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Prevalence of Complete Streets policies in U.S. municipalities

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Abstract

Communities can adopt Complete Streets policies to support physical activity through the routine design and operation of streets and communities that are safe for all people, regardless of age, ability, or mode of transport. Our aim was two-fold: (1) to estimate the prevalence of Complete Streets policies in the United States overall and by select municipality characteristics using data from the National Survey of Community-Based Policy and Environmental Supports for Healthy Eating and Active Living (CBS HEAL) and (2) examine the agreement between information about local policies reported in CBS HEAL with those found in the National Complete Streets Coalition's database. Data from a representative sample of incorporated U.S. municipalities with a population of at least 1000 people (n = 2029) were analyzed using survey weights to create national estimates. In 2014, 25.2% of municipalities had a Complete Streets policy reported by a local official. Prevalence of local policies decreased with decreasing population size and was lower among those with a lower median education level and those in the South, with and without adjustment for other municipality characteristics. Agreement between local Complete Streets policies reported in CBS HEAL and the coalition's database was moderate with 72.5% agreement (kappa = 0.21); however, agreement was lower for municipalities with smaller populations, those located in rural areas, and those with a lower median education level. About 16.8% of local officials reported they did not know if their municipality had such a policy. There is room for improvement in the awareness and adoption of Complete Streets policies in the United States, especially among smaller municipalities and those with lower median education levels. Helping communities address issues related to the awareness, adoption, and implementation of Complete Streets policies can be an important step toward creating more walkable communities.

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Disclaimer

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Keywords

community; environment design; pedestrians; public policy; residence characteristics; safety

1. Introduction

Being physically active is one of the most important steps that people of all ages and abilities can take to improve their health (Physical Activity Guidelines Advisory Committee, 2008; U.S. Department of Health and Human Services, 2008). However, only one-half of US adults meet the current aerobic physical activity guideline (U.S. Department of Health and Human Services, 2008) and certain populations, such as adults who are non-Hispanic Black or Hispanic or who have lower levels of income or education, are less likely than their respective counterparts to meet the guideline (U.S. Department of Health and Human Services). Although individuals make the choice to be physically active, the decision can be made easier when communities adopt design policies that support physical activity (Community Preventive Services Task Force, 2015; Heath et al., 2006).

Complete Streets policies (Laplante and McCann, 2008; McCann and Rynne, 2010; Smart Growth America, 2015b) support the routine design and operation of streets and communities that are safe for all people, regardless of age, ability, or mode of transport. Because each street is unique and exists within a specific community context, Complete Streets is an approach, not a single design (Smart Growth America, 2015b). Streets designed with this approach may include sidewalks, bike lanes, special bus lanes, comfortable and accessible transit stops, frequent crossing opportunities, median islands, accessible pedestrian signals, and curb extensions (Smart Growth America, 2015b). By applying this approach, communities can promote active forms of transportation which can then result in increases in physical activity among residents.

Several case studies have documented the benefits of Complete Streets policies on physical activity (Schlossberg et al., 2013). For example, after a “road diet” (where a roadway is modified to reduce the amount of space devoted to automobiles and allow more space for bike lanes and pedestrians) of a minor arterial roadway in Seattle, Washington, the volume of cyclists increased by 35% from 2007 to 2010 (Schlossberg et al., 2013). Another case study reported that introducing bike lanes to a busy street in Long Beach, California, nearly doubled the rate of cycling (Schlossberg et al., 2013). In addition to promoting physical activity, Complete Streets policies can make streets better and safer for drivers, transit users, pedestrians, and bicyclists (Laplante and McCann, 2008; McCann and Rynne, 2010; National Complete Streets Coalition, 2015; Smart Growth America, 2015b). They have also been associated with economic benefits for communities, such as higher property values and increased retail activity (National Complete Streets Coalition, 2015).

