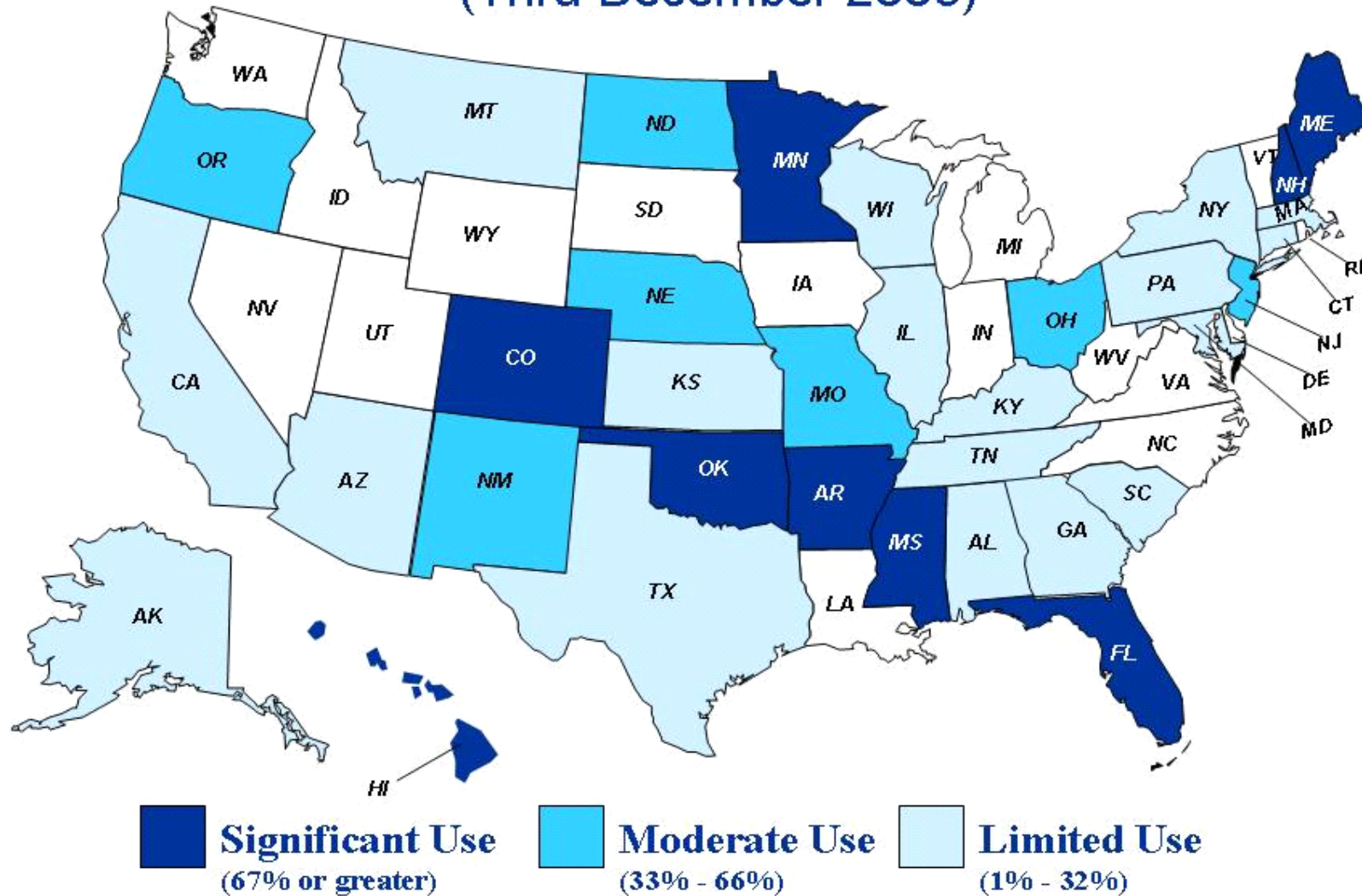


Goals of the Public Health Performance Standards Initiative

- Provide performance standards for public health systems
- Encourage partnerships to build a stronger foundation for public health preparedness
- Promote continuous quality improvement of public health systems
- Strengthen the science base for public health practice improvement

