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Hospital Reporting on Meaningful Use Public Health Measures in 2014

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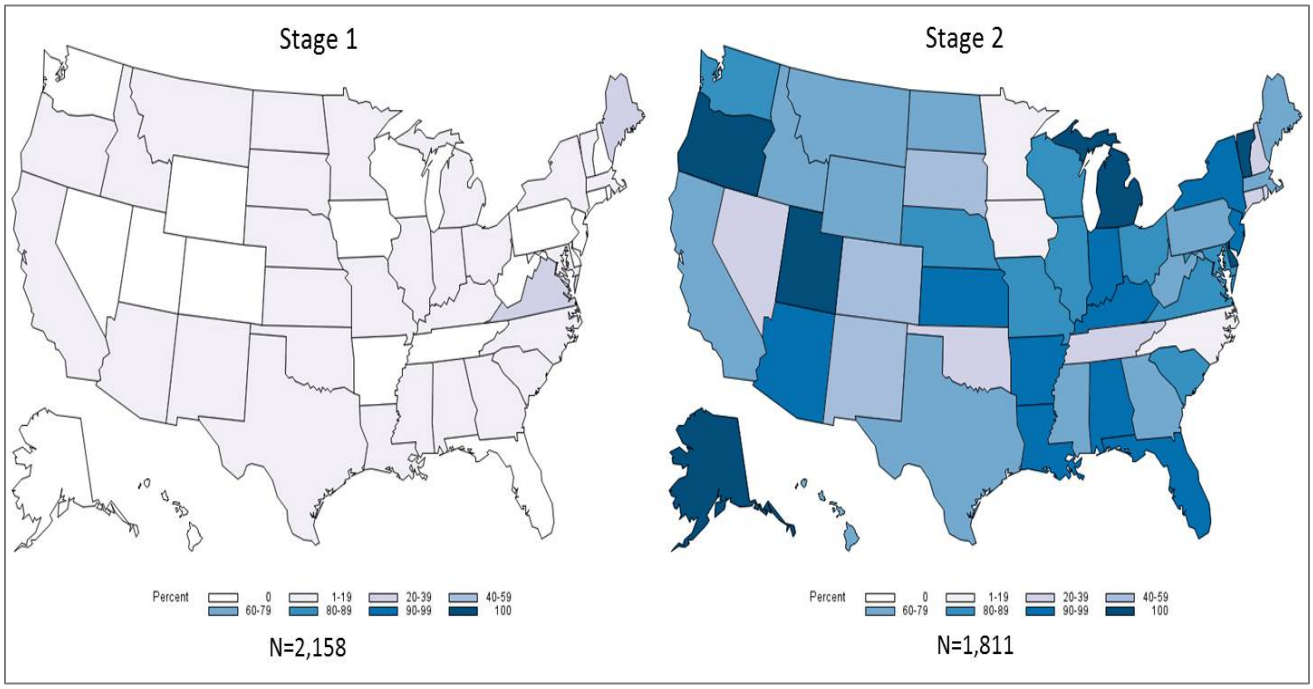
Electronic reporting to public health agencies improves the timeliness and completeness of data necessary to identify disease outbreaks and track disease trends over time. (1,2) To promote electronic information exchange between hospitals and public health agencies, the Centers for Medicare and Medicaid Services' (CMS) Electronic Health Record (EHR) Incentive Program includes objectives to promote electronic reporting of data regarding immunizations, emergency department visits ("syndromic surveillance"), and infectious disease laboratory results. (3) CMS' program provides incentive payments to eligible hospitals to adopt and meaningfully use certified health IT. In stage 1, the public health measures are optional measures of which hospitals need only to attest to one. With stage 2, new in 2014, CMS mandated reporting on all three measures. (4) In this brief, we describe how hospitals reported on these three public health measures during fiscal year 2014, and demonstrate the differences in measure reporting between stages 1 and 2.

More stage 2 hospitals reported on all applicable public health measures without exclusion than did stage 1 hospitals.

Figure 1: Percent of Medicare eligible hospitals that reported on all applicable public health measures in 2014.