To evaluate the adoption of Complete Streets policies, decision makers, researchers, and practitioners at local, state, and national levels need easy access to data about where policies have been adopted, the characteristics of communities that have adopted these policies, and where policies are lacking or needed. Understanding the sociodemographic characteristics of communities that have adopted Complete Streets policies will help identify

types of communities that may benefit from greater education, resources, or support to adopt Complete Streets policies, while also identifying communities that have adopted Complete Streets policies and may now benefit from strategies for implementation.

To date, no study has examined the prevalence of adopting Complete Streets policies among a representative sample of U.S. municipalities. In 2014, the Centers for Disease Control and Prevention (CDC) used the National Survey of Community-Based Policy and Environmental Supports for Healthy Eating and Active Living (CBS HEAL) to query officials in a national sample of local municipalities about the presence of policies to support healthy eating and active living, including Complete Streets policies. These data provide information about the national prevalence of policies overall and by characteristics of the municipalities.

Using survey data to estimate the prevalence of policies can be challenging. Because the data are collected from a person, they are subject to information bias and possibly influenced by the respondent's awareness and understanding of Complete Streets policies. For some policy data, such as for Complete Streets policies, there are groups that also collect information about policy adoption. The National Complete Streets Coalition currently collects information about Complete Streets policies adopted by states, metropolitan planning organizations (MPOs), counties, and places (e.g., city, town, village) by monitoring the Internet and collecting information from partners (Smart Growth America, 2015c). This collection of policies can be used to examine the accuracy of self-reported data from a local official, such as what was done in CBS HEAL.

The purpose of this study is twofold. First, we estimate the prevalence of Complete Streets policies overall and by select municipality characteristics. Second, we compare the reporting of Complete Streets policies in CBS HEAL with the presence of these local policies in the National Complete Streets Coalition database overall and by select characteristics.

2. Methods

2.1 Data

2.1.1. National Survey of Community-Based Policy and Environmental Supports for Healthy Eating and Active Living (CBS HEAL)—

CBS HEAL was conducted from May through September 2014 by CDC's Division of Nutrition, Physical Activity, and Obesity. The original sample of potential respondents (4484 municipalities from all 50 U.S. states) was selected from the 2007 Census of Governments (COG) files, which list municipalities and townships by state (U.S. Census Bureau, 2007). In states with geographic overlap between municipal and town or township levels of government, the eligible sample pool was modified and townships were excluded. Municipalities with population size less than 1000 were excluded because during a pilot study conducted in two states, small communities were less likely to have policies and practices that support healthy eating and active living. Sampling was stratified by region and by the 30^{th} percentile of urbanized area to total area in a municipality and sorted by population size with a fixed sampling interval to create a nationally representative sample of municipalities. Participating municipalities were assigned sample weights to account for unequal probabilities of selection and varying rates of nonresponse.

The primary respondent for the survey was the city or town manager, city or town planner, or a person with similar responsibilities. Respondents were encouraged to ask municipal officials in other departments, such as tax, procurement, parks and recreation, or human resources, for help completing the survey if needed. Respondents were given a unique identifier that allowed them to complete the survey through a secure website. They also had the option of completing a paper version of the survey. A total of 2029 surveys were returned, for a response rate of 45%.

Questions about Complete Streets policies were asked during the second section of the survey, titled “The Built Environment and Policies that Support Physical Activity.” This section begins with the following introductory statement: “The next questions ask about policies or standards that support the physical activity of your community’s residents, even if the policy or standard was passed by another level of government (such as a regional transportation planning authority). You may find it helpful to consult with a representative in either the parks and recreation department or transportation department if you cannot answer a question.” Respondents answered “yes”, “no”, or “don’t know” to the following question: “Does your local government have a formal Complete Streets policy, as defined by the National Complete Streets Coalition, for designing and operating streets with safe access for all users?” The following definition was provided: “A Complete Streets policy, as defined by the National Complete Streets Coalition, is a policy ensuring that transportation planners and engineers consider the needs of all users during the design of major road projects, including bicyclists, pedestrians of all ages and abilities, public transit vehicles and riders, and motorists.”

