ORIGINAL PAPER

An Outreach Phone Call Project: Using Home Health to Reach Isolated Community Dwelling Adults During the COVID 19 Lockdown

Sarah Miner[1] · Lora Masci[2] · Chris Chimenti[3] · Nary Rin[3] · Adrianne Mann[3] · Brigid Noonan[4]

Abstract

Home health care (HHC) focuses on delivering skilled health care services to patients in their homes. Over 82% of HHC patients are 65 and older, and living with chronic health conditions. In an effort to respond to the risk the COVID-19 pandemic presented for patients, a HHC agency designed "The Outreach Phone Call Project". This program was developed to provide telephone support to at-risk patients who had received HHC prior to the COVID-19 lockdown. In total, 16 Care Transition Managers participated in the project and over 4,000 patients received a call from the clinical team. Approximately 44% of the calls did not require any further follow up, 20% of the patients did not answer the call, and 3% of patients were referred back to HHC. Another 13% needed education and assistance with social issues. The calls provided a means of safe connection and support between providers and patients during the pandemic and facilitated access to health and social resources. However, the most beneficial aspect of the program was the opportunity for seasoned HHC nurses to identify clinical changes in the health of patients and to assist them in the triage process. Results of this study demonstrate that the implementation of a calling project during the pandemic shutdown provided invaluable connection and outreach to vulnerable populations. This simple change in practice enabled HHC professionals to reach patients who were isolated and in need of education and assistance. As a result of the implementation of an "Outreach Phone Call Project", the HHC agency learned many lessons which may be helpful to others who would like to create a similar program in the future. It facilitated clinical assessment, education and intervention for isolated patients during the COVID 19 pandemic and implementation of similar practice should be considered in the post-pandemic world.

Keywords Home care · COVID-19 · Chronic health problems · Tele-health care · Social and health services determinants of health

✉ Chris Chimenti
cchimenti@hcrhealth.com

Sarah Miner
sminer@sjfc.edu

Lora Masci
lora.masci@gmail.com

Nary Rin
nrin@hcrhealth.com

Adrianne Mann
amann@hcrhealth.com

Brigid Noonan
noonanb@trinitydc.edu

[1] Wegmans School of Nursing, St. John Fisher College, 3690 East Avenue, Rochester, NY 14618, USA

[2] Graham Plastic Surgery, 6536 Anthony Drive, Suite C, Victor, NY 14564, USA

[3] HCR Home Care, 85 Metro Park, Rochester, NY 14623, USA

[4] School of Nursing and Health Professions, Trinity Washington University, 125 Michigan Avenue, Washington, DC 20017, USA

Introduction

Home health focuses on delivering skilled health care services to patients in their homes. There are over 12,000 certified home health agencies in the US that care for over 3.4 million patients [1]. In order to qualify for home care service patients must be under the care of a physician, possess a need for skilled care, and be considered homebound [2]. Over 82% of home health patients are aged 65 and older, and the large majority of home health patients access these services because they are living with chronic health conditions. According to the Centers for Disease Control (CDC) a staggering 89% of home health patients have a diagnosis of high blood pressure, 45% have diabetes, 32% have COPD and 24% have asthma [3]. This does not account for the number of patients who may be living with more than one of these conditions at the same time. What this profile demonstrates is not only that home health services are aimed at caring for some of our most vulnerable patients, but that this population is also among those at highest risk for contracting Coronavirus Disease (COVID 19) and the negative outcomes associated with this diagnosis.

The COVID-19 pandemic arrived in the US early Spring of 2020. The US and upstate New York confronted this new, frightening reality and the consequences of virus transmission, as well as the measures taken to battle the ensuing situation in healthcare. On Sunday, March 22, 2020 Governor Cuomo announced the "New York State on PAUSE" executive order [4]. Aspects of this 10-point plan included the closing of all non-essential businesses and cancellation of all non-essential gatherings. Individuals with illnesses were instructed not to leave their homes to receive medical care unless deemed absolutely necessary and as a result, many patients did not attend regularly scheduled health care appointments [5]. Nearly all health systems were halted and forced to reevaluate how to deliver health care services in a way that was safe for patients and providers. Priority of resources and services were directed to the pandemic, and other health care delivery systems were forced to close or postpone services. Many people, for reasons of fear and/or safety, were encouraged or chose to stop seeking healthcare services at this time because of the pandemic and the healthcare response to it [6]. Across the board, health care visits declined, and primary care visits specifically declined between 21% and 35% compared to 2018 and 2019.

