Blueprint for E-Prescribing:
A Detailed Plan of Action for Implementing E-Prescribing

May 2008
Overview

Definition of E-Prescribing

E-Prescribing is the use of healthcare technology to improve prescription accuracy, increase patient safety and reduce costs, as well as enable secure, bi-directional, electronic connectivity between physician practices and pharmacies. This is achieved by providing prescribers a secure means of electronically accessing up-to-date health plan formulary, patient eligibility and medication history at the point of care and securely transmitting the prescription electronically into the pharmacy’s computer system. The result is more efficient prescribing processes and more accurate and legible medication orders, all of which lead to reduced prescribing errors and less manual intervention and rework at the pharmacy. Another benefit of electronic prescribing is the ability to automate the renewal authorization process, which is extremely time-consuming and labor intensive for both pharmacies and prescribers in today’s paper world.

Eliminating paper and handwritten prescriptions from the prescribing process can significantly help reduce fraud and abuse. Patient safety is improved and the estimated 3.3 million adverse drug events that occur each year can be reduced. Prescribers and their staff are able to spend more time with their patients through the elimination of illegible prescriptions, phone calls and faxes. That is because they no longer have to spend several hours every day chasing phone calls and faxes to clarify prescription information and authorize prescription renewals.
History of E-Prescribing

The press and the health literature contain numerous studies documenting how today’s paper-based prescription system results in deaths, injuries, and millions of dollars in lost productivity and unnecessary medical expenses. In 2007, for example, the Institute of Medicine (IOM) reported that more than 1.5 million Americans are injured every year by medication errors, most of which result from problems inherent in today’s paper-based system.¹ These include:

- Miscommunication due to illegible handwriting
- Unclear abbreviations and dose designations
- Unclear telephone or verbal orders
- Ambiguous orders and fax-related problems
- Complex benefits plans
- Complex prescription regimens and dosages
- Wide range of drug choices for treating a medical problem
- High incidence of Adverse Drug Events (ADEs) and error rates

In the same report, the IOM recommended that all prescriptions be written and received electronically by the year 2010. E-Prescribing uses advanced technology to connect patients, physicians, pharmacists and payers within a secured national network infrastructure. At the point of care, E-Prescribing gives the provider access to real-time patient clinical decision support information, including:

- Patient pharmacy benefit eligibility & coverage
- Formulary
- Medication history information
- Drug-drug interactions and allergies

In response to the IOM report, impetus from the Federal government, and the burgeoning efforts in the public sector, many State governments have taken the initiative to launch or support programs that encourage the adoption of healthcare technology to improve the efficiency, safety, and quality of healthcare in their respective states.

Infrastructure

The infrastructure for e-Prescribing—which includes private and secure connectivity among payer/PBMs, pharmacies and physician technology solutions—is already in place today and can be leveraged nationwide. Existing and emerging state-wide and regional e-Prescribing initiatives result in tremendous patient safety and practice efficiency benefits, as well as establish a private and public partnership that serves as a model for the rest of the nation. E-Prescribing also is a key building block for personal health records and electronic medical records and facilitates adoption of these technologies.
Healthcare data sources can connect to physicians in acute care and ambulatory settings and retail and mail order pharmacy locations through e-Prescribing network sources as the following illustration indicates:

**Workflow**

**The Process:** E-Prescribing is performed by an authorized prescriber through technology that they use within their practice. These include stand-alone e-Prescribing applications, which work on a desktop computer, laptop, or PDA, and those that are part of the functionality included in electronic medical record (EMR) systems.

Generally these applications are electronically connected in real-time to two major infrastructures that support e-Prescribing functions. Through the RxHub network, the prescriber’s e-Prescribing technology application is securely linked to the major health plans and pharmacy benefit managers to retrieve patient eligibility and medication history, as well as the information about how the health plans support a particular drug, known as their formulary. Through the SureScripts network, the applications are bi-directionally connected to retail pharmacies nationwide. There, the prescription is securely sent electronically to the pharmacy of the patient’s choice. If a refill is needed, the pharmacy electronically sends a refill request to the physician, and the physician authorizes the prescription refill.

**Creating the Prescription:** E-Prescribing begins with patients, and much of the basic information on them frequently comes through the RxHub network. Founded in February 2001 by three major Pharmacy Benefit Managers (PBMs), RxHub delivers a universal, standardized communication framework that links prescribers, mail order pharmacies, PBMs and benefits plans for the purpose of sharing prescription benefit information and exchanging prescriptions electronically with mail order and retail pharmacies. Today, RxHub is working with more than 60 key technology partners and nearly 20 PBMs, payers and health plans that provide managed care, Medicare Part D and Medicaid plan services throughout the nation. When a visit is scheduled or a prescription is written, the patient is identified through RxHub’s Master Person Index (MPI), which covers more than 200 million or 2 out of 3 Americans in the United States. The MPI is like a directory of patients with minimal demographic information (name, date of birth, gender, and zip code). This demographic information is used by complex matching algorithms to identify data sources (such as insurance plans or PBMs) that have medication history and formulary benefit information for the specific patient.
Complementing the patient medication history data available through RxHub from PBM's, SureScripts is delivering patient medication history from pharmacies to physicians. SureScripts securely connects to and aggregates a patient's medication history data stored in the databases of community pharmacies using an MPI. Those data are presented to physicians who are using a SureScripts Certified Solution Provider that has been certified for the RxHistory (medication history) service from community pharmacies. SureScripts' RxHistory service enables a physician to view the instructions that accompany their patients' prescriptions, which is known as "Sig" information. The components of "Sig" include the frequency, the route, the site of administration, the indication for the medication, certain modifiers which often are handled via slap-on labels on prescription vials and are missed by patients, conditional frequencies, and, when you get to more complex therapies, rates of infusion.

Physicians are also able to view data related to allergies and medication dispense dates. This database includes prescriptions that come to the pharmacy via phone, fax, electronic and those that come in as hand written prescriptions. The end result combines pharmacy data with medication data from existing sources to provide physicians the most complete, timely and clinically sound view of a patient's prescription history. This enables physicians to decrease the risk of preventable medication errors.

All of this patient-level information is downloaded in a matter of seconds to the doctor's e-Prescribing application. When combined with other diagnosis and treatment information, the physician can accurately prescribe the most appropriate and affordable medication at the point of care, thus helping to ensure that the correct medication is dispensed for the right patient at the right time.

The formulary, benefits and medication history information are provided in the form of standard transactions. These transactions have formed the foundation for the requirements that were implemented by the federal government as part of the Medicare Modernization Act of 2003 (MMA), which created Medicare's new prescription drug benefit known as Medicare Part D. These transactions are only available when requested by the physician through their E-Prescribing application and must comply with all aspects of the Transaction, Privacy and Security requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

HIPAA's implementing regulations have strict requirements to ensure the confidentiality, integrity, and availability of all electronic protected health information (ePHI) that is created, received, maintained, or transmitted. Examples include strict requirements for accessing and disclosing ePHI, audit controls, person and entity authentication and controls, and safeguards to protect the security of patient information. The medication history and benefits information, along with the new prescription information, may be incorporated electronically into the patient's record at the doctor's office, clinic or hospital depending on the underlying e-Prescribing application being used. This upfront information and its use in clinical decision support provide about 70 percent of the value of e-Prescribing, according to a recent study by the Gorman Group.2

---

2 The study is available on the PCMA web site at www.pcmanet.org/
Following is an illustration of patient pharmacy data elements available to RxHub certified technology partners through RxHub:

### Patient Pharmacy Eligibility Data
- **Patient Name:**
- **Health Plan Name:**
- **Patient Address:**
- **PBM Name:**
- **Patient Date of Birth:**
- **Pharmacy Retail/Mail Benefit Status:**
- **Patient Gender:**
- **Student Status:**
- **Cardholder Name:**
- **BIN:**
- **Group Name:**

### Patient Formulary Data
- **Formulary Status:** Preferred, On/Off Formulary, Not Covered
- **Formulary Alternatives:** Quantity Limit, Age Limit, Gender Limit, Product Exclusion, Medication Necessity, Prior Authorization, Step Therapy, Text Message, Resource Link
- **Drug Coverage:** Minimum/Maximum, Dollar Amount, Tier and/or Percentage
- **Drug Co-pay:**
- **CMS Formulary:**

### Patient Medication History Data
- **Date Range:**
- **Reported Pharmacy Name(s):**
- **Drug Name:** Brand and Generic
- **Reported Pharmacy Phone Number(s):**
- **Oldest Fill Date:**
- **Reported Prescriber Name(s):**
- **Most Recent Fill Date:**
- **PBM/Payer Source:**
- **Number of Fills:**
- **Days Supply:**
- **Quantity Dispensed:**

**Physician Practice – Pharmacy Connectivity:** Sending the prescription to the pharmacy and automating renewal authorizations. Founded by the pharmacy industry in August 2001, SureScripts operates the Pharmacy Health Information Exchange, which facilitates the electronic transmission of prescription information between physicians and pharmacists and provides access to life-saving information about patients during emergencies or routine care. When an electronic prescription is issued by a provider using a SureScripts’ certified vendor, it is sent electronically to the pharmacy of the patient’s choice by SureScripts’ Pharmacy Health Information Exchange. Today, more than 95 percent of all pharmacies and all major e-Prescribing physician technology vendors in the United States are certified on the Pharmacy Health Information Exchange. If the selected pharmacy is not yet live on the Pharmacy Exchange, the provider can still use the office’s e-Prescribing or EMR system to generate the prescription which will then be transmitted via fax.
RxHub also offers pharmacists working with patients at the point of dispensing access to real-time patient-specific pharmacy eligibility information in less than 3 seconds. With this information, pharmacists are able to:

- Review a patient’s eligibility information,
- Submit the claim to the appropriate insurance, or
- Submit the claim to Medicaid as payer of last resort.

Pharmacists can securely access real-time prescription coverage information from participating payers and PBMs before adjudicating the claim to a payer presented by the patient, therefore eliminating the pay and chase issue.

E-Prescribing also enables pharmacies and physician practices to communicate electronically when patients run out of their prescription refills and need their provider to authorize a prescription renewal (e-refills). E-Refills save physicians and pharmacists time and money by dramatically reducing the number of phone calls and faxes typically associated with the refill authorization process. A recent Medical Group Management Association study estimated that the time spent just on refill authorizations phone calls costs physicians $10,000 a year per physician. With e-Refills, pharmacies can send refill authorization requests directly and securely to practice computers as an alternative to time consuming phone calls and faxes. Physicians or authorized staff can then return approvals or denials with a few mouse clicks at their convenience, leaving more opportunity for patient care or other reimbursable activity. E-Refills also provide physicians with another tool to monitor patient compliance. For example, if a patient is requesting a refill too soon, this may indicate that the medication is being taken incorrectly, which could result in the patient getting sicker or an emergency room visit.

**Challenges**

**Inability to ePrescribe Controlled Substances:** So far, the Drug Enforcement Administration (DEA) has not allowed controlled substances to be e-Prescribed, which affects between 11 and 15 percent of prescriptions in the US. This prohibition is viewed as a barrier to adoption, as well as a major patient safety issue. The DEA is likely to lift its prohibition in the near future, in response to significant pressure on the DEA from Congress, other federal agencies, and the e-Prescribing industry.

**E-Prescribing Mandate:** According to some analyses, e-Prescribing adoption may increase substantially only if it is required by the Federal government, specifically for Medicare Part D. Recognizing the patient safety and cost-saving benefits of e-Prescribing for Medicare, the Pharmaceutical Care Benefit Association (PCMA) created a large coalition to lobby for this mandate. The issue has gained considerable traction in Washington, DC. For example, HHS Secretary Leavitt and the American Health Information Community have advocated for the mandatory use of e-Prescribing in Medicare Part D. The bipartisan E-MEDS Act of 2007 was introduced late in 2007 by on the Senate side by Sens. John Kerry (D-Mass), John Ensign (R-Nev.), Debbie Stabenow (D-Mich.) and Mel Martinez (R-FL), and on the House side by Reps. Jason Altamire (D-PA), Lois Capps (D-CA0, and Allyson Schwartz (D-PA). This legislation would help physicians transition to using e-prescribing in Medicare by providing two “carrots”: a one-time payment bonus to physicians for the initial cost of purchasing e-prescribing technology and an extra 1% bonus for the administrative costs attached to every Medicare prescription that a doctor writes electronically. The bill also would provide a “stick” by establishing financial penalties for Medicare physicians who do not begin to use e-prescribing by 2011.

---

3 Additional information is on the PCMA web site, www.pcmanet.org/
Lack of National Standards: There are no national standards for e-Prescribing, except for the ones promulgated by the Centers for Medicare and Medicaid Services for use in Medicare Part D. There are many standards development organizations (SDOs) that are involved in the development and updating of e-Prescribing and related technical standards for the content and transmission of e-Prescriptions. The various SDOs continue their work on an ongoing basis and the e-Prescribing industry works to incorporate the latest standards into their technologies and workflows. Recognizing the potential confusion this situation creates, the federal government has initiated standards “harmonization” efforts to help create a clearer path for e-Prescribing developers and adopters. In the meantime, some view the lack of overarching national standards as an obstacle to the informed implementation of e-Prescribing.

