# Chapter 1

Executive Summary for the U.S. Health Information Exchange Market, 2012

U.S. Health Information Exchange Market Executive Summary

Executive Summary of Key Findings for the U.S. Health Information Exchange Market

Introduction and Overview

Research Methodology

Primary and Secondary Research Methodology

Forecasting Constraints

**Exclusions and Limitations** 

### Chapter 2

Glossary of Terms and Health Information Exchange Fundamentals

Acronyms and Terms

List of Acronyms and Terms

Health Information Exchange Basics

What Is Health Information Exchange?

Definition—The Basics

Is Health Information Exchange a Verb or Noun?

The Key Purpose and Function of Health Information Exchange

Key Participants in Health Information Exchange

Use Cases for Health Information Exchange

Core and Value-added Services for Health Information Exchange

**Benefits** 

Health Information Exchange Technical Overview

**Technology Components** 

**Data Transmission Types** 

Data Exchange Models

Centralized HIE

Federated HIE

Hybrid HIE

Standards

### Chapter 3

Government Efforts to Drive Health Information Exchange

Health Information Exchange in the United States

History and Background

Recent Federal Initiatives Driving Health Information Technology

Overview of HITECH Programs and Initiatives

Meaningful Use of Electronic Health Records

Moving from Stage 1 to Stage 2—Greater Focus on Health Information Exchange

The Nationwide Health Information Network

The DIRECT Project—Enabling Point-to-Point Data Exchange

### Chapter 4

Market Segmentation and Adoption

Health Information Exchange Market Segments

Introduction to Health Information Exchange Market Segmentation

Introduction to Health Information Exchange Market Segmentation

Health Information Exchange Maturity and Adoption

Development Phases, Maturity Models, and Adoption Trends for Health

Information Exchange

Health Information Exchange Development Phases

Model for Achieving Health Information Exchange Maturity

Adoption Trends in Health Information Exchange

Public HIEs/HIOs

Hospital HIE

Physician HIE

## Chapter 5

Health Information Exchange Market Engineering Measurements and Market

**Dynamics** 

Market Engineering Measurements and Market Dynamics

Market Engineering Measurements

Market Age

Market Saturation

Costs

Start-up and Implementation Costs

**Recurring Costs** 

**Price Sensitivity** 

**Potential Customers** 

Market Competitors

Degree of Competition

Degree of Technical Change

**Customer Satisfaction** 

**Customer Loyalty** 

Industry Challenges

Lack of Consistent Standards for Data Exchange

Lack of HIT System Interoperability

Need to Ensure the Privacy and Security of Protected Health Information (PHI)

Enabling Trust in Data Quality and Data Governance

Incorporation of Paper-based Information

Market Drivers

Growing Provider Consolidation

Increased Adoption of EHRs and Progressive Meaningful Use Requirements

Need to Improve Cost and Operational Efficiencies

Preparation for Accountable Care and Value-based Purchasing

Market Restraints

High Costs and Lack of ROI

Competing IT Priorities and Time Constraints

Fear of Losing Competitive Market Advantage

Lack of Uniform Goals and Strategic Vision

Uncertainty and Confusion about Overall Market Direction

### Chapter 6

Health Information Exchange Competitive Market Structure and Select Vendor

Overview of the Competitive Landscape

Competitive Market Structure

**Business Models and Pricing Approaches** 

**Business Models** 

**Pricing Approaches** 

Public HIE

Private HIEs

Select Vendor Profiles

Vendor Profiles

## Chapter 7

Summary of Strategic Market Issues and Future Trends

Health Information Exchange Strategic Market Issues and Future Trends

Summary of Strategic Market Issues and Future Trends

Efforts to Ensure the Ongoing Viability of Public HIE Likely to Increase

The Drive for Greater Information Transparency Will Continue to Challenge Privacy Concerns

The Move to Accountable Care Will Mostly Benefit Private HIEs in the Short Term

The Growth of Cloud and Mobile HIE Will Accelerate Significantly

Innovation in Providing Value-added HIE Services Will Be the Key Competitive Differentiator

# **Chapter 8**

References and Decision Support Database

References

Bibliography

Databases

Projected National Health Expenditures and Select Economic Indicators

National Health Expenditures by Source of Funds

Percent Distribution of National Health Expenditures by Source of Funds

Projected National Health Expenditures by Select Objects

Annual Revenues and Growth Rates for Select Healthcare Industries by Business Type

Annual Revenues for Select Healthcare Industries by Source of Revenue

Number and Growth Rate of Healthcare Establishments by Type

Stage 1 Meaningful Use Core Objectives for Hospitals and Eligible Providers

Stage 1 Meaningful Use Menu Objectives for Hospitals and Eligible Providers

Select Hospital Metrics

Number of Community Hospitals by Location and Ownership Type by State

Number of Active Physicians and Nurses by State

Number and Growth for Select Physician Characteristics for Total and

Office-based Populations

Number and Growth of Physician Specialties for Total and Office-based Populations

# **List of Figures**

Chapter 2

Glossary of Terms and Health Information Exchange Fundamentals

2-1 Health Information Exchange Market:

Definition of Select Terms (United States), 2012

2-2 Health Information Exchange Market:

Key Participants and Select Electronic Data Exchanged (United States), 2012

2-3 Health Information Exchange Market:

Select Core and Value-Added Health Information Exchange Services (United States), 2012

