

# State Health Reform Assistance Network

## Charting the Road to Coverage

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## Financial Sustainability of Medicaid and Exchange Integrated Eligibility Systems: State Cost Allocation Methodologies

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### Introduction

The Affordable Care Act (ACA) created a new national income standard and methodology for publicly funded health programs – modified adjusted gross income (MAGI) for Medicaid and the Children’s Health Insurance Program (CHIP) and advance premium tax credits (APTC) and cost-sharing reductions (CSR) for the newly established insurance Exchanges. In preparation for MAGI implementation, many states are modifying their eligibility systems, both for existing Medicaid and CHIP programs and to accommodate the future insurance Exchanges. To do so, many states are leveraging an enhanced federal financial participation (FFP) match of 90 percent that is available for design, development and implementation (DD&I) of eligibility determination systems through CY 2015.<sup>1</sup> For ongoing maintenance and operations (M&O) of eligibility systems, states are eligible to receive 75 percent FFP.

This brief and companion chart review cost allocation methodologies used in California, Massachusetts, Minnesota, Nevada, Oregon and Rhode Island through an analysis of their Implementation Advance Planning Documents/Implementation Advance Planning Document Updates (IAPD/IAPDU). These states were chosen because they are quickly modifying existing systems and/or developing new eligibility systems to meet ACA and state-based Exchange requirements. This resource was prepared by the Center for Health Care Strategies (CHCS) under the State Health Reform Assistance Network (*State Network*) to guide additional states in developing suitable methodologies for eligibility system integration efforts as they prepare for ACA implementation.

Out of the early-adopter states, three allocated technology costs based on population/caseload projections; three used a methodology based on functional/business components; and one used the proportion of the system or application support attributed to non-Medicaid and Medicaid programs to allocate costs. Note that Massachusetts is counted twice above, as it is the only state that applied more than one methodology to allocate costs between DD&I and M&O. The brief also provides examples of strategies used for validating and tracking costs included in the cost allocation plans. The methodologies included in this analysis have been reviewed and individually approved by the Centers for Medicare & Medicaid Services (CMS) after the state’s IAPD submission, and are consistent with the cost allocation principle requiring that methodologies produce an equitable result that is repeatable and based on valid recorded data. The models analyzed offer insights to aid states in developing appropriate methodologies that efficiently allocate costs, maximize federal contributions and ensure the long-term financial sustainability of the Exchange, Medicaid and other human service programs.

#### ABOUT STATE NETWORK

State Health Reform Assistance Network, a program of the Robert Wood Johnson Foundation, provides in-depth technical support to states to maximize coverage gains as they implement key provisions of the Affordable Care Act. The program is managed by the Woodrow Wilson School of Public and International Affairs at Princeton University. For more information, visit [www.statenetwork.org](http://www.statenetwork.org).

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The Center for Health Care Strategies (CHCS) is a nonprofit health policy resource center dedicated to improving health care access and quality for low-income Americans. CHCS works with state and federal agencies, health plans, providers, and consumer groups to develop innovative programs that better serve people with complex and high-cost health care needs. For more information, please visit [www.CHCS.org](http://www.CHCS.org).

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## Overview of State Cost Allocation Models for Integrating Medicaid, Exchange and Human Services Eligibility Systems

### California

On January 18, 2012, the California Health Benefit Exchange, the Department of Health Care Services, and the Managed Risk Medical Insurance Board released a Request for Proposals (RFP) for a vendor to develop a new IT system, the California Healthcare Eligibility, Enrollment, and Retention System (CalHEERS). CalHEERS will support multiple programs: MAGI Medi-Cal (California's Medicaid program); non-MAGI Medi-Cal; the state's CHIP program; Access for Infants and Mothers; APTC; CSR; and, if enacted, the Basic Health Program. In the future the intent is to integrate non-health social services programs into CalHEERS, including CalFresh (Supplemental Nutrition Assistance Program) and CalWorks (cash aid program).

To prepare the IAPDU<sup>ii</sup> for CalHEERS, the California Health Benefit Exchange and Medi-Cal agency jointly reviewed business requirements for system development and distributed DD&I costs accordingly. The requirements were grouped by subcategory and the allocation was determined based on the number of requirements in each subcategory (see Figure 1). Each requirement was given equal weight in the allocation calculation. Requirement subcategories were allocated to each benefitting program. In instances where requirement subcategories benefitted more than one program, the requirement total count was split between the programs to determine the final percentage calculations. The CHIP program is allocated fewer requirements, due to lower expected enrollment in comparison to the Exchange and Medi-Cal. Therefore, 82 percent of the costs are being allocated to the Exchange, 17 percent of the costs to Medi-Cal and one percent of the costs to CHIP. Until updated information is provided in 2014 when the Exchange is operational, the cost allocation methodology used for DD&I will also be used for M&O costs.

**Figure 1: California – Allocation of Individual and SHOP Business Requirements by Subcategory**

Requirements	Requirements Count	Allocation	Exchange	Exchange/Medicaid	Medicaid	CHIP
<b>Individual Business</b>						
Application Submission & Update	42	E/M, CHIP		38		4
Verify Application Information	7	E/M		7	6	
Other Health Services	6	M			5	
Other Non-Health Services	5	M				
Exemption	4	E	4			
Eligibility Determination	15	E/M		15		
Enrollment	37	E	37			
Provider/Plan Directory	3	E	3			
Renewal	18	E/M		18		
Appeal	8	E/M		8		
Case Management	23	E/M		23		
Disenrollment	12	E	12			
Individual Premium Aggregation	1	E	1			
Premium Processing	16	E	16			
Exchange Accounting	10	E	10			
Risk Spreading	1	E	1			
Plan Assessment Fees	3	E	3			
Assister Financial Transactions	5	E/M		5		
Monitor Compliance	7	E	7			
Certify/Recertify/Decertify QHP	13	E	13			
Maintain Operational Data	2	E	2			
Rate Review	2	E	2			
Notices	16	E/M		16		
Reports	52	E/M		52		
Web Portal Online Help	13	E/M		13		
Plan and Benefit Assistance	17	E	17			
Assister Registration	2	E/M		2		
Assister Management	5	E/M		5		
Outreach	6	E	6			
<b>SHOP</b>	292	E	290		2	
<b>Total Business Requirements</b>	<b>643</b>		<b>424</b>	<b>202</b>	<b>13</b>	<b>4</b>
Allocation of Shared Requirements			101		101	
<b>Total</b>			<b>525</b>		<b>114</b>	<b>4</b>
<b>Percentage Allocated by Program</b>			<b>82%</b>		<b>17%</b>	<b>1%</b>

