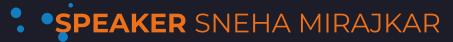


### Emerging Technologies in Securing Rural Healthcare



- Digitalization of Rural Healthcare.
- Highlights of Patient Data Security.
- Security gaps and risks around Patient Data.
- Causes and Consequences of Security risks.
- Role of Emerging Technologies in Securing Rural Healthcare.





#### Digitalization of Rural Healthcare.



- Why is the digitalization of Rural healthcare important?
  - With Digital healthcare, patients have quicker access to health services, improving the quality of care provided to them. In terms of monitoring critical health conditions and providing visibility into possible options.
- What are the impacts of digitalization of Rural healthcare?
  - From Improved Access to higher Medical Information and Data. To Improved Lines of Communication, managing Electronic Health Records to aiding the Government programs in providing required stats.
- How is digitalization transforming Rural healthcare?
  - While providing opportunities to Secure Database for Electronic Medical Records. Digital transformation in healthcare allows you to create a secure database for encrypting, storing, and accessing private medical records of patients and enables sharing them on-demand with healthcare professionals, laboratories, and medical specialists.





#### Highlights of Patient Data Security.



- What is patient data in healthcare?
  - Patient data includes everything from a patient's demographic information and physical address to the results of clinical research trials with hundreds of subjects. Most importantly the PII.
- Why is it important to protect Patient Data.
  - Confidential Patient Data falling into the wrong hands can lead to unwanted and adverse outcomes mainly cyber attacks.
  - It was found that the number of individuals affected by cybersecurity attacks in rural healthcare had tripled from 14 million in 2018 to 45 million in 2021, up from 34 million.





### Security gaps and risks around Patient Data.



- Weak Security Policies, easy access to confidential Data and lack of awareness around the impacts of cyber-attacks.
- Compromise of PII, leading to invasion of privacy, or information about medical history being revealed to others;
- Loss of control if data is lost or destroyed and much worse if passed outside the National Health Sector.
- The possibility of cyber attacks or hacking leading to Data breaches.





## Causes and Consequences of Security risks.

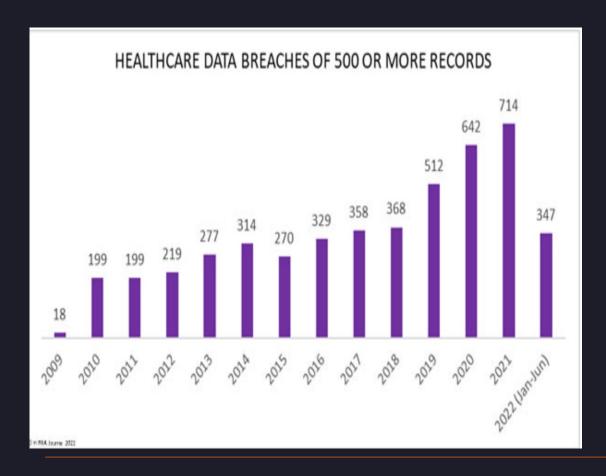


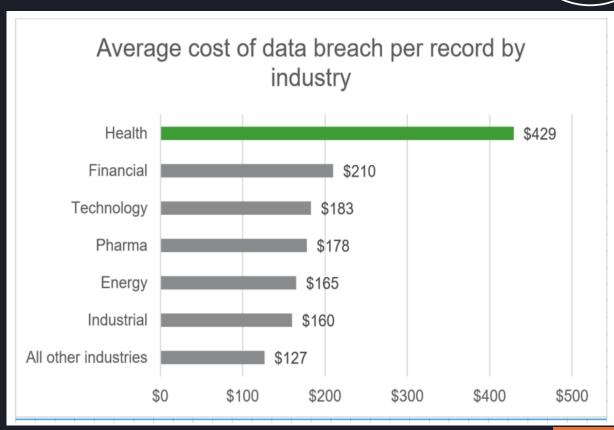






### Causes and Consequences of Security risks.









# Role of Emerging Technologies in Securing Rural Healthcare.



#### Methods:

- Access Controls: In addition to taking over all the physical access protections, Introducing access controls using a central repository of identities and authorizations.
- **Enforcing policy:** Based on those access controls about the data accessed or downloaded, will prevent abuse from authorized users.
- **Monitoring:** Proactively monitor user activity to flag any untoward activity.
- Anomaly detection: Along with policy enforcement, anomaly detection is the first line of defense for breach detection or possible cyber invasion. Contextual understanding of when an anomaly is inconsequential versus a real risk to data will reduce the flood of false positives usually associated with anomaly detection systems.
- Encryption: Encryption is one of the most useful data protection methods for healthcare
  organizations. By encrypting data in transit and at rest, healthcare providers and business
  associates make it more difficult (ideally impossible) for attackers to decipher patient
  information even if they gain access to the data.





