

## **Covid-19 Video Visits Reduces Racial Barriers To Care: Sociodemographic Factors That Influence Access to Virtual Care**

Naomi Ganpo-Nkwenkwa

Kyle Shaak BS

Beth Careyva M.D.

Grant M. Greenberg M.D., M.H.S.A., M.A.

Follow this and additional works at: <https://scholarlyworks.lvhn.org/research-scholars-posters>



Part of the [Telemedicine Commons](#)

---

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact [LibraryServices@lvhn.org](mailto:LibraryServices@lvhn.org).

# Covid-19 video visits reduces racial barriers to care:

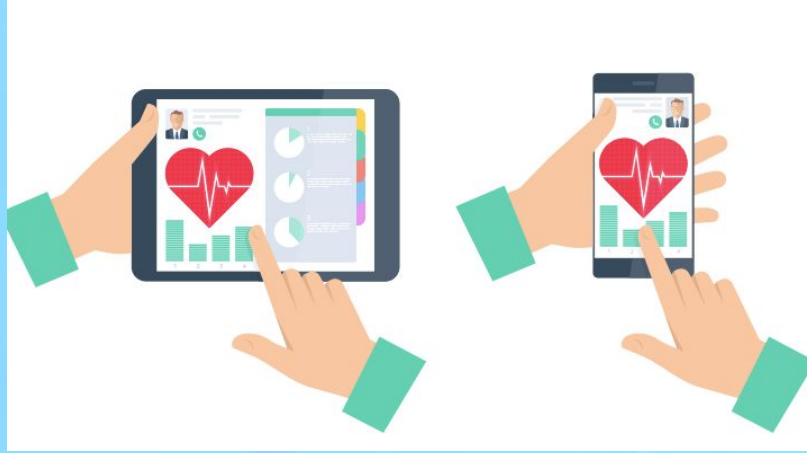
Sociodemographic factors that influence access to virtual care

**Research Scholar:** Naomi Ganpo-Nkwenkwa

**Mentors:** Kyle Shaak MPH, Dr. Beth Careyva M.D and Dr. Grant Greenberg M.D,  
MA, MHSA, FAAFP



# Background/Introduction



<https://www.healthcareitnews.com/blog/beyond-telehealth-virtual-care-technology-trends-will-transform-healthcare>

- The traditional healthcare delivery was mostly shifted to telehealth, due to COVID-19.
  - The transition to virtual health has played different roles in the 'world of medicine'
- Must address the role it has played on the underrepresented patients' access to family medicine care.
  - To make sure that this implementation won't be further exacerbating the gap in health care disparities.
- This will allow a possibility to provide a base on how to make family medicine more accessible, convenient and equitable for everyone.



# Purpose

- To evaluate whether there are any unintended consequences or advantages by employing digitized health care based on patients' sociodemographic factors.



<https://patientengagementhit.com/news/patient-access-to-affordable-care-crucial-to-future-health-equity>



