ABSTRACT

Objectives: Describe the population, Medicaid, uninsured, and otolaryngology practice demographics for seven representative rural southeastern states, and propose academic affiliated outreach clinics as a service to help meet the specialty care needs of an underserved rural population, based on the “medical mission” model employed in international outreach clinics.

Study Design: Needs assessment.

Methods: Review of medical licensing and practice location data from state medical licensing authorities, together with population, Medicaid, and uninsured data from state health/human services departments and the U.S. Census Bureau.

Results: Of the states examined, 38.74% of the population lives outside major state metropolitan areas, and 23.47% reside in a county in which there are no practicing otolaryngologists. These rural areas contain from 43.75% to 77.67% of the uninsured residents.

Conclusions: Borrowing design elements from the international outreach clinics which involve many US otolaryngologists, a similar “medical mission” model could be of benefit domestically. There are rural areas of the southeast where visiting outreach clinics could improve access to otolaryngology care, and facilitate effective use of existing “safety net” healthcare resources.

INTRODUCTION

The medical missions, wherein teams of physicians, nurses, and other personnel travel to developing nations to provide medical or surgical care unavailable to the local populace, can be a very romantic notion. Even more than that, the trips allow physicians to focus solely on treating patients. There are no RVUs or CPTs there. All this is likely true, to a varying extent, but the underlying motivation to participate in such medical missions has, and always will be, the deep-seated desire to treat those most in need.

We do not seek in any way to belittle the important contributions such mission trips can make to the developing world. However, within walking distance of many American hospitals lie people who are destitute, in need of care, and have nowhere to turn to receive it. These populations exist outside of major cities as well; the United States is a country where at least one person in five is a rural resident. Finding a physician to treat them, traveling to see the physician, leaving work and family, and paying for all of it, places a sometimes insurmountable burden on these patients. Is it possible, though, to harness these Schweitzer-esque ambitions in a domestic setting? Medical missions overseas can help alleviate some of these obstacles by bringing physicians to the people; could this model be employed domestically?

The majority of the published literature regarding subspecialty outreach clinics in industrialized countries such as the U.S., Great Britain, Australia, or Europe addresses such clinics as a way for urban or suburban physicians to increase revenue by attracting paying patients to their practices. Comparatively little has been written detailing domestic outreach clinics as a mechanism to address the health needs of the indigent. We sought to first characterize the patient and otolaryngology practice demographics in seven states in the American Southeast to identify potential geographic areas that could benefit from an outreach clinic based on a modified “medical mission” model.

METHODS

A needs assessment was conducted, together with an extensive literature review, with the goal of geographically describing, by county, the distribution of otolaryngologists and the patient demographics of each county. Specifically, total population, Medicaid population, uninsured population, and practicing otolaryngologist numbers for each county were collected, and comparisons were made between rural and urban counties. The U.S. Bureau of the Census, the Office of Management and Budget, and the Educational Research Service all use different definitions for “urban” and “rural,” each germane to the specific issues addressed by the respective organization. We sought to focus on differences in patient and practice demographics between major state metropolitan areas and outlying areas. Understanding that there are myriad implications and definitions for these two terms, for the purposes of this study, “urban” and “rural” have been defined by county as follows:

- **Urban**: Benton, Grant, Jefferson, Lonoke, Perry, Pulaski, Saline
- **Rural**: Remaining counties

**Arkansas – Urban**
- **Rural**: Remaining counties

**Kentucky – Urban**
- **Rural**: Remaining counties

**Louisiana – Urban**
- **Rural**: Remaining counties

**Mississippi – Urban**
- **Rural**: Remaining counties

**Oklahoma – Urban**
- **Rural**: Remaining counties

**West Virginia – Urban**
- **Rural**: Remaining counties

**Kentucky – Rural**
- **Urban**: Remaining counties

**Louisiana – Rural**
- **Urban**: Remaining counties

**Mississippi – Rural**
- **Urban**: Remaining counties

**Oklahoma – Rural**
- **Urban**: Remaining counties

**West Virginia – Rural**
- **Urban**: Remaining counties

**RESULTS

Comparisons of per capita rates of practicing otolaryngologists, Medicaid, and uninsured patients (using actual population numbers) were made between urban areas and rural areas for each state. Statistical significance was evaluated using the χ² test.

In all states examined there are significantly more practicing otolaryngologists per capita in urban areas compared to rural areas (P < 0.05), with the exception of West Virginia where there are more otolaryngologists per capita in urban areas, but the difference was not statistically significant (P = 0.33). Urban rates ranged from 1 ENT per 16,440 urban residents (MS) to 1 ENT per 29,545 (OK), while rural rates ranged from 1 ENT per 29,826 rural residents (LA) to 1 per 70,738 (OK). In the majority of the states examined, there were higher rates (expressed as a percentage of total county population) of both Medicaid recipients and uninsured patients in rural counties compared to their urban counterparts. Notable exceptions include Louisiana and West Virginia, where there are higher percentages of Medicaid patients in urban areas, and Kentucky and Tennessee, where there are higher percentages of uninsured patients in the urban areas (P < 0.05 for each comparison).

CONCLUSIONS

While the classic “mission” model may be that of surgical teams arriving in-country for a short time to operate, relying on existing facilities to provide preoperative and postoperative care, essentially inverting this model may be beneficial for the domestic rural poor. Providing a regularly scheduled clinic to see indigent rural patients would allow diagnosis and adequate workup of patients, which could also function as a preoperative and postoperative clinic for surgical patients. Maintaining a regular schedule of such clinics is important, as this would allow a relative consolidation of these patients’ care. Ancillary testing such as imaging studies could be carried out locally in conjunction with existing public or “safety net” hospitals, as CT scanners are widely available in rural settings. Audiologic evaluation could be undertaken at local facilities if they are available; alternatively, audiologists could be incorporated into the visiting clinic using an on-site quiet room for testing and commercially available active noise reduction headphones.

While there are many additional logistical details to be considered when contemplating establishment of such an outreach clinic, we sought to quantify in some way the potential need of this population of patients. Many academic otolaryngology departments and other community organizations already host periodic community clinic days, or even local mobile otolaryngology clinics, and expanding such efforts into a regularly scheduled clinic could further increase the availability of otolaryngology services to those in need.

REFERENCES