## Massachusetts

The Health Connector, Massachusetts' Exchange, currently offers a one-stop insurance marketplace that allows individuals and small businesses to shop for and enroll in partially-subsidized and non-subsidized coverage through a side-by-side comparison. Currently, individuals applying for MassHealth (Massachusetts' Medicaid program) must submit a paper application, which is processed through the program's eligibility system known as MA21. The information technology components – including eligibility, consumer shopping, premium billing, enrollment and reporting – will be updated to meet ACA requirements regarding eligibility and enrollment for plans in the Exchange, Medicaid and CHIP.

Massachusetts' integrated eligibility system will be developed in two phases:<sup>iii</sup>

- *Phase One:* By 2014, Massachusetts will develop a Health Insurance Exchange/Integrated Eligibility System (HIX/IES) to determine health care eligibility for MAGI, and some non-MAGI, populations. During this phase Massachusetts will also prepare business and design requirements for automating eligibility determinations for all remaining Medicaid populations.
- *Phase Two:* By 2015, the HIX/IES will be enhanced to become a fully integrated system for determining eligibility for remaining non-MAGI populations and a variety of state-funded health and human services programs.

The IAPD,<sup>iv</sup> prepared by the Executive Office of Health and Human Services (EOHHS), applied three cost allocation methodologies for Phase One costs of the HIX and IES. The costs associated with designing, developing and implementing the HIX/IES are bundled into 19 separate work orders, with costs allocated based on the program that will benefit and the level of effort it will take to do the work. For example, one of the work orders involves converting data from Massachusetts' existing Health Connector program to the new HIX/IES. No data conversion will be done for public health programs or enrollees, so 100 percent of these costs are being allocated to the HIX component of the project, with no costs allocated to the IES component.

The state is using two methodologies for allocating IES operation and maintenance costs:

- **System resource costs** (i.e., hosting) are allocated according to the populations currently served by Medicaid, CHIP (title XIX expansion and title XXI), and the Health Connector's CommCare (subsidized) and CommChoice (private) programs as well as their degree of usage of the HIX/IES (see Figure 2). EOHHS has determined that 86 percent of the system's users will be fully subsidized (Medicaid and CHIP), 14 percent will be partially subsidized and three percent will be full pay.
- **System support costs** (i.e., fixing defects) are allocated according to the proportion of the system used for specific business functions by the HIX (non-Medicaid) and IES (Medicaid) components. Because the largest and most complex eligibility determinations and enrollment will be for Medicaid populations, 70 percent of the eligibility and enrollment business functions for the entire system will be allocated to the integrated eligibility (Medicaid) components. Overall, it is estimated that the IES components will represent 60 percent of all functionality while the HIX will represent 40 percent of all functionality for the system (see Figure 3).

**Figure 2: Massachusetts – Populations Served Methodology for Hosting Costs**

Group	Program	Population	Percentage
Fully Subsidized – 86%	Medicaid	1,197,228	78.6%
	CHIP Title XIX Expansion	61,583	52%
	CHIP Title XXI	56,144	48%
	CHIP (total)	117,727	7.7%
Partially Subsidized – 11%	CommCare	169,556	11.1%
Private – 3%	CommChoice	39,566	2.6%
<b>Total</b>		<b>1,524,077</b>	

**Figure 3: Massachusetts – System Proportionality Methodology for Application Support**

Business Function	HIX Allocation	IES Allocation	Description
Plan Management	70%	30%	The Plan Management function within the HIX/IES will be used primarily by consumers seeking private plans. A much smaller percentage of consumers will select plans for Medicaid enrollment.
Eligibility and Enrollment	30%	70%	While the HIX/IES will determine eligibility for subsidized insurance and small business employers, the largest and most complex eligibility determinations and enrollment will be for Medicaid populations.
Financial Management	40%	60%	While the HIX/IES will provide a financial management solution for all consumers, it will produce more financial reports to CMS and the Internal Revenue Service (IRS) for Medicaid populations.
Customer Service	30%	70%	Customer Service will be developed for consumers with private and Medicaid plans. Given the number of Exchange consumers in Medicaid plans versus private/subsidized plans, however, the higher proportion of Medicaid enrollees will benefit.
Communications	30%	70%	While a common Communications solution will be developed for consumers with private and Medicaid plans, there will be additional functions to meet the needs of Medicaid beneficiaries, such as notices.
Oversight	40%	60%	While a common oversight solution will be developed for consumers with private and Medicaid plans, there will be additional oversight functions for the Medicaid program compared to subsidized and private insurance programs.
<b>Proportion of System</b>	<b>40%</b>	<b>60%</b>	

## Minnesota

In 2011, Minnesota issued an RFP that divided proposed work for the Exchange into eight modules including: (1) individual eligibility and exemption; (2) individual enrollment; (3) small employer eligibility and enrollment; (4) health benefit plan and Navigator/Broker certification and display; (5) provider display; (6) fund aggregation and payment; (7) account administration; and (8) mobile application or accessibility. The RFP called for eligibility and enrollment modules that interface with Medicaid and provide the flexibility to allow for eligibility determinations and/or transfer of eligibility information to other public program systems including, but not limited to, food support, cash assistance, child care assistance and child support.

