

# Technical Assistance for Health IT and Health Information Exchange in Medicaid and CHIP

## Assessment of Medicaid and CHIP Health IT and HIE Activities and Needs, 2008

**Prepared for:**

Agency for Healthcare Research and Quality  
U.S. Department of Health and Human Services  
540 Gaither Road  
Rockville, MD 20850  
<http://www.ahrq.gov>

**Contract No. HHSA290200710079T**

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RTI International, Research Triangle Park, NC

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**HEALTH IT**

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The findings and conclusions in this report are those of the authors, who are responsible for its content, and do not necessarily represent the views of AHRQ. No statement in this report should be construed as an official position of the U.S. Department of Health and Human Services.

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# Executive Summary

## Purpose of This Report

The purpose of this report is to:

1. Describe the range of activities, challenges, planning, evaluations, and external factors facing Medicaid and Children's Health Insurance Programs (CHIP) agencies across the country as they undertake initiatives in health information technology (IT) and health information exchange (HIE), for the benefit of State and regional health IT and HIE leaders, stakeholder groups, health care providers, and consumers who may be interested in partnering with Medicaid and CHIP agencies on health IT and HIE activities.
2. Provide Medicaid and CHIP agencies with information gathered in an assessment of needs for technical assistance, to help provide a context for a 2009 program of technical assistance funded by the Agency for Healthcare Research and Quality (AHRQ) under a contract to RTI International.

## Methods

**Designing the needs assessment process.** A needs assessment survey was developed to collect information that was either not available or available in less detail in previous reports. The final needs assessment instrument included questions about Medicaid Management Information System (MMIS) status, health IT initiatives, HIE initiatives, and a section that allowed agencies to prioritize a listing of technical assistance topics.

**Analysis.** This report includes summary information drawn from 34 agencies in total.

## Summary of Findings

**There is great variation in current and planned health IT and HIE projects among Medicaid/CHIP agencies, but with similar goals and challenges.** The health IT initiatives reported as being planned or implemented by the Medicaid and CHIP agencies fall into five groups: quality improvement (14 agencies), electronic prescribing (e-prescribing; 14), electronic health records (EHRs; 8), personal health records (PHRs; 3), and other types of initiatives (4). More than half of the agencies interviewed had at least one HIE initiative, 5 agencies had two initiatives, and the remaining 9 agencies had no initiatives.

In general, agencies reported a belief that implementation of health IT and HIE initiatives would accomplish a number of important goals for both the agency and its beneficiaries. The most common goal across health IT initiatives was reduction in cost to Medicaid program, with other common goals for health IT and HIE being quality of care, and increasing communication/interoperability, and improving administrative processes.

The participating agencies also explained a number of challenges in implementing these initiatives that will be fundamental to building a practical and useful set of technical assistance tools in years 2 and 3 of the project. Cost of implementing health IT initiatives was the most significant challenge reported, but for HIE initiatives, access to infrastructure (e.g., broadband), sustainability of HIE, and meeting regulatory expectations were also mentioned as challenges.

Many agencies report limited or no evaluations of initiatives' progress towards goals, or analysis of cost and value of initiatives currently planned.

**Priorities for technical assistance are focused on policy, but are contingent on a number of factors.** As part of the needs assessment, agencies ranked topics to identify their priorities for technical assistance in nine general categories. Overall, health IT and HIE policy issues ranked highest, based on the means and the number of States listing this topic as one of their top three priority areas. Privacy and security and using health IT and HIE for quality improvement were also top priorities for technical assistance.

*Variance in priorities by certain factors.* To further explore how priorities might differ among agencies, a number of external factors were considered, as well as differences based on the types of health IT and HIE initiatives that an agency reported. Of the external factors, the status of an agency's MMIS and the poverty rate were found to affect the priorities for technical assistance, while there was no difference based on how rural a State is or its Medicaid spending per enrollee.

*Variance in priorities by type of initiative.* In looking at agencies planning or implementing different types of health IT and HIE initiatives, there were some differences in priority depending on the type of initiative and its stage of development. Agencies often requested information regarding components of their initiatives or related topics (e.g., agencies planning EHRs were interested in quality improvement). However, no clear common priorities emerged for agencies planning or implementing HIE initiatives, most likely because agencies play a variety of roles and may require technical assistance based on their role in the HIE activity. Overall, the rankings demonstrate that agencies' needs and priorities are often contingent on a variety of factors that will affect how the technical assistance is designed, targeted, and implemented.

## Implications for Year 2 Technical Assistance

**Address targeted needs.** Based on the results of this first needs assessment, the technical assistance provided in year 2 should take into account the current status of the agencies' health IT and HIE initiatives. Additionally, sufficient numbers of agencies are engaging in EHR, e-prescribing, and quality initiatives, so that targeted technical assistance focused on initiative-specific issues could be feasible.

**Address commonly held priorities.** We noted two overarching issues for which technical assistance was a priority. First, agencies were unsure about general health IT and HIE policy issues and wanted guidance on regulations and policies in these areas. To successfully develop a Webinar that addresses agencies' concerns, it may be preferable to seek more clarity from the agencies on which issues are of particular concern so that the Webinar can be tailored appropriately. Second, few agencies have begun to consider how to quantify the benefits of participating in health IT or HIE and the costs of their participation. This could be a valuable technical assistance topic for interested agencies.

*Address funding concerns.* Finally, agencies noted that funding was a major barrier to their participation (or lack thereof) in health IT or HIE activities. Although this project cannot provide funds directly to the agencies, a program of technical assistance could focus on how to analyze the cost and value of initiatives, which could in turn help them to obtain funding. The project can also provide a mechanism through which agencies can share their experiences regarding funding for health IT initiatives.

*Technical assistance should build upon agencies' lessons learned.* Finally, many agencies indicated a desire to share their knowledge, policies, and documents with other agencies. Workshops, communities of practice, and an online repository would be excellent avenues for this type of sharing.

## Chapter 1. Purpose

The purpose of this report is to:

1. Describe the range of activities, challenges, planning, evaluations, and external factors facing Medicaid and Children's Health Insurance Programs (CHIP) agencies across the country as they undertake initiatives in health information technology (IT) and HIE, for the benefit of State and regional health IT and health information exchange (HIE) leaders, stakeholder groups, health care providers, and consumers who may be interested in partnering with Medicaid and CHIP agencies on health IT and HIE activities.
2. Provide Medicaid and CHIP agencies with information gathered in an assessment of needs for technical assistance, to help provide a context for a 2009 program of technical assistance funded by the Agency for Healthcare Research and Quality under a contract to RTI International.

### Prior Work and New Contributions

Some recent surveys of health IT/HIE activity have focused on activity in regions or States, whether or not Medicaid or CHIP agencies were involved.<sup>1</sup> Others have compared specific initiatives within Medicaid programs, such as those funded by the Medicaid Transformation Grants funded by the Centers for Medicare and Medicaid Services.<sup>2</sup> One useful resource in understanding Medicaid-level activity is a report by the Office of the Inspector General delineating the current or planned implementation of health IT/HIE by Medicaid agencies.<sup>3</sup>

This needs assessment report builds on prior work by delving more deeply into the goals and barriers that Medicaid and CHIP agencies report in their health IT and HIE work. This report gives particular attention to understanding if and how agencies are planning an evaluation of the outcomes or costs of health IT and HIE activities. In addition to this descriptive analysis, the report also addresses the areas that agency staff members have prioritized for technical assistance.

