Rurality
Implications of its definition for Healthcare Planning

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Overview

- Definitions
- Veterans Health Administration (VHA) rurality method with access based on rurality assignments
- RUCA method with access based on rurality assignments
- Comparing RUCA's to established VHA rural definitions

Why is defining rurality important?

- There are at least 16 definitions of rurality used by various agencies of the federal government
- The federal government allocates billions of dollars based on rurality assignments
- VHA allocated over 250 million in additional funding last year

Rurality Definitions:
U.S. Census Bureau

- The Census Bureau's classification of rural consists of all territory, population, and housing units located outside of urbanized areas and urban clusters. Urbanized areas include populations of at least 50,000, and urban clusters include populations between 2,500 and 50,000. The core areas of both urbanized areas and urban clusters are defined based on population density of 1,000 per square mile and then certain blocks adjacent to them are added that have at least 500 persons per square mile.

Rurality Definitions:
Office of Management & Budget

- A metropolitan area must contain one or more central counties with urbanized areas. Nonmetropolitan counties are outside the boundaries of metropolitan areas and are subdivided into two types, micropolitan areas and non-core counties. Micropolitan areas are urban clusters of 10,000 or more persons.
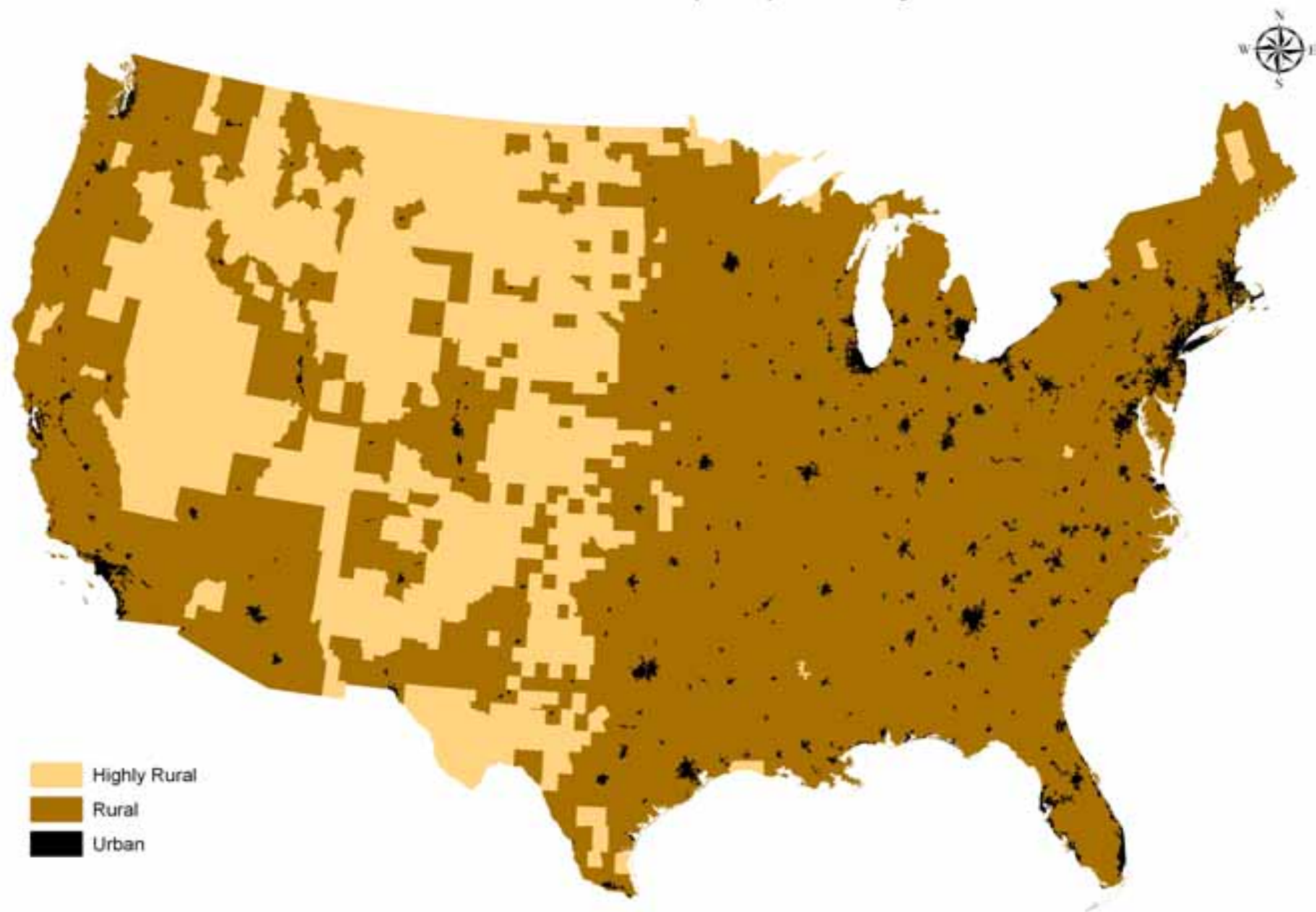
Rurality Definitions:
USDA Economic Research Service

