

Component 11 Configuring EHRs

Unit 8 Data Infrastructure Lecture 3

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Capture of Data for Health Information

- Data is captured in the primary source document of the electronic health record.
- It is also captured from health care insurance plans.
- Individual research projects capture patient data.
- Public Health captures data as well.
- The national government and its agencies also capture data.

The list of private and public data that is collected for use in health care is robust. The use of the data can be useful and overwhelming. When working with healthcare organizations it is important to assess what information is needed for the information to make strategic decisions. How the data is collected and exchanged for government agencies is important in the electronic environment.

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Data Quality Standards

- Data quality standards are the underpinning of producing information that is meaningful and useful for improvement of health care
- Following national and international standards is imperative for this to occur
- Individual organizations must make a commitment to ongoing strategic planning and tactics to ensure that all users understand the importance of following the procedures for data collection

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Importance of Clinical Documentation

- Data is abstracted from clinical documentation for secondary uses
- Medical diagnoses and procedures are given a code number, utilizing clinical documentation, that is later used to retrieve information for research/quality review, billing, planning, etc.
 - Two coding systems are used are:
 - The International Classification of Diseases (ICD)
 - Current Procedural Terminology (CPT)

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Secondary Use of Data

- If the infrastructure and architecture of software systems are developed with intent to use the primary data for secondary uses, information can be abstracted for other uses
- In health care some typical secondary uses of data will be in the form of
 - Registry systems (cancer, trauma, diabetes, etc)
 - Health Information Exchange systems
 - Public Health Surveillance systems
 - Public Health Safety systems
 - National Databases
 - Operations and finance (revenue and utilization management)
 - Administrative decisions

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National Aggregate Information

- Aggregate information will not identify individual patients
- The data is used to inform the public about health care. Many government websites will be helpful to understanding the data that is collected and then provided to the public:
 - The National Center for Health Statistics collects 21 data elements for the Uniform Hospital Discharge Data Set
 - The National Committee on Vital and Health Statistics collects information for the Uniform Ambulatory Care Data Set
 - The Centers for Medicare and Medicaid (CMS) collect data for the Long Term Care called the Minimum Data Set for Long-Term Care and Resident Assessment Protocol (MDS)
 - CMS also collects the Outcomes and Assessment Information Set (OASIS) for home health care

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Other National Initiatives

There are many national initiatives that are too numerous to mention. The data that is collected is used to create reports that can be used for improving the quality of care for the public.

- Data Elements for Emergency Department Systems (DEEDS) which is sponsored by the Centers for Disease Control and Prevention (CDC). A few points about this system are:
 - Collection of Emergency Room data in Acute Care
 - Incorporates national standards for data interchange
- Health Plan Employer Data and Information Set (HEDIS) which collects administrative data and clinical data. A few of the uses of the data are:
 - To analyze and assess treatment outcomes
 - Develop physician profiles

Data from the Agency for Healthcare Research and Quality (AHRQ)

- The Agency for Healthcare Research and Quality (AHRQ) offers robust data sources for researchers, clinicians, purchasers, policymakers, or consumer. From their website, here are just a few of the data sources that are available.
<http://www.hcup-us.ahrq.gov/sasidoverview.jsp>
- Emergency department visits Healthcare Cost and Utilization Project National Data:
<http://www.hcup-us.ahrq.gov/medsoverview.jsp>
- Health care disparities National Healthcare Disparities Report
<http://www.ahrq.gov/qual/qdr08.htm>
- Health care quality National Healthcare Quality Report
<http://www.ahrq.gov/qual/qdr08.htm>
- Health information data element definitions, values and information models United States Health Information Knowledgebase
<http://uhik.ahrq.gov/>
- HIV/AIDS HIVnet
<http://www.ahrq.gov/data/hivnet.htm>
- Hospitalizations Healthcare Cost and Utilization Project
<http://www.hcup-us.ahrq.gov/databases.jsp>

Internet Citation:

- Data Sources Available from AHRQ, Agency for Healthcare Research Quality, Rockville, MD.
<http://www.ahrq.gov/data/datasources.htm>

Experts Speak on Secondary Use of Data

The following are examples of two professional organizations and one government agency that looks at the issues of secondary use of data, the importance of standards, privacy, security, and accessibility

- American Health Information Management Association
 - Health Data Access, Use, and Control
www.ahima.org
- American Medical Informatics Association
 - Toward a National Framework for Secondary Use of Data, 2006
https://www.amia.org/files/workforthesecondaryuseofhealthdata_09_08_06.pdf
- National Committee on Vital and Health
 - A Stewardship Framework for "Secondary Uses" of Electronically Collected and Transmitted Health Data, 2007
<http://www.ncvhs.hhs.gov/071221ft.pdf>

Conclusions

- Data quality is based on capturing data elements that follow standards
- Using data for secondary purposes provides a robust resource for improving health care and making decisions for the future
- Organizations need to use strategic planning to determine the use of the data they collect and use

Resources

- LaTour & Eichenwald, Health Information Management. Concepts, Principles, and Practice. Third Edition, AHIMA Press
- *Data Sources Available from AHRQ*. Agency for Healthcare Research Quality, Rockville, MD. <http://www.ahrq.gov/data/dataresources.htm>