This report can be used by other stakeholders to assist them in working with Medicaid and CHIP agencies most effectively. For example, other local, State-based, and national organizations may be interested in identifying opportunities to form deeper partnerships with Medicaid/CHIP agencies on health IT/HIE initiatives. These partnerships can be better informed by understanding the progress these agencies have made in recent years in this area, as well as the challenges they have faced. Only by creating a shared knowledge of the activities, goals, barriers, and needs of these agencies can other stakeholders maximize the resources that Medicaid/CHIP agencies bring to joint health IT/HIE efforts that will advance national goals for using health IT and HIE for health care improvement.

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<sup>1</sup> Healthcare Information and Management Systems Society (HIMSS). State Dashboard. Available at: <http://www.himss.org>. Accessed April 10, 2009.

<sup>2</sup> The Commonwealth Fund, States in Action, March/April 2007. Medicaid Transformation Grants. Available at: [http://www.commonwealthfund.org/publications/publications\\_show.htm?doc\\_id=469669#post](http://www.commonwealthfund.org/publications/publications_show.htm?doc_id=469669#post). Accessed April 10, 2009.

<sup>3</sup> Department of Health and Human Services Office of Inspector General. State Medicaid Agencies' Initiatives on Health Information Technology and Health Information Exchange. August 2007. Publication No. OEI-02-06-00270. Available at: <http://www.oig.hhs.gov/oei/reports/oei-02-06-00270.pdf>. Accessed April 10, 2009.

## Topics Covered in This Report

The following areas are addressed in this needs assessment report:

- Types of health IT and HIE projects, both current and planned, within Medicaid and CHIP agencies.
- Goals for current or planned health IT/HIE initiatives.
- Plans for evaluating non-financial benefits of health IT and HIE initiatives.
- Use of cost and value data in evaluating health IT and HIE initiatives.
- Barriers or challenges to current or planned health IT/HIE initiatives.
- Prioritized requests for technical assistance within health IT and HIE topics.
- Preferences for how technical assistance should be provided.

## Chapter 2. Summary of Methods

To collect information for this report, a needs assessment survey was developed that focused on areas of information that are not available from previous reports on the health information technology (IT) and health information exchange (HIE) efforts within Medicaid agencies that were reviewed and used to develop State profiles as background to this work.

### Needs Assessment Instrument

A needs assessment instrument was developed to collect the information necessary to describe the current status of Medicaid and Children's Health Insurance Programs (CHIP) agencies' initiatives and to understand their needs for technical assistance. The instrument was pilot tested in spring 2008 to ensure that the needs assessment instrument would be comprehensive and that the mode of data collection would be suitable for either telephone interviews or site visits. Changes were made on the basis of pilot results, and the full needs assessment survey was conducted between September 23 and December 12, 2008, using a combination of on-site and telephone-only interviews, with the majority of interviews conducted by telephone. All Medicaid and CHIP agencies that did not complete a pilot interview were contacted and offered the opportunity to participate in the full needs assessment.

An initial telephone contact was made to the Medicaid and/or CHIP directors to confirm that they had received the packet of needs assessment materials, to explain the study, and to gain cooperation to participate in an interview. Agencies were asked to review the interview questions in the needs assessment instrument and to complete priority ranking of areas of potential technical assistance, prior to the scheduled interview. Informed consent of agency participants was obtained verbally for telephone interviews. Written consent was obtained for on-site interviews.

### Analysis

The analysis of data collected in the needs assessment falls into three categories:

1. Level of participation and reasons for nonparticipation in needs assessment.
2. Assessment of commonality across agencies in the types of health IT/HIE initiatives in which they are involved, evaluations of those initiatives, initiative goals, and challenges or barriers they face.
3. Assessment of agency priorities with regard to topics and methods for technical assistance, and how factors such as type of health IT/HIE initiative, Medicaid funding per capita, State poverty rates, and urban/rural mix affect those priority rankings.

### Participation

Table 1 provides a listing of the agencies that participated in the needs assessment (pilot and full), as well as those for which we were unable to confirm an interview during the field period, and those that chose not to be interviewed. Information was collected from 34 agencies total. The majority of the 16 agencies that did not participate in the needs assessment were unable to do so

because of time. Five agencies felt that they were not in a position to take advantage of technical assistance because they were either not technologically advanced enough or because they had no specific needs for technical assistance at the current time.

## Commonalities and Differences Across Agencies

To analyze the commonalities and differences across agencies, qualitative software (NVivo version 8) was used to code the free text information collected in the needs assessment instrument. SAS statistical software (SAS 9.1) was used to analyze the categorical responses, and when appropriate, the codes from the qualitative analysis as well.

## Priority Rankings

The priority ranking (one to nine) of general topic areas was averaged across agency responses to gauge the relative interest in a general topic. These rankings were also analyzed to understand whether factors such as MMIS status, initiative type, or beneficiary population characteristics might influence how agencies ranked their general topics.

**Table 1. Agency participation in the pilot and 2008 Needs Assessment**

Participation	Number of agencies	Agencies
Complete needs assessment: 2008 Needs Assessment	25	AL-CHIP, AL-Medicaid, AZ, CA, DE, FL, GA, IA, MD, ME, MI, MO, NH, NM, NV, OH, PA, PR, SC, TX, VA, VI, WI, WV-CHIP, WY-Medicaid
Complete needs assessment: Pilot Study	6	CO, MN, MT, NC, OR, VT
Needs assessment without ranking of priorities: 2008 Needs Assessment	2	DC, WV-Medicaid
Needs assessment without ranking of priorities: Pilot Study	1	NE
Unavailable for interview in 2008	13	American Samoa, AR, Guam, IL, KS, KY, LA, MA, Northern Mariana Islands, ND, NJ, TN, WA
Chose not to participate	16	AK, CT-Medicaid, CT-CHIP, HI, ID, IN, MS-Medicaid, MS-CHIP, NY-Medicaid, NY-CHIP, OK, RI, SD, UT-Medicaid, UT-CHIP, WY-CHIP
Too busy	10	CT-Medicaid, CT-CHIP, IN, MS-Medicaid, MS-CHIP, NY-Medicaid, RI, SD, UT-Medicaid, UT-CHIP
Not advanced enough to take advantage of technical assistance	2	AK, HI
No need for technical assistance	3	OK, NY-CHIP, WY-CHIP
No reason given	1	ID

## Chapter 3. Findings

There is variation in current and planned health information technology (IT) and health information exchange (HIE) initiatives among Medicaid/Children's Health Insurance Programs (CHIP) agencies, but quite often, the most frequently reported goals and challenges are consistent across agencies. Overall, agencies' reported capacity to plan or conduct an evaluation of the nonfinancial benefits of an initiative, or any assessment of their costs and value, are limited.

### Types of Health IT and HIE Initiatives, Current and Planned

#### Types of Health IT Initiatives and Their Stages of Development

The health IT initiatives reported as being planned or implemented by the Medicaid and CHIP agencies fall into five groups: quality improvement, electronic prescribing (e-prescribing), electronic health records (EHRs), personal health records (PHRs), and other types of initiatives. A frequency of each type of initiative is provided in Table 2.

**Table 2. Types of planned and/or implemented health IT initiatives**

Types of health IT initiatives	Number of agencies	Agencies
Quality improvement	14	DE, ME, MN, MO, NC, NE, NV, OR, PA, PR, TX, WI, AL-CHIP, WV-CHIP
E-prescribing	14	AZ, CA, DE, FL, GA, MD, MI, MN, MT, NC, NM, OH, SC, VT
Electronic health records	8	AL, AZ, IA, NH, NM, PA, VT, WY
Other	4	GA, ME, NH, OH
Personal health records	3	FL, MT, OR

While there have been ongoing efforts to develop a consistent interpretation of these terms (e.g., EHR, PHR, e-prescribing), these terms can be used to encompass a number of different activities. Here are some examples of the activities that have been grouped under these broad headings:

**Quality improvement.** Initiatives were categorized within a quality improvement group if they would improve the business processes or data warehousing functionalities of the Medicaid/CHIP agency, such as improving claims accuracy, making eligibility and other administrative data available to providers, or addressing fraud/abuse in the Medicaid program. Additionally, some initiatives involved developing clinical decision support systems to make available to providers, or using health IT to promote provider behavior related to quality, such as developing medical homes.

