



# Analysis of State Medicaid Enrollment Form Reading Levels

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*Medicaid enrollment forms serve as a critical access point to health care services. The readability of these forms ensures that individuals can accurately and easily complete the forms to receive coverage and that state Medicaid agencies receive accurate information about enrollees. The Institute for Medicaid Innovation (IMI) conducted a readability evaluation of Medicaid enrollment forms from all 50 states and the District of Columbia. This evaluation analyzed state Medicaid enrollment forms to assess variation in readability levels across states, between form types, and in comparison to the recommended health care readability levels.*



## Introduction

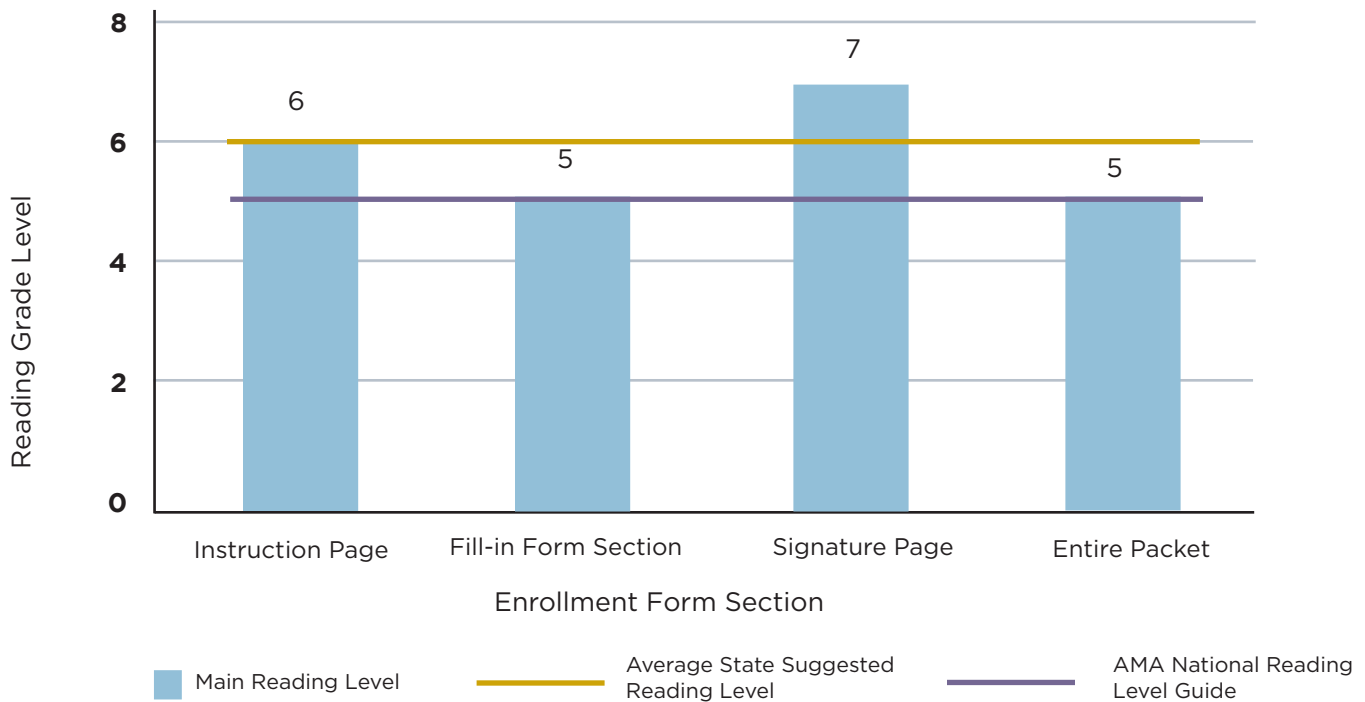
More than 80 million individuals were enrolled in state Medicaid programs as of September 2020.<sup>1</sup> To obtain Medicaid coverage, an applicant must fill out a state-specific Medicaid application and submit supporting documentation. Medicaid is managed at the state level, which results in varied enrollment processes, forms, and requirements among the states. In 2020, the Institute for Medicaid Innovation (IMI) published a content analysis of state Medicaid enrollment forms to assess the extent to which the social determinants of health information are collected.<sup>2</sup> Through this analysis, the research team noted that some forms used language that could potentially be challenging to read for recipients with limited literacy.