2-4 Health Information Exchange Market:

Examples of Select HIE Standards by Category (United States), 2012

# Chapter 3

Government Efforts to Drive Health Information Exchange

3-1 Health Information Exchange Market:

Select HITECH Programs and Initiatives and Allocated Funds (U.S.), 2012

3-2 Health Information Exchange Market:

Awardees for ONC's State Health Information Exchange Cooperative Agreement Program and

Challenge Grants Programs (United States), 2012

3-3 Health Information Exchange Market:

Number of Public Health Information Exchange Organizations by State (United States), 2012

3-4 Health Information Exchange Market:

Stage 2 Meaningful Use Core and Menu Objectives for Eligible Hospitals and Eligible Professionals (United States), 2012

## Chapter 5

Health Information Exchange Market Engineering Measurements and Market Dynamics

5-1 Health Information Exchange Market:

Impact of the Top Five Industry Challenges (United States), 2013-2016

5-2 Health Information Exchange Market:

Market Drivers Ranked in Order of Impact (United States), 2013-2016

5-3 Health Information Exchange: Market Restraints Ranked in Order of Impact (United States), 2013-2016

### Chapter 6

Health Information Exchange Competitive Market Structure and Select Vendor Profiles

6-1 Health Information Exchange Market:

Competitive Structure (United States), 2012

## Chapter 8

References and Decision Support Database

8-1 Decision Support Database: Projected National Health Expenditures and Selected Economic Indicators

(United States), 2009-2015

8-2 Decision Support Database: National Health Expenditures by Source of Funds (United States),

2009-2015

8-3 Decision Support Database: Percent Distribution of National Health Expenditures by Source of Funds (United States), 2009-2015

8-4 Decision Support Database: Projected National Health Expenditures by Selected Objects

(United States), 2009-2015

8-5 Decision Support Database: Annual Revenues and Growth Rates for Selected Healthcare

Industries by Business Type (United States), 2000 and 2009

- 8-6 Decision Support Database: Annual Revenues for Selected Healthcare Industries by Source of Revenue (United States), 2009
- 8-7 Decision Support Database: Number and Growth Rate of Healthcare Establishments by Type (United States), 2002 and 2007
- 8-8 Decision Support Database: Stage 1 Meaningful Use Core Objectives for

Hospitals and Eligible Professionals (United States), 2012

- 8-9 Decision Support Database: Stage 1 Meaningful Use Menu Objectives for Hospitals and Eligible Professionals (United States), 2012
- 8-10 Decision Support Database: Select Hospital Metrics (United States), 2010
- 8-11 Decision Support Database: Number of Community Hospitals by Location and Ownership Type by State (United States), 2009
- 8-12 Decision Support Database: Number of Active Physicians and Nurses by State (United States), 2009
- 8-13 Decision Support Database: Number and Growth for Select Physician Characteristics

for Total and Of fice-based Populations (United States), 2000 and 2009

8-14 Decision Support Database: Number and Growth of Physician Specialties for Total and Office-based Populations (United States), 2000 and 2009

### **List of Charts**

# Chapter 2

Glossary of Terms and Health Information Exchange Fundamentals

2.1 Health Information Exchange Market:

Health Information Exchange Use Cases by Key Stakeholders (United States), 2012

2.2 Health Information Exchange Market:

Potential Benefits and Advantages of Health Information Exchange (United States), 2012

2.3 Health Information Exchange Market:

Centralized Model (United States), 2012

2.4 Health Information Exchange Market:

Federated Model (United States), 2012

2.5 Health Information Exchange Market:

Hybrid Model (United States), 2012

#### Chapter 3

Government Efforts to Drive Health Information Exchange

3.1 Health Information Exchange Market:

Key Milestones in the Evolution of HIE from 1985 through 2011 (United States), 2012

3.2 Health Information Exchange Market:

Organizational Structure for U.S. Government Agencies Related to Health IT (United States), 2012

- 3.3 Health Information Exchange: Federal Health IT Strategic Goals (United States), 2012
- 3.4 Health Information Exchange: Core EHR Functionalities at the Heart of Meaningful Use

(United States), 2012

3.5 Health Information Exchange Market:

Meaningful Use Objectives by Stage (United States), 2012

3.6 Health Information Exchange Market:

Meaningful Use Objectives by Stage Requiring Health Information Exchange Capabilities

(United States), 2012

3.7 Health Information Exchange Market:

Participants in the Nationwide Health Information Exchange (United States), 2012

3.8 Health Information Exchange Market:

The Four Components of Nationwide Health Information Exchange (United States), 2012 Chapter 4

Market Segmentation and Adoption

4.1 Health Information Exchange Market:

Market Segments (United States), 2012

4.2 Health Information Exchange Market:

Key Phases and Activities for Developing Health Information Exchange (United States), 2012

4.3 Health Information Exchange Market:

HIE Maturity Model (United States), 2012

4.4 Health Information Exchange Market:

Information Received Via Health Information Exchange Among Hospitals

Who Own an HIE System (United States), 2012

4.5 Health Information Exchange Market:

Hospitals' Plans for HIE Adoption (United States), 2011 and 2012

### Chapter 5

Health Information Exchange Market Engineering Measurements and Market Dynamics

5.1 Health Information Exchange Market:

Market Engineering Measurements, U.S., 2012