



The Role of Electronic Medical Records in Public Health

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Objectives:

- Identify the role that electronic medical records have in public health
- Identify 3 ways electronic medical records has improved public health at HCPH
- Recognize practical considerations in implementing electronic medical records in public health

Disclosure

- I have no actual or potential conflict of interest in relation to this program/presentation.



EMR's Role in Public Health

1. Data Collection and Analysis Efficiency:

EMRs allow for the rapid collection and storage of large volumes of health data.

Surveillance: Real-time data can be used to monitor health trends and detect outbreaks.

Research: Provides a rich source of data for epidemiological studies.

2. Disease Surveillance and Management Outbreak Detection:

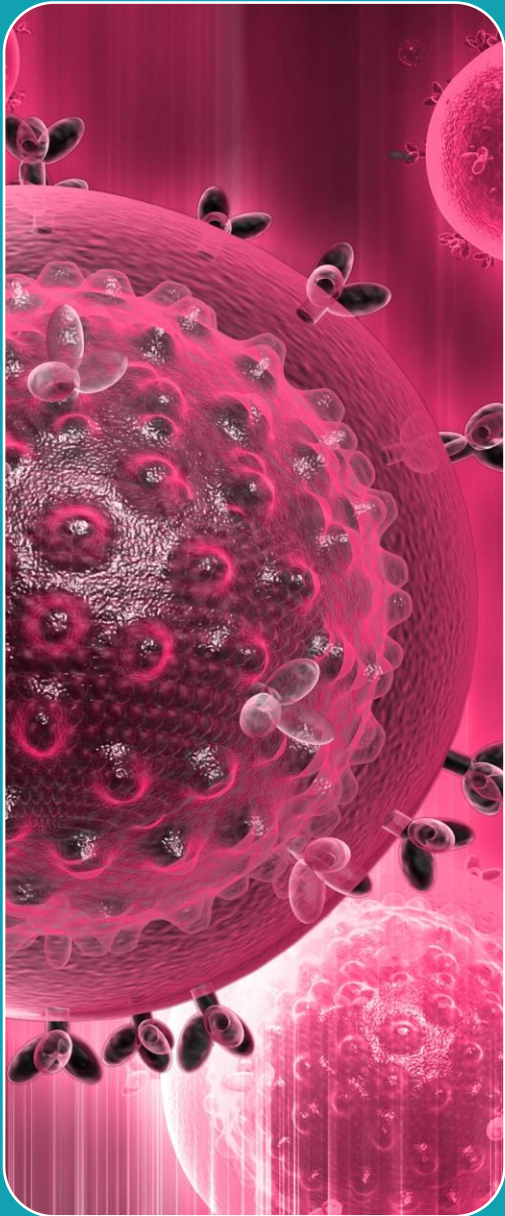
They can help identify unusual patterns of illness, facilitating early detection of outbreaks.

Chronic Disease Management: Enables tracking of disease trends and effectiveness of interventions over time.

3. Health Information Exchange (HIE) Data Sharing:

Facilitate the sharing of patient information among different healthcare providers and public health officials.

Coordinated Care: Enhances the ability of healthcare providers to coordinate care, especially for patients with complex conditions.



EMR's Role in Public Health

4. Improving Public Health Reporting and Compliance:

Automated Reporting: automate the generation of reports for public health monitoring. Helps comply with public health regulations and reporting requirements.

5. Enhancing Patient Outcomes:

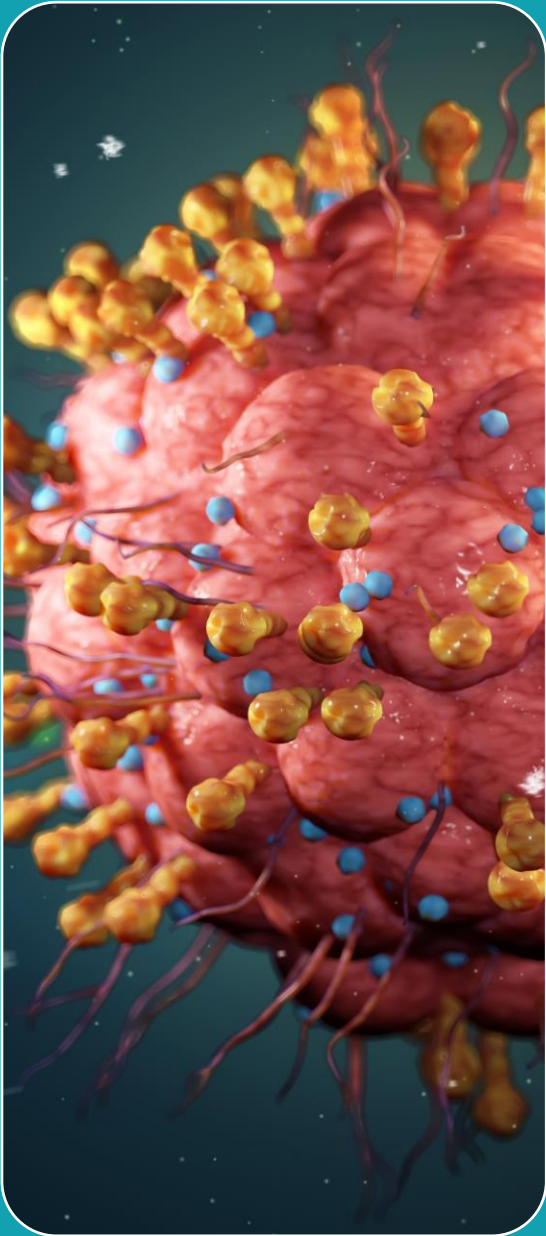
Personalized Care: Provide comprehensive data that can be used to tailor medical treatments to individual patients. Each patient can be given an after-visit summary.

