Patients and healthcare providers can use technology to interact and deliver digital health solutions from a distance and this could be over the phone, via Zoom calls, through email, or with text messages.

The healthcare technology trend observed in my organization is Telehealth/Telemedicine, which became more popular during covid 19 pandemic, and continued to remain in demand post-pandemic period. I completely agree with  McGonigle and Mastrian, that“ With the arrival of covid 19 pandemic Telehealth has finally come of age like a lonely teenager who once struggled to make connections with a broader network of friends and was bounded by strict parenteral control, suddenly blossomed into the most popular kid in the school” (McGonigle & Mastrian) and this happened because virtual care has the ability to protect patients who are at a higher risk for COVID complications.

I work in the main hospital of UNC, where we have a Neuro-Tele team, that consist of a neuro expert, neuro resident, Radiology technician, IT staff, Nurse, and NP. Our neuro expert communicates with the provider at the other hospital (UNC branch), he/she also assesses the patient using an Ipad, talks to the family, and provides recommendations to the provider in that hospital, so that he can do the interventions there, and if they are not able to follow the recommendation due to equipment, supplies or staff, then only the patient will be sent to our hospital. This has improved outcomes for stroke patients because time is brain, the more time you take to provide treatment to the stroke patient, there is a high chance of disability and death. Neuro tele team also follows up with the discharged patient via iPad and provides information virtually so that they don’t have to come to the doctor's office for minor information or just monitoring.

**Benefit**

There are times when we don’t need to do doctor's visit or visit ER or urgent care, we just need some information over the phone or continuous care that just need monitoring, this can be made possible via telehealth, and I find this one of the important benefits of telehealth. Healthcare providers can see more patients more quickly increasing patient outcomes and even saving some money. Since this Telehealth started in our organization, there is increasing motivation and productivity for clinicians while reducing stress for patients and clinicians. We are not bombarded by unnecessary admissions because our other branch failed to diagnose and treat a simple case. Politicians from around the country are working on promoting telehealth to allow people the unique flexibilities offered by telehealth. It is also considered a potential tool to **decrease Medicare costs and overall healthcare spending while improving access to care for the chronically ill and those patients in remote geographic locations. (**Innovations) On March 2020, president trump announced the expansion of Telehealth services for Medicaid expansion for Medicaid beneficiaries and the relaxation of rules for seniors so that they can avoid exposure from covid 19 in a physician's office. ( Mc Gonigle & Mastrians 2022). Based on Research conducted by the agency for healthcare research and quality, Chronic conditions like congestive heart failure, COPD, and diabetes yielded the most impactful telehealth benefits for patients since remote monitoring kept them abreast of warning signals. (Welkin, 2022)

**Challenges:**

The biggest challenge of telehealth is for healthcare providers and is related to scalability. If there is a lack of next-generation infrastructure in a healthcare organization, implementing, addressing, and scaling telehealth benefits can become extremely difficult. It is important for healthcare professionals to have the knowledge and skills to evaluate and recommend appropriate digital tools. (Skiba, 2017) The risk associated with data safety, legislation and Patient care can be a privacy and patient data security risk. There is a rising number of digital technologies, in this case, telehealth can raise concerns about privacy and patient data security. Addressing these telehealth challenges requires patients to be vigilant and educate themselves about the security measures offered. Some patients may not have access to the technology that is required to make effective use of it. Even if they do have access to the necessary technology, they may have trouble using it correctly and lack access to effective training.

When It comes to Nursing only, The healthcare technology trend I believe that is promising for impacting nursing practice is the wearable Vocera mobile phones we use in our organization. According to Vocera.com, Vocera is a leading platform for clinical communication and workflow and is the intelligent ecosystem that connects people and information needed to deliver patient care. It contributes to improvement in patient care outcomes by enhancing patient safety as it enables filtering, routing, escalation, and prioritization of any kind of alarm and notifications that health care personnel receive on the vocera device. Vocera had its greatest product launch in 2019, with a smart badge feature, where rather than a simple audio alarm, it became capable of showing actionable texts. (Deka, 2021) For instance, I was assigned to a very critically ill patient whose labs were very unstable and because of voceras, I was getting the results right away, I didn’t even have to go to the patient chart and look for results and I was also able to notify the provider via vocera right away, Because of Vocera, I was able to provide prompt effective as well as on-time treatment and as a Nurse also don’t have to run here and there on the unit to ask for help and to notify the provider of critical results.

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RESPONSE1:

Hello Rejina, I enjoyed reading your post,

I really like it when we document any contagious disease, the computer asks us if we want to place the patient in isolation or not. There are times when we are not sure if certain diseases require isolation or not, in that situation we might either have to run to the providers or call infectious disease in the hospital, but these alerts have cleared our confusion and saved us time. EHRs were proposed as one solution to achieve the goal of improving the quality of care while simultaneously controlling the cost (McGonigle & Mastrian, 2022). EHR alerts will alert us of admissions, discharges screening reminders, isolation reminders, and many more, these alerts help to smoothly run the unit and care coordination through quick communication and prompt action. Alerts provide us with important and useful updates and reminders but there are also some drawbacks to these alerts, EHR overload notifications can be a problem for clinicians who are already struggling with higher cognitive overloads. EHR alerts that are not important at the movement can detract healthcare providers from doing patient care. (Monica, 2018)

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 RESPONSE2:

Hello Martha,

I enjoyed reading your post, I think Sepsis alert system in electronic health records plays an important role in alerting doctors and nurses so that they can take specific measures such as requesting blood cultures or prescribing antibiotics. This alert system can prevent life-threatening complication and even death via early diagnosis and treatment because Sepsis and Septic shock is identified as high-volume and high-cost complications of hospitalization that requires staying in ICUs or death (Kangas et al.) This system can identify both systemic inflammations as a sign of infection and detect possible organ dysfunction making them capable to identify severe sepsis. (Burdick et al., 2020) The introduction of EHRs has provided the opportunity to embed digital alerts based on current and past clinical measurements.

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RESPONSE TO PROFESSOR:

Thank you for your feedback and the link you provided on the response Dr Reilly, It was very informative. Telehealth provides overwhelmingly positive patient benefits and increases productivity for many services and reduce the cost of care delivery for the health system.