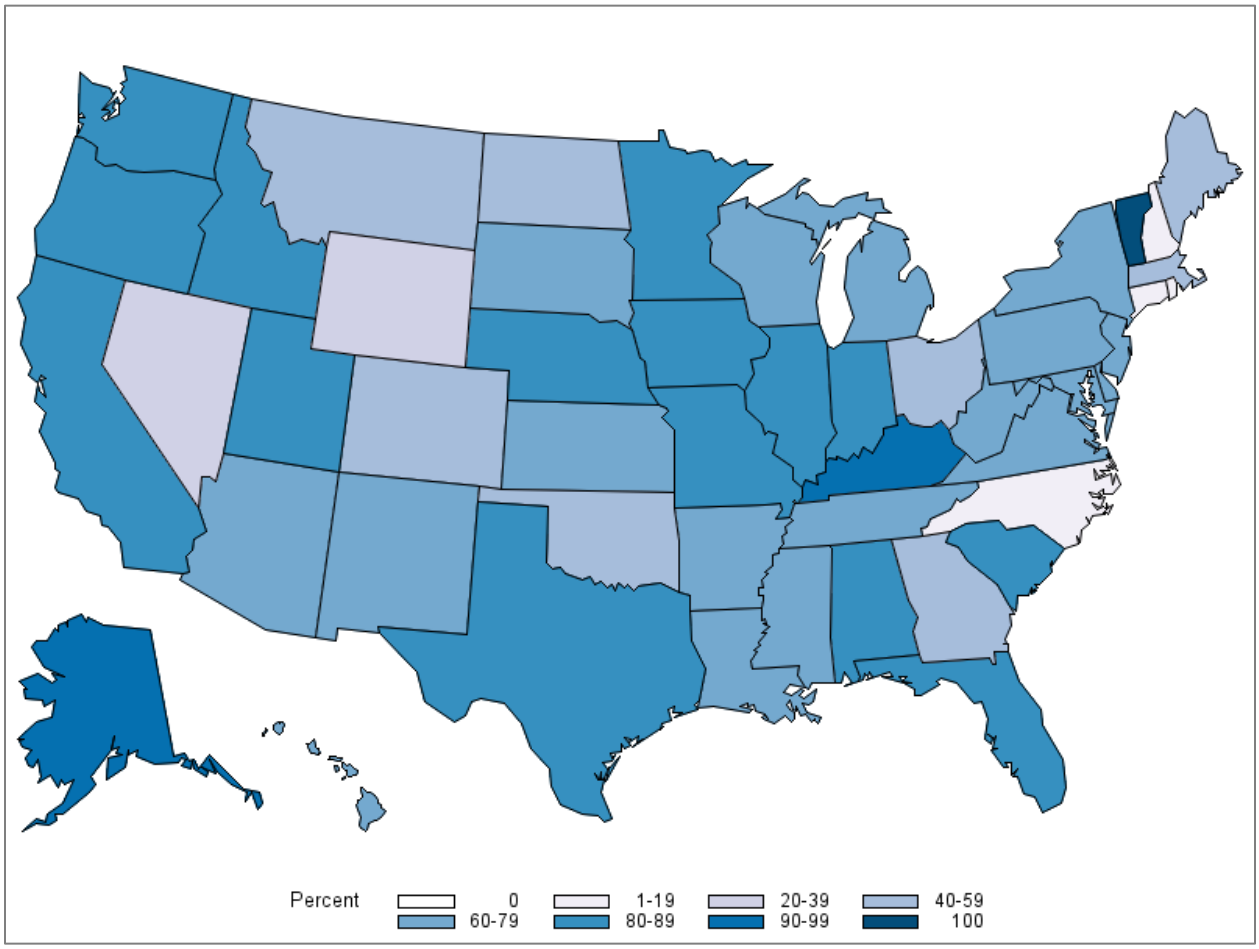


SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014. (N=3,969) Data available in Table A1.

★ Seventy-two percent of stage 2 hospitals reported, without exclusion, on all applicable public health measures, compared to 5% of stage 1 hospitals.

Seven out of 10 Medicare eligible hospitals that administered reportable vaccinations were able to electronically submit them to a local immunization registry.

Figure 2: Percent of Medicare eligible hospitals that administered vaccinations that were capable of electronic reporting to a local public health immunization registry, 2014.

