

# National Survey of Dermatology Resources at Safety-Net Hospitals

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# Background

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- Dermatologic disease is the most common health problem found in underserved populations
  - A frequent cause of hospitalization
- Safety-net hospitals provide significant amounts of dermatologic care to this patient population.
  - Significantly progressed dermatologic disease as compared to the general population<sup>1</sup>
- Low socioeconomic status, decreased educational status, and lack of access to health care all increase the risk for skin cancer<sup>2</sup>.

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2. Rodriguez, G.L., et al., *Predictors of skin cancer screening practice and attitudes in primary care*. J Am Acad Dermatol, 2007. **57**(5): p. 775-81.

- A national survey of resources at dermatology clinics in the VA hospital system revealed:
  - 80% of had part-time dermatologists, with an average of 3.0 part-time dermatologists per facility.
  - 38% had a full-time dermatologist on staff, with an average of 2 full-time dermatologists per facility.
  - 32% reported that volunteer dermatologists staffed their clinics, with an average of 6 per hospital
  - 12% reported a dermatopathologist on staff
  - 16% reported having a Mohs surgeon.
  - 72% of dermatologists thought that dermatology staffing was inadequate for the provision of optimal patient care.
  - The type of staff most lacking were physicians followed by clinical support staff

# AIM:

- ❖ To assess the resources of outpatient dermatology clinics associated with safety-net hospitals and identify gaps in clinic resources and the involvement of residents in providing care

# HYPOTHESIS:

- ❖ Specialty services such as Mohs Surgery are not frequently available in-house
- ❖ Patients face long wait times for appointments
- ❖ Residents serve to significantly increase the number of patients seen and help to reduce wait times

# Methods- Study Design

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- A cross-sectional survey was conducted to assess the current staffing and resources at outpatient dermatology clinics in safety-net hospitals affiliated with dermatology residency programs in the United States.
- REDCap was utilized for survey design and distribution
- 42-question surveys were sent via e-mail to the chiefs of the outpatient dermatology clinics of 50 safety-net hospitals.
  - Combination of multiple choice and entering numerical values

# Survey Content

1. Number of providers including attendings, residents, and midlevel providers
2. Number of staff including medical assistants and nurses
3. Availability of specialists- Moh's, Dermatopathology, Pediatrics
4. What is the financial source of attending salaries?
5. Total number of clinics and clinic rooms available
6. Services offered- phototherapy, patch testing
7. Are cosmetic services offered?
8. Clinic hours- how many total hours are services available to patients per week

9. How many patients seen per clinic and patients seen per provider
10. No-show rate for patient appointments
11. Average time till next available appointment
12. Average wait time per appointment
13. Patient commute time
14. Is a pharmacy located on the same campus as the dermatology clinic?
15. Is teledermatology used?
16. Interpreter services and use

# Methods-Inclusion Criteria

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- Definition of Safety-Net Hospital: Based on DSH patient percentage, top decile.
- DSH is disproportionate share hospital- adjustment made for uncompensated care provided by a hospital

$$DSH \text{ Patient Percentage} = \left( \frac{\text{Medicare Supplementary Security Income Days}}{\text{Total Medicare Days}} \right) + \left( \frac{\text{Medicaid, Non-Medicare Days}}{\text{Total Patient Days}} \right)$$

- Hospitals affiliated with residency programs were identified utilizing AAMC listings



# Statistical Analysis

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- Frequency and percentages were calculated for categorical variables
- Medians and interquartile ranges were calculated for continuous variables

