



# COMMUNITY HEALTH INFORMATION NETWORK ANALYSIS



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The concept of Health Management Information Systems is a continually evolving process. Since the manifestation of networking information technology within the health field, an evolution of diversified program platforms has emerged. As health care needs grew, the requirement for more efficient and effective networking capabilities of computer systems began to subsequently increase. The expansion of information technology in health care from stand-alone terminal systems to the enhanced developments of Community Health Information Networks and Health Management Information Systems has only recently become an indispensable component to the operational success and growth of health organizations.

The early development of integrated medical systems consisted primarily of software that enabled the transfer of data through telephonic communications to a variety of stakeholders. The original basis of the Community Health Information Network was to allow the sharing of information within a designated geographical area with patients, providers, employers, pharmacies and other health care entities (Tan & Cobb-Payton, 2010). Still, in the early stages, many of the developing networks were limited to administrative components.

Through increased development of e-commerce the healthcare industry faced higher demands to create an information infrastructure that would allow for greater efficient and effective methods of sharing patient information across the range of stakeholders which included the patient. As health care systems began to merge creating a wider range of provider networks, the need to ensure access to pertinent patient data as well as organizational processes began an instrumental surge in the development of Community Health Information Networks that reached beyond the stand-alone terminals that transferred data through telephone lines.

The development of the Internet opened up more resources and options to transfer data to multiple system platforms. With this development came the insurgence of software vendors with

promises of efficient and effective means of operations that included computer based patient records, billing processes, vendor purchasing and an integrated platform for the dissemination of information. From this necessity, a number of Community Health Information Networks were developed, some failing, but one primary organization, the Oregon Community Health Information Network has flourished.

The development and progressive movement of the Oregon Community Health Information Network has proven to successfully link community health centers through multiple technological resources. Oregon Community Health Information Network is considered a cutting edge health information technology and service organization providing specialized services in the implementation of practice management, electronic medical records and support software products for community health centers (*About OCHIN*, n.d.). Oregon Community Health Information Network in collaboration with EPIC Systems has created a customized structure leading in practice management and electronic medical records for Federal Qualified Health Centers, Public Health Departments, and Rural Health Clinics (*About OCHIN*, n.d., para. 5). Each community health center, through this joint initiative, has been provided the opportunity to learn from their partners through sharing pertinent information to include singled shared medical records for each patient; clinical documentation tools and reporting tools that measured clinical improvement and/or organizational performances; benchmarking against each other for productivity, clinical effectiveness and other quality endeavors; as well as billing, claims submissions, population management best practices along with a number of areas for clinical improvements (*About OCHIN*, n.d., para. 2). The Oregon Community Health Information Network provides core processes and procedures through integrated systems that enhance and support the growth and development of its stakeholders.

The continued development of Community Health Information Networks has faced great scrutiny through the years due in part to the lack of support from physicians concerned about the impact of adequate financial resources. A report prepared by the National Opinion Research Center (NORC) at the University of Chicago (2005), conducted an evaluation of the information technology used in ambulatory care health centers funded through the Health Resources and Services Administration Bureau of Primary Healthcare. This report's findings assessed the Oregon Community Health Information Network's overview of key activities as follows:

Network Model-non-profit, Body of Health Community leadership, Full-time CEO, CIO, and staff; Key partners and members-over 20 health centers in Oregon, some California and Washington health centers, Oregon Primary Care Association, and State and local health departments; Ongoing or planned activities-networked practice management application (EPIC), roll-out of electronic health records using EPIC was scheduled for fall of 2005, master patient index with over 40,000 patients, and data warehouse was to be built from the existing Master Patient Information system; Major revenue sources-Hospital Care Assurance Program (HCAP), user fees, and non-federal grants (Gaylin, Goldman, Ketchel, & Moiduddin, 2005, p. 2).

Currently the Oregon Community Health Information System has twenty collaborative members from Oregon, Washington, California, Ohio, and Wisconsin (*About OCHIN*, n.d.). These key elements evidenced in this report have been vital to the success and continued productive growth of the Oregon Community Health Information Network.

Research and studies into the impact of Community Health Information Networks continue in an effort to provide quantifiable evidence of the nature, financial impact, and infrastructure as they develop. The ratification of the Patient Protection and Affordable Care Act has sparked rapid advancement in Health Information Technology. An article published in

*Health Affairs* (2010) reflected provisions within the new act included improving quality of care through expanded measurement and reporting; a reduction in costs through implementation of programs for payment services that improve efficiency of administrative processes and care delivery; and increased insurance coverage and access to care (Buntin, Jain, & Blumenthal, 2010, p. 1214). This report also evidenced that \$ 2 billion had been budgeted for the Office of the National Coordinator for Health Information Technology with another \$ 30 billion through Medicare and Medicaid incentive payments to physicians and hospitals to progress towards these health reform goals through the use of electronic health records (Buntin, Jain, & Blumenthal, p. 1215).

Further positive advancement of Community Health Information Networks was evidenced in the growth of integrated systems in Hawaii. The *PR Newswire* (2011) reported the collaboration of TeamPraxis' of Hawaii with Microsoft Corporation's Microsoft Amalga to enhance its existing physician information network ("TeamPraxis Selects Microsoft," 2011). The development of integrated systems can also be seen in studies of state wide initiatives. The results and conclusion of a study documented by the Journal of Medical Library Association revealed that an evidence based library has the ability to guide the planning process of statewide electronic health libraries once tailored to the local environment (Aspinall, Chew, Watson & Parker, 2009, p. 1). This furthers the validity of Community Health Information Networks.

The enhanced features of a community health information network can be evidenced through multiple medians. Progressive developments of Community Health Information Networks have only recently been imposed into the health arena; systems akin to the Oregon Health Information Network will continue to become indispensable to the development and progression of Health Management Information Systems.

## References

- About OCHIN*. (n.d.). Retrieved April 23, 2011, from OCHIN website: <http://www.ochin.org/about.html>
- Aspinall, E., Chew, K., Watson, L., & Parker, M. (2009). A case study: Planning a statewide information resource for health professionals: An evidence based approach. *Journal of Medical Library Association*, 97(4), 246-252. doi:10.3163/1536-5050.97.4.007
- Buntin, M., Jain, S., & Blumenthal, D. (2010). Health information technology: Laying the infrastructure for national health reform. *Health Affairs*, 29(6), 1214-1219. doi:10.1377/hlthaff.2010.0503
- Gaylin, D., Goldman, S., Ketchel, A., & Moiduddin, A. (2005, October). *Community health center information system assessment: Issues and opportunities final report*. Retrieved from Office of the Assistant Secretary for Planning and Evaluation, Health Resources and Services Administration website: <http://aspe.hhs.gov/sp/chc>
- Tan, J., & Cobb-Payton, F. (2010). *Adaptive health management information systems* (J. Tan & F. Cobb-Payton, Eds., 3rd ed.). Sudbury, MA: Jones and Bartlett.
- TeamPraxis selects Microsoft Amalga to create Hawaii's first online physician network for health care information sharing; TeamPraxis continues to empower independent physicians in Hawaii's fast-changing health care system. (2011, April 19). *PR Newswire*, par.1. Retrieved from [http://proquest.umi.com/pqdweb?did=2323769261&sid=2&Fmt=3&cl\\_ientld=74379&RQT=309&VName=PQD](http://proquest.umi.com/pqdweb?did=2323769261&sid=2&Fmt=3&cl_ientld=74379&RQT=309&VName=PQD)