- This classification scheme subdivides the OMB metropolitan and nonmetropolitan categories into 2 metropolitan and 10 nonmetropolitan categories. Metropolitan counties are divided into two groups by the size of the metropolitan area. Nonmetropolitan-micropolitan counties are divided into three groups by their adjacency to metropolitan areas. Nonmetropolitan-noncore counties are divided into seven groups by their adjacency to metropolitan or micropolitan areas and whether they have their "own town" of at least 2,500 residents.

Rurality Definitions:
Veterans Health Administration

- First, Census Bureau urbanized areas are defined as urban. Next, all other areas are defined as rural, except those non-urban areas located in counties with less than 7 persons per square mile. Such areas are designated highly rural.

Veterans Health Administration (VHA) URH Layer

Highly Rural
Rural
Urban

10/13/2010

RUCA Codes

- Rural-Urban Commuting Areas
- Sponsored and funded by the USDA Economic Research Service and the Health Resources and Services Administration's Federal Office of Rural Health Policy (ORHP), and executed at the WWAMI Rural Research Center at the University of Washington

RUCAs

- Utilizes Census Bureau's urbanized areas & clusters, & work commuting information.

- Categories based on size of settlements & towns, & functional relationships between places as measured by tract-level work commuting data.

- Taxonomy defines 10 primary and 33 secondary categories of census tracts.