NPHPS Local Instrument Use

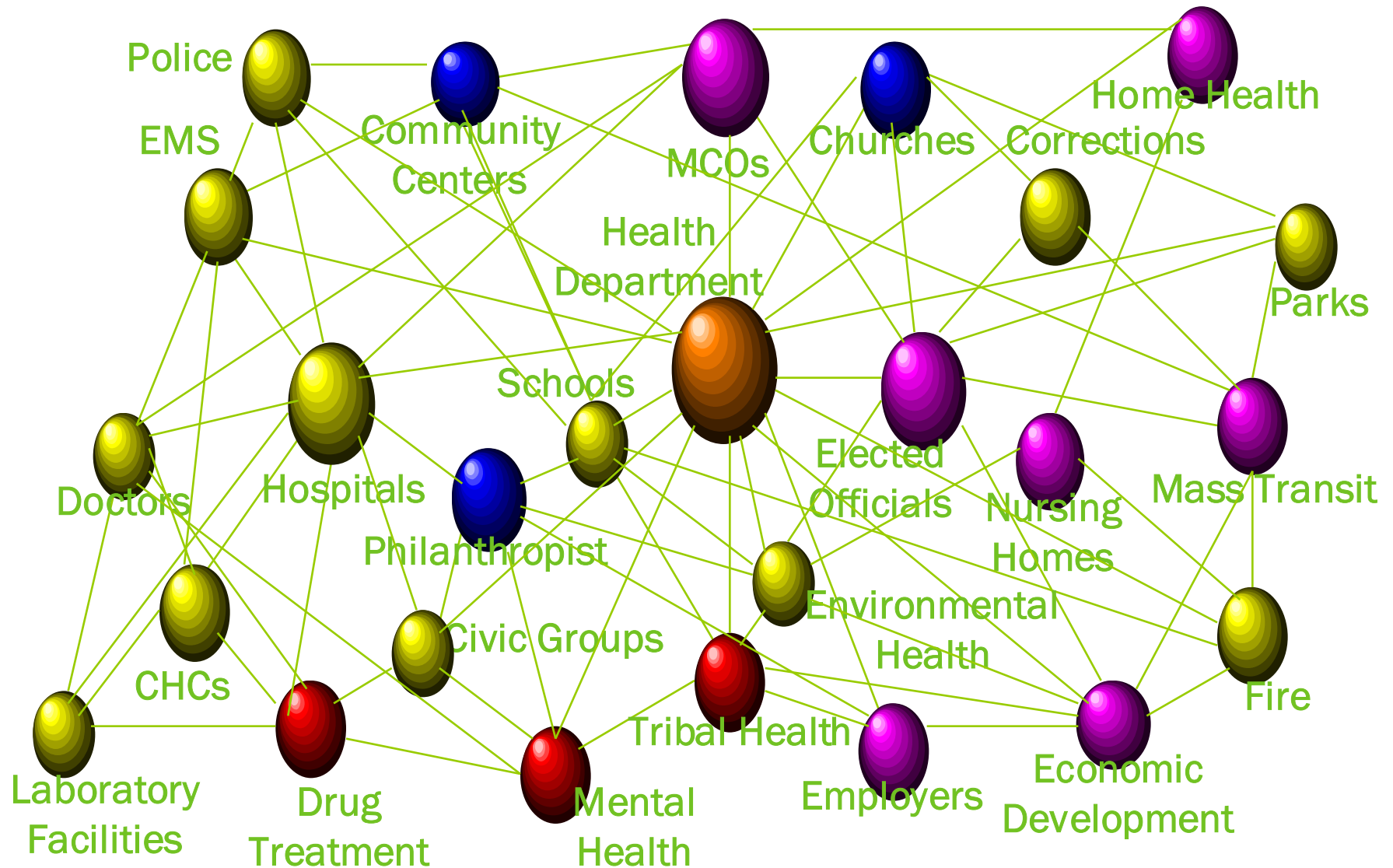
(Thru December 2006)



*Also includes sites using field test versions of the NPHPS Local Public Health System Performance Assessment.

SOURCE: <http://www.cdc.gov/od/ocphp/nphpsp/documents/Local%20Instrument%20Use.pdf>

Assessment Utilized a Broad Definition of the Public Health System



Methodology

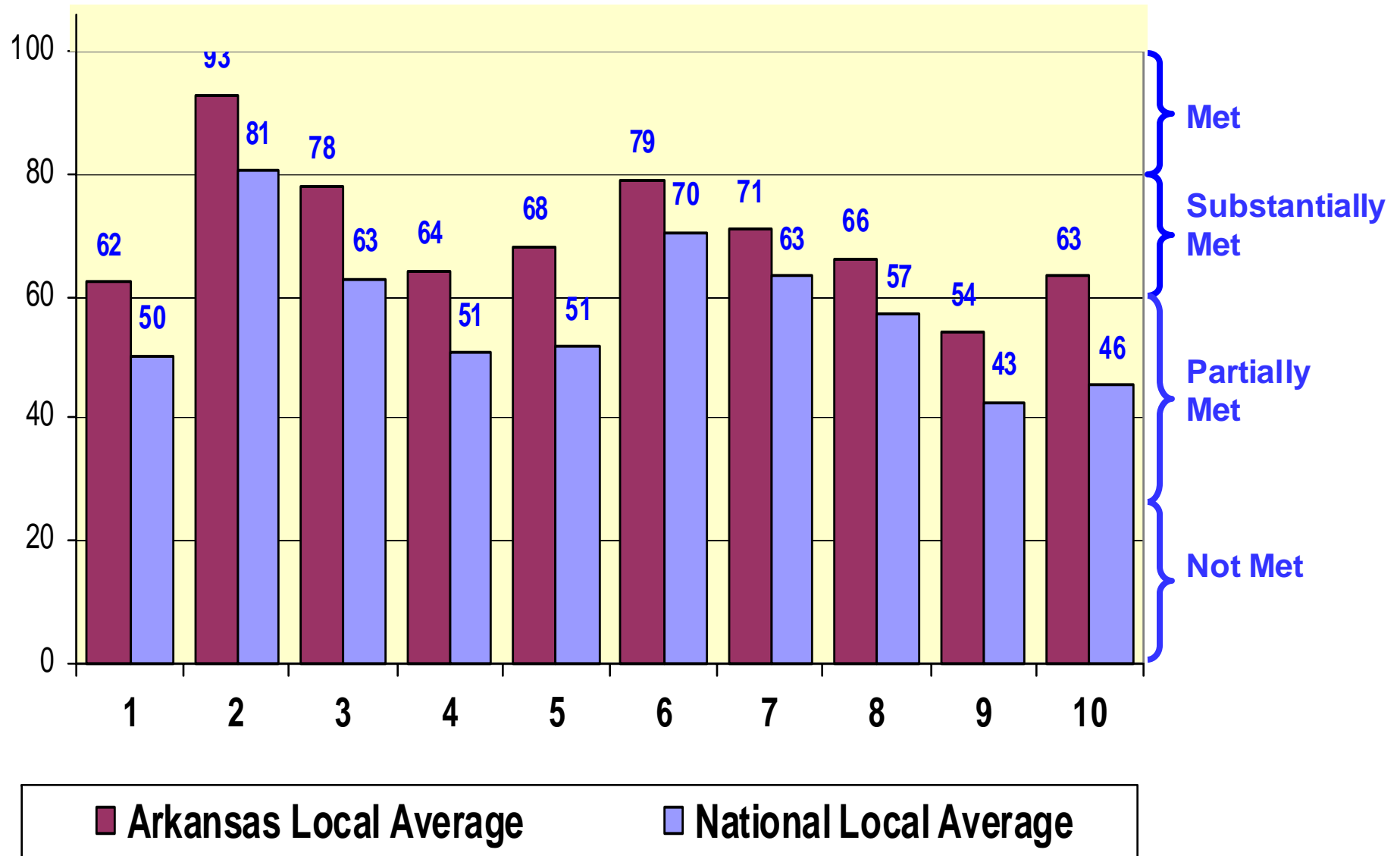
- **State/Local Planning Committees formed**
- **Staff trained (leaders by CDC)**
- **Process delineated in the “NPHPSP Users Guide” was implemented**
- **Representatives of the “broadly defined Local Public Health System were invited to participate (5,603 statewide).**
- **Meetings conducted (Jan, Feb, and Mar 2006)**
- **Participants (1969) compare their state/local public health system against each standard.**
- **Data sent to CDC for scoring on the extent to which the “model” standards are being met**