The American Medical Association (AMA) recommends a maximum 5th grade reading level for health literacy materials directed toward Medicaid enrollees.<sup>3</sup> Many states have their own mandated or recommended reading level for health materials to which Medicaid agencies must adhere, which averages at the 6th grade reading level nationally.<sup>4</sup> Previous evaluations of the Medicaid enrollment forms published before 2010 found that the reading levels of the signature page varied between an 11th and 18th grade level, and 41 percent of state enrollment forms failed to meet their respective state's recommended reading levels.<sup>5</sup> Our evaluation of Medicaid enrollment forms as of 2020 found that the Medicaid enrollment packets had an average reading level of around 5th grade, with the instructional and signature pages having average reading scores higher than the AMA's national reading level guidelines (Figure 1).

*The mission of the Institute for Medicaid Innovation is to improve the lives of Medicaid enrollees through the development, implementation, and diffusion of innovative and evidence-based models of care that promote quality, value, equity and the engagement of individuals, families, and communities.*



Figure 1. Average Flesch Kincaid Reading Grade Level Across State Medicaid Enrollment Forms, 2020



Source: *Institute for Medicaid Innovation* (2022). Analysis of State Medicaid Enrollment Form Reading Levels.

Notes: The instruction page is usually the first section of the enrollment packet. It contains instructions on how to fill out the form, fields for applicants to enter, and state Medicaid agency contact information. The fill-in section is where the applicant provides their personal information needed to apply for Medicaid, and the signature page includes disclosures surrounding what the applicant is agreeing to when applying for Medicaid and signing the signature lines.

Our research builds on previously published studies by analyzing more current 2020 enrollment forms to evaluate a) individual form sections, b) compliance with recommended national and state reading levels, and c) differences in readability levels between states that utilized the Centers for Medicare and Medicaid Services (CMS) (“CMS-developed”) form and states that created their own (“state-developed”) forms. The states might add a slightly different instruction or signature page to the CMS-developed form based upon state regulation, but the fill-in section of the CMS-developed form has the same questions state to state. It is important to evaluate differences in reading levels among different form sections and across form types (i.e., CMS-developed and state-developed) to identify enrollment language with high reading levels, which might prevent an applicant from receiving Medicaid coverage or slow the Medicaid enrollment process and cause inaccurate Medicaid enrollment data.

## A Readability Analysis of the Medicaid Enrollment Application Form

To help understand potential barriers to Medicaid enrollment, the IMI team conducted a readability analysis of the entire Medicaid enrollment application form for all 50 states and Washington, D.C. The primary objective was to determine the variation in readability of the forms among states. The secondary objective was to determine the variation in readability between different sections of the forms.

### Study Data and Methods

Medicaid enrollment forms from all 50 states and Washington, D.C., were obtained from state Medicaid agencies. Each form was converted to a PDF and then to a text file. The text files were split into three sections: instruction page, fill-in form, and signature page. A separate text file was created for the entire form, and the text file was reviewed to ensure that the file matched the PDF version after text conversion. Each section was uploaded to a readability analyzer, Datayze, to determine three readability scores: Flesch Kincaid Grade Level, Simple Measure of Gobbledygook (SMOG) score, and Gunning Fog Scale score (Table 1).<sup>6</sup> Each readability index uses a different methodology and produces different results. Results in this report focus on the Flesch Kincaid index because of its wide use.



