Status of State Efforts to Integrate Health and Human Services Systems and Data: 2016

SUMMARY OF FINDINGS

Since 2010, partly in response to changing federal laws and regulations and new funding opportunities and to improve efficiency and effectiveness, states have made efforts to strengthen connections between health and human services programs through increased data interoperability and systems integration among programs. Questionnaire responses from health and human services officials in 45 states and the District of Columbia provide a snapshot of their current progress and challenges in these efforts. Key findings include the following.

- About two-thirds of states have integrated eligibility and enrollment (E&E) systems shared by Medicaid and at least one human services program.
- Many agencies that responded to the questionnaire have upgraded their human services E&E systems since 2010, and more than twice as many now have systems with real-time access to data for eligibility verification.
- Data sharing across programs is common in most states but often only among programs in the same agency.
- Only about two-thirds of responding agencies currently use master client indices that compare and link client records across multiple systems.
- Agencies place high importance on several potential improvements to data interoperability, systems integration, and program entry processes. In particular, almost all respondents rated improvements to client portals and real-time access to data for eligibility verification as highly important.
- Challenges to improvements include lack of alignment of policies related to data sharing or program eligibility, limited funding, outdated or inflexible legacy systems, and federal or state rules limiting data sharing.
- There is high demand for federal technical assistance in areas such as obtaining enhanced funding, learning from other states’ experiences, training on data interoperability and systems improvements, and guidance on rules about data sharing.

About This Research Brief

This brief presents findings from a questionnaire administered to state health and human services officials on state efforts to strengthen connections between health and human services programs for low-income and disadvantaged populations through increased data interoperability and systems integration. The Office of the Assistant Secretary for Planning and Evaluation (ASPE) and the Administration for Children and Families funded the study. Questionnaire topics included systems integration and data interoperability among eligibility and enrollment systems, program entry processes, governance issues related to data sharing, challenges to state efforts, and opportunities for technical assistance to overcome those challenges.

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INTRODUCTION

Since 2010, partly in response to changing federal laws and regulations and new funding opportunities and to improve efficiency and effectiveness, states have taken steps to strengthen connections between health and human services programs for low-income and disadvantaged populations.\(^1\) Many of these efforts have focused on increasing data interoperability and systems integration among different programs.\(^2\) States have different reasons for pursuing these efforts, but in many cases, their goals include improving consumer experience, streamlining enrollment, lowering administrative costs, and protecting program integrity.\(^3\)

In 2015, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) and the Administration for Children and Families (ACF), both within the U.S. Department of Health and Human Services (HHS), commissioned a study to provide a snapshot of these state efforts. HHS contracted with MEF Associates and its subcontractors, the American Public Human Services Association (APHSA) and the Rockefeller Institute of Government of SUNY, to develop a questionnaire, administer it to state officials, and analyze the responses. The questionnaire concentrated on several topics:

- Systems integration and data interoperability among eligibility and enrollment (E&E) systems,
- Program entry processes,
- Governance issues related to data sharing,
- Challenges to state efforts in each of those three areas, and
- Opportunities for technical assistance to overcome those challenges.

The research team that administered the questionnaire received responses from 45 states and the District of Columbia. Each of the 46 states submitted a single response, generally completed by an official at the departmental or division level (see the Methodology and Sample section for more specifics on “responding agencies”). This brief summarizes findings from the questionnaire responses. The research team also conducted a webinar for state agency leadership and staff in July 2016 to present the main themes to state officials.

The questionnaire responses from state agency leadership show that states have taken significant steps to increase systems integration and data interoperability and sharing as well as to improve program entry processes among health and human services programs. However, states continue to experience challenges in their efforts to progress further in these areas. The key findings include the following.

- About two-thirds of states (32 of 46 respondents) currently have integrated E&E systems shared by Medicaid and at least one human services program, such as the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), Child Care, or the Low-Income Home Energy Assistance Program (LIHEAP). The findings from this analysis focus on those integrated systems for states that have them and on the E&E systems that include TANF for other states.

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\(^2\) “Systems integration” refers to arrangements where multiple programs share a common IT platform or platforms. “Data interoperability” refers to situations where multiple information technology platforms can share data as a result of factors such as data use agreements, consistent data coding and structures, and hardware or software tools.