Essential Public Health Services (EPHS)

	<u># of Q</u>
1. Monitor health status to identify community health problems.	105
2. Diagnose and investigate health problems and health hazards in the community.	85
3. Inform, educate and empower people about health issues.	58
4. Mobilize community partnerships to identify and solve health problems.	51
5. Develop policies and plans that support individual and community health efforts.	78
6. Enforce laws and regulations that protect health and ensure safety.	43
7. Link people to needed personal health services and to assure the provision of health care when otherwise unavailable.	60
8. Assure a competent public and personal health care workforce.	80
9. Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services.	82
10. Conduct for New Insights and Innovative Solutions to Health Problems	40

Local Assessment Results

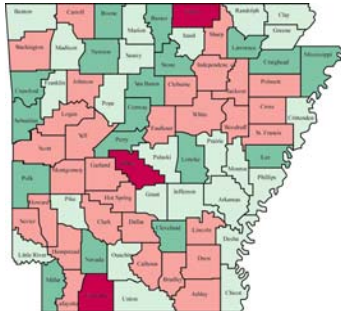
National Public Health Performance Standards Arkansas Local Average vs National Local Average



Local Assessment Results by County



PHPS 1: Monitor Health Status



Average score: 62.0
"Substantially Met"

PHPS 2: Diagnose and Investigate Health Problems



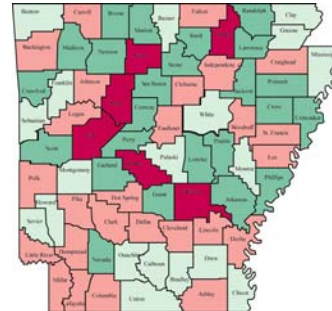
Average score: 93.0
"Met"

PHPS 3: Inform, Educate, and Empower people



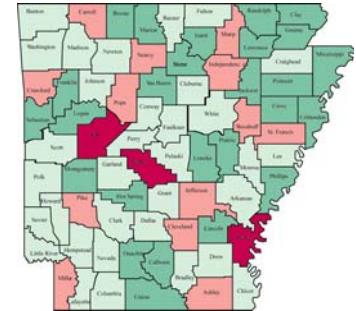
Average score: 77.6
"Substantially Met"

PHPS 4 – Mobilize Community Partnerships



Average score: 64.2
"Substantially Met"

PHPS 5: Develop Policies and Plans



Average score: 68.5
"Substantially Met"

PHPS 6: Enforce Laws and Regulations



Average score: 79.4
"Substantially Met"

PHPS 7: Link People to Needed Personal Health Services



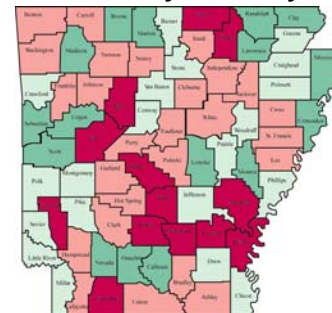
Average score: 71.1
"Substantially Met"

PHPS 8: Assure a Competent Workforce



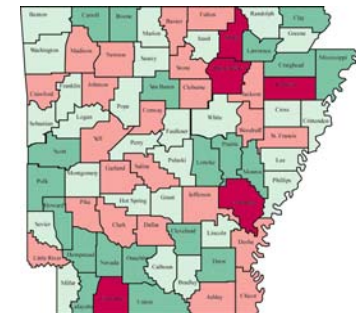
Average score: 65.6
"Substantially Met"

