



MEDICAID EHR TEAM
ANALYSIS, TRAINING & TECHNICAL ASSISTANCE

HITECH, Meaningful Use, and Public Health: Funding Opportunities for State Immunization Registries

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Executive Summary

This paper describes strategies to help States fund the development and maintenance of their immunization registries. The conclusions are based on a review of the existing literature, State Medicaid Health IT Plans, and CMS letters to State Medicaid Directors, along with interviews with leading experts in several states and the American Immunization Registry Association. Overall, this paper concludes that States should continue to utilize current funding sources for their immunization registries, but could apply for enhanced matching funds through the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 or through the Medicaid Management Information System (MMIS). States should take into account their current health IT strategy and the level of integration between their immunization registry and MMIS before deciding which matching fund to apply for. While this paper is funded under a CMS contract and outlines different possible funding strategies, it does not indicate a blanket statement of approval from CMS.

I. Purpose and Background

This paper reviews the aspect of the Centers for Medicare and Medicaid EHR Incentive Programs “meaningful use” regulation¹ that is related to immunization registries, and describes successful strategies to help States fund the development and maintenance of their registries. Overall, this paper concludes that States should continue to utilize current funding sources for their immunization registries, but could apply for enhanced matching funds through the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 or through the Medicaid Management Information System (MMIS). In order to proceed, States should take into account their current health IT strategy and the level of integration between their immunization registry and MMIS. These conclusions are based on a review of the existing literature (e.g., legislation and publically available presentations and documents), State Medicaid Health IT Plans, and CMS letters to State Medicaid Directors (SMDs). In addition, this paper heavily relies on discussions with leading experts in several states (Wisconsin, Washington, Minnesota, and Arkansas) and the American Immunization Registry Association (AIRA).

Immunization registries, also known as immunization information systems (IIS), are population-based databases intended to record all immunization doses administered by participating providers to persons residing within a given geopolitical area. Immunization registries exist in almost every State and territory, are primarily controlled by public health departments, and can be managed at the State, regional, or local level. In some States, participation by healthcare providers in the IIS is mandated by law; in other States participation is purely voluntary.² At the point of clinical care, an immunization registry and health care provider can exchange consolidated immunization histories in determining appropriate client vaccinations. At the population level, an immunization registry provides aggregate data on vaccinations for use in surveillance, program operations, and in guiding public health action.³

States are currently under pressure to upgrade their immunization registries to help providers achieve the “meaningful use” of certified electronic health record (EHR) systems. For instance, States are responsible for administering the Medicaid incentive payments to eligible professionals and hospitals that meet the eligibility criteria. In addition, to the extent possible, the States are expected to contribute to the necessary infrastructure to help providers meet specific meaningful use objectives. The final stage 1 meaningful use regulation creates a core set of 15 objectives and a menu of 10 objectives from which eligible professionals and eligible hospitals can choose five to implement.⁴ While there are no public-health related objectives among the core set, the final rule specifies that all eligible professionals and eligible hospitals must choose *at least one* of the three population and public health measures in the

menu set in order to meet the meaningful use criteria. The three population and public health objectives are:

- Capability to submit electronic data to immunization registries/IIS and actual submission in accordance with applicable law and practice.
- Capability to submit electronic syndromic surveillance data to public health agencies and actual transmission according to applicable law and practice.
- Capability to submit electronic data on reportable (as required by State or local law) lab results to public health agencies and actual submission in accordance with applicable law and practice.

To meet the stage 1 immunization registry requirement, eligible professionals and eligible hospitals must perform at least one test of a certified EHR's capacity to submit electronic data to immunization registries and follow-up submission if the test is successful, unless none of the immunization registries to which the eligible professional or eligible hospital submits such information have the capacity to receive the information electronically.⁵ States registries are also encouraged to have bi-directional exchange capacity with EHRs, using messaging standards set by the Federal Government (e.g., HL7), in order to help providers meeting future meaningful use objectives.

