Concept Note on Shareable Health Record (SHR)

Introduction

The healthcare sector in Bangladesh is undergoing a digital transformation to ensure better service delivery, improved patient care, and efficient health management. One of the most significant steps in this journey is the implementation of the **Shareable Health Record (SHR)**. The SHR aims to create a unified and interoperable health information system that enables seamless exchange of patient data across healthcare facilities, ensuring continuity of care and enhancing health system efficiency.

Background

Healthcare services in Bangladesh face challenges related to fragmented patient records, duplication of tests, and lack of standardization in health data management. Traditionally, patient health information is stored in paper-based or siloed digital systems that do not communicate with one another, leading to inefficiencies and poor healthcare outcomes.

The **SHR** initiative has been introduced as a national-level digital health system based on the globally recognized **OpenHIE framework**. This system ensures that health records are stored in a structured, standardized, and interoperable manner, making them accessible across different healthcare providers while maintaining data privacy and security.

What is SHR?

The **Shareable Health Record (SHR)** is an integrated health data management system that consolidates an individual's medical history in a single, unified record. It is designed to facilitate the **exchange of health information** across public and private healthcare institutions, ensuring that every citizen has a **Personal Health Profile (PHP)** that captures their medical history from birth to death.

SHR is aligned with international health IT standards such as **HL7 FHIR (Fast Healthcare Interoperability Resources)**, making it a globally compatible system that can support both local and international health programs.

Components of SHR

SHR consists of several key components that collectively enable the efficient exchange of health information:

1. **Unique Health ID Service**
    - Every citizen receives a unique Health ID linked to their National ID (NID) or Birth Registration Number (BRN).
    - Ensures accurate identification and prevents duplication of health records.
2. **Master-Client Index**
    - A centralized registry linking patient demographic details with their Health ID.
    - Facilitates consistent identification of individuals across healthcare providers.
3. **Terminology Registries**
    - Standardized databases for population, facility, provider, and geolocation data.
    - Ensures uniformity in data collection and interoperability.
4. **Exchange of Clinical Encounters**
    - Enables secure and standardized sharing of clinical data between healthcare providers.
    - Improves continuity of care by avoiding unnecessary repetition of tests and treatments.
5. **Adoption of HL7 FHIR Standards**
    - Ensures compatibility with global digital health systems.
    - Enables seamless data exchange across different platforms.

Benefits of SHR

The SHR system offers numerous advantages for patients, healthcare providers, and policymakers:

1. **Improved Healthcare Delivery**
    - Ensures that patient data is available across facilities, reducing redundancy and improving service quality.
2. **Interoperability**
    - Enables different health systems to communicate, enhancing efficiency and data consistency.
3. **Data-Driven Policy Making**

    - Provides policymakers with accurate and up-to-date health data for informed decision-making.
    - Enhances disease surveillance and epidemic management.
4. **Supports Universal Health Coverage (UHC)**
    - Provides a robust platform to monitor healthcare access and service quality nationwide.
5. **Enables Health Insurance Implementation**
    - Facilitates the development of a national health insurance system by maintaining transparent and traceable medical records.
6. **Empower Patient**
    - Allows individuals to access their medical history, improving engagement in their healthcare management.

Challenges in SHR Implementation

Despite its potential benefits, the successful implementation of SHR faces several challenges that require strategic planning and investment:

1. Budgetary Constraints

- Developing and maintaining SHR requires significant investment in digital infrastructure, software development, and cybersecurity measures.
- Sustainable funding mechanisms must be established to ensure long-term operation and scalability.

2. Human Resource (HR) Limitations

- A skilled workforce is needed to implement, maintain, and operate SHR systems.
- Training programs must be developed for healthcare professionals, IT staff, and policymakers to ensure smooth adoption and utilization.

3. Policy and Regulatory Issues

- Establishing a legal framework for data privacy, patient consent, and data sharing protocols is essential.
- Clear guidelines must be formulated to regulate the access and use of health data while maintaining security and confidentiality.

4. Technical and Infrastructure Challenges

- Ensuring stable internet connectivity and IT infrastructure across rural and remote areas is crucial.
- Integration with existing hospital and clinic management systems requires technical expertise and coordination among stakeholders.
- Adoption of standardized terminologies such as ICD-11, SNOMED-CT, and LOINC is necessary to ensure consistency in clinical documentation.

Conclusion

The **Shareable Health Record (SHR)** initiative is a transformative step towards achieving a **modern, interoperable, and patient-centered healthcare system** in Bangladesh. By leveraging digital technology, SHR will enhance healthcare efficiency, support **Universal Health Coverage (UHC)**, and enable data-driven policymaking.

For successful implementation, high-level policymakers must prioritize investment in **budget allocation, workforce training, regulatory frameworks, and technical infrastructure**. By addressing these challenges, SHR will not only improve individual patient care but also strengthen Bangladesh's overall healthcare system for future generations.