PHPS 9: Evaluate Effectiveness, Accessibility & Quality



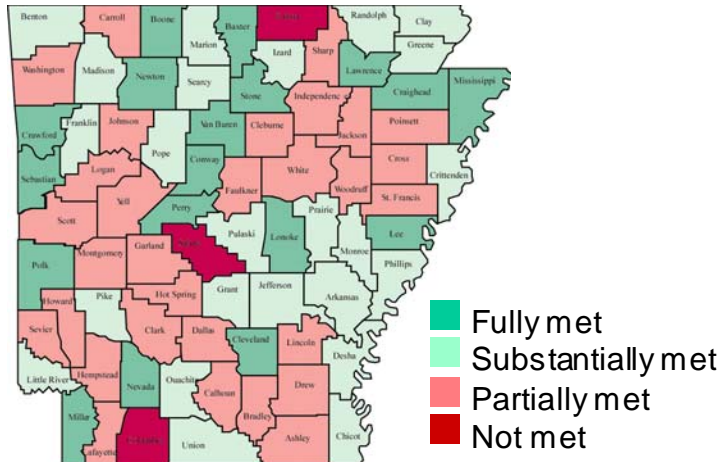
Average score: 54.5
"Partially Met"

PHPS 10: Research for New Insights and Innovative Solutions



Average score: 63.1
"Substantially Met"

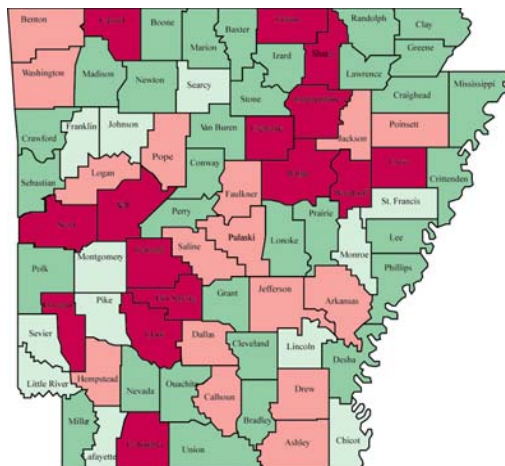
PHPS 1: Monitor Health Status



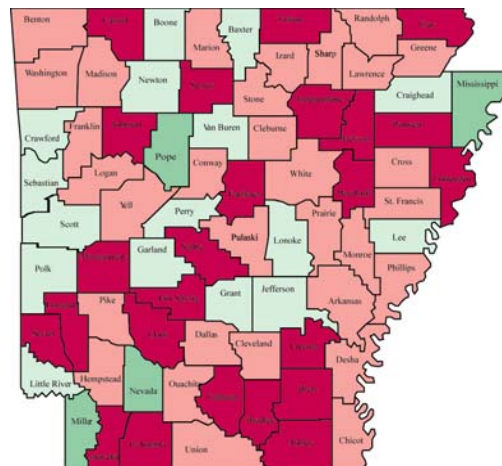
PHPS 1: Monitor Health Status (56.0%)

Overall only 56.0% of the counties “Met or Substantially met” PHPS 1.

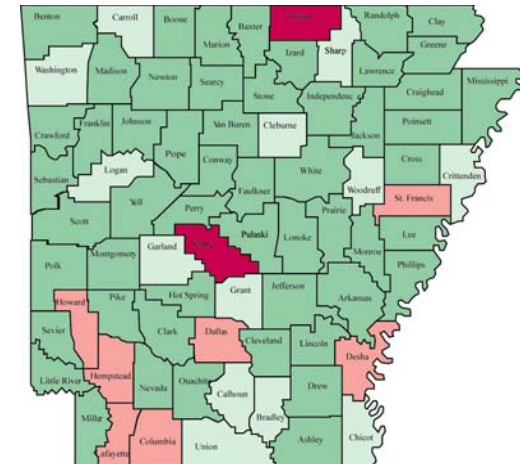
Looking at the components of PHPS 1:
 60.0% “Met or Substantially met” PHPS 1.1;
 26.7% “Met or Substantially met” PHPS 1.2;
 and 92.0% of the counties “Met or Substantially met” PHPS 1.3.



1.1 Population Based Community Health Profile (60.0% M/SM)

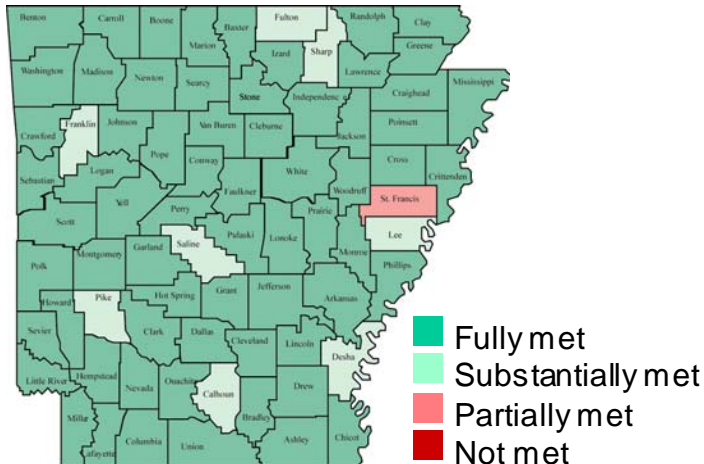


1.2 Access to and Utilization of Current Technology (26.7% M/SM)



1.3 Maintenance of Population Health Registries (92.0% M/SM)

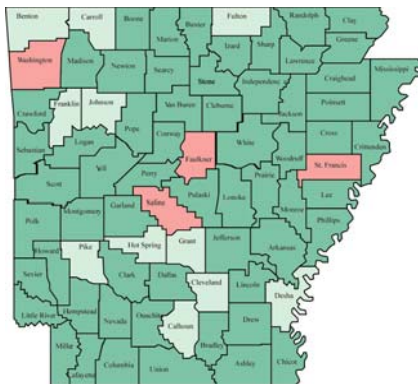
PHPS 2: Diagnose & Investigate Health Problems