Advantages of RUCAs

- More realistic sociodemographic basis
- Many levels better reflect reality of urban-rural continuum, but can be collapsed as necessary for particular application
- Reports urbanicity/rurality at a much more granular geographic level than most systems
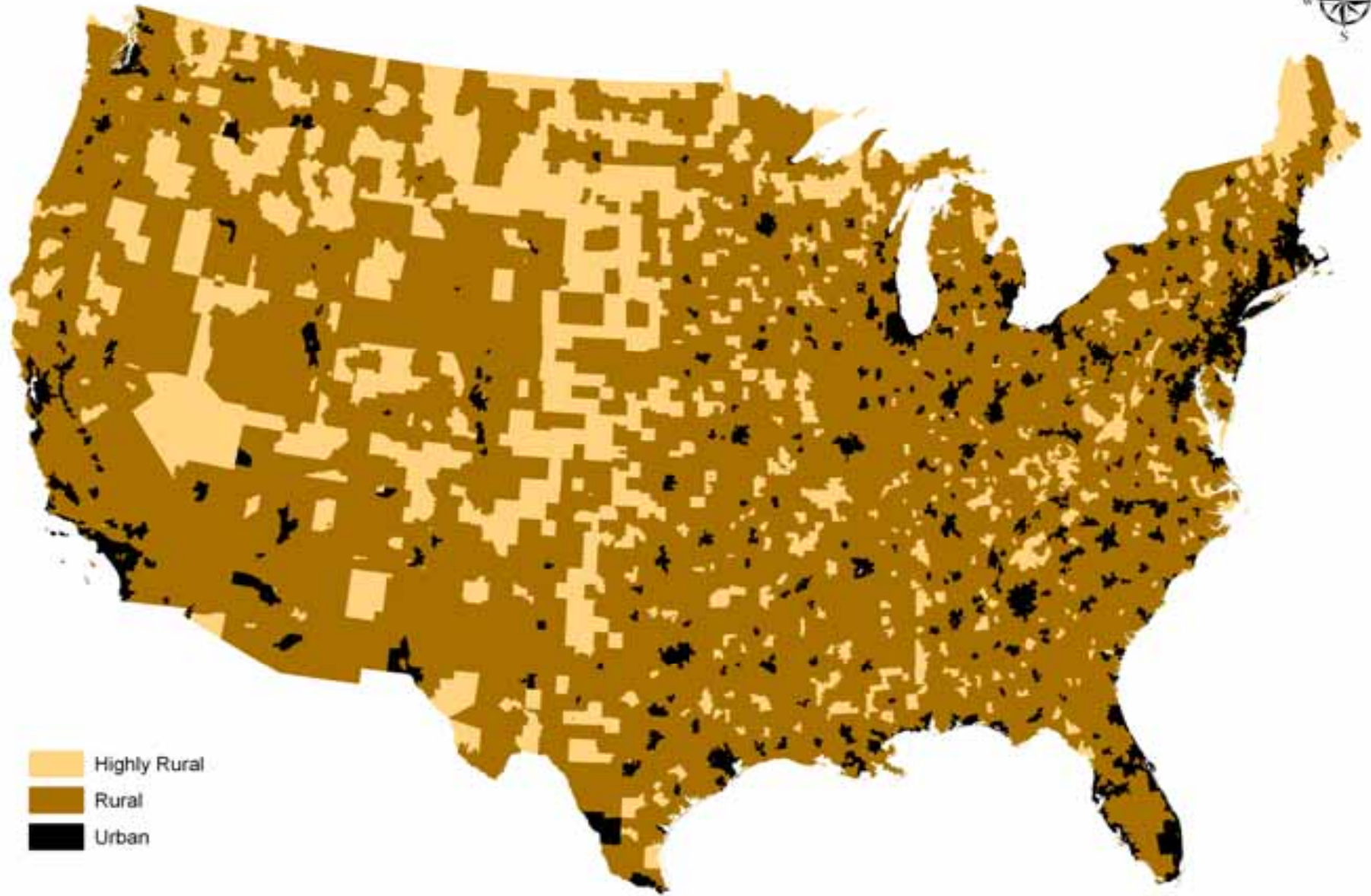
Advantages of RUCAs