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# Results

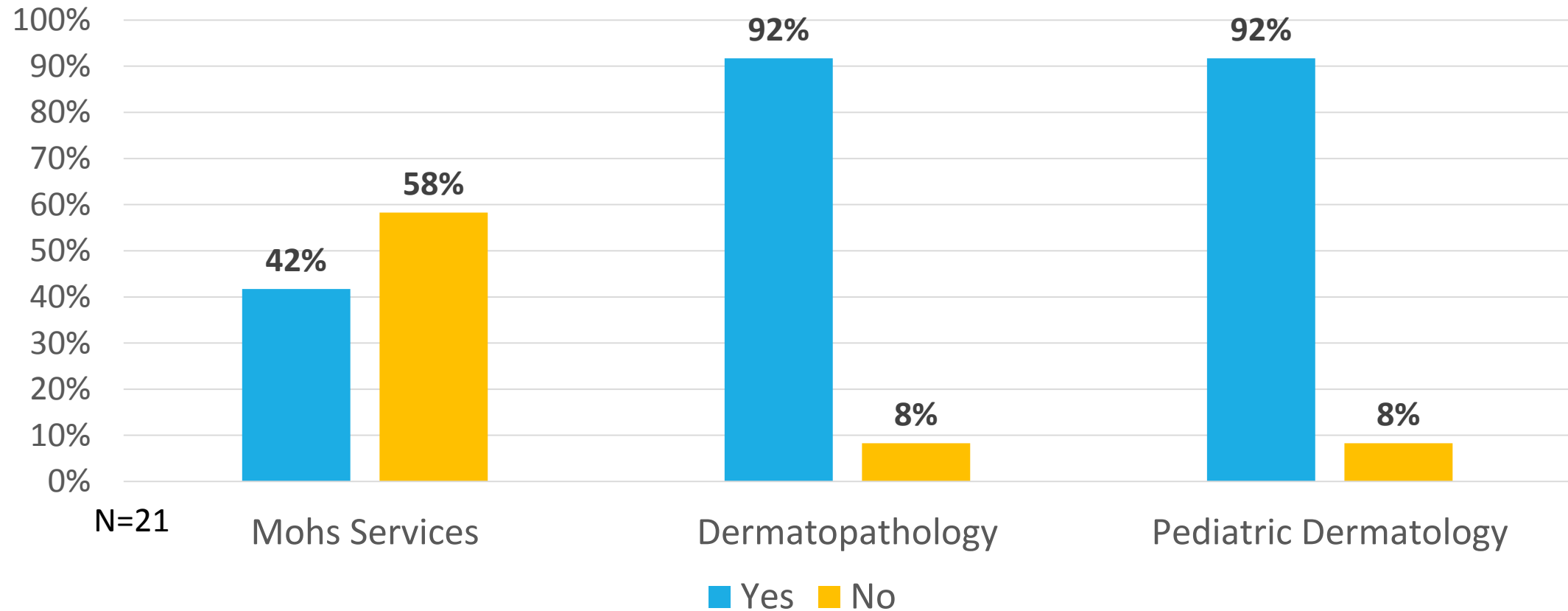


# Hospital Characteristics

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- Currently 24/50 safety-net hospitals have responded to the survey
- Location- 100% of responding hospitals were urban
- 16.7% West
- 12.5% Midwest
- 37.5% South
- 33.3% Northeast

# Specialist Services



# Staffing

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- **55% of safety-net hospitals utilize non-paid attendings** to staff the outpatient dermatology clinic
- Mid-level providers were **utilized by 50%** of hospitals

|  | <b>N</b> | <b>Median</b> | <b>Interquartile Range</b> |
|--|----------|---------------|----------------------------|
| <b>Attending physicians per half day clinic without residents</b>          | 11       | <b>2</b>      | 1.25 to 2.75               |
| <b>Patients seen by 1 attending in a half day clinic without residents</b> | 8        | <b>15</b>     | 9.7 to 23.75               |

|   | <b>N</b> | <b>Median</b> | <b>Interquartile Range</b> |
|---|----------|---------------|----------------------------|
| <b>Attending physicians per half day clinic with residents</b>  | 24       | <b>2</b>      | 1 to 2.25                  |
| <b>Patients seen in a half day clinic with residents</b>        | 22       | <b>22.5</b>   | 15.25 to 38.75             |
| <b>Number of residents per half day clinic</b>                  | 24       | <b>4</b>      | 3 to 5                     |
| <b>Number of patients seen by residents per half day clinic</b> | 23       | <b>8</b>      | 7 to 9.5                   |