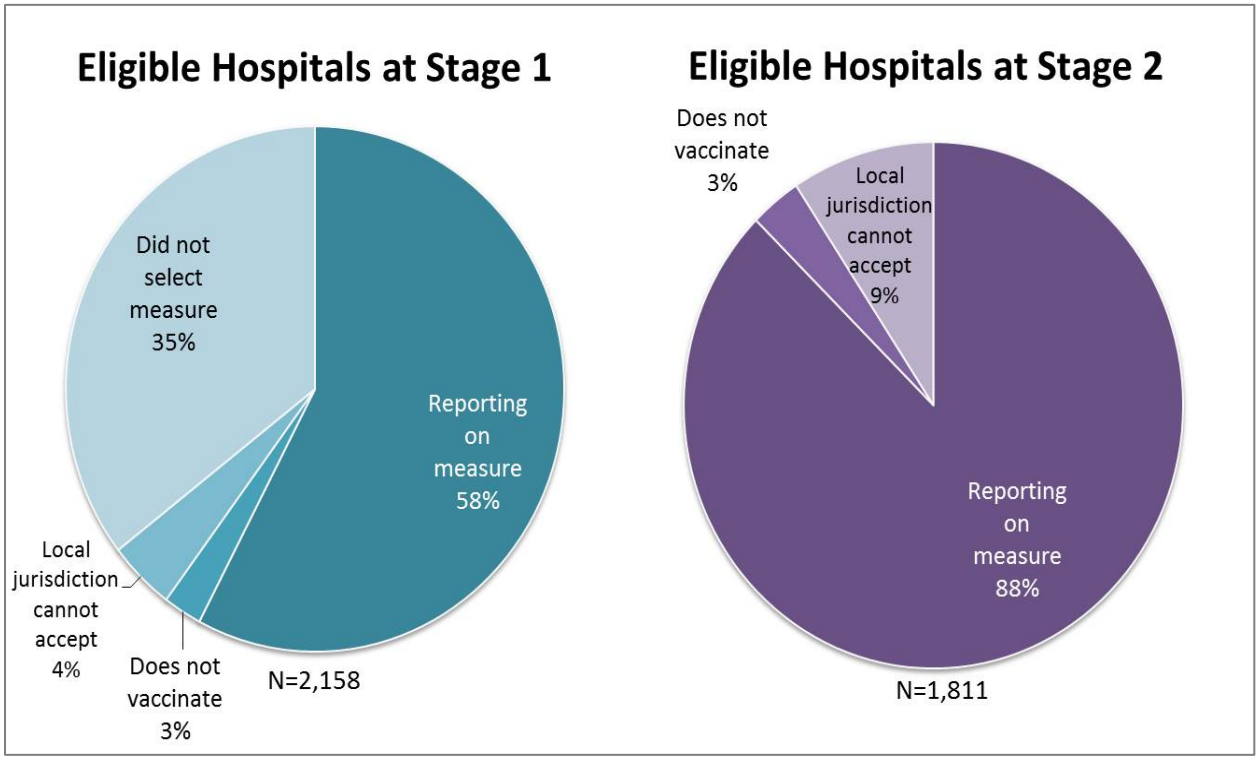


SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014; denominator includes only hospitals that administer vaccinations that are reportable to the local public health agency. (N=3,855) Data available in Table A1.

- ★ Nationally, 73% of eligible hospitals that administered vaccinations were able to report to their local public health registry.
- ★ In Vermont, 100% of eligible hospitals that administered reportable vaccinations were electronically reporting to their local immunization registry.
- ★ In North Carolina and New Hampshire, fewer than 10% of eligible hospitals reported electronically to the local immunization registry.

Almost 9 in 10 stage 2 hospitals were able to electronically report to their local immunization registry.

Figure 3: Percent of eligible hospitals, by stage of meaningful use, that reported on the immunization registry measure, 2014.

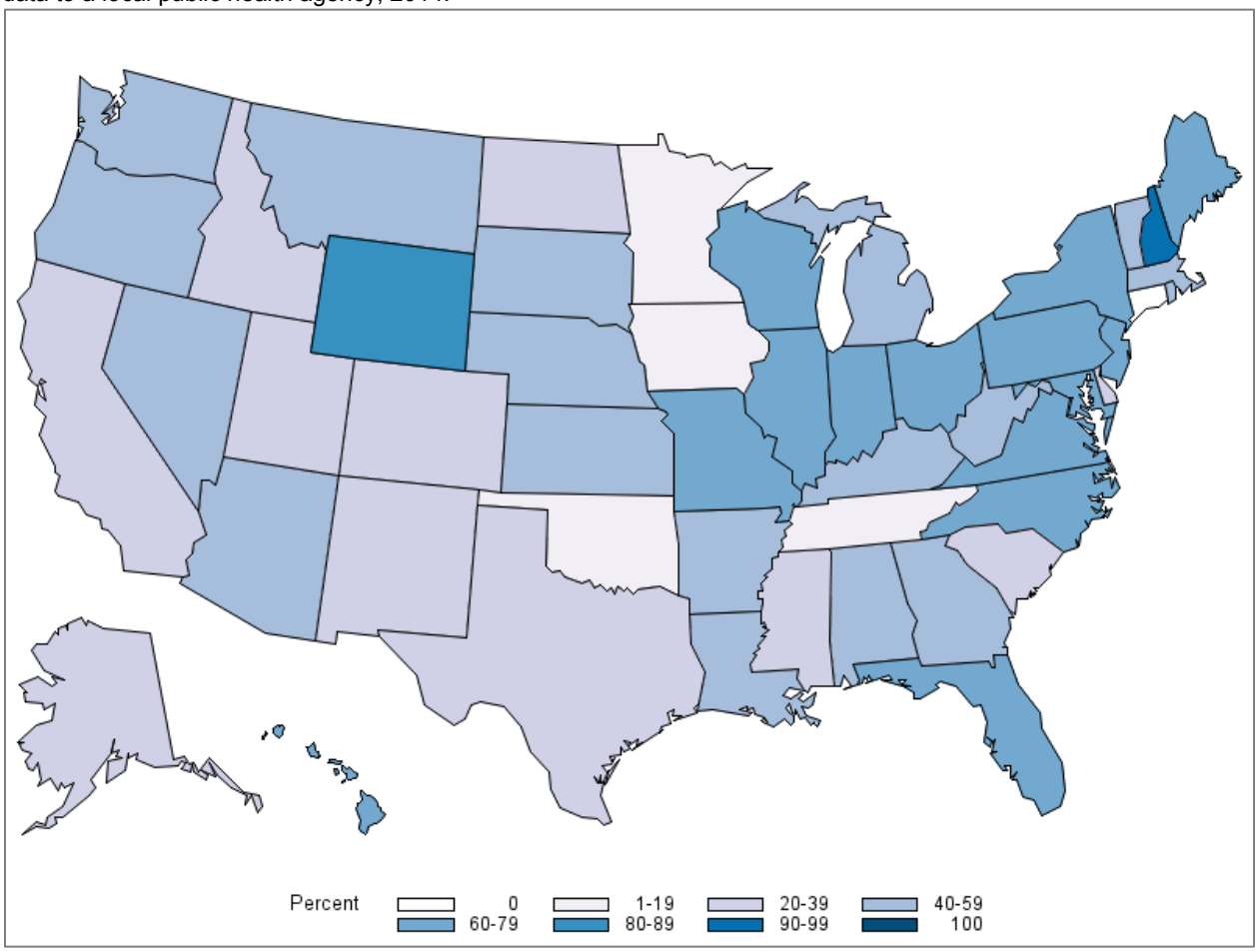


SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014 (N=3,969). "Does not vaccinate" and "local jurisdiction cannot accept" were categories for exclusion options (see Definitions section for additional detail). For stage 1, immunization registry reporting is optional; it is required in stage 2.