Reconciliation of State Laws and Requirements: There are variations in states about who may prescribe, what may be prescribed and under what circumstances. Reconciliation of those laws and requirements is important because many Americans live in one state and may obtain healthcare (including prescriptions) in another. States will need to conduct their own analysis of laws and regulations that will need to be updated to accommodate e-Prescribing in their own state, such as reconciling paper document retention requirements with electronic data storage, as well as facilitate e-Prescribing and other health information exchange (such as remote monitoring and telemedicine) across state lines.

Funding: Although e-Prescribing has rapidly taken off as an industry in the last several years, there are still pockets of slow adopters, especially small physician practices. One reason is funding. The medical community points out that certain physicians cannot afford to upgrade their practices. In response, funding and other resources are being made available by public and private sources to help jump-start adoption. These include grants, free software, free hardware and waived or reduced connectivity fees.

Use Cases are Evolving: E-Prescribing is a new industry and until recently, the use cases for it were evolving and the return on investment had not been fully demonstrated. This had been viewed by some as a reason to delay e-Prescribing adoption. E-Prescribing has now taken off and there is sufficient experience to demonstrate its value and return for both public and private payers and in many practice settings, both ambulatory and inpatient. In fact, the value of e-Prescribing is has been demonstrated so that new use cases are being developed, such as the use of real-time formulary and benefit checks to assist with Medicaid subrogation and leveraging pharmacy claims data to assist hospitals with their medication reconciliation requirements.

Need for Education and Outreach: Increasing the adoption of e-Prescribing requires education, training and support for prescribers to manage the transition from the paper to the electronic world. Organizations that are trusted by physician practices and are neutral with regard to vendor solutions are most likely to have credibility with prescribers when they provide information, tools and resources to help adopt and use the technology. It is important to understand the practice’s cultural and workflow challenges of transitioning from paper prescribing to electronic prescribing. Collaboration among participants in the process is more likely to lead to success. Educating patients also is important, so they can understand the safety benefits and cost-savings that e-Prescribing provides.
Privacy & Security

HIPAA

The Health Insurance Portability and Accountability Act of 1996 contained requirements for the development and adoption of standards for the electronic processing of health care claims and related administrative and financial transactions. These include enrollment and billing activities by health plans, clearinghouses, and health care providers, including physicians, clinics and hospitals. In general, HIPAA requirements only apply to those health plans, clearinghouses, and certain providers (known as covered entities) who submit electronic insurance claims and related transactions, which also must be done according to specific requirements, such as the use of certain standards and code sets and those for the transmission and security of the data. HIPAA and its implementing regulations also have requirements for protecting the security and confidentiality of medical records (both paper and electronic) and identifiable personal health information, including strict requirements on how the data may be accessed and used. The National Committee on Vital and Health Statistics makes recommendations on which transaction and code set standards should be adopted. The Centers for Medicare and Medicaid Services (CMS) is in charge of promulgating regulations for the adoption of new and updated HIPAA transactions and code sets. CMS also is in charge of issuing regulations on HIPAA security requirements and enforcing their use. HHS’ Office for Civil Rights (OCR) is in charge of regulations and enforcement concerning HIPAA privacy requirements (See www.cms.hhs.gov/HIPAAGeninfo/ and www.hhs.gov/ocr/hipaa). It should be noted that HIPAA requirements are a “floor,” and many states have adopted more stringent privacy and security protections. In addition, it should be noted that not everyone involved in E-Prescribing is a HIPAA covered entity. Nonetheless, the e-Prescribing industry takes HIPAA’s requirements for data privacy and security very seriously and meets or exceeds them.

Patient Consent

Generally speaking, patients must give their consent before RxHub, e-Prescribing systems, payers, PBMs and others can access their personal health information and share it for certain uses. Many health care providers and health plans choose to obtain patient consent before sharing their information for treatment, payment, and health care operations purposes, although they are not required to do so under HIPAA. In addition, specific patient consent must be sought and granted for non-routine uses and most non-health care purposes, such as for research. Patients have the right to request restrictions on the uses and disclosures of their information, such as not sharing information on such sensitive health conditions as HIV/AIDS, mental health conditions, and substance abuse. Patients need to consult with their prescriber and health plan to ensure that their confidentiality wishes are recorded and kept updated.

Privacy & Security

Adherence to Federal, State and Industry Requirements: Federal and state laws addressing the privacy and security of patient data are the cornerstones of privacy and security policies and practices in the e-Prescribing industry. RxHub and e-Prescribing systems meet or exceed the requirements of individual states and the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA). The e-Prescribing industry is an active participant in the on-going development of privacy and security standards at a very granular level in industry groups that create standards for prescriptions, health care claims, and health information technology systems. The e-Prescribing industry adheres to the complex and changing standards that are developed by these entities. The e-Prescribing industry also monitors privacy and security developments in e-health commerce, Medicare and other industries, such as banking, which may impact the security policies and standards that are used in the future.
Many entities are going beyond the basic HIPAA requirements and are adopting more stringent industry standards. For example, the Connecting for Health’s common framework calls for establishing baseline privacy protections, although participants can follow more protective practices; create additional protections based on HIPAA requirements; and customize to reflect participants’ circumstances and state laws.

**Patient Identification and Patient Information:** With RxHub, patients are identified using a master person index, which is like a directory of patients with minimal demographic information (name, date of birth, gender, and zip code). When a visit is scheduled or a prescription is written electronically, this demographic information is used by complex matching algorithms to identify data sources (i.e. insurance plans or PBMs) that have medication history and formulary benefit information for the patient. This information will help the provider safely and accurately prescribe the correct medication at the point of care, and help ensure that the correct medication is dispensed for the right patient at the right time. However, this information is obtained only when it is needed and provided only if the patient can be matched with certainty. Once obtained, the information is available for a limited period of time in the e-Prescribing network, in case there are accounting or problem resolution issues that must be addressed. The information is then purged from the e-Prescribing network system. However, the old medication history and information, along with the new prescription information, may be incorporated electronically into the patient’s record at the doctor’s office, clinic or hospital if they have a compatible electronic medical record system. There is no national database containing everyone’s personal health information.

**Access to Data:** E-Prescribing systems, network infrastructure and related business practices ensure authentication before users can enter the system. This makes sure that users really are who they say they are, and provides another layer of protection for patient data. Security procedures are in place to restrict access only to users and other entities in the e-Prescribing chain that are contractually obligated to take measures to ensure data privacy in accordance with HIPAA requirements, state laws, and agreed-on business rules. No information may be released unless the patient agrees that the data can be exchanged among the data sources and users, such as the provider, the payer and the PBM. Additionally there must be contracts in place among the users, e-Prescribing vendors data networks and data providers, which also covers subcontractors. Finally, access to patient data is “role based”. For example, office managers who need certain demographic data in order to schedule appointments may not have access to all of the patient’s clinical data. All of these processes create additional safeguards for privacy and security that far exceed the minimal and fragmented practices in today’s paper world.

**Confidentiality, Integrity, and Availability:** E-Prescribing networks have network and application security designs in place, including encryption for all exchanges that involve personally identifiable information from the receipt of the information from participants to the transmission of the information to users. Server operating systems are “hardened,” containing only essential system software. Firewalls enforce a strict access policy for contracted participants and log all traffic on the network. Network intrusion detection systems are in place, and systems are continually monitored and upgraded to prevent breaches. Internal assessments are done periodically using scanning tools to ensure network and system security and annual security risk assessments are conducted using specialists trained in this field. Data are encrypted before going off-site for backup and disaster recovery purposes.
Stakeholders

The stakeholders involved in the e-Prescribing process can include:

- **Patients**: consumers, patient groups, caregivers, patient surrogates, and advocacy groups

- **Healthcare Providers**: clinicians, hospitals, clinics, long-term care facilities, hospices, certain kinds of managed care organizations, pharmacists, and research and academic medical institutions

- **Healthcare Payers**: employers, health plans, third party payers, Medicare, Medicaid

- **Pharmacy Networks**: retail and mail order pharmacies

- **Physician Technology Vendors**: for ambulatory and acute care settings

- **Policy Makers**: State and Federal agencies, Congress, state legislators, State Medical Boards, State Boards of Pharmacy, community-based health information exchange collaboratives, standards development organizations

- **Other Interested Parties**: Medical Societies, Nursing Associations, DEA, local law enforcement entities, other groups that are involved in exchanging or receiving such electronic health information as medication history (examples include jails and schools)

Value to Stakeholders

E-Prescribing promotes greater efficiency and patient safety while reducing clinical workflow costs through real-time delivery of necessary clinical and economic decision support information, at the point of care, through a nationwide utility information exchange that connects prescribers, pharmacies and payers. By assuring that vital patient information can be easily accessed at the point of decision making, e-Prescribing enables clinicians to provide the informed continuity of care necessary to reduce costly errors and improve patient safety.

The benefits of using e-Prescribing are extended to Patients, Clinicians, Pharmacists, and Payers:

- Patients can optimize their prescription drug benefits, choose any pharmacy of their choice, whether it be a retail or mail order service, and enjoy greater convenience and reduced hassles of prescription delivery.

- Clinicians can use any technology application that has been certified by RxHub to participate in the network to improve patient safety by becoming informed by the patients’ prescription drug benefits, and save time in the prescribing and renewal process.

- Pharmacists can increase productivity in the prescription delivery process and deliver the safest possible medical care, and improve the overall quality of patient care.

- Health Benefit Plans can improve formulary compliance, achieve more efficient generic/therapeutic interchange, and reduce administrative time and cost.
E-Prescribing Stakeholder Business Model

Stakeholders within the e-Prescribing industry benefit from having access to real-time, patient-specific information provided by certified PBMs and Payers connected to the RxHub network. As of March 2008, the RxHub National Patient Health Information Network has access to information on more than 200 million Americans.

PBMs and Payers provide a transaction fee to RxHub for every patient found within the RxHub Master Person Index (MPI). Authorized clinicians request patient-specific pharmacy eligibility, benefits and coverage and formulary information for the patients they treat. The PBMs and Payers pay for the value they receive by providing clinicians with real-time access to patient-specific pharmacy information at the point of prescribing. Access to this information saves costs for health plans and patients by enabling physicians to prescribe clinically appropriate and cost-effective medications at the point of care.

Acute Care settings provide a transaction fee to RxHub for patient medication history records provided back from the PBMs and Payers. Hospitals and Emergency Rooms are able to use the pharmacy medication claims history to begin the Medication Reconciliation process. Prescribers are not charged.

Retail and Mail Order pharmacies provide a transaction fee to RxHub for electronic prescriptions routed to them. Pharmacies provide a transaction fee to SureScripts for electronic information that is routed to them.
Government Involvement

Federal

Agency for Healthcare Quality and Research (AHRQ): This HHS agency supports a variety of research on a variety of health information technology issues, including e-Prescribing. In 2006, AHRQ partnered with the Centers for Medicare and Medicaid Services (CMS, see below) to conduct the pilot projects to test e-Prescribing standards, as required by the MMA. Descriptions of the agency’s portfolio, research funding opportunities, and the MMA pilot study findings are available on the agency’s web site, www.ahrq.gov/.

Medicare: The Medicare Modernization Act of 2003 (MMA) made e-Prescribing voluntary for use by physicians and pharmacies that are caring for beneficiaries enrolled in the newly created Medicare drug benefit (Part D). The MMA also required payers to support e-Prescribing if physicians and pharmacies chose to adopt it. Finally, the MMA called for the adoption of standards to handle a variety of e-Prescribing transactions. The statute called for the National Committee on Vital and Health Statistics (see below) to make recommendations to the Secretary of the Department of Health and Human Services (HHS) on which standards to adopt. Those that HHS adopts are set forth in regulations promulgated by the Centers for Medicare and Medicaid Services (CMS), the agency that runs both the Medicare and Medicaid programs. Details are on the CMS web site, www.cms.hhs.gov/.

Medicaid: CMS also provided funding to states to conduct a variety of e-Prescribing and HIT-related projects through Medicaid Transformational Grants, which were awarded competitively in 2007. Details are on the CMS web site, www.cms.hhs.gov/. State Medicaid programs are recognizing the benefits of e-Prescribing, and are beginning to use it for their beneficiaries.

National Committee on Vital and Health Statistics (NCVHS): NCVHS is one of the Nation’s oldest federal advisory committees. It makes recommendations to the HHS Secretary on a number of health-related issues, including adoption of standards for HIPAA related transactions and e-Prescribing standards as required by statute. Recommendations come from Committee deliberations following hearings in which experts provide both written and oral testimony on particular issues. Hearing schedules, agendas, transcripts and work products, such as recommendation letters and reports, are available on the NCVHS web site, www.ncvhs.hhs.gov/.