The IAPDU<sup>v</sup> for Minnesota's health insurance Exchange allocates costs to Medicaid based on estimated participation in the Exchange and Exchange module development. Estimated Exchange participation, modeled by Dr. Jonathan Gruber, is used to approximate the number of Medicaid enrollees who will benefit from a specific module.<sup>vi</sup> Because public insurance beneficiaries will be the majority of enrollees in 2014, Minnesota has developed a preliminary average estimate that Medicaid enrollees will comprise 67 percent of individuals who benefit from module 1; 57 percent of users who benefit from modules two, four, five and seven; and zero percent of users who benefit from modules three and six. Costs are then allocated to Medicaid and the Exchange based on the benefit that each program will derive from specific functions (i.e., DD&I, M&O, etc).

## Nevada

The Nevada Department of Health and Human Services is in the planning stages of developing a single coordinated set of rules to determine eligibility for all publicly subsidized health coverage programs, including Medicaid, Exchange, CHIP and the BHP, if enacted. The state is also planning to conduct an initial eligibility screening for the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF) programs.<sup>vii</sup>

As stated in their IAPD,<sup>viii</sup> Nevada intends to allocate costs across the Exchange, Medicaid and CHIP based on 2016 population estimates.<sup>ix</sup> For DD&I, this cost allocation methodology attributed 63 percent of costs to the Exchange, 35 percent of costs to Medicaid and two percent of costs to CHIP. Nevada also applied the DD&I cost allocation methodology to the M&O costs, but it is seeking different levels of federal funding for these phases of the project.

## Oregon

The Oregon Department of Human Services and the Oregon Health Insurance Exchange Corporation have combined components of the Eligibility Automation Project (EA) under the Department of Human Services Modernization (DHSM) with the HIX Information Technology (HIX-IT) Project, referred to as MAX. Initially, the EA project was evaluating a commercial off-the-shelf software solution to support CMS programs, food and nutrition services and state programs such as Employment Related Daycare and Temporary Assistance for Needy Families. Medical eligibility determination was moved to the HIX-IT project and the original DHSM EA project retained SNAP and non-medical work. Once the MAX framework is in place, other programs and federal initiatives will be included in the existing framework.

Oregon's IAPDU<sup>x</sup> distributes costs to the Exchange, Medicaid, CHIP and SNAP programs through a methodology that identifies the benefit received, which is based on program usage of specific system functions and related software development costs. Duplicated recipient counts for the health information Exchange, medical programs (Medicaid and CHIP) and the SNAP program are used to establish percentage shares for benefitting programs (see Figure 4). Costs are then allocated across benefitting programs as follows: (1) small – program has less than or equal to five percent of the total user base; (2) large – program has more than five percent of the user base; and (3) direct – one program benefitting from module (see Figure 5). Because the MAX Project is using an iterative three-month rolling schedule to produce critical deliverables, employee and contractor hours are allocated to the funding area for work assigned and costs are projected directly from the staffing plan. To ensure that costs are appropriately allocated across projects and funding sources, employees and contractors must adhere to a time tracking process.

**Figure 4: Oregon – Allocation by Program Percent**

Agency	Program	Recipient Count	% of Total	Large/Small
CMS	Medical: Medicaid	416,513	29.8%	Large
CMS	Medical: CHIP	64,380	4.6%	Small
FNS	SNAP	712,000	50.9%	Large
CCIIO	HIX	205,000	14.7%	Large
	<b>Total</b>	<b>1,397,893</b>	<b>100.0%</b>	

**Figure 5: Oregon – Allocation by Program Percent**

Benefitting Program	CMS Medical Large	CMS CHIP Small	FNS SNAP Large	CCIIO Exchange Large
Medical only	D			
CHIP only		D		
SNAP only			D	
Exchange only				D
Medical & CHIP	S	s		
Medical & SNAP	D			
Medical & Exchange	S			S
Medical, CHIP & SNAP	S	s		
Medical, CHIP, SNAP & Exchange	S	s		S
CHIP & SNAP		D		
CHIP & Exchange		s		S
SNAP & Exchange			s	S

**D = Direct Charge**  
**S = Shared Charge based on recipient count.**  
**S = Large, s = Small**

## Rhode Island

Rhode Island is building a unified eligibility and enrollment system, known as the Unified Health Infrastructure Project (UHIP), which will be implemented in two phases:

- *Phase One:* The state will develop core Exchange functionality and MAGI-based eligibility determination for Medicaid, CHIP, RItE Care and the Exchange. During Phase One, the state will allocate costs across Medicaid, CHIP and the Exchange by functional component (see Figure 6).

**Figure 6: Rhode Island – Exchange/Medicaid Function Point Summary/Cost Allocation for Phase One**

Exchange/Medicaid Function Point Summary and Cost Allocation for Phase 1 (as approved in Establishment II Grant)			
Functionality	Function Point Count	Medicaid Portion of FP Count	Medicaid Percent of FP Count
Eligibility & Enrollment Operations:	1899.4	706.7	37%
• <i>Appeals Management</i>	120.5	0	0%
• <i>Comparison Shopping</i>	96.8	14.6	15%
• <i>Eligibility Assessment</i>	638.4	238.5	37%
• <i>Enrollment Processing</i>	1043.8	453.6	43%
Business Process Management	188.1	127.9	68%
Plan Management:	1168.8	794.8	68%
• <i>Plan Certification and Presentation</i>	522.88	355.6	68%
• <i>Plan Enrollment Management</i>	645.89	439.2	68%
Premium & Tax Credit Processing	565.1	0	0
Broker/Navigator Relationship Management	585.8	140.9	24%
Marketing & Outreach	140	0	0%
Customer Service & Account Management	315.9	175.7	56%
Financial Transaction Processing	155.8	0	0%
Financial Accounting & Reporting	160	62.9	39%
Master Person Index	177	120.4	68%
Asset Management	490	0	0%
Human Resource Management	843.3	0	0%
Procurement Management	367.5	0	0%
Knowledge Management	226.3	153.9	68%
Information Management	1010.1	686.9	68%
<b>Total of Major Functions (does not include sub-bullets)</b>	<b>8,293</b>	<b>2,970</b>	<b>35.81%</b>