Given their experience with high risk and fragile patient populations, home health providers understood that this widespread reporting of medical care avoidance would likely put vulnerable individuals' safety and health at risk. In particular, providers recognized that many of the vulnerable populations they served had little access to technology, and many people's health needs would be left untreated, resulting in potentially irreversible declines in health. In an effort to respond to this risk, the agency designed an outreach program dedicated to checking in on previous home health patients based on a very simple premise: giving them a phone call. The Outreach Phone Call Project was developed to provide outreach support to at-risk patient populations who had received home care services prior to the COVID-19 lockdown. The purpose of this article is to describe the Outreach Phone Call Project implemented by a home care agency in the Spring of 2020.

Project Design

Unlike many other health care systems, home healthcare did not shut down during the pandemic. HCR Home Care is a home care agency based in New York State and serves 25 Upstate counties. During the time period of the program, the agency employed 16 hospital-based Care Transition Managers across the state. Care Transition Managers (CTMs) are clinical referral specialists who work as liaisons in the hospital setting to assist patients and hospital discharge planning teams to deliver a seamless transition from the hospital to home after an inpatient stay. During the pandemic, hospitals were closed to all outside visitors and liaisons. However, CTMs continued to work remotely to assist patients in their transition from discharge to the home environment.

When fewer patients presented to hospitals and avoided seeking medical care, it became clear to the CTMs that patient needs were likely left untreated and potentially irreversible declines in health could result over time. The home health agency understood their patients were not only at high risk because of COVID, but also because of the many underlying chronic health issues that often requiring regular health care visits and attention that could not be accessed during the shutdown. This was worrisome not only for the patients they currently served, but for previous patients who no longer had home health services and were left more isolated and at risk because of the ongoing pandemic.

Using an electronic medical record (EMR) admissions report, the agency identified who among their previous patients would be most at risk for negative health and social outcomes as a result of the COVID shut down. CTMs were assigned a list of patients to call, and when possible, the CTM was assigned patients who were known to them from their previous home health episode. The purpose of the calls was to connect with the person, determine if they required help, and align them with needed resources when applicable. Calls were conducted in English or Spanish depending upon the native language.

Before starting the phone calls, CTMs were provided sensitivity and telephone calling training by an outreach specialist employed by the home care agency. The training consisted of how to initiate the conversation, empathic listening, probing with open ended questions, and internal processes to document the call outcome. Each CTM was also equipped with a recommended script to use as a guide during the call.

Prior to placing a call to a previous patient, the CTM accessed the patient's most recent home health episode, reviewed previous care coordination notes, and gained an understanding of the previous treatment plans, diagnoses, and demographics. The CTM called the patient's primary contact telephone number or that of an approved patient care representative. Each call began with the same opening purpose, to reach out to previous patients to ask how they were coping with the quarantine. The goal of each call was to have an opportunity to listen to the patient to identify signs of stress and isolation, skilled needs related to health conditions, or other opportunities to intervene related to their well-being. The final step within the call was to thank the patient for their time and ensure they knew how to access resources if needed.

Data Collection and Analysis

The Outreach Phone Call Project took place between April and July 2020. In order to track the outcomes of the project, the project team created a database and all CTMs entered information on the process. Data included the name of the person being contacted, background demographics, prior primary medical diagnosis, and the patient response to the phone encounter. Only the primary medical diagnosis was collected, so the demographics do not account for patients with comorbidities (See Table 1). Initial outcomes of the phone call were entered free hand by the CTM, but then converted into categories for better data entry and tracking (See Table 2).

To protect patient privacy the database was de-identified. The purpose of the analysis was to describe the project and explore outcomes of the phone calls. All data were analyzed using descriptive statistics. During performance review of the project at the home care agency, the CTMs who participated were asked to share information on what they believed were the most important outcomes and aspects of the Outreach Phone Call Project. This information was also made available and is included. Approval for the study was obtained by a local university IRB.

