

# Leveraging Telehealth to Improve Transition to Home: Virtual Post-Discharge NICU Services

Evelyn Terrell, OTD, MHSA • Danielle Altares Sarik PhD, APRN, CPNP-PC • Elizabeth Sotolongo, MHSA  
 Melody Hernandez, PhD, MS, BSN, RN • Flor Tena MSN-Ed, RN, CCRN-K • Myrlande Lafond, BSN, RN, CPHM, CM  
 Philicity Tinnie-Wilson, RN, MAS, BSN, ACM-RN • Saima Aftab, MD, MBA, FACHE, FAAP



## Learning Objectives/ Metrics

1. Recognize the impact of increased telehealth adoption, access, and continuity of care, to transform healthcare delivery.
2. Identify best practices and facilitators for expansion of virtual healthcare services and optimal user experience.
3. Describe telehealth opportunities in care coordination to enhance post-discharge care follow-up for children with medical complexity and high utilizers of healthcare services.

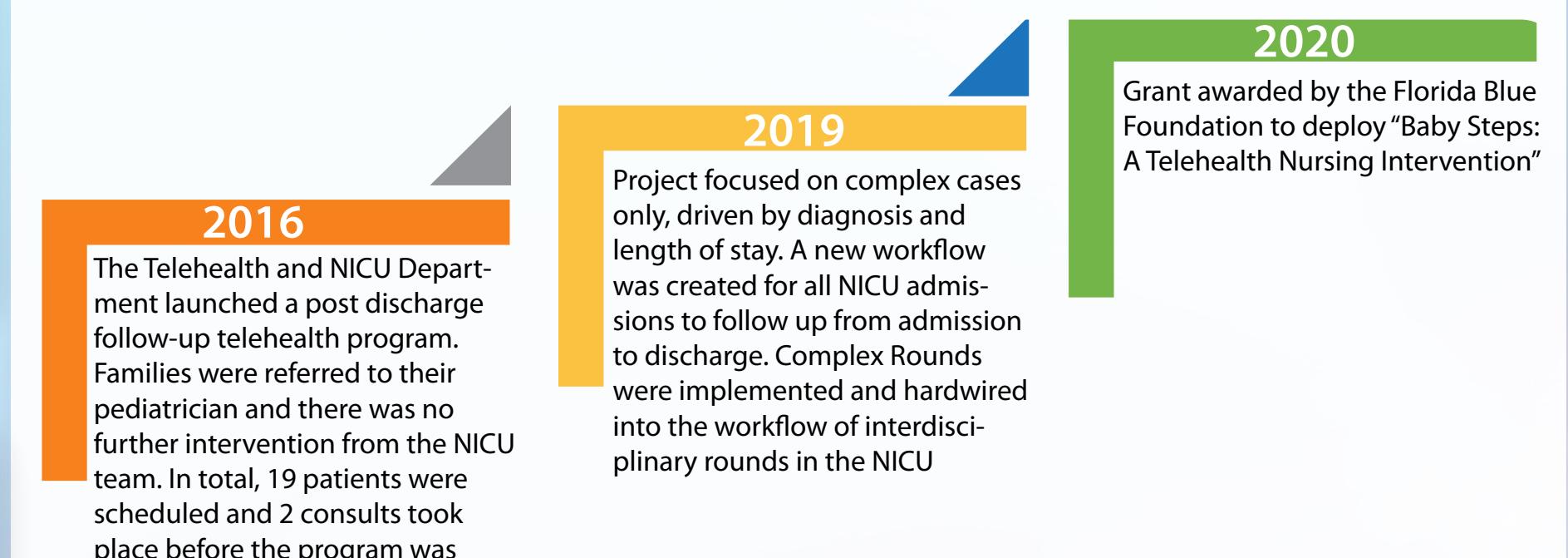
## Background

- The results of a Community Health Needs Assessment showed that children in the primary service area are:
  - 20% linguistically isolated
  - 53.3% living below 200% the federal poverty level and
  - 57.1% had difficulties accessing health care, significantly higher than national averages
- Virtual care has been shown to improve patient satisfaction/experience and addresses health equity challenges, which is paramount to ensuring optimal outcomes and access to quality services.
- The COVID-19 pandemic transformed care delivery and influenced telehealth adoption by patients, caregivers, and the healthcare team. The use of telehealth during the pandemic helped ensure continuity of care, reduced the risk of exposure to patients and staff, and limited infection rates. Telehealth reduces geographic and access barriers, and addresses critical workforce shortages of professionals.
- Telehealth services are especially valuable for the population of complex and chronically ill children, many of whom are severely immunocompromised (Ignatowicz et al., 2019).
- Telehealth has proven to be a valuable tool in managing the pediatric population, including high-risk children with medical complexity (CMC), by avoiding unnecessary trips to the hospital and preventing potential exposure to communicable diseases (Notario et al., 2019; Onofri et al., 2021; Ross et al., 2020). Studies suggest that telehealth services can be as effective as in-person care (Bican et al., 2021; Krasovsky et al., 2021) and are a cost-effective delivery model (Longacre et al., 2020; Nissen et al., 2018).