Geographic variables, such as Federal Information Processing Standards (FIPS) place and state codes were obtained from the COG file (U.S. Census Bureau, 2007). All municipalities within the COG file have a FIPS place code, and these were used as their unique identifiers. If a county or MPO (identified using the current MPO Database (U.S. Department of Transportation and Federal Highway Administration)) covers at least 10% of the area of a municipality, a variable representing the percentage of the municipality’s area covered by the county or MPO was added. For example, if a county covers a municipality completely, the percentage is 100%; if a county covers half of the municipality, the percentage is 50%.

2.1.2. Merging data from the National Complete Streets Coalition database

—The National Complete Streets Coalition tracks Complete Streets policies each year in multiple ways. It identifies policies as they are being developed, considered, and adopted through daily notifications from Google Alerts (a service that searches the web for specific key words) and by monitoring activity on Twitter through relevant hashtags. In addition, the coalition has a long history of collaborating with local, state, and national partners, and these partners send updates about Complete Streets policies to the coalition directly. The coalition also sends requests for this information through e-newsletters and social media channels at the end of each year. Information about policies is confirmed by looking at the websites of local governments or by contacting them directly.

As of December 2014, the coalition’s database had information about 744 policies adopted by 30 states; Washington, DC; and 664 unique MPO, county, and municipality

level governments. Policies are reviewed, and codes are added for characteristics such as governmental level and year of adoption (Smart Growth America, 2015c). We added relevant FIPS place, county, and state codes to the coalition's database by matching names of jurisdictions from the database against lists of states, counties, and places from the U.S. Census Bureau (U.S. Census Bureau, 2014) and lists of MPOs from the DOT (U.S. Department of Transportation and Federal Highway Administration). Of the policies in the coalition's database, 47 (of 581) place or county level and 4 (of 59) MPO level policies could not be matched after both an automated match process followed by a manual attempt. Potential reasons for not matching are unknown but could include the following: official names were not used when a policy was submitted to the coalition, local places were not officially registered or incorporated, or names have changed over time.

When merged at the municipality level with the CBS HEAL sample of potential respondents, 345 policies (214 place, 50 county, 50 MPO, 30 state, and Washington, DC) adopted by unique jurisdictions were matched. When limited to municipalities with a completed CBS HEAL survey, 225 policies (109 place, 42 county, 45 MPO, and 29 state) were matched.

For our analysis, we categorized a municipality as covered by a county or MPO policy if at least 50% of its area was within a county or MPO with a Complete Streets policy. Sixty municipalities covered by multiple counties and one municipality covered by multiple MPOs were in the completed CBS HEAL sample. A place was considered covered by a state policy if it was located in a state with a policy. When multiple policies were identified as covering a single municipality, to categorize the policy we used the lowest governmental level of the policy and the earliest year of adoption. Earliest year of adoption was included as we expected agreement to improve with increasing length of adoption. Policies from the coalition's database at the place, county, and MPO levels were combined and categorized as local policies to align with how local policies were defined in the CBS HEAL questionnaire.

2.1.3. Municipality characteristics—Characteristics about municipalities were obtained from Census sources and merged by using each municipality's unique FIPS place code. Urban or rural status is based on the percentage of the population in an incorporated place that live in an urbanized area according to the 2010 U.S. Census Urban Area to Place Relationship File (U.S. Census Bureau). Municipalities with more than 50% of the population living in an urbanized area are urban; those with 50% or less are rural. The median education level (high school graduate, college graduate), poverty level (≥20% or <20% below poverty level) (U.S. Census Bureau), and race/ethnicity (≤50% or >50% non-Hispanic white) of the population of each municipality were estimated from the 2009–2013 American Community Survey (U.S. Census Bureau).

2.2. Statistical analysis

All analyses were weighted and performed using R version 3.0.1 (R Foundation for Statistical Computing, Vienna, Austria) with the survey package (version 3.29). Statistical results were deemed significant at $p < 0.05$.

