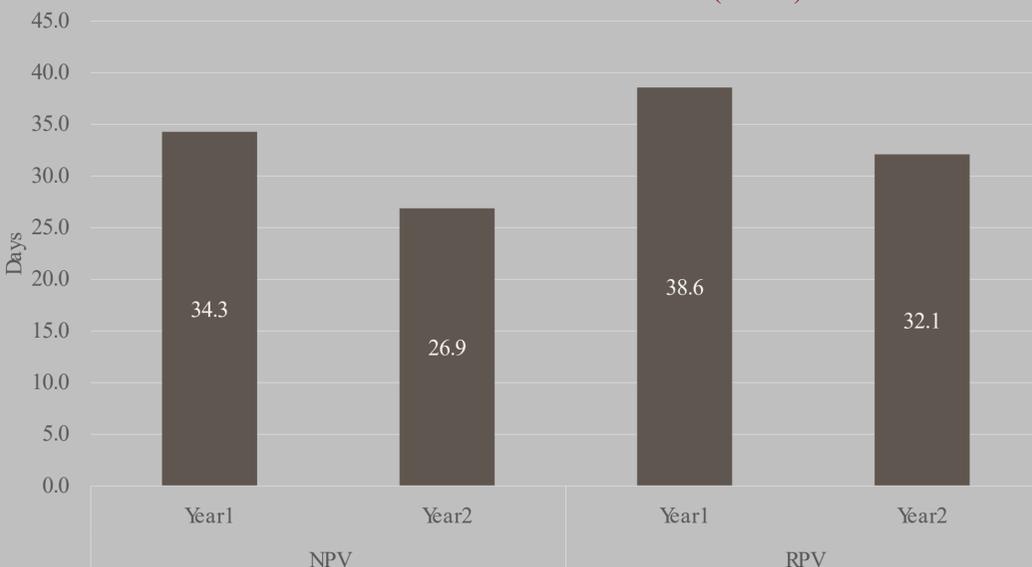


# Telenutrition: Enhanced Use of Remote Services Before and During COVID-19

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Average Days between Schedule to Appointment Pre-COVID (Year 1) and COVID/Telenutrition Intervention (Year 2)



Comparison of Pre-COVID vs. COVID Telenutrition Intervention on Patient Volume and Access

	Pre-COVID (Year 1)	COVID/Telenutrition (Year 2)	Percent Difference
Number of Visits	7161	9802	36.9%
Number of Patients	4317	5314	23.1%
Average Number of Visits/Patient	1.66	1.84	11.2%
Number of New Patient Visits	3673	4424	20.4%
Number of Return Patient Visits	3488	5378	54.2%
Number of Providers	19	24	26.3%
Average Number of Visits/Provider	377	408	8.4%

Year 1 = March 1, 2019 – February 29, 2020  
Year 2 = March 1, 2020 – February 28, 2021  
NPV=New Patient Visit  
RPV=Return Patient Visit

## Learning Objectives

1. Explain the patient utilization outcomes of telenutrition services during Stanford Health Care's COVID-19 pandemic response.
2. Describe strategies used for deploying telenutrition services.

## Outcomes and Impact

Between March 2019 - February 2020, 7,161 in-person and telephone visits were completed and between March 2020 - February 2021, 9,802 in-person and telenutrition (telephone and video) visits were completed, an increase of 36.9%. In June 2020, telenutrition visits peaked to 100% of all nutrition visits delivered and remained at or above 98% of all nutrition visits through February 2021. The average number of visits per patient increased from 1.66 to 1.84 (a 11.2% increase), an indication of improved access, patient satisfaction and quality care. Other findings that indicate expanded access is the number of return patient visits increased by 54.2% and new patient visits increased by 20.4%. We then analyzed patient sociodemographic characteristics. It was found there was no appreciable change in the representation of the following vulnerable populations: elderly, racial and ethnic minorities, limited English proficiency speakers and Medicaid recipients. In fact, there was a slight increase in patients identifying as Black and Hispanic and Medicaid recipients. Lastly, we analyzed telenutrition's impact to timeliness of care and found that average days from scheduled to appointment decreased by 6.6 days. This means that patients were able to see a RDN about one week earlier due to telenutrition availability.

## Reference

Shah, N.D., Krupinski, E.A., Bernard, J. and Moyer, MF. (2021). The evolution and utilization of telehealth in ambulatory nutrition practice. *Nutrition in Clinical Practice*, 36: 739-749. <https://doi.org/10.1002/ncp.10641>

## Background

Medical nutrition therapy (MNT) services delivered by Registered Dietitian Nutritionists (RDNs) is an important component to quality health care delivery and outcomes for patients with chronic and acute diseases and conditions. At Stanford Health Care (SHC), RDNs provide MNT services in the inpatient and ambulatory settings. Ambulatory SHC RDNs care for patients across primary care and most medical specialties including solid organ transplant, oncology, cardiology, gastroenterology, and endocrinology. Patient encounters with RDNs are mostly "hands-off" interactions consisting of verbal conversations between the patient and/or caregiver and the RDN. It has therefore been surmised that remote-based synchronous visits using telehealth technologies is an ideal use case for MNT, here named "telenutrition". The COVID-19 pandemic, combined with Stanford Health Care's readiness to deploy and support video and telephone encounters for patients and clinicians, allowed for the unique ability to study the uptake of telenutrition services, impact to timeliness of care and the demographic characteristics of those who accessed telenutrition services.

## Discussion

This project assessed the utilization and access impacts that telenutrition have on patient populations seeking medical nutrition therapy services at SHC. Data analysis show that access to MNT increased through the use of video and telephone-based telenutrition services. New and established patients were able to see their RDN sooner and RDNs were able to see more patients overall. These data show that telenutrition services can augment existing staff and enhance access to medical nutrition therapy services. Telenutrition-based care delivery should be considered within organizations to supplement multidisciplinary care while striving for improved patient outcomes.

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## Intervention & Methods

Prior to the COVID-19 pandemic, SHC's Digital Health Care Integration team implemented telehealth visits across our organization. Patients have video visit access to their care teams through Stanford's patient portal, MyHealth. Prior to the pandemic, SHC's RDNs were participating in telephone-based visits with patients and leadership was exploring implementing telenutrition video visits. The public health emergency and telehealth waivers removed much of the uncertainties centered on billing and reimbursement for telenutrition. In March 2020, telenutrition (telephone and video visits) was deployed in all SHC ambulatory areas in which an RDN was engaged in patient care. Using raw data pulled from SHC's Virtual Health dashboard, data analysis was conducted to assess changes to care utilization, access and patient characteristics between March 2019 and February 2020 (pre-pandemic) and March 2020 to February 2021 (during pandemic). Our data analysis sought to answer the following questions:

- How did nutrition visit volumes and utilization change?
- How has the nutrition patient population changed?
- Did telenutrition utilization vary across sociodemographic characteristics?
- Did telenutrition change access to timely care?

## Patient / RDN Story



A 5-week-old pregnant patient with Type 1 diabetes was struggling with very high blood glucose levels and was hospitalized with diabetic ketoacidosis. The patient was referred to Stanford Endocrinology despite living 6+ hours away. The patient was able to receive care from her care team via video visits with her MD, RDN and diabetes educator. The patient was able to control her blood glucose levels and delivered a healthy baby. The patient expressed that she could not have gotten the care she needed without telenutrition with her RDN and video visits with her care team.

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