# Make It Happen

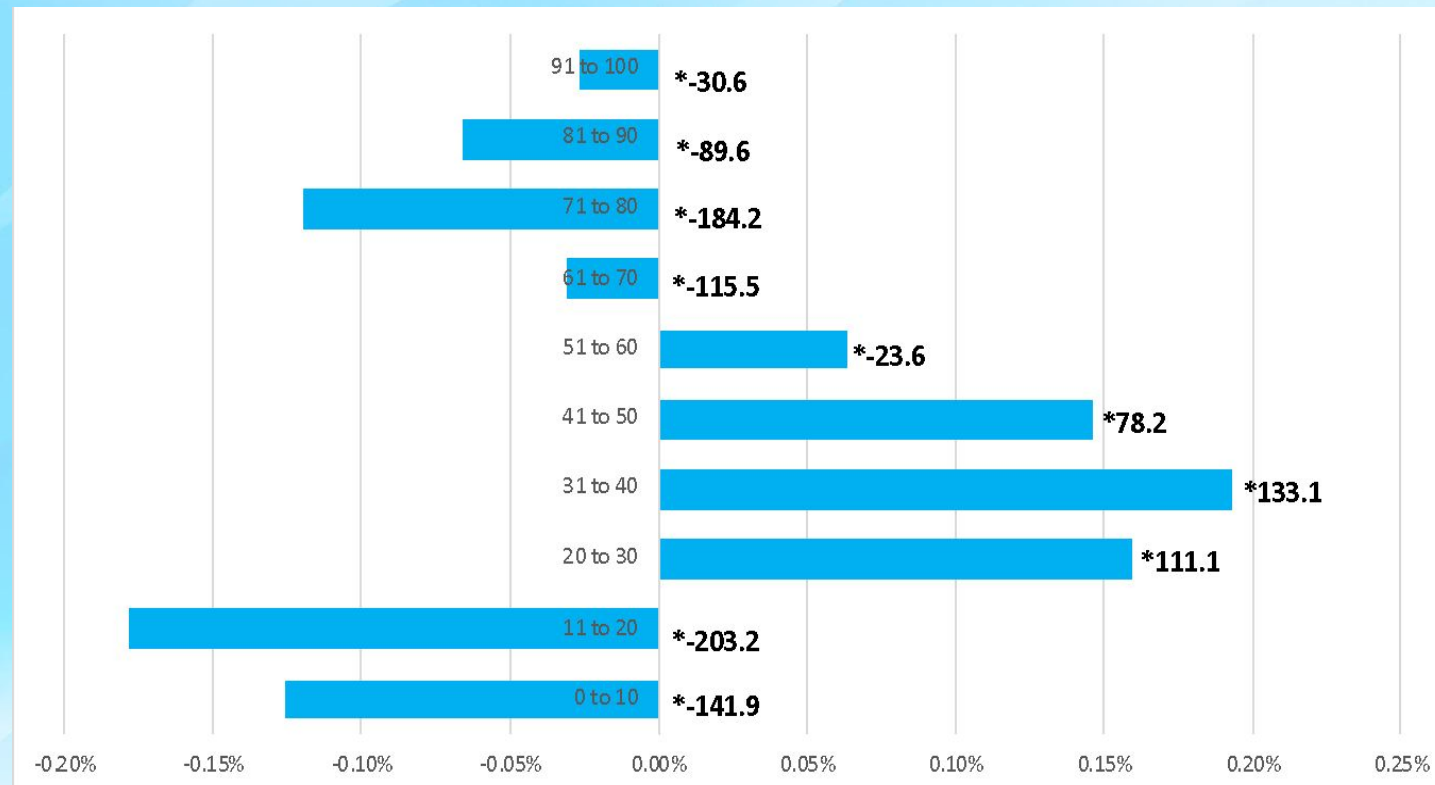
## Methods

- Descriptive study
- Acquired medical records from EPIC EMR, and analyzed on Excel looking at demographic differences;
  - race, ethnicity, sex and age
- Data was from March 11<sup>th</sup> to June 30<sup>th</sup>, in both the year periods of 2019 and 2020
  - A total of 10340 visits in 2020 and 97365 visits in 2019