2.2.1. Prevalence and odds of Complete Streets policies—

For U.S. municipalities, prevalence of having Complete Streets policies and associated 95% confidence intervals (CI) were calculated overall and by municipality characteristics (population size, rural/urban status, Census region, median education level, poverty level, and race/ethnicity). Multiple logistic regression analyses were conducted to examine the odds of reporting the presence of a Complete Streets policy adjusted for municipality characteristics. Pairwise *t*-tests and linear tests for trends were used to identify differences by characteristics and significant trends.

2.3. Agreement between Complete Streets policies in the coalition's database and reported in CBS HEAL

Because the intent of the Complete Streets policy question in CBS HEAL was to capture local policies, we limited analysis of the agreement between reports from CBS HEAL to local policies (place, county, or MPO level) found in the coalition's database. Cross tabulations between what was found in the coalition's database and what was reported by local officials in CBS HEAL were examined overall and by government level and year of adoption. For the analysis of agreement, reports of "don't know" by local officials in CBS HEAL were combined with "no" responses. Kappa coefficients were estimated and described according to the following cut points: almost perfect (> 0.76), substantial (0.46–0.75), moderate (0.21–0.45), and fair (0.00–0.20) (Munoz and Bangdiwala, 1997). Pairwise *t*-tests were used to identify significant differences in kappa coefficients by subgroups.

3. Results

3.1. Complete Streets policies from CBS HEAL by municipality characteristics

In the United States, 25.2% of municipalities had Complete Streets policies reported by a local official (Table 1). Prevalence increased as population size increased, from 16.1% in municipalities with < 2500 people to 49.6% in those with ≥ 50,000 people (*p*-value for linear trend < 0.001). This trend remained significant (*p*-value for linear trend < 0.001) when examining the odds of a Complete Streets policy being reported and simultaneously controlling for other municipality characteristics. Prevalence was lowest in the South and highest in the West. Prevalence estimates of reported Complete Streets policies were also higher for urban municipalities and those with higher median education level, lower poverty level, and lower percentage of non-Hispanic whites. However, only the difference by median education level remained significant when examining the odds of reporting a Complete Streets policy while controlling for other municipality characteristics. An estimated 16.8% of local officials did not know whether their municipality had a Complete Streets policy, and this finding did not significantly differ by municipality characteristics.

3.2. Cross tabulation between Complete Streets policies in the coalition's database and reported in CBS HEAL

Differences in whether a policy listed in the coalition's database was also reported in CBS HEAL were found by governmental level and was highest when it was at the place level (81.2%, Table 2). The percentage of officials reporting "don't know" in CBS HEAL was

higher for municipalities with a county or state policy than for those with a place or MPO policy.

For municipalities with a local level policy listed in the coalition's database, 44.2% responded "yes" when asked about Complete Streets policies in CBS HEAL while 14.3% responded "don't know" (Table 2). Year of adoption was not significantly associated with the reporting of local level policies.

3.3. Agreement between Complete Streets policies in the coalition's database and as reported in CBS HEAL

The overall percentage of agreement between reports of Complete Streets policies from CBS HEAL and local policies from the coalition's database was 72.5%, and agreement was moderate (kappa = 0.21, Figure 1) (Munoz and Bangdiwala, 1997). Significant differences in agreement were observed by population size of the municipality (agreement increased from fair to moderate as population size increased), urban/rural status (agreement was higher for urban municipalities), and median education level (agreement was higher for municipalities with higher median education levels).

4. Discussion

In 2014, local officials in 25.2% of incorporated municipalities in the United States with a population of at least 1000 people reported a Complete Streets policy. About 16.8% reported they did not know if their municipality had such a policy. Prevalence of policies increased as population size increased, was lowest in the South, and was higher for municipalities with a higher median education level. The percentage of agreement between the CBS HEAL and coalition's database was considered to be moderate at 72.5%, and it was lower among municipalities with a smaller population size, those located in rural areas, and those with a lower median education level. Taken together, our findings indicate that there is much room for improvement in the awareness and adoption of Complete Streets policies. Going forward, it will be important to address the challenges related to the awareness, adoption, and implementation of Complete Streets policies.