• Since 2010, many of the responding agencies have added to their human services E&E systems certain basic capabilities asked about on the questionnaire. Now, more than twice as many (from 15 to 34 responding agencies, or 33 percent to 76 percent of the 45 agencies that responded to this question) have E&E systems with real-time data access for electronic eligibility verification.

• Data sharing across programs is common in most states but often only within an agency. For example, more than three-quarters of responding agencies (36 of 46) reported that client history data is available to appropriate staff of other programs within the agency without explicit client consent, but fewer than one-third (13 of 46) reported that this data is similarly available to staff in other agencies.

• Only about two-thirds of responding agencies (35 of 46) currently use master client indices (MCI) that compare and link client records across multiple systems, suggesting that opportunities might exist in many states to further integrate service delivery through MCI adoption or expansion.

• Agencies place high importance on several potential improvements to data interoperability, systems integration, and program entry processes. In particular, almost all respondents rated improvements to client portals and real-time access to data for eligibility verification as highly important.

• Frequently cited challenges to improving E&E systems, program entry processes, or data sharing governance include lack of alignment of policies and rules (either related to data sharing or to program eligibility criteria); limited funding for systems improvements; outdated, inflexible, or multiple legacy systems; and federal or state rules limiting data sharing.

• There is high demand for technical assistance and other support from the federal government, with more than two-thirds of respondents considering assistance of high importance in enhanced funding (both funding itself and technical assistance on ways to obtain it), learning from other states’ experiences, training on data interoperability and systems improvements, guidance on rules about data sharing, and other such areas.

**METHODOLOGY AND SAMPLE**

The research team sent an online questionnaire to human services commissioners in 50 states and the District of Columbia, many of whom also have responsibility for Medicaid operations and eligibility determination. The questionnaire remained open from March 29, 2016, to May 6, 2016. The team obtained a response rate of 90 percent, consisting of responses from 45 states and the District of Columbia. Each state submitted a single response. The initial recipients could delegate parts or all of the questionnaire to other staff, and, therefore, the responses reflect the perspectives of a mix of agency leads, deputies, managers focused on information technology (IT), and others. The responding agencies administer a range of health and human services programs; consequently, some responses might reflect perspectives of agencies where some of the programs or features asked about fall outside their auspices. Exhibit A shows the programs falling within the respondents’ agencies. All responding agencies administer multiple programs. For example, 32 of the 46 agencies administer all four of the following programs: SNAP, TANF, Medicaid eligibility, and the Children’s Health Insurance Program (CHIP).

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4 Given differing state structures, respondents to the questionnaire generally were officials at the departmental level, representing departments such as—depending on state structure—the state Department of Human Services, Department of Health and Human Services, or Department of Children and Family Services. A small number were officials at the division level. Throughout the brief, these departments and divisions are referred to as “agencies.”
eligibility. Because the research team collected a single response from each state, some responses reflect a particular agency’s perspective. In all cases these agencies administer major human services programs. However, to the extent that respondents were unaware of integration efforts occurring outside their agency, the research team’s analysis would not reflect those efforts.

The scope of the research project was limited to development of the questionnaire and analysis of its responses. Further, to support a high response rate, the research team kept the questionnaire to a manageable length. The findings presented are limited to the responses as submitted in the questionnaire. Areas where additional detail would be useful might present opportunities for future research.

### INTEGRATION OF ELIGIBILITY SYSTEMS

Largely due to requirements of the Affordable Care Act, states have made substantial changes to eligibility and enrollment (E&E) systems for their health programs since 2010. In many cases, these changes included aspects focused on furthering integration among health and human services programs to expedite eligibility decisions by sharing data from multiple sources or programs. The questionnaire included questions focused on gauging the extent of data interoperability and systems integration following these changes.

#### Prevalence of Integrated Health and Human Services E&E Systems

Roughly two-thirds of agencies (32 of 46) that responded have integrated E&E systems shared by Medicaid and at least one human services program, such as SNAP, TANF, Child Care, or LIHEAP. The agencies that have such integrated systems are almost all agencies with responsibility for administering Medicaid eligibility. Of the 37 responding agencies that administer Medicaid eligibility, 31 have integrated E&E systems shared by Medicaid and at least one human services program, while only 1 of the 9 responding agencies that do not administer Medicaid eligibility has such an integrated system.

Among the integrated systems,

- 31 include SNAP (98 percent);
- 31 include TANF (98 percent);
- 26 include CHIP (81 percent);
- 15 include Child Care (47 percent); and
- 14 include LIHEAP (44 percent).