The focus of this paper is important given the tight deadlines associated with the stage 1 meaningful use criteria, along with the fact that 85% of State respondents to a recent Association of State and Territorial Health Officials (ASTHO) survey indicated that they plan to have their registries ready for meaningful use by 2011.⁶ ASTHO is also researching other areas related to HITECH and public health; States can refer to <http://www.astho.org/Programs/e-Health/> for complementary information.

II. Immunization Registry Funding

The Centers for Disease Control and Prevention (CDC) plays an important role in financing State immunization registries. The CDC manages the Section 317 program, which is a discretionary federal grant program to all States and territories for immunization operations and infrastructure. The majority of Section 317 program funds go towards purchasing and providing vaccines to under-insured children, but they can also be used to finance immunization registries. However, the amount of Section 317 funding that goes towards immunization registries drastically varies across States. In some States (e.g., Minnesota), the 317 program entirely finances the immunization registry, whereas in other States (e.g., Michigan), the 317 program is just one of many funding sources for the registry.

To strengthen immunization efforts, The American Recovery and Reinvestment Act (ARRA) appropriated \$300 million to CDC for the Section 317 program. The majority (\$250 million) of the ARRA funds were directed towards vaccine purchase and grantee operations, whereas the remaining funds targeted other efforts, such as innovative immunization initiatives, communication and education campaigns, and management and oversight.⁷ In addition, the HITECH Act sets forth a plan for advancing the appropriate use of health information technology to improve quality of care and establish a foundation for health care reform. The public health focused activities, being advanced under ARRA, cover activities to support meaningful use of electronic health records through two-way communications between clinicians and national, state, and local public health entities. As part of these efforts, approximately \$20 million were used to fund 20 grantees for a two-year cooperative agreement to demonstrate how innovative approaches can successfully and measurably enhance the interoperability of electronic data exchange between EHR systems and immunization registries.⁸

The Section 317 program is not the only source of funding for immunization registries. States, especially those who did not receive an interoperability grant through ARRA, need to rely on other sources such as the U.S. Public Health Service, CMS, private foundations (e.g., the Robert Wood Johnson Foundation), and health care providers and insurers.⁹ For example, under certain guidelines and rules, State immunization registries can collaborate with Medicaid to receive federal matching funds from MMIS. In 1972, Public Law 92-603, Section 235 was enacted to provide 90-percent Federal financial participation (FFP) for design, development, or installation of State mechanized claims processing and information retrieval systems approved by the Secretary. The FFP rate is then 75 percent for costs of operation of such systems. More recently, the MMIS certification process and checklist “toolkit” criteria was modernized to address changes and capabilities focused more on the information retrieval functionality of MMIS, such as systems supporting immunization registries. There are now two optional checklist criteria related to immunization registries: one for an immunization registry developed, maintained, and operated by the Medicaid agency, and one for an immunization registry developed and operated elsewhere in the State, but with which the MMIS interfaces.¹⁰ As described in a July 2000 letter to State Medicaid Directors, the enhanced matched rates are available to immunization registries that are components of the State MMIS to the extent that the registry services Medicaid beneficiaries and meets specifications set forth in the letter.¹¹

Currently, the HITECH Act offers additional funding opportunities for immunization registries through the Medicaid EHR incentive payment program. HITECH provides a 90 percent federal match for “reasonable State expenses related to administration of the incentive payments and to promote EHR

adoption and health information exchange.” Specifically, according to a CMS letter to SMDs and regulations at 42 CFR section 495.318, “in order to qualify for the 90 percent FFP administrative match, a State must, at a minimum, demonstrate to the satisfaction of the Secretary compliance with three requirements:¹²

- *Administration* of Medicaid incentive payments to Medicaid eligible professionals and eligible hospitals;
- *Oversight* of the Medicaid EHR Incentive Program, including routine tracking of meaningful use attestations and reporting mechanisms; and
- Pursuit of initiatives that *encourage the adoption of certified EHR technology* for the promotion of health care quality *and the electronic exchange of health information.*”