We found that local Complete Streets policies were less likely in smaller municipalities, those in the South, and those with lower median education levels. Our study does not allow us to determine the reasons for these patterns; however, there may be at least 2 explanations to consider as contributing to them. First, some communities may have fewer resources, capacity or awareness of Complete Streets policies to prioritize, adopt, and implement such policies. For example, larger communities may have larger organizations which may have greater funding and staff capacity to promote the adoption of new policies (Mohr, 1969). Developing tools and resources for smaller communities may be an important step to address the challenges experienced by these communities. Second, regional differences in Complete Streets policy adoption may be compounded given that adoption may cluster in bordering communities (Moreland-Russell et al., 2013). Advancing regional trainings, especially for southern communities, may be worth considering.

Almost 17% of local officials reported they did not know whether their municipality had a policy. This finding suggests that improving the awareness and knowledge of Complete Streets policies among local officials may be an important step to increase adoption and implementation of these policies. Future research may want to examine not only how characteristics of a municipality can influence policy adoption but also how these characteristics may influence awareness or reporting where both are important issues related to policy assessment and implementation.

Agreement between reports by local officials in CBS HEAL and Complete Streets policies in the coalition's database was moderate when limited to local policies. The percentage of agreement was higher when we examined place level policies alone so some of the differences could be explained by whether a local official considered or was aware of policies at all governmental levels (place, county, or MPO). One reason policies may not have been present in the coalition's database but were reported in CBS HEAL is because local officials misreported the presence of informal Complete Streets policies. We also observed differences in agreement by population size, urban/rural status, and median education level. These differences could be in part due to the sensitivity of the kappa coefficient to prevalence, with the kappa coefficient tending toward zero as the prevalence approaches zero or one (Sim and Wright, 2005). This could lead to a lower kappa coefficient within subgroups where the prevalence of Complete Streets policies is especially low (such as for municipalities in rural areas) which could also influence where significant differences are found (such as between rural and urban municipalities). Differences could also be explained simply by a true difference in awareness due to a number of contributing factors such as competing priorities and lack of available resources (e.g., staff, training). Providing resources to help communities, especially smaller and more rural communities, address these issues may help increase the awareness and adoption of Complete Streets policies.

Our study focuses on the presence of Complete Streets policies but it does not provide information about the elements contained in these policies or their degree of implementation (Smart Growth America, 2013, 2015a). What factors move jurisdictions from adoption to implementation and how this process differs by community characteristics is an important area for future inquiry. Further information, such as the funding and implementation actions tied to the adoption of these policies, is needed to delineate at what implementation stage is the policy. It would also be informative to examine whether the stage or strength of the policy differs by municipality characteristic. For example, do policies adopted by minority communities take the form of weaker legislative documents such as resolutions (which are non-binding statements of support that do not require action)? This information could then influence how effective policies are at changing communities. Future work may also wish to examine if differences in implementation are associated with the governmental level of the policy. For example, is the adoption of a state policy sufficient to bring about implementation, and are there local actions that can be paired with state level policies to ensure their implementation? What role can other factors, such as the presence of community coalitions or the availability of staff and funding, play in bringing about implementation?

Our findings have multiple implications for policy surveillance. First, they suggest that when local officials are asked about Complete Streets policies, place level policies are most frequently reported. Improving the consistency of how these types of surveillance questions are asked and interpreted (i.e., should policies at all levels be reported?) is an important area of future work. Second, limiting surveillance to local policies alone may be problematic as this can be influenced by the presence of a policy at a higher level. We defined coverage using geographic boundaries; however, it is important to note that coverage at certain higher levels of government may not apply to all roads and spaces. For example, state level policies may only apply to state-owned roadways or MPOs may have limited power to ensure that municipality level projects conform to their policies. When conducting policy surveillance, researchers may need to ask local officials separately about policies at all levels of government and to what degree these higher level policies influence local activity to fully capture the policy landscape. Another option could be to ask officials at different levels of government separately about their policies. It may also be important for the actual policy to be collected and reviewed for key elements, although this may be resource intensive. Future research can help to determine the most efficient and systematic methods of collecting policy data and the potential roles that partners can play.