Office of the National Coordinator (ONC): The Office of the National Coordinator for Health Information Technology (ONC) advises the HHS Secretary and HHS agencies on issues related to the development and nationwide implementation of an interoperable health information technology infrastructure. It has awarded contracts for the development of the National Health Information Network, which is a “network of networks” aimed at securely interconnecting various HIE networks and the users they support. The ONC also provides management and logistical support for the American Health Information Community (AHIC), which is an advisory group consisting of industry leaders in health and HIE. The AHIC recently recommended that e-Prescribing be mandatory for use in Medicare Part D (See http://os.hhs.gov/healthit/).

Quality Improvement Organizations (QIOs): Under the direction of CMS, the Quality Improvement Organization (QIO) Program consists of a national network of 53 QIOs, responsible for each U.S. state, territory, and the District of Columbia. QIOs work with consumers and physicians, hospitals, and other caregivers to refine care delivery systems to make sure patients get the right care at the right time, particularly patients from underserved populations. The Program also safeguards the integrity of the Medicare Trust Fund by ensuring that payment is made only for medically necessary services, and investigates beneficiary complaints about quality of care. Under the “8th Scope of Work,” QIOs were directed to work with physicians and others to increase e-Prescribing adoption in their respective areas. (See www.cms.hhs.gov/qualityimprovementorgs/).
States

**Embracing E-Prescribing:** E-Prescribing now can be done in all 50 states, and the National Governors’ Association will be recommending that states adopt e-Prescribing. Many governors already have announced e-Prescribing initiatives, including requiring e-Prescribing for state employees who need prescriptions. Many states already have e-Prescribing initiatives in place or in the works, many of which are funded by Medicaid Transformation Grants awarded by the Centers for Medicare and Medicaid Services in 2007.

**Drug Filtering:** Drug filtering is removing drugs from the patient’s medication history in response to consumer requests and applicable federal and state laws. This usually occurs for drugs associated with the treatment of sensitive conditions, such as HIV/AIDS, mental health and substance abuse. However, some patients may choose to share only part of their data with certain providers, for personal reasons.

From RxHub’s perspective, the act of filtering sensitive drugs is determined by the different entities involved with the transacting and storing of patient medication data. Every organization that has access to and provides patient data - especially sensitive medication history - has the responsibility to abide by applicable Federal and State laws. Technology Vendors that are offering their eprescribing products in certain areas are charged with understanding all e-Prescribing rules and regulations that apply in those locations – including any sensitive drug filtering laws. Unfortunately, there is no central location for rules and regulations around sensitive drug filtering. Some states are more focused on this issue and others that are not. For those states that are, they have defined requirements in addition to the federal HIPAA requirements that they want to be enforced, based on their interpretation. An example is the Massachusetts Fair Information Practice Act (FIPA), which applies to Medicaid members and State employees.

The Massachusetts Health Data Consortium conducted an initiative that required the filtering of drugs. The complete study is found at: [http://www.mahealthdata.org/ma-share/projects/medsinfo/20050825_MedsInfo-ED_FinalRpt.pdf](http://www.mahealthdata.org/ma-share/projects/medsinfo/20050825_MedsInfo-ED_FinalRpt.pdf). It contains guidance to determine what medication history information needs to be filtered. Additional information is found at: [www.mahealthdata.org/ma-share/projects/medsinfo.html](http://www.mahealthdata.org/ma-share/projects/medsinfo.html) and "Regulatory and Policy Barriers to Effective Clinical Data Exchange: Lessons Learned from MedsInfo-ED". This article can be found at: [http://content.healthaffairs.org/cgi/content/abstract/24/5/1197](http://content.healthaffairs.org/cgi/content/abstract/24/5/1197)

**Use in Disasters:** States can call upon the e-Prescribing industry in case of emergencies, such as natural disasters. In response to the lessons learned in the aftermath of Hurricane Katrina, a collaborative of public and private organizations launched ICERx.org (In Case of Emergency Prescription Database). This is an online resource that allows authorized physicians and pharmacists who are assisting disaster-affected individuals to obtain the medication records of evacuees. The prescription history information is pooled from a variety of sources participating in ICERx.org, including RxHub, pharmacy benefit managers and state Medicaid programs. Armed with this information, health care professionals will be able to safely renew prescriptions for evacuees and effectively assist in the coordination of care, while avoiding harmful prescription errors and potential drug interactions. ICERx.org was activated in California during the 2007 wildfires to help evacuees obtain emergency access to their medication history so they could obtain the prescriptions they needed. For more information, visit [www.icerx.org](http://www.icerx.org).

**Integration with RHIOs and Other Health Information Exchange Networks:** Nearly all states are becoming wired for health information exchange (HIE), including the creation of Regional Health Information Organizations (RHIOs). These and other HIEs ultimately are viewed as participating in the National Health Information Network that is being developed by the federal government. E-Prescribing is the health information exchange that can be done today, as both the technology and infrastructure for it are in place and millions of transactions are flowing through the networks every day among clinicians, payers and pharmacies. States and localities
will need to consider how they can leverage e-Prescribing in their future HIE planning and implementation.

**Health IT Investment:** Significant new HIT investments in States are expected in the near term. During the next five years, the contracts for nearly all of the vendor-operated Medicaid Management Information Systems (MMIS) in about two-thirds of the states will come up for renewal. Meanwhile, the remaining states, which operate their own MMIS systems, could consider outsourcing.³ States are likely to computerize more Medicaid-related functions that currently are done manually. They also are likely to pursue technology solutions, such as real-time eligibility checks that can be done through RxHub. This can help reduce administrative overhead and improve the timeliness, quality and interoperability of the data that are collected.

---

³ iHealth Beat (2008, January 15). Health IT Funding to Jump in the Next Five Years.
Incentives

**Pay for Use.** Some payers and others are providing incentives for clinicians to use e-Prescribing. This usually takes the form of a bonus payment per prescription, such as 50 cents per prescription that is transmitted.

**Pay for Performance.** Public and private payers are beginning to create programs to reward physicians for using e-Prescribing to demonstrably improve the health outcomes of patients. These programs typically are based on standards from national organizations including Medicare, medical specialty societies and the National Committee for Quality Assurance. Physician reimbursement—such as bonuses or payments for rendering care—would then be increased for meeting a variety of care standards and outcomes.

**Adoption incentives.** Funding and other resources are being made available by public and private sources to help jump-start adoption. These include grants, free software, free hardware and waived or reduced connectivity fees. There are a number of bills in Congress that also address adoption incentives. If enacted, this legislation also would provide such adoption incentives for e-Prescribing as grants and payment incentives. For example, the e-MEDS Act of 2007 would help physicians transition to using e-prescribing in Medicare by providing two “carrots”: a one-time payment bonus to physicians for the initial cost of purchasing e-prescribing technology and an extra 1% bonus for the administrative costs attached to every Medicare prescription that a doctor writes electronically. The bill also would provide a “stick” by establishing financial penalties for Medicare physicians who do not begin to use e-prescribing by 2011.

**Technology Grants.** Some payers and State Medicaid Agencies are also offering technical assistance and ongoing support for community physicians who choose to participate in the ePrescribing workflow.
Reporting

The concept of activity reporting has gained tremendous momentum as electronic health records and enhanced data sharing are becoming a reality.

In October 2007, the eHealth Initiative released its "eHealth Initiative Blueprint: Building Consensus for Common Action". The "Blueprint" presented a multi-stakeholder shared vision and defined a set of principles, strategies and actions for improving health and healthcare through information technology. Throughout the "Blueprint" the need for activity or performance reporting is referenced repeatedly as necessary to measure quality and efficiency and show the value obtained through information technology. Specific excerpts from the eHealth Initiative Blueprint include:

- In the “Transforming Care Delivery at the Point of Care” section, Strategy 4 calls to utilize accepted methodologies of reporting to monitor and report on rates of HIT adoption. Strategy 7.6 in the same section calls for developing minimum standards for performance data reporting and Strategy 8.0 calls for HIT processes and applications to collect data at all points of care as part of the normal workflow that enables utilization for multiple purposes including healthcare quality improvement, decision support and performance data reporting as well as others. Strategy 10.0 calls to establish and use quality measures and decision support tools.

- In the “Improving Population Health” Section the “Blueprint’s” 4th principle suggests that Healthcare Organizations should support the use of a common set of data derived directly from the care delivery processes for multiple purposes. This is further supported by Strategy 4.0 in the same section calling for definition and prioritization of a set of common data elements that are needed for multiple priority health uses.

- In the Aligning Financial and Other Incentives” Strategy 4.4 calls for Quality Improvement Organizations (QIOs, which are working in all states and the District of Columbia and are funded by CMS) and Provider Organizations to educate providers on the value of data capture and to participate in quality reporting. Strategy 8.0 calls for creation of evidence based performance measures to maximize impact, streamline and standardize reporting. Finally, Strategy 9.4 calls for Employers, Health Plans and others to utilize standard data elements and electronic measure specifications in the collection and reporting methodologies.

In addition to the eHealth Initiative, other organization and coalitions including the AQA (www.aqaalliance.org formally known as the Ambulatory Quality Alliance), Leapfrog (www.leapfroggroup.org), Bridges to Excellence (www.bridgestoexcellence.org) and others all call for or utilize standardized activity reporting to measure and monitor their programs.

The PBM/Payer community also is widely recognized for significant investment in both dollars and resources to develop the national infrastructure required to support informed electronic prescribing. A critical component required for future funding will be consistent documentation of process improvements that are reflected in improved quality and efficiency of care.

RxHub’s efforts to standardize the format and delivery of e-Prescribing activity reporting in the Quarterly Progress Report: E-Prescribing Impact on Healthcare in the United States supports what is becoming an industry standard for health information technology. The purpose of this report is to provide pharmacy payers with better and more consistent data to demonstrate the true value of e-Prescribing to plan sponsors. Additional stakeholders such as e-Prescribing coalitions, HIEs and state/federal governments may also benefit from aggregate data reporting.
The Quarterly Progress Report: E-Prescribing Impact on Healthcare in the United States is the collection of data at all points of care as part of the normal workflow that enables utilization for multiple purposes including healthcare quality improvement, decision support and performance data reporting. Features and outcomes of this report include:

- Evidence based performance measures that maximize impact, streamline and standardize reporting, and allow for new and creative incentive programs.

- Data usage trends identifying overall industry utilization and adoption rates.

- Statistical data demonstrating the economic impact of e-Prescribing on drug trends.

The Quarterly Progress Report: E-Prescribing Impact on Healthcare in the United States will provide quarterly updates on the following aggregate E-Prescribing data exchanged through RxHub:

**Stakeholders**
- Range of patient records accessible through the RxHub National Patient Health Information Network™ by State
- Growth of active clinicians practicing e-Prescribing
- Growth of e-Prescribing Technology Vendors

**Decision Support Information**
- Growth of patient-level eligibility transactions representing a patient visit to a physician who is utilizing an RxHub certified Technology Vendor application
- Top states requesting patient-level eligibility, benefits and formulary information
- Growth of e-Prescriptions by Formulary Status
- Growth of e-Prescriptions by Brand versus Generic
- Growth of patient medication history transactions
- Growth of drug utilization review alerts by E-Prescription

**E-Prescriptions**
- Growth of e-Prescriptions by Type
- Growth of e-Prescriptions by Delivery Method
- Growth of e-Prescriptions by Platform
Industry Initiatives

Florida (ePrescribe Florida)

E-Prescribe Florida is a coalition of providers, payers, vendors, and other stakeholders, which have joined together to promote e-prescribing adoption in the state. Activities include listing of certified e-Prescribing vendors, as a way to help physicians find a technology solution to meet their needs; education and outreach seminars; and a three-day educational seminar that brought together providers and their families, pharmacists, pharmacies, vendors, speakers and others.

Massachusetts eRx Collaborative

The eRx Collaborative was established in October 2003 as an outgrowth of individual e-Prescribing pilots at Blue Cross Blue Shield of Massachusetts and Tufts Health Plan. Neighborhood Health Plan joined in August 2004. Initially the eRx Collaborative partnered with ZixCorp as the technology provider and added DrFirst to the program in 2005. Together they collaborate to promote and enable the use of electronic prescribing in Massachusetts.

Through the program, eligible prescribers can receive sponsorship which includes: Hand-held device loaded with e-Prescribing software, one year license fee and support, six months of Internet connectivity, deployment (including training & one time patient data download), and access to a browser version of the software from any PC with Internet connectivity.

During 2007, the eRx Collaborative continued to promote e-Prescribing in Massachusetts and implemented programs to increase utilization. Specific areas of focus included: Sponsorship of 200 new licenses for eligible prescribers, served as a model for e-Prescribing implementation for the nation, further evaluated e-Prescribing’s impact on quality, safety and affordability, focused on patient safety and healthcare quality research, and expanded stakeholder relationships in Massachusetts to further promote adoption.

New Mexico Prescription Improvement Coalition (NMPIC)

The New Mexico Prescription Improvement Coalition (NMPIC) has launched a pilot project to promote the adoption of e-prescribing. During the first year, the pilot sponsored 128 physicians in New Mexico to enable them to implement e-prescribing by paying their implementation and annual subscription expenses. In all, the pilot will support participant administrative and subscription fees for two years, for up to 300 physicians, until January 2010.