## Purpose

- The purpose of this poster is to describe a pediatric health system initiative and outcomes of telehealth post-neonatal intensive care unit (NICU) discharge services offered by nurses, case managers, physicians, residents and other members of the care team.
- A secondary aim is to explore new innovative models of care to improve transitions of care and support sustainable care delivery models.

## The Evolution of Telehealth in NICU Post-Discharge



## Telehealth Post-Discharge NICU Program Overview

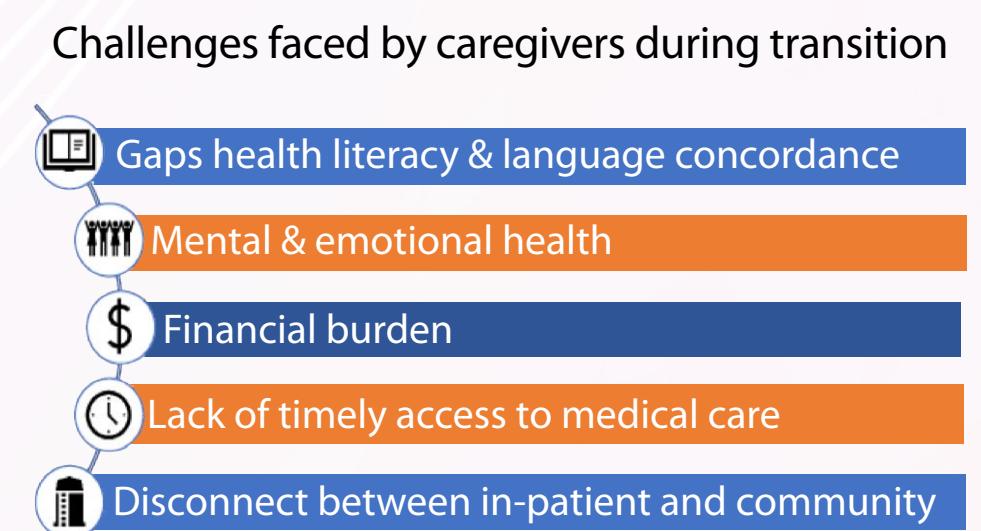
Post-NICU discharge service available at no cost to families, launched in March 2020. Patients download the Pediatric Virtual Care application at the bedside with RN prior to being discharged, and are able to connect from home.

Patients/ families are able to connect with the NICU RN for guidance regarding a range of infant issues, including (but not limited to):

- Basic newborn care (bathing, skin care, umbilical stump care)
- Administering medication
- Back to sleep (newborn safety and SIDS prevention)
- Home ventilator/ aerosol/ suction equipment
- Pulse oximetry
- Oxygen therapy
- Central line therapy
- Gastrostomy care
- Ostomy care
- Wound care
- Pavlik harness

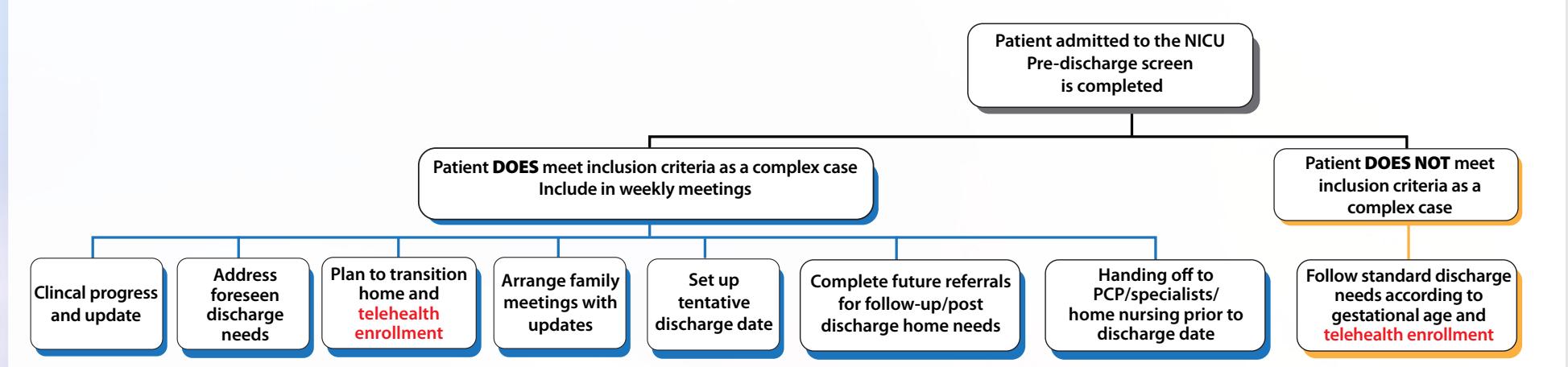
## Baby Steps: Improving the Transition From Hospital to Home Through Nurse-led Telehealth