**Table 1. Readability Indexes, Definitions, and Scores for the Entire Enrollment Form, 2020**

Readability Index	Definition	Score for Entire Form mean (SD)
Flesch Kincaid Grade Level (Lower = Easier to Read)	The Flesch-Kincaid Grade Level heuristic indicates that the text can be read by the average student in the specified grade level and is the most commonly used readability analyzer.	5.49 (1.35)
Simple Measure of Gobbledygook (SMOG) Score (Lower = Easier to read)	The SMOG grade is commonly used in health care. The score represents the number of years of education needed to understand a passage of writing.	8.65 (0.688)
Gunning Fog Scale Level (Lower = Easier to Read)	The Gunning Fog scale is similar to the Flesch scale in that it uses syllable counts and sentence length. The scale uses the percentage of “Foggy” words, those that contain 3 or more syllables. A fog score of 5 is readable, 10 is hard, 15 is difficult, and 20 is very difficult.	9.16 (1.21)

Source: *Institute for Medicaid Innovation (2022). Analysis of State Medicaid Enrollment Form Reading Levels.*

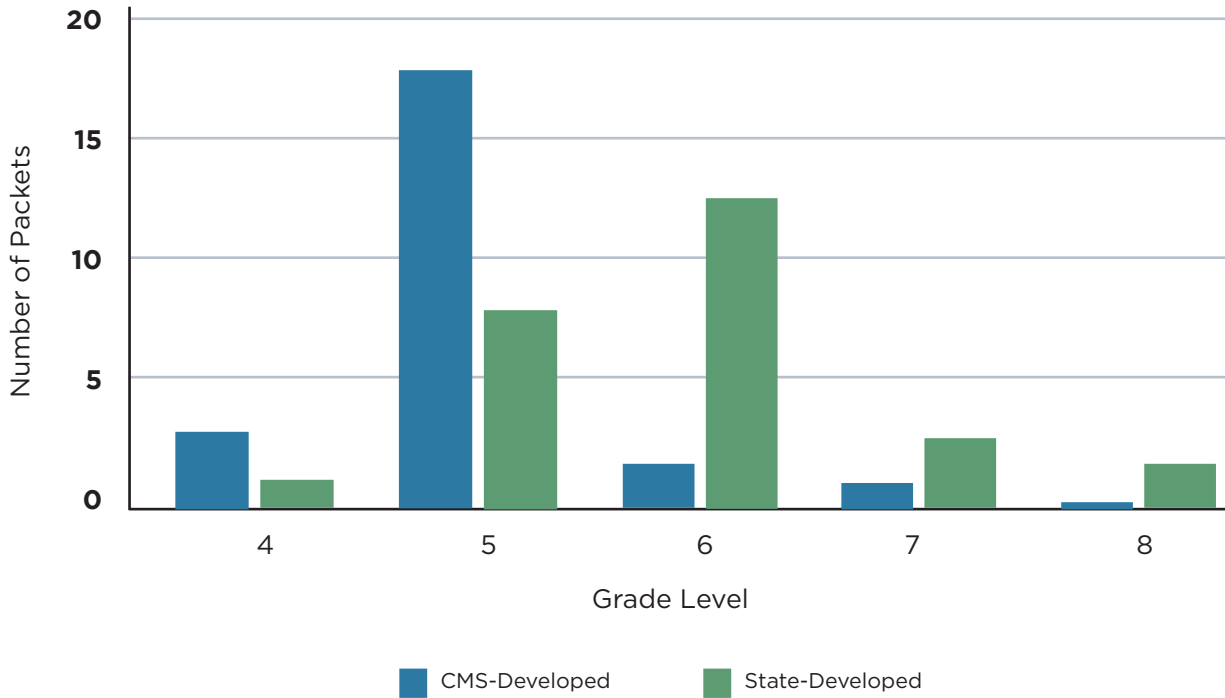
Paired and unpaired t-tests were used to test for differences in 1) average reading levels of states using the CMS-developed forms compared to states using state-developed forms overall and between each form section, 2) average reading levels for each of the four sections of the forms, and 3) the reading level between a state’s form and the respective state reading level guideline as well as the AMA’s national reading level guideline.

Study Results

The reading level of the entire enrollment packet varied by 4 grade levels across states, ranging from 4th to 8th grade using the Flesch Kincaid Grade Level scale (Figure 2).