NMPIC is requiring selected e-prescribing vendors to track physician-generated credits and invoice participating health plans accordingly. Vendors are also responsible for establishing the credit fund and accounting, determining physician annual subscription fee reimbursement, and quarterly reporting to NMPIC. Allscripts, DrFirst, Relay Health, RxNT, and ZixCorp have been selected as vendors supporting the pilot.

Four health plans serving New Mexicans and the state’s Medicaid division are on board as sponsoring organizations, based on prorated market shares. Sponsoring organizations are responsible for funding pilot implementation costs. The New Mexico Medical Review Association (NMMRA), the Medicare Quality Improvement Organization for New Mexico and the organization that facilitates NMPIC, is signing agreements with sponsors and with vendors on behalf of the

5 Additional information is on the e-Prescribe Florida web site, http://www.eprescribeflorida.com/
coalition. In addition, NMMRA is collecting funds from sponsors and acting as financial intermediary for the vendors. All contracts with health plans are in place, and all participating health plans and Medicaid are in the process of reviewing their vendor contracts.

**Southeast Michigan e-Prescribing Initiative (SEMI)**

The Southeastern Michigan ePrescribing Initiative (SEMI) is a coalition involving the three major U.S. automakers – General Motors, Ford and Chrysler – as well as the United Auto Workers, Blue Cross Blue Shield of Michigan, the Health Alliance Plan, Henry Ford Medical Group, Medco Health Solutions, CVS/Caremark, RxHub and SureScripts. Established in 2005, SEMI’s mission is to encourage the adoption and use of ePrescribing technology among Michigan physicians in order to reduce medication errors and lower healthcare costs. Presently there are almost 3,000 physicians participating in the SEMI program transmitting more than 300,000 e-Prescriptions each month.

Since the inception of SEMI's program, almost 3,000 participating physicians have generated nearly 7.5 million prescriptions using ePrescribing technology. In addition, SEMI has found that ePrescribing substantially improves patient safety by alerting physicians of risks related to drug interactions and other potential medication problems. These alerts resulted in a significant number of prescription changes that prevented possible adverse events. In addition, the analysis indicated that formulary compliance also improved.

The review of 4.2 million electronic prescriptions showed:

- A severe or moderate drug-to-drug alert was sent to physicians for nearly 1.3 million prescriptions (31 percent), resulting in more than 508,000 (41 percent) of those prescriptions being changed or canceled by the prescribing doctor.
- Nearly 120,000 medication allergy alerts were presented, of which nearly 49,000 (40 percent) were acted upon
- When a formulary alert was presented, 38 percent of the time the physician changed the prescription to comply with formulary requirements

These results show ePrescribing can have a substantive impact on patient safety and overall health care costs.
Blueprint for E-Prescribing in Your Community

Founding Participants

Notify and engage initial founding participants of the intended to create a state-wide or regional e-Prescribing initiative as well as identify possible implementation approaches. This will be a small group initially with intentions of wide expansions later as the initiative progresses. This group may consist of the following:

- State professional associations (e.g. Medical Society, Pharmacy Association, Hospital Association)
- State agencies (e.g. Medical and State Department of Health Administration or equivalent)
- Health Plans/PBMs
- Employers
- Pharmacies
- Retail e-Prescribing Pharmacy networks
- RxHub

E-Prescribing Program Objectives

Determine the key objectives of the program. For example objectives could include:

- Enhanced safety due to DUR alerts during the e-Prescribing process
- Stronger adherence to formulary
- Increased use of generics
- Broader eHealth adoption across a given geographic location, such as county or metropolitan area

Once objectives are developed, incentives to align with the objectives can be identified.

Possible Incentives

Identify approaches to possible adoption incentives along with the financing options for each. Incentives might include provision of free or reduced hardware, software and connectivity; pay for use; and pay for performance. Incentives are an important piece of making the overall effort successful. Incentives should be aligned with the overall program objectives. It is also important to develop a standardized incentive administration plan that informs all participants about what administrative, claims, and usage data need to be collected in order for incentives to be realized.

Metrics

It is key to identify both the metrics needed to support the objectives as well as a standardized approach to gather them and analyze them. For example, an electronic activity report can simplify data collection without being obtrusive to clinicians, yet allow for consistent and standardized data to be collected. See the Reporting section for more information.

Technology Landscape

Identify the current technology companies involved in e-Prescribing in the State. Determine the readiness for e-Prescribing as well as identify the gaps and roadblocks to the adoption of e-Prescribing solutions.
E-Prescribing Technology Vendors
Identify which and how many e-Prescribing technology vendors will participate in the initiative. All vendors should have connectivity and recent certification by RxHub and a retail e-Prescribing network. All participating tech vendors must agree to supply the data needed by the initiative to monitor the program.

E-Prescribing Program

Engage Additional Stakeholders
Key organizations and associations will assist to identify champions to be used for wider engagement of stakeholders and for promotion of the state wide initiative. Prescribers are more likely to have buy-in once the infrastructure and incentives are in place and a critical mass of patients are included in the MPI so that formulary and benefit and medication history information can be leveraged. Below is a list of stakeholders to be engaged as the initiative is implemented.

- **Patients**: consumers, patient groups, caregivers, patient surrogates, and advocacy groups
- **Healthcare Providers**: clinicians, hospitals, clinics, long-term care facilities, hospices, certain kinds of managed care organizations, pharmacists, and research and academic medical institutions
- **Healthcare Payers**: employers, health plans, third party payers, Medicare, Medicaid
- **Pharmacy Networks**: retail and mail order pharmacies
- **Physician Technology Vendors**: for ambulatory and acute care settings
- **Policy Makers**: State and Federal agencies, Congress, state legislators, State Boards of Pharmacy, community-based health information exchange collaboratives, standards development organizations
- **Other Interested Parties**: Medical Societies, Nursing Associations, DEA, local law enforcement entities, other groups that are involved in exchanging or receiving such electronic health information as medication history (examples include jails and schools)

Bring Stakeholders Together
- Identify both stakeholder-specific and common concerns for adoption and implementation (e.g., establishing trust and creating a governance structure)
- Identify cross-cutting issues for adoption and implementation
- Discuss defined objectives
- Identify resources/incentives
  - Federal grants
  - Pay for performance programs
  - Other incentive, implementation or grant programs available from foundations, associations, payers, etc.
Develop Plan for Deployment and Evaluation

- Determine readiness
  - By sector
  - By stakeholder
  - Gap analysis
- Develop implementation timelines/milestones
- Determine resource needs
- Develop measures for implementation and evaluation
  - Critical success factors
  - Specific success measures

Develop Outreach and Education to Stakeholders

- Multi-pronged approach
  - Cultural and literacy appropriateness
  - Leverage current PR/public affairs efforts of key stakeholders
  - Separate outreach/education efforts to key stakeholders, such as consumers
  - Use of existing multi-media (e.g., Websites, brochures, newsletters)
  - Development of articles for placement in stakeholder efforts
    - Programs tailored to specific information needs of various stakeholders
    - Programs tailored to specific provider types, sites of care
  - Types of facilities (e.g., clinics, solo practitioner offices)
  - Geographic location (e.g., urban vs. rural)

Conduct Evaluation

- Based on identified measures
- Results made available
- Re-evaluate program on a routine basis and rest objectives and incentives as needed

Contracting Process

A variety of contracts would need to be put in place. For example, most vendors and networks will require a nondisclosure agreement with participants and they also will need individual agreements with the State for e-Prescribing connectivity. Business associate agreements would need to be put in place with a range of HIE participants—including various technology vendors, infrastructure providers and others—with the HIPAA covered entities (principally prescribers and health plans). This ensures the privacy, confidentiality and security of the HIE.
**Implementation Process**

There are a number of steps in order to actually connect to an e-Prescribing vendor and network. The two major processes involve certificating testing and connectivity.

**Certification Testing**

The Implementation Process includes a stage called Certification Testing to ensure a Participant’s compliance with the required standard transactions and minimum functionality requirements. Participants must be certified for connectivity and the desired transaction set. Certifying a transaction ensures that a Participant can produce the transaction in the proper format and can handle application scenarios in the appropriate manner. Once certified, and following a transition period into production, a participant will be ready to conduct transactions.

**Connectivity**

RxHub and SureScripts have established standard connectivity methods for integration with participants. Their technical staff will work with the Participant during implementation to determine the best connectivity method for their environment. The implemented connectivity method depends on the Participant’s existing infrastructure and the anticipated transaction volumes.
Regional Health Information Organizations (RHIO)

Regional Health Information Organizations (RHIOs) and Health Information Exchanges (HIEs) are forming in many communities and regions across the United States. The Office of the National Coordinator for Health Information Technology via grants from CMS is investigating the opportunity for a National Health Information Network (NHIN) that would create the opportunity to share information within and across RHIOs and HIEs.

At the time of this publication, The American Health Information Community (AHIC) is in the process of more clearly defining and delineating between RHIOs and HIEs. However, various initiatives are underway to share health information, at least, within a region. Initiatives have looked at sharing medication history, labs, discharge summaries, clinical documentation, radiology reports and information from patient Electronic Health Records.

Some of the regional initiatives also include an e-Prescribing component. Focused regional e-Prescribing initiatives have been shown to be one of the most successful methods for increasing adoption of health information technology, often providing a first step to a patient EHR.

E-Prescribing Coalitions

There are several regional e-Prescribing coalitions that have formed over the past few years. Below is a listing of some of the coalitions RxHub is involved with:

<table>
<thead>
<tr>
<th>State</th>
<th>Coalition Group</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>APIPS ePrescribing Initiative</td>
<td>Terri L. Warholak, Ph.D., R.Ph. Assistant Professor, Dept of Pharmacy 520.626.4240</td>
</tr>
<tr>
<td>California</td>
<td>Cal RHIO <a href="http://www.calrhio.org">www.calrhio.org</a></td>
<td>Donald Holmquest, CEO 415.537.6944 <a href="mailto:dholmquest@calrhio.org">dholmquest@calrhio.org</a></td>
</tr>
<tr>
<td>Florida</td>
<td>ePrescribe Florida <a href="http://www.eprescribeflorida.com/">http://www.eprescribeflorida.com/</a></td>
<td>Walt Culbertson Executive Director, ePrescribe Florida 904.230.1336 <a href="mailto:WaltCulbertson@ePrescribeFlorida.com">WaltCulbertson@ePrescribeFlorida.com</a></td>
</tr>
<tr>
<td>Georgia</td>
<td>Center for Health Transformation Georgia Health Information Exchange (GHIE)</td>
<td>Michael Heekin <a href="mailto:heekin@mindspring.com">heekin@mindspring.com</a></td>
</tr>
<tr>
<td>Indiana</td>
<td>Indiana Health Information Exchange (IHIE) <a href="http://www.ihie.com/">http://www.ihie.com/</a></td>
<td>Email: <a href="mailto:info@ihie.com">info@ihie.com</a> Phone: 317.644.1750 Fax: 317.644.1751</td>
</tr>
<tr>
<td>Illinois</td>
<td>E-Rx Collaborative</td>
<td>Devore Culver, Executive Director HealthInfoNet 207.430.0676 <a href="mailto:dculver@hinfonet.org">dculver@hinfonet.org</a></td>
</tr>
<tr>
<td>Maine</td>
<td>MA-SHARE RxGateway</td>
<td>Gail Fournier, Program Manager 781.290.1356 <a href="mailto:Gfourni3@csc.com">Gfourni3@csc.com</a></td>
</tr>
<tr>
<td>Massachusetts</td>
<td>eRx Collaborative</td>
<td>Adrienne Cyrulik 617.246.5452  <a href="mailto:Adrienne.Cyrulik@bcbsma.com">Adrienne.Cyrulik@bcbsma.com</a></td>
</tr>
<tr>
<td>State</td>
<td>Coalition Group</td>
<td>Contact Information</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Michigan</td>
<td>Southeast Michigan Initiative(SEMI)</td>
<td>Tony Schueth, Project Manager, Point-of-Care Partners, 954.346.1999, <a href="mailto:tonys@pocp.com">tonys@pocp.com</a></td>
</tr>
<tr>
<td>New Hampshire</td>
<td></td>
<td>Patrick Miller, Research Associate Professor, University of New Hampshire, 603.536.4265, <a href="mailto:Patrick.miller@unh.edu">Patrick.miller@unh.edu</a></td>
</tr>
<tr>
<td>New Jersey</td>
<td>BCBS NJ/Horizon/Caremark</td>
<td>Mihir H. Patel, Pharm.D., 973.466.7896, <a href="mailto:Mihir_patel@horizonblue.com">Mihir_patel@horizonblue.com</a></td>
</tr>
<tr>
<td>New Mexico</td>
<td>New Mexico Prescription Improvement Coalition (NMPIC)</td>
<td>Galina Priloutskaya, PhD, MBA, CHCA Manager, Medicare Part D/Senior Analyst, NM Medical Review Association, 505.998.9765, <a href="mailto:gpriloutskaya@nmmra.org">gpriloutskaya@nmmra.org</a></td>
</tr>
<tr>
<td>North Carolina</td>
<td>BCBS NC/NCHICA</td>
<td>Holt Anderson, Executive Director, 919.558.9258, ext. 27, <a href="mailto:holt@nchica.org">holt@nchica.org</a>, Ron E. Smith, Vice President, 919.765.3094</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Rhode Island Quality Institute (RIQI)</td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td>State of Tennessee ePrescribing Initiative</td>
<td>Antoine Agassi, State of Tennessee, 615.253.7667, <a href="mailto:Antoine.agassi@state.tn.us">Antoine.agassi@state.tn.us</a></td>
</tr>
</tbody>
</table>
Medication History: Beyond E-Prescribing

Medication Reconciliation - Acute Care Setting

In 2004, the Joint Commission for Accreditation of Hospital Organizations (JCAHO), created a safety standard for all hospitals to have a formalized Medication Reconciliation process in place by January 1, 2006. The standard mandated that medication reconciliation needed to take place at “all transitions of care”. This standard makes a lot of sense. During a normal hospital admission, multiple clinicians often take a medication history. A nurse, pharmacist, resident, attending physician hospitalist or primary care physician may each perform this task, all with varying results. JCAHO’s message was clear: create a process that allows a single reconciled medication history to exist and provide the ability to reconcile at each patient transition (i.e. transfer from ER to hospital bed, transfer within the hospital, discharged to another facility or home).

