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LeeAnn C. Swager  
*Syracuse University*

Nancy R. Mudrick  
*Syracuse University*

Mary Lou Breslin  
*Disability Rights and Education Fund*

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# An assessment of the structural & equipment accessibility of primary care offices

LeeAnn Swager, M.S.W. & M.F.T. cand.

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## Background

People with disabilities encounter barriers to access when attempting to receive medical care at primary care offices. Common barriers include structural issues within office buildings, lack of transportation, financial need, and difficulty attending/maintaining focus during appointments [1-]. Persons with a disability who encounter a structural barrier are 2.5 times more likely to experience delayed or no medical care than persons without a disability who encounter the same structures [1-6]. The Centers for Medicaid and Medicare (CMS) have released a 2017 report highlighting further issues why [6].

Literature in the field of accessibility primarily includes data on patients' with disabilities experiences with attempting to receive medical care. There is no other dataset with national data on the accessibility of primary care offices, nor with as many observations. A previous iteration of this data has been used in Mudrick (2012) [7].

## Objectives

This analysis seeks to:

1. Identify and display the general level of accessibility among primary care offices through the use of scores, rankings, and percentages, and
2. Investigate factors correlating with high levels of exam room accessibility in these offices.

## Methods

Auditors from five managed health care plans in California evaluated 3991 primary care sites across 39 counties in California between 2014-2016. The sites were rated using an 86-item instrument that assessed parking, the exterior route, ramp access, the building entrance, the interior route, elevators, toilet rooms, and exam rooms (which includes medical equipment). The items were based on the 2010 ADA Standards for Accessible Design [8]. This data was analyzed using SPSS 24.

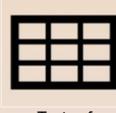
The items in the initial instrument were reduced to 44 in order to isolate questions that most universally address barriers to access (for example, the questions regarding elevators do not apply to single-story offices). These 44 were then reorganized into five subcategories: Parking (8 items), Building Entrance (9 items), Interior Route (11 items), Toilet Room (11 items), and Exam Room (5 items). The overall score of all these items is the Total score (44 items).

Sites were then ranked on a scale of 1-3 dependent upon their scores for each subcategory and the Total. A "1" indicates a low-scoring accessibility rating; "2" is medium-scoring; and "3" is considered high-scoring. Sites where 50% or less of the questions were answered affirmatively were considered "low"; 51-88% were considered "medium"; and above 89% were considered "high."

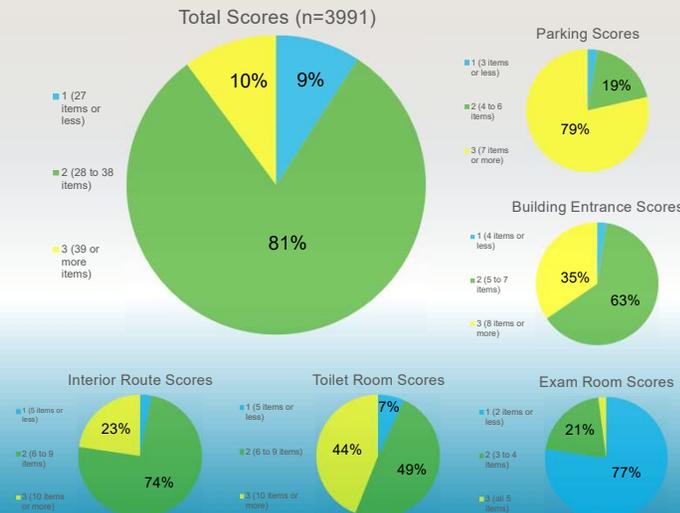
This data was then examined for those offices were ranked as "high-scoring" in the Exam Room subcategory for medical equipment to see what correlations existed within other categories and the Total.

A visual depiction of the methodology follows in the adjacent column.

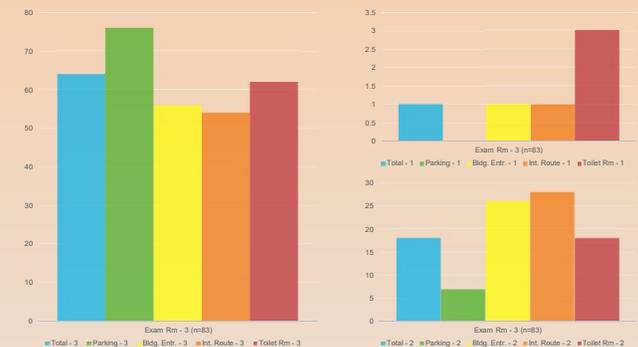
## Methods, cont.

<b>Step 1</b>  Data from 3991 primary care sites in California was acquired from five different health plans.	<b>Step 2</b>  This data was entered into SPSS, including each office's answer to the 86 items of the survey.	<b>Step 3</b>  Data was cleaned up to remove duplicate site IDs. The instrument was analyzed for proper usage.	<b>Step 4</b>  The 86 items were reduced to 44 items for the purposes of this experiment exclusively. (See handout.)
<b>Step 5</b>  These 44 items were then broken down into categories: Parking, Building Entrance, Interior Route, Toilet Room, and Exam Room.	<b>Step 6</b>  Each subcategory was analyzed and given a rank of accessibility from 1 to 3 (lowest-highest) based on the answers.	<b>Step 7</b>  Correlation data was examined for primary care offices with high scores in the "Exam Room" subcategory.	<b>Step 8</b>  Tests of significance were conducted, including Pearson's Chi-Square for association and Cramer's V for effect size.

## Results



## Results, cont.



- 10% of observations in the Total accessibility score met 88% or more of the total 44 items assessing accessibility. 9% met 62% or less; 81% met between 63-87%.
  - Of these observations, 79% met 88% or more of Parking; 35% met 88% or more of Building Entrance; 23% met 91% or more of Interior Route; 44% met 91% or more of Toilet Rooms; and 2% met 100% of Exam Rooms.
- Only 83 offices met all criteria for accessibility for Exam Rooms; of these offices, they more likely to be high-scoring across all 5 subcategories. No high-scoring exam rooms had low-scoring parking. All *p* values for these tables were 0.00, and Cramer's V values ranged from 0.067 (Parking) to 0.328 (Total score).

## Discussion

- Results show that primary care offices are overall meeting "most of," or between 63-87% of accessibility guidelines.
- Within this, it appears that major problematic areas for accessibility are Exam Room and Toilet Room scores. 77% of doctors' offices meet 2 or less of the criteria for accessibility in the exam rooms, 21% meet up to 4, and only 2% meet all criteria. Data is somewhat better for Toilet Rooms: 7% meet 5 criteria or less, 49% meet up to 9 criteria, and 44% meet at least 10 criteria.
- The 83 offices who meet all 5 criteria for Exam Room accessibility are overall \_\_\_\_\_ times more likely than other offices to be high-scoring in all other subcategories. Thus, it appears that medical offices that procure accessible medical equipment (such as height-adjustable exam tables, accessible scales, lifts, etc.) are overall more likely to be structurally accessible.

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