- Other federal and state agencies having the same geographic boundaries

- Long range planning more effective. Better data for long term studies and research projects and grant funding
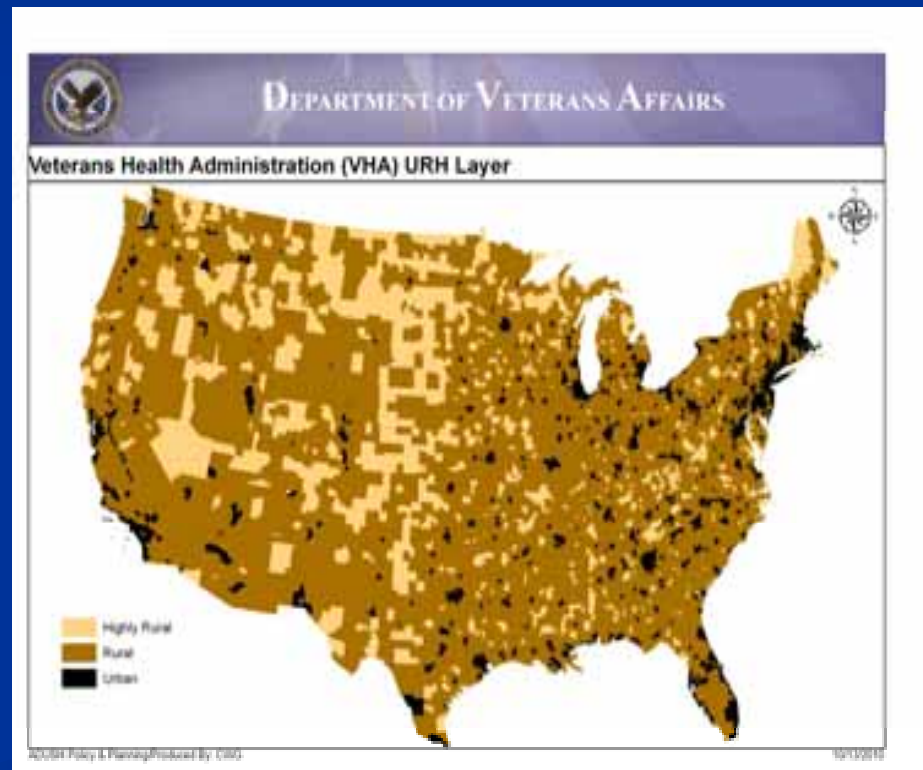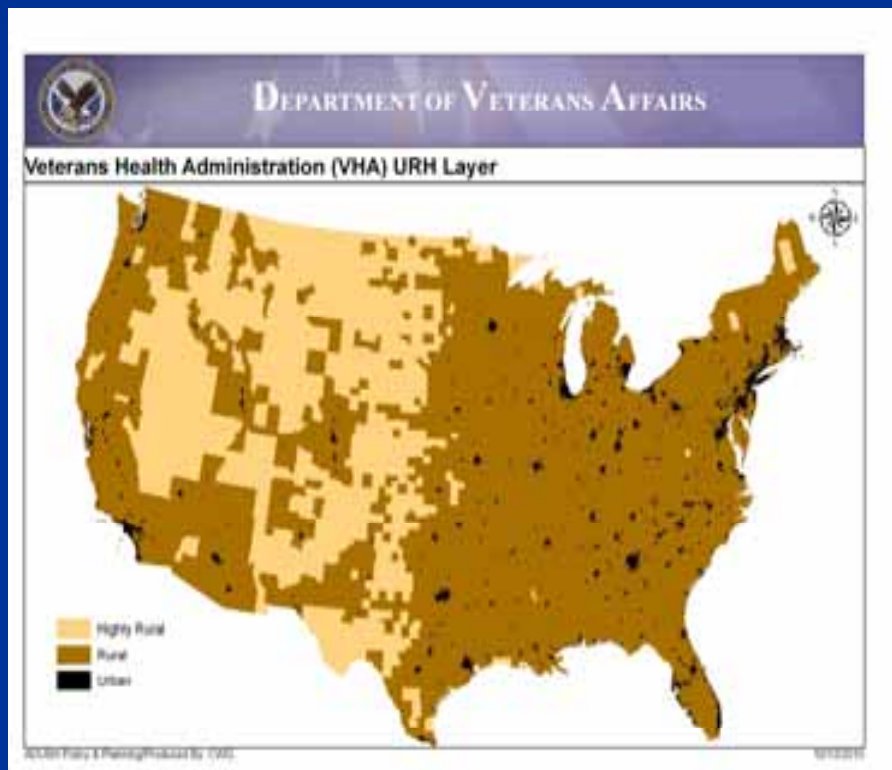
VHA Designations of RUCA's

- 1 – 1.6 = Urban
  - Majority of workers flow to urban center
- 2 – 9 & 10.1 – 10.6 = Rural
  - Not clearly urban or highly isolated
- 10 = Highly Rural
  - No flow of >9% to even a small town