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5 Several questions distinguish between the operations and eligibility functions of Medicaid and CHIP because they are handled by different agencies in some states. For example, the Utah Department of Health contracts with the Department of Workforce Services for Medicaid eligibility determination. (See Utah Department of Health, 2014 Utah Annual Report of Medicaid & CHIP.) Twelve of the 37 responding agencies reporting responsibility for Medicaid eligibility determination also reported that operations activities fall outside their purview. Similarly, Medicaid and CHIP are sometimes administered by different agencies. Three of the 37 responding agencies that reported administering Medicaid eligibility did not report administering CHIP eligibility.
These results (Exhibit B) do not fully align with the programs that the responding agencies administer. Eighteen of the 32 responding agencies administer at least one of the listed programs without its being part of the integrated system. Conversely, three agencies’ systems include at least one program not administered by the agency itself.6

For the 14 states whose E&E systems for Medicaid are separate from human services programs, respondents reported on their systems that handle TANF enrollment. Among those 14 states, 13 respondents provided additional information about which other programs their systems include. In 12 of these agencies, the system includes SNAP, 4 include Child Care, and 3 include LIHEAP.

**Expanded Capabilities of E&E Systems**

A key area of interest was the extent to which E&E systems have certain basic capabilities and whether the number of systems with these capabilities has increased. Many agencies have upgraded their E&E systems since 2010 (Exhibit C). Before 2010, approximately 80 percent of responding agencies had E&E systems that could handle routine functions such as determining a client's eligibility, sharing some data across programs, and tracking program and participant activities against federal requirements. Most of the remaining agencies have subsequently added these capabilities, so currently 43 of 45 responding agencies, or 96 percent, reported having E&E systems with these capabilities. These changes represent an increase of 11 percentage points since 2010 in agencies with systems that determine a client’s eligibility; an increase of 16 percentage points in agencies with systems that track program and participant activities against federal requirements; and an increase of 18 percentage points in agencies that share some data across programs.7

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6 In asking about programs the E&E systems include, the questionnaire asked specifically about only these six programs. It did not gather information about other programs, such as Child Welfare or Child Support.

7 States might have made other upgrades to their E&E systems. Notably, all states replaced or modified their Medicaid E&E systems since 2010. The questionnaire focused only on these basic capabilities and only on Medicaid systems for states where these systems were integrated with at least one human services program.
The most notable increase has been in the number of agencies with E&E systems that allow real-time access to data to verify eligibility, which can support more effective enrollment of individuals in each program’s target population, as well as to help reduce administrative costs. Before 2010, only one-third (33 percent) of agencies had E&E systems with that capability. That number has more than doubled, and 76 percent of responding agencies reported that their systems currently access data in real time for eligibility verification. The agencies reporting that their systems still lack this capability are disproportionately agencies without integrated systems. Roughly one-half (7 of 13) of agencies with human services E&E systems not integrated with Medicaid reported that these systems have no capability for real-time data access for eligibility compared with only 13 percent of agencies (4 of 32) with integrated systems.

Although most responding agencies’ E&E systems currently have basic capabilities in each of these areas, a large majority of agencies place high importance on making further improvements in these areas (Exhibit D). High importance refers to responses of 4 or 5 on a 5-point scale, ranging from “no or little importance” to “high importance.” Notably, 98 percent of responding agencies (44 of 45 respondents who replied to the question about importance placed on systems improvements) see further improvements in their systems’ capabilities to access electronic data in real time being of high importance. These agencies include both ones whose systems currently have this function and ones whose systems do not. The questionnaire did not request information on the types of improvements in this area that agencies want to make, but responses to open-ended questions suggest possibilities, such as expanding the set of programs among which data is shared, access to data sources whose use is restricted for some programs (e.g., access to data available through the Federal Data Services Hub for programs other than Medicaid), and improving business processes to better take advantage of shared data.