- *Phase Two:* Over time, the state plans to have HIX/IES/UHIP support eligibility determination for non-MAGI based Medicaid populations and for human service programs such as the SNAP program, Child Care Assistance and other state-operated General Public Assistance payment programs. For Phase Two, federal approval was requested through an IAPDU<sup>xi</sup> to allocate costs across Medicaid and human service programs (there is no CHIP or Exchange allocation). Costs for any additional capacity, scope, or functionality for human service programs beyond the infrastructure built for Medicaid and the Exchange are allocated to those programs.

According to Rhode Island's IAPDU, Phase Two will allocate costs across Medicaid and human service programs by functional component. The state analyzed the individual functional areas for the expanded scope of the project to identify and weight functions that applied to Medicaid and to the human service programs.

The functional analysis was based on the state's current eligibility determination system, InRhodes, which includes over three million lines of code to support the eligibility and enrollment functions of Medicaid and other human service programs. The cost allocation assumes added functionality required by Medicaid and human service programs within the new HIX/IES. This includes benefit recovery, workforce and provider/resource management. The analysis determined the lines of code associated with each functional area, and the weight assigned to each, based on the total lines of code for the functional area as a percentage of the total lines of code across all functional areas (see Appendix B). From this data, the Medicaid cost allocation was extrapolated. The balance of the cost not allocated to Medicaid was assigned to the remaining benefitting programs based on an analysis of estimated utilization. The state then applied the cost allocation methodology to DD&I services by breaking out the Medicaid and non-Medicaid related functions.

## Verification of Cost Allocation Plans

The states analyzed in this brief employed several methods to validate their methodologies and subsequent cost allocation plans, incorporating both internal and external sources. Time studies, based on random moment sampling, can also be used to distribute costs among various federal and state funding sources. Such analyses, which are often used for allocating costs in other areas of Medicaid (e.g., school-based health, eligibility and enrollment functions), can be helpful in determining the amount of staff and time needed to perform specific functions. However, a time study would need to be combined with another mechanism to allocate costs beyond staffing. In addition, some states have used external sources, such as private sector or academic vendors, to conduct state-specific enrollment and cost projections. For example, Maryland worked with the Hilltop Institute to develop an enrollment and expenditure projection for the Exchange and Medicaid.<sup>xii</sup>

An alternative to the external review are internal sources that analyze current program functions and system usage counts. Rhode Island based their Phase Two cost allocation plan for DD&I on existing project percentages by lines of code. They used their eligibility system to determine the current lines of code used to complete specific functions among Medicaid and the human service programs.

### State Considerations for Determining a Cost Allocation Methodology

**Perform initial review.** Due to significant time constraints and the complexity of establishing an Exchange that is integrated with other systems, states should leverage components of their peers' IES systems. States should also seek to build on their own existing resources, strategies, and assets, including existing IT infrastructure.

**Select methodology.** In general, states will need to consider the core business areas/functional capabilities and system requirements for the Exchange, Medicaid and the IES to estimate overall project costs and allocations. To prepare a cost allocation methodology that maximizes the federal share for eligibility system integration between the Exchange, Medicaid and, in later phases, other human service programs, states should review existing methods found nationally for cost allocation between Medicaid and the health insurance Exchanges.

When reviewing potential cost allocation methodologies, key state considerations include:

1. Compare methodologies based on advantages, disadvantages, practicality and administrative burden (i.e., staff, time, management, oversight and staff training) of each option;
2. Identify unique or innovative features of the proposed solution;
3. Consider the risks associated with the methodology, maintenance considerations and critical milestones for measuring progress and success; and
4. Examine how the proposed methodology complements the state's plans to develop a HIX/IES.

**Determine cost allocation.** After selecting a methodology, states will need to determine how costs will be allocated between Medicaid, the Exchange and other human service programs for DD&I and for M&O. Particularly states should focus on any cost allocation changes in later phases of the project and the effect on their state share. Furthermore, the enhanced funding from CMS, CCIIO and CHIP can have a significant impact on the actual allocated amounts and may alter the project costs allocated to a specific program.

**Develop implementation and staffing plan.** Finally, states should consider internal resources and staff knowledge, experience and skill sets (i.e., financial, technical, project management, business/financial analysis, systems, training, etc.) when developing implementation plans and creating staffing plans.

## Conclusion

A review of six states' integrated eligibility system planning efforts demonstrates that states often use caseload projections to determine system utilization for each program. Costs are often allocated for both DD&I and M&O using one methodology. However, multiple methodologies can be used to allocate costs to different phases of the project more strategically. Massachusetts applied three different methodologies for DD&I and M&O; while Rhode Island created a unique methodology for all system costs during the second phase of their system integration. To allocate costs, the state determined the degree to which each program used specific functions of the system. Time studies offer an additional option that may be used in combination with other methodologies included in this review.

CMS recently published questions and answers<sup>xiii</sup> that provide additional guidance on allocating costs associated with IT systems for health insurance Exchanges that share functions with Medicaid/CHIP agencies and other state human services programs. The selected methodology for allocation should be based on anticipated transactions and program population, or any other methodology that produces an equitable result that is repeatable and based on valid recorded data.

