

# Research Brief



## RACE and ETHNICITY of LOCAL HEALTH DEPARTMENT EMPLOYEES

### INTRODUCTION

NACCHO's 2007-2008 Strategic Plan included an objective "address the under-representation of racial and ethnic communities in the public health workforce and leadership" under the strategic direction focused on ensuring a competent, productive workforce for local health departments. The 2005 National Profile of Local Health Departments (Profile) study collected information on the race and ethnicity of the top executive of the local health department (LHD) as well that of the LHD workforce as a whole. This research brief examines the data on race and ethnicity of LHD top executives and compares it to data collected in the 1992-93 Profile study. The 2005 Profile study was the first national-level survey to collect data on race and ethnicity of LHD employees. This research brief examines the overall racial and ethnic composition of the LHD workforce and how the racial and ethnic composition of LHDs' workforces compares to that of the jurisdictions they serve.

This research brief is intended to provide NACCHO's leadership and members with a baseline from which they can gauge progress against a strategic plan objective and also to provide information to public health policymakers and organizations that influence the "pipeline" for LHD staff, such as schools of public health, colleges and universities.

### Summary of Findings

Ninety-three percent of LHDs have White top executives, and these LHDs serve approximately 82 percent of the U.S. population. Five percent of LHDs have Black top executives, and these LHDs serve approximately 15 percent of the U.S. population. One percent of LHDs have Hispanic top executives, and these LHDs serve approximately five percent of the U.S. population.

Nationwide, the racial and ethnic composition of LHD employees is similar to that of the U.S. population. Approximately 15 percent of LHD employees are Black, 10 percent are other races, and 11 percent are Hispanic. In most LHDs, White employees are over-represented relative to the percentage of White residents in their jurisdictions. In most LHDs, Black employees, employees of other races, and Hispanic employees are under-represented relative to their percentages in the jurisdiction. In most LHDs, these excesses and deficits are between zero and five employees. The percentages of LHDs that have larger deficits of Black, other race, and Hispanic employees are relatively small (8%, 16%, and 11%, respectively).

### METHODOLOGY

The 2005 Profile study collected data on seven racial categories (White, Black, American Indian/Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Some Other Race, Two or More Races) plus Hispanic ethnicity for both jurisdiction population and LHD staff. Data on jurisdiction and top agency executive race and ethnicity were collected in the Profile core questionnaire (sent to all LHDs); data on staff race and ethnicity were collected in a Profile module (sent to a statistical sample of 520 LHDs). The response rate was 80% for the core questionnaire and 82% for the module that included workforce questions. A total of 398 LHDs provided data on the race and ethnicity of their employees. More information about the methodology for the 2005 Profile study is available in the main report of the study findings.<sup>1</sup>

### LHD Top Executive

Percentages of LHD top executives in each racial and ethnic group were computed for all LHDs. For subgroup analyses, all racial categories other than White and Black were combined in to a single category, "other races." The percentages of the U.S. population served by LHDs of selected racial and ethnic groups were estimated by dividing the total population of LHD jurisdictions with top executives in each racial or ethnic group by the total population of all responding LHDs.

### LHD Workforce

Three different analyses of the racial and ethnic composition of the LHD workforce were conducted:

1. **Overall Percentages** – Estimates the overall percentages of the LHD workforce in selected racial and ethnic groups
2. **Percentage Comparison** – Compares the percentage of employees of races other than White and Hispanic employees in each LHD to these percentages in the jurisdiction it serves
3. **Employee Number Comparison** – Compares the actual numbers of LHD employees in selected racial and ethnic groups to hypothetical "expected" numbers of employees if the composition of the LHD's workforce were identical to that of the jurisdiction it serves.

Details about calculations for each analysis are provided in the end notes.