Several respondents also expressed an interest in improving their E&E systems areas not specified by the questionnaire. The most common areas volunteered by respondents include client portals (websites that program participants can use to access or to submit information related to their case) and other client-directed functionality, increased functionality for case workers (e.g., document imaging and management, electronic notifications, reporting, analytics), and improved data sharing. Each of these areas was raised by 9 or 10 respondents. (Almost all respondents’ broad interest in improving client portals was more clearly exhibited in response to an explicit question in the questionnaire’s program entry processes section. See discussion of Exhibit G.) Several respondents also mentioned integrating more programs into a shared platform.
Master Client Index

Another key area of interest was the extent to which agencies currently use Master Client Indexes (MCI). MCIs compare client records across multiple systems and link the records to identify the same client within or across different programs. As such, MCIs are fundamental elements for integrated service delivery to clients eligible for multiple programs. Questionnaire responses show that 65 percent of responding agencies (30 of 46) reported using an MCI to identify the same client across different programs.

MCIs were more commonly reported by responding agencies with integrated E&E systems shared by Medicaid and at least one human services program than for agencies without such integrated systems.

- Seventy-five percent of responding agencies with integrated E&E systems reported using MCIs.
- Forty-two percent of responding agencies whose human services systems are separate from Medicaid reported using an MCI.

For the 30 responding agencies that reported using an MCI, Exhibit E shows how frequently each of several programs are included in the MCIs.

Although these findings show that most agencies currently use MCIs, many others do not. Further, the MCIs encompass different programs and functions from state to state. For example, only 18 responding agencies (39 percent) have MCIs that include the claims-related operations of Medicaid and CHIP. This finding suggests that opportunities might exist in many states to further integrate service delivery through MCI adoption or expansion.

Data Sharing with State or the Federal Health Insurance Marketplaces

Nearly two-thirds of responding agencies reported that their human services E&E systems both send and receive data from the Health Insurance Marketplace. More specifically,

- 28 of 45 respondents, or 62 percent, reported that their system both sends data to and receives data from the Marketplace;
- 3 of 45 respondents, or 7 percent, reported that their system only receives data from the Marketplace;
- 1 of 45 respondents, or 2 percent, reported that their system only sends data to the Marketplace; and
- 13 of 45 respondents, or 29 percent, reported that their system neither sends data to nor receives it from the Marketplace.

Federal regulations require data sharing between the Marketplaces and the agencies administering Medicaid. However, the questionnaire asked about data sharing between the
agency's human services E&E systems and the Marketplaces. In most cases where respondents reported no data sharing between their E&E systems and the Marketplace, the E&E system does not include Medicaid, and, therefore, the responses do not indicate whether data sharing occurs between the Marketplaces and Medicaid.\(^8\) (A smaller number of respondents with E&E systems that include both Medicaid and human services also reported that data sharing with the Marketplaces does not occur. They might have interpreted the question to be asking only about data sharing with the human services programs.)

**PROGRAM ENTRY**

Agencies use a broad set of strategies and features to support program outreach, access, and intake. Exhibit F shows the percentage of responding agencies that administer each of four programs—SNAP, TANF, Medicaid, and CHIP—applying various strategies. Overall, the strategies included in the exhibit are commonly used. For example, 13 of the 15 strategies are used by more than one-half of the responding agencies administering SNAP; 11 are used by more than one-half of the agencies administering TANF; 13 are used by more than one-half of the agencies administering Medicaid; and 11 are used by more than one-half of the agencies administering CHIP.

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**Exhibit F: Percentage of Responding Agencies Administering SNAP, TANF, Medicaid, and CHIP That Use Different Program Entry Strategies to Support Outreach, Access, and Intake**

<table>
<thead>
<tr>
<th>Strategy Description</th>
<th>SNAP (N=46)</th>
<th>TANF (N=45)</th>
<th>Medicaid (N=36)</th>
<th>CHIP (N=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification of eligibility using data from sources outside the agency</td>
<td>98%</td>
<td>95%</td>
<td>88%</td>
<td>79%</td>
</tr>
<tr>
<td>Common paper application form across two or more programs</td>
<td>82%</td>
<td>79%</td>
<td>85%</td>
<td>82%</td>
</tr>
<tr>
<td>Verification of eligibility using data from sources inside the agency</td>
<td>82%</td>
<td>77%</td>
<td>83%</td>
<td>80%</td>
</tr>
<tr>
<td>Customer service or technical support</td>
<td>85%</td>
<td>83%</td>
<td>82%</td>
<td>82%</td>
</tr>
<tr>
<td>Cross-training of staff from other programs or community partners</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Outreach by program staff in the community</td>
<td>84%</td>
<td>81%</td>
<td>84%</td>
<td>83%</td>
</tr>
<tr>
<td>Shared electronic application form across two or more programs</td>
<td>85%</td>
<td>84%</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Client portal or portals</td>
<td>85%</td>
<td>82%</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Co-location with other agencies</td>
<td>85%</td>
<td>84%</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Direct outreach</td>
<td>84%</td>
<td>82%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Formal referrals from other programs or community partners</td>
<td>85%</td>
<td>83%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Electronic notices</td>
<td>84%</td>
<td>82%</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Line staff direct enrollment via shared systems</td>
<td>84%</td>
<td>82%</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Electronic referral forms outside the agency</td>
<td>84%</td>
<td>82%</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Electronic referral forms among programs within the agency</td>
<td>84%</td>
<td>82%</td>
<td>83%</td>
<td>83%</td>
</tr>
</tbody>
</table>