**E-prescribing.** According to the Centers for Medicare & Medicaid Services (CMS), e-prescribing is defined as “a prescriber’s ability to electronically send an accurate, error-free and understandable prescription directly to a pharmacy from the point-of-care.”<sup>4</sup>

Variations in e-prescribing initiatives include:

- Making formulary and/or medication history information available to providers who use e-prescribing technology.
- Making an e-prescribing technology available through an existing tool used by providers (i.e., a claims-based EHR).
- Grants, loans, or reimbursement incentives to providers to purchase and use e-prescribing technology that could have any number of functionalities.

**EHR.** According to the National Alliance for Health Information Technology, an EHR has been defined as “an electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.”<sup>5</sup>

Variations in EHR initiatives include:

- Claims-based information incorporated into a Web-based portal made available to providers from a single insurer or Medicaid agency, which may or may not incorporate information from clinical sources.
- Grants, loans, or reimbursement incentives to providers to purchase and use EHR technology (examples given in the American Recovery and Reinvestment Act include: “an ambulatory electronic health record for office-based physicians or an inpatient hospital electronic health record for hospitals”<sup>6</sup>)—whether or not that EHR is immediately receiving information from sources beyond a single institution.

**PHR.** According to the National Alliance for Health Information Technology, a PHR is “an electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be drawn from multiple sources while being managed, shared, and controlled by the individual.”<sup>7</sup>

Variations in PHR initiatives include:

- Giving individuals access to view their own administrative and/or clinical information that was generated from one or more health care organizations.
- Giving individuals access to view their own administrative and/or clinical information from one or more organizations, and add their own information for self-management or other purposes.

**Other.** Medicaid agencies that reported using their health information databases and health IT for other types of initiatives, such as price transparency initiatives, are listed in this category.

All but two of the agencies surveyed had at least one health IT initiative and more than half had at least two health IT initiatives. These initiatives were in various stages of planning and implementation, as noted in Table 3.

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<sup>4</sup> Centers for Medicare & Medicaid Services. E-prescribing. Available at: <http://www.cms.hhs.gov/eprescribing/>. Accessed April 14, 2009.

<sup>5</sup> National Alliance for Health Information Technology (NAHIT). NAHIT Releases HIT Definitions. August 2008. Available at: [http://www.nahit.org/pandc/press/pr5\\_20\\_2008\\_1\\_33\\_49.asp](http://www.nahit.org/pandc/press/pr5_20_2008_1_33_49.asp). Accessed April 14, 2009.

<sup>6</sup> American Recovery and Reinvestment Act of 2009, Public Law 111-5, 111<sup>th</sup> Congress, 1<sup>st</sup> Session.

<sup>7</sup> National Alliance for Health Information Technology (NAHIT). NAHIT Releases HIT Definitions. Aug 2008. Available at: [http://www.nahit.org/pandc/press/pr5\\_20\\_2008\\_1\\_33\\_49.asp](http://www.nahit.org/pandc/press/pr5_20_2008_1_33_49.asp). Accessed April 14, 2009.

**Table 3. Status of agencies' planned and/or implemented health IT initiatives**

Status of health IT initiatives	Number of agencies	Agencies*
Two health IT initiatives, both in implementation phase	2	MO, NM
Two health IT initiatives, both in planning phase	5	AZ, MN, NH, NV, OH
Two health IT initiatives, one being implemented, other being planned	9	DE, FL, GA, ME, MT, NC, OR, PA, TX
One health IT initiative in implementation phase	6	AL-Medicaid, CA, IA, MI, PR, WI
One health IT initiative in planning phase	6	AL-CHIP, CO, MD, NE, SC, WY-Medicaid
No health IT initiatives	2	VA, VI

\* VT has two initiatives: one in the planning stage and for the other, status was not provided. WV-CHIP has one initiative but status was not provided.

## Types of HIE Initiatives and Medicaid/CHIP Role

As with health IT initiatives, there is significant variation in the scope of HIE initiatives among Medicaid/CHIP agencies. Definitions of HIE include “the sharing of health care information electronically among disparate health care information systems”<sup>8</sup> and “the electronic movement of health-related information among organizations according to nationally recognized standards.”<sup>9</sup> In the needs assessment interviews, agencies reported the following examples of HIE activity among State agencies:

- Establishing interfaces between electronic data systems to make health information from one system available to another.
- Planning for an HIE network, including the policies and procedures for sharing information across multiple organizations.
- Establishing an HIE network that uses a record locator service or data repository system to allow information on one individual to be pulled by providers in different organizations from multiple sources.
- Some form of “enterprise integration,” defined in the American Recovery and Reinvestment Act of 2009 as “the electronic linkage of health care providers, health plans, the government, and other interested parties, to enable the electronic exchange and use of health information among all the components in the health care infrastructure in accordance with applicable law, and such term includes related application protocols and other related standards.”<sup>10</sup>

More than half of the agencies interviewed had at least one HIE initiative, five agencies had two initiatives, and the other nine agencies had no initiatives (see Table 4). About one-third of the agencies interviewed were participating in statewide HIEs; the remainder participated in regional, Medicaid, or other HIE initiatives. Of those participating in statewide initiatives, most

<sup>8</sup> The American Health Quality Foundation. Quality Improvement Organizations and Health Information Exchange. March 2006. Available at: [http://www.ahqa.org/pub/uploads/QIO\\_HIE\\_Final\\_Report\\_March\\_6\\_2006.pdf](http://www.ahqa.org/pub/uploads/QIO_HIE_Final_Report_March_6_2006.pdf). Accessed April 14, 2009.

<sup>9</sup> National Alliance for Health Information Technology (NAHIT). NAHIT Releases HIT Definitions. August 2008. Available at: [http://www.nahit.org/pandc/press/pr5\\_20\\_2008\\_1\\_33\\_49.asp](http://www.nahit.org/pandc/press/pr5_20_2008_1_33_49.asp). Accessed April 14, 2009.

<sup>10</sup> American Recovery and Reinvestment Act of 2009, Public Law 111-5, 111<sup>th</sup> Congress, 1<sup>st</sup> Session, Sec. 13101.

indicated that they were helping to plan or implement the HIEs—they were not leading the initiative. Agency involvement varied by State, as indicated in Table 5.

**Table 4. HIE Initiatives planned and/or implemented by agencies**

Types of HIE initiatives	Number of agencies
Statewide	10
No HIE initiatives	9
Varied other HIE initiatives	5
Regional	4
Medicaid	4

**Table 5. Medicaid\* agency roles in HIE initiatives planned and/or implemented**

Roles in HIE initiatives	Number of agencies
Data exchange participant	11
Implementation committee member	11
Overseeing board	10
Policy/regulatory role	10
Planning committee	10
Data contributor	10
Funder	9
Facilitator/convener	8

\* CHIP agencies were not involved in HIE.

## HIE Initiatives' Stages of Development

Most of the agencies in States with statewide HIEs are in their formative stages of planning and implementation. Regional and local HIEs are, in most States, at more advanced stages of implementation, in some cases having achieved full deployment of HIE between the limited number of participants in the regional/local exchange. With respect to Medicaid's participation, there was a clear sense across the board that non-Medicaid participants in HIEs (private sector providers and payers and other government entities such as public health) saw Medicaid as a very important player in the HIE, one that would provide direct benefits and value to the HIE participants. In some States, some agencies have begun planning to share data in a limited fashion across all social services agencies in the State (AL), among all providers in particular regions (NC), or they are focusing on sharing specific data such as medications and laboratory data with emergency departments (VT).