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## RESULTS

### LHD TOP EXECUTIVE

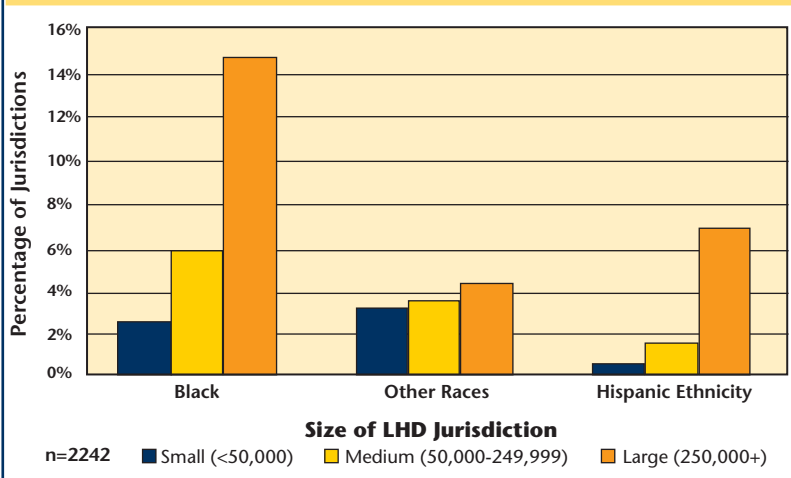
**Table 1** summarizes data on race and ethnicity of LHD top executives collected in the 2005 and 1992-93 Profile studies. In 2005, 93 percent of LHD top executives were White, a decrease of three percent from 1992. Five percent of LHD top executives were Black in 2005, compared with two percent in 1992. Less than two percent of LHD top executives are in any of the other racial categories or are of Hispanic ethnicity.

**Table 1: Race and Ethnicity of LHD Top Executives (2005 and 1992-93)**

Race/Ethnicity of Top Executive	Percent of Responding LHDs	
	2005	1992-93
White	92.7%	96.2%
Black	4.7%	1.9%
American Indian/Alaska Native	1.6%	0.2%
Asian or Pacific Islander	1.2%	0.8%
Some other race	0.6%	1.0%
Hispanic ethnicity	1.5%	1.7%

**Figure 1** shows that the percentages of LHD top executives that are Black or Hispanic are higher for LHDs serving larger populations. The percentage of LHD top executives of other races varies little by jurisdiction population size.

**Figure 1: Race and Ethnicity of LHD Top Executives (by Size of Jurisdiction Population)**



**Table 2** illustrates how the higher percentage of Black and Hispanic top executives in large jurisdictions affects the percentage of the U.S. population served by LHDs that are

headed by Black or Hispanic executives. The 109 LHDs reporting Black top executives serve approximately 15 percent of the total population served by respondents to the 2005 Profile. The 32 LHDs reporting Hispanic top executives serve approximately 5% of the total respondent population.

**Table 2: Percentage of LHDs and Percentage of U.S. Population Served by Top Executives in Selected Racial and Ethnic Groups**

	Percent of Responding LHDs	Percent of Population Served by Respondents
White	93%	82%
Black	5%	15%
Other races	3%	3%
Hispanic ethnicity	1%	5%

### LHD WORKFORCE

#### Overall Percentages

**Table 3** provides estimates of the percentage of LHD staff nationwide in various racial and ethnic groups and compares them to the percentage of the U.S. population in these racial and ethnic groups (based on 2005 U.S. Census Bureau estimates).

**Table 3: Race and Ethnicity Estimates for the LHD Workforce**

Race or Ethnicity	Percentage of LHD Staff	Percentage of U.S. Population*
White	74.0%	80.2%
Black	14.7%	12.8%
American Indian	0.3%	1.0%
Asian	2.7%	4.3%
Pacific Islander	0.1%	0.2%
Two or more	0.5%	1.5%
Some other	6.3%	not included
Hispanic ethnicity	11.2%	14.4%

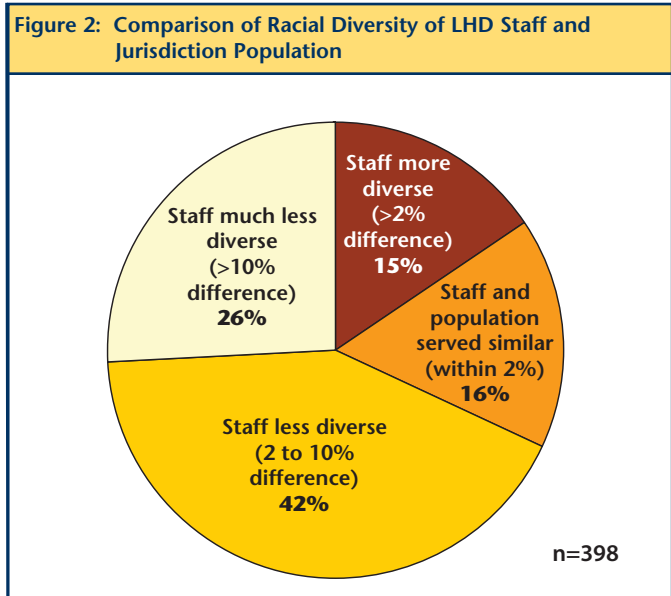
\*Based on U.S. Census Bureau estimates for 2005.<sup>2</sup>