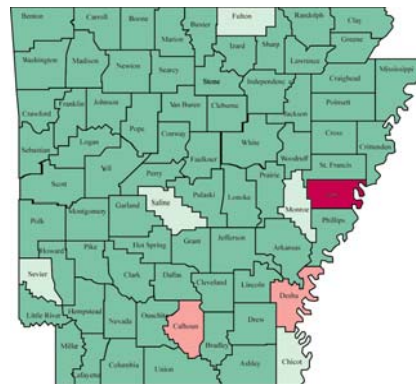
PHPS 2: Diagnose and Investigate Health Problems (98.7% M/PM)

Overall only 98.7% of the counties “Met” or “Substantially met” PHPS 2.

Looking at the components of PHPS 2:
 94.7% of the counties “Met” or “Substantially met” PHPS 2.1; 96.0% “Met” or “Substantially met” PHPS 2.2; 100.0% “Met” or “Substantially met” PHPS 2.3; and 98.7% “Met” or “Substantially met” PHPS 2.4



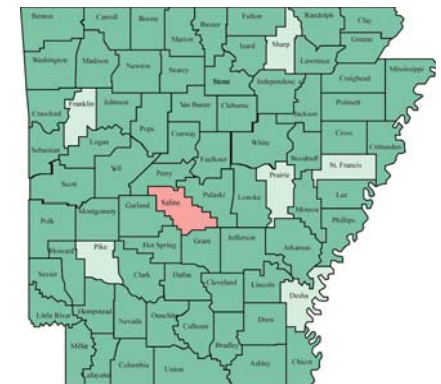
2.1 Identification and Surveillance of Health Threats (94.7% M/SM)



2.2 Plan for Public Health Emergencies (96.0% M/SM)

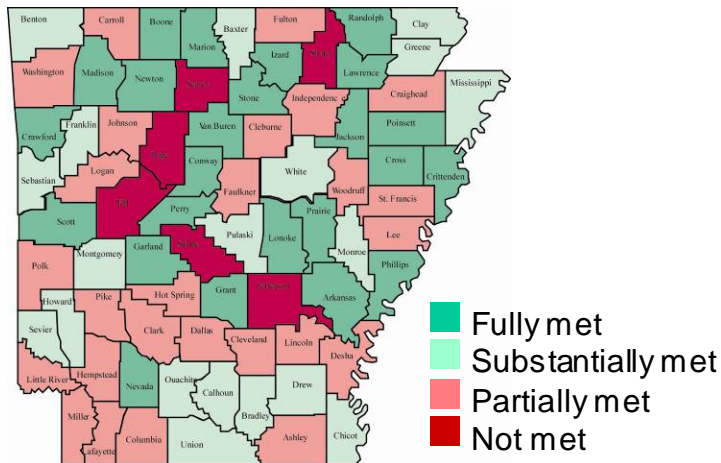


2.3 Investigate & Respond to Public Health Emergencies (100.0% M/SM)



2.4 Laboratory Support for Investigation of Health Threats (98.7% M/SM)

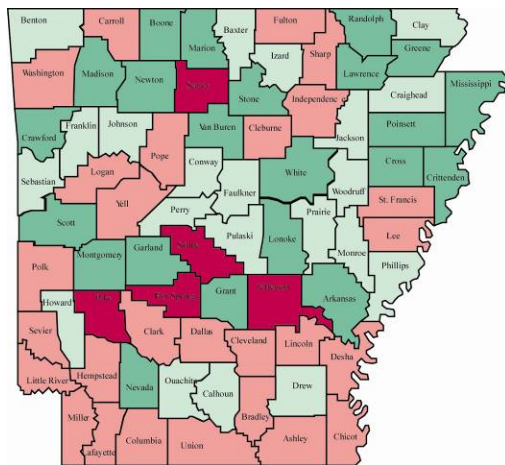
PHPS 4: Mobilize Community Partnerships



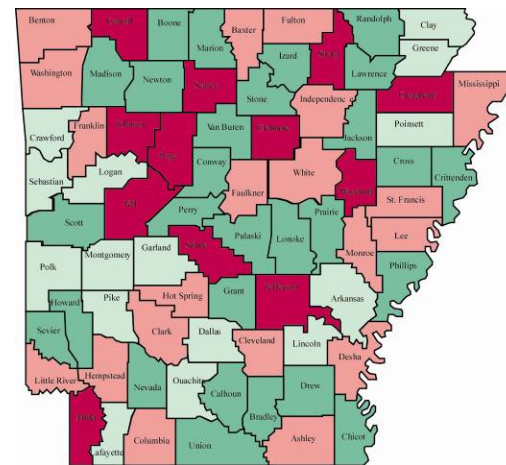
PHPS 4: Mobilize Community Partnerships (57.3% M/SM)

Overall 57.3% of the counties “Met” or “Substantially met” PHPS 4.