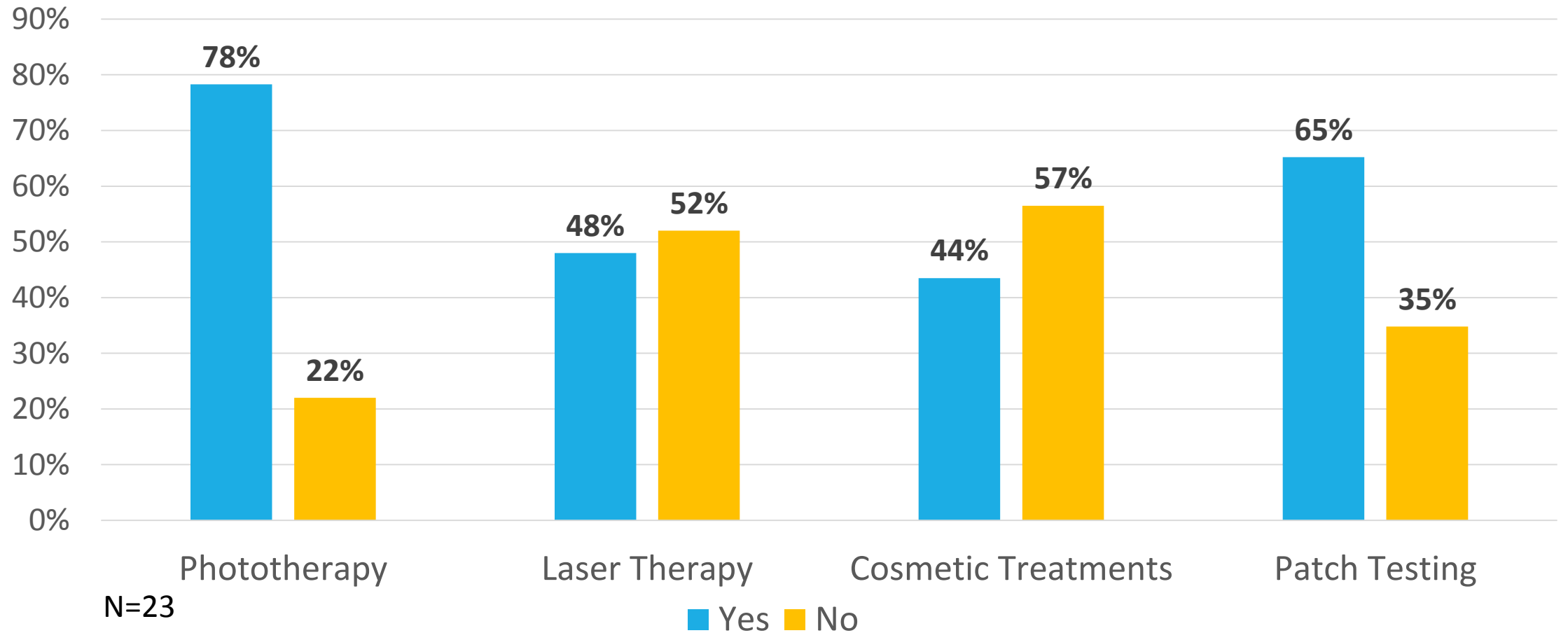
|   | <b>N</b> | <b>Median</b> | <b>Interquartile Range</b> |
|---|----------|---------------|----------------------------|
| <b>Number of mid-level providers per half day clinic</b>                  | 12       | <b>1</b>      | 0.75 to 1.25               |
| <b>Number of patients seen by mid-level providers per half day clinic</b> | 9        | <b>8</b>      | 6 to 12                    |