The “transition” that is often the most difficult is the transition that takes place at hospital or Emergency Room (ER) admission. It is at this transition that a clinician must rely on the patient, a relative or significant other, or a “brown bag” of medications to try to establish the baseline medication history list. This transition is fraught with mishap potential. Patients may or may not be coherent at the time of admission - they rarely remember the names of their drugs and usually don’t bring them. Secondary parties, such as caregivers, are often unreliable unless they are intimately involved with the patient’s day to day care. Even if the patient brings their medications, they must be sorted through, verified and documented. This is a time-consuming and labor-intensive process, which is fraught with the potential for error.

In 2003 RxHub created RxHub MEDS, leveraging the expertise in e-Prescribing to bring a patient’s pharmacy claims history to the point of an acute care admission. Patient medication claims history information is an accurate and longitudinal record of how a patient utilizes their drug benefit to purchase prescriptions. The patient medication claims history information returned through RxHub to the authorized RxHub certified technology applications include the following data components:

- Drug name
- Dose
- Quantity dispensed
- Days supply
- Dispensing pharmacy and phone number
- Prescribing physician.

The patient medication claims history information represents a selected timeframe of prescriptions purchased utilizing the patient’s active pharmacy benefit(s). Some patients may have multiple active coverages. All coverages with mediation histories will be included in the response back to the authorized requestor. Because the information is based on claims data, it can help signal whether or not a patient is adhering to their chronic medication regimen. For example, if a patient presents to the emergency room in heart failure, the patient medication claims history information can inform the treating clinician as to how often the patient is purchasing their heart failure medication. If the 30 day supply is only being filled every 60 days, there may be a compliance issue, which could play into the reason for the emergency room visit.
**Benefits:** RxHub electronically routes up-to-date patient medication claims history and pharmacy benefit information to physicians through point of care technology applications. The RxHub patient medication claims history service provides a patient’s purchasing history of prescription drugs that were covered by their pharmacy benefit. This data along with the technology application DUR capabilities can provide the following benefits:

- Improve patient safety
- Avoid drug duplication
- Reduce adverse drug events
- Monitor patient adherence to treatment program
- Potential to reduce healthcare costs

The clinician can use this information as a starting point to obtain a complete medication history from a patient and to determine adherence to medication regimen. It will also provide a description of the patient’s purchasing history of prescription drugs that fall under their pharmacy benefit.

**Medication Reconciliation:** Patient medication claims history information also serves as a foundation for the initiation of the medication reconciliation process at an acute care admission to the ER or hospital. It gives the responsible clinician a “head start” on the process. First and foremost, the clinician needs to determine that the medication history is in fact for the patient they are interviewing. Additionally, OTC medications, herbal drugs, vitamins and prescriptions the patient may have paid cash for need to be added to the list during the medication reconciliation process.

During a normal hospital admission, multiple clinicians often take a medication history – an expensive and time-consuming manual process. A nurse, pharmacist, resident, attending physician hospitalist or primary care physician may each perform this task, all with varying results. The “transition” that is often the most difficult is the one that takes place at the hospital or Emergency Room (ER) admission. It is at this point when a clinician must rely on the patient, a relative or significant other, or a “brown bag of medications” to try to establish the baseline medication history list. This transition is fraught with mishap potential. Patients may or may not be coherent at the time of admission, they rarely remember the names of their drugs let alone bring them, and secondary parties are often unreliable unless they are intimately involved with the patient’s day to day care. Even if the patient brings their medications, they must be sorted through, verified and documented.

**Challenge:** Patient medication claims history may not include over the counter medications and/or prescriptions that were paid for in cash by the patient. Patient medication history claims data does not include the prescription instructions commonly referred to as SIG (i.e. take one tablet twice a day). However, the quantity and days supply data supplied can be used to derive how a patient has taken their medications. Just like quantity and days supply, the SIG is only a data point that needs to be verified with the patient during the medication history process. Commonly prescription instructions are changed between the physician and the patient without any change in the SIG.

**Privacy & Security:** During the admission process, patient consent and HIPAA notification are standard processes, especially for purposes of treatment, healthcare operations, or payment. All queries and responses are made automatically through secured system to system communications. The query is made during the admission process and is not apparent to the requestor. The response is returned to a patient record in a clinical setting and role based security determines which personnel have access to the information.
RxHub MEDS Patient Medication Report Sample:

A clinical review of an RxHub MEDS Report may identify the following:
- Adherence to Prescribed Drug Treatment
- Previous Therapeutic Interventions
- Adverse Drug Reactions
- Drug Interactions
- Drug Duplications
- Dosage Modifications

### Summary

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Oldest Fill Date</th>
<th>Most Recent Fill Date</th>
<th>Total Fills</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZESTRIL 10 MG TABLET</td>
<td>08/01/2002</td>
<td>08/01/2003</td>
<td>2</td>
</tr>
<tr>
<td>DIGITEK 250MCG TABLET</td>
<td>08/01/2003</td>
<td>08/01/2003</td>
<td>1</td>
</tr>
<tr>
<td>DIGITEK 125MCG TABLET</td>
<td>06/01/2003</td>
<td>07/01/2003</td>
<td>2</td>
</tr>
<tr>
<td>LAMOTRIGINE 50MG/ML ELIXIR</td>
<td>08/01/2002</td>
<td>08/01/2002</td>
<td>1</td>
</tr>
<tr>
<td>RANITIDINE 150MG TABLET</td>
<td>08/01/2003</td>
<td>08/01/2003</td>
<td>1</td>
</tr>
<tr>
<td>RANITIDINE 150MG CAPSULE</td>
<td>07/15/2003</td>
<td>07/15/2003</td>
<td>1</td>
</tr>
<tr>
<td>NITRIFEDINE 30 MG TAB</td>
<td>06/30/2003</td>
<td>06/30/2003</td>
<td>1</td>
</tr>
<tr>
<td>PREVACID 30 MG CAPSULE ER</td>
<td>10/23/2002</td>
<td>06/30/2003</td>
<td>7</td>
</tr>
<tr>
<td>PREVACID 15 MG CAPSULE ER</td>
<td>09/23/2002</td>
<td>09/23/2002</td>
<td>1</td>
</tr>
</tbody>
</table>

### Key Reported Pharmacies
1. DEMO PHARMACY - Pharmacy Phone: 651-459-9857
2. JOES PHARMACY - Pharmacy Phone: 651-456-4569

### Key Reported Prescribers
A. BROWN, SAMUEL
B. JONES, DOUG

### Detail Information

- **ZESTRIL 10 MG TABLET (LISINOPRIL)**
  - Fill Date: 08/01/2002
  - Qty: 28
  - Days: 7
  - Prescriber: A
  - Source: PBMC

- **DIGITEK 250MCG TABLET (DIGOXIN)**
  - Fill Date: 08/01/2003
  - Qty: 30
  - Days: 30
  - Prescriber: B
  - Source: PBMC

- **DIGITEK 125MCG TABLET (DIGOXIN)**
  - Fill Date: 07/01/2003
  - Qty: 30
  - Days: 30
  - Prescriber: A
  - Source: PBMC
Medication Therapy Management – Pharmacy (MTM)
The Medicare Modernization Act provided the opportunity for pharmacists to be reimbursed for Medication Therapy Management for Medicare patients with chronic diseases. Claims Medication History can play an important role in helping seniors manage their chronic medication regimens. Claims Medication History is an accurate, precise and longitudinal view of how a patient utilized their pharmacy benefit to purchase prescriptions form any of the nation’s retail pharmacies or from utilizing their mail order benefit. Clinicians performing Medication Therapy Management can utilize Claims Medication History to document how and when a patient is receiving their prescriptions, and with the appropriate DUR engine, can monitor for drug interactions, duplicate therapy and adherence ratios.

Claims Medication History can be an important tool in the physician/pharmacist/patient relationship to ensure that patients are receiving the most efficacious medications and taking them in the prescribed method.

Medication History Coalitions
There are several regional Medication History coalitions that have formed over the past few years. Below is a listing of the coalitions RxHub is involved with:

<table>
<thead>
<tr>
<th>State</th>
<th>Coalition Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>Bronx RHIO</td>
</tr>
<tr>
<td></td>
<td>THINC RHIO</td>
</tr>
<tr>
<td>Vermont</td>
<td>Vermont Information Technology Leaders, Inc. (VITL)</td>
</tr>
<tr>
<td></td>
<td><a href="http://www.vitl.net/">http://www.vitl.net/</a></td>
</tr>
</tbody>
</table>
Standards Organizations

The following standards organizations provide a role or function for e-Prescribing:

**Accredited Standards Committee** (ASC X12)
www.X12.org

**American Health Information Community** (AHIC)
www.hhs.gov/healthit/ahic.html

**Certification Commission for Healthcare Information Technology** (CCHIT)
www.cchit.org

**Electronic Healthcare Network Accreditation Commission** (EHNAC)
www.ehnac.org

**Health Information Technology Standards Panel** (HITSP)
www.ansi.org/hitsp

**Health Level 7** (HL7)
www.hl7.org

**National Drug Council for Prescription Drug Program** (NCPDP)
www.ncpdp.org

**Workgroup for Electronic Data Interchange** (WEDI)
www.wedi.org
Associations

The following associations are involved in e-Prescribing:

**Center for Health Transformation**
www.healthtransformation.net

**eHealth Initiative**
www.ehealthinitiative.org

**The Leapfrog Group**
www.leapfroggroup.org

**Markle Foundation**
www.markle.org

**National Governors Association (NGA)**
www.nga.org

**Pharmaceutical Care Management Association (PCMA)**
www.pcmanet.org
Future E-Prescribing Product Development

RxHub operates a secure, industry standard environment and is open to all e-Prescribing stakeholders. As part of the services we offer, we accept and review requested e-Prescribing enhancements from our stakeholder community on an ongoing basis and raise awareness of requested enhancements through the RxHub Monthly Participant Conference Calls. This process allows us to determine validity of the enhancement request and assists us in prioritizing development work required to support approved enhancements.

A recent enhancement developed by RxHub is the Real-time Benefit Check (RTBC) service.

The opportunity exists to enhance the prescription benefit information provided to clinicians at the point of care. This includes real-time access to patient-specific benefit and formulary information including formulary status, medication alternatives, coverage levels and cost information. The current process only provides access to batch files containing client level formulary and benefit information from PBMs/Payers.

The value that the RTBC service will provide to stakeholders includes:

- PBMs/payers can provide real-time access to patient-specific and drug-specific coverage and pricing information at the current point in time within context of patient's benefit plan. Complex benefit plan rules which change over time based on patient utilization can be managed within claims system versus distribution of files.

- Providers Technology vendors may experience a reduction in the number of prior authorizations and increased access and accuracy to a breadth of information including coverage, copay and drug interaction functionality, and may lessen the complexity of the transaction certification process.

- Retail pharmacies will have the ability to access patient-specific information prior to dispensing the prescription, which may result in the reduction prescription claims reversals.