Looking at the components of PHPS 4:
 57.3% of the counties “Met” or “Substantially met” PHPS 4.1 and
 57.3% of the counties “Met” or “Substantially met” PHPS 4.2

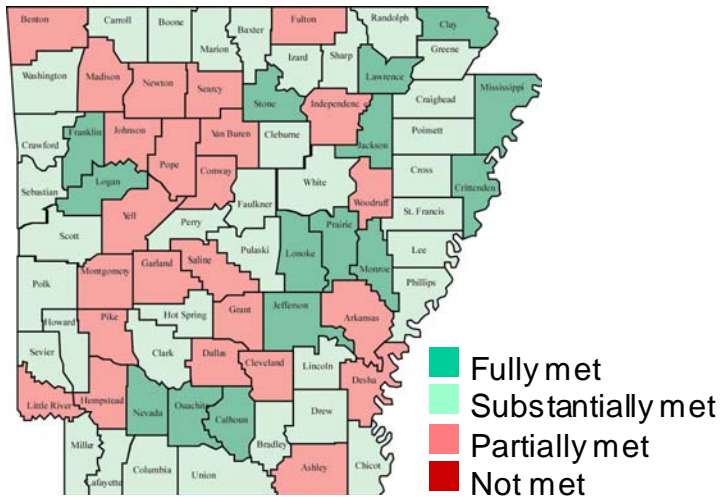


4.1 Constituency Development (57.3% M/SM)



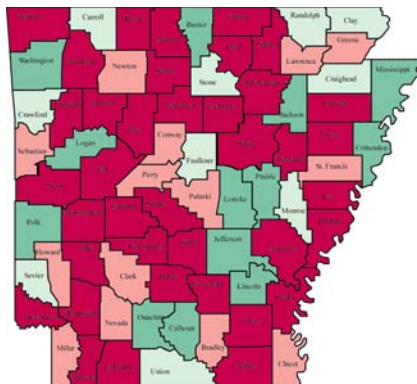
4.2 Community Partnerships (57.3% M/SM)

PHPS 8: Assure a Competent Workforce



PHPS 8: Assure a Competent Workforce (68.0% M/SM)

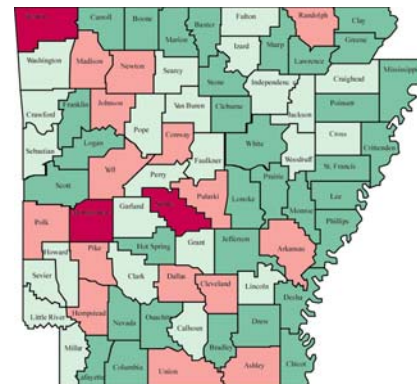
Overall 32.0% of the counties “did not meet” or “partially met” PHPS 8. Looking at the components of PHPS 8: **69.3% of the counties “did not meet” or “partially met” PHPS 8.1**, **0.0% “did not meet” or “partially met” PHPS 8.2**, **24.0% “did not meet” or “partially met” PHPS 8.3**, and **53.3% “did not meet” or “partially met” PHPS 8.4**



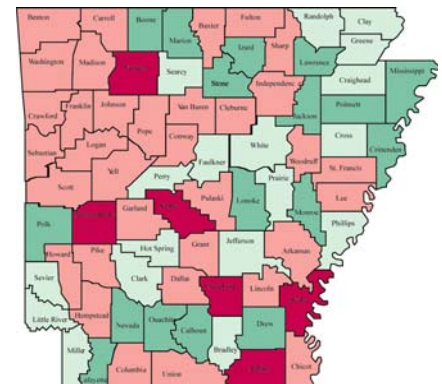
8.1 Workforce Assessment (30.7% M/SM)



8.2 Public Health Workforce Standards (100.0% M/SM)

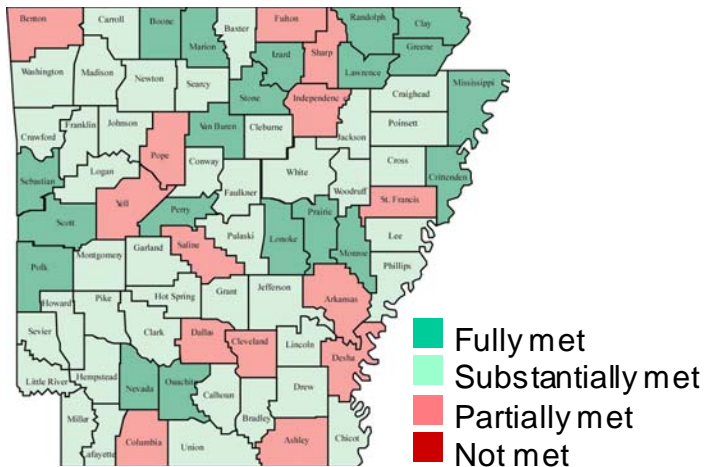


8.3 Continuing Education, Training & Mentoring (76.0% M/SM)



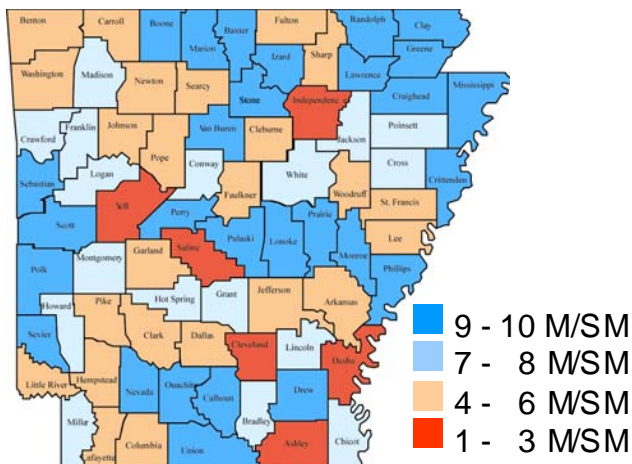
8.4 Public Health Leadership Development (46.7% M/SM)