- ★ More than half of all stage 1 hospitals reported that they could submit data to their local immunization registry.
- ★ Eighty-eight percent of stage 2 hospitals were able to report electronically to their local public health agency.
- ★ Less than 10% of eligible hospitals claimed an exclusion to the immunization measure because their local public health agency could not accept the information.

Almost half of all Medicare eligible hospitals with an urgent care or emergency department could electronically report syndromic surveillance data to their local public health agency.

Figure 4: Percent of eligible hospitals with urgent care or emergency services that reported syndromic surveillance data to a local public health agency, 2014.

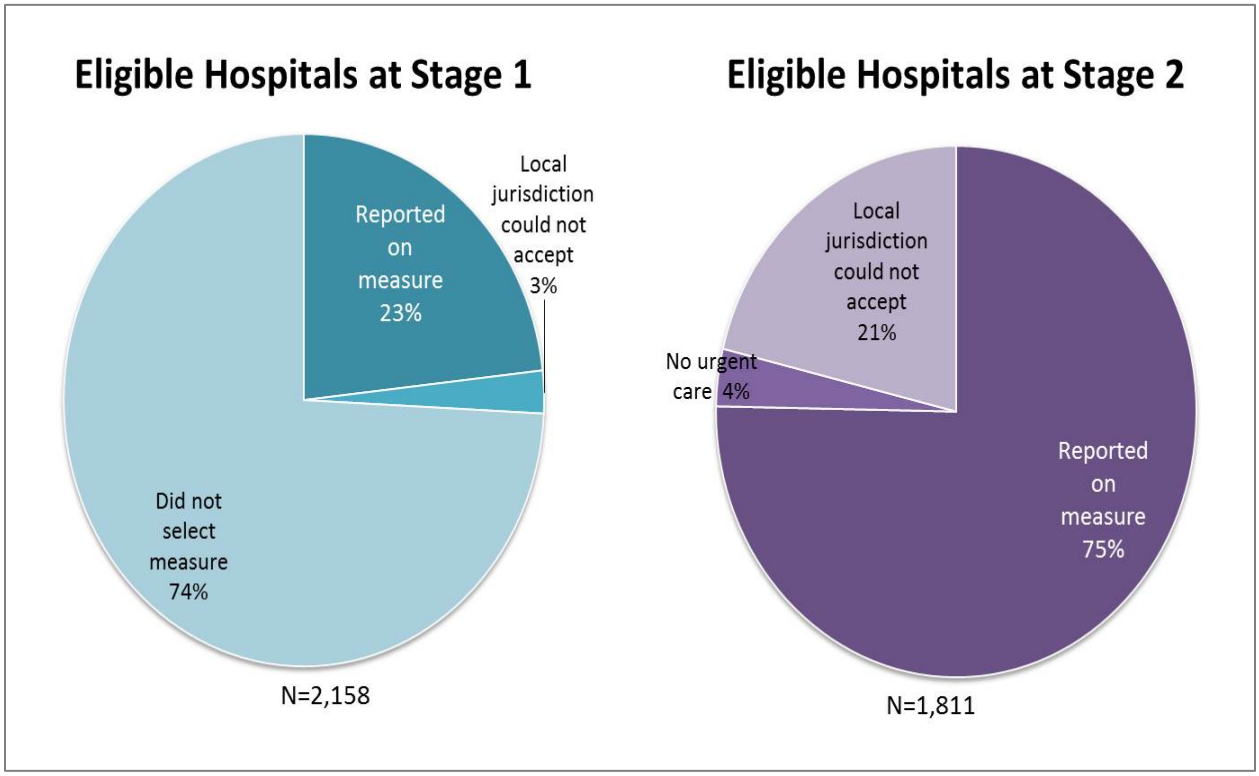


SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014; denominator includes only eligible hospitals that offer urgent care or emergency services. (N=3,906) Data available in Table A1.

- ★ Nationally, 48% of eligible hospitals that provided urgent care services electronically reported syndromic surveillance data from their EHR to their local public health agency.
- ★ At least three-quarters of eligible hospitals that offered urgent care or emergency services electronically reported syndromic surveillance data to their local public health agency in six states (New Jersey, Ohio, Hawaii, North Carolina, Wyoming, and New Hampshire) and the District of Columbia.
- ★ In five states (Connecticut, Iowa, Minnesota, Oklahoma, and Tennessee), fewer than 10% of eligible hospitals that offered urgent care or emergency services electronically reported syndromic surveillance data to a local public health agency.