The SMD letter clarifies that system and resource costs associated with the State interfaces of a Health Information Exchange (e.g., laboratories, immunization registries, public health databases, other HIEs) are considered administrative activities eligible for the 90 percent FFP, subject to CMS prior approval.¹³ However, The SMD letter also specified that CMS would only consider approval for the 90 percent FFP for initiatives that “cannot otherwise be funded by the MMIS matching funds.” The letter further States that “MMIS will be examined as a more appropriate funding source before HITECH because HITECH funds should be targeted toward scenarios that contribute to the transformation of the MMIS into a clinical- and claims-based engine that supports Medicaid’s broader health care reform goals. Examples of expenditures that relate to the Medicaid EHR Incentive Program but that might more appropriately be funded through the enhanced MMIS match include: Expenditures related to the design, development, and testing of a standard continuity of care record (CCR) or continuity of care document (CCD) based upon Medicaid claims; or building a portal between the MMIS and a clinical data repository or an immunization registry.”¹⁴

III. Options for States

States should continue to use the CDC’s Section 317 program and other public and private sources to finance their immunization registries. However, States might encounter multiple options while navigating through the different Federal payment paths i.e., HITECH vs. MMIS. The main difference between the HITECH and MMIS matching funds is that MMIS allows for a 75% match rate for on-going operational costs, whereas HITECH support for IIS is not meant for on-going operational costs outside of those associated with the Medicaid agencies’ administration and oversight of the EHR

Incentive Program. Ultimately, however, each State must assess this information in light of their current HIT strategy and what makes the most sense for integration and coordination across systems and agencies; only States where the immunization registry is integrated into the MMIS enterprise are eligible for this match, whereas with HITECH, the registry can stand outside MMIS.

To fill in any potential information gaps, we conducted semi-structured interviews with officials from Wisconsin, Washington, Minnesota, Arkansas, and AIRA. Overall, this study finds that there are two main funding design approaches that could maximize State funds from the Federal government, while limiting State administrative burdens:

1. If MMIS encompasses or funds the State's immunization registry, States should continue to receive the MMIS match. For example, the Wisconsin Immunization Registry (WIR) is a key subsystem of the State's MMIS.¹⁵ Through the Section 317 grant, the WIR system was interfaced with the latest informatics interoperability standard (HL7 2.5.1 and web services) in order to meet the criteria set by the meaningful use regulation. According to a WIR manager, the State is satisfied with their current funding mechanism and the availability of HITECH funding is a "non-issue", as 56% of WIR funding comes from the CDC and 44% comes from State funding and the corresponding MMIS match.¹⁶

While it might be possible for a registry similar to WIR to switch funding mechanisms and apply for the HITECH FFP, there are three major drawbacks to this decision. First, there is a risk that the HITECH match would not be approved. Even if Wisconsin were interested in the HITECH match, CMS would most likely *not* approve the 90 percent FFP through HITECH because these activities could continue to be funded by the MMIS matching funds. Second, it could be administratively costly to switch away from the current funding mechanism. For example, the State might have to go through a lengthy application process and might have to re-apply for the MMIS match when HITECH funding ends. Finally, it is possible that the State could receive the same 90 percent match rate from MMIS if they can justify their activities as related to the "design, development, or installation" of their system; the 75 percent FFP only applies to operation. Therefore, the State could reasonably argue that preparing the existing IIS for meaningful use (e.g., incorporating HL7 or web-based messaging) is more closely related to "design, development, or installation" of the system as opposed to operating the system.

2. The State can use HITECH's 90 percent FFP, under certain guidelines and conditions, to contribute to the development and operation of health information exchange entities or an immunization registry that is not integrated with the MMIS. The State can use the HIE to pull information (e.g., by building an electronic bridge) from other systems, including MMIS or immunization registries.¹⁷ For example, several States such as Texas and South Carolina plan to link their immunization registries with their statewide HIEs. In Texas, the HIE will pull claims from MMIS, the immunization registry, and other systems to create a common patient health history for the State's Medicaid recipients.¹⁸ The State can apply for HITECH's 90 percent FFP to develop and operate its existing IIS while keeping it independent from the MMIS; the CMS letter to SMDs only specifies that activities that can be paid for by MMIS, such as developing portals that link registries with MMIS, will not receive HITECH matching funds. Because the proposed system in Texas does not link the registry with MMIS (both IIS and MMIS are linked to the HIE, but not to each other), the State could receive the HITECH match, contingent upon CMS approval. However, CMS might not consider this arrangement if the HIE cannot de-duplicate patient vaccination data or consolidate immunization data from MMIS and IIS sources.