Other e-Prescribing enhancements that have been requested and are currently under review include:

- Support for CMS Formulary
- Codified SIG
- Prior Authorization
- Formulary & Benefit Validation
- Patient Roster
- ePrescribing Activity Reporting
- Additional clinical information on the prescription (e.g. Allergy and Diagnosis codes)
- Access to all medication history claims information, not limited to current, active coverage information
50 State View

RxHub National Patient Health Information Network™ Coverage as of May 2008:

Range of Covered Lives Accessible through RxHub:
- 80 – 100%
- 60 – 79%
- 40 – 59%
- 20 - 39%
- Less than 20%

Note:
- Includes lives accessible in production, does not include lives under contract
- 30 states have patient accessibility of 50% or greater
ALABAMA

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,501,740</td>
<td>1,878,461</td>
<td>42%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>236,971</td>
<td>66,478</td>
<td>28%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-ERX NOW  SYNAMED, LLC
ALLSCRIPTS-TOUCHWORKS  ZIX CORP
ECLINICALWORKS
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS
RELAYHEALTH
RXNT
ALASKA

State Statistics

Total Residents: 641,600
Children (0-18): 195,240
Adults (19-64): 405,880
Elderly (65+): 40,470

Health Insurance Coverage

Medicaid: 20.9%
Medicare: 5.6%
Commercial: 56.3%
Uninsured: 17.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>641,600</td>
<td>420,014</td>
<td>65%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,541</td>
<td>1,880</td>
<td>74%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-TOUCHWORKS
CHART CONNECT
ISCRIBE
MEDPLUS
ARIZONA

State Statistics

- Total Residents: 5,890,710
- Children (0-18): 1,659,330
- Adults (19-64): 3,471,190
- Elderly (65+): 760,190

Health Insurance Coverage

- Medicaid: 17.2%
- Medicare: 12.7%
- Commercial: 51.9%
- Uninsured: 18.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,890,710</td>
<td>3,824,083</td>
<td>65%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

The Fee for Services lives are managed by the State. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>374,072</td>
<td>182,416</td>
<td>49%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- CHART CONNECT
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
ARKANSAS

State Statistics

Total Residents: 2,736,350
Children (0-18): 719,260
Adults (19-64): 1,649,620
Elderly (65+): 367,470

Health Insurance Coverage

Medicaid: 17.3%
Medicare: 13.7%
Commercial: 52.2%
Uninsured: 16.9%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,736,350</td>
<td>1,450,763</td>
<td>53%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>192,450</td>
<td>76,656</td>
<td>40%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
ERX NETWORKS
INSTANTI DX
ISCRIBE
MEDPLUS
RXNT
ZIX CORP
CALIFORNIA

State Statistics

Total Residents: 35,788,980
Children (0-18): 10,156,980
Adults (19-64): 21,739,520
Elderly (65+): 3,892,480

Health Insurance Coverage

Medicaid: 17.1%
Medicare: 9.2%
Commercial: 55.2%
Uninsured: 18.4%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>35,788,980</td>
<td>15,548,951</td>
<td>43%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,368,912</td>
<td>504,847</td>
<td>37%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- CHART CONNECT
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- NEWCROP
- NEXTGEN
- PREMATICS
- REGENSTRIEF INPC
- RELAYHEALTH
- RXNT
- SYNAMED, LLC
- ZIX CORP
COLORADO

State Statistics

Total Residents: 4,557,130
Children (0-18): 1,233,590
Adults (19-64): 2,912,270
Elderly (65+): 411,280

Health Insurance Coverage

Medicaid: 9.5%
Medicare: 8.5%
Commercial: 65.7%
Uninsured: 16.4%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,557,130</td>
<td>2,641,236</td>
<td>58%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>259,781</td>
<td>96,448</td>
<td>37%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- RXNT
CONNECTICUT

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,482,930</td>
<td>2,959,137</td>
<td>85%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>413,341</td>
<td>248,045</td>
<td>60%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- RELAYHEALTH
DELAWARE

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>831,480</td>
<td>757,136</td>
<td>91%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>156,774</td>
<td>111,831</td>
<td>71%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- INSTAN TEDX
- ISCRIBE
- RELAYHEALTH
- RXNT
- ZIX CORP
DISTRICT OF COLUMBIA

State Statistics

Total Residents: 541,420
Children (0-18): 118,680
Adults (19-64): 359,860
Elderly (65+): 62,880

Health Insurance Coverage

Medicaid: 21.3%
Medicare: 10.3%
Commercial: 55.7%
Uninsured: 12.8%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>541,420</td>
<td>395,138</td>
<td>73%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>259,557</td>
<td>164,474</td>
<td>63%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partner**

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
INSTANTDX
ISCRIBE
MEDPLUS
PREMATICS
RXNT
FLORIDA

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>17,619,270</td>
<td>10,577,138</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

Number of Patient Record Requests Received by RxHub in 2007

<table>
<thead>
<tr>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,394,852</td>
<td>511,982</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- GOLD STANDARD
- HEALTH CARE SYSTEMS
- INSTANTDX
- INTERMEDHX, INC
- ISCRIBE
- MEDPLUS
- NEWCROP
- NEXTGEN
- PREMATICS
- REGENSTRIEF INPC
- RELAYHEALTH
- RXNT
- SIEMENS
- SSIMED
- SYNAMED, LLC
- ZIX CORP

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org
GEORGIA

State Statistics

Total Residents: 8,836,610
Children (0-18): 2,466,880
Adults (19-64): 5,583,380
Elderly (65+): 786,350

Health Insurance Coverage

Medicaid: 15.5%
Medicare: 9.3%
Commercial: 57.5%
Uninsured: 17.7%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,836,610</td>
<td>5,974,566</td>
<td>68%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with SXC for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>453,905</td>
<td>171,114</td>
<td>38%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS

NEXTGEN
REGENSTrief INPC
RELAYHEALTH
RXNT
SYNAMED, LLC
ZIX CORP
HAWAII

State Statistics

Total Residents: 1,239,660
Children (0-18): 311,320
Adults (19-64): 746,750
Elderly (65+): 181,590

Health Insurance Coverage

Medicaid: 14.1%
Medicare: 13.8%
Commercial: 63.5%
Uninsured: 8.6%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,239,660</td>
<td>196,426</td>
<td>16%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>214,382</td>
<td>25,722</td>
<td>12%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
ISCRIBE
IDAHO

State Statistics

Total Residents: 1,407,700
Children (0-18): 413,310
Adults (19-64): 855,560
Elderly (65+): 138,830

Health Insurance Coverage

Medicaid: 12.7%
Medicare: 10.1%
Commercial: 62.5%
Uninsured: 14.7%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,407,700</td>
<td>1,051,634</td>
<td>75%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>30,437</td>
<td>11,888</td>
<td>39%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
CHART CONNECT
DRFIRST
INSTANTDX
ISCRIBE
RXNT
ILLINOIS

State Statistics

Total Residents: 12,580,070
Children (0-18): 3,441,940
Adults (19-64): 7,622,080
Elderly (65+): 1,516,050

Health Insurance Coverage

Medicaid: 10.7%
Medicare: 12.2%
Commercial: 63.7%
Uninsured: 13.4%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,580,070</td>
<td>8,321,830</td>
<td>66%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

The Fee-for-Services lives are managed by the State. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>461,478</td>
<td>238,236</td>
<td>52%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MCKESSON
MEDPLUS
NEWCROP
NEXTGEN
REGENSTREF INPC
RELAYHEALTH
RXNT
SSIMED
SYNAMED, LLC
ZIX CORP
INDIANA

State Statistics

Total Residents: 6,133,210
Children (0-18): 1,679,850
Adults (19-64): 3,817,040
Elderly (65+): 636,310

Health Insurance Coverage

Medicaid: 12.4%
Medicare: 11.5%
Commercial: 62.4%
Uninsured: 13.7%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,133,210</td>
<td>4,349,552</td>
<td>71%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,057,403</td>
<td>263,916</td>
<td>25%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS
REGENSTRIEF INPC

RXNT
SSIMED
ZIX CORP
IOWA

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,900,890</td>
<td>1,463,542</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has had discussions with the PBM that supports the Fee-For-Service lives. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>44,638</td>
<td>18,488</td>
<td>41%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- NEXTGEN
- RXNT

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org
State Statistics

Total Residents: 2,671,740
Children (0-18): 722,090
Adults (19-64): 1,608,740
Elderly (65+): 340,910

Health Insurance Coverage

Medicaid: 11.4%
Medicare: 12.6%
Commercial: 65.4%
Uninsured: 10.6%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,671,740</td>
<td>1,719,032</td>
<td>64%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>65,142</td>
<td>29,915</td>
<td>46%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS
NEWCROP
RELAYHEALTH
RXNT
KENTUCKY

State Statistics

Total Residents: 4,042,730
Children (0-18): 1,040,840
Adults (19-64): 2,509,150
Elderly (65+): 492,740

Health Insurance Coverage

Medicaid: 16.2%
Medicare: 13.0%
Commercial: 57.8%
Uninsured: 13.0%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,042,730</td>
<td>2,781,732</td>
<td>69%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>166,834</td>
<td>75,144</td>
<td>45%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- EHEALTH SOLUTIONS
- INSTANTDX
- ISCRIBE
- MCKESSON
- MEDPLUS
- REGENSTRIEF INPC
- RELAYHEALTH
- RXNT
- SYNAMED, LLC
State Statistics

- Total Residents: 4,245,110
- Children (0-18): 1,167,960
- Adults (19-64): 2,518,680
- Elderly (65+): 558,480

Health Insurance Coverage

- Medicaid: 15.4%
- Medicare: 13.0%
- Commercial: 54.7%
- Uninsured: 16.9%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,245,110</td>
<td>2,181,178</td>
<td>51%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has had discussions with the PBM that supports the Fee-For-Service lives and e-Prescribing. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>506,953</td>
<td>224,819</td>
<td>44%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- RXNT
- SYNAMED, LLC
MAINE

State Statistics

Total Residents: 1,301,460
Children (0-18): 304,200
Adults (19-64): 820,360
Elderly (65+): 176,910

Health Insurance Coverage

Medicaid: 21.8%
Medicare: 12.4%
Commercial: 56.1%
Uninsured: 9.6%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,301,460</td>
<td>777,040</td>
<td>60%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has had discussions with the PBM that supports the Fee-For-Service live. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>85,653</td>
<td>37,272</td>
<td>44%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
EHEALTH SOLUTIONS
INSTANTDX
ISCRIBE
MEDPLUS
NEXTGEN
RELAYHEALTH
ZIX CORP
MARYLAND

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,526,040</td>
<td>4,611,419</td>
<td>83%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.*

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

Health Insurance Coverage

<table>
<thead>
<tr>
<th>Health Insurance</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>10.1%</td>
</tr>
<tr>
<td>Medicare</td>
<td>11.4%</td>
</tr>
<tr>
<td>Commercial</td>
<td>65.1%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>13.5%</td>
</tr>
</tbody>
</table>

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,526,040</td>
<td>4,611,419</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- PREMATICS

- RELAYHEALTH
- RXNT
- SSIMED
- ZIX CORP
MASSACHUSETTS

State Statistics

Total Residents: 6,344,540
Children (0-18): 1,588,050
Adults (19-64): 4,019,600
Elderly (65+): 736,880

Health Insurance Coverage

Medicaid: 14.4%
Medicare: 11.6%
Commercial: 63.8%
Uninsured: 10.3%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,344,540</td>
<td>4,474,680</td>
<td>71%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,831,526</td>
<td>1,996,491</td>
<td>52%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHEALTH SOLUTIONS
ERX NETWORKS
GE HEALTHCARE
INSTANTDX
ISCRIBE
MEDPLUS
NEWCROP
RELAYHEALTH
RXNT
SAFEMED
SSIMED
SYNAMED, LLC
ZIX CORP
MICHIGAN

State Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Residents</td>
<td>9,968,570</td>
</tr>
<tr>
<td>Children (0-18)</td>
<td>2,686,290</td>
</tr>
<tr>
<td>Adults (19-64)</td>
<td>6,101,410</td>
</tr>
<tr>
<td>Elderly (65+)</td>
<td>1,180,870</td>
</tr>
</tbody>
</table>

Health Insurance Coverage

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>13.6%</td>
</tr>
<tr>
<td>Medicare</td>
<td>12.4%</td>
</tr>
<tr>
<td>Commercial</td>
<td>63.3%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>10.7%</td>
</tr>
</tbody>
</table>

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,968,570</td>
<td>6,193,321</td>
<td>62%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,183,697</td>
<td>1,766,953</td>
<td>81%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- GOLD STANDARD
- H2H SOLUTIONS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- NEXTGEN
- REGENSTRIEF INPC
- RELAYHEALTH
- RXNT
- SYNAMED, LLC
- ZIX CORP
MINNESOTA

State Statistics

Total Residents: 5,124,100
Children (0-18): 1,315,230
Adults (19-64): 3,203,560
Elderly (65+): 605,310

Health Insurance Coverage

Medicaid: 9.5%
Medicare: 11.5%
Commercial: 70.8%
Uninsured: 8.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,124,100</td>
<td>2,518,722</td>
<td>49%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

The Fee for Services lives are managed by the State. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>220,489</td>
<td>82,969</td>
<td>38%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ACHIEVE HEALTHCARE
ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
ERX NETWORKS
ISCRIBE
MEDPLUS
PREMATICS
RXNT

BLUEPRINT FOR E-PRESCRIBING © Copyright RxHub, LLC
MISSISSIPPI

State Statistics

Total Residents: 2,855,100
Children (0-18): 809,580
Adults (19-64): 1,690,680
Elderly (65+): 354,850

Health Insurance Coverage

Medicaid: 21.1%
Medicare: 11.9%
Commercial: 50.2%
Uninsured: 16.8%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,855,100</td>
<td>1,087,720</td>
<td>38%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60,967</td>
<td>20,910</td>
<td>34%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
GOLD STANDARD
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS
RXNT
SYNAMED, LLC
ZIX CORP
MISSOURI