Table 1 Demographics of phone call recipients (n = 4,057)

	n =	%
Region of Residence		
Central New York	1118	27.6
North Country	1673	41.2
Finger Lakes	1266	31.2
Gender		
Male	1703	42.0
Female	2354	58.0
Primary Language		
English	3343	82.5
Spanish	129	3.2
Nepali	18	<1
Russian	7	<1
Polish	2	<1
American Sign Language	1	<1
Somali	2	<1
Chinese	1	<1
Vietnamese	2	<1
Unknown/Other	552	14
Primary Medical Diagnosis		
Abnormal Clinical/Laboratory Findings/Factors that Influence Health Status	936	23.1
Circulatory	777	19.2
Respiratory	402	9.9
Injury/Poisoning	460	11.3
Musculoskeletal	264	6.5
Nervous System	223	5.5
Endocrine, Nutritional, Metabolic	219	5.4
Neoplasm	171	4.2
Skin & Subcutaneous	155	3.8
Genitourinary	122	3.0
Infectious Disease	116	2.9
Digestive	114	2.8
Mental/Behavioral Health	53	1.3
Other	45	1.1

Results

In total, 16 CTM's participated in the project. Fourteen of the CTMs were registered nurses, one of whom was bilingual (English/Spanish), and two were trained home care referral specialists. Over the 4-month period of project implementation, 4,057 patients were identified as being vulnerable and received a call from the CTM team. The average age of the patients was 71 years old. Demographic descriptions of the calls are available in Table 1 and outcomes from the call project are described in Table 2. The average age of the patients called in this program was 71, and the median was 73. Although most calls were conducted in English, it is important to highlight that CTMs conducted calls with

Table 2 Outcomes of Phone Call Outreach (n = 4,057)

Outcomes	n =	%
No Answer/No Voicemail	826	20
Declined assistance (No current health/social needs)	1780	44
Declined assistance due to COVID (Did not want anyone visiting home during the pandemic)	23	1
Moved out of service area	75	2
Moved to assisted living or long term care	188	5
New Referral to Home health	126	3
Active Patient (already receiving home care services)	271	7
Future Referral (Possible need for home care services in the future)	85	2
Referral for social needs/services and/or other services	542	13
Expired	141	3
Total =	4057	

patients from 8 other language groups. Because of the way that data was initially captured for the project, tracking of race and ethnicity status were not consistently done, and most of the patient in the database were categorized as being of "Unknown" race or ethnicity (n = 3,604). However, in the cases where this information was collected, n = 84 of the people who received calls were defined as being of Hispanic background, n = 26 as Black or African American, n = 2 as Asian, and n = 33 as white.

Table 2 describes the outcomes of the phone calls placed by the CTMs. Approximately 44% of the calls did not require any further follow up because the patients and families did not have any additional needs at the time of the call and 20% of the patients could not be reached or did not answer the call. The CTM's did refer n = 126 (3%) patients back to homecare because of new clinical needs discovered during the phone call, and another n = 85 (2%) were classified as possibly needing home care in the future. This included patients who described upcoming surgeries or procedures, patients who the CTMs had to send to the ER as a result of immediate clinical needs discovered during the phone call. A total of n = 542 (13%) patients did not require clinical services at the time of the call, but did need assistance with other services. This included referrals to food pantries, assistance with transportation and other social needs.

In addition to the data collected in the database, the CTMs who participated in the project described outcomes related to the experience of making the phone calls and talking with families. The lack of patient interaction caused by the COVID pandemic was a struggle for the CTMs. They nicknamed the project "Positive Patient Calls." They felt that participating in making the phone calls improved their personal and professional satisfaction by facilitating interaction and connection with patients and families. The calls also served as a means of safe connection between the providers and patients during the pandemic. They used the opportunity to facilitate access to resources such as food, cleaning supplies or clothing. They also used the calls to support patients and caregivers who were overwhelmed and struggling with loneliness, fear and isolation.

The CTMs also quickly recognized that the phone calls were an invaluable opportunity for patient education. Many patients and their caregivers were afraid and confused about the rapidly changing information associated with COVID 19, how and when to access health care during the pandemic, and struggled with technology and the concept of telehealth. CTMs used the phone calls as an opportunity to help patients understand the most up to date regulations and recommendations for COVID prevention and precautions. They could also help patients understand which health care services were re-opening, and when and how telehealth could be used as an alternative form of connecting with healthcare providers.