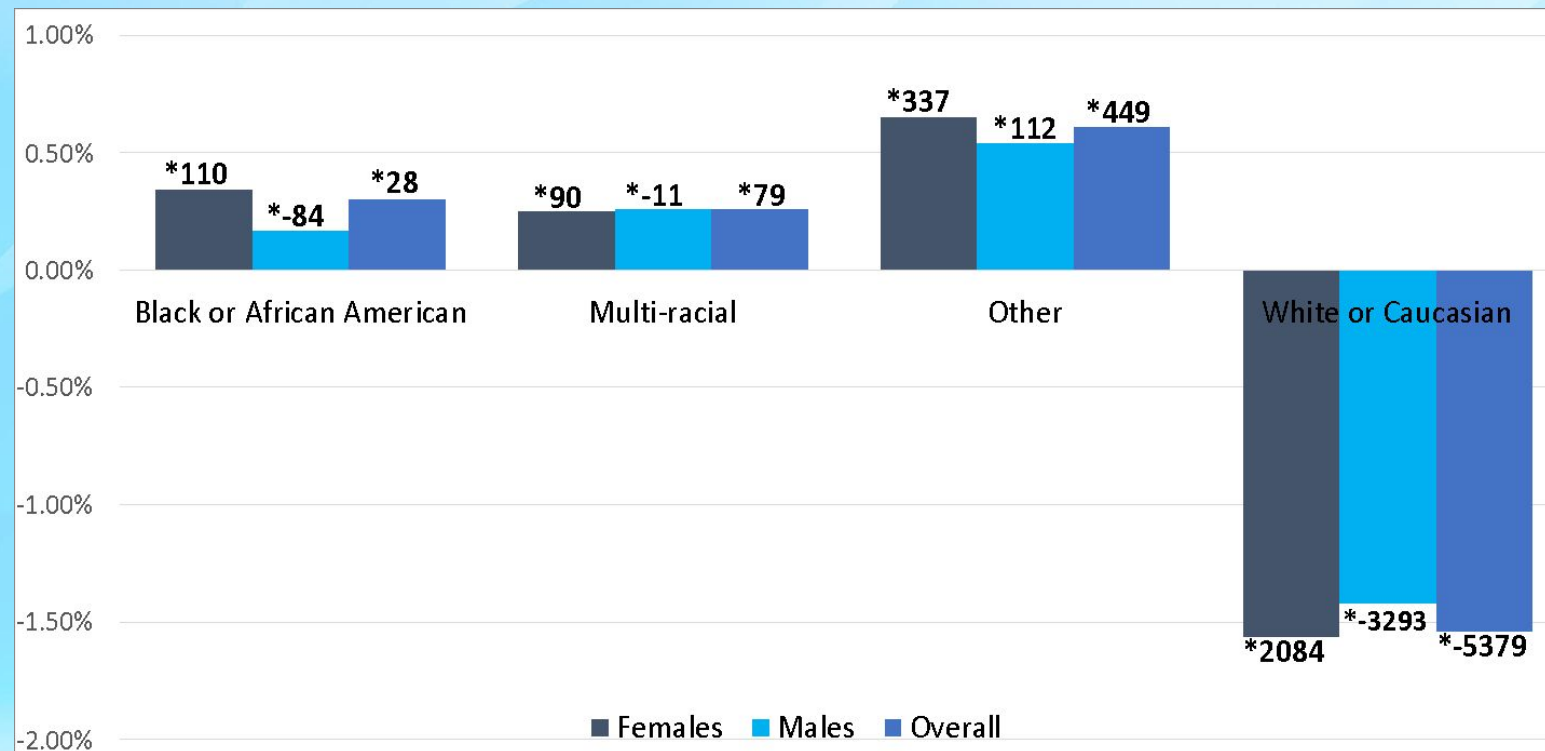
# Results

Figure 1. Comparison of the average difference in percentage of visits based on age range and prominent race for a 3-month period (March–June) in 2020 vs. 2019.



# Results

Figure 2. Comparison of the difference of percentage of visits based on sex and race for a 3-month period (March-June) in 2020 vs. 2019.