- Study funded by the Florida Blue Foundation, Quality of Care Grant
- Focus on NICU graduates and their caregivers
- Optimize use of innovative telehealth technologies
- Program supports families during the transition from hospital to home and decreases challenges faced by caregivers during care transition. Secondary benefits include decrease in emergency department visits and re-hospitalization.



## Complex Care Workflow

A graph of the workflow after admission and show the addition of telehealth enrollment as part of the workflow for complex and non-complex discharges.



## Methods

A Quality Improvement (QI) project was conducted to enhance, expand, and optimize virtual care utilization, service and experience. The QI was implemented in April 2020, and all infants discharged from the NICU to a home setting in the state of Florida were eligible for inclusion. A NICU nurse approached caregivers at the bedside prior to discharge and enrolled them in the program 24-48 hours post-discharge, a nurse led telehealth visit was completed. Patient outcomes were analyzed through retrospective review of clinical and administrative data sets, and caregiver outcomes were analyzed through a survey.

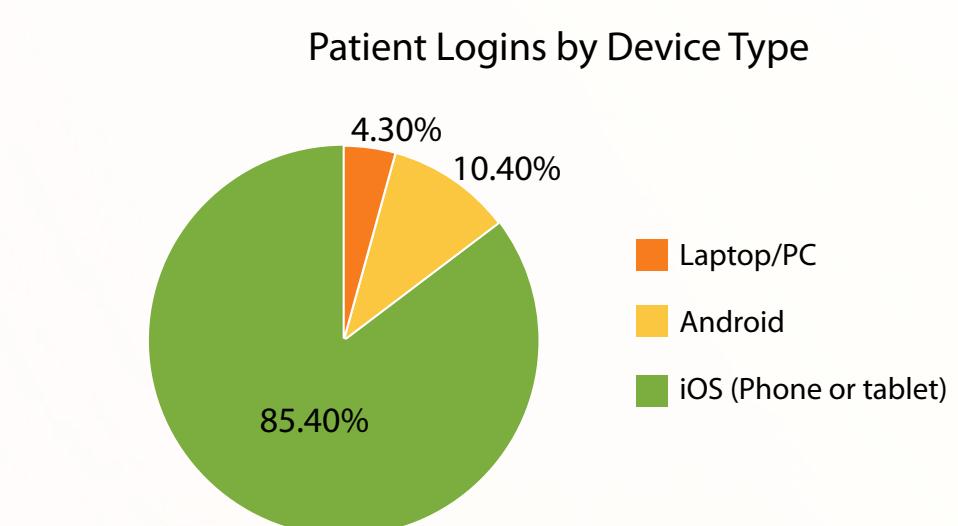
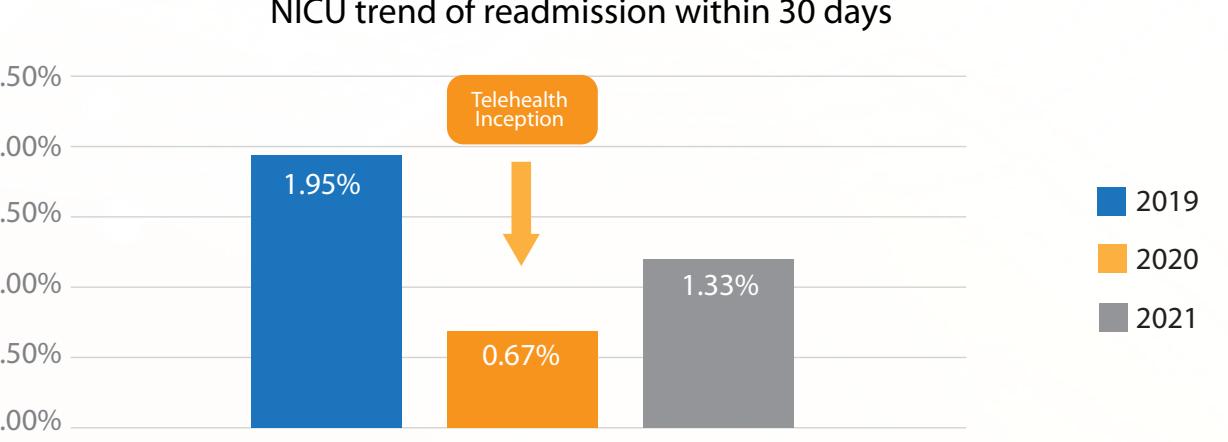
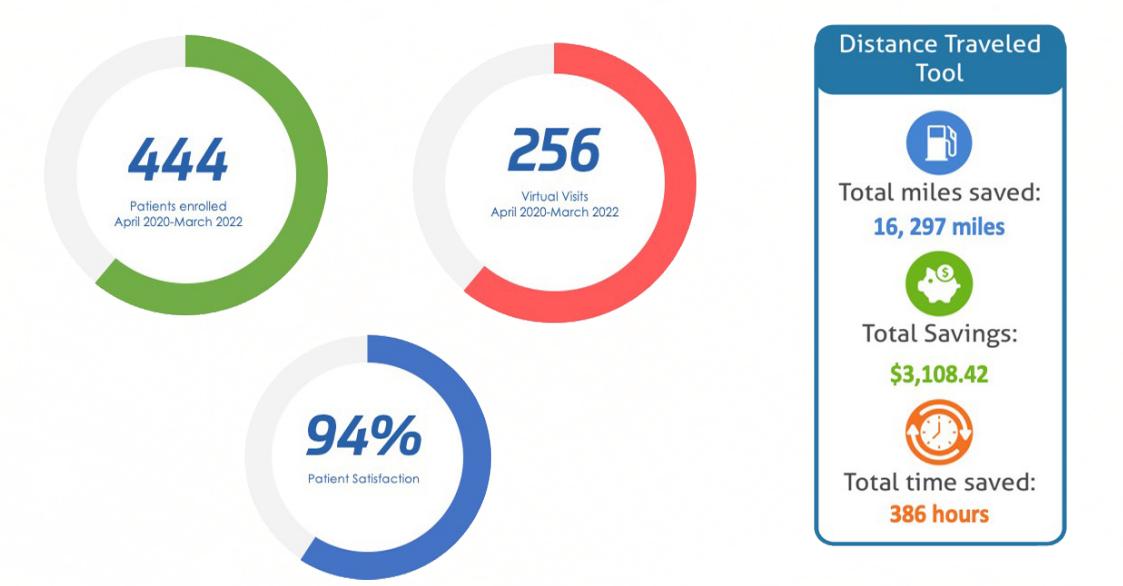
## Implementation Methods

- In March 2020, with support from the grant, the project team made up of Telehealth, NICU, and Nursing Research team members relaunched the program, at the height of the COVID-19 pandemic.
