

## INTRODUCTION

- Primary health care (PHC) workforce is not evenly distributed geographically.
- People with disabilities faces barriers like inadequate PHC training and resources.
- Down syndrome (DS), the leading genetic cause of developmental disability, necessitates extra measures such as annual evaluation of hypothyroidism.
- **We hypothesized preventive care for adults with DS in rural communities differ from those in urban communities.**

## Patient Demographics

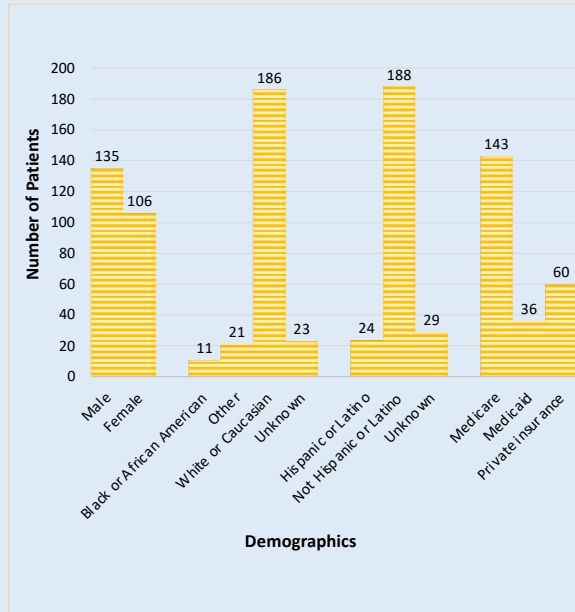


Figure 1. Total patient (n=242) demographics categorized by biological sex, race, ethnicity, and type of insurance.

## CONCLUSIONS

- Emergency department visits were more often utilized by rural patients than urban patients.
- Urgent care visits were more often utilized by urban populations than rural populations.
- Neither rural or urban Down syndrome patients received the standard of care for thyroid functions.
- Neither rural or urban Down syndrome patients received the standard of care for annual wellness visits.
- Urban patients tended to more often have private insurance, although not statistically significant.
- Limitations of this study include inability to verify a patient's change in residency within the timeline of the study and small rural sample size.

## Future Directions

- Overall lack of adherence to guidelines for adults with Down Syndrome have been identified for both rural and urban populations, yet the causes remain unknown.
- Conduct Focus Groups to gain the perspectives of caregivers for patients with Down syndrome.
- Survey rural and urban healthcare providers to assess access to care, knowledge of specific guidelines, and congruency of protocol between organizations.

## METHODS

### Patient Inclusion Criteria



### Patient Data Collected

- Patient Demographics
- Payer Type
- Well Adult Examinations
- Thyroid Function Test
- Emergency Room Visits
- Urgent Care Visits
- Urban or Rural Residency via Zip Code

### Statistical Analysts

- Statistical tests compared preventative care measures between urban and rural population using SPSS v.26.

## Preventative Care Measures

Measures (25 <sup>th</sup> -75 <sup>th</sup> percentiles)	Total (n=242)	Rural (n=29)	Urban (n=212)	p-value (≤ 0.05)
Number of Wellness checks	1 (0-2)	1 (0-2)	1 (0-2)	0.734
Number of ER visits	0 (0-3)	1 (0-6)	0 (0-2)	<b>0.010</b>
Numbers of UC visits	0 (0-1)	0 (0-1)	0 (0-1)	<b>0.025</b>
Number of unplanned visits (ER and UC combined)	1 (0-4)	2 (1-6)	1 (0-4)	0.216
Number of Thyroid Function Tests	2 (1-4)	4 (1-7)	2 (1-4)	0.068
Number of Total visits:	3 (1-6)	3 (2-8)	3 (1-6)	0.469
Proportion of Wellness Visits (%)	33.3 (0.0-83.3)	33.3 (11.3-50.0)	33.3 (0.0-84.5)	0.618
Proportion of UC visits (%)	0.0 (0.0-33.3)	0.0 (0.0-0.0)	0.0 (0.0-40.0)	<b>0.026</b>
Proportion of ER visits (%)	25.0 (0.0-71.4)	53.6 (12.5-88.7)	16.7 (0.0-66.7)	<b>0.014</b>
Proportion of unplanned visits (%)	66.7 (16.7-100.0)	66.7 (50.0-88.7)	66.7 (15.5-100.0)	0.618
Average time between 2 wellness visits (years)	1.2 (1.0-1.7)	1.2 (1.0-2.6)	1.2 (1.0-1.7)	0.462
Average time between 2 thyroid tests (days)	354.3 (241.8-476.2)	320.1 (265.5-394.3)	365.1 (227.3-515.3)	0.421

Table 2. Patient preventative care measures by type of residency. Numerical values in red indicate factors that are statistically significant between populations. Values were calculated using an Independent Samples Mann Whitney U Test.

## REFERENCES



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