Because these estimates are based on a relatively small sample (388 observations), their uncertainty is large, and they must be viewed as approximations. These data suggest that the overall racial and ethnic composition of the LHD workforce is similar to that of the U.S. population. A larger sample or a census design is needed to make more precise comparisons.

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**Percentage Comparison**

Data on race for all LHDs is summarized in **Figure 2**. Overall, LHD staff is less diverse than the jurisdiction population in 42 percent of LHDs and much less diverse in 26 percent of LHDs. LHD staff and jurisdiction population are similar (within +/- 2%) in 16 percent of LHDs, and staff are more diverse than jurisdiction population in 15 percent of LHDs.



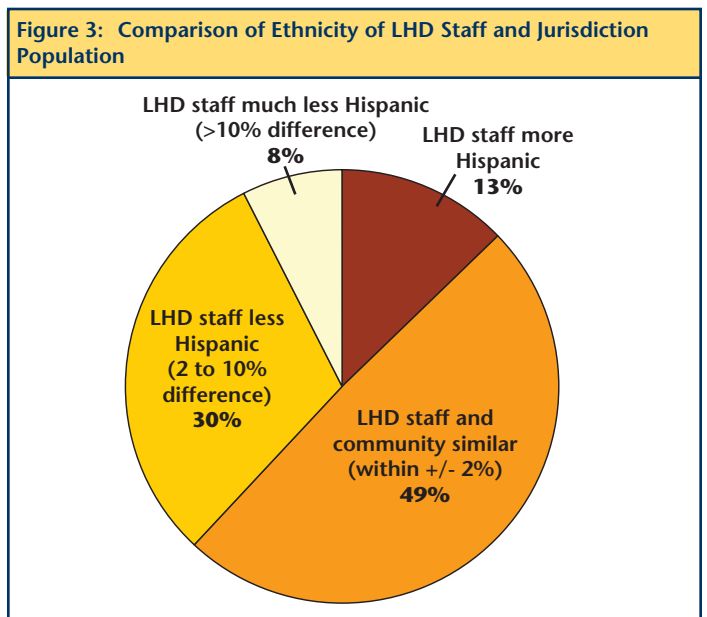
**Table 4: Percentages of LHDs with Staffs Less Racially Diverse the Jurisdiction Population**

	Percentage	Number of Observations	95% Confidence Interval
<b>All LHDs</b>	<b>68%</b>	<b>398</b>	<b>63%-73%</b>
<i>By jurisdiction population size</i>			
LHDs serving <50,000	71%	180	64%-78%
LHDs serving 50,000 - 249,999	68%	154	61%-76%
LHDs serving 250,000+	46%	64	34%-58%
<i>By number of LHD employees</i>			
1 to 10 employees	75%	91	66%-84%
11 to 50 employees	67%	148	59%-75%
51 to 100 employees	76%	55	65%-87%
101+ employees	49%	94	39%-60%
<i>By diversity of LHD jurisdiction</i>			
less than 10% population races other than White	61%	178	54%-69%
10 - 20% population races other than White	79%	93	71%-87%
more than 20% population races other than White	73%	127	65%-80%

**Note:** Includes the categories “less diverse” and “much less diverse” described in the methods section.

The data in **Table 4** show that these statistics vary among LHDs of different sizes. The racial composition of LHD staffs serving large populations are more similar to the racial composition of their jurisdictions than for LHDs serving small populations. The staffs of 46 percent of LHDs that serve large populations (250,000 or more) are less diverse than their jurisdiction population. In contrast, 71 percent of LHDs that serve small populations (less than 50,000) employ staffs that are less diverse than their jurisdiction population. Number of LHD staff is strongly correlated to jurisdiction population size, and subgroup analysis by number of LHD employees shows similar trends. LHDs that employ more than 100 employees are more likely to reflect the racial diversity of their communities than LHDs employing fewer staff. Approximately half of LHDs with more than 100 employees are similar or more diverse than their communities, compared with approximately one-third of LHDs with 11 to 50 employees. The similarity in the racial composition of LHD staff and jurisdiction does not vary greatly by the racial diversity of the jurisdiction.