Figure 2. Grade Level Distribution by Form Type, 2020

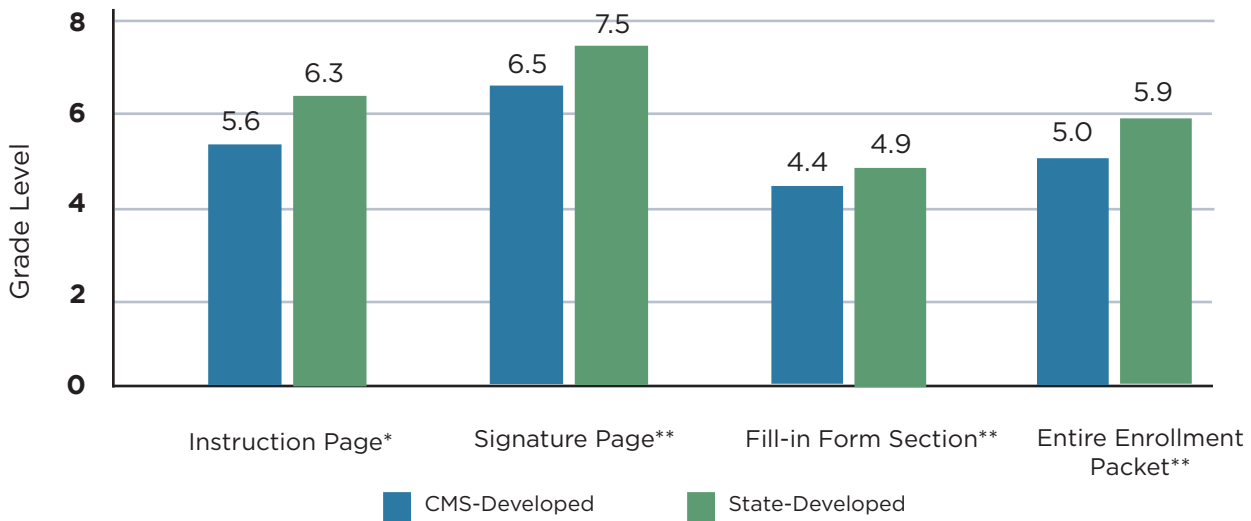


Source: *Institute for Medicaid Innovation* (2022). Analysis of State Medicaid Enrollment Form Reading Levels.

Relative to state-developed forms (n=27), CMS-developed forms (n=24) had significantly lower reading level scores (i.e., easier readability) using both the Flesch Kincaid Grade Level and the Gunning Fog Scale overall and for each section of the form. Using the Flesch Kincaid Grade Level, the average reading grade level of CMS-developed forms was nearly 1 grade lower (5.04 vs 5.89;  $p < 0.001$ ) compared to the average reading grade level for state-developed forms (Figure 3). The greatest absolute difference in state-developed and CMS-developed scores between the individual form sections was in the signature page, where states with state-developed forms had an average score of 7.52 and states with CMS-developed forms had an average score of 6.54 ( $p < 0.01$ ; Figure 3).



Figure 3. Flesch Kincaid Grade Level Comparison of Enrollment Packet Form among States with CMS-Developed or State-Developed Forms, 2020