Seven agencies have been developing their governance structure and advisory boards for their statewide HIE. Most of these seven States have stakeholders from the public and private sectors to help them create policies and procedures for HIE and to help discern who to engage in the collaboration besides Medicaid. As some of these HIEs begin to operate, the initial data exchanged involving Medicaid focuses on specific populations or types of data such as children (NV), those receiving behavioral and mental health care (MO), emergency department data (VT, FL), medication management and prescription data (FL), and Medicaid claims data only (NC).

## HIE: Reasons for Not Participating in or Leading HIE Activity

**Funding.** Budgetary constraint was the main reason that agencies declined to pursue HIE initiatives: they felt they needed to focus their efforts on the most critical projects. Two agencies responded that their agencies were willing to participate in HIE but were not willing to lead the effort.

**Policy.** One agency, in particular, commented that there were questions about who actually owns the data and who should be controlling access to data. In addition, they felt that little would happen until the providers indicated a willingness to collaborate, yet the providers were concerned about privacy and funding issues as well. Besides the funding issue, another agency stated that it was unlikely to move forward with HIE until data standards were put in place.

## Expected Goals or Benefits of Health IT and HIE Initiatives

In general, agencies reported a belief that implementation of health IT and HIE initiatives would accomplish a number of important goals for both the agency and its beneficiaries (see Table 6). Those not planning to participate in future HIE indicated that interoperability and standards were needed first, that HIE was not a priority at the present time, or that HIE participation was not possible because of limited resources.

**Table 6. Agencies' expected goals or benefits by participating in health IT and HIE initiatives**

Goals or benefits	Health IT initiative goal (number of agencies)	HIE initiative goal (number of agencies)
Reduce costs	17	9
Quality improvement	15	12
Administrative efficiencies	11	4
Interoperability, sharing, communications	10	10
Patient safety	10	2
Care/disease management	7	4
Increased access to care	2	4
Other	9	—
Goals under development	—	2

## Cost

The issue of cost reduction was a goal that crosscut all agencies and initiatives. Agencies expected to experience cost savings due to increased efficiency and reduction of duplicative services and fraud. Although most cost-reduction goals represented general expectations, one agency reported a potential cost savings estimate of \$140 million dollars if their EHR project were to reach an 85 percent physician adoption rate.

## **Quality**

Discussions about cost were often tied into goals for improving on issues of quality related to patient safety whereby the initiative would be able to improve on the appropriateness, efficiency, and reliability of the care that beneficiaries receive. The reduction of medical errors was frequently cited as an important goal. For HIE initiatives, agencies reported an expectation that having an HIE across all providers would facilitate disease management by allowing a more coordinated approach to care. This is especially important for those with chronic diseases where adherence to treatment is critical for minimizing complications. Agencies also reported an expectation that HIE would allow measurement of pay-for-performance indicators and provider accountability. Allowing patients more freedom in choice of health care providers and reduced travel time were also noted as motivators for HIE involvement.

## **Improved Communication**

Agencies just as frequently discussed the potential to improve communication and information sharing among providers as a benefit of their health IT initiative(s). Having the ability to get better information to physicians at the point of care was seen as an important step towards achieving improved patient care. One agency remarked that participating in HIE initiatives enhanced communication among providers, especially with hospitals.

## **Administration of Program**

Agencies were also hoping to improve administrative processes such as claims adjudication through health IT initiatives. Agencies felt that e-prescribing, in particular, could reduce administrative interactions with clinicians for refills and prescription corrections and allow clinicians to improve prescribing by noting: (1) duplicative prescriptions, (2) inappropriate therapies, (3) potential adverse drug events, and (4) drug-seeking behaviors while also allowing them to comply with formulary restrictions. Fewer agencies reported improved administration as a goal of an HIE initiative. Those who did indicated that improved provision of services to providers and patients was important, especially so that services would be more efficiently and objectively provided. HIE initiatives also hold the promise of reduced duplication and fraud throughout the system as well as ensuring proper payment to all organizations delivering care to enrollees, which would reduce costs in the long term.

## **Access**

A small number of agencies were hoping to increase access to care, especially in rural areas, via their health IT initiative(s).

## **Promoting Health IT/HIE Statewide**

Reported as “other” goals for HIE initiatives, one agency noted that involvement with HIE activities promoted the use of health IT in the State. Another agency wanted to ensure that the Medicaid perspective was brought to HIE activities and that their agency aligned with private sector initiatives. Proof of concept was mentioned by several States—to show that HIE does work and is of value to providers and patients.

## Evaluation of Goals or Benefits of Health IT and HIE

### More Evaluations Planned of Health IT Initiatives Than of HIE Initiatives

Agencies are using a variety of techniques to evaluate the progress towards goals or other benefits (quality measures, efficiency, etc.) resulting from their health IT and HIE initiatives (Table 7). These techniques range from simply measuring compliance with the formulary for e-prescribing and number of users of EHRs, to formal evaluations that compare before and after trends and generate statistics at regular intervals. Of the agencies that have considered conducting an evaluation of HIE initiatives, some planned an initial descriptive analysis to compute rates for one or more of the following: medical errors, drug interactions, duplicated procedures and tests, overall service utilization, quality of care, and costs. These baseline rates will be used as the comparator for future evaluation activities. Some agencies are using surveys of providers and/or patients to evaluate the benefits of health IT or HIE; one agency will monitor comments from providers, patients, and advocacy groups rather than undertake a formal survey.

Many agencies report limited or no evaluations currently planned.

**Table 7. How agencies plan to evaluate goals or benefits of participating in health IT initiatives**

<b>Plans for Evaluating Goals</b>	<b>Types of evaluation planned for health IT (number of agencies reporting)</b>	<b>Types of evaluation planned for HIE (number of agencies reporting)</b>
Quantitative analyses	15	7
Limited or no evaluations currently	8	11
Survey of stakeholders	6	2
Evaluation led by another entity	4	2

In the case of HIE initiatives, some agencies did not see evaluation of HIE benefits as their role or indicated that other entities would be undertaking an evaluation effort. Some agencies were conducting the evaluation themselves, whereas others were working with vendors. Those that were going to undertake an evaluation were typically planning a quantitative analysis (i.e., determining the rate of events such as medical errors or cost savings over time). The estimated cost for conducting the evaluation was often unknown. Some agencies plan to compare their Healthcare Effectiveness Data and Information Set (HEDIS) results using their claims data with those from other plans and/or States. An important caveat is that if improvement is detected for one or more measures, attribution of this improvement to HIE will be difficult, if not impossible.

Further discussion of the challenges faced in evaluation can be found in the section entitled Frequent Challenges Faced by Medicaid/CHIP in Health IT and HIE.

## Analysis of the Costs and/or Value of Health IT and HIE Initiatives

### Health IT Initiative Costs and Value

Of the agencies interviewed, 19 indicated they knew the cost of at least one of the health IT initiatives they were involved with, but only 15 could provide more specific details on how they planned to evaluate their costs (see Table 8). In three cases the agencies' plan to evaluate was either to enable another entity to perform the evaluation, or in the case of one Medicaid agency, to monitor descriptive factors because they expected an actual short-term increase of costs due to implementation of their EHR initiative. By and large, those agencies engaged in evaluating costs had plans to do basic comparative analysis such as looking at trends in the number of ER visits, tracking costs for selected groups of beneficiaries, and tracking physician usage of the health IT tool. In most cases, agencies do not have the staff and/or expertise for conducting a full return on investment type analysis, and in the case of one Medicaid agency, specifically did not feel that such an evaluation was worthwhile because "results would only be seen over months and years."