Preventive Care: Facilitates proactive management of patient care through reminders and alerts for preventive measures. We can send text messages and create mass mailings that are a part of a patient's chart.

6. Resource Allocation Needs Assessment:

Data from EMRs can help public health officials identify population health needs and allocate resources accordingly.

Cost-Effectiveness: Improves the cost-effectiveness of public health programs by targeting interventions where they are most needed.



Three ways electronic
medical records has
improved public health
at HCPH



1. Enhanced Disease Surveillance and Outbreak Response

Provide real-time data that is crucial for the early detection and response to disease outbreaks. By analyzing health data from EMRs, we can quickly identify patterns indicating the emergence of communicable diseases which allows for swift interventions, such as vaccinations or public health advisories, to prevent the spread of diseases.

2. Improved Quality of Care and Patient Outcomes-The same way we use EMR's in the hospital is essentially the same way we use in it the public health setting.

Store comprehensive patient histories, including past treatments, medications, and allergies. This information is readily accessible to healthcare providers, ensuring that they have a complete understanding of a patient's medical background when making treatment decisions. This accessibility improves the quality of care by reducing medical errors, facilitating better diagnosis, and enabling personalized treatment plans. Consequently, patient outcomes improve as treatments are more accurately aligned with individual health needs. Patients have access to MyChart and can request their medial records or converse with providers or front desk staff privately.

3. Data-Driven Public Health Policies and Research

Serve as a valuable resource for health-related research and the development of public health policies. The extensive data collected can be analyzed to understand health trends, evaluate the effectiveness of current public health programs, and identify areas needing attention. Our Epidemiologists use the system data to conduct epidemiological studies, ultimately leading to evidence-based policies that promote better health outcomes at the population level. Charting public health reporting right in the patients record and CARELINK.

HCPH upgraded EMR system comparison

EPIC

- Carelink
- Tap badges
- Customizable workflows-DOT
- Customizable dashboards including performance metrics, front desk metrics, MAR and provider schedule templates
- MyChart
- After Visit Summary
- Nursing input in EMR workflow
- Ease of running multiple reports
- Regional site specialist

ECW

- No way to see information from other area facilities- had to have access to multiple logins with other health care systems
- No Tap badges
- Workflow templates were created for all users
- No dashboards
- Patients had a version of MyChart
- No after visit summary



Practical considerations in implementing electronic medical records in public health



Data Security and Privacy

- Protecting patient data is paramount.

Encryption, secure access controls, and regular security audits and ensuring compliance with regulations like HIPAA (Health Insurance Portability and Accountability Act).

Integration with Existing Systems:

- Is it able to integrate seamlessly with existing healthcare systems and databases. Capability with other EMR's, laboratory like LabCorp or Quest and billing software like Availity. Effective integration reduces redundancy and errors, facilitating smoother workflows.



Practical considerations continued..

User Training and Support:

- Comprehensive training for all users, including providers, nurses, front desk staff, EPI, disease investigators and IT personnel. Continuous support and refresher training sessions.

System Customization and Flexibility:

- Healthcare facilities vary in their needs and workflows. This should be customizable including specialized fields such as disease prevention, Epidemiology, infant and fetal mortality. Nurses can give important input in building workflows.

Patient Access and Engagement:

- EMRs should include patient portals that allow patients to access their health records, communicate with healthcare providers, schedule appointments, and refill prescriptions. Enhancing patient engagement through these portals can lead to better health outcomes and increased patient satisfaction.





Cost and Return on Investment:

- The initial and ongoing costs of implementation can be significant. Healthcare organizations need to consider the financial impact, including hardware and software expenses, training costs, and potential disruptions during the transition period (before and after implementation). However, the long-term savings from improved efficiencies, reduced paperwork, and better health outcomes often justify the investment. Which funding source are you going to use...general funds, grants etc.

Regulatory Compliance:

- Must comply with all relevant healthcare regulations and standards, which can vary by region. Staying updated on changes in legislation and ensuring the system adheres to these regulations is crucial for legal operation and reimbursement processes.



Questions

and

Thank you



Resources:

<https://www.ehrinpractice.com>

Chapter 53 Public Health Surveillance: A Tool for Targeting and Monitoring Interventions

<https://www.ncbi.nlm.nih.gov/books/NBK11770>

From Paper to Pixels: The Advantages and Challenges of Electronic Health Record

<https://www.delveinsight.com/blog/electronic-health-records-ehrs-benefits-challenges>

Images: <https://depositphotos.com/>