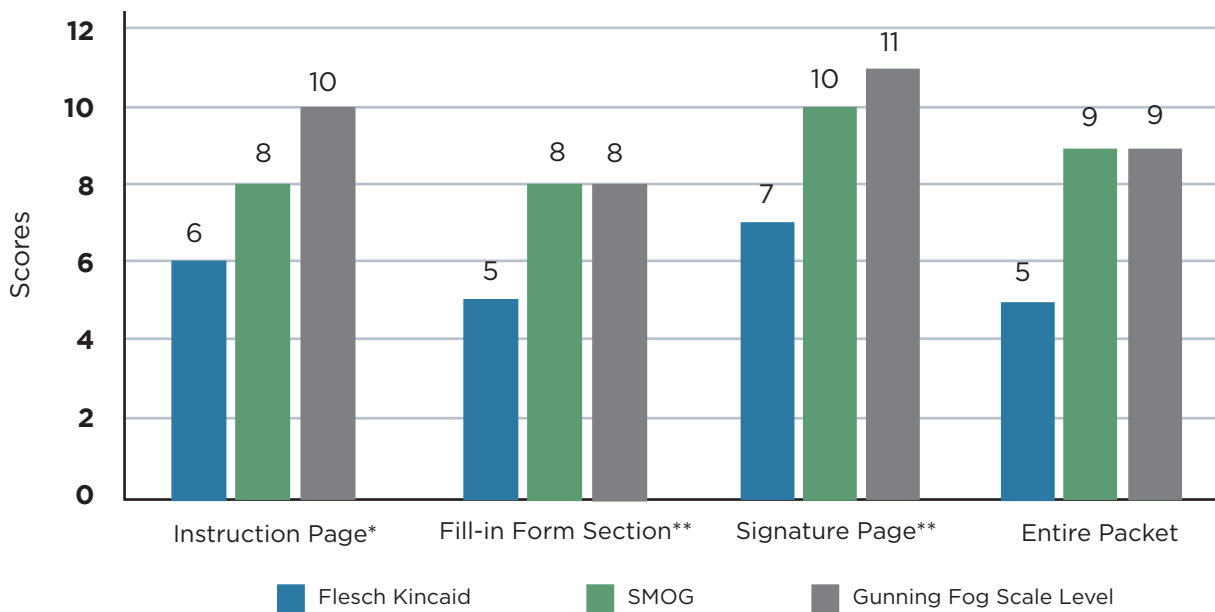
Source: *Institute for Medicaid Innovation* (2022). Analysis of State Medicaid Enrollment Form Reading Levels.

Notes: \*= $p < .05$ , \*\*= $p < .001$

When comparing the readability among different sections of the enrollment forms, the reading scores of instruction pages (Flesch Kincaid Grade Level = 5.84) and signature pages (7.06) had a significantly higher reading grade level than the fill-in form sections (4.65) (Figure 4). Appendix A offers a state-by-state comparison of findings for each section of the Medicaid enrollment form.