Data for ethnicity for all LHDs is summarized in **Figure 3**. Overall, LHD staffs are less Hispanic than the jurisdiction populations in 30% of LHDs and much less Hispanic in 8% of LHDs. LHD staffs and jurisdiction populations are similar in 49% of LHDs, and LHD staffs are more Hispanic than jurisdiction population in 13% of LHDs.



In contrast to race, there is little difference in these statistics when examined by jurisdiction population size or number of LHD employees (**Table 5**). In jurisdictions with substantial Hispanic populations, the gap between LHD staff and jurisdiction ethnicity is much larger than for jurisdictions with small Hispanic populations. For jurisdictions where 10 percent or more of the population is Hispanic, 70 percent of LHDs have staffs that are less Hispanic than the jurisdiction population.

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**Table 5: Percentage of LHDs with Staffs Less Hispanic than Jurisdiction Population**

	Percentage	Number of Observations	95% Confidence Interval
<b>All LHDs</b>	<b>38%</b>	<b>369</b>	<b>33%-43%</b>
<b>By Jurisdiction Ethnicity</b>			
10% or more Hispanic	70%	76	59%-81%
Less than 10% Hispanic	31%	293	26%-37%
<b>By Jurisdiction Population Size</b>			
<50,000	37%	159	29%-45%
50,000 - 249,999	39%	147	30%-47%
250,000 +	42%	63	30%-54%
<b>By Number of LHD Employees</b>			
1 to 10 employees	44%	83	33%-55%
11 to 50 employees	35%	133	26%-43%
51 to 100 employees	30%	50	17%-44%
101+ employees	37%	93	27%-47%

**Note:** Includes the categories “less Hispanic” and “much less Hispanic” described in the methods section.

## Employee Number Comparison

**Table 6** summarizes data from the comparison of actual and expected numbers (based on the racial and ethnic composition of the jurisdictions) of LHD employees in selected racial and ethnic groups. These data indicate that most LHDs have a small excess (between 0 and 5 employees) of White employees and a small deficit (between 0 and 5 employees) of employees that are Black, other races, and of Hispanic ethnicity. The percentages of LHDs that have larger deficits of Black, other race, and Hispanic employees are relatively small (8%, 16%, and 11%, respectively).

**Table 6: Differences Between Actual and Expected Number of Employees in Selected Racial and Ethnic Groups**

Difference between Actual and Expected Numbers of Employees	Percentage of Respondents			
	White	Black	Other Races	Hispanic Ethnicity
Greater than 10 fewer	7%	4%	8%	6%
Between 5 and 10 fewer	3%	4%	8%	5%
Between 0 and 5 fewer	11%	66%	70%	66%
Between 0 and 5 more	59%	16%	9%	18%
Between 5 and 10 more	10%	2%	2%	2%
Greater than 10 more	10%	7%	3%	4%
Number of Observations	388	388	385	359

It is important to note that computing differences in absolute numbers of employees does not account for variations in size of the workforce at LHDs. An excess of two employees might be interpreted differently for LHDs that employ 100 versus 10 employees.

## Limitations of Analyses

The analyses presented in this research brief have a number of limitations. Profile data are self-reported by LHDs and are not independently verified. The 2005 Profile had response rates of 80% for the core questionnaire and 82% for the workforce module. Response rates in five states (HI, MA, NJ, TN, WY) were less than 60%; thus, the data may not accurately represent all LHDs in those states. Data on LHD staff race and ethnicity are based on a statistical sample, which makes their uncertainty relatively large. Examination of the data suggests that some respondents may have interpreted Hispanic ethnicity as a race, and thus included Hispanic employees in the “some other race” category rather than reporting Hispanic ethnicity in the separate question. This adds additional uncertainty to these data.