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,651,800</td>
<td>4,234,775</td>
<td>75%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>227,530</td>
<td>127,363</td>
<td>56%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- NEWCROP

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org
MONTANA

State Statistics

Total Residents: 916,260  
Children (0-18): 227,980  
Adults (19-64): 558,790  
Elderly (65+): 129,500  

Health Insurance Coverage

Medicaid: 13.7%  
Medicare: 14.5%  
Commercial: 54.9%  
Uninsured: 16.9%  

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>916,260</td>
<td>565,225</td>
<td>62%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>21,106</td>
<td>4,230</td>
<td>20%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
CHART CONNECT
INSTANTDX
ISCRIBE
MEDPLUS
RXNT
NEBRASKA

State Statistics

Total Residents: 1,742,500
Children (0-18): 461,810
Adults (19-64): 1,062,580
Elderly (65+): 218,110

Health Insurance Coverage

Medicaid: 11.7%
Medicare: 12.0%
Commercial: 65.9%
Uninsured: 10.5%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,742,500</td>
<td>966,229</td>
<td>55%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,026</td>
<td>4,907</td>
<td>41%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
ERX NETWORKS
HEALTH CARE SYSTEMS
ISCRIBE
MEDPLUS
NEXTGEN
RXNT
NEVADA

State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,414,580</td>
<td>1,439,421</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>72,634</td>
<td>18,379</td>
<td>25%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS
RXNT
SYNAMED, LLC
State Statistics

Total Residents: 1,295,010
Children (0-18): 320,170
Adults (19-64): 814,150
Elderly (65+): 160,690

Health Insurance Coverage

Medicaid: 6.4%
Medicare: 13.0%
Commercial: 70.7%
Uninsured: 9.9%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,295,010</td>
<td>779,145</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>126,937</td>
<td>72,020</td>
<td>57%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHEALTH SOLUTIONS
INSTANTDX
ISCRIBE
MCKESSON
RXNT
SSIMED
NEW JERSEY

State Statistics

Total Residents: 8,689,470
Children (0-18): 2,295,880
Adults (19-64): 5,331,370
Elderly (65+): 1,062,220

Health Insurance Coverage

Medicaid: 8.2%
Medicare: 11.8%
Commercial: 65.9%
Uninsured: 14.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,689,470</td>
<td>7,470,557</td>
<td>86%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has had discussions with the PBM that supports the Fee-For-Service lives. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,512,386</td>
<td>2,532,478</td>
<td>56%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHHEALTH SOLUTIONS
ERX NETWORKS
GE HEALTHCARE
INSTATIDX
ISCRIBE
MEDPLUS

NEXTGEN
PREMATICS
RELAYHEALTH
RXNT
SIEMENS
SSIMED
SYNAMED, LLC
WAITING ROOM SOLUTIONS
ZIX CORP

© Copyright RxHub, LLC

70
NEW MEXICO

State Statistics

Total Residents: 1,911,390
Children (0-18): 523,750
Adults (19-64): 1,142,760
Elderly (65+): 244,880

Health Insurance Coverage

Medicaid: 19.0%
Medicare: 12.5%
Commercial: 48.4%
Uninsured: 20.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,911,390</td>
<td>752,443</td>
<td>39%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing is enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>160,148</td>
<td>71,199</td>
<td>44%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS
RXNT
SYNAMED, LLC

BLUEPRINT FOR E-PRESCRIBING © Copyright RxHub, LLC 71
NEW YORK

State Statistics

Total Residents: 19,024,340
Children (0-18): 4,830,620
Adults (19-64): 11,708,350
Elderly (65+): 2,485,380

Health Insurance Coverage

Medicaid: 18.6%
Medicare: 11.6%
Commercial: 57.1%
Uninsured: 12.8%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>19,024,340</td>
<td>15,758,746</td>
<td>83%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has had discussions with the PBM that supports the Fee-For-Service lives. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,865,207</td>
<td>2,415,524</td>
<td>62%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- D RFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- GE HEALTHCARE
- GOLD STANDARD
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MDOFFICES
- MEDPLUS
- NEXTGEN
- PREMATICS
- RELAYHEALTH
- RXNT
- SIEMENS
- SSIMED
- SYNAMED, LLC
- WAITING ROOM SOLUTIONS
- ZIX CORP
NORTH CAROLINA

State Statistics

Total Residents: 8,432,690
Children (0-18): 2,299,390
Adults (19-64): 5,150,280
Elderly (65+): 983,020

Health Insurance Coverage

Medicaid: 14.7%
Medicare: 11.9%
Commercial: 58.3%
Uninsured: 15.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,432,690</td>
<td>5,843,954</td>
<td>69%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>892,975</td>
<td>497,877</td>
<td>56%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MCKESSON
NORTH DAKOTA

State Statistics

Total Residents: 621,590
Children (0-18): 154,080
Adults (19-64): 384,230
Elderly (65+): 83,280

Health Insurance Coverage

Medicaid: 9.6%
Medicare: 13.9%
Commercial: 65.9%
Uninsured: 10.6%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>621,590</td>
<td>195,079</td>
<td>31%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>418</td>
<td>93</td>
<td>22%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-TOUCHWORKS
ISCRIBE
OHIO

State Statistics

Total Residents: 11,283,080
Children (0-18): 2,926,590
Adults (19-64): 6,964,310
Elderly (65+): 1,392,180

Health Insurance Coverage

Medicaid: 12.6%
Medicare: 12.4%
Commercial: 64.0%
Uninsured: 11.0%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,283,080</td>
<td>8,859,542</td>
<td>79%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,223,842</td>
<td>695,210</td>
<td>57%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTANTEX
- ISCRIBE
- MCKESSON
- MEDPLUS
- NEXTGEN
- REGENSTrief INPC
- RELAYHEALTH
- RXNT
- SYNAMED, LLC
- ZIX CORP
OKLAHOMA

State Statistics

Total Residents: 3,442,720
Children (0-18): 899,300
Adults (19-64): 2,060,470
Elderly (65+): 482,950

Health Insurance Coverage

Medicaid: 14.9%
Medicare: 14.0%
Commercial: 52.3%
Uninsured: 18.7%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,442,720</td>
<td>2,021,760</td>
<td>59%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>110,164</td>
<td>50,221</td>
<td>46%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- HEALTH CARE SYSTEMS
- INSTANTEX
- ISCRIBE
- MEDPLUS
- RELAYHEALTH
- RXNT
OREGON

State Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Residents</td>
<td>3,600,390</td>
</tr>
<tr>
<td>Children (0-18)</td>
<td>917,600</td>
</tr>
<tr>
<td>Adults (19-64)</td>
<td>2,210,310</td>
</tr>
<tr>
<td>Elderly (65+)</td>
<td>472,480</td>
</tr>
</tbody>
</table>

Health Insurance Coverage

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>12.2%</td>
</tr>
<tr>
<td>Medicare</td>
<td>12.9%</td>
</tr>
<tr>
<td>Commercial</td>
<td>59.0%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>16.0%</td>
</tr>
</tbody>
</table>

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,600,390</td>
<td>2,128,805</td>
<td>59%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>92,850</td>
<td>51,549</td>
<td>56%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

<table>
<thead>
<tr>
<th>Technology Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLSCRIPTS-ERX NOW</td>
</tr>
<tr>
<td>ALLSCRIPTS-TOUCHWORKS</td>
</tr>
<tr>
<td>CHART CONNECT</td>
</tr>
<tr>
<td>DRFIRST</td>
</tr>
<tr>
<td>ECLINICALWORKS</td>
</tr>
<tr>
<td>INSTANTDX</td>
</tr>
<tr>
<td>ISCRIBE</td>
</tr>
<tr>
<td>MEDPLUS</td>
</tr>
<tr>
<td>RELAYHEALTH</td>
</tr>
<tr>
<td>RXNT</td>
</tr>
</tbody>
</table>
PENNSYLVANIA

State Statistics

Total Residents: 12,212,930
Children (0-18): 3,002,490
Adults (19-64): 7,442,910
Elderly (65+): 1,767,530

Health Insurance Coverage

Medicaid: 11.5%
Medicare: 14.5%
Commercial: 68.6%
Uninsured: 10.3%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,212,930</td>
<td>11,332,534</td>
<td>93%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,673,690</td>
<td>1,271,910</td>
<td>76%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE
MEDPLUS

NEWCROP
NEXTGEN
PREMATIC
RELAYHEALTH
RXNT
SIEMENS
SYNAMED, LLC
WAITING ROOM SOLUTIONS
ZIX CORP
RHODE ISLAND

State Statistics

Total Residents: 1,052,570
Children (0-18): 268,100
Adults (19-64): 657,680
Elderly (65+): 126,790

Health Insurance Coverage

Medicaid: 17.9%
Medicare: 11.2%
Commercial: 59.9%
Uninsured: 11.0%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,052,570</td>
<td>837,497</td>
<td>80%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>105,666</td>
<td>30,849</td>
<td>29%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
INSTANTDX
ISCRIBE
MEDPLUS
RXNT
SSIMED
ZIX CORP
SOUTH CAROLINA

State Statistics

Total Residents: 4,144,950
Children (0-18): 1,072,340
Adults (19-64): 2,541,080
Elderly (65+): 531,530

Health Insurance Coverage

Medicaid: 16.5%
Medicare: 13.0%
Commercial: 54.4%
Uninsured: 16.0%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,144,950</td>
<td>2,846,105</td>
<td>69%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>152,912</td>
<td>85,016</td>
<td>56%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MCKESSON
- MEDPLUS
- RXNT
- SSIMED, LLC
- SYNAMED, LLC
- ZIX CORP
**SOUTH DAKOTA**

**State Statistics**

Total Residents: 757,800  
Children (0-18): 200,020  
Adults (19-64): 454,300  
Elderly (65+): 103,490

**Health Insurance Coverage**

Medicaid: 13.8%  
Medicare: 13.5%  
Commercial: 61.3%  
Uninsured: 11.5%

*Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org*

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>757,800</td>
<td>427,487</td>
<td>56%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.*

The Fee for Services lives are managed by the State. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,841</td>
<td>1,987</td>
<td>29%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-TOUCHWORKS  
INSTANTEX  
ISCRIBE
TENNESSEE

State Statistics

Total Residents: 5,837,480
Children (0-18): 1,490,310
Adults (19-64): 3,571,590
Elderly (65+): 775,580

Health Insurance Coverage

Medicaid: 18.5%
Medicare: 13.3%
Commercial: 54.8%
Uninsured: 13.4%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,837,480</td>
<td>3,618,308</td>
<td>62%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,837,575</td>
<td>1,202,618</td>
<td>42%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- EHEALTH SOLUTIONS
- HEALTH CARE SYSTEMS
- INSTANTDX
- ISCRIBE
- MEDPLUS
- REGENSTRIEF INPC
- RELAYHEALTH
- RXNT
- SYNAMED, LLC
- ZIX CORP
Texas

State Statistics

Total Residents: 22,520,110
Children (0-18): 6,705,950
Adults (19-64): 13,502,390
Elderly (65+): 2,311,780

Health Insurance Coverage

Medicaid: 13.4%
Medicare: 9.9%
Commercial: 51.0%
Uninsured: 24.0%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>22,520,110</td>
<td>12,518,403</td>
<td>56%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,967,886</td>
<td>749,468</td>
<td>38%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ACHIEVE HEALTHCARE
ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ECLINICALWORKS
EHEALTH SOLUTIONS
ERX NETWORKS
HEALTH CARE SYSTEMS
INSTANTDX
ISCRIBE

MEDPLUS
NEWCROP
PHYTEL
REGENSTRIEF INPC
RELAYHEALTH
RXNT
SSIMED
SYNAMED, LLC
ZIX CORP
State Statistics

Total Residents: 2,453,760
Children (0-18): 806,180
Adults (19-64): 1,461,140
Elderly (65+): 186,440

Health Insurance Coverage

Medicaid: 10.9%
Medicare: 7.8%
Commercial: 66.3%
Uninsured: 14.9%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,453,760</td>
<td>1,646,745</td>
<td>67%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

The Fee for Services lives are managed by the State. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>215,950</td>
<td>156,830</td>
<td>73%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
ECLINICALWORKS
INSTANTDX
ISCRIBE
NEXTGEN
RXNT
SYNAMED, LLC
VERMONT

State Statistics

Total Residents: 617,730
Children (0-18): 143,960
Adults (19-64): 393,620
Elderly (65+): 80,150

Health Insurance Coverage

Medicaid: 20.1%
Medicare: 12.6%
Commercial: 56.2%
Uninsured: 11.1%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>617,730</td>
<td>509,090</td>
<td>82%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with MedMetrics for the Fee-For-Service lives and e-Prescribing is enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>42,030</td>
<td>25,197</td>
<td>60%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- GE HEALTHCARE
- INSTANIDX
- ISCRIBE
- RXNT
- ZIX CORP
VIRGINIA

State Statistics

Total Residents: 7,347,570
Children (0-18): 1,935,210
Adults (19-64): 4,602,460
Elderly (65+): 809,910

Health Insurance Coverage

Medicaid: 10.4%
Medicare: 11.4%
Commercial: 65.0%
Uninsured: 13.2%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,347,570</td>
<td>5,738,402</td>
<td>78%</td>
</tr>
</tbody>
</table>

* Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with First Health for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>544,904</td>
<td>316,919</td>
<td>58%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

- ALLSCRIPTS-ERX NOW
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- ERX NETWORKS
- HEALTH CARE SYSTEMS
- INSTAN TEDX
- ISCRI BE
- MCKESSON
- MEDPLUS
- PREMATICS
- RELAYHEALTH
- RXNT
- SSIMED
- SYNAMED, LLC
- ZIX CORP

BLUEPRINT FOR E-PRESCRIBING © Copyright RxHub, LLC 86
WASHINGTON

State Statistics

Total Residents: 6,132,460
Children (0-18): 1,602,440
Adults (19-64): 3,832,080
Elderly (65+): 697,950

Health Insurance Coverage

Medicaid: 14.0%
Medicare: 11.1%
Commercial: 62.0%
Uninsured: 12.9%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,132,460</td>
<td>4,160,676</td>
<td>68%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>687,144</td>
<td>341,544</td>
<td>50%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW RXNT
ALLSCRIPTS-TOUCHWORKS
CHART CONNECT
DRFIRST
ECLINICALWORKS
INSTANTDX
ISCRIBE
MEDPLUS
NEXTGEN
RELAYHEALTH
**WEST VIRGINIA**

### State Statistics

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,791,520</td>
<td>1,246,685</td>
<td>70%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.*

RxHub has had discussions with the PBM that supports the Fee-For-Service lives. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

### Health Insurance Coverage

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>15.7%</td>
</tr>
<tr>
<td>Medicare</td>
<td>16.6%</td>
</tr>
<tr>
<td>Commercial</td>
<td>51.1%</td>
</tr>
<tr>
<td>Uninsured</td>
<td>16.5%</td>
</tr>
</tbody>
</table>

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

### Number of Patient Records

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>206,500</td>
<td>100,174</td>
<td>49%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

- ALLSCRIPTS-ERX NOW
- RXNT
- ALLSCRIPTS-TOUCHWORKS
- DRFIRST
- ECLINICALWORKS
- EHEALTH SOLUTIONS
- INSTANDEX
- INTERMEDHX, INC
- ISCRIBE
- MEDPLUS
- RELAYHEALTH
WISCONSIN

State Statistics

Total Residents: 5,451,120
Children (0-18): 1,383,470
Adults (19-64): 3,367,900
Elderly (65+): 699,760

Health Insurance Coverage

Medicaid: 12.6%
Medicare: 13.1%
Commercial: 64.6%
Uninsured: 9.7%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,451,120</td>
<td>3,641,740</td>
<td>67%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with EDS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>48,306</td>
<td>25,655</td>
<td>53%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

Technology Partners

ALLSCRIPTS-ERX NOW
ALLSCRIPTS-TOUCHWORKS
DRFIRST
ERX NETWORKS
HEALTH CARE SYSTEMS
ISCRIBE
MEDPLUS
NEWCROP
RXNT
ZIX CORP
Wyoming

State Statistics

Total Residents: 501,920
Children (0-18): 124,600
Adults (19-64): 314,610
Elderly (65+): 62,700

Health Insurance Coverage

Medicaid: 13.2%
Medicare: 11.9%
Commercial: 61.2%
Uninsured: 13.8%

Source: Kaiser Commission on Medicaid and the Uninsured. Statehealthfacts.org

<table>
<thead>
<tr>
<th>Total Residents</th>
<th>Number of Patient Records Accessible through RxHub*</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>501,920</td>
<td>263,843</td>
<td>53%</td>
</tr>
</tbody>
</table>

*Patient records are only accessed by authorized clinicians who obtain patient consent.

RxHub has a relationship with ACS for the Fee-For-Service lives and e-Prescribing can be enabled. RxHub has access to some Medicaid Managed Care lives covered by PBMs and Payers connected to the RxHub National Patient Health Information Network.

<table>
<thead>
<tr>
<th>Number of Patient Record Requests Received by RxHub in 2007</th>
<th>Number of Patient Records Found through RxHub in 2007</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>36,872</td>
<td>17,517</td>
<td>48%</td>
</tr>
</tbody>
</table>

RxHub Certified Technology Partners offering services within the State as of first quarter 2008:

**Technology Partners**

ALLSCRIPTS-TOUCHWORKS
INSTANTDX
ISCRIBE
RXNT
# RxHub Certified Technology Partners

The following are RxHub Certified Technology Partners for the Ambulatory Setting and ePrescribing transaction sets. For the most recent information, please visit: [http://www.rxhub.net/images/pdf/partners/RxHub_Technology_Solution_Providers-Ambulatory.pdf](http://www.rxhub.net/images/pdf/partners/RxHub_Technology_Solution_Providers-Ambulatory.pdf)

### Key:
- Green: Transaction in Production with RxHub and available to connected stakeholders
- Yellow: Transaction in Certification with RxHub

<table>
<thead>
<tr>
<th>Provider and Technical Application</th>
<th>Eligibility</th>
<th>Formulary &amp; Benefits</th>
<th>Drug List</th>
<th>Coverage List</th>
<th>Co-pay List</th>
<th>Medication History</th>
<th>E Prescription</th>
<th>E Refill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve Healthcare (Matrix)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="N/A" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.achievehealthcare.com">www.achievehealthcare.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Allscripts (eRx Now)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.allscripts.com">www.allscripts.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Allscripts (HealthMatics)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.allscripts.com">www.allscripts.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Allscripts (ImpactMD)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.allscripts.com">www.allscripts.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Allscripts (Touchscript)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.allscripts.com">www.allscripts.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Allscripts (Touchworks)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.allscripts.com">www.allscripts.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Axolotl (Elysium)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.axolotl.com">www.axolotl.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Bond Medical (Bond Clinician)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.bondmedical.com">www.bondmedical.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Catalis Health (Accelerator)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.catalishealth.com">www.catalishealth.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Cerner (Community Health Record)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.cerner.com">www.cerner.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>ChartConnect (ChartConnectEMR)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.chartconnect.com">www.chartconnect.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Community Computer Service, Inc. (Medent)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.medent.com">www.medent.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>DAW Systems (ScriptSure)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.dawsystems.com">www.dawsystems.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>DrFirst (Rcopia)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.drfirst.com">www.drfirst.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>eClinical Works, Inc. (eClinical Works PM)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.eclinicalworks.com">www.eclinicalworks.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>eHealthSolutions (SigmaPoint)</td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td><a href="http://www.ehealthsolutions.com">www.ehealthsolutions.com</a></td>
<td></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
<td><img src="" alt=" " /></td>
</tr>
<tr>
<td>Company</td>
<td>Website</td>
<td>Integration Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------</td>
<td>--------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ElectroMed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emdeon</td>
<td><a href="http://www.emdeon.com">www.emdeon.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epic</td>
<td>(EpicCare Ambulatory Clinicals)</td>
<td><a href="http://www.epicsystems.com">www.epicsystems.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Point</td>
<td><a href="http://www.firstpointpr.com">www.firstpointpr.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold Standard (emPOWERx)</td>
<td><a href="http://www.empowerx.com">www.empowerx.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2H Solutions (H2H Digital Rx)</td>
<td><a href="http://www.h2hsolutions.com">www.h2hsolutions.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>InstantDx (On Call Data)</td>
<td><a href="http://www.instantdx.com">www.instantdx.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iScribe</td>
<td><a href="http://www.iscribe.com">www.iscribe.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA Share (WebOMR)</td>
<td><a href="http://www.mahealthdata.org">www.mahealthdata.org</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McKesson (Horizon Ambulatory Care)</td>
<td><a href="http://www.mckesson.com">www.mckesson.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDOffices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MedicaLinx</td>
<td><a href="http://www.medicalinx.com">www.medicalinx.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MedPlus (Care360)</td>
<td><a href="http://www.medplus.com">www.medplus.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Misys (Misys EMR)</td>
<td><a href="http://www.misys.com">www.misys.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NewCrop</td>
<td><a href="http://www.newcroprx.com">www.newcroprx.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NextGen</td>
<td><a href="http://www.nextgen.com">www.nextgen.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OA Systems (RxCure)</td>
<td><a href="http://www.oasite.com">www.oasite.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phytel</td>
<td><a href="http://www.phytel.com">www.phytel.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice Partner</td>
<td><a href="http://www.practicepartner.com">www.practicepartner.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prematics (ScriptTone)</td>
<td><a href="http://www.prematics.com">www.prematics.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulse Systems</td>
<td><a href="http://www.pulsesystems.com">www.pulsesystems.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regenstrief INPC</td>
<td><a href="http://www.regenstrief.org">www.regenstrief.org</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RelayHealth (Integrate Rx)</td>
<td><a href="http://www.relayhealth.com">www.relayhealth.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RxNT</td>
<td><a href="http://www.rxnt.com">www.rxnt.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SafeMed (SafeMed Pharma)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.safe-med.com">www.safe-med.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.sagetechs.com">www.sagetechs.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sequel Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.sequelsystems.com">www.sequelsystems.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOAPware</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.soapware.com">www.soapware.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSIMED (EMRge)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.ssimed.com">www.ssimed.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STI Computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.sticomputer.com">www.sticomputer.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SynaMed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.synamed.com">www.synamed.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtual Medical Network</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.vmnetwork.com">www.vmnetwork.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting Room Solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.waitingsolutions.com">www.waitingsolutions.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZixCorp (Pocketscript)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.zixcorp.com">www.zixcorp.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
E-Prescribing Workflows

Scenario 1: Patient Event with New Prescription

**Phase 1: Obtain Patient Eligibility, Benefits & Formulary, and Medication History via RxHub PRN**

- **Patient Schedules Appointment**
  - Patient Consents
  - POC application submitted to scheduler
  - Patient checks in at front desk
  - Is there a patient data change?
    - Yes
      - **Eligibility & Drug History Request sent to RxHub**
        - POC application
        - **Technology Partner Application**
          - **Patient Demographics**
            - **Patient Pharmacy Benefits**
            - **Formulary ID**
          - **Patient Drug History**
            - **Formulary List**
            - **Script Routing (NCORPD & NIDP Prescriber ID)**
    - No
  - **Patient Data Changed in PMS**
  - Eligibility Request sent to RxHub (270)
    - **Receive Eligibility Response from RxHub (271)**
      - **Drug History Request sent to RxHub (RXH-RES)**
      - **Receive Drug History Response from RxHub (RXH-HER)**
      - All Technology Partner PRN data populated in POC application

**Phase 2: Utilize Patient Data to Generate and Electronically Transmit New Prescription to Pharmacy via RxHub SIG**

- **Physician/Patient Encounter**
  - **Patient Needs Medication?**
    - Yes
    - **End of Appointment**
    - **No**
      - **Physician Looks Up Patient Drug History/Interactions**
      - **Physician Selects Drug to Review/Prescribe**
      - **Physician Selects Pharmacy**
      - **NewFAX sent to Pharmacy**
      - **Pharmacy fills NewFax**

**Key:**
- ⬑ Process
- ☐ Predefined Process
- ☐ Decision
- ☐ Direct Data
- ☐ POC Facilitate Dataload
Scenario 2: Patient Refill Request

Phase 2: Utilize Patient and Physician Data to Generate a Prescription Refill Request via RxHub SIG

1. Pharmacy submits refill request to physician via RxDC.
2. Technology Partner receives refill request.
3. Physician receives refill request.
4. Patient completes e-signature process.
5. Pharmacy approves refill request.
6. Physician approves refill request.
7. Physician submits refill response to Pharmacy.

Key:
- Process
- Predefined Process

© Copyright RxHub, LLC 95
Contributing Organizations

RxHub wishes to thank the following organizations for their contributions to the Blueprint for e-Prescribing:

Brookside Consulting Group, LLC (Maria Friedman, 301-933-6055)

Center for Health Transformation (www.healthtransformation.net)

New Mexico Medical Review Association (NMMRA) (www.NMMRA.org)
References


eHealth Initiative. 2006. The Prescription Infrastructure: Are We Ready for E-Prescribing? Washington, DC.

Health Information Security and Privacy Collaboration Reports. Privacy and security are major issues affecting the e-prescribing space. The HISPC was formed as part of the ONC-AHRQ co-managed Privacy and Security Solutions for Interoperable Health Information Exchange contract (Privacy and Security Solutions Project). During the past 18 months, HISPC participants (33 states plus Puerto Rico) have gained a greater understanding of and ability to address the variation in business practices, policies, and state laws that affect the electronic exchange of health information. The collaborative has released several reports, including an Impact Analysis in January 2008. This provides an assessment of the progress made by states since the inception of the project by comparing the current landscape for privacy and security to the baseline as reported by the state teams in early 2006. The report discusses the impact of work among and between participants in five key areas: legislation, executive orders, leadership and governance, stakeholder education and knowledge, and development of health information exchange networks. The analysis also describes the collaborative work between states in seven key areas and it provides a state-by-state discussion of recent progress. For more information regarding the Impact Analysis Report, visit: http://healthit.ahrq.gov/privacyandsecurity.