Figure 4. Average Form Section Scores, by Readability Index, 2020

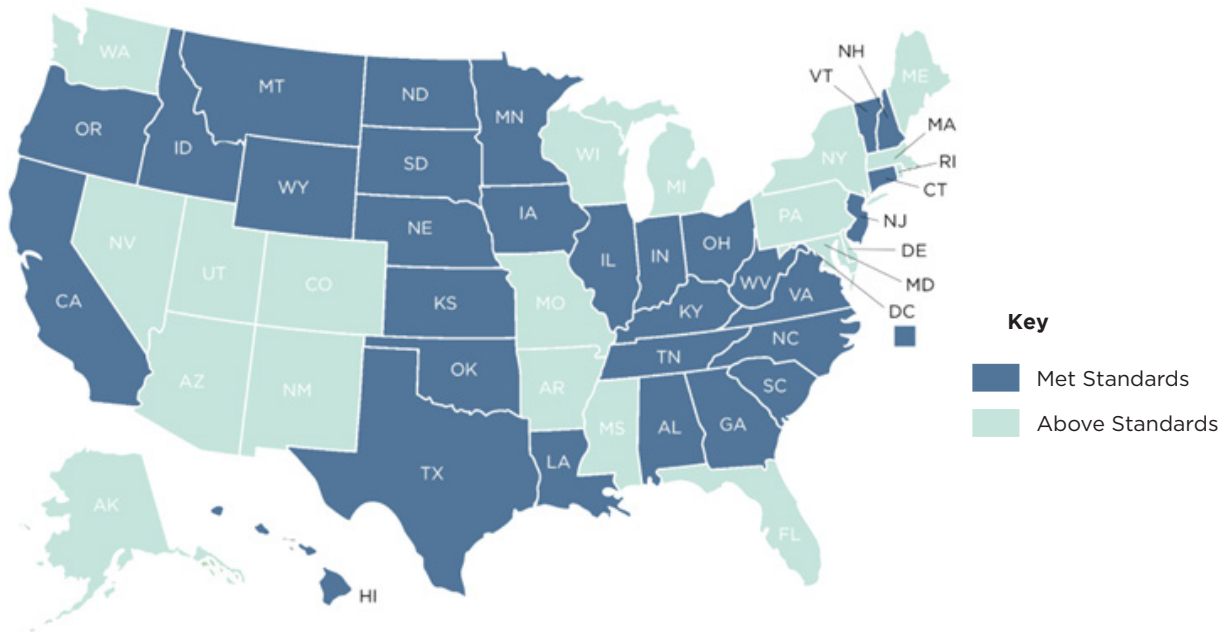


Source: *Institute for Medicaid Innovation* (2022). Analysis of State Medicaid Enrollment Form Reading Levels.

Using the Flesch Kincaid Grade Level Scale, thirty-three states met their state’s recommended reading level for health care literature. Twelve states were above (more difficult level) their state-recommended reading level. Thirty states met the AMA’s national recommended reading level for 5th grade (Figure 5).



**Figure 5. Average Form Section Scores, by Readability Index, 2020**



Source: *Institute for Medicaid Innovation* (2022). Analysis of State Medicaid Enrollment Form Reading Levels.

## Conclusion and Implications

Medicaid enrollment forms exceeding recommended reading levels might create challenges for applicants in completing the form or submitting the correct supporting documentation. Such challenges can delay or prevent enrollment and access to health care coverage, or result in inaccurate information. Inaccurate information on forms might increase the burden on state Medicaid agencies if states have to provide support for form completion or if the determination process has to be repeated, further delaying the provision of services for the enrollee. Enrollment packets written at or below the recommended 5th grade reading level for health materials would facilitate timely access to preventive services and other health care, which could ultimately prevent the need for more costly types of care.

## Looking Ahead

This content analysis provides important information for ensuring timely provision of care, which may be hindered if a state has poor readability in their Medicaid enrollment forms. Overall, states that use a standardized form have a lower (easier) reading level than states that created their own forms. States can leverage the language from CMS standardized forms to help create a form that is easier to read. States should also consider testing the readability of their forms to assess the need to modify enrollment forms.

Future research about the readability and ease of use of Medicaid enrollment forms is still needed. This study does not consider any intermediary enrollment brokers that might handle the Medicaid enrollment process for state Medicaid agencies. In addition, we only evaluated the reading levels of Medicaid forms in English. Additional research should assess the barriers in the reading levels of the Medicaid forms that are translated into other languages.

Overall language and communication barriers are also factors that may contribute to challenges in the Medicaid enrollment process. Reading level is an important characteristic to consider within this broader context of both process and form accessibility.



### Clinical Opportunities

#### ***Explore Partnerships to Aid in Medicaid Enrollment and Recertification.***

A clinical office might have an opportunity to partner with the state Medicaid agency to offer aid in assisting patients applying for Medicaid benefits. Offering one-on-one support (for example, community navigators) might reduce reading-level barriers and potential errors. Other options might include allowing private spaces for computer and phone access to complete the enrollment form.

#### ***Identify Opportunities to Collect Data at Clinical Visits on Quality Improvement Opportunities for the Enrollment Process.***

Offer patient experience and satisfaction surveys via the clinician's office to aid in identifying issues with Medicaid enrollment. These data can be used to help inform future enrollment form creation and minimize lapses in coverage.



### Research Opportunities

#### ***Analyze the Readability of Medicaid Enrollment Forms in Other Languages.***

There is a need to analyze the readability of Medicaid forms in languages other than English. It would also be informative to compare the results with readability levels of other English-language forms within the same state.

***Compare Enrollment Statistics with Form Readability.***

Examine the percentage of Medicaid Enrollment form application acceptance/denials and additional application process metrics (i.e., percentage of applications requiring additional information prior to acceptance) to determine if there is a correlation between enrollment rates and form readability scores, controlling for other accessibility variables.

***Compare the Readability of State Medicaid Enrollment Forms with Enrollment Forms for Federal and State Assistance Programs.***

Compare the readability of state Medicaid enrollment forms with the readability of forms for state and federal assistance programs such as TANF, SNAP, and WIC. States that have integrated eligibility determinations might have greater process complexity and higher readability scores.