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## Appendix A: Integrated Eligibility System Cost Allocation Plans: A Scan of Six States

Integrated Eligibility System Cost Allocation Plans: A Scan of Six States			
STATE IAPD STATUS	ALLOCATION FORMULA	METHODOLOGY	INCLUDED COSTS
<p><b>California</b></p> <p>IAPD approved</p>	<p>Formula allocates costs across programs based on business requirements developed for the programs:</p> <ul style="list-style-type: none"> <li>• Exchange: 82%</li> <li>• Medicaid: 17%</li> <li>• CHIP: 1%</li> </ul>	<p>The methodology used to allocate design, development and implementation (DD&amp;I) costs is based on an analysis and review of the business requirements that have been established to guide system development.</p> <ul style="list-style-type: none"> <li>• The requirements were grouped by subcategory and the allocation was determined based on the number of requirements in each subcategory (see Figure 1).</li> <li>• Each requirement is given equal weight in the allocation calculation.</li> <li>• Usability and technical requirements were not included since they benefit all programs equally and including them would not change the result.</li> </ul> <p>Until further information is available (i.e., actual function point counts of system functionality), the basic cost allocation methodology used to allocate costs for DD&amp;I is also used for M&amp;O.</p>	<p>DD&amp;I Individual Business Requirements:</p> <ul style="list-style-type: none"> <li>• Application submission and update</li> <li>• Verify application information</li> <li>• Other health services</li> <li>• Other non-health services</li> <li>• Exemption</li> <li>• Eligibility determination</li> <li>• Enrollment</li> <li>• Provider/plan directory</li> <li>• Renewal</li> <li>• Appeal</li> <li>• Case management</li> <li>• Disenrollment</li> <li>• Individual premium aggregation</li> <li>• Premium processing</li> <li>• Exchange accounting</li> <li>• Risk spreading</li> <li>• Plan assessment fees</li> <li>• Assister financial transactions</li> <li>• Monitor compliance</li> <li>• Plan (QHP) certification and decertification</li> <li>• Maintain operational data</li> <li>• Rate review</li> <li>• Notices</li> <li>• Reports</li> <li>• Web portal online help</li> <li>• Plan and benefit assistance</li> <li>• Assister registration</li> <li>• Assister management</li> <li>• Outreach</li> </ul>
<p><b>Massachusetts</b></p> <p>IAPD approved</p>	<p>System resource costs formula is based on populations served by the system as follows:</p> <ul style="list-style-type: none"> <li>• Medicaid: 78.6%</li> <li>• CHIP: 7.7%                             <ul style="list-style-type: none"> <li>- Title XIX Expansion: 52%</li> <li>- Title XXI: 48%</li> </ul> </li> <li>• CommCare: 11.1%</li> <li>• CommChoice: 2.6%</li> </ul> <p>Formula for the costs of supporting the system is derived from the proportion of the system used for specific business functions as follows:</p> <ul style="list-style-type: none"> <li>• HIX (non-Medicaid): 40%</li> <li>• IES (Medicaid): 60%</li> </ul>	<p>Massachusetts identified 19 separate work orders that must be completed to build the HIX/IES. Costs for completing these work orders in the DD&amp;I phase are allocated according to the level of effort it will take to do the work and the program that benefits.</p> <p>Two cost allocation methodologies for maintenance and operations (M&amp;O) costs:</p> <ul style="list-style-type: none"> <li>• The cost of system resources (i.e., hosting) will be allocated according to the degree of usage by populations served.                             <ul style="list-style-type: none"> <li>- Medicaid and the Connector will use current enrollment distribution for the state's Medicaid and CHIP populations, as well as the populations currently served by the Health Connector's CommCare (subsidized) and CommChoice (private) programs.</li> <li>- Results: 86% of the system's users would be fully subsidized (Medicaid) and 14% would be partially subsidized or private pay (see Figure 2).</li> <li>- State broke out use of HIX/IES by the CHIP population, including Title XIX Expansion and Title XXI groups.</li> </ul> </li> <li>• The cost of supporting the system (i.e., fixing defects) is allocated according to the system proportionality methodology.                             <ul style="list-style-type: none"> <li>- It is anticipated that the Integrated Eligibility components of the combined HIX/IES system will represent 60% of all functionality (see Figure 3).</li> </ul> </li> </ul>	<p><b>DD&amp;I</b></p> <ul style="list-style-type: none"> <li>• State personnel costs</li> <li>• Contract personnel</li> <li>• Contractor services                             <ul style="list-style-type: none"> <li>- Systems integrator vendor</li> <li>- Independent Verification and Validation vendor (IV&amp;V)</li> </ul> </li> <li>• Hardware costs</li> <li>• Software costs</li> </ul> <p><b>M&amp;O</b></p> <ul style="list-style-type: none"> <li>• State personnel</li> <li>• Contract personnel                             <ul style="list-style-type: none"> <li>- Systems integrator</li> <li>- Systems integrator hosting</li> <li>- IV&amp;V</li> </ul> </li> <li>• Hardware maintenance hosting</li> <li>• Software maintenance hosting</li> </ul>