Three-quarters of stage 2 hospitals reported syndromic surveillance data electronically to their local public health agency.

Figure 5: Percent of eligible hospitals, by stage of meaningful use, that reported syndromic surveillance data to a local public health agency, 2014.

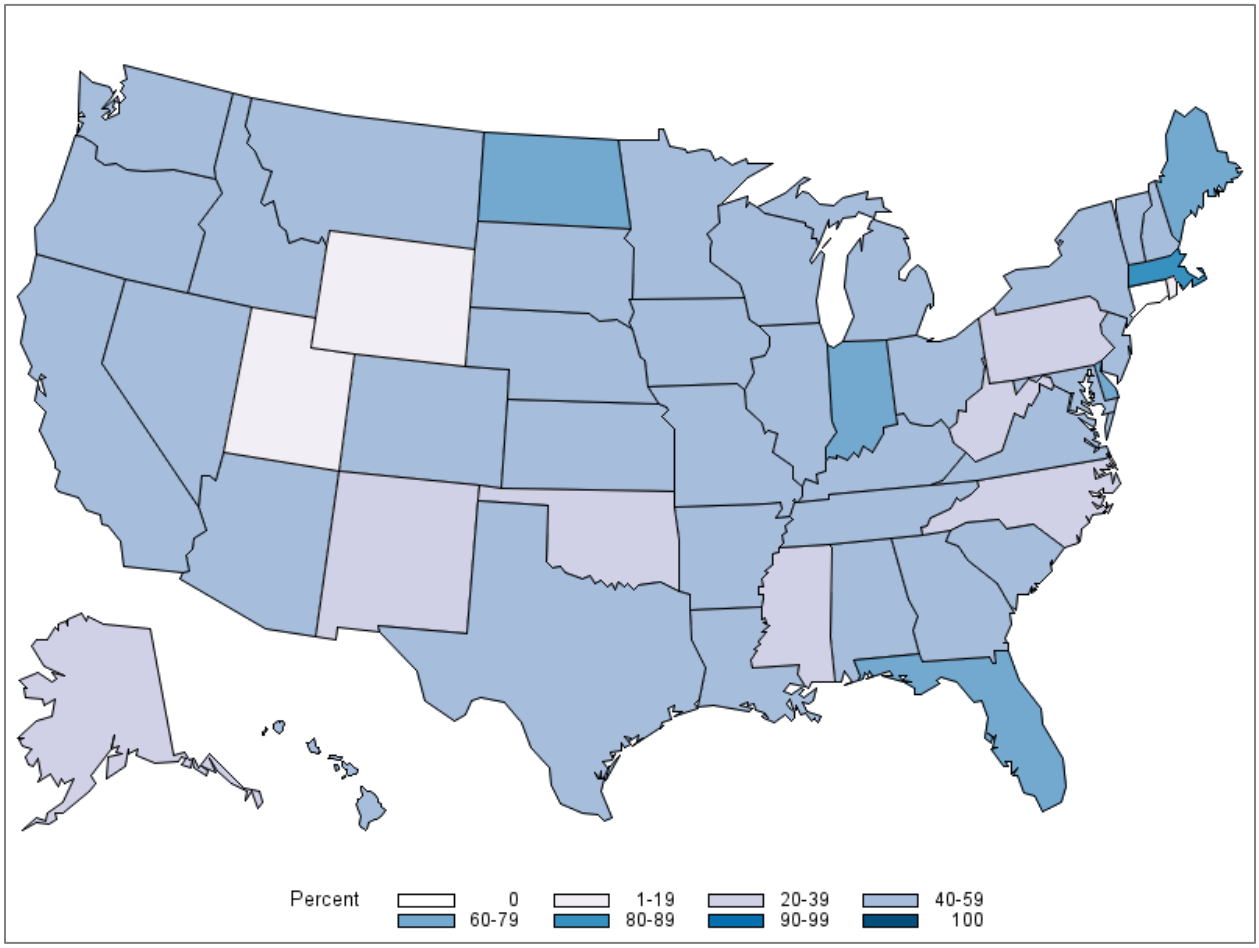


SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014 (N=3,969). "no urgent care" and "local jurisdiction cannot accept" were options for exclusion offered to hospitals. For stage 1, syndromic surveillance reporting is optional; it is required in stage 2.

- ★ Seventy-five percent of stage 2 hospitals electronically reported syndromic surveillance data to their local public health agency.
- ★ Almost one-quarter of stage 1 hospitals were able to electronically report syndromic surveillance data to their local public health agency.
- ★ One in five stage 2 hospitals could not meet the measure because the local public health agency could not accept the data.

Less than half of all eligible hospitals were able to electronically submit reportable laboratory results to their local public health agency in 2014.

Figure 6: Percent of eligible hospitals that were able to electronically submit reportable laboratory results to a local public health agency in 2014.