This is the best option for immunization registries that have access to State funds, but are independent from MMIS. For example, the Washington State Department of Health (DOH) manages the State's IIS (CHILD Profile).¹⁹ We interviewed several Washington DOH officials who explained that they receive a 50% Medicaid administrative match.²⁰ Overall, 25% of immunization registry costs are paid by the administrative match, 25% by general State funds, and 50% by CDC grants; approximately \$1 million of State funds are used to leverage a \$1 million administrative match. However, CHILD Profile remains independent from MMIS and therefore does not receive the higher 75 percent MMIS match. In June 2011, the State intends to link CHILD Profile with the statewide HIE, and they are currently working on a proposal to receive the 90% HITECH match for the costs of connecting the IIS with the HIE.

Similarly, the Minnesota Immunization Information Connection (MIIC) is located in the Minnesota Department of Health and is fully funded by the CDC's Section 317 and interoperability grants. The State plans on upgrading the registry this summer to meet the latest HL7 messaging standard for meaningful use. The State is also currently working with Medicaid for the first time to combine Medicaid information with the IIS. The MIIC manager plans on working with Medicaid to request the 90 percent match through HITECH to finance this effort.²¹

IV. Discussion

States might find that they have the ability to choose either of these funding opportunities. For example, the Washington DOH currently receives a 50 percent Medicaid administrative match, but could obtain a high match rate (75 percent) if they choose to integrate their registry with MMIS. Michigan might also face a similar circumstance. Michigan's immunization registry, the Michigan Care Improvement Registry (MCIR), is maintained by the Michigan Department of Community Health (MDCH) Division of Immunization and serves as a centralized repository for all immunizations administered in the State. MCIR has a history of collaboration and coordination with Medicaid, allowing MDCH to track all Medicaid child immunization coverage levels by county and health plan throughout the State. In March 2001, an Advanced Planning Document was approved by Medicaid for funding of the web application version of MCIR.²² The majority of MCIR's budget (\$3.57 million) comes from the Healthy Michigan Fund (51 percent) and approximately 18 percent comes from a Medicaid match.²³ However, it appears that the latter is the 50 percent administrative match and not the 75 percent MMIS match. MCIR also has revenue from CDC 317 grants (3 percent), the sickle cell program (6 percent), IIS sentinel site (6 percent), State general fund (5 percent), BMI development (1 percent), and MCH block (10 percent). Arkansas is in a similar situation, where the Department of Health manages the immunization registry independent from MMIS, but receives some Medicaid match funds.²⁴

Medicaid financing options rely on State funding to pull down federal matching funds. They are available only to immunization registries that receive some State funding. Based on a discussion with the director of the American Immunization Registry Association (AIRA), it is apparent that some immunization registries do not have access to State funds (and the State Medicaid agency might too face budget shortfalls) and are therefore unable to receive any type of matching funds. As of now, these States must rely on other funding sources, such as CDC Section 317 grants and funding from private health insurers and providers.

Moving forward, States can continue to work closely with the CDC, CMS, ASTHO, the American Immunization Registry Association (AIRA), and other State consortiums to develop creative ways to update and finance enhancements to immunization registries to support electronic exchange of immunization data. Wisconsin provides a strong example of how States can manage and finance their IIS. The State currently shares their WIR (open-source) software with 24 additional entities and collaborates with other States in a bi-monthly IIS consortium. Some States also participate in a

consortium with one vendor and 8 other States to exchange ideas related to their immunization registry, as is the case with 12 other States with their vendor.