However, the most beneficial aspect of the Outreach Phone Call Project was the opportunity for seasoned home care nurses to identify clinical changes in the health of patients and to assist them in the triage process when necessary and appropriate. The call team described a number of instances where they were able to support patients who required medical assistance. CTMs could talk to families and patients to determine what the best plan of care would be for them, taking into account the COVID 19 pandemic and its effect on healthcare delivery. Help could be offered to patients and families to determine if they needed to visit primary care, if telehealth would be an option for them, and in some instances if returning to home care services would be appropriate. For example, as the regulations for homebound status were relaxed and mid-level providers were allowed to sign home care orders, CTMs could more easily help generate new referrals to homecare when needed and appropriate. All of the calls were made to patients who had been discharged from home care services. However, by the time the phone calls were made, there were 271 patients who had already been referred back to home care for assistance. In a

few cases, CTMs also described a need for emergency clinical intervention, requiring them to call 911 for the patients and their families. Having seasoned home care professionals available to help with this triage during the pandemic solidified the importance of conducting an outreach program such as the one completed in this agency. Their ability to connect the patients and their families to the most appropriate and needed service was essential to promoting safety and well-being in the midst of a life-altering pandemic.

Discussion

Results of this study demonstrate that the implementation of a calling project during the pandemic shutdown provided invaluable connection and outreach to vulnerable populations. This simple but effective change in practice enabled home care professionals to reach patients who were both isolated and often in need of education and assistance. While the pandemic did require people to stay home and isolate for safety, this response also led to other negative health effects related to isolation, and the inability to access needed health and social resources.

By June 30, 2020, despite the incorporation of telehealth visits by many healthcare providers,an estimated 41% of U.S. adults had delayed or avoided medical care because of concerns about COVID-19 [5]. Avoidance of urgent or emergency care was more prevalent among unpaid caregivers for adults and persons with underlying medical conditions and disabilities. These are the populations that home care agencies serve, and this is why they were those targeted by this phone outreach program. The CTMs who started this program understood this, and knew the shutdown would increase the vulnerability of their patients. Table 1 highlights the large and diverse numbers of primary health conditions in the study population, as well as the diverse languages spoken by these patients and their families. In summary, the people reached by this call program were those most at risk for negative health outcomes as a result of COVID 19 and most in need of additional support to maintain their safety.

Telehealth is an exciting tool and certainly will continue to be utilized in the future as a viable alternative to face to face meetings. However, it is important to consider that not all populations have access to the technology required for telehealth, or would be able to understand it without having someone teach it to them first. [7, 8]. The home care agency implementing this program has more than 10 years of experience using telehealth with their patient population. They were familiar with the unique needs patients and families have when first trying to understand and use the technology. It is because of this that the team deliberately started this program using phone calls to reach out to families and patients. A simple outreach phone call became an invaluable tool in reaching vulnerable populations and assuring their access and understanding of options in a dynamic and quickly changing clinical landscape.

Home care professionals have long-standing relationships with their patients. Their connection and relationship with these patients meant they already had a baseline understanding of the conditions these patients were facing, and most importantly, they already had their trust. They were not strangers calling these patients and families for the first time. They were building on previously established relationships, which is why home care was such a vital asset during this time. Knowing these patients and families facilitated the ability of the CTMs to reconnect with and help them access the services they needed in order to remain safe at home.

As a result of the implementation of this program, the agency learned a number of lessons which were helpful in improving the process, and may be helpful to others who would like to create a similar program in the future. These could prove beneficial to other organizations that may wish to implement similar strategies or programs.