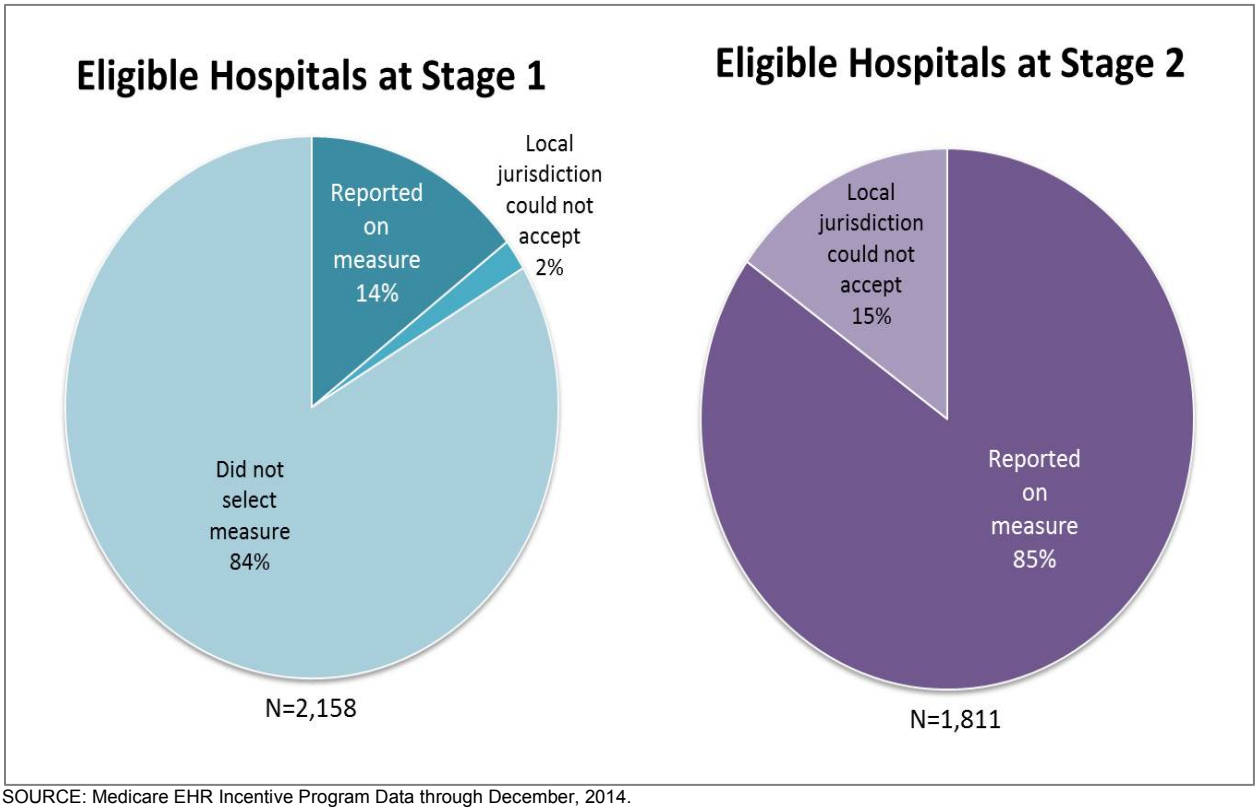


SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014. (N=3,969) Data available in Table A1.

- ★ Forty-seven percent of Medicare eligible hospitals reported being able to electronically submit reportable laboratory results to their local public health agency in 2014.
- ★ Massachusetts had the highest proportion of eligible hospitals able to submit electronic laboratory results (86%).
- ★ No hospitals reported on the syndromic surveillance measure in Connecticut and the District of Columbia for 2014.

More than 8 in 10 stage 2 hospitals submitted laboratory results electronically to their local public health agency.

Figure 7: Percent of eligible hospitals, by stage of meaningful use, that reported on the electronic laboratory results public health measure in 2014.



SOURCE: Medicare EHR Incentive Program Data through December, 2014.
NOTE: Includes eligible hospitals reporting to the Medicare EHR Incentive Program for Fiscal Year 2014 (N=3,969). "local jurisdiction cannot accept" was an option for exclusion offered to hospitals. For stage 1, electronic laboratory results reporting to a public health agency is optional; it is required in stage 2.

- ★ Eighty-five percent of stage 2 hospitals submitted electronic laboratory results to their local public health agency.
- ★ In 2014, eighty-four percent of stage 1 eligible hospitals did not select the electronic laboratory reporting measure.
- ★ Fifteen percent of stage 2 hospitals could not electronically submit laboratory results because the local jurisdiction could not accept them.

Summary

Promoting electronic information exchange with public health agencies will enhance public health's ability to monitor population health, identify disease outbreaks earlier, and facilitate better case management for individuals with diseases of public health concern. Prior to CMS' EHR Incentive Program, exchange of public health information was not standardized and public health agencies received data from hospitals through automated and manual systems. By coupling incentive payments to the use of certified health IT, the Incentive Program increased uptake of certified health IT systems that used similar standards for information storage and exchange. (5,6) As more hospitals adopted certified health IT products, public health agencies adapted their systems to the new standards. This brief demonstrates that, three years after CMS' EHR Incentive Program began, at least half of all participating hospitals were able to electronically send data to public health agencies for each of the three different measures.