\(^8\) In particular, of the 13 agencies reporting that their human services E&E system neither sends data to nor receives it from the Marketplace, 10 had systems that do not include Medicaid.
The most common strategies the responding agencies use in administering Medicaid and CHIP are similar and include

- Verification of eligibility using data from sources outside the agency;
- Customer service or technical support;
- Verification of eligibility using data from sources inside the agency; and
- Client portals, which are particularly common for Medicaid but less so for CHIP.

For SNAP and TANF, the most common strategies include

- Verification of eligibility using data from sources outside the agency;
- Common paper application form across two or more major programs;
- Customer service or technical support; and
- Verification of eligibility using data from sources inside the agency.

Respondents also reported on strategies for administering Child Care and LIHEAP. In the interest of readability, these strategies are omitted from the exhibit. Almost every strategy listed in the exhibit is used less frequently for these programs than for SNAP, TANF, Medicaid, and CHIP.

Electronic referral forms are used least, either by programs within the agency or by programs and community partners outside the agency, to support outreach, access, and intake for all four programs. Between 30 and 43 percent of the agencies administering each program reported using electronic referrals by their community partners or programs outside the agency. Between 27 and 35 percent reported the use of electronic referrals by programs within the same agency.

Asked about notable changes to these features or strategies since 2010, roughly three-quarters of respondents described instituting or improving at least one of the features. The most commonly cited improvements include electronic applications, eligibility verification using electronic data from outside or inside the agency, and client portals. A few also described instituting completely new E&E systems that might have included improvements in several of these areas.

Many responding agencies expressed interest in making improvements in these areas (Exhibit G). For 10 of the 15 features and strategies the questionnaire asked about, one-half or more of

<table>
<thead>
<tr>
<th>Exhibit G: Share of Agencies Reporting Improvements in Program Entry Strategies as Highly Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
</tr>
<tr>
<td>Client portal or portals (N=46)</td>
</tr>
<tr>
<td>Verification of eligibility using data from sources outside the agency (N=46)</td>
</tr>
<tr>
<td>Electronic notices (N=46)</td>
</tr>
<tr>
<td>Verification of eligibility using data from sources inside the agency (N=46)</td>
</tr>
<tr>
<td>Shared electronic application form (N=46)</td>
</tr>
<tr>
<td>Customer service or technical support (N=46)</td>
</tr>
<tr>
<td>Electronic referral forms within agency (N=45)</td>
</tr>
<tr>
<td>Electronic referral forms used outside agency (N=45)</td>
</tr>
<tr>
<td>Cross-training of staff from other programs or partners (N=45)</td>
</tr>
<tr>
<td>Line staff direct enrollment via shared systems (N=45)</td>
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<td>Common paper application form across two or more major programs (N=46)</td>
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<td>Outreach by program staff in the community (N=46)</td>
</tr>
<tr>
<td>Formal referrals from other programs or community partners (N=46)</td>
</tr>
<tr>
<td>Co-location with other agencies (N=46)</td>
</tr>
<tr>
<td>Direct outreach (N=44)</td>
</tr>
</tbody>
</table>

*Highly Important* refers to responses of 4 or 5 on a 5-point scale, ranging from "no or little importance" to "high importance."
responding agencies said they place high importance on improvement. Interest in client portals is particularly high, with 44 of 46 respondents placing high importance on making such improvements. Improving eligibility verification using data from outside the agency is also a high priority for 42 respondents. Other features most widely considered high priorities include electronic notices; eligibility verification using data from within the agency; customer service or tech support; and shared electronic application forms across programs. Least frequently cited as priorities for improvement were co-location with other agencies and direct outreach. Nonetheless, even these features were cited as high priorities by more than one-third of respondents.