Collecting and Defining Call Outcomes

The program started with the simple idea of making a phone call to check in on vulnerable patients. In order to do this, the group initially used the home care agency electronic medical record (EMR) to capture the needed information, and then each CTM transferred relevant information to spreadsheets where they could enter data on the phone calls. However, it became clear that the free hand entering of information related to the contents of the call and the outcome was neither efficient nor able to truly capture all the work and content being covered in the calls. It also made program evaluation more challenging. A more useful approach would be to develop and establish a tool for data collection prior to initiating phone calls that would promote more thorough and consistent data collection. Using the information from the initial calls, the CTMs began to consolidate the most common responses to their calls as well as the most common needs of patients. This information was also used to set up interpretive guidelines for CTMs as well as common resources and referral information to facilitate the process of providing information during the call, as well as tracking the outcomes. Moving forward, the CTMs would suggest starting out with a tool that could be easily filled out in a common database that provided guidelines and referral information for the CTMs.

Developing a Focused Call Strategy

For the initial call algorithm, the CTMs focused on patients who had been recently discharged from home health. They did this because they believed that recently discharged

patients might be dealing with health issues that would make them particularly vulnerable during the COVID pandemic and health care shutdown. This approach was useful, but also highlighted that the EMR could be used to identify other populations that could be vulnerable. For example, the EMR contained information on patients who had been identified as high risk for re-hospitalization during their home care episode or having a high social risk profile. It would also be useful to continue to evaluate the timing of the phone calls being made to the patients, and how far out from home healthcare discharge the call should be made. For example, some of the patients and families did not have immediate needs, but did develop health and social needs 2–3 months after leaving home healthcare services. Future phone call programs could use this information to help identify vulnerable populations and to focus the type of education and resource referral that would be needed for them.

Developing a Strong Resource Referral Pool to Respond to Social Determinants of Health

One thing that was clear from the call program is that many of the challenges faced by the patients were not always directly related to home health services, or even medical issues for that matter. Perhaps one of the most important indicators of the needs of the patients in this study was that n = 542 required assistance with predominantly social issues related to the Social Determinants of Health. This number is most likely an underestimate, as being categorized in this section required that the patients and families self-identified this need, and also did not account for those who may have been categorized in other outcomes, but also had social needs.

During the COVID-19 pause, the Social Determinants of Health were more apparent as traditional access and resources available to vulnerable population were adversely impacted [9]. CTMs described patients as needing assistance with food, clothing, transportation and rent. The team members had to be able to make referrals outside of traditional home care services and having a resource list ready, as well as being familiar with available services in the community, was essential. This helped to ensure that even if home care was not the solution, the calling team members could provide connections to resources.

In order to do this, the team worked directly with the Health Home Care Management team. Health Homes are a NYS funded Medicaid Program designed to help bridge the gaps within our healthcare system [10]. Health Home agencies are designed to identify and support patients who are "at risk" of re-hospitalization by responding to their social needs. Patients who qualify for Medicaid can further qualify for Health Homes services based on having a medical and/

or behavioral health diagnosis. This program responds to the Social Determinants of Health by connecting patients with resources such transportation, affordable safe housing, food security, and access to primary care providers. Collaborating with this resource was essential to supporting patients during the COVID 19 pandemic. Moving forward, outreach programs would be best served by collaborating with Health Homes programs in order to respond holistically to the needs of patients and families.

Continued Evaluation of Needs

In addition to the patients who were referred to home care as a result of the phone call, Table 2 highlights that n = 1803 patients reached by phone declined services either because they did not feel they needed them or did not want anyone coming into their home. However, additional analysis and chart review demonstrated that n = 419 of these patients did return to home care services in the following months after receiving the phone call. Additionally, as mentioned, n = 542 had significant social needs that needed to be addressed. This suggests that the phone call outreach program provides an important opportunity for identifying both current and future needs. This project and its results are based on one phone call to the patients by the CTM. Further follow-up and additional phone calls may have been beneficial, and should be considered when designing future phone call outreach programs.

Conclusion

The impact of the delays in care or care avoidance during the COVID-19 pause are still being explored. Many organizations found themselves examining and creating new pathways for patients to access services. In many ways home care can be viewed as a preferred alternative to other types of care during this time period to include sub-acute rehab outpatient rehab. However, the traditional pathways for patients to access home care services were disrupted so significantly that many organizations explored alternative pathways.

As studies on the effects of the pandemic will be explored for years, this study emphasizes the impact of isolation in vulnerable populations. The implementation of a phone call outreach program was a relatively simple intervention. However, the potential impact is far reaching. It not only facilitated clinical assessment and intervention in at risk populations, it was able to deliver patient education and perhaps most importantly- connection for vulnerable and emotionally isolated patients and families. Knowing that many community-dwelling senior citizens experience social isolation and fail to routinely connect with their medical

provider, a long-standing phone calling program aimed at reaching the highest-risk patients is something to consider in the post-pandemic world.