**Table 8. Analysis of costs and/or value of participating in health IT initiatives**

Type of cost/value analysis	Types of analysis for health IT initiatives (number of agencies)
Quantitative analyses	12
Limited or no evaluations currently	4
Evaluation led by another entity	2
Survey of stakeholders	1

### HIE Initiative Costs and Value

About 10 agencies interviewed knew the cost of their participation in HIE. When agencies were asked how these costs were derived, respondents provided varying levels of detail. As described below, costs often vary according to the context in which the agency is planning or implementing HIE, as well as the type of HIE involved. Agencies also count different kinds of costs in their estimates.

Respondents from the Georgia Medicaid program knew the cost of its participation because the State's Department of Community Health provided \$850,000 for the first year and \$750,000 for the second year to participate in HIE activities. Wisconsin's Medicaid Transformation Grant focuses on HIE and was funded for \$3M, while respondents from Pennsylvania estimated their cost to be \$44M over 5 years, based on estimates provided by other States and vendors that were doing similar activities. South Carolina Medicaid is partnering with Care Evolution, a privately held company focusing on HIE that is working with the State as part of a demonstration project. Care Evolution's technology and resources have been gifted to the State in perpetuity. Other agencies calculated their costs based on what other States spent for similar HIE participation, and two agencies (AZ, MN) based their costs on software purchase and development, hardware, maintenance, and staff time. In Florida, respondents reported basing costs on staffing, which is

consistent with the response to this question by those in Maine: changing business processes is where the true cost lies, not in the technology per se.

Other States responded that they were unable to develop the costs of participation because they were not sure which costs to include, how to carve out costs for overlapping activities, or how much money was going to be set aside for HIE activities, or they had not yet begun the process of considering costs.

## Frequent Challenges Faced by Medicaid/CHIP in Health IT and HIE

The reported challenges faced by Medicaid and CHIP agencies differ according to whether health IT or HIE initiatives are being planned or implemented. Table 9 compares the challenges reported in health IT and HIE initiatives.

**Table 9. Challenges faced by agencies in the implementation or planning of health IT and HIE initiatives**

Challenges	In health IT initiatives (number of agencies reporting)	In HIE initiatives (number of agencies reporting)
Costs	16	—
Provider adoption	12	—
Infrastructure and other resources	7	12
System technicalities	7	—
Stakeholder education and communication	6	—
Sustainability	6	5
Collaboration with other State HIE initiatives	—	5
Staffing, training, management	4	3
Regulations and approvals	4	9
Privacy and security	3	5
Scheduling/timing, keeping on track	3	—
Working with vendors	3	—
Achieving consensus on goals	2	—
Standards	2	—
Politics	1	5

### Challenges in Planning or Implementing Health IT Initiatives

**Cost.** Cost was the most frequently cited challenge regarding health IT initiatives, regardless of the specific initiative (e.g., QI, e-prescribing, EHR, PHR, or other), or whether the initiatives were being implemented or planned. As shown in Table 9, cost was not mentioned as a challenge within HIE initiatives. Two major issues of cost in health IT initiatives included (1) a constant strain in finding and maintaining the initial funding to get the initiative up and running, and

(2) difficulties in covering costs of the initiative if it were to be scaled-up or implemented for a wider spectrum of agency beneficiaries or providers. Many reported fears that funding for State-level programs would be drastically reduced across all agencies, and that work in both the planning and implementation phases of a project would be halted.

**Provider adoption.** Those working on initiatives such as EHRs or e-prescribing that required providers to begin using new programs or interfaces expressed concerns that adoption would be problematic. Some worried that providers would not see the value of the tool. These concerns were especially problematic when some or all of the burden was placed on the provider to pay for the tool, or in the case of e-prescribing, the transaction fees. One agency noted that physician adoption might have been slow because certain pieces of information (such as those related to mental health care) were not yet available in their EHR. Another agency noted that they expected physician adoption to increase once their new pay-for-performance component became more well-known.

**Infrastructure and resources in community and at agency.** Agencies also had a number of concerns about basic infrastructure provisions, both in health IT and HIE initiatives, including a lack of high-speed Internet and struggling with various system technicalities such as trying to retrofit required operating changes such as the national provider identifier (NPI) into old MMISs. Agencies in Arizona, Florida, and North Carolina all reported struggling with the complexities of reengineering and integrating systems. Many of these issues were tied in with cost as well; for example, agencies may have included subsidies to providers in the pilot of a particular initiative, but realize that they cannot afford to give these subsidies to all providers if they were to expand the project statewide. Agencies also reported constraints on other resources, such as the inability within the agency to handle the management and business operation transformation that expansion of an initiative would require.

**Financial sustainability of initiatives.** Following on these concerns, sustainability was also specifically noted in many interviews. One agency noted that “transformation grants are not forever,” which accurately summarizes the acute concerns that agencies have about where and when they will receive money for implementation of the health IT initiatives that they feel strongly will improve care to their beneficiaries. Although the majority of agencies did not expect to receive a constant influx of money from the Federal government, as one agency stated, “sustainability with any EHR is going to be a challenge,” and there are no clear sustainability solutions.

**Stakeholder education and communication.** Stakeholder education was another major issue that a number of agencies mentioned. Many agencies realized the importance of educating stakeholders to the benefit and value gained via the initiative.

Other challenges were less pervasive across the participating agencies, but nonetheless posed significant challenges to success of the health IT initiatives. Some of these, such as staffing/training/management and scheduling, are issues that may be easier to provide assistance for relative to issues of regulations and privacy and security issues that can sometimes require significant changes to local, State, or Federal law.

## **Challenges in Planning or Implementing HIE Initiatives**

**Infrastructure and resources.** The most frequently mentioned challenges related to HIE initiatives were those related to infrastructure and resources. In particular, States with large rural populations such as North Carolina noted that lack of Internet access and hardware were major barriers to HIE participation. While many agencies remarked that funding in general was critical

for their HIE participation, other agencies elaborated further to suggest that sustainability was particularly challenging because the State governments did not want to be responsible for ensuring that HIE continued over the long term. Several agencies were also concerned about provider adoption and the costs of staff to train new adopters.

**Regulations and approvals.** The second major challenge faced by agencies when discussing HIE initiatives involved Federal policies and regulations and State directives. Agencies indicated their uncertainty about how Medicaid data can be used, what approvals were required to allow use of Medicaid data and by whom, and whether CMS allows agencies to take part in collaborations where both Medicaid and non-Medicaid data are exchanged. In addition, some agencies felt that potential conflicts existed between current (and changing) CMS regulations and policies regarding exchange and agency business needs.

**Collaboration.** By definition, health information exchange requires collaboration across entities. Agencies reported that collaboration across organizations involved in HIE efforts posed significant challenges. Issues about collaboration ranged from whether to use vendor-based or “home-grown” software, to how to best work with regional health information organizations that have already been established with governance in place. Agencies were concerned about which organizations to include in HIE activities and how to deal with varying activities within an HIE, especially for evaluation purposes. Agencies indicated that negotiation and compromise was necessary among all organizations involved in HIE activities within the State because State programs are not always aligned with private-sector programs.

**Politics.** Politics was also mentioned as a potential challenge, more so than for health IT initiatives. Numerous agencies indicated that support of HIE by their governor’s office was critical to ensure that HIE remained a high priority despite competing demands. Community buy-in and favorable public sentiment were also considered important so that political support for HIE continued. Adequate attention to privacy and security for HIEs was mentioned because several States have more stringent privacy laws and active advocacy groups that are focused on access to protected health information and the potential for security breaches.