We found that most hospitals were located in jurisdictions that had the ability to receive electronic information; however, the capacity to receive that information was not the same across all measures. Immunization registry reporting had the highest overall rate at 73%; but, less than half of participating hospitals reported on either the electronic laboratory reporting or syndromic surveillance measures. One factor driving this difference was the ability of the local public health agencies to receive the data electronically. For example, among stage 2 hospitals for which reporting was mandated, 21% reported that their local jurisdiction could not receive their electronic syndromic surveillance data, 15% reported their jurisdiction could not receive their electronic laboratory results data, and 9% reported their jurisdiction could not accept their electronic immunization data.

Public health agencies continue to make strides toward facilitating electronic reporting by hospitals. New Hampshire, for example, has a new immunization information system to which hospitals will be able to report in the near future. These data also do not reflect electronic information exchange that is occurring outside of the meaningful use program. For example, North Carolina's immunization information system receives electronic immunization data, but not in the format required for meaningful use. The state is working on updating their platform, but in the meantime, the result is low meaningful use immunization reporting rates among North Carolina hospitals (6%) that may not reflect actual reporting activity in that state.

Finally, the data presented in this brief demonstrate a significant difference in hospital reporting trends when reporting is optional, as in stage 1, to when reporting is required, as in stage 2. While almost three-quarters of stage 2 hospitals reported, without exclusion, on all applicable public health measures, only 5% of stage 1 hospitals did the same. Similar rate disparities were observed across all three public health measures. As more hospitals shift to stage 2 in coming years, it can be expected that electronic exchange between hospitals and public health agencies may increase.

Definitions

Public health measures: The meaningful use public health measures are defined in the stage 1 and stage 2 final rules (1,2), and require that hospital meet the measure requirement using certified EHR technology (CEHRT). These include electronic reporting to a local public health agency using certified health IT of the following data: (1) immunization data; (2) emergency department data, known as syndromic surveillance; and (3) reportable laboratory results. The definition for each measure and applicable exclusions are summarized below by stage.

Immunization measure, 2014 stage 1: Performed at least one test of CEHRT'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 hospital or Critical Access Hospital (CAH) submits such information has the capacity to receive the information electronically), except where prohibited (7).

Immunization measure, stage 2: Successful ongoing submission of electronic immunization data from CEHRT to an immunization registry or immunization information system for the entire EHR reporting period (8).

Syndromic surveillance measure, 2014 stage 1: Performed at least one test of CEHRT's capacity to provide electronic syndromic surveillance data to public health agencies and follow-up submission if the test is successful (unless none of the public health agencies to which an eligible hospital or CAH submits such information has the capacity to receive the information electronically), except where prohibited (7).

Syndromic surveillance measure, stage 2: Successful ongoing submission of electronic syndromic surveillance data from CEHRT to a public health agency for the entire EHR reporting period (8).

Electronic laboratory results (ELR) reporting measure, 2014 stage 1: Performed at least one test of CEHRT's capacity to provide electronic submission of reportable lab results to public health agencies and follow-up submission if the test is successful (unless none of the public health agencies to which an eligible hospital or CAH submits such information has the capacity to receive the information electronically), except where prohibited (7).

Electronic laboratory results (ELR) reporting measure, stage 2: Successful ongoing submission of electronic reportable laboratory results from CEHRT to a public health agency for the entire EHR reporting period (8).

Measure exclusions: CMS' stage 1 and stage 2 final rules itemize the allowable exclusions for each measure. There are generally more choices for exclusions in stage 2 than in stage 1, however, for the purposes of this brief, all exclusions were classified into one of three categories: (1) does not vaccinate; (2) no urgent care; (3) local jurisdiction cannot accept. Table 1 provides

information on the specific language for these exclusions, as well as how they are classified for the purposes of these analyses.

Table 1. Stage 2 and 2014 stage 1 meaningful use public health measure exclusion options.

Analytic category	Measure exclusion text (7,8)	Measure(s) exclusion applies to
Does not vaccinate	An eligible hospital or CAH that administers no immunizations during the reporting period would be excluded from this requirement	Stage 1 and stage 2 immunization
No urgent care	The eligible hospital or CAH does not have an emergency or urgent care department.	Stage 2 syndromic surveillance
Local jurisdiction cannot accept	If there is no immunization registry that has the capacity to receive the information electronically, then the eligible hospital or CAH would be excluded from this requirement	Stage 1 immunization
	If no public health agency to which the eligible hospital or CAH submits such information has the capacity to receive the information electronically, then the eligible hospital or CAH would be excluded from this requirement	Stage 1 syndromic surveillance and ELR
	The eligible hospital or CAH operates in a jurisdiction for which no immunization registry or immunization information system is capable of accepting the specific standards required for CEHRT at the start of their reporting period.	Stage 2 immunization
	The eligible hospital or CAH operates in a jurisdiction where no immunization registry or immunization information system provides information timely on capability to receive immunization data.	Stage 2 immunization
	The eligible hospital or CAH operates in a jurisdiction for which no immunization registry or immunization information system that is capable of accepting the specific standards required by CEHRT at the start of their reporting period can enroll additional eligible hospitals or CAHs.	Stage 2 immunization
	The eligible hospital or CAH operates in a jurisdiction for which no public health agency is capable of receiving electronic syndromic surveillance data in the specific standards required by CEHRT at the start of their reporting period.	Stage 2 syndromic surveillance
	The eligible hospital or CAH operates in a jurisdiction where no public health agency provides information timely on capability to receive syndromic surveillance data.	Stage 2 syndromic surveillance
	The eligible hospital or CAH operates in a jurisdiction for which no public health agency that is capable of accepting the specific standards required by CEHRT at the start of their reporting period can enroll additional eligible hospitals or CAHs.	Stage 2 syndromic surveillance
	Any eligible hospital or CAH that operates in a jurisdiction for which no public health agency is capable of receiving electronic reportable laboratory results in the specific standards required for CEHRT at the start of their reporting period	Stage 2 ELR
	Any eligible hospital or CAH that operates in a jurisdiction for which no public health agency provides information timely on capability to receive electronic reportable laboratory results.	Stage 2 ELR
	Any eligible hospital or CAH that operates in a jurisdiction for which no public health agency that is capable of accepting the specific standards required by CEHRT at the start of their EHR reporting period can enroll additional eligible hospitals or CAHs	Stage 2 ELR