- A significant portion of grant funds were allocated to hire a dedicated RN. The telehealth team completed a training which included mock visits and review of patient and provider manuals. The RN had specific roles and responsibilities, which included maintaining a blocked schedule to manage patient volumes and data management. The NICU RN was responsible for patient onboarding and app registration prior to discharge.
- Prior to program launch, technology needs were assessed to ensure providers had the minimum necessary equipment to conduct virtual visits. Equipment requirements included a laptop or PC, Google Chrome browser, webcam with microphone, speakers, and a private space to conduct virtual visits.
- The telehealth team was responsible for troubleshooting technology issues with families and providers, to ensure a successful connection. The team worked closely with the Lean/ Process Improvement team to identify and implement platform enhancements and technology needs. Changes or updates to the application design and interface were made through collaboration with the Information Technology (IT)/Web Development team.

## Telehealth NICU Post-Discharge Outcomes

Findings suggest that telehealth can be used to address patient healthcare needs and support families after discharge home from the NICU, during a pandemic and beyond. Nearly 400 unique infants and families were enrolled in the post-discharge telehealth program offering services such as basic newborn care, safety, feeding/lactation and more. Families reported 95.5% overall satisfaction. Savings of time (hours), mileage, and fuel costs, from avoided family roundtrips to the hospital, are reported. Other benefits such as potential reduction in hospital length of stay and readmissions are discussed.

## NICU Post-Discharge Outcomes



## Satisfaction Survey Results