Any set of categories used to summarize continuous data is arbitrary. This includes the categories used to summarize data comparing percentages of LHD staff and community residents and comparing actual and expected numbers of LHD employees. It is particularly important to recognize that the definition of “similar” as within plus or minus two percent is an arbitrary figure that was selected to result in categories with meaningful numbers of LHDs. For example, if “similar” was defined as within plus or minus five percent, then LHD staff and jurisdiction population would be classified as similar in 44 percent of jurisdictions rather than 16 percent. Particularly for LHDs with small numbers of employees, adding or subtracting one employee can move the LHD from “similar” to “less diverse” or vice versa.

## DISCUSSION AND IMPLICATIONS

The U.S. population continues to become more racially and ethnically diverse. U.S. Census Bureau estimates for 2005 show that 98 million people—about one-third of the U.S. population are part of a racial or ethnic minority group.<sup>2</sup> Furthermore, 45 percent of children under age five are members of minority groups. LHDs must adapt their services and activities as the populations they serve change. The expertise and experience of staff who know minority communities can help them better identify, communicate with, and engage their diverse markets.

Traditionally, arguments for workforce diversity have focused on fairness or remedying past inequalities. Today, the case



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for workforce diversity focuses on a diverse workforce as a competitive advantage in providing quality services to minority or disadvantaged populations. Is there evidence that a diverse workforce results in higher quality services or improved public health? Though much of the relevant research on workforce diversity focuses on health care providers (specifically physicians) rather than public health agencies, these findings are relevant for LHDs, particularly those that provide clinical services. A 2006 HRSA-sponsored review of the evidence for diversity in the health professions identified four separate hypotheses for how a diverse workforce will lead to improvements in public health, three of which are relevant to LHDs.<sup>3</sup>

**The concordance hypothesis:** Providing greater opportunity for minority patients to see a practitioner from their own racial or ethnic group or who speaks their primary language will improve the quality of communication, trust, partnership and decision making in patient-practitioner relationships, ultimately resulting in improved health outcomes.

**The trust in health care hypothesis:** Greater diversity in the public health workforce will increase trust in the LHD among minority and socioeconomically disadvantaged population, and will thereby increase their propensity to use LHD services that lead to improved health outcomes.

**The professional advocacy hypothesis:** LHD staff from racial and ethnic minority and socioeconomically disadvantaged backgrounds will be more likely than others to provide leadership and advocacy for policies and programs aimed at improving the health of vulnerable populations.

The HRSA review included 36 studies that examined the concordance hypothesis and two that examined the trust hypothesis, but did not identify any studies that addressed the professional advocacy hypothesis. The studies reviewed focused on health care practitioners, mainly physicians. The review showed that some, but not all, of these studies demonstrated support for the concordance hypothesis. In these studies, minority patients tended to receive better interpersonal care from practitioners of their own race or ethnicity, and non-English speaking patients experienced better interpersonal care and greater medical comprehension when they saw a practitioner who spoke their primary language. The small number of studies examining the trust in health care hypothesis did not provide sufficient evidence to determine whether greater diversity in health professions leads to greater trust in health care. An evidence base for the importance of a diverse workforce is growing, but more research and evaluation—particularly for public health services—is needed.

The data on staff race and ethnicity collected in the 2005 Profile study represent a small but important step towards understanding the diversity of LHD staff. They are the first data on the overall LHD workforce collected on a nationally-representative sample of LHDs and suggest that while the overall racial and ethnic composition of the LHD workforce is similar to that of the U.S., racial and ethnic minorities are underrepresented in many LHDs. The data also show that the numbers of LHD top executives that are Black, Hispanic, or of other races are still small, but growing.

However, the data have significant limitations. The relatively small size of the LHD workforce sample permits analysis only for broad categories (White, Black, other races, Hispanic) and precludes meaningful analysis for specific racial or ethnic groups. The 2005 Profile did not collect race and ethnicity information for specific occupations or categories of occupations. Thus, the data cannot distinguish between an LHD that employs people of color throughout all occupations and an LHD where all of the employees of color are in clerical or other non-professional positions. The data collected in the 2005 Profile permit comparisons of the LHD staff with its jurisdiction population, but do not allow comparisons with its service population. This may be particularly important for LHDs with extensive clinical programs. In some cases, the racial or ethnic composition of patients or clients may differ significantly from that of the jurisdiction as a whole. Finally, the 2005 Profile study did not collect data about languages spoken by LHD staff, an important aspect of an LHD's capacity to provide culturally competent programs and services. NACCHO will consider ways to strengthen collection of data on race and ethnicity of the LHD workforce as plans for new Profile studies are developed.