**GOVERNANCE OF DATA SHARING**

Governance is a critical factor in efforts to increase integration. Decisions in such areas as arriving at common data definitions, assuring mutual access to data, and complying with privacy and confidentiality rules and standards can involve different levels of government (federal, state, and local), different agencies within the state level, different offices within an agency, etc. These decisions require consensus across these different entities. Although governance issues apply to all aspects of integration efforts, the questionnaire focused on governance of data sharing among programs.

Governance issues might be particularly important in data sharing because the rules and policies focused on maintaining participant privacy add to the issues that must be coordinated among different organizational entities. Rules aimed at protecting privacy might directly limit certain uses of data. Further, the applicable rules might be complex and might involve regulations from different levels of governments or different agencies.

Responding agencies have diverse opinions as to the restrictiveness of policies related to data sharing and the extent to which restrictions or the complexity of rules limit data sharing among programs. For example, they are evenly split on the subject of data sharing.

- One-half of responding agencies (23 of 46) said that data-sharing rules are complex and lack clarity and that insufficient guidance exists to clarify them.
- Nearly one-half of responding agencies (22 of 46) said that data-sharing rules are clear, at least with available guidance.

Some degree of data sharing occurs under current policies in most programs and states, but substantial limits also exist. For example, for TANF, SNAP, Medicaid E&E, CHIP E&E, and LIHEAP, one-half or more of responding agencies indicated the program is part of a data-sharing cooperative with other programs (Exhibit H). However, among other programs such as CHIP and Medicaid operations and claims payment, Child Support, and Child Welfare, data-sharing policies were reported as restrictive in most states, with Child Welfare most commonly reported as such.

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Exhibit H: Percentage of Responding Agencies Employing Different Data-Sharing Policies, by Program

The extent of sharing among programs of client history data—which might be particularly sensitive due to privacy issues—depends to a great degree on whether the programs are administered by the same agency (Exhibit I). More than three-quarters of responding agencies said that all or some client history data is available to appropriate staff of other programs within the agency without explicit client consent, but fewer than one-third said it was similarly available to staff administering programs in other agencies. On the other hand, 43 percent said that such data is shared only with other agencies’ staff where required by law or regulation, and another 28 percent said they would share such data in other circumstances only with participants’ explicit consent.

Responding agencies vary widely in their arrangements for storing client history data.

- Fewer than one-quarter (22 percent) of responding agencies reported having a central repository for client history data across programs.
- In most of the rest of the cases (58 percent), the agency keeps client history across some programs, but multiple systems, rather than a single central repository, exist.
- One-fifth (20 percent)—principally agencies without integrated E&E systems—conveyed that client history resides exclusively within each individual program’s system.
Finally, respondents reported on their agency’s major decision-makers for data-sharing questions (Exhibit J). An agency’s top management most often serve as the principal decision-makers in this area (61 percent), followed by program-level management to a lesser extent (30 percent). However, IT divisions have principal or major roles in two-thirds (67 percent) of responding agencies and a minor role in most of the others. Partnering agencies also play a role in data-sharing decisions in most responding agencies. Respondents usually characterized that role as minor, but nearly one-third (30 percent) reported that partnering agencies or organizations play a major or principal decision-making role.

**CHALLENGES TO INCREASING DATA INTEROPERABILITY AND SYSTEMS INTEGRATION**

Respondents indicated major challenges to their integration efforts in each of its three focus areas: E&E systems integration, program entry processes, and governance of data sharing. The most common barriers hindering efforts to increase systems integration and data interoperability cut across four areas.
- **Lack of alignment of policies and rules regarding different programs.** These responses fall into two main areas: 1) differing or unaligned rules from various federal agencies about what data may be shared between programs, which present challenges to improving E&E systems or data governance, and 2) differing eligibility criteria, definitions used in eligibility determination, and acceptable forms of verification, which present challenges to program entry processes and E&E improvements. Some version of these issues or of the general complexity of federal rules was cited by nearly one-third of respondents as a challenge to E&E improvements and by more than 40 percent of respondents as a challenge to improving program entry processes.