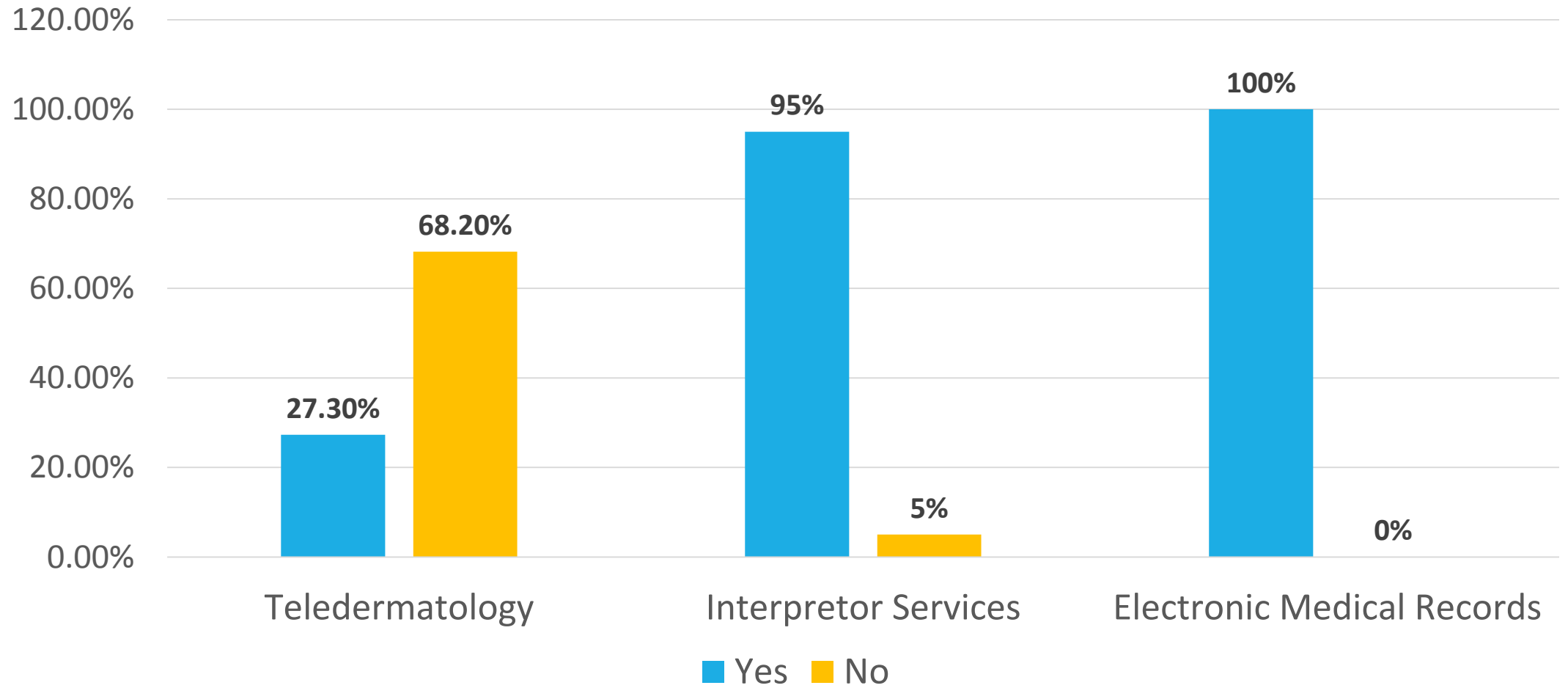


# Patient Statistics

|  | <b>N</b> | <b>Median</b>  | <b>Interquartile Range</b> |
|--|----------|----------------|----------------------------|
| <b>Number of patients scheduled per half day clinic</b>                | 19       | <b>50</b>      | 35.5 to 62.5               |
| <b>No-show percentage for patient appointments</b>                     | 22       | <b>30%</b>     | 26 to 34.25                |
| <b>Wait time till third next available appointment for new patient</b> | 19       | <b>60 days</b> | 32.5 to 90                 |
| <b>Wait time till third next available appointment for follow-up</b>   | 17       | <b>30 days</b> | 19 to 60                   |

# Clinic Services





N=23

# Conclusions

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- Residents care for a significant portion of patients at outpatient dermatology clinics at safety-net hospitals.
- The hospitals surveyed had a median of 4 residents per half day clinic
- Of the hospitals surveyed, almost all provide pediatric dermatology services and dermatopathology services, however most lacked Mohs surgery services.
- Half of the surveyed safety-net hospitals do not utilize mid-level providers.
  - 2014 report from AAD states that 46% of dermatologists hired at least one non-physician clinician for their practice.<sup>1</sup>
  - Residents see the same number of patients per half day clinic as a mid-level provider

1. <http://www.aad.org/dw/monthly/2015/august/what-care-are-non-physician-clinicians-providing>

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- Approximately 1/3 (30%) of patients do not show to outpatient dermatology clinic appointments
    - Compared to a University Hospital Dermatology Clinic- 17%<sup>2</sup>
    - Similar rate to non-attendance rates amongst patients with state-supported insurance- 26%<sup>2</sup>
  - The majority of safety-net hospitals provide phototherapy and patch testing services, while only half offer cosmetic and laser treatments.
  - 55% of safety-net hospitals reported having non-paid dermatologists as compared to 32% of Veterans Affairs hospitals<sup>1</sup>
  - 95% of safety-net hospitals reported having a dermatopathologist as compared to 12% at Veteran Affairs Hospitals<sup>1</sup>

1. Krause, L. Kendall, et al. "Benchmarking US Department of Veterans Affairs dermatologic services: Results from a national survey." *Journal of the American Academy of Dermatology* 66.3 (2012): e103-e107

2. Penneys, Neal S., and Dee Anna Glaser. "The incidence of cancellation and nonattendance at a dermatology clinic." *Journal of the American Academy of Dermatology* 40.5 (1999): 714-718..

# Areas of Improvement

- 1 in 3 patients do not show to appointments, and this is an area to be improved compared to university hospital clinics
- Wait times for dermatology appointments were 28.8 days in 2013 according to national survey data<sup>1</sup>
- Mean wait-times for a community dermatologist for the next available appointment was 38.2 days for self-pay patients.<sup>2</sup>The overall mean wait times for Medicaid patients seeking a dermatologist is 50 days<sup>3</sup>
- Only 1/4<sup>th</sup> (26%) of safety-net hospitals have teledermatology services, which can help extend dermatologic care to outlying primary care clinics
  - One study noted 77% of dermatology consults were managed with teledermatology alone<sup>4</sup>
- Mohs surgeons are available on-site at 40% of safety-net hospitals.
  - Underserved patients have a higher incidence of skin cancers due to increased sun exposure and/or limited access to dermatologic care.<sup>5</sup>

1. Merritt, Hawkins. "Physician appointment wait times and Medicaid and Medicare acceptance rates." *Merritt Hawkins & Associates: Dallas (TX)*(2014).

2. Tsang, Matthew W., and Jack S. Resneck. "Even patients with changing moles face long dermatology appointment wait-times: a study of simulated patient calls to dermatologists." *Journal of the American Academy of Dermatology* 55.1 (2006): 54-58.

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# Acknowledgements

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Benjamin Chong MD MSCS

Joerg Albrecht, MD

Erin Amerson, MD

Roy Colven, MD

Sylvia Hsu, MD

Toby Maurer, MD

Beth McLellan, MD

Miriam Pomeranz, MD

Rose Cannon

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Thank You