This paper concludes that some States cannot benefit from the HITECH enhanced match funds because their immunization registry is integrated with MMIS (e.g., Wisconsin) and/or they are satisfied with their current funding structure (e.g., Wisconsin and Minnesota). Other States might find that they could be eligible for and benefit from the HITECH match, but would need to allocate matching State funds. States must first understand which of these situations they are in, and then determine whether and how they will access HITECH funds. A survey of all immunization registry managers would be ideal to determine where their immunization registry sits, how it is funded, and whether or not these funds are sufficient to meet the demands from the meaningful use regulation.

Appendix: State Interviewees

We would like to offer our sincere thanks the staff from the following agencies who provided their input and insights in this process:

1. Thomas Maerz, Wisconsin Immunization Registry
2. Janna Bardi and Sherri Ridick, Washington CHILD Profile
3. Emily Emerson, Minnesota Immunization Information Connection (MIIC) and AIRA
4. Karen Folwer and Walter Hathaway, Arkansas Department of Health

Notes

¹ Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule available at: <http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf> (July 28, 2010).

² <http://www.hln.com/resources/mu/mu-iz.php> accessed on April 19, 2011.

³ See <http://www.cdc.gov/vaccines/programs/iis/what-iis.htm> for additional background information.

- ⁴ Blumenthal D, Tavenner M. The “Meaningful Use” Regulation for Electronic Health Records. *The New England Journal of Medicine* July 13 2010; 1056/p1006114.
- ⁵ Centers for Medicare & Medicaid Services. 2010. “Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule”, 42 CFR Parts 412, 413, 422 et al. <http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf> accessed on April 19, 2011.
- ⁶ ASTHO Meaningful Use Readiness Survey.
- ⁷ http://www.hhs.gov/recovery/reports/plans/pdf20100610/CDC_Section%20317%20Immunizations%20June%202010.pdf.
- ⁸ <http://www.cdc.gov/ehrmeaningfuluse/immunization.html> accessed on April 19, 2011.
- ⁹ Horne PR, Saarlans KN, Hinman AR. Cost of immunization registries: experiences from the All Kids Count II Projects. *Am J Prev Med.* 2000;19:94–98.
- ¹⁰ https://www.cms.gov/MMIS/09_MECT.asp accessed on April 19, 2011.
- ¹¹ State Medicaid Director (SMD) letter, Guidance on the Development of Immunization Registries, July 6, 2000. <https://www.cms.gov/smdl/downloads/smd070600.pdf> accessed on May 16, 2011.
- ¹² SMD # 10-016, “Re: Federal Funding for Medicaid HIT Activities”, August 17, 2010.
- ¹³ See Enclosure A, page 6.
- ¹⁴ See enclosure C, pages 12-14.
- ¹⁵ State of Wisconsin Medicaid HIT Plan Version 1.1, Page 17.
- ¹⁶ Discussion with Thomas Maerz, WIR Manager, on April 26, 2011.
- ¹⁷ <http://www.govhealthit.com/news/hp-build-standalone-hie-texas-medicaid-system> accessed on April 19, 2011.
- ¹⁸ “HP to Build Standalone HIE for Texas Medicaid System”, *Government Health IT*, <http://www.govhealthit.com/news/hp-build-standalone-hie-texas-medicaid-system>, accessed on April 19, 2011.
- ¹⁹ CHILD Profile began as a child-only immunization registry. Despite its name, it currently covers the population across all ages.
- ²⁰ Discussion with Janna Bardi and Sherri Ridick (CHILD Profile) on April 26, 2011.
- ²¹ Discussion with Emily Emerson (MIIC) on May 2, 2011.
- ²² State of Michigan Medicaid HIT Plan Version, Page 21.
- ²³ Swanson, Bob. 2010. “Funding an Immunization Information System.” Presentation found at <http://www.immunizationmanagers.org/membership/BOB.pdf>; accessed on April 19, 2011.
- ²⁴ Discussion with Walter Hathaway, Arkansas Immunization Registry Coordinator, on May 10, 2011.