Veterans Health Administration (VHA) URH Layer
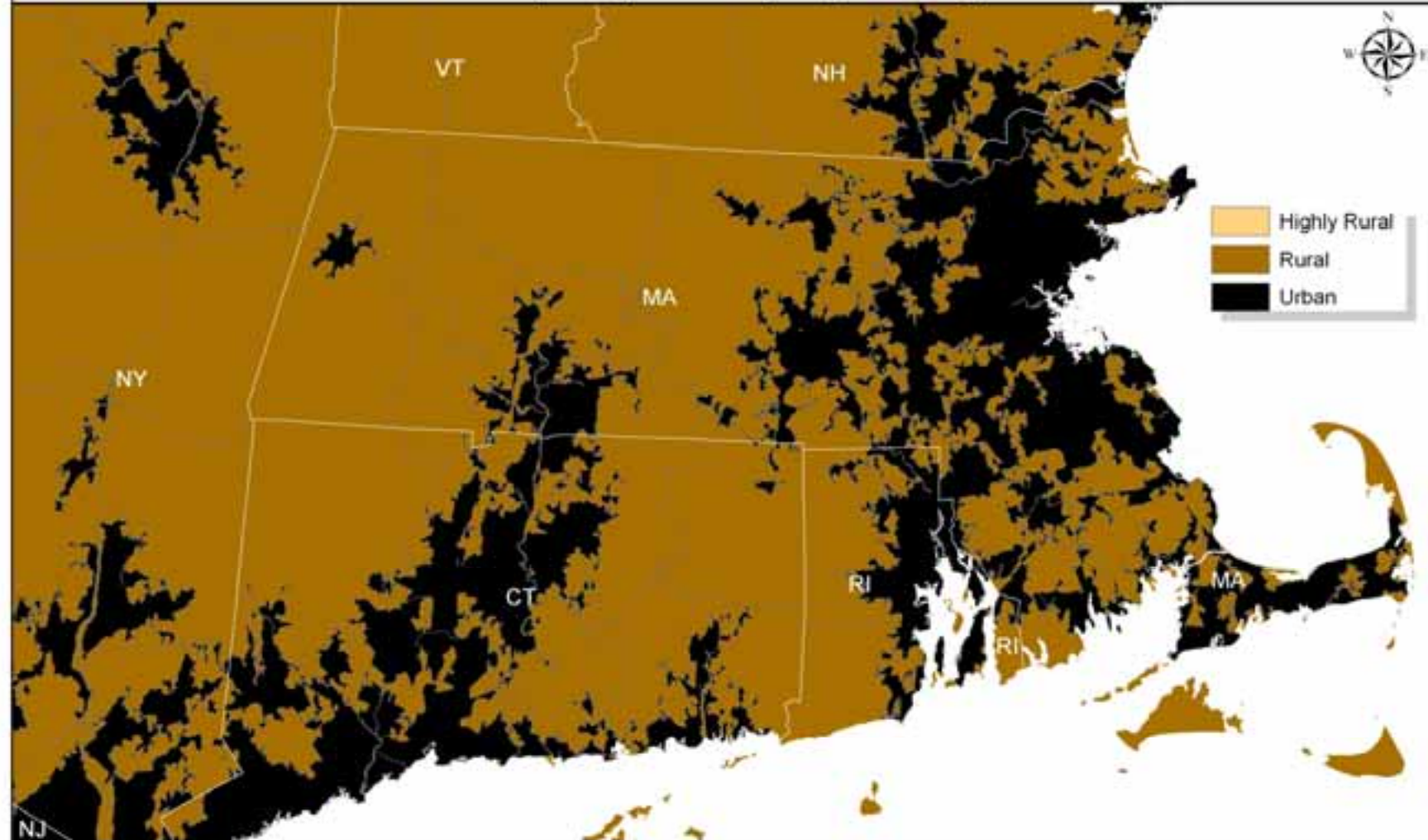

Legend:
- Highly Rural
- Rural
- Urban

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Traditional VHA rurality and RUCA approximation

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Veterans Health Administration (VHA) URH Layer (New England Area)