## Challenges in Evaluating HIE Initiatives

Agencies reported on the challenges in evaluating—not just planning or implementing—HIE initiatives, shown in Table 10. Most commonly, agencies reported important nonfinancial obstacles to evaluation, such as designing the evaluation plan. An evaluation plan would include defining evaluation measures and identifying a process for collecting valid data to calculate those measures. Agencies reported concern that the consistency and generalizability of the evaluation results may be affected by the different HIE activities ongoing across the State and the number of organizations involved in numerous HIE activities.

Staffing an evaluation also proved to be a challenge. When agency staff has to deal with urgent matters in addition to routine duties, working on evaluation efforts is often a low priority.

Funding for evaluations was also an important challenge. Agencies reported concerns that encompassed source of funds, but also year-to-year uncertainty that funds would be available (for example, due to the impact of the State budget cycle), making it difficult to plan for and conduct long-term evaluations.

**Table 10. Major challenges faced by agencies in evaluating the benefits of participating in HIE initiatives**

Challenges	Number of agencies
Design of evaluation	6
Staffing and prioritization of agency activities	5
Financial resources	4
Politics and governance	4
Regulatory challenges	2

Challenges mentioned that are often not within the agency's control include regulatory barriers arising from Federal and State laws protecting/restricting sharing of Medicaid data, governance, privacy and security issues, and politics.

## Lessons Learned from Health IT and HIE Initiatives

Despite the variation reported in the types of initiatives, Medicaid and CHIP agencies have common experiences to share. Twenty-one agencies indicated that they had identified lessons learned as part of the development of health IT initiatives, and nearly the same number responded with lessons learned from HIE initiatives (see Table 11). These lessons learned were spread across a number of different areas, but were primarily within the areas of planning and budgeting, communication and coordination, and stakeholder engagement.

**Table 11. Lessons learned by agencies in the implementation or planning of health IT initiatives**

Topic areas of lessons learned	In health IT initiatives (number of agencies reporting)	In HIE initiatives (number of agencies reporting)
Planning and budgeting	10	4
Stakeholder engagement	9	5
Communication and coordination	8	2
Staffing and expertise	6	4
Deciding on doing in-house vs. outsourcing	5	—
Sharing among other states	5	2
Business, clinical, and technical solutions coordinated	3	—
Have feds lead the way	1	—

## Overall

Agencies reported that their most important lessons learned when planning an HIE activity were having sufficient time during the planning period, involving the right people, ensuring regular communication, and practicing patience. These factors are critical because the design,

development, and deployment of HIE activities require attention to detail, review by many to ensure buy-in, and time for negotiations to reach common ground. Agencies also recommended setting up measurable performance standards early on to facilitate program evaluation.

## Planning and Budgeting

In planning and budgeting, some lessons learned were more anecdotal:

- Everything takes twice as long as you plan.
- Do thorough planning prior to implementation.
- Assign sufficient resources to the project.
- Spend more time up front determining management reporting requirements needed to oversee the program.
- Identify a workplan up front that builds an integrative model of connecting the dots.

Agencies in Florida, Arizona, Vermont, and Pennsylvania had specific documentation that they were willing to share both with the project team and with other agencies.

## Communication with Stakeholders, Including Providers

Those agencies that reported best practices for communication and coordination suggested that health IT initiatives must include a wide range of stakeholders from the very beginning stages through late implementation testing and beyond. This inclusion was specifically important for EHRs because physicians were far less likely to adopt and use the EHR tool if it did not supply components that integrated and improved their existing workflow and practice needs. In general, engaging in frequent communication with other stakeholders, either at the agency level or at the State level with other health IT initiatives, provided a sounding board and frequently a support system for needed resources.

Many agencies—Arizona, California, and Wyoming in particular—specifically focused on engaging multistakeholder advisory groups that contained high-level representatives (those with decisionmaking power) who were an invaluable resource in planning and successful implementation of health IT projects. As captured in the Arizona interview, working with the State-level Arizona Health-e Connections (AzHeC) initiative provided the benefits of both political synergy and the development of common approaches that greatly reduced the agency-specific financial burden. Georgia, like many of the agencies, included representatives from all areas of their stakeholder community including hospitals, pharmacy, labs, and providers as they worked on the vision for their Health Transparency Web site. Other agencies included vendors, Pharmacy Benefit Managers (PBMs), beneficiaries, and internal agency staff, depending on the initiative. As noted by one agency, the consequence of not engaging the correct stakeholders could be that “expected result(s) could be compromised.”

In discussing HIE initiatives, the agencies interviewed noted that all of the organizations that participate in HIE must find value for their participation. Additionally, they cautioned that participants in multistakeholder groups supporting these efforts must have broad representation from the public, private, business, and provider sectors.

## **In HIE Initiatives, Often the Medicaid/CHIP Agency Context Influences Key Learnings**

Because all of the State agencies and the organization(s) with whom they will exchange data have different priorities and business needs, all will be faced with different challenges based on their experience, leadership, and environment. This reality was obvious when trying to summarize the agencies' responses when asked about their lessons learned. For example, one agency was faced with legal issues regarding HIE and has prepared legal documents that can be shared with other agencies, if those agencies find similar issues in their States. The paths that other States have chosen to facilitate HIE contributed to the lessons they offered. Another felt that adopting a common data structure would facilitate HIE. A third agency suggested working with a vendor with an established reputation in HIE activities.

The Pennsylvania Medicaid agency was unique in that it tried to model its HIE activities after a newly developed criminal justice network was put in place. The criminal justice network was developed in-house and allowed real-time access to external systems that provide many different types of information for a person. Pennsylvania's Office of Medical Assistance planned a hybrid that would allow providers access to an external repository that will be nearly up-to-date but not real time. A federated system was not an option because rural areas do not have the resources to take advantage of the HIE system being put in place.

## **Implications for Technical Assistance Plans**

A number of overarching conclusions can be drawn from looking at this cross-section of responses from the Medicaid and CHIP agencies included in the needs assessment interview.

## **For HIE Initiatives, Negotiation of Medicaid's Role in Partnerships and Governance Related to HIE is a Commonly Reported Experience with Significant Implications**

Over 20 agencies interviewed are participating in HIE initiatives, especially statewide efforts, but they are not leading the HIE initiative. This is due, in part, to funding issues but also to ideology—the agencies do not feel that they should be leading these efforts. However, the agencies did want to be involved early in the development process to ensure a future role for Medicaid and that Medicaid's perspective and needs would be brought to the collaboration.

One of the initial steps in developing an HIE is the development of governance structures that will put in place policy and procedures guiding the collaboration. Overarching issues for most States include concerns about abiding by the regulations regarding the sharing of Medicaid data, to whom the data belong, who should be allowed access, and how to ensure that their participation in HIE will promote their agency's business needs. A related issue is privacy and security because missteps in this area may have political ramifications. Based on agencies' responses to the challenges they faced in HIE participation, understanding and complying with Federal and State regulations regarding data sharing and data privacy are areas in which technical assistance would be well received.

## **Assistance with Evaluation Design Could be Valuable to Agencies**

For health IT initiatives, the majority of Medicaid agencies seemed to be less focused on evaluation efforts. In many cases, specific evaluation plans were in place because of the requirements of a grant or other funding source. Details of the evaluation process were frequently unavailable or unknown, and in at least one case, the agency reported seeing little or no value in engaging in a formal evaluation process. These results are not surprising, nor are they specific to Medicaid/CHIP agencies. The value case for health IT continues to be debated, especially by those who bear the brunt of the implementation costs. Nevertheless, the interviews produced an overwhelming sense that health IT not only held the potential benefit of providing significant cost savings, but also was a necessary component in the pursuit to provide better quality and access to health care. Whether it is the responsibility—or capacity—of Medicaid agencies to conduct evaluations themselves, or to assist other evaluators, those participating in evaluation design need to understand the available techniques, data, and common practices.