Data Source and Methods

Analyses were based on successful hospital attestations to the Medicare EHR Incentive Program for fiscal year 2014, as of December 31, 2014. Hospitals were classified based on the stage of meaningful use they attested to (either stage 1 or stage 2) for fiscal year 2014.

Eligible hospitals were considered to have reported on a measure if they selected the measure without taking an exclusion. If a hospital took an exclusion by selecting the "do not vaccinate" category for the immunization measure, or the "no urgent care" category for the syndromic surveillance measure (see Table 1), then the hospital was not counted in either the numerator or denominator for that particular measure. For the other exclusion category, "local jurisdiction cannot accept", hospitals were counted in the denominator but not in the numerator. In calculating "all applicable measures", a hospital was counted in the numerator if it reported on all other appropriate measures or selected either the "do not vaccinate" or "no urgent care" for the applicable measure, and otherwise reported on all other measures. Denominators included all hospitals that attested, relevant for the stage and exclusion as noted previously.

References

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Appendix

Table A1: Percent of eligible hospitals' electronic reporting to local public health agencies, as reported through the Medicare EHR Incentive Program in 2014.

State	Stage 1 hospitals (N)	Stage 2 hospitals (N)	Stage 1: reporting on all^ (%)	Stage 2 reporting on all^ (%)	Immunization Registry Reporting (%)	Syndromic Surveillance (%)	Laboratory Results Reporting (%)
Alabama	52	26	17	96	84	50	41
Alaska	9	4	0	100	92	31	31
Arizona	38	27	5	93	80	48	51
Arkansas	32	32	0	91	78	59	48
California	154	114	5	70	85	38	52
Colorado	36	37	0	41	60	21	48
Connecticut	5	17	0	29	18	0	0
Delaware	4	1	0	100	60	20	60
District Of Columbia	5	0	0	0	20	80	0
Florida	72	94	0	96	90	64	63
Georgia	64	51	8	67	59	58	46
Hawaii	4	10	0	70	79	77	43
Idaho	18	9	6	78	81	26	41
Illinois	76	90	4	88	87	64	51
Indiana	40	63	5	97	81	72	63
Iowa	42	65	0	6	85	1	50
Kansas	53	38	19	95	61	43	43
Kentucky	45	37	7	95	98	46	44
Louisiana	72	36	10	94	67	53	46
Maine	10	15	30	67	57	64	68
Maryland	24	18	4	89	76	63	50
Massachusetts	25	32	4	75	60	46	86
Michigan	60	59	3	100	77	59	58
Minnesota	46	70	2	16	88	6	46
Mississippi	43	29	14	69	63	38	39
Missouri	44	45	5	89	80	62	45
Montana	31	15	10	73	45	49	52
Nebraska	39	35	5	80	82	51	46
Nevada	16	8	0	38	25	46	50
New Hampshire	6	17	0	24	5	96	48
New Jersey	25	28	0	93	74	75	53
New Mexico	27	7	4	57	70	24	29
New York	87	64	6	94	68	60	56
North Carolina	66	23	3	13	6	78	24
North Dakota	18	13	11	62	50	33	61
Ohio	71	77	1	82	59	77	44
Oklahoma	79	24	5	29	58	9	33
Oregon	32	20	3	100	83	46	42
Pennsylvania	70	74	0	64	68	69	33
Rhode Island	2	4	0	25	17	50	17
South Carolina	35	22	9	82	85	34	46
South Dakota	20	33	10	58	71	40	55
Tennessee	57	42	0	21	79	9	42
Texas	202	128	3	69	83	34	40
Utah	35	5	0	100	85	28	13
Vermont	6	6	17	100	100	50	50
Virginia	30	36	20	81	78	69	52
Washington	32	35	0	86	87	46	55
West Virginia	24	15	0	67	77	56	28
Wisconsin	54	56	0	84	73	60	52
Wyoming	21	5	0	60	31	81	15

Source: Medicare EHR Incentive Program Data through December, 2014.

^Hospitals reporting on all applicable public health measures without exclusion. See methods and definitions for further details.