Legend:
- Highly Rural
- Rural
- Urban
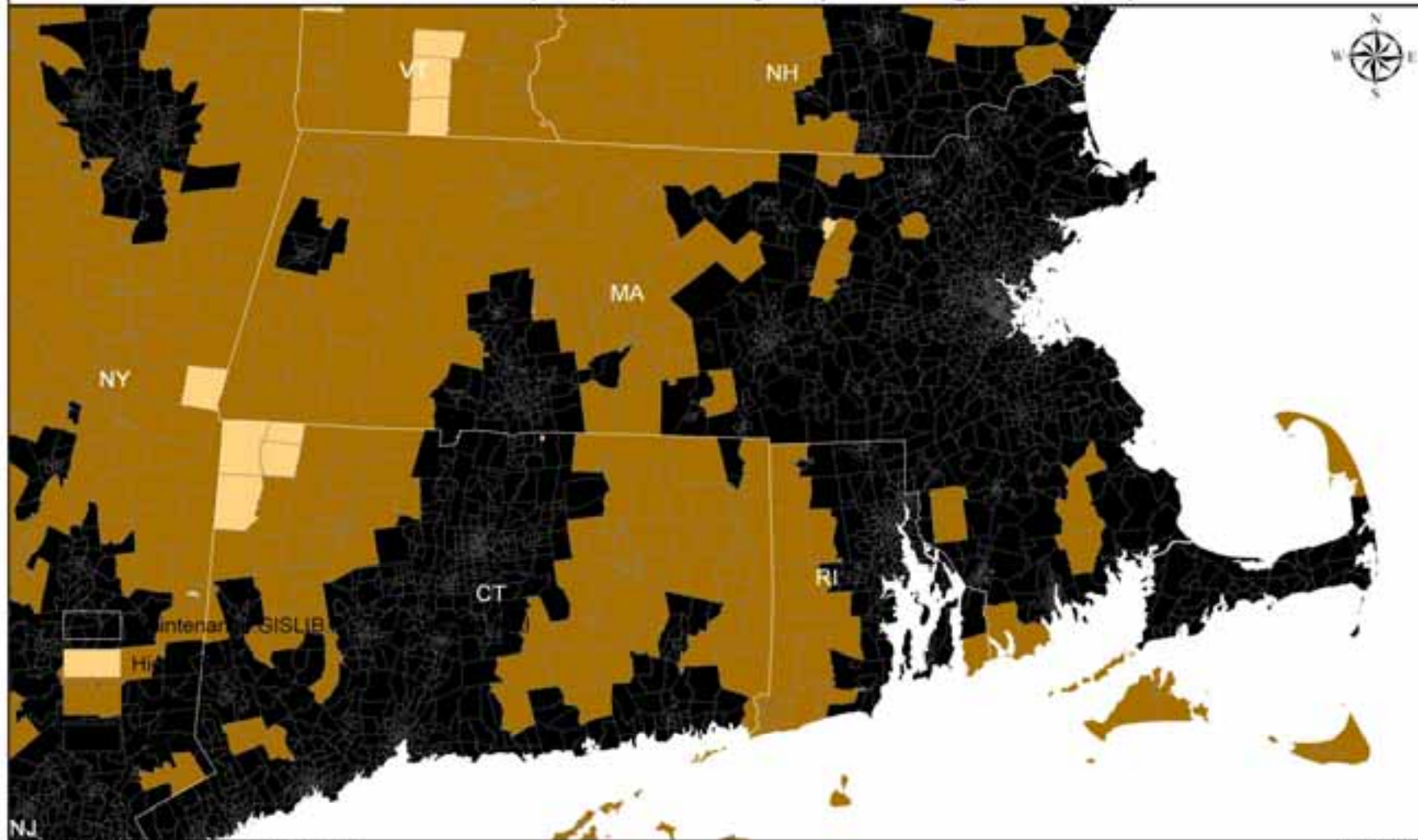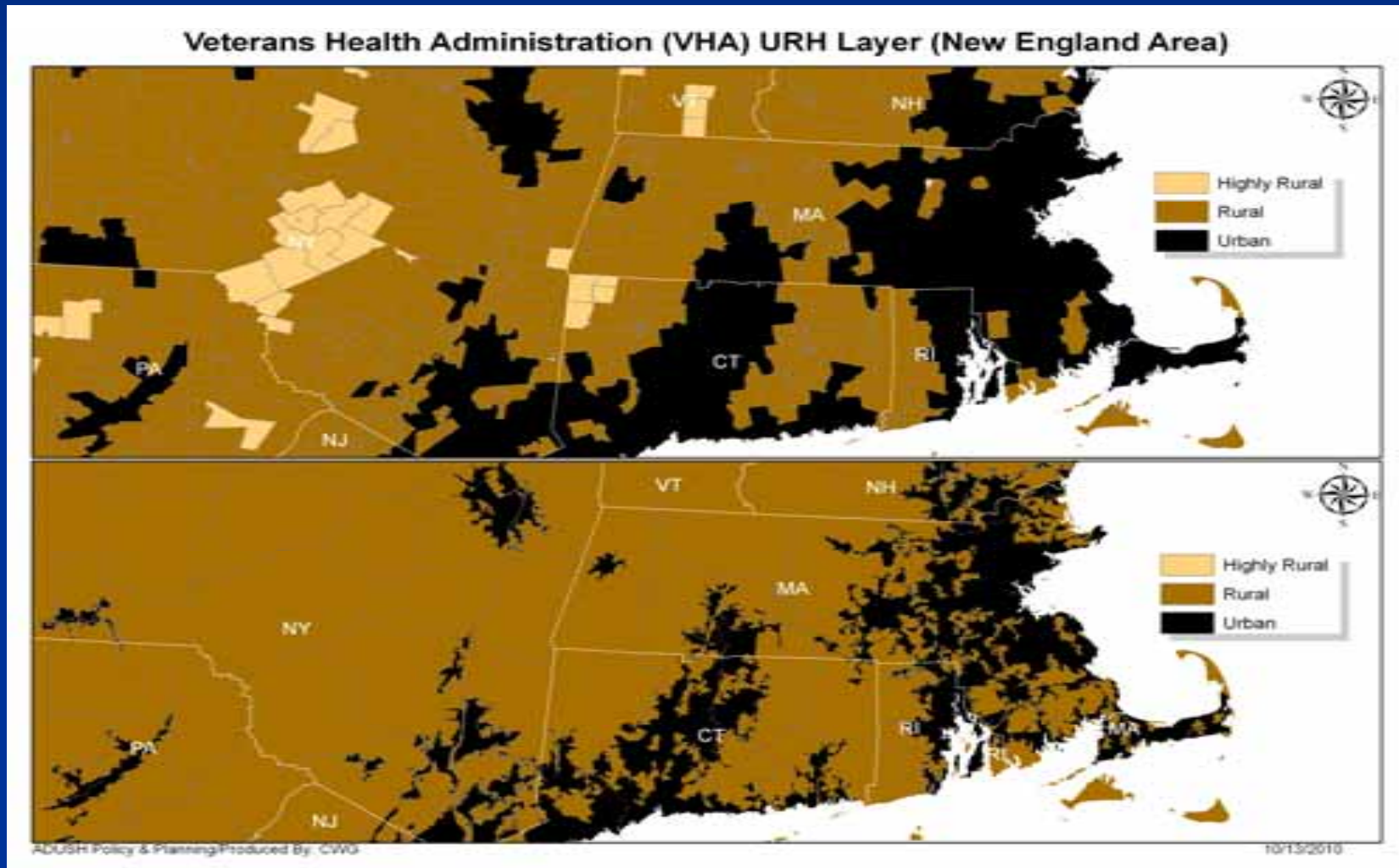
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Veterans Health Administration (VHA) URH Layer (New England Area)