# Results

**Table 1. Comparison of the difference of percentage and net n values of visits based on ethnicity (specifically Hispanics or Latinos) for a 3-month period (March-June) in 2020 vs. 2019.**

	Females		Males		Overall	
	% difference	net n	% difference	net n	% difference	net n
Hispanic or Latino	1.52%	711	157	1.26%	868	1.45%
Not Hispanic or Latino	-1.85%	-2310	-3546	-1.78%	-5856	-1.85%





# Conclusion

- Adding virtual care opened up access for a cohort of patients that were unexpectedly limited in access previously.
  - Patients aged 20-60 had a net increase in visits compared to baseline.
    - Inversely, pediatric patients (<20 years of age) and geriatric patients (>60) experienced a net decrease in visits compared to baseline.
  - Some minority population groups had an increase in visits while Caucasian, experienced a decrease.
- Virtual care has shown a beneficial impact on bridging barriers, making health care more accessible.



# FUTURE DIRECTIONS

- Can the decrease in pediatrics and geriatrics visits be wholly attributed to the intentional deferral of wellness visits?
- Further investigate the role that socioeconomic status plays on the access of telemedicine, using zip code details.
- Conduct formal statistical analysis to evaluate if the magnitude of the changes observed are non-random.
- Replicate this study on a broader scale to see if the results are generalizable on a regional or possibly even a national level



# COVID-19 VIDEO VISITS REDUCES RACIAL BARRIER TO CARE

## Sociodemographic factors that influence access to virtual care

Naomi Ganpo-Nkwenkwa, Kyle Shaak MPH, Dr. Beth Careyva, Dr. Grant Greenberg M.D, MA, MHSA, FAAFP

### INTRODUCTION

During this COVID-19 pandemic, the traditional healthcare delivery was mostly shifted to telehealth. Telehealth encompasses the provision of health services through a variety of information and communication technologies, which can be synchronous or asynchronous. This rapid transition to virtual health has played different roles in the "world of medicine", while it has many benefits it also has its disadvantages. So, all of these changes should be assessed as it is important to address the role and impact it has played on the underrepresented patients' access to family medicine care. Before moving forward with a long-term plan of telehealth, we want to make sure that this implementation won't be further exacerbating the gap in health care disparities. Investigating the role of the rapid adaptation of virtual models of care has a possibility to provide a base on how to make family medicine more accessible, convenient and equitable for everyone.

### PURPOSE

The primary goal of the study is to evaluate whether there are any unintended consequences or advantages by employing digitized health care based on patients sociodemographic factors.

### METHODS

#### Research Methodology

Hypothesis-generating/descriptive study, in which we acquired medical records from all LVPG family encounters on EPIC EMR, and analyzed them on Microsoft Excel. It was used to compare frequency and rates of visits by demographic variables and determine descriptive statistics, specifically looking at demographic differences in race, ethnicity, age and sex. Data ranged from March 11<sup>th</sup> to June 30<sup>th</sup>, in both the year periods of 2019 and 2020

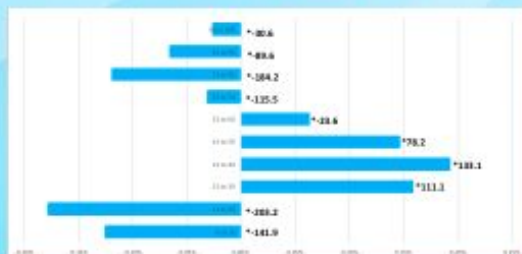
#### Participants

A total of 10340 visits in 2020 and 97365 visits in 2019, based on the Lehigh Valley Health Network, in the department of family medicine.

### RESULTS

(\* represents the absolute n value for the difference in visit)

Figure 1. Comparison of the average difference in percentage of visits based on age range and prominent race for a 3-month period (March-June) in 2020 vs. 2019.



There was an increase in the percentage and net n value for the frequency of visits for the ages ranging from 21 to 60 overall, the same pattern is observed when looking at the larger populations of racial minorities and ethnicity.

Figure 2. Comparison of the difference of percentage of visits based on sex and race for a 3-month period (March-June) in 2020 vs. 2019.



There was an increase in the percentage and net n value for the frequency of visits for the ages ranging from 21 to 60 overall, the same pattern is observed when looking at the larger populations of racial minorities and ethnicity.