Author' Contributions Not applicable.

Data Availability The dataset generated and analyzed for this study are not publicly available due to need to protect patient privacy. However, the de-identified dataset can be made available from the corresponding author on reasonable request.

Code Availability Not applicable.

Declarations

Conflict of interest Not applicable.

Ethical Approval January 6, 2021

File No: 4142-12172020-01
Dr. Sarah Miner
St. John Fisher College
Dear Dr. Miner:
Thank you for submitting your research proposal to the Institutional Review Board.
I am pleased to inform you that the Board has approved your Exempt Review project, "Responding to vulnerable population during COVID 19: A home health phone call protocol".
Please note, to reduce the spread of COVID-19 and to help mitigate community transmission, St. John Fisher College has temporarily suspended all in-person activities (recruitment and data collection) among researchers and study participants for all IRB-approved human subjects research until further notice. Studies that do not involve any direct subject contact, e.g., pre-existing records, electronic surveys, tele-research, and remote interaction via device/app/software are still permissible, along with data analysis from previously collected in-person sessions. Should you have any questions about this process or your responsibilities, please contact me at irb@sjfc.edu.
Sincerely,
Eileen Lynd-Balta, Ph.D
Chair, Institutional Review Board
ELB: jdr

Consent to Participate Not applicable.

Consent for Publication Not applicable.

References

1. Medicare Payment Advisory Commission. (2021). Medicare Payment Policy. March, 333–359.
2. Home Health Services Coverage. (n.d.). Accessed 7 September 2021, from https://www.medicare.gov/coverage/home-health-services
3. Harris-Kojetin, L. (2014). Vital and Health Statistics Long-Term Care Providers and Services Users in the United States : Data From the National Study of Long-Term Care Providers, 2013–2014 (Vol. 0, Issue 43).
4. Governor Cuomo Issues Guidance on Essential Services Under The "New York State on PAUSE" Executive Order. (n.d.). Acessed 7 September 2021, from https://www.governor.ny.gov/news/governor-cuomo-issues-guidance-essential-services-under-new-york-state-pause-executive-order
5. Czeisler, M. É., Marynak, K., Clarke, K. E. N., Salah, Z., Shakya, I., Thierry, J. M., Ali, N., McMillan, H., Wiley, J. F., Weaver, M. D., Czeisler, C. A., Rajaratnam, S. M. W., & Howard, M. E. (2020). Delay or avoidance of medical care because of COVID-19–related concerns—United States, June 2020. *MMWR Morbidity and Mortality Weekly Report, 69*(36), 1250–1257. https://doi.org/10.15585/mmwr.mm6936a4
6. Gonzalez, D., Zuckerman, S., Kenney, G. M., & Karpman, M. (2020). Almost Half of Adults in Families Losing Work during the Pandemic Avoided Health Care Because of Costs or COVID-19 Concerns. Urban.Org. https://www.urban.org/sites/default/files/publication/102548/almost-half-of-adults-in-families-losing-work-avoided-health-care-because-of-cost-or-covid-19-concerns_1.pdf
7. Leite, H., Gruber, T., & Hodgkinson, I. R. (2020). Flattening the infection curve-understanding the role of telehealth in managing COVID-19. *Leadership in Health Services, 33*(2), 221–226. https://doi.org/10.1108/LHS-05-2020-084
8. Telehealth: Seven Strategies To Successfully Implement Disruptive Technology And Transform Health Care | Enhanced Reader. (n.d.).
9. Singu, S., Acharya, A., Challagundla, K., & Byrareddy, S. N. (2020). Impact of social determinants of health on the emerging COVID-19 pandemic in the United States. *Frontiers in Public Health, 8*(July), 1–10. https://doi.org/10.3389/fpubh.2020.00406
10. Medicaid Health Homes - Comprehensive Care Management. (n.d.). Accessed 7 September 2021, from https://www.health.ny.gov/health_care/medicaid/program/medicaid_health_homes/

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.