# Traditional VHA rurality and RUCA approximation Southern New England

Veterans Health Administration (VHA) URH Layer (New England Area)

VHA Enrollee Statistics

	Enrollees	
	Number	Percent
Urban	4,876,372	59.2%
Rural	3,352,604	39.3%
Highly Rural	122,327	1.5%
Total	7,814,405	100.0%

Drive Time Statistics:
Traditional URH vs. RUCA-URH

	N	mean	s.d.	min	max
U	4,876,372	12.75	8.22	0	86
RUCA-U	5,185,981	13.22	8.58	0	120
R	3,352,604	35.15	22.42	0	232
RUCA-R	2,983,625	36.22	23.72	0	237
H	122,327	74.06	51.41	0	240
RUCA-H	183,117	68.38	34.04	0	240

Traditional VHA rurality and RUCA approximation
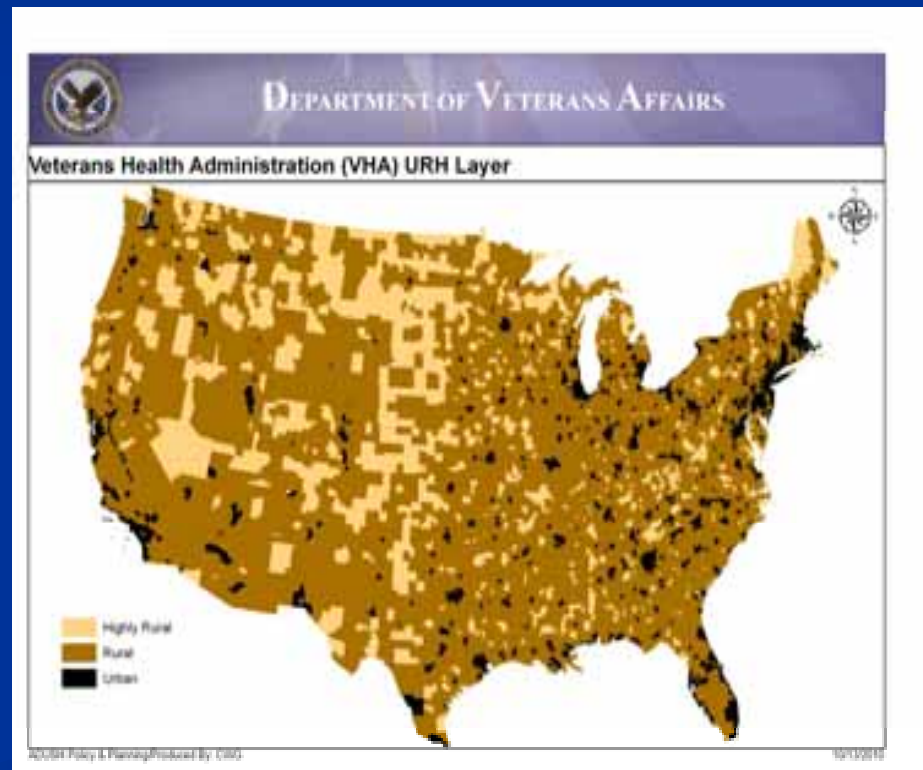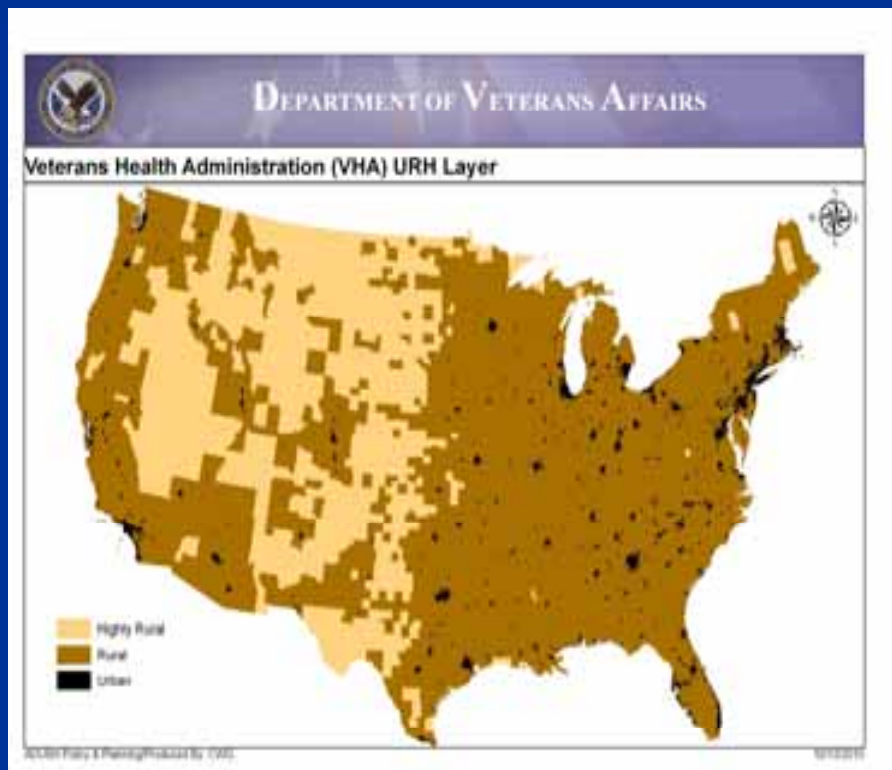
Impact of System Change on VHA Markets for "rural" enrollees

Conclusions

- The RUCA system is more realistic than the current VHA URH system as an indicator of urbanicity/rurality

- On a national level, in terms of percentage of enrollees affected, a switch to the RUCA system will have minor impact

- Some VHA markets in the western U.S. may experience major statistical changes indicating poorer access for rural enrollees if our recommendations are adopted.