## **There is an Opportunity to Draw from the Strengths and Experiences in Health IT and HIE within Medicaid and CHIP Agencies across the Country**

Finally, information collected in interviews as part of the needs assessment led to the identification of a number of best practices/lessons learned that could be shared among agencies. Although many of these were more anecdotal, their importance cannot be underplayed. Moreover, agencies expressed a willingness to share their experiences with others so that these best practices and lessons learned would help others overcome the challenges they had faced. The planning and implementation stories that could be shared between agencies dealing with similar issues will play an important role in developing the upcoming technical assistance under this project.

## Chapter 4. Technical Assistance Priorities

To complement the information gathered and interpreted from the needs assessment interviews, agencies were asked to rank a defined set of topics to report their priorities for technical assistance.

Table 12 reports the general topic areas that agencies were asked to prioritize, as well as how agencies ranked each of these general topic areas. Because a ranking of “1” indicated the highest priority given to a topic, a lower mean ranking for a topic area suggests a higher priority. Overall, health information technology (IT) and health information exchange (HIE) policy ranked highest, based on the mean and the number of States listing this topic as one of their top three priority areas. Privacy and security and quality improvement were also top priorities for technical assistance.

**Table 12. Agency rankings for the general topics areas, by mean, ranking as one of three top priorities, and as top priority**

Topic	Mean	# agencies top 3 priority area	# agencies number 1 priority
Overall health IT/HIE policy issues	4.29	15	8
Health IT/HIE privacy and security	4.39	13	2
Role of health IT and HIE in quality improvement	4.61	14	7
Adoption and use of data and technical standards	5.11	9	4
Medicaid/CHIP and HIE	5.46	9	2
Medicaid/CHIP health IT projects and initiatives—general topics	5.50	7	2
Medicaid/CHIP and EHRs	5.57	8	4
Medicaid/CHIP and e-prescribing	5.68	12	0*
Medicaid/CHIP and PHRs	7.36	2	1

\* Ten agencies indicated this topic as the second priority.

Additionally, we wanted to understand whether the preference for technical assistance in a certain topic area was influenced by specific factors, such as a status of their MMIS or type of project reported to be planned or implemented. The following section analyzes the rankings provided by each agency across external factors, as well as by what types of projects they are planning or implementing.

### Factors that Influence Priorities for Technical Assistance

#### MMIS Status Influences Agencies' Priority Areas for Technical Assistance

In reviewing the rankings for technical assistance, a number of external factors that could affect an agency's rankings were also considered. These included the status of the agency's

MMIS, Medicaid spending per capita, the percentage of State residents living in poverty, and the percentage of State residents living in rural areas. Of these, MMIS status and percentage of State residents living in poverty were most significant in influencing agencies' priority needs for technical assistance.

Each agency's MMIS is an important element in how it administers the Medicaid program. It generally includes computer applications for consumer enrollment and eligibility, claims processing and payment, services to recipients, providers and inquiries, and management reporting for planning and control. MMIS helps agencies monitor administrative costs, the services they provide to their enrollees and participating providers, and overall management of the program. We captured information on the working status of each agency's MMIS to better understand their capabilities in taking on health IT and HIE projects.

In all agencies, the MMIS represents the largest IT project within the Medicaid agency, and the MMISs are frequently the largest IT project in the State. In considering the status of the agency's MMIS, it seemed plausible that agencies that were currently planning or implementing a major system overhaul may be in different stages of planning or implementing another health IT or HIE because of the absolute and relative size of these systems. Although this project is not designed to include technical assistance to agencies for their MMIS, it is important to recognize that agency staff who work on the MMIS may not be available for other health IT/HIE projects and that this may impact the type of activity they are undertaking.

Ten of the agencies were undergoing a major overhaul of their MMIS. In addition, one agency reported major system upgrades while seven were performing only minor system maintenance. No data were reported on status for the remaining agencies. Most of the agencies surveyed used a vendor-based MMIS (84 percent) and approximately two-thirds of the agencies had completed their MMIS certification.<sup>11</sup>

MMIS status was a discriminating factor in agencies' priorities in three overall topic areas: overall health IT/HIE policy issues, health IT/HIE privacy and security, and the role of health IT and HIE in quality improvement.

**Health IT/HIE policy issues.** Agencies that were completing either a major overhaul or minor maintenance to their current system were more likely to identify overall health IT/HIE policy issues as a higher priority than agencies that did not provide information about the status of their MMIS. Having a better understanding of overall health IT and HIE policy has been an undercurrent throughout the needs assessment survey based on the agencies' responses to questions and now through their rankings.

**Privacy and security.** Agencies that were completing an overhaul of their MMIS ranked privacy and security more highly than agencies that were just undergoing MMIS maintenance. Agencies that are overhauling their MMIS are likely to be further behind in planning or implementing health IT or HIE projects. As a result, they may not be as far along with their privacy and security policies as those agencies in which their MMIS is not undergoing major changes. Thus, as the agencies make major changes to their MMIS, privacy and security issues

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<sup>11</sup> Federal MMIS certification is the procedure by which CMS validates that State Medicaid systems are designed to support the efficient and effective management of the program and satisfy the requirements set forth in Part 11 of the State Medicaid Manual, as well as subsequent laws, regulations, directives, and State Medicaid Director letters. The certification process also validates that the systems are operating as described in the prior approval documents (i.e., Advance Planning Documents and all associated contracts submitted to CMS for the purpose of receiving Federal financial participation). Centers for Medicare & Medicaid Services. Medicaid Enterprise Certification Toolkit. September 2007. Available at: [http://www.cms.hhs.gov/MMIS/09\\_MECT.asp](http://www.cms.hhs.gov/MMIS/09_MECT.asp). Accessed April 14, 2009.

(both technical and policy) likely emerge, and agencies are more likely to desire and benefit from technical assistance about privacy and security.

**Quality improvement.** One of the major motivations for agencies to participate in health IT and HIE is to improve the health and safety of the Medicaid population. Once the major work of putting the MMIS in place is complete, agencies can focus on the needs of their Medicaid enrollees, which include quality improvement. Further, conducting quality analyses can require substantial time and resources—to determine and standardize metrics, ensure data quality, and develop plans to improve quality—that may be diverted in agencies overhauling their MMISs. Targeting agencies that are currently maintaining, rather than overhauling, their MMIS may prove useful as a technical assistance program specific to agencies with a quality improvement-focused health IT initiative develops.

## **Poverty Rate Influences Agencies' Priority Areas for Technical Assistance**

The adoption and use of data and technical standards and the role of health IT and HIE in quality improvement were both more highly ranked by agencies with a lower proportion of their population in poverty. Alternatively, agencies with a higher percentage of their population in poverty ranked e-prescribing highest for technical assistance. Agencies with more residents at the poverty level may want to focus on medications as a way to reduce the costs of administering their Medicaid program.

## **Status of Health IT Initiatives Influences Priorities for Technical Assistance**

The type and stage of health IT initiative influences an agency's priorities for technical assistance. Agencies most frequently mentioned that they are planning and implementing the following health IT initiatives: EHRs, quality improvement, and e-prescribing. Because these are diverse initiatives, the technical assistance needs of agencies implementing these projects are expected to differ. Only three agencies were planning or implementing a PHR (two planning, one implementing), so no conclusions could be drawn from that limited sample.