STATE IAPD STATUS	ALLOCATION FORMULA	METHODOLOGY	INCLUDED COSTS
<p><b>Minnesota</b></p> <p>IAPD-U approved 7/13/2012</p>	<p>Formula is based on populations served by distinct system modules and identifies the costs allocated to Medicaid as follows:</p> <ul style="list-style-type: none"> <li>• <i>Module 1</i>-Individual Eligibility and Exemption: 67.31%</li> <li>• <i>Module 2</i>-Individual Enrollment: 56.91%</li> <li>• <i>Module 3</i>-Small Employer Eligibility and Enrollment: 0%</li> <li>• <i>Module 4</i>-Health Benefit Plan and Navigator Certification and Display: 56.91%</li> <li>• <i>Module 5</i>-Provider Display: 56.91%</li> <li>• <i>Module 6</i>-Fund Aggregation and Payment: 0%</li> <li>• <i>Module 7</i>-Account Administration: 56.91%</li> <li>• Average of Modules: 42.14%</li> </ul>	<p>Estimated participation (based on actuarial and economic modeling by Dr. Jonathan Gruber) in Minnesota Health Insurance Exchange in 2016 was used in calculating cost allocation.</p> <ul style="list-style-type: none"> <li>• Tax credit recipients: 280,000</li> <li>• Enrollees in firms receiving tax credit: 70,000</li> <li>• Non-tax credit recipients in reformed individual market: 60,000</li> <li>• Enrollees in firms &gt;50 not receiving tax credit: 90,000</li> <li>• Enrollees in firms 50-99: 30,000</li> <li>• Public insurance enrollees: 700,000</li> </ul> <p>IT costs are allocated to Medicaid as follows:</p> <ul style="list-style-type: none"> <li>• Module 1 uses the ratio of public enrollees to total individual enrollees (700 /1040 or 67.31%).</li> <li>• Modules 2, 4, 5, and 7 use the ratio of public enrollees to total participants in the Exchange (700/1,230 or 56.91%).</li> <li>• Other IT contracts for integration of modules, IV&amp;V, mobile application, and other contracted staff use the average cost allocation ratio across the modules, or 42.14%.</li> <li>• Other Exchange IT staff costs including salaries, rent, supplies, equipment, etc., use the average cost allocation ratio across the modules, or 42.14%.</li> </ul>	<ul style="list-style-type: none"> <li>• Personnel costs <ul style="list-style-type: none"> <li>- Salaries and wages</li> <li>- Fringe benefits</li> </ul> </li> <li>• Equipment</li> <li>• Supplies</li> <li>• Travel</li> <li>• Other</li> <li>• Contract <ul style="list-style-type: none"> <li>- Provider display</li> <li>- Account</li> <li>- Administration Module</li> <li>- Individual eligibility and exemption module</li> <li>- Non-MAGI Medicaid eligibility</li> <li>- Individual enrollment, health benefit plan, and navigator certification and display</li> <li>- IV&amp;V, risk assessment</li> <li>- Small employer eligibility and enrollment and fund aggregation and payment and indirect costs for non-personnel</li> </ul> </li> <li>• Indirect costs <ul style="list-style-type: none"> <li>- Personnel</li> <li>- Fringe</li> <li>- Travel</li> <li>- Supplies</li> <li>- Equipment</li> <li>- Other</li> <li>- Contracts</li> </ul> </li> </ul>
<p><b>Nevada</b></p> <p>IAPD approved</p>	<p>Formula based on 2016 caseload projections for Medicaid, CHIP, and the non-Medicaid (Exchange) population:</p> <ul style="list-style-type: none"> <li>• Medicaid: 35%</li> <li>• CHIP: 2%</li> <li>• Exchange: 63%</li> </ul>	<p>The state calculated the 2016 average/month population estimates for Medicaid, CHIP, and the non-Medicaid (Exchange).</p>	<p><b>DD&amp;I</b></p> <ul style="list-style-type: none"> <li>• State personnel</li> <li>• DD&amp;I contractor</li> <li>• IV&amp;V contractor</li> <li>• Hardware</li> <li>• Software</li> <li>• Department of Information Technology (DoIT) services</li> <li>• Telecommunications</li> </ul> <p><b>M&amp;O</b></p> <ul style="list-style-type: none"> <li>• State personnel</li> <li>• DoIT services</li> <li>• Contractor services</li> <li>• Application maintenance</li> <li>• Hardware maintenance</li> <li>• Software maintenance</li> </ul>
<p><b>Oregon</b></p> <p>IAPD-U approved</p>	<p>Formula allocates costs based on program recipient counts and system functions usage of benefitting programs:</p> <ul style="list-style-type: none"> <li>• Medicaid: 29.8%</li> <li>• CHIP: 4.6%</li> <li>• SNAP: 50.9%</li> <li>• HIX: 14.7%</li> </ul>	<p>The methodology used is based on state and federal public assistance programs usage of specific systems functions and their equitable sharing of the software development costs required to produce shared system functions.</p> <ul style="list-style-type: none"> <li>• Cost allocation plan is based on program utilizations and assigned staff by development areas (see Figure 4).</li> <li>• The cost allocation formula based on program recipient counts is modified to account for small, large, and direct costs for benefitting programs (see Figure 5).</li> </ul>	<ul style="list-style-type: none"> <li>• Labor and administration</li> <li>• Labor and administration contracts</li> <li>• Software and hosting</li> </ul> <p><b>HIX-IT Implementation Costs</b></p> <ul style="list-style-type: none"> <li>• Contractual</li> <li>• Equipment</li> <li>• Fringe benefits</li> <li>• Other</li> <li>• Personnel</li> <li>• Supplies</li> <li>• Travel</li> </ul>