***Analyze Ease of Access to the Medicaid Enrollment Forms.***

Using state websites and/or phone lines, determine how many steps it takes, and the complexity of the process, to obtain and submit a Medicaid enrollment form. Accessibility issues such as website design, helpline features, readability of the directions to obtain an enrollment form, font size, and others could be included in this review.

***Assess the Methods Used by Vendors to Develop Medicaid Enrollment Forms.***

Determine and compare by state the methods that vendors follow to create state enrollment forms, including the readability parameters, steps for translating forms into various languages, and oversight measures used by states to manage content created by vendors for Medicaid enrollee audiences.



**Policy Opportunities**

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***Explore Opportunities to Create Parameters around Medicaid Enrollment Form Development.***

Identify opportunities to establish national guidelines written by a central agency, with input and guidance from Medicaid enrollees, on the maximum readability levels, form length, font, and ease of access. Determine if standardized questions should be required across all states.

***Consider Piloting Forms with Current Enrollees and Utilizing a Centralized Review Process.***

State Medicaid agencies could consider pilot testing forms and processes with Medicaid enrollees or navigators. They could also consider utilizing a third party or centralized reviewer, similar to MCO requirements for member-facing communications.

***Explore Opportunities to Encourage Community Navigators for Enrollment Form Completion.***

Determine if there are opportunities, including marketing strategies, to help enrollees identify community navigators to provide assistance in completing the state Medicaid enrollment form. Identify opportunities to measure the outcome of the applications submitted by an individual utilizing a community navigator.

***Explore States' Decisions for Non-Adoption of the CMS Form and Standardization Options.***

Understand from states why they chose not to use the standard CMS form and identify ways the CMS form could be updated to promote greater adoption and standardization.



## References

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- <sup>3</sup> Weiss, B. (2003). Health Literacy: A Manual for Clinicians. American Medical Association Foundation. <http://lib.ncfh.org/pdfs/6617.pdf>
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- <sup>5</sup> Wilson, J., Wallace, L., & DeVoe, J. (2009). Are State Medicaid Application Enrollment Forms Readable? *Journal of Health Care for the Poor and Underserved*, 20(2), 423–431. Retrieved from <https://doi.org/10.1353/hpu.0.0127>; and Pati, S., Kavanagh, J. E., Bhatt, S. K., Wong, A. T., Noonan, K., & Cnaan, A. (2012). Reading Level of Medicaid Renewal Applications. *Academic Pediatrics*, 12(4), 297–301. Retrieved from <https://doi.org/10.1016/j.acap.2012.04.008>
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## Reviewers

Prior to publication of the final report, the Institute for Medicaid Innovation sought input from independent clinical, scientific, and policy experts as peer reviewers who do not have any financial conflicts of interest. However, the conclusions and synthesis of information presented in this report do not necessarily represent the views of the individual peer reviewers or their organizational affiliation(s).

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Appendix A. State Medicaid Enrollment Form Readability Scores by Section

