

Table 1

Promotion of Personal Health Record (PHR) Interoperability

Source	Promotion
US Department of Health and Human Services (2001)	<ul style="list-style-type: none"> • Standard codes such as LOINC, ICD-9, SNOMED, HL7
Bock et al. (2005)	<ul style="list-style-type: none"> • Interoperability among health information technology systems estimated to save \$77.8 billion every year
US Department of Health and Human Services (2006)	<ul style="list-style-type: none"> • Nationwide health information network functional requirements defined
Kaelber et al. (2008)	<ul style="list-style-type: none"> • \$21 billion potential savings
Hufnagel (2009, “National”)	<ul style="list-style-type: none"> • E-Government Consolidated Health Informatics initiative formed in 2001 • Office of the National Coordinator for Health Information Technology (ONC) established in 2004 • Certification Commission for Health Information Technology formed in 2005 • Nationwide Health Information Network (NHIN) started in 2006 • NHIN Connect in 2008
Hufnagel (2009, “Interoperability”)	<ul style="list-style-type: none"> • Enhance patient safety • Speed care delivery • Increase quality of care • Federated architecture adds low or no additional cost to connected system
Robert Wood Johnson Foundation (2009)	<ul style="list-style-type: none"> • Increased value of patient information
Brennan et al. (2010)	<ul style="list-style-type: none"> • Common software platform
Jones et al. (2010)	<ul style="list-style-type: none"> • PHR certification
Kim et al. (2011)	<ul style="list-style-type: none"> • PHR certification
National eHealth Collaborative (2012)	<ul style="list-style-type: none"> • Federal mandate for interoperability • Patient Engagement Framework established
Rogoski (2012)	<ul style="list-style-type: none"> • Meaningful Use monetary incentives
Centers for Medicare and Medicaid Services (2013)	<ul style="list-style-type: none"> • Medicare/Medicaid eligible hospitals receive \$2 million to \$6.37 million in Meaningful Use incentive payments
Fabozzi (2013)	<ul style="list-style-type: none"> • Market increase of 221 percent between 2012 to 2017
Sujansky & Associates, LLC (2013)	<ul style="list-style-type: none"> • Project HealthDesign standards based on existing standards • Continua Alliance—29 data-collection devices certified as agents • Continua Alliance—45 gateway devices certified as managers • IEEE 11073 domain model • HL7 v2.6 message standard • Direct Project for secure messaging

Sources:

- Bock, C., L. Carnahan, S. Fenves, M. Gruninger, V. Kashyap, B. Lide, J. Nell, R. Raman, and R. D. Sriram. *Healthcare Strategic Focus Area: Clinical Informatics*. National Institute of Standards and Technology Report No. 7263. Gaithersburg, MD: Technology Administration, US Department of Commerce, 2005.
- Brennan, P. F., S. Downs, and G. Casper. "Project HealthDesign: Rethinking the Power and Potential of Personal Health Records." *Journal of Biomedical Informatics* 43, no. 5, suppl. (2010): S3–S5.
- Centers for Medicare and Medicaid Services. "EHR Incentive Programs." 2013. Available at <http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/> (accessed January 11, 2014).
- Fabozzi, N. "U.S. Patient Portal Market for Hospitals and Physicians: Overview and Outlook, 2012–2017." Frost & Sullivan. 2013. Available at <http://www.frost.com/prod/servlet/frost-home.pag> (accessed January 11, 2014).
- Hufnagel, S. P. "Interoperability." *Military Medicine* 174, no. 5 (2009): 43–50.
- Hufnagel, S. P. "National Electronic Health Record Interoperability Chronology." *Military Medicine* 174, no. 5 (2009): 35–42.
- Jones, D. A., J. P. Shipman, D. A. Plaut, and C. R. Seiden. "Characteristics of Personal Health Records: Findings of the Medical Library Association/National Library of Medicine Joint Electronic Personal Health Record Task Force." *Journal of the Medical Library Association* 98, no. 3 (2010): 243–49.
- Kaelber, D. C., S. Shah, A. Vincent, E. Pan, J. M. Hook, D. Johnston, D. W. Bates, and B. Middleton. *The Value of Personal Health Records*. Charlestown, MA: Center for Information Technology Leadership, 2008. Available at http://www.partners.org/cird/pdfs/CITL_PHR_Report.pdf (accessed November 4, 2013).
- Kim, J., H. Jung, and D. Bates. "History and Trends of 'Personal Health Record' Research in PubMed." *Healthcare Informatics Research* 17, no. 1 (2011): 3–17.
- National eHealth Collaborative. "The Patient Engagement Framework." 2012. <http://www.nationalehealth.org/patient-engagement-framework> (accessed September 16, 2013).
- Robert Wood Johnson Foundation. "Personal Health Records 101." October 1, 2009. Available at <http://www.rwjf.org/en/research-publications/find-rwjf-research/2010/01/feature-the-power-and-potential-of-personal-health-records/chapter-1-personal-health-records-101.html> (accessed October 15, 2013).
- Rogoski, R. R. "Bridging the EHR Divide: Hospitals, Physician Practices Work toward True Interoperability." *Healthcare Informatics* 29, no. 10 (2012): 8–12.
- Sujansky & Associates, LLC, on behalf of Project HealthDesign. *A Standards-based Model for the Sharing of Patient-generated Health Information with Electronic Health Records*. 2013. Available at http://www.projecthealthdesign.org/media/file/Standard-Model-For-Collecting-And-Reporting-PGHI_Sujansky_Assoc_2013-07-18.pdf (accessed October 26, 2013).
- US Department of Health and Human Services. *Information for Health: A Strategy for Building the National Health Information Infrastructure*. 2001. Available at <http://www.ncvhs.hhs.gov/nhiilayo.pdf> (accessed October 1, 2013).
- US Department of Health and Human Services. *Report to the Secretary of the U.S. Department of Health and Human Services on Functional Requirements Needed for the Initial Definition of a Nationwide Health Information Network (NHIN)*. 2006. Available at <http://www.ncvhs.hhs.gov/061030lt.pdf> (accessed September 18, 2013).