STATE IAPD STATUS	ALLOCATION FORMULA	METHODOLOGY	INCLUDED COSTS
<p><b>Rhode Island</b></p> <p>IAPD-U approved 4/12/2012</p>	<p>Formula allocates costs across programs by functional component:</p> <p>Phase 1:</p> <ul style="list-style-type: none"> <li>• Exchange: 64.2% of costs</li> <li>• Medicaid/CHIP: 35.8% of costs                             <ul style="list-style-type: none"> <li>- 30.4% = Medicaid</li> <li>- 5.4% = CHIP</li> </ul> </li> </ul> <p>Phase 2:</p> <ul style="list-style-type: none"> <li>• Allocated to Medicaid and human service programs:                             <ul style="list-style-type: none"> <li>- Medicaid: 83.11%</li> <li>- SNAP: 6.54%</li> <li>- TANF: 3.97%</li> <li>- Child Care: 5.05%</li> <li>- General Public Assistance: 0.76%</li> <li>- State Supplemental Payment: 0.58%</li> </ul> </li> </ul>	<p>Phase 1 of the project allocates costs across Medicaid, CHIP and the Exchange by functional component (see Figure 6).</p> <p>In Phase 2 costs are also allocated by functional component. The state analyzed the individual functional areas to identify and weight functions that applied to Medicaid and human service programs.</p> <ul style="list-style-type: none"> <li>• Functional analysis was based on InRhodes' 3,024,426 lines of code with an estimate for added functionality, required by Medicaid and human service programs within the new HIX/IES (see Appendix B). Assessment did not include functions being developed as part of HIX/IES that are specific to the Exchange.                             <ul style="list-style-type: none"> <li>- Lines of code per function—number of lines of code associated with each functional area (e.g., 287,320 lines of code for Application Registration)</li> <li>- Percent of total lines—the weight assigned to each functional area based on the total lines of code for the functional areas as a percentage of the total lines of code across all functional areas (e.g., 9.5% for Application Entry).</li> </ul> </li> </ul>	<p><b>DD&amp;I</b></p> <ul style="list-style-type: none"> <li>• State personnel                             <ul style="list-style-type: none"> <li>- Training related</li> <li>- All other</li> </ul> </li> <li>• Contractor Services                             <ul style="list-style-type: none"> <li>- Project management vendor</li> <li>- IV&amp;V</li> <li>- Technical assistance</li> <li>- Development of bridging software and conversion-Medicaid MAGI</li> </ul> </li> <li>• Hardware and software</li> </ul> <p><b>M&amp;O (Phase 1)</b></p> <ul style="list-style-type: none"> <li>• Exchange software</li> <li>• Medicaid software pre-implementation</li> <li>• Medicaid software post-implementation</li> </ul>

**Appendix B: Rhode Island – Lines of Code by Functional Area and Benefitting Program**

Functional Component Name	% of System	Lines of Code	MEDICAID % of Function	MEDICAID % of System	SNAP % of Function	SNAP % of System	TANF % of Function	TANF % of System	CHILD CARE % of Function	CHILD CARE % of System	GPA % of Function	GPA % of System	SSP % of Function	SSP % of System	TOTAL % of Function	TOTAL % of System
Total Framework	Already budgeted in Medicaid/Exchange combined budget in approved Establishment Level II grant															
Privacy and Security (including Application Security)	0.005%	15,122	100.00%	15,122	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	100.00%	15,122
User Administration	0.003%	9,073	100.00%	9,073	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	100.00%	9,073
Ease of Use web templates (e.g., screen standards, online help, navigation, error handling)	0.010%	30,244	80.00%	24,195	15.00%	4,537	3.00%	907	1.00%	302	0.50%	151	0.50%	151	100.00%	30,244
Pre-Screen and General Information	0.060%	181,466	92.00%	166,948	3.00%	5,444	2.00%	3,629	1.00%	1,815	1.00%	1,815	1.00%	1,815	100.00%	181,466
Application, Registration and Intake	0.095%	287,320	90.00%	258,588	5.00%	14,366	3.00%	8,620	1.00%	2,873	0.50%	1,437	0.50%	1,437	100.00%	287,320
Eligibility Determination Rules Engine (non-MAGI Medicaid and other human services programs) and related special processing	0.080%	241,954	87.00%	210,500	7.00%	16,937	2.00%	4,839	2.00%	4,839	1.00%	2,420	1.00%	2,420	100.00%	241,954
Real-time Eligibility Verification	0.050%	151,221	87.00%	131,563	5.00%	7,561	4.00%	6,049	2.00%	3,024	1.00%	1,512	1.00%	1,512	100.00%	151,221
Batch Eligibility Verifications	0.020%	60,489	87.00%	52,625	5.00%	3,024	4.00%	2,420	2.00%	1,210	1.00%	605	1.00%	605	100.00%	60,489
Account/Case Management	0.077%	232,881	90.00%	209,593	4.00%	9,315	3.00%	6,986	1.00%	2,329	1.00%	2,329	1.00%	2,239	100.00%	232,881
Automated Forms	0.030%	90,733	90.00%	81,660	4.00%	3,629	3.00%	2,722	1.00%	907	1.00%	907	1.00%	907	100.00%	90,733
Automated Notifications	0.030%	90,733	90.00%	81,660	4.00%	3,629	3.00%	2,722	1.00%	907	1.00%	907	1.00%	907	100.00%	90,733
Reporting – Business Intelligence Reporting	0.090%	272,198	95.00%	258,588	1.50%	4,083	1.00%	2,722	1.00%	2,722	1.00%	2,722	0.50%	1,361	100.00%	272,198
Workflow Management	0.030%	90,733	90.00%	81,660	4.00%	3,629	3.00%	2,722	1.00%	907	1.00%	907	1.00%	907	100.00%	90,733
Hearings and Appeal	0.020%	60,489	94.00%	56,859	3.00%	1,815	3.00%	1,815	0.00%	-	0.00%	-	0.00%	-	100.00%	60,489
Worker Alerts	0.010%	30,244	90.00%	27,220	6.00%	1,815	2.00%	605	1.00%	302	1.00%	302	0.00%	-	100.00%	30,244
Benefit/Enrollment Interface (e.g., interface with MMIS; EBT)	0.015%	45,669	50.00%	22,834	30.00%	13,701	15.00%	6,850	3.00%	1,370	2.00%	913	0.00%	-	100.00%	45,669
Benefit Recovery Management	0.025%	75,913	20.00%	15,183	60.00%	45,548	15.00%	11,387	3.00%	2,277	2.00%	1,518	0.00%	-	100.00%	75,913
Batch Interfaces (not including Verifications)	0.090%	272,198	100.00%	272,198	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	100.00%	272,198
Provider/Resource Management	0.040%	120,977	0.00%	-	0.00%	-	0.00%	-	0.00%	120,977	0.00%	-	0.00%	-	100.00%	120,977
Quality Assurance & Quality Control	0.015%	45,366	100.00%	45,366	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	100.00%	45,366
Scheduling/Calendar	0.010%	30,244	90.00%	27,220	5.50%	1,663	3.00%	907	0.50%	151	0.50%	151	0.50%	151	100.00%	30,244
Redetermination/Recertification	0.050%	151,221	85.00%	128,538	7.00%	10,585	5.50%	8,317	1.00%	1,512	1.00%	1,512	0.50%	756	100.00%	151,221
IVR/Call Center	0.015%	45,366	90.00%	40,830	6.00%	2,722	2.00%	907	1.00%	454	0.50%	227	0.50%	227	100.00%	45,366
Workforce Management	0.016%	48,391	30.00%	14,517	10.00%	4,839	60.00%	29,034	0.00%	-	0.00%	-	0.00%	-	100.00%	48,391
Electronic Document Management	0.030%	90,733	80.00%	72,586	12.00%	10,888	4.00%	3,629	2.00%	1,815	1.00%	907	1.00%	907	100.00%	90,733