- **Funding.** Federal policy changes have expanded the availability of federal funding for states to integrate and upgrade their health and human services E&E systems. Medicaid now provides 90 percent of funding to modernize state Medicaid E&E systems, and the “A-87 exception” allows states to allocate to Medicaid the full cost of human services systems upgrades for services shared with Medicaid. Nonetheless, about 43 percent of responding agencies cited funding as a challenge for E&E integration efforts, program entry improvement, or both. Many responses are general (e.g., responses given were simply “cost” or “funding”). Others, however, indicate why funding remains a challenge despite the federal funding opportunities. Some agencies specified that their states were providing insufficient match funding, and one agency noted that its state had approved funding only for Medicaid improvements.¹⁰ A few agencies also reported limited general IT resources as a challenge.

- **Legacy systems.** Almost one-third of responding agencies mentioned outdated, inflexible, or multiple legacy systems as challenges to systems upgrades, program entry process improvements, or data sharing. One explained that finding current developers familiar with older mainframes or software languages is difficult. Another noted that it already has a state-of-the-art system for Medicaid but outdated systems for human services programs.

- **Restrictions on data sharing.** State or federal rules limiting data sharing across programs, cited generally, for specific types of data (e.g., income data, Medicaid data, school lunch data), or about the Federal Data Services Hub, were reported by nearly one-quarter of respondents as barriers to improved program entry processes or data governance.

Other challenges were mentioned. Several responding agencies cited issues with procurement as a challenge for upgrading E&E systems—either the complexities of the state procurement system or limited availability of vendors or consultants well qualified to perform the needed work. As challenges to program entry processes, a small number of respondents cited the difficulty of developing processes satisfactory to multiple agencies and other stakeholders. Concerns about how to ensure enough security were mentioned as challenges to increasing data sharing through improved governance.

**TECHNICAL ASSISTANCE NEEDS AND OPPORTUNITIES**

One of this project's goals was to gather information for federal officials about areas where state agencies might benefit from technical assistance. Responding agencies place high importance on receiving assistance in several general areas (Exhibit K).

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¹⁰ Several limitations apply to funding available for human services systems through the A-87 exception, including that it does not cover maintenance and operation of new or improved systems as well as upgrades in areas that do not overlap with Medicaid. See [http://www.aphsa.org/content/dam/aphsa/pdfs/NWI/FINAL A-87_Exception_Toolkit 1-23-14.pdf](http://www.aphsa.org/content/dam/aphsa/pdfs/NWI/FINAL A-87_Exception_Toolkit 1-23-14.pdf).
Perhaps unsurprisingly given the number of states that cited funding as a challenge, the most interest was in receiving enhanced funding for systems integration or data interoperability, with high interest also in guidance on ways to obtain enhanced funding on a sustainable basis. Particularly high interest in learning about successful experiences from other programs also emerged. Two-thirds of responding agencies placed high importance, as well, on the other areas: training opportunities around systems improvements, guidance on federal rules around data sharing, and examples of language from successful Advanced Planning Documents that could be used in future systems upgrades.

In addition, respondents provided more specific suggestions for assistance in other areas, including help with concerns around data security (e.g., understanding the rules or guidance for mitigating risks), systems interactions with federal databases, technical issues involved in systems development (e.g., enterprise architecture, instituting MCIs), and information on what federal agencies are doing or plan to do to facilitate data sharing. Some respondents gave recommendations of things federal agencies could do to support increased data sharing and integration beyond technical assistance, which largely centered on aligning federal rules among programs and expanding programs’ ability to access more data sources through clarifying or loosening rules around data sharing.

In addition, states might serve as promising resources for technical assistance for each other. Several respondents reported that they had experiences in areas related to systems improvements, data sharing, and governance from which other states could learn. Some cited their state’s general experience in implementing upgraded or integrated systems, and a few cited specific features, such as worker dashboards and client portals, or experience with specific software. Others focused on having improved governance models or business processes. Still others mentioned having worked through negative experiences, such as receiving inaccurate data. Some resources exist to facilitate states’ sharing of information. An example is the State Health and Human Services Integration Community platform on the Centers for Medicare and Medicaid Services Enterprise Portal, also known as zONE, which states can use to share information about their efforts related to the design, development and installation of integrated E&E systems, including items that may be reusable by other states in their own efforts, such as requests for proposals, Advanced Planning Documents, solution specifications, reusable code, etc. 

\[11\]