State Name	CMS Developed = Yes State Developed = No	Title Page			Fill In Form Section			Signature Page			Entire Packet		
		Gunning Fog Scale Level	Flesh Kincaid	SMOG	Gunning Fog Scale Level	Flesh Kincaid	SMOG	Gunning Fog Scale Level	Flesh Kincaid	SMOG	Gunning Fog Scale Level	Flesh Kincaid	SMOG
Alabama	Yes	8	5	8	8	5	8	11	7	10	7	4	8
Alaska	No	13	8	11	9	5	8	13	11	12	12	8	10
Arizona	No	12	8	11	10	6	10	12	8	10	11	7	10
Arkansas	No	12	8	11	9	6	9	11	7	11	9	6	9
California	Yes	10	5	9	7	4	8	11	7	9	9	5	9
Colorado	No	10	6	9	8	5	8	12	7	10	9	6	9
Connecticut	No	9	5	9	9	5	8	10	6	8	9	5	8
Delaware	No	10	6	9	8	4	8	12	7	10	10	6	9
Florida	No	12	7	10	8	5	8	17	11	-	13	8	9
Georgia	Yes	10	5	9	7	4	8	10	6	9	8	5	8
Hawaii	Yes	9	5	8	8	5	8	10	6	9	9	5	9
Idaho	No	12	7	9	8	4	7	12	8	10	9	5	8
Illinois	No	11	7	9	8	5	7	11	6	10	9	5	8
Indiana	No	10	6	-	9	5	8	11	8	9	9	5	8
Iowa	No	9	5	9	7	4	8	10	6	9	8	5	8
Kansas	No	10	7	9	7	4	7	13	8	11	8	4	7
Kentucky	Yes	9	5	9	8	4	8	9	6	9	8	5	8
Louisiana	Yes	9	5	8	7	4	8	11	7	10	8	5	8
Maine	No	11	7	9	8	4	8	11	8	10	10	6	9
Maryland	No	-	-	-	10	6	9	12	8	11	11	7	10
Massachusetts	Yes	9	5	9	8	5	8	11	7	10	10	6	9
Michigan	No	10	6	-	10	5	8	11	7	10	10	6	8
Minnesota	Yes	9	5	9	8	5	8	10	6	9	9	5	9
Mississippi	No	10	6	9	9	6	9	11	7	10	9	6	9
Missouri	No	9	6	-	8	5	8	14	8	11	10	6	9
Montana	No	13	9	12	9	6	9	15	10	13	12	7	10
Nebraska	Yes	11	7	9	7	4	8	12	7	10	9	5	9
Nevada	No	10	6	9	9	5	8	11	7	10	10	6	9
New Hampshire	No	8	5	8	7	4	8	11	7	10	8	5	8
New Jersey	Yes	10	6	10	8	5	8	11	7	10	8	5	9
New Mexico	No	12	8	10	9	5	8	12	7	11	10	6	9

Appendix A. State Medicaid Enrollment Form Readability Scores by Section, continued

State Name	CMS Developed = Yes State Developed = No	Title Page			Fill In Form Section			Signature Page			Entire Packet		
		Gunning Fog Scale Level	Flesh Kincaid	SMOG	Gunning Fog Scale Level	Flesh Kincaid	SMOG	Gunning Fog Scale Level	Flesh Kincaid	SMOG	Gunning Fog Scale Level	Flesh Kincaid	SMOG
North Carolina	Yes	9	5	8	7	4	8	11	6	10	8	5	8
North Dakota	Yes	9	5	8	7	4	8	13	9	11	9	5	8
Ohio	Yes	10	6	9	7	4	7	11	7	10	8	5	8
Oklahoma	Yes	10	6	9	7	4	8	11	7	10	9	5	9
Oregon	No	8	4	8	9	6	9	9	6	9	9	5	9
Pennsylvania	No	9	5	9	8	5	8	13	8	11	10	6	9
Rhode Island	No	12	8	10	8	5	8	11	8	10	9	6	9
South Carolina	Yes	9	5	8	7	4	8	10	6	10	9	4	8
South Dakota	Yes	11	7	10	7	4	7	11	7	10	8	5	8
Tennessee	Yes	9	5	9	7	4	7	8	4	8	7	4	8
Texas	No	6	4	7	7	4	7	8	4	8	8	5	8
Utah	Yes	10	6	9	9	5	8	11	7	10	10	6	9
Vermont	Yes	10	6	9	8	5	8	10	6	10	9	5	9
Virginia	Yes	11	6	10	7	4	7	11	7	10	9	5	9
Washington	Yes	12	7	10	11	7	9	11	7	9	10	7	9
West Virginia	Yes	10	5	9	7	4	7	11	7	10	9	5	8
Wisconsin	No	10	6	9	10	6	9	13	8	12	10	6	10
Wyoming	Yes	9	5	9	7	4	8	10	6	9	8	5	8
Washington, DC	Yes	8	5	8	8	4	8	9	5	9	8	5	8

Source: Institute for Medicaid Innovation (2022). Analysis of State Medicaid Enrollment Form Reading Levels.