Functional Component Name	% of System	Lines of Code	MEDICAID % of Function	MEDICAID % of System	SNAP % of Function	SNAP % of System	TANF % of Function	TANF % of System	CHILD CARE % of Function	CHILD CARE % of System	GPA % of Function	GPA % of System	SSP % of Function	SSP % of System	TOTAL % of Function	TOTAL % of System
Mass Changes	0.012%	36,293	70.00%	25,405	25.00%	9,073	5.00%	1,815	0.00%	-	0.00%	-	0.00%	-	100.00%	36,293
Data Warehouse Interface	0.010%	30,244	90.00%	27,220	6.00%	1,815	2.50%	756	0.50%	151	0.50%	151	0.00%	151	100.00%	30,244
Child Support Interface	0.002%	6,049	50.00%	3,024	30.00%	1,815	20.00%	1,210	0.00%	-	0.00%	-	0.00%	-	100.00%	6,049
Standard Filing Unit - automated household composition	0.020%	60,489	68.00%	41,132	20.00%	12,098	9.00%	5,444	1.00%	605	1.00%	605	1.00%	605	100.00%	60,489
Phase 2 Data Conversion	0.020%	61,556	85.00%	52,323	6.00%	3,693	5.00%	3,078	2.00%	1,231	1.50%	923	0.50%	308	100.00%	61,556
Interface with InRhodes for "bridge" functionality	0.020%	64,445	100.00%	64,445	0.00%	-	0.00%	-	0.00%	-	0.00%	-	0.00%	-	100.00%	64,445
<b>TOTAL</b>	<b>1.000%</b>	<b>3,030,055</b>		<b>2,518,676</b>		<b>198,224</b>		<b>120,093</b>		<b>152,682</b>		<b>22,923</b>		<b>17,456</b>		<b>3,030,055</b>

<sup>i</sup> In addition to the enhanced match, the Department of Health and Human Services and United States Department of Agriculture announced an exception to guidelines established in OMB Circular A-87 that exempt human service programs from common system development costs when integrating eligibility determination functions across health and human service programs. The exception only applies to development costs for eligibility determination systems. Additional capacity needed by human service programs must be fully allocated to the pertinent programs and M&O costs will continue to be allocated according to guidelines in OMB Circular A-87.

<sup>ii</sup> Department of Health Care Services and California Health Benefit Exchange. *California Healthcare Eligibility, Enrollment, and Retention System (CalHEERS) Implementation Advance Planning Document Update*. September 2012.

<sup>iii</sup> The Commonwealth of Massachusetts Executive Office of Health and Human Services (EOHHS). *Implementation Advance Planning Document: Integrated Eligibility System (IES)*. November 22, 2011.

<sup>iv</sup> Ibid.

<sup>v</sup> Minnesota Department of Human Services. *Implementation Advance Planning Document Update for Minnesota's Health Insurance Exchange, Medicaid Portion*. June 27, 2012.

<sup>vi</sup> Jonathan Gruber and Bela Gorman. *Coverage and Financial Impacts of Insurance Market Reforms in Minnesota*, November 17, 2012. <http://mn.gov/commerce/insurance/images/Gruber-Gorman-Slides-11-17-11.pdf>

<sup>vii</sup> SNAP and TANF pre-screening functionality currently exists in Access Nevada.

<sup>viii</sup> State of Nevada, Department of Health and Human Services, Division of Welfare and Supportive Services. *Health Benefit Exchange Eligibility Engine Project Implementation Advance Planning Document (IAPD)*. August 2011.

<sup>ix</sup> Division of Health Care Financing and Policy request to House, Energy and Commerce in October 2010.

<sup>x</sup> Department of Human Services Oregon Health Authority and Oregon Health Insurance Exchange Corporation. *Oregon Department of Human Services Modernization Program Implementation Advance Planning Document Annual Update*. February 15, 2012.

<sup>xi</sup> Rhode Island Executive Office of Health and Human Services. *Rhode Island's Integrated Health Insurance Exchange (HIX) and Integrated Eligibility System (IES) Project: Supporting RI's Medicaid Program, Health Insurance Exchange, and Human Service Programs*. Implementation Advance Planning Document-Updated. Revised April 5, 2012.

<sup>xii</sup> Fakhraei, S. H. *Maryland health care reform simulation model: Detailed analysis and methodology*. Baltimore, MD: The Hilltop Institute, UMBC. July 2012.

<sup>xiii</sup> Centers for Medicare & Medicaid Services. *Supplemental Guidance on Cost Allocation for Exchange and Medicaid Information Technology Systems: Questions and Answers*. October 5, 2012.