Our study is not without limitations. First, because our estimates are based on a national sample of municipalities and are not from a census-based system, issues related to survey sampling and nonresponse bias are possible. By design, unincorporated areas were excluded from the initial sample selection, as were municipalities with populations less than 1000. Thus, our findings can only be generalized to incorporated municipalities with populations larger than 1000. The low response rate also could have introduced nonresponse bias, but our weighting and survey methods may have minimized this problem. Second, data in CBS HEAL are self-reported by a specific respondent, such as a city manager or person of similar title, and responses may be subject to information bias as there were high rates of unknowns. Third, to examine the validity of information collected in CBS HEAL, the coalition's database was used. Policies in the coalition's database are collected through monitoring of the Internet (Google Alerts and Twitter) and updates from local partners, and we cannot be sure of the completeness of the information. For about 17% of local policies, the policy was reported as present by a local official but was not found in the coalition's database. Finally, only information about the adoption of policies, and not about the degree of implementation was collected.

Our study also has many strengths. To our knowledge, no other study has used a national sample of municipalities to estimate the prevalence of Complete Streets policies overall or by municipality characteristics. We also compared the information from local officials in CBS HEAL with policies in the National Complete Streets Coalition's database. Evaluating the validity of measures of policy existence in surveys is challenging because validity testing often requires a criterion or gold standard to compare against. Although the coalition's database does not meet the criterion to be a gold standard because information about the completeness of the data is not available, merging its data with the CBS HEAL data allowed us to explore the agreement between these sources and to examine how agreement varied by municipality characteristics.

5. Conclusion

In 2014, 25.2% of municipalities in the United States had a Complete Streets policy as reported by a local official. Significant differences were found in the prevalence of local policies by population size, median education level, and U.S. Census region. Agreement between local level Complete Streets policies in the coalition's database and as reported by local officials was moderate with differences by population size, rural status, and median education level. Almost 17% of local officials reported they did not know if their municipality has a Complete Streets policy. There is room for improvement in the awareness and adoption of Complete Streets policies, especially among smaller municipalities and those with lower median education levels. Helping communities address issues related to the awareness, adoption, and implementation of Complete Streets policies can be an important step toward creating more walkable communities.

