their patients (95%).

## Conclusions

We have reported a simple intervention that acquaints residents and students with the surrounding community by utilizing knowledge of persons intimately familiar with those areas and its population. This intervention was effective in improving trainee knowledge of the community and also some of the factors that may affect the doctor-patient relationship and possibly patient compliance. Additionally, this intervention allowed a prominent community group to have input and involvement in training the medical community and in exploring issues that are of importance in the interface between the two communities. Ultimately, this may be the beginning of a foundation for improving the likelihood of our patients to find "medical homes" that will help them to meet their health needs and those of their families. We have met with FACED leaders to explore future collaborative projects between that group and the housestaff, which would provide service for FACED and its service population and increased exposure to and knowledge about the community for the housestaff. Ultimately, we would like to develop robust measures of and possibly jointly design a curriculum for improving cultural competence, including the addition of more interactive learning experiences.

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#### Correspondence

D. Kay Taylor  
Hurley Medical Center  
One Hurley Plaza  
Reserach Center 6W  
Flint, Michigan 48503  
  
Phone: 810-257-9505  
E-mail: [ktaylor1@hurleymc.com](mailto:ktaylor1@hurleymc.com)

# APPENDIX A -- SURVEY

Name: \_\_\_\_\_

Date: \_\_\_\_\_

All information is held in strictest confidence. Names are used to link pre and post assessments. Only group or aggregate data will be reported or published. Only select Research Center personnel will view your answers. You are guaranteed anonymity within your residency training program (including all teaching faculty, support staff, and your Program Director) as well as any other hospital area/personnel. Please answer as truthfully as possible.

## Hurley Medical Center – Department of Research RESIDENT POST QUESTIONNAIRE

1. Please read the following statements and decide how strongly you AGREE or DISAGREE by checking the appropriate box.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have a strong understanding of the personal and financial hardships faced by many of my patients and their families.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Characteristics of a neighborhood can directly impact on a person's ability to manage their health care or their children's care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. How would you rate the **AVAILABILITY** of the following services in Flint's lower-economic areas:

	Excellent	Good	Fair	Poor	Don't Know
a. health care facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. public transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. grocery stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. parks/recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. drug stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How accurate do you feel that your **original** assessment of the availability of these services was?

- Very Accurate     
  Accurate     
  Somewhat Accurate     
  Not Accurate

3. How would you rate the general **APPEARANCE** of the following in Flint's lower-economic areas:

	Excellent	Good	Fair	Poor	Don't Know
a. homes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. rental units	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. businesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. overall neighborhood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. drug stores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How accurate do you feel that your **original** assessment of the appearance of these areas was?

- Very Accurate     
  Accurate     
  Somewhat Accurate     
  Not Accurate

4. Do you feel that participation in the **WINDSHIELD TOUR OF THE CITY OF FLINT** may be beneficial to a health care professional for any of the following reasons?

	Yes	Maybe	No	Don't Know
a. learning to communicate better with patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b. gaining stronger compliance from patients?
- c. developing strategies to enhance a patient's overall health status?
- d. recognizing hurdles or obstacles in providing optimal care?

How accurate do you feel that your **original** assessment of the potential benefit was?

- Very Accurate       Accurate       Somewhat Accurate       Not Accurate

5. Rank what you regard as the **THREE** most important **PATIENT FACTORS** that determine success in establishing a good patient-physician relationship:

Please place a "1", "2", and "3" next to your 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> choices:

- |   |  |
|---|--|
| ___ patient's intellectual capabilities | ___ patient's personal or family support             |
| ___ patient's education level           | ___ patient's willingness to trust the physician     |
| ___ patient's level of motivation       | ___ patient's cultural-religious beliefs/preferences |
| ___ patient's financial resources       | ___ other (_____)                                    |

How accurate do you feel that your **original** assessment of important patient factors was?

- Very Accurate       Accurate       Somewhat Accurate       Not Accurate

6. Rank what you regard as the **THREE** most important **PHYSICIAN FACTORS** that determine success in establishing a good patient-physician relationship:

Again, place a "1", "2", and "3" next to your 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> choices:

- |  |                                     |
|--|-------------------------------------|
| ___ physician's medical knowledge base | ___ physician's listening skills    |
| ___ physician's experience base        | ___ physician's level of compassion |
| ___ physician's adaptability           | ___ physician's verbal skills       |
| ___ physician's knowledge of community | ___ other (_____)                   |

How accurate do you feel that your **original** assessment of important physician factors was?

- Very Accurate       Accurate       Somewhat Accurate       Not Accurate

7. Do you think that most employed people have good health care benefits?  Yes  No

8. Do you know the approximate percentage of working people who are uninsured?  Yes  No

9. Are you aware of programs that assist lower economic patients in obtaining health care coverage?  Yes  No

10. Do you wish to share any additional insights or comments?

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THANK YOU.