### REFERENCES

- <sup>1</sup> National Association of County and City Health Officials. (2006). *2005 National Profile of Local Health Departments*. NACCHO: Washington, DC.
- <sup>2</sup> U.S. Census Bureau. (2005). *Annual Estimates of the Population by Sex, Race and Hispanic or Latino Origin for the United States: April 1, 2000 to July 1, 2005*.
- <sup>3</sup> Health Resources and Services Administration Bureau of Health Professions. (2006). *The Rationale for Diversity in the Health Professions: A Review of the Evidence*. U.S. Department of Health and Human Services: Washington, DC.

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## ENDNOTES

These endnotes provide additional details about the analyses reported in this research brief.

### Overall Percentages

Total numbers of LHD employees in each racial and ethnic group were estimated using sampling weights that reflect both the probability of each LHD being selected for the sample and the differential response rates across different jurisdiction population categories. Percentages were computed by dividing the estimates for each racial or ethnic group by the estimated total number of LHD employees.

### Percentage Comparison

To simplify the data presentations that compared race and ethnicity of each LHD's staff to its jurisdiction population, all racial groups other than White were combined into a single category (other races).

The difference in the percentages of the LHD staff and LHD jurisdiction population that are other races was computed for each LHD. The corresponding differences were also computed for ethnicity (comparing the percentage of LHD staff and jurisdiction population that are Hispanic).

$$\text{Race Difference} = \% \text{ Other Races (LHD staff)} - \% \text{ Other Races (LHD jurisdiction population)}$$

$$\text{Ethnicity Difference} = \% \text{ Hispanic (LHD staff)} - \% \text{ Hispanic (LHD jurisdiction population)}$$

A positive difference indicates a higher percentage of employees of other races or Hispanic ethnicity compared to the jurisdiction population. A negative difference indicates a lower percentage of employees of other races or Hispanic ethnicity compared to the jurisdiction population. Four categories of difference were used for the purpose of data presentation:

Difference > 2%	Staff more diverse (or more Hispanic)
-2% <= Difference <= 2%	Staff and jurisdiction similar
-2 < Difference >= -10%	Staff less diverse (or less Hispanic)
Difference < -10%	Staff much less diverse (or much less Hispanic)

Sampling weights that reflect both the probability of each LHD being selected for the sample and the differential response rates across different jurisdiction population categories were used to estimate the percentage of LHDs in each of the four categories. Percentages were estimated for all LHDs and for subgroups of LHDs based on size of the LHD jurisdiction, number of LHD staff, and diversity of the LHD jurisdiction.

### Employee Number Comparison

The "expected number" of LHD employees of a particular race and ethnicity was defined as the number of employees of that race or ethnicity that the LHD would employ if the racial or ethnic composition of its workforce was identical to that of its jurisdiction. For example, if an LHD employs 20 staff members and its jurisdiction population is 80% White, 15% Black and 5% Other Races, the expected numbers of staff of these races are 16, 3, and 1, respectively. The differences between the actual and expected number of employees for three race categories (White, Black, other races) and Hispanic ethnicity were computed for each LHD.

$$\text{Difference (race/ethnicity)} = \text{Actual Number of Employees} - \text{Expected Number of Employees}$$

A positive number indicates that there are more employees of that race or ethnicity than would be expected based on the racial or ethnic composition of the jurisdiction. A negative number indicates that there are fewer employees

of that race or ethnicity than would be expected. These data were summarized by defining categories of

difference and counting the number of LHDs in each difference category.

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NACCHO is the national organization representing local health departments (including city, county, metro, district, and tribal agencies).

NACCHO supports efforts that protect and improve the health of all people and all communities by promoting national policy, developing resources and programs, seeking health equity, and supporting effective local public health practice and systems.

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