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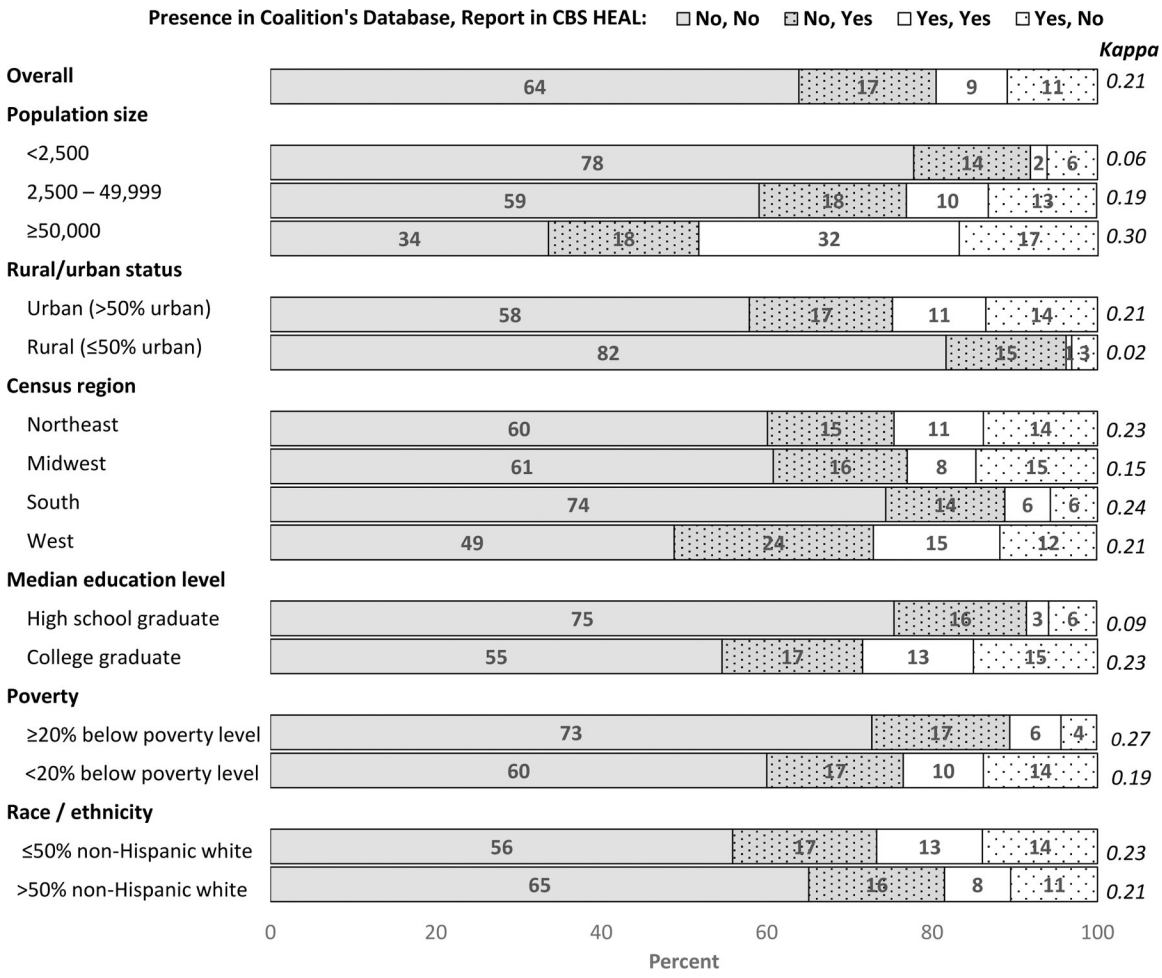

Fig 1.

Percentage agreement between reports by local officials in CBS HEAL and presence of a local policy in the National Complete Streets Coalition database by select municipality characteristics, CBS HEAL, 2014.[a, b]

[a] Includes the 2029 municipalities in the CBS HEAL sample. Estimates weighted to account for unequal probabilities of selection and varying rates of nonresponse. Five respondents did not answer the question related to the presence of Complete Streets policies and were categorized as “don’t know”. Municipalities that responded “don’t know” where included with the “no” responses.

[b] Local policies defined as those at the place, county, or MPO level.

Table 1

Prevalence of a local-officials report of a Complete Streets policy among U.S. municipalities by municipality characteristics, CBS HEAL, 2014.[a]

Municipality characteristic	Sample size	Weighted		Municipalities reporting a Complete Streets policy						Adjusted odds of reporting a Complete Streets policy[c]	
				Yes		No		Don't know[b]			
		n	%	%	SE	%	SE	%	SE	AOR	95% CI
Total	2029	10205	100	25.2	1.0	58.0	1.1	16.8	0.8	--	
Population size[a]											
<2500	721	3553	34.8	16.1	1.4	66.2	1.8	17.7	1.4	1.00	Referent
2500–49,999	1165	5950	58.3	27.8	1.3	56.0	1.5	16.3	1.1	1.57	(1.12, 2.20)
≥50,000	143	702	6.9	49.6	4.2	34.1	4.0	16.3	3.1	3.18	(1.96, 5.16)
Rural/urban status											
Urban (>50% urban)	1488	7633	74.8	28.6	1.2	55.0	1.3	16.5	1.0	1.24	(0.85, 1.81)
Rural (≤50% urban)	541	2572	25.2	15.2	1.5	67.0	2.0	17.7	1.6	1.00	Referent
Census region											
Northeast	235	1482	14.5	26.1	2.9	58.4	3.2	15.5	2.3	1.41	(0.98, 2.03)
Midwest	750	3584	35.1	24.5	1.6	59.9	1.8	15.6	1.3	1.37	(1.04, 1.80)
South	708	3673	36.0	19.9	1.5	61.7	1.8	18.4	1.5	1.00	Referent
West	336	1466	14.4	39.5	2.6	43.6	2.7	16.9	2.0	2.05	(1.50, 2.80)
Median education level											
High school graduate	895	4534	44.4	18.7	1.3	63.5	1.6	17.7	1.3	1.00	Referent
College graduate	1134	5671	55.6	30.4	1.4	53.6	1.5	16.0	1.1	1.52	(1.20, 1.94)
Poverty											
≥20% below poverty level	614	3088	30.3	23.0	1.7	59.6	2.0	17.4	1.5	1.00	Referent
<20% below poverty level	1415	7117	69.7	26.2	1.2	57.3	1.3	16.5	1.0	0.94	(0.72, 1.21)
Race/ethnicity											
≤50% non-Hispanic white	269	1361	13.3	30.2	2.8	51.7	3.0	18.1	2.3	1.31	(0.95, 1.81)
>50% non-Hispanic white	1760	8844	86.7	24.4	1.0	59.0	1.2	16.6	0.9	1.00	Referent