## **There is a Difference in Priorities for Agencies Who Are Planning vs. Implementing an EHR Initiative**

Seven agencies are currently planning or implementing an EHR or EHR-related initiative. Among agencies *planning* an EHR, the agencies ranked the role of health IT and HIE in quality improvement as the topic for which technical assistance was most needed, followed by overall health IT/HIE policy issues. Among agencies *implementing* an EHR, the top three ranked topics were HIE, privacy and security, and EHRs. Only two agencies were implementing EHRs, but these agencies have likely worked out the policy issues and are interested in how to exchange their EHR data with others; whereas agencies that are only now planning the development of EHRs or that are not yet planning EHRs need assistance with policy issues and perhaps technical assistance on the benefits of EHRs for health care quality improvement to promote their development politically. The difference across agencies that are planning versus implementing EHRs also suggests that the agencies need targeted technical assistance for certain aspects of

their projects, rather than a broad-based or comprehensive technical assistance program about the topic of EHRs.

### **There is a Difference in Priorities for Agencies Who are Planning vs. Implementing a Quality Improvement Initiative**

Quality improvement is the second most prevalent of the four health IT projects (the others being EHRs, PHRs, and e-prescribing) in which the agencies interviewed are engaged. The priorities for technical assistance vary based on whether an agency is planning or implementing a quality improvement initiative. Overall, policy issues and privacy and security issues were the top two priorities for agencies implementing quality improvement initiatives, while the role of health IT and HIE in quality improvement, EHRs, and e-prescribing were the top priorities among agencies planning quality improvement initiatives. In contrast to the findings for agencies planning and implementing EHRs and PHRs, where these broad topics were not priorities for them, the broad category quality improvement was rated as the top area by agencies that are planning such an initiative.

### **Agencies with E-prescribing Initiatives Do Not Report Different Priorities for Technical Assistance**

Although approximately half of the agencies that were interviewed mentioned either planning or implementing e-prescribing, the rankings provided by State agencies did not provide any clear consensus on priorities for technical assistance. With the exception of overall health IT/HIE policy issues and privacy and security, no clear priorities emerged and all other topics were rated nearly equally (with the exception of PHRs, which was a lower priority). It may be that agencies engaged in e-prescribing initiatives vary in other important ways (i.e., the results are confounded), and that a clear picture of the reasons for their differing technical assistance needs based on the present analysis is not possible without further probing on specific aspects of their e-prescribing program.

### **Medicaid Agency Role Within HIE Initiatives Influences Priorities for Technical Assistance**

Of the agencies participating in HIE initiatives, most are participating in statewide HIE efforts and are not leading the efforts. As with e-prescribing, a clear consensus for technical assistance priorities did not emerge by type of HIE effort, although among agencies leading their own HIE initiatives, overall policy issues and privacy and security were listed as the top two priorities (see Table 12). In planning technical assistance for agencies related to HIE, their specific roles, the types of data they are trying to exchange, and the involvement of their HIE collaborators may need to be taken into account.

## **Implications for Technical Assistance Plans**

### **State-Level Factors**

Factors such as status of the agencies' MMIS and percentage of the States' population that were below the Federal poverty level suggested that technical assistance in one topic area might be more relevant to some agencies than others. In particular, agencies that were overhauling their MMIS were more likely to prioritize technical assistance with privacy and security compared to agencies whose MMIS was further along.

### **Type of Health IT Initiative**

As expected, technical assistance priorities differed by whether an agency was planning or implementing a health IT initiative. This difference suggests that targeted technical assistance will be required depending on the status of the initiative. In addition, except for the role of health IT and HIE in quality improvement, agencies that were involved in a particular health IT initiative did not rank that initiative as a priority for technical assistance. For example, agencies that were currently planning or implementing e-prescribing prioritized e-prescribing lower than other topic areas.

### **Role in HIE Initiative**

Agencies involved in HIE activities prioritized technical assistance related to health IT and HIE policy and privacy and security. However, agencies' needs for technical assistance may differ depending on the agency's role in the HIE project and the solutions they have already developed.

## Chapter 5. Preferences for Provision of Technical Assistance

Agencies were asked about their interest in participating in various formats of technical assistance such as 2-hour Webinars and 2-day workshops. All of the agencies indicated an interest in Webinars and most were interested in 2-day workshops (see Table 13).

**Table 13. Agencies' interest in participating in technical assistance offerings**

Format	Number of agencies
Webinar	30
Two-day workshop	21

We also asked agencies about barriers to participating in Webinars and workshops. As indicated in Table 14, the barrier most often cited for Webinar attendance was a conflict with other scheduled activities. Interest in the topic area was the next most frequently given barrier and the availability of staff to participate in the Webinars was also cited as a barrier to attendance.

**Table 14. Agencies' barriers to participating in Webinars**

Barrier	Number of agencies
Timing and availability	17
Topic area	5
Staff limitations	2
Other	4

Because interaction with other agencies grappling with similar issues might be valuable, agencies were asked whether they would be able to send a representative to 2-day workshops and about the barriers to their attendance (see Table 15). Travel restrictions were the most commonly cited barrier, followed by travel costs, timing and availability, and topic area. Agencies expressing an interest in workshops were asked how much lead time they would need to get approval and make travel arrangements (see Table 16). Approximately half of the respondents said they needed 1 to 2 months; the other half said at least 2 months. Only three agencies said they could attend with less than 1 month's notice.

**Table 15. Agencies' barriers to participating in 2-day workshops**

Barrier	Number of agencies
Travel restrictions	15
Travel costs	11
Timing and availability	8
Topic Area	4

**Table 16. Agencies' lead time needed to participate in 2-day workshops**

<b>Time</b>	<b>Number of agencies</b>
1 to 2 months	11
2 or more months	10
Less than 1 month	3
Other	4

## Chapter 6. Implications for Year 2 Technical Assistance

**Policy issues are important common priorities for technical assistance.** Regardless of the stage of agencies' health IT and HIE activities, a common thread is their uncertainty regarding health IT and HIE policy as well as privacy and security. Medicaid agencies are covered entities according to the Health Insurance Portability and Accountability Act (HIPAA), which requires them to abide by the Privacy Act regulations. Understanding how to move forward on health IT and HIE without violating these regulations, and other Medicaid-specific regulations, is critical to their business functions.

**Some technical assistance should be targeted.** The findings in this report demonstrate that agencies' interest in some areas of technical assistance varies according to their State's context and their own involvement in health IT or HIE activities. Thus, technical assistance will need to be tailored to the status of particular initiatives within each agency.

**Cost of initiatives should be addressed.** Funding was the most frequently cited challenge to planning or implementing health IT initiatives so it will be necessary to provide some type of assistance that helps the agencies to identify funding mechanisms, potentially through a combination of peer-to-peer learning and some basic research on funding availability. At the same time, few agencies had estimates of what their participation in health IT and HIE was costing them or how to develop an understanding of these costs.

**HIE issues should be addressed.** Information about specific Federal policies for HIE, especially with regard to Medicaid and CHIP data, would also be valuable to the agencies—to address their concerns about data sharing and access.

**Evaluation should be addressed.** Agencies reported a wide range of readiness to conduct evaluation of benefits and/or an analysis of the costs and value of health IT and HIE activities. We noted that few agencies had specific evaluation plans unless these plans were tied to Medicaid Transformation Grants or other funding requirements. This suggests an opportunity to provide valuable technical assistance to Medicaid/CHIP agencies.

**Technical assistance should build upon agencies' lessons learned.** Finally, many agencies indicated a desire to share their knowledge, policies, and documents with other agencies. Workshops, communities of practice, and an online repository would be excellent avenues for this type of sharing.