Table 3. Comparison of the difference of percentage and net n values of visits based on ethnicity (specifically Hispanics or Latinos) for a 3-month period (March-June) in 2020 vs. 2019.

	Females		Males		Overall	
	% difference	net n	% difference	net n	% difference	net n
Hispanic or Latino	-1.53%	711	1.26%	157	-1.45%	968
Not Hispanic or Latino	-1.85%	-2310	-1.78%	-2540	-1.83%	-5854

There was a positive percentage and a net increase for the difference in visits for Hispanics and Latinos patients, inversely the non-Hispanics and Latinos showed a decrease in those categories.

### CONCLUSIONS

In conclusion, adding virtual care opened up access for a cohort of patients that were unexpectedly limited in access previously. Patients aged 20-60, inclusive of race, ethnicity, and gender, had a net increase in visits compared to baseline. Inversely, pediatric patients (<20 years of age) and geriatric patients (>60) experienced a net decrease in visits compared to baseline. A component of the decreased visits in these age cohorts, however, was likely due to the fact that during the pandemic, they were directed to hold off on the annual wellness/preventive care visits. Some minority population groups (African Americans, Hispanic or Latinos), had an increase in visits while Caucasian, experienced a decrease. Overall, by enabling virtual care, access improved in a population demographic previously assumed to have existing high access; younger working population and a demographic which we knew had lower access; minorities. Health care inequity has created barriers to access to care. Virtual care which was enabled during covid-19 has shown a beneficial impact on bridging barriers, making health care more accessible to minorities and the young, working population.

### FUTURE DIRECTIONS

- Can the decrease in pediatrics and geriatrics visits be wholly attributed to the intentional deferral of wellness visits?
  - Re-evaluate the data by first removing all preventive visit exam types to evaluate if the decrease of visits in cohorts still holds.
- Further investigate the role that socioeconomic status plays on the access of telemedicine, using zip code details.
- Conduct formal statistical analysis to evaluate if the magnitude of the changes observed are non-random.
- Replicate this study on a broader scale to see if the results are generalizable on a regional or possibly even a national level

### REFERENCES

Chen, J., & Xia, Z. (2019). Telemedicine in China: Opportunities and challenges. *Telehealth in the Developing World*, 212-221. doi:10.1201/9781315272917\_21

Collins, S. R., & Gurja, M. Z. (2019, September 26). What Do Americans Think About Their Health Coverage Ahead of the 2020 Election? Retrieved July 17, 2020, from <https://www.commonwealthfund.org/publications/issue-briefs/2019/sep/what-do-americans-think-health-coverage-2020-election>

Eiman, B., Thulesius, H., Wilkens, J., Lindgren, A., Gronberg, O., & Arvidsson, E. (2019). Utilization of digital primary care in Sweden: Descriptive analysis of claims data on demographics, socioeconomic, and diagnoses. *International Journal of Medical Informatics*, 127, 134-140. doi:10.1016/j.ijmedinf.2019.04.016

Reed, M. E., Huang, J., Graetz, J., Lee, C., Muelly, E., Kennedy, C., & Kim, E. (2020). Patient Characteristics Associated With Choosing a Telemedicine Visit vs Office Visit With the Same Primary Care Clinicians. *JAMA Network Open*, 3(6). doi:10.1001/jamanetworkopen.2020.5873

Wasik, J., Fudim, M., Cameron, B., Gillad, Z. F., Cho, A., Phrenzy, D., ... Tchong, J. (2020). Telehealth transformation: COVID-19 and the rise of virtual care. *Journal of the American Medical Association*, 323(16), 1557-1562. doi:10.1093/jama/ocaa067

# Questions?

Contact Information:

**Naomi Ganpo-Nkwenkwa**

Research Scholar

[Naomi.Ganpo-Nkwenkwa@lvhn.org](mailto:Naomi.Ganpo-Nkwenkwa@lvhn.org)