SE: standard error, AOR: adjusted odds ratio, CI: confidence interval.

[a]Sample pool of potential respondents based on 2007 Census of Governments (COG) files, which list municipalities and townships by state. Municipalities with populations less than 1000 were excluded from the sample pool. In states with geographic overlap between municipal and township levels of government, sample pool was modified to avoid duplication. Estimates weighted to account for unequal probabilities of selection and varying rates of nonresponse.

[b] Five respondents did not answer the question related to the presence of Complete Streets policies and were categorized as "don't know".

[c] Multiple logistic regression models included population size, rural/urban status, Census region, median educational level, poverty level, and race/ethnicity.

Table 2

Cross-tabulation of report by local official in CBS HEAL and presence in the National Complete Streets Coalition database by governmental level and adoption year of policy, CBS HEAL 2014

Presence in the Coalition's database by policy characteristics[c]	Distribution of municipalities[a]				Reported Presence of Complete Streets policy in CBS HEAL					
					Yes		No		Don't know[b]	
	Sample Size	Weighted			%	SE	%	SE	%	SE
		n	%	SE						
Any Policy										
Lowest governmental level of policy										
Any policy present	1525	7790	76.3	0.9	27.4	1.1	55.6	1.3	17.1	1.0
Place	109	559	5.5	0.5	81.2	3.8	7.8	2.7	11.0	3.0
County	129	669	6.6	0.6	27.4	4.0	54.4	4.4	18.2	3.4
MPO	157	768	7.5	0.6	32.0	3.7	54.7	4.0	13.3	2.7
State	1130	5794	56.8	1.1	21.5	1.2	60.4	1.5	18.0	1.1
No policy present	504	2415	23.7	0.9	18.3	1.7	65.8	2.1	15.8	1.6
Local Level Policies Only [d]										
Earliest year of local level policy adoption										
Any local level policy present	395	1996	19.6	0.9	44.2	2.5	41.5	2.5	14.3	1.8
2001–2004	40	193	1.9	0.3	32.9	7.5	42.4	7.8	24.7	6.8
2005–2008	80	384	3.8	0.4	46.4	5.5	39.8	5.5	13.7	3.9
2009–2012	199	1016	10.0	0.7	48.3	3.6	40.0	3.5	11.7	2.3
2013–2014	76	403	4.0	0.4	37.2	5.6	46.3	5.8	16.5	4.2
No local level policy present	1634	8209	80.4	0.9	20.6	1.0	62.0	1.2	17.4	0.9

SE: standard error, MPO: Metropolitan Planning Organization.

[a] Includes the 2029 municipalities in the CBS HEAL sample. Estimates weighted to account for unequal probabilities of selection and varying rates of nonresponse.

[b] Five respondents did not answer the question related to the presence of Complete Streets policies and were categorized as "don't know".

[c] Includes 225 policies (109 place, 42 county, 45 MPO, and 29 state).

[d] Local policies defined as those at the place, county, or MPO level.