PHPS Overall Score & Standards “Substantially Met” or “Met”

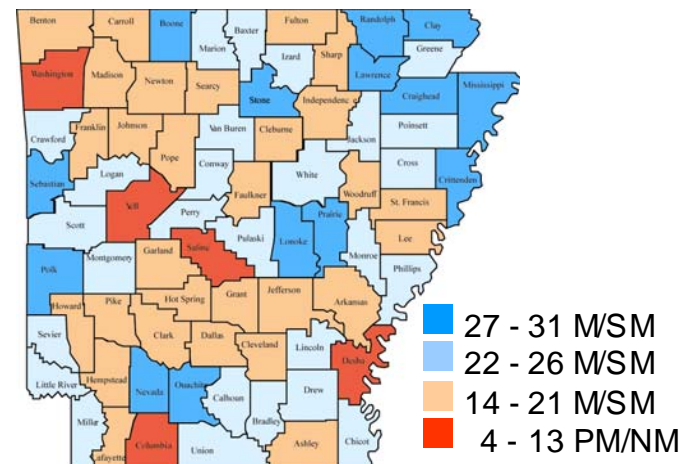


PHPS OVERALL SCORE

Based on Overall score, 81.3% of the counties “Substantially Met” or “Met” the PHPS Standards. However, 80.0% of the counties “did not meet” or only “partially met” one or more of the standards. Further, 99% of the counties “did not meet” or only “partially met” one or more of the components of the Standards.

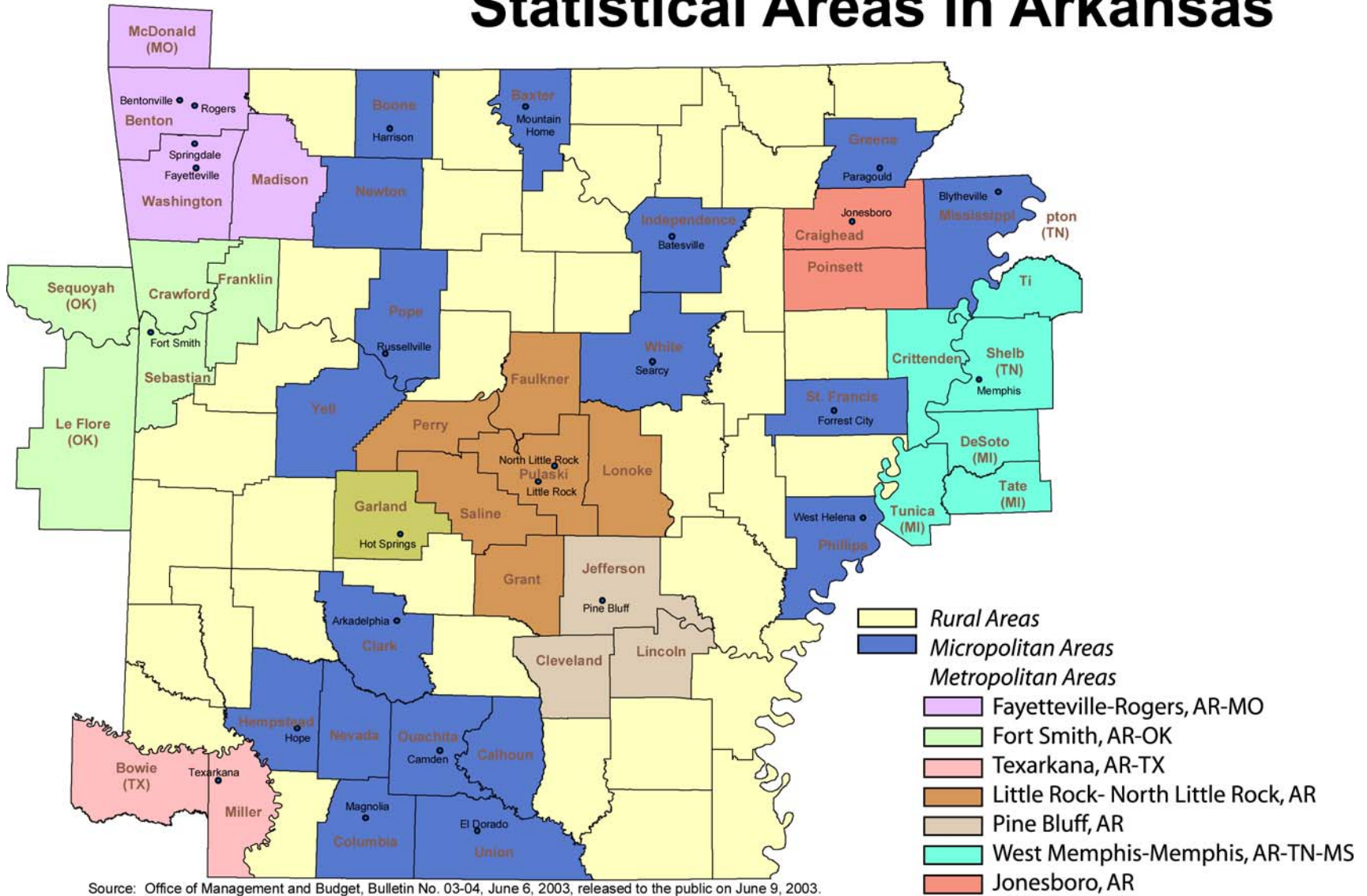


Number of Standards
“Met” or “Substantially Met”



Number of Components
“Partially Met” on “Not Met”

Metropolitan & Micropolitan Statistical Areas in Arkansas



County Data by Metropolitan, Micropolitan and Rural Counties

	Metropolitan	Micropolitan	Rural
Population	77,798	31,788	15,696
FTE Employees	26.03	22.63	14.11
LHU FTE / 10000 Population	3.35	7.11	8.84
% African American	12.25	20.91	16.48
FY Expenditures	\$925,003	\$767,774	\$488,341
# Clinic visits	13,130	9,157	4,638
# WIC patients	4,059	2,082	1,027
Environmental Services	1,241	423	257
# involved in assessment	26.95	25.78	25.33
LHU participation rate	35.02%	44.56%	49.81%

Performance by Metropolitan, Micropolitan and Rural Counties

	Metropolitan	Micropolitan	Rural
Total Performance Score	68.91	71.21	70.54
EPHS-1 Performance Score	68.63	61.64	68.56
EPHS-2 Performance Score	92.85	94.04	92.45
EPHS-3 Performance Score	70.26	79.61	82.17
EPHS-4 Performance Score	62.22	63.99	63.47
EPHS-5 Performance Score	67.96	69.27	70.03
EPHS-6 Performance Score	78.81	82.91	79.81
EPHS-7 Performance Score	65.93	73.67	72.70
EPHS-8 Performance Score	65.44	68.72	65.26
EPHS-9 Performance Score	55.06	56.81	56.44
EPHS-10 Performance Score	61.68	61.46	64.56
# of PHPS “M /SM”	6.90	7.11	7.17
# of Components “M / SM”	21.14	21.22	21.81

Efforts to explain County Level performance

Dependent Variables:

- Total Score; Total score for each EPHS; etc.
- # of Standards “M/SM;”
- # of Components “M/SM;” etc.

Independent Variables:

- County Population
- Percent African-American
- Region
- Number of FTE employees in each county
- LHU Budget
- Number of participants involved in the assessment; and
- Participation rate
- County classification (Metropolitan, Micropolitan, Non-metropolitan)
- Other

Sample Regression Results

The REG Procedure

Dependent Variable: TOTAL PERFORMANCE SCORE

<u>Analysis of Variance</u>					
<u>Source</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Square</u>	<u>F Value</u>	<u>Pr > F</u>
Model	5	1254.06010	250.81202	1.43	0.2240
Error	69	12091	175.23433		
Corrected Total	74	13345			
	Root MSE	13.23761	R-Square	0.0940	
	Dependent Mean	70.26707	Adj R-Sq	0.0283	
	Coeff Var	18.83900			

<u>Parameter Estimates</u>						
<u>Variable</u>	<u>Label</u>	<u>DF</u>	<u>Parameter Estimate</u>	<u>Standard Error</u>	<u>t Value</u>	<u>Pr > t </u>
Intercept	Intercept	1	68.96938	6.38104	10.81	<.0001
q2_popr	population	1	-0.00011824	0.00005953	-1.99	0.0510
q4b_blackRa	% black (cleaned & normalized)	1	-0.08037	0.08081	-0.99	0.3234
q10_expeR	most recent FY expenditures --	1	0.00000712	0.00000401	1.78	0.0802
q22b_fteR	FTEs LHD employees (revised)	1	0.15729	0.21590	0.73	0.4687
rural	Rural vs Metro_Micro	1	-0.32452	2.13760	-0.15	0.8798

Sample Stepwise Results

The STEPWISE Procedure
Dependent Variable: EPHS3

Variable urban Entered: R-Square = 0.0588 and C(p) = 3.9746

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	1795.56919	1795.56919	4.56	0.0360
Error	73	28730	393.55962		
Corrected Total	74	30525			

Variable	Parameter	Standard	Type II SS	F Value	Pr > F
	Estimate	Error			
Intercept	81.32909	2.67500	363793	924.37	<.0001
urban	-11.06459	5.18012	1795.56919	4.56	0.0360

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Limitations

- **Representation missing from some groups/areas**
- **Lengthy tool/process**
- **Scores were subject to biases & perspectives of those who agreed to participate**
- **The majority vote did not accurately capture everyone's viewpoints**
- **Changes in the public health system at all levels constantly occur. This is a snapshot approach.**

Conclusions

- **The “Local” results from Arkansas exceeded the “Local” results in the National sample.**
- **Aggregate performance scores hide considerable local variation.**
- **It is important to perform the entire “local” assessment. There is variation between the components of the EPHS standards and the aggregate score for each standard.**

Conclusions

- **Contrary to some expectations, we didn't see large rural-urban disparities in performance.**
- **In bivariate analysis, rural counties had better performance than their urban counterparts.**
- **Very few variables were significant in multivariate analysis.**
- **Stakeholder analysis